Buchan's Domestic medicine modernized; or, a treatise on the prevention and cure of diseases by regimen and simple medicine : containing, ... observations on the comparative advantages of vaccine inoculation, ... an essay, enabling ruptured persons to manage themselves ... a family herbal: and such useful discoveries in medicine and surgery as have transpired since the demise of the late William Buchan.

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BUCHAN'S

DOMESTIC MEDICINE

MODERNIZED;

OR, A

TREATISE ON THE PREVENTION AND CURE

OF

DISEASES

BY REGIMEN AND SIMPLE MEDICINES:

containing, amongst the other matters,

OBSERVATIONS

ON THE

COMPARATIVE ADVANTAGES OF VACCINE INOCULATION,

With Instructions for performing the Operation:

AN ESSAY,

ENABLING

RUPTURED PERSONS TO MANAGE THEMSELVES,

WITH

Engravings of Bandages,

WHICH EVERY PERSON MAY PREPARE FOR HIMSELF:

A FAMILY HERBAL:

AND

SUCH USEFUL DISCOVERIES IN MEDICINE AND SURGERY

AS HAVE TRANSPIRED SINCE THE DEMISE OF THE LATE

WILLIAM BUCHAN, M.D.,

OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH.

LONDON:

Printed for the Proprietors,

AND SOLD BY ALL THE BOOKSELLERS IN THE UNITED KINGDOM.

1809.

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TO THE PUBLIC.

IT has been the aim and deſire of the Proprietors of this Impreſſion of the popular Work of the late DR. BUCHAN, to render to the World a *modernized* and enlarged Edition of his "Domeſtic Treatiſe on the Prevention and Cure of Diſeaſes" at the loweſt price, with a view to extend its circulation; that the *dietetic* part of Medicine may be more generally known, and to render the Medical Art more extenſively beneficial to all ranks and claſſes of the community.

Since Aſtronomy, Chemiſtry, Natural Hiſtory, and almoſt all other branches of human knowledge, are reduced to a popular Syſtem; ſince the moſt important Sciences are now diveſted of pedantry and myſticiſm; why ſhould the ſources of information concerning the all-intereſting ſubjects of health and longevity be concealed under the veil of myſtery or diſguiſe? Not that this Work is intended to ſuperſede the attendance of Gentlemen of the Faculty, but to ſupply the want of *their* aſſiſtance where it cannot eaſily be obtained, and to enable the Reader to diſtinguiſh the ſkilful Practitioner from the vile retailer of ſpurious compounds, or the ſelfiſh, preſuming, and ignorant, Pretender to a beneficent and liberal Science.

Beſides a Family Herbal; an Account of the moſt celebrated Mineral Waters in England, as well as thoſe of the Continent; the New Names of Drugs and Chemical Preparations, according to the Pharmacopœia of the Royal College of Phyſicians in London; the Editor has interſperſed many important Improvements and Diſcoveries in the Treatment of ſeveral Diſeaſes.

In reviewing the manner in which he has performed the taſk that has been aſſigned to him, he perceives that it ſtands in need of the indulgence of the Learned: but he conſoles himſelf with the conſciouſneſs of having prepared this publication with a view to render it ſubſervient to the happineſs of Society, and with an obſervation of one of the greateſt Maſters of the Art of Criticiſm—

"Whoever thinks a faultleſs piece to ſee,
"Thinks what ne'er was, nor is, nor e'er will be."

A LIST

OF THE

MEDICINES COMMONLY USED IN PRACTICE,

WITH THEIR PROPER DOSES;

VIZ.

The ſmalleſt and the largeſt uſually given to Adults, or full grown Perſons:

For younger Perſons and Infants, the Doſe muſt be reduced in the Proportions mentioned in page 419, and the Doſe muſt always be regulated by the Strength as well as by the Age of the Patient.

☞ The New Names of the Drugs are in Italics.

	Doſe From	To
A		
ACID, the acetous	1 ſcruple	1 drachm
———, *muriatic* (ſpirit of ſalt)	10 drops	40 drops
———, *nitrous diluted* (aqua-fortis)	10 drops	40 drops
———, vitriolic diluted	15 drops	40 drops
Æther vitriolic	30 drops	2 drachms
Æthiop's mineral. See *Quickſilver with ſulphur*		
Aloes	5 grains	30 grains
Alum	6 grains	20 grains
—— burned	3 grains	12 grains
Amber prepared	½ drachm	1½ drachm
Ammonia prepared (volatile ſalt of ammoniac)	10 grains.	1 ſcruple
Ammoniac gum	5 grains	30 grains
——— milk of	½ oz.	1 oz.
Angelica powdered	½ drachm	1½ drachm
Aniſe, the ſeeds	10 grains	1 drachm
Antimony	10 grains	1 drachm
——— *calcined* (calx of antimony)	10 grains	40 grains
——— glaſs of	¼ grain	1½ grain
——— powder of, a ſuccedaneum for Dr. James's fever powder	4 grains	15 grains
It often produces nauſea or vomiting.		
—— —— *tartarized* (tartar emetic)	½ grain ⅛ grain	4 gr. emet. ½ gr. alter.
Aſafœtida	6 grains	½ drachm
——— milk of	½ oz.	1 oz.
Aſarum, powder of, to provoke ſneezing	3 grains	5 grains
B		
Balſam of capivi	20 drops	60 drops
——— canadian	1 ſcruple	1 drachm

	Dose From	To
Balſam of Peru	6 grains	30 grains
——— of Tolu	6 grains	30 grains
Bark, Peruvian. See *Cinchona.*		
Bear's foot, powder	10 grains	20 grains
Benzoin, reſin of	4 grains	20 grains
——— flowers of	5 grains	15 grains
Biſtort, powder of	1 ſcruple	1 drachm
Bole armenian	10 grains	2 drachms
——, French	1 drachm	2 drachms
Borax	10 grains	40 grains
Broom, aſhes of the tops	1 ſcruple	1 drachm
Burdock, powder of the root	10 grains	1 drachm
C		
Calomel	1 grain	3 gr. alter.
	3 grains	10 gr. purg.
Camomile, in powder	15 grains	2 ſcruples
Camphor	2 grains	½ drachm
Canella alba	1 ſcruple	2 drachms
Cantharides	½ grain	3 grains
Caraway ſeeds	5 grains	20 grains
Cardamoms	5 grains	20 grains
Caſcarilla bark, powder	10 grains	40 grains
Caſſia, the pulp	2 drachms	1 oz.
Caſtor	3 grains	1 ſcruple
Catechû (Japan earth)	20 grains	1 drachm
Ceruſe acetated (ſugar of lead)	½ grain	2 grains
Chalk	20 grains	2 ſcruples
Cinchona, powder (Peruvian Bark)	2 ſcruples	2 drachms
Cinnamon	5 grains	1 drachm
Columbo powder	10 grains	1 drachm
Confection aromatic (cardiac confection)	15 grains	1 drachm
——— *opiate* (London Philonium)	10 grains	½ drachm
Conſerve of arum	1 ſcruple	1 drachm
——— of hips	as much as you pleaſe.	
——— of oranges		
——— of roſes		
——— of ſquills	1 ſcruple	1 drachm
——— of wood ſorrel	½ oz.	1 oz.
Contrayerva	10 grains	½ drachm
Coriander ſeed	1 ſcruple	1 drachm
Cowhage, the ſpiculæ contained in one pod, mixed with honey or molaſſes; or	5 grains	10 grains
Crabs claws, prepared	10 grains	1 drachm
D		
Dandelion, expreſſed juice	1 oz.	2 oz.
Decoction of hartſhorn (white decoction)	1 oz.	6 oz.
Decoction of broom tops: one ounce ſlightly boiled in a pint and a half of water to a pint; ſtrain the liquor. To be taken by tea-cupfuls at a time.		

	Dose From	To
Decoction of *cinchona* (decoction of Peruvian bark)	1 oz.	4 oz.
—— of the inner bark of elm	4 oz.	16 oz. daily
—— ſarſaparilla	4 oz.	16 oz. daily
—— of guaiacum, 3 drachms to a pint of water	1 pint or more daily	
E		
Electuary of caſſia	1 drachm	1 oz.
—— of ſcammony	20 grains	1 drachm
—— *of ſenna* (lenitive electuary)	½ drachm	1 oz.
Elecampane, powder of the root	20 grains	1 drachm
Extract of *cinchona* (extract of Peruvian bark)	10 grains	½ drachm
—— caſcarilla	10 grains	½ drachm
—— broom tops	½ drachm	1 drachm
—— camomile	1 ſcruple	1 drachm
—— *colocynth compound* (cathartic extract)	5 grains	25 grains
—— gentian	10 grains	½ drachm
—— guaiacum	10 grains	1 ſcruple
—— black hellebore	2 grains	10 grains
—— jalap	10 grains	1 ſcruple
—— liquorice	1 drachm	3 drachms
—— logwood	10 grains	½ drachm
—— white poppies	1 grain	5 grains
—— rue	10 grains	1 ſcruple
—— ſavin	10 grains	½ drachm
—— ſenna	10 grains	½ drachm
F		
Fennel ſeed	1 ſcruple	1 drachm
Fern, powder of the root	½ drachm	½ oz.
Fox-glove, powder of the leaves	½ grain	3 grains
Or a drachm infuſed in a pint of boiling water, of which the doſe is an ounce once, twice, or thrice a-day. This ſhould be exhibited with great watchfulneſs and circumſpection.		
G		
Galbanum	10 grains	30 grains
Galls	10 grains	20 grains
Garlic, cloves of, ſtripped of the exterior ſkin	No. I.	No. V.
Gentian	10 grains	2 ſcruples
Germander	15 grains	1 drachm
Ginger	5 grains	20 grains
Ginſeng	20 grains	30 grains
Guaiacum gum-reſin	10 grains	30 grains
Gum arabic	15 grains	1 drachm
—— gamboge	2 grains	10 grains
H		
Hartſhorn prepared	1 ſcruple	1 drachm

	Dose From	To
Hartſhorn, *liquor volatile of* (ſpirits of hartſhorn)	½ drachm	2 drachms
——, ſalt of	10 grains	20 grains
Hellebore black	5 grains	10 grains
Hemlock, powdered leaves of	2 grains	15 grains
Hemlock, inſpiſſated juice of	1 grain	5 grains
Begin theſe in very ſmall doſes, and gradually increaſed as the conſtitution will bear.		
Honey of roſes	1 drachm	2 drachms
—— of ſquills	10 grains	2 ſcruples
I and J		
Jalap, powder	10 grains	30 grains
Infuſion of gentian compound (bitter infuſion)	2 oz.	4 oz.
Infuſion of roſes (tincture of roſes)	2 oz.	8 oz.
—— of ſenna	2 oz.	4 oz.
Ipecacuanha	10 grains	30 grains
Iron, ruſt of, prepared	6 grains	25 grains
—— *ammoniated* (martial flowers)	4 grains	1 ſcruple
—— tartarized	2 grains	10 grains
—— *vitriolated* (ſalt of mars)	½ grain	5 grains
K		
Kali prepared (ſalt of wormwood)	8 grains	½ drachm
—— *acetated* (diuretic ſalt)	1 ſcruple	1 drachm
—— *tartarized* (ſoluble tartar)	2 drachms	6 drachms
—— *vitriolated* (vitriolated tartar)	2 drachms	6 drachms
—— *pure* (fixed vegetable cauſtic alkali) ſee water of kali.		
—— *ſulphurated* (liver of ſulphur)	5 grains	20 grains
Kino, gum	10 grains	½ drachm
L		
Lichen, aſh coloured, ground	3 grains	40 grains
—— Icelandic, a ſtrong decoction of (ſee page 104)	1 oz.	4 oz.
Linſeed, an infuſion of one ounce to a quart of boiling water may be drank in cupfuls at pleaſure.		
Liquor volatile of hartſhorn (ſpirit of hartſhorn)	½ drachm	2 drachms
M		
Mace	10 grains	1 ſcruple
Madder, powder of	½ drachm	1 drachm
Magneſia white	½ drachm	2 drachms
—— —— calcined	1 ſcruple	1 drachm
—— —— *vitriolated* (bitter purging ſalt or Epſom ſalt)	2 drachms	1 oz.
Manna	½ oz.	2 oz.
Maſtich, gum	½ ſcruple	½ drachm
Milk of almonds (common emulſion)	1 oz.	4 oz.
Millepedes	½ drachm	1 drachm

	Dose From	To
Mixture camphorated (camphor julep)	½ oz.	2 oz.
Muſk	2 grains	1 ſcruple
—— *mixture* (muſk julep)	½ oz.	1½ oz.
Muſtard ſeed	1 drachm	1 oz.
Myrrh gum	10 grains	1 drachm
N		
Natron prepared (ſoda ſalt)	10 grains	½ drachm
Natron tartarized (Rochelle ſalt)	½ oz.	1 oz.
Natron vitriolated (Glauber's ſalt)	½ oz.	1 oz.
Nitre purified	10 grains	½ drachm
Nutmeg	5 grains	1 ſcruple
O		
Oil of almonds	½ oz.	1 oz.
—— caſtor	2 drachms	1 oz.
—— linſeed	½ oz.	1 oz.
Olibanum	10 grains	½ drachm
Opium purified (thebaic extract)	¼ grain,	1 grain, 3 grains.
In hydrophobia, phrenſy, and ſome other deſperate diſeaſes, the doſe may be augmented.		
Opoponax	10 grains	½ drachm
Oxymel of colchicum	½ drachm	1 drachm
P		
Petroleum	10 drops	30 drops
Pills, aloetic compound	10 grains	25 grains
—— of the gums	10 grains	½ drachm
—— *quickſilver* (mercurial pills)	10 grains	1 ſcruple
Pomegranate rind, powder of	1 ſcruple	1 drachm
Powder of aloes with canella (hiera picra)	½ ſcruple	2 ſcruples
—— with guaiacum	½ ſcruple	1 ſcruple
—— of contrayerva compound	15 grains	½ drachm
—— of chalk compound	½ drachm	1 drachm
—— with opium	1 ſcruple	2 ſcruples
—— of crab's claws compound	1 drachm	2 drachms
—— *of ipecacuanha compound* (Dover's powder)	½ ſcruple	½ drachm
—— of ſcammony compound	10 grains	1 ſcruple
—— with calomel	10 grains	1 ſcruple
—— of ſenna compound	1 ſcruple	1 drachm
Q		
Quaſſia	5 grains	30 grains
Two drachms to a pint of boiling water, and of cloves one drachm, for an infuſion: doſe	1 oz.	2 oz.
Quickſilver crude (mercury)	½ oz.	4 ounces
—— *calcined* (calcined mercury)	½ grain	1½ grain
—— with chalk	10 grains	½ drachm
—— cinnabar of	5 grains	30 grains
—— *muriated* (corroſive ſublimate)	⅛ grain	½ grain

	Dose From	To
Quickſilver with ſulphur (Æthiop's mineral)	1 ſcruple	1 drachm
——— *vitriolated* (yellow emetic mercury)	½ grain	2 gr. alter.
——— *vitriolated*, as ſternutatory	1 grain	3 grains
——— as emetic	2 grains	8 grains
Quince ſeeds, mucilage of, at pleaſure; to obtund acrimony.		
R		
Reſin yellow	3 grains	1 ſcruple
Rhubarb, powder of	10 grains	2 ſcruples
Rue powder	1 ſcruple	2 ſcruples
S		
St. John's wort	20 grains	1 drachm
Saffron	5 grains	20 grains
Sagapenum	10 grains	30 grains
Sal ammoniac	8 grains	1 ſcruple
Salt of tartar	10 grains	½ drachm
Sarſaparilla, powder of	1 ſcruple	1 drachm
Scammony	5 grains	1 ſcruple
Seneka	1 ſcruple	2 ſcruples
Soap	½ drachm	½ oz.
Spirit of *ammonia* (ſweet ſpirit of ſal-ammonia)	½ drachm	2 drachms
—— of *ammonia compound* (volatile aromatic ſpirit)	½ drachm	1 drachm
—— of *ammonia fœtid* (volatile fœtid ſpirit)	½ drachm	1 drachm
—— of *aniſe compound* (compound water of aniſe)	1 drachm	½ oz.
—— of *caraway* (water of caraway ſeeds)	1 drachm	½ oz.
—— of cinnamon	1 drachm	½ oz.
—— of hartſhorn. See liquor volatile of hartſhorn		
—— of horſeradiſh compound	1 drachm	½ oz.
—— of juniper compound	1 drachm	½ oz.
—— of lavender compound	1 drachm	2 drachms
—— of *nitrous ether* (dulcified ſpirit of nitre)	½ drachm	2 drachms
—— of roſemary	1 drachm	3 drachms
—— of *vitriolic æther* (dulcified ſpirit of vitriol)	½ drachm	2 drachms
—— of *vitriolic æther compound* (Hoffman's anodyne liquor)	½ drachm	2 drachms
—— of wine rectified	½ drachm	2 drachms
Sponge burnt	1 ſcruple	1 drachm
Squill freſh	5 grains	12 grains
For other preparations of ſquill, ſee p. 440.		
Starch	½ drachm	2 drachms
Sulphur, flowers of	20 grains	1 drachm
——— *precipitated* (milk of ſulphur)	1 drachm	2 drachms
——— precipitated of antimony	1 grain	5 grains
Syrup of buckthorn	1 drachm	2 drachms
—— of ginger	1 drachm	2 drachms
—— of poppies	1 drachm	2 drachms
Syrups in general	the ſame	

	Dose From		To	
T				
Tartar, cream of	2	drachms	1	oz.
Tar water, a pint daily.				
Tin, powder of	1	ſcruple	1	drachm
Tincture of aloes	½	oz.	1	oz.
——— *compound* (elixir of aloes)	½	drachm	2	drachms
——— *aſafœtida* (fœtid tincture)	½	drachm	2	drachms
——— *benzoin compound* (traumatic balſam)	10	drops	40	drops
——— cantharides	1	ſcruple	1	drachm
——— *cardamoms compound* (ſtomachic tincture)	1	drachm	3	drachms
——— caſtor	½	drachm	1½	drachm
——— *catechu* (Japan earth)	1	drachm	2	drachms
——— *cinnamon compound* (aromatic tincture)	1	drachm	2	drachms
——— *cinchona* (tincture of Peruvian bark)	1	drachm	½	oz.
——— *compound* (Huxham's tincture of Peruvian bark)	1	drachm	½	oz.
——— colomba	1	drachm	3	drachms
——— *gentian compound* (bitter tincture)	1	drachm	3	drachms
——— *guaiacum ammoniated* (tincture guaiacum volatile)	1	drachm	½	oz.
——— black hellebore	1	ſcruple	1	drachm
——— julap	1	drachm	½	oz.
——— *iron ammoniated* (tincture of martial flowers)	1	ſcruple	2	drachms
——— *muriated* (tincture of mars in the ſpirit of ſalt)	10	drops	30	drops
——— myrrh	30	drops	2	drachms
——— *opium* (thebaic tincture)	10	drops	40	drops
——— *camphorated* (paregoric elixir)	1	drachm	½	oz.
——— rhubarb	½	oz.	2	oz.
——— ſenna	2	drachms	1	oz.
——— ſnake-root	1	drachm	2	drachms
——— valerian	1	drachm	3	drachms
——— ammoniated	1	drachm	2	drachms
Turmeric	1	ſcruple	1	drachm
Turpentine, ſpirit of	10	drops	15	drops
V and U				
Valerian, powder of	1	ſcruple	2	drachms
Vinegar diſtilled	1	drachm	½	oz.
Vinegar of ſquills	½	drachm	1½	drachm
——— as an emetic,	½	oz.	1	oz.
Vitriol, blue (vitriolated copper)	¼	grain	2	grains
——— violently emetic	5	grains	1	ſcruple
Uva urſi, in powder	15	grains	1	drachm
W				
Water of ammonia (ſpirit of ſal ammoniac)	15	drops	40	drops
——— *acetated ammonia* (ſpirit of Mindererus)	1	drachm	1	oz.

	Dose From	To
Water of pure ammonia (ſpirit of ſal ammoniac with lime)	For ſmelling to	
Water, the ſimple diſtilled waters may generally be given	½ oz.	2 oz.
—— *of kali* (lixivium of tartar)	15 drops	40 drops
—— *of kali pure* (ſoap lees)	10 drops	30 drops
—— of lime	4 oz.	8 oz.
Wine of aloes (ſacred tincture)	½ oz.	1 oz.
—— antimony	20 drops	2 drachms
—— —— tartarized	10 drops	1 drachm
—— ipecacuanha	1 drachm	1½ oz.
—— *iron* (chalybeate wine)	1 drachm	½ oz.
—— *rhubarb* (vinous tincture of rhubarb)	½ oz.	2 oz.
Winter's bark, or canella alba	1 ſcruple	2 drachms
Worm-ſeed	½ drachm	1 drachm
Z		
Zinc calcined (flowers of zinc)	1 grain	5 grains
—— *vitriolated* (white vitriol or ſalt of vitriol) as a tonic	1 grain	5 grains
—— —— as a quickly operating emetic in caſes of poiſon or the like being ſwallowed	10 grains	½ drachm

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DOMESTIC MEDICINE,

&c.

PART I.

OF THE GENERAL CAUSES OF DISEASES.

CHAP. I.

OF CHILDREN.

THE better to trace diſeaſes from their original cauſes, we ſhall take a view of the common treatment of mankind in a ſtate of infancy. In this period of our lives, the foundations of a good or a bad conſtitution are generally laid; it is therefore of importance that parents be well acquainted with the various cauſes which may injure the health of their offſpring.

It apppears from the annual regiſters of the dead, that almoſt one half of the children born in Great Britain die under twelve years of age. To many, indeed, this may appear a natural evil; but, on due examination, it will be found to be one of our own creating. Were the death of infants a natural evil, other animals would be as liable to die young as man; but this we find is by no means the caſe.

It may ſeem ſtrange that man, notwithſtanding his ſuperior reaſon, ſhould fall ſo far ſhort of other animals in the management of his young; but our ſurpriſe will ſoon ceaſe, if we conſider that brutes, guided by inſtinct, never err in this reſpect; while man, truſting ſolely to art, is ſeldom right. Were a catalogue of thoſe infants who periſh annually by art alone exhibited to public view, it would aſtoniſh moſt people.

If parents are above taking care of their children, others muſt be employed for that purpoſe: theſe will always endeavour to recommend themſelves by the appearance of extraordinary ſkill and addreſs. By this means ſuch a number of unneceſſary and deſtructive articles have been introduced into the diet, clothing, &c. of infants, that it is no wonder ſo many of them periſh.

Nothing can be more prepoſterous than a mother who thinks it below her to take care of her own child, or who is ſo ignorant as not to know what is proper to be done for it. If we ſearch Nature throughout, we cannot find a parallel to this. Every other animal is the nurſe of its own offſpring, and they thrive accordingly. Were the brutes to bring up their young by proxy, they would ſhare the ſame fate with thoſe of the human ſpecies.

We mean not, however, to impoſe it as a taſk upon every mother to ſuckle her own child. This, whatever ſpeculative writers may allege, is in ſome caſes impracticable, and would inevitably prove

deſtructive both to the mother and child. Women of delicate conſtitutions, ſubject to hyſteric fits, or other nervous affections, make very bad nurſes; and theſe complaints are now ſo common, that it is rare to find a woman of faſhion free from them: ſuch women, therefore, ſuppoſing them willing, are often unable to ſuckle their own children.

Almoſt every mother would be in a condition to give ſuck, did mankind live agreeable to Nature; but whoever conſiders how far many mothers deviate from her dictates, will not be ſurpriſed to find ſome of them unable to perform that neceſſary office. Mothers who do not eat a ſufficient quantity of ſolid food, nor enjoy the benefit of free air and exerciſe, can neither have wholeſome juices themſelves, nor afford proper nouriſhment to an infant. Hence children who are ſuckled by delicate women, either die young, or continue weak and ſickly all their lives.

When we ſay that mothers are not always in a condition to ſuckle their own children, we would not be underſtood as diſcouraging that practice. Every mother who can, ought certainly to perform ſo tender and agreeable an office. But ſuppoſing it to be out of her power, ſhe may, nevertheleſs, be of great ſervice to her child. The buſineſs of nurſing is by no means confined to giving ſuck. To a woman who abounds with milk, this is the eaſieſt part of it. Numberleſs other offices are neceſſary for a child, which the mother ought at leaſt to ſee done.

Many advantages would ariſe to ſociety, as well as to individuals, from mothers ſuckling their own children. A mother who abandons the fruit of her womb, as ſoon as it is born, to the ſole care of an hireling, hardly deſerves that name. A child, by being brought up under the mother's eye, not only ſecures her affection, but may reap all the advantages of a parent's care, though it be ſuckled by another. How can a mother be better employed than in ſuperintending the nurſery? This is at once the moſt delightful and important office; yet the moſt trivial buſineſs or inſipid amuſements are often preferred to it!—a ſtrong proof both of the bad taſte and wrong education of modern females.

It is, indeed, to be regretted that more care is not beſtowed in teaching the proper management of children to thoſe whom Nature has deſigned for mothers: this, inſtead of being made the principal, is ſeldom conſidered as any part of female education. Is it any wonder, when females ſo educated come to be mothers, that they ſhould be quite ignorant of the duties belonging to that character? However ſtrange it may appear, it is certainly true, that many mothers, and thoſe of faſhion too, are as ignorant, when they have brought a child into the world, of what is to be done for it, as the infant itſelf. Indeed, the moſt ignorant of the ſex are generally reckoned moſt knowing in the buſineſs of nurſing. Hence, ſenſible people become the dupes of ignorance and ſuperſtition; and the nurſing of children, inſtead of being conducted by reaſon, is the reſult of whim and caprice.

Tacitus, the celebrated Roman hiſtorian, complains greatly of the degeneracy of the Roman ladies in his time, with regard to the care

of their offspring. He ſays that, in former times, the greateſt women in Rome uſed to account it their chief glory to keep the houſe and attend their children; but that now the young infant was committed to the ſole care of ſome poor Grecian wench, or other menial ſervant.—We are afraid, wherever luxury and effeminacy prevail, there will be too much ground for this complaint.

Were the time that is generally ſpent by females in the acquiſition of trifling accompliſhments employed in learning how to bring up their children; how to dreſs them ſo as not to hurt, cramp, or confine their motions; how to feed them with wholeſome and nouriſhing food; how to exerciſe their tender bodies, ſo as beſt to promote their growth and ſtrength: were theſe made the objects of female inſtruction, mankind would derive the greateſt advantages from it. But while the education of females implies little more than what relates to dreſs and public ſhow, we have nothing to expect from them but ignorance even in the moſt important concerns.

Did mothers reflect on their own importance, and lay it to heart, they would embrace every opportunity of informing themſelves of the duties which they owe to their infant offspring. It is their province, not only to form the body, but alſo to give the mind its moſt early bias. They have it very much in their power to make men healthy or valetudinary, uſeful in life, or the peſts of ſociety.

But the mother is not the only perſon concerned in the management of children. The father has an equal intereſt in their welfare, and ought to aſſiſt in every thing that reſpects either the improvement of the body or mind.

It is a pity that the men ſhould be ſo inattentive to this matter. Their negligence is one reaſon why females know ſo little of it. Women will ever be deſirous to excel in ſuch accompliſhments as recommend them to the other ſex. But men generally keep at ſuch a diſtance from even the ſmalleſt acquaintance with the affairs of the nurſery, that many would reckon it an affront were they ſuppoſed to know any thing of them. Not ſo, however, with the kennel or the ſtables: a gentleman of the firſt rank is not aſhamed to give directions concerning the management of his dogs or horſes, yet would bluſh were he ſurpriſed in performing the ſame office for that being who derived its exiſtence from himſelf, who is the heir of his fortunes, and the future hope of his country.

Nor have phyſicians themſelves been ſufficiently attentive to the management of children: this has been generally conſidered as the ſole province of old women, while men of the firſt character in phyſic have refuſed to viſit infants even when ſick. Such conduct in the faculty has not only cauſed this branch of medicine to be neglected, but has alſo encouraged the other ſex to aſſume an abſolute title to preſcribe for children in the moſt dangerous diſeaſes. The conſequence is, that a phyſician is ſeldom called till the good women have exhauſted all their ſkill; when his attendance can only ſerve to divide the blame, and appeaſe the diſconſolate parents.

Nurſes ſhould do all in their power to prevent diſeaſes; but when

a child is taken ill, ſome perſon of ſkill ought immediately to be conſulted. The diſeaſes of children are generally acute, and the leaſt delay is dangerous.

Were phyſicians more attentive to the diſeaſes of infants, they would not only be better qualified to treat them properly when ſick, but likewiſe to give uſeful directions for their management when well. The diſeaſes of children are by no means ſo difficult to be underſtood as many imagine. It is true, children cannot tell their complaints; but the cauſes of them may be pretty certainly diſcovered by obſerving the ſymptoms, and putting proper queſtions to the nurſes. Beſides, the diſeaſes of infants being leſs complicated, are eaſier cured than thoſe of adults.

The common opinion, that the diſeaſes of infants are hard to diſcover and difficult to cure, has deterred many phyſicians from paying that attention to them which they deſerve. I can, however, from experience declare, that this opinion is without foundation; and that the diſeaſes of infants are neither ſo difficult to diſcover, nor ſo ill to cure, as thoſe of adults.

It is really aſtoniſhing that ſo little attention ſhould in general be paid to the preſervation of infants. What labour and expence are daily beſtowed to prop an old tottering carcaſs for a few years, while thouſands of thoſe who might be uſeful in life, periſh without being regarded! Mankind are too apt to value things according to their preſent, not their future, uſefulneſs. Though this is of all others the moſt erroneous method of eſtimation, yet upon no other principle is it poſſible to account for the general indifference with reſpect to the death of infants.

OF DISEASED PARENTS.

One great ſource of the diſeaſes of children is, the UNHEALTHINESS OF PARENTS. It would be as reaſonable to expect a rich crop from a barren ſoil, as that ſtrong and healthy children ſhould be born of parents whoſe conſtitutions have been worn out with intemperance or diſeaſe.

An ingenious writer (Rouſſeau) obſerves, that on the conſtitution of mothers depends originally that of their offspring. No one who believes this, will be ſurpriſed, on a view of the female world, to find diſeaſes and death ſo frequent among children. A delicate female, brought up within doors, an utter ſtranger to exerciſe and open air, who lives on tea and other ſlops, may bring a child into the world, but it will hardly be fit to live. The firſt blaſt of diſeaſe will nip the tender plant in the bud; or ſhould it ſtruggle through a few years' exiſtence, its feeble frame, ſhaken with convulſions from every trivial cauſe, will be unable to perform the common functions of life, and prove a burden to ſociety.

If to the delicacy of mothers we add the irregular lives of fathers, we ſhall ſee further cauſe to believe that children are often hurt by the conſtitution of their parents. A ſickly frame may be originally induced by hardſhips or intemperance, but chiefly by the latter. It is impoſſible that a courſe of vice ſhould not ſpoil the beſt conſtitution; and, did the evil terminate here, it would be a juſt puniſh-

ment for the folly of the ſufferer; but when once a diſeaſe is contracted and rivetted in the habit, it is entailed on poſterity. What a dreadful inheritance is the gout, the ſcurvy, or the king's evil, to tranſmit to our offspring! how happy had it been for the heir of many a great eſtate, had he been born a beggar, rather than to inherit his father's fortunes at the expence of inheriting his diſeaſes!

A perſon labouring under any incurable malady ought not to marry. He thereby not only ſhortens his own life, but tranſmits miſery to others; but when both parties are deeply tainted with the ſcrophula, the ſcurvy, or the like, the effects muſt be ſtill worſe. If ſuch have any iſſue, they muſt be miſerable indeed. Want of attention to theſe things, in forming connections for life, has rooted out more families than plague, famine, or the ſword; and as long as theſe connections are formed from mercenary views, the evil will be continued.

In our matrimonial contracts, it is amazing ſo little regard is had to the health and form of the object. Our ſportſmen know that the generous courſer cannot be bred out of the foundered jade, nor the ſagacious ſpaniel out of the ſnarling cur. This is ſettled upon immutable laws. The man who marries a woman of a ſickly conſtitution, and deſcended of unhealthy parents, whatever his views may be, cannot be ſaid to act a prudent part. A diſeaſed woman may prove fertile; ſhould this be the caſe, the family muſt become an infirmary: what proſpect of happineſs the father of ſuch a family has, we ſhall leave any one to judge. The Jews, by their laws, were, in certain caſes, forbid to have any manner of commerce with the diſeaſed; and indeed to this all wiſe legiſlators ought to have a ſpecial regard.

Such children as have the misfortune to be born of diſeaſed parents, will require to be nurſed with greater care than others. This is the only way to make amends for the defects of conſtitution; and it will often go a great length. A healthy nurſe, wholeſome air, and ſufficient exerciſe, will do wonders. But when theſe are neglected, little is to be expected from any other quarter. The defects of conſtitution cannot be ſupplied by medicine.

Thoſe who inherit any family diſeaſe ought to be very circumſpect in their manner of living. They ſhould conſider well the nature of ſuch diſeaſe, and guard againſt it by a proper regimen. It is certain, that family diſeaſes have often, by proper care, been kept off for one generation; and there is reaſon to believe, that, by perſiſting in the ſame courſe, ſuch diſeaſes might at length be wholly eradicated. This is a ſubject very little regarded, though of the greateſt importance. Family conſtitutions are as capable of improvement as family eſtates; and the libertine, who impairs the one, does greater injury to his poſterity than the prodigal who ſquanders away the other.

OF THE CLOTHING OF CHILDREN.

The clothing of an infant is ſo ſimple a matter, that it is ſurpriſing how any perſon ſhould err in it; yet many children loſe their lives, and others are deformed, by inattention to this article.

Nature knows no uſe of clothes to an infant, but to keep it warm. All that is neceſſary for this purpoſe, is to wrap it in a ſoft looſe covering. Were a mother left to the dictates of nature alone, ſhe would certainly purſue this courſe. But the buſineſs of dreſſing an infant has long been out of the hands of mothers, and has at laſt become a ſecret which none but adepts pretend to underſtand.

From the moſt early ages it has been thought neceſſary that a woman in labour ſhould have ſome perſon to attend her. This in time became a buſineſs; and, as in all others, thoſe who were employed in it ſtrove to outdo one another in the different branches of their profeſſion. The dreſſing of a child came of courſe to be conſidered as the midwife's province, who no doubt imagined, that the more dexterity ſhe could ſhew in this article, the more her ſkill would be admired. Her attempts were ſeconded by the vanity of parents, who, too often deſirous of making a ſhow of the infant as ſoon as it was born, were ambitious to have as much finery heaped upon it as poſſible. Thus it came to be thought as neceſſary for a midwife to excel in bracing and dreſſing an infant, as for a ſurgeon to be expert in applying bandages to a broken limb; and the poor child, as ſoon as it came into the world, had as many rollers and wrappers applied to its body, as if every bone had been fractured in the birth; while theſe were often ſo tight, as not only to gall and wound its tender frame, but even to obſtruct the motion of the heart, lungs, and other organs neceſſary for life.

In moſt parts of Britain, the practice of rolling children with ſo many bandages is now, in ſome meaſure, laid aſide; but it would ſtill be a difficult taſk to perſuade the generality of mankind, that the ſhape of an infant does not entirely depend on the care of the midwife. So far, however, are all her endeavours to mend the ſhape from being ſucceſsful, that they conſtantly operate the contrary way, and mankind become deformed in proportion to the means uſed to prevent it. How little deformity of body is to be found among uncivilized nations? ſo little, indeed, that it is vulgarly believed they put all their deformed children to death. The truth is, they hardly know ſuch a thing as a deformed child. Neither ſhould we, if we followed their example. Savage nations never think of manacling their children. They allow them the full uſe of every organ, carry them abroad in the open air, waſh their bodies daily in cold water, &c. By this management, their children become ſo ſtrong and hardy, that by the time our puny infants get out of the nurſe's arms, theirs are able to ſhift for themſelves.

Among brute animals, no art is neceſſary to procure a fine ſhape. Though many of them are extremely delicate when they come into the world, yet we never find them grow crooked for want of ſwaddling bands. Is Nature leſs generous to the human kind? No: but we take the buſineſs out of Nature's hands.

Not only the analogy of other animals, but the very feelings of infants, tell us they ought to be kept eaſy and free from all preſſure. They cannot indeed tell their complaints; but they can ſhew ſigns of pain; and this they never fail to do, by crying when hurt by their

clothes. No ſooner are they freed from their bracings, than they ſeem pleaſed and happy: yet, ſtrange infatuation! the moment they hold their peace, they are again committed to their chains.

If we conſider the body of an infant as a bundle of ſoft pipes, repleniſhed with fluids in continual motion, the danger of preſſure will appear in the ſtrongeſt light. Nature, in order to make way for the growth of children, has formed their bodies ſoft and flexible; and leſt they ſhould receive any injury from preſſure in the womb, has ſurrounded the *fœtus* every where with fluids. This ſhews the care which Nature takes to prevent all unequal preſſure on the bodies of infants, and to defend them againſt every thing that might in the leaſt cramp or confine their motions.

Even the bones of an infant are ſo ſoft and cartilaginous, that they readily yield to the ſlighteſt preſſure, and eaſily aſſume a bad ſhape, which can never after be remedied. Hence it is, that ſo many people appear with high ſhoulders, crooked ſpines, and flat breaſts, who were as well proportioned at their births as others, but had the misfortune to be ſqueezed out of ſhape by the application of ſtays and bandages.

Preſſure, by obſtructing the circulation, likewiſe prevents the equal diſtribution of nouriſhment to the different parts of the body, by which means the growth becomes unequal. One part grows too large, while another remains too ſmall; and thus in time the whole frame becomes diſproportioned and miſshapen. To this we muſt add, that when a child is cramped in its clothes, it naturally ſhrinks from the part that is hurt; and by putting its body into unnatural poſtures, it becomes deformed by habit.

Deformity of body may indeed proceed from weakneſs or diſeaſe; but, in general, it is the effect of improper clothing. Nine-tenths, at leaſt, of the deformity among mankind, muſt be imputed to this cauſe. A deformed body is not only diſagreeable to the eye, but by a bad figure both the animal and vital functions muſt be impeded, and of courſe health impaired. Hence few people remarkably miſshapen are ſtrong or healthy.

The new motions which commence at the birth, as the circulation of the whole maſs of blood through the lungs, reſpiration, the periſtaltic motion, &c. afford another ſtrong argument for keeping the body of an infant free from all preſſure. Theſe organs, not having been accuſtomed to move, are eaſily ſtopped; but when this happens, death muſt enſue. Hardly any method could be deviſed more effectually to ſtop theſe motions, than bracing the body too tight with rollers and bandages. Were theſe to be applied in the ſame manner to the body of an adult for an equal length of time, they would hardly fail to hurt the digeſtion and make him ſick. How much more hurtful they muſt prove to the tender bodies of infants, we ſhall leave any one to judge.

Whoever conſiders theſe things will not be ſurpriſed that ſo many children die of convulſions ſoon after the birth. Theſe fits are generally attributed to ſome inward cauſe; but, in fact, they oftener proceed from our own imprudent conduct. I have known a child

ſeized with convulſion-fits ſoon after the midwife had done ſwaddling it, who, upon taking off the rollers and bandages, was immediately relieved, and never had the diſeaſe afterwards. Numerous examples of this might be given, were they neceſſary.

It would be ſafer to faſten the clothes of an infant with ſtrings than pins, as theſe often gall and irritate their tender ſkins, and occaſion diſorders. Pins have been found ſticking above half an inch into the body of a child, after it had died of convulſion-fits, which in all probability proceeded from that cauſe.

Children are not only hurt by the tightneſs of their clothes, but alſo by the quantity. Every child has ſome degree of fever after the birth; and if it be loaded with too many clothes the fever muſt be increaſed. But this is not all; the child is generally laid in bed with the mother, who is often likewiſe feveriſh; to which we may add the heat of the bed-chamber, the wines, and other heating things, too frequently given to children immediately after the birth. When all theſe are combined, which does not ſeldom happen, they muſt increaſe the fever to ſuch a degree as will endanger the life of the infant.

The danger of keeping infants too hot will further appear, if we conſider that, after they have been for ſome time in the ſituation mentioned above, they are often ſent into the country to be nurſed in a cold houſe. Is it any wonder, if a child, from ſuch a tranſition, catches a mortal cold, or contracts ſome other fatal diſeaſe? When an infant is kept too hot, its lungs, not being ſufficiently expanded, are apt to remain weak and flaccid for life; hence proceed coughs, conſumptions, and other diſeaſes of the breaſt.

It would anſwer little purpoſe to ſpecify the particular ſpecies of dreſs proper for an infant; theſe will always vary in different countries, according to cuſtom and the humour of parents. The great rule to be obſerved is, *That a child have no more clothes than are neceſſary to keep it warm, and that they be quite eaſy for its body.*

Stays are the very bane of infants. A volume would not ſuffice to point out all the bad effects of this ridiculous piece of dreſs both on children and adults. The madneſs in favour of ſtays ſeems, however, to be ſomewhat abated; and it is to be hoped the world will, in time, become wiſe enough to know, that the human ſhape does not ſolely depend upon whale-bone and bend leather.

I ſhall only add with reſpect to the clothes of children, that they ought to be kept thoroughly clean. Children perſpire more than adults; and if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only gall and fret the tender ſkins of infants, but likewiſe occaſion ill ſmells; and what is worſe, tend to produce vermin and cutaneous diſeaſes.

Cleanlineſs is not only agreeable to the eye, but tends greatly to preſerve the health of children. It promotes the perſpiration, and, by that means, frees the body from ſuperfluous humours, which, if retained, could not fail to occaſion diſeaſes. No mother or nurſe can have any excuſe for allowing a child to be dirty. Poverty may

oblige her to give it coarſe clothes; but if ſhe does not keep them clean, it muſt be her own fault.

OF THE FOOD OF CHILDREN.

Nature not only points out the food proper for an infant, but actually prepares it. This, however, is not ſufficient to prevent ſome, who think themſelves wiſer than Nature, from attempting to bring up their children without her proviſion. Nothing can ſhew the diſpoſition which mankind have to depart from Nature more than their endeavouring to bring up children without the breaſt. The mother's milk, or that of a healthy nurſe, is unqueſtionably the beſt food for an infant. Neither Art nor Nature can afford a proper ſubſtitute for it. Children may ſeem to thrive for a few months without the breaſt; but when teething, the ſmall-pox, and other diſeaſes incident to childhood, come on, they generally periſh.

A child, ſoon after the birth, ſhews an inclination to ſuck; and there is no reaſon why it ſhould not be gratified. It is true, the mother's milk does not always come immediately after the birth; but this is the way to bring it: beſides, the firſt milk that the child can ſqueeze out of the breaſt anſwers the purpoſe of cleanſing, better than all the drugs in the apothecary's ſhop, and at the ſame time prevents inflammations of the breaſt, fevers, and other diſeaſes incident to mothers.

It is ſtrange how people came to think that the firſt thing given to a child ſhould be drugs. This is beginning with medicine by times, and no wonder if they generally end with it. It ſometimes happens, indeed, that a child does not diſcharge the *meconium* ſo ſoon as could be wiſhed; this has induced phyſicians, in ſuch caſes, to give ſomething of an opening nature to cleanſe the firſt paſſages. Midwives have improved upon this hint, and never fail to give ſyrups, oils, &c. whether they be neceſſary or not. Cramming an infant with ſuch indigeſtible ſtuff as ſoon as it is born, can hardly fail to make it ſick, and is more likely to occaſion diſeaſes than to prevent them. Children are ſeldom long after the birth without having paſſage both by ſtool and urine; though theſe evacuations may be wanting for ſome time without any danger. But if children muſt have ſomething before they be allowed the breaſt, let it be a little thin water pap, to which may be added an equal quantity of new milk; or rather water alone, with the addition of a little raw ſugar. If this be given without any wines or ſpiceries, it will neither heat the blood, load the ſtomach, nor occaſion gripes.

Upon the firſt ſight of an infant, almoſt every perſon is ſtruck with the idea of its being weak, feeble, and wanting ſupport. This naturally ſuggeſts the need of cordials. Accordingly wines are univerſally mixed with the firſt food of children. Nothing can be more fallacious than this way of reaſoning, or more hurtful to infants than the conduct founded upon it. Children require very little food for ſome time after the birth, and what they receive ſhould be thin, weak, light, and of a cooling quality. A very ſmall quantity of wine is ſufficient to heat and inflame the blood of an infant; but every

perſon converſant in theſe matters muſt know, that moſt of the diſeaſes of infants proceed from the heat of their humours.

If the mother or nurſe has enough of milk, the child will need little or no other food before the third or fourth month. It will then be proper to give it, once or twice a day, a little of ſome food that is eaſy of digeſtion, as water-pap, milk-pottage, weak broth with bread in it, and ſuch like. This will eaſe the mother, will accuſtom the child by degrees to take food, and will render the weaning both leſs difficult and leſs dangerous. All great and ſudden tranſitions are to be avoided in nurſing. For this purpoſe, the food of children ought not only to be ſimple, but to reſemble, as nearly as poſſible, the properties of milk. Indeed milk itſelf ſhould make a principal part of their food, not only before they are weaned, but for ſome time after.

Next to milk, we would recommend good light bread. Bread may be given to a child as ſoon as it ſhews an inclination to chew; and it may at all times be allowed as much plain bread as it will eat. The very chewing of bread will promote the cutting of the teeth and the diſcharge of ſaliva, while, by mixing with the nurſe's milk in the ſtomach, it will afford an excellent nouriſhment. Children diſcover an early inclination to chew whatever is put into their hands. Parents obſerve the inclination, but generally miſtake the object. Inſtead of giving the child ſomething which may at once exerciſe its gums and afford it nouriſhment, they commonly put into its hands a piece of hard metal, or impenetrable coral. A cruſt of bread is the beſt gumſtick. It not only anſwers the purpoſe better than any thing elſe, but has the additional properties of nouriſhing the child, and carrying the ſaliva down to the ſtomach, which is too valuable a liquor to be loſt.

Bread, beſides being uſed dry, may be many ways prepared into food for children. One of the beſt methods is to boil it in water, afterwards pouring the water off, and mixing with the bread a proper quantity of new milk unboiled. Milk is both more wholeſome and nouriſhing this way than boiled, and is leſs apt to occaſion coſtiveneſs. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings, or the like. Bread is a proper food for children at all times, provided it be plain, made of wholeſome grain, and well fermented; but when enriched with fruits, ſugars, or ſuch things, it becomes very unwholeſome.

It is ſoon enough to allow children animal food when they have got teeth to eat it. They ſhould never taſte it till after they are weaned, and even then they ought to uſe it ſparingly. Indeed, when children live wholly on vegetable food, it is apt to ſour on their ſtomachs; but, on the other hand, too much fleſh heats the body, and occaſions fevers and other inflammatory diſeaſes. This plainly points out a due mixture of animal and vegetable food as moſt proper for children.

Few things prove more hurtful to infants than the common method of ſweetening their food. It entices them to take more than they ought to do, which makes them grow fat and bloated. It is pretty certain, if the food of children were quite plain, that they

would never take more than enough. Their exceſſes are entirely owing to nurſes. If a child be gorged with food at all hours, and enticed to take it, by making it ſweet and agreeable to the palate, is it any wonder that ſuch a child ſhould in time be induced to crave more food than it ought to have?

Children may be hurt by too little as well as too much food. After a child is weaned, it ought to be fed four or five times a day, but ſhould never be accuſtomed to eat in the night; neither ſhould it have too much at a time. Children thrive beſt with ſmall quantities of food frequently given. This neither overloads the ſtomach nor hurts the digeſtion, and is certainly moſt agreeable to nature.

Writers on nurſing have inveighed with ſuch vehemence againſt giving children too much food, that many parents, by endeavouring to ſhun that error, have run into the oppoſite extreme, and ruined the conſtitutions of their children. But the error of pinching children in their food is more hurtful than the other extreme. Nature has many ways of relieving herſelf when overcharged; but a child who is pinched with hunger will never become a ſtrong or healthy man. That errors are frequently committed on both ſides, we are ready to acknowledge; but where one child is hurt by the quantity of its food, ten ſuffer from the quality. This is the principal evil, and claims our ſtricteſt attention.

Many people imagine that the food which they themſelves love cannot be bad for their children: but this notion is very abſurd. In the more advanced periods of life we often acquire an inclination for food, which when children we could not endure. Beſides, there are many things that by habit may agree very well with the ſtomach of a grown perſon, which would be hurtful to a child: as high-ſeaſoned, ſalted, and ſmoke-dried proviſions, &c. It would alſo be improper to feed children with fat meat, ſtrong broths, rich ſoups, or the like.

All ſtrong liquors are hurtful to children. Some parents teach their children to guzzle ale, and other fermented liquors, at every meal. Such a practice cannot fail to do miſchief. Theſe children ſeldom eſcape the violence of the ſmall-pox, meaſles, hooping cough, or ſome inflammatory diſorder. Milk, water, butter-milk, or whey, are the moſt proper for children to drink. If they have any thing ſtronger, it may be fine ſmall beer, or a little wine mixed with water. The ſtomachs of children can digeſt well enough without the aſſiſtance of warm ſtimulants: beſides, being naturally hot, they are eaſily hurt by every thing of a heating quality.

Few things are more hurtful to children than unripe fruits. They weaken the powers of digeſtion, and ſour and relax the ſtomach, by which means it becomes a proper neſt for inſects. Children indeed ſhew a great inclination for fruit, and I am apt to believe, that if good ripe fruit were allowed them in proper quantity, it would have no bad effects. We never find a natural inclination wrong, if properly regulated. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humours. This is what moſt children require; only care ſhould be taken leſt they exceed. Indeed the beſt way to prevent children from going to exceſs in the uſe of fruit, or

eating that which is bad, is to allow them a proper quantity of what is good. Children are always ſickly in the fruit ſeaſon, which may be thus accounted for: two-thirds of the fruit which comes to market in this country is really unripe; and children not being in a condition to judge for themſelves, eat whatever they can lay their hands upon, which often proves little better than a poiſon to their tender bowels.

Roots which contain a crude viſcid juice ſhould be ſparingly given to children. They fill the body with groſs humours, and tend to produce eruptive diſeaſes. This caution is peculiarly neceſſary for the poor: glad to obtain at a ſmall price what will fill the bellies of their children, they ſtuff them two or three times a day with crude vegetables. Children had better eat a ſmall quantity of food which yields a wholeſome nouriſhment, than be crammed with what their digeſtive powers are unable properly to aſſimilate.

Butter ought likewiſe to be ſparingly given to children. It both relaxes the ſtomach, and produces groſs humours. Indeed, moſt things that are fat or oily have this effect. Butter when ſalted becomes ſtill more hurtful. Inſtead of butter, ſo liberally given to children in moſt parts of Britain, we would recommend honey. Honey is not only wholeſome, but cooling, cleanſing, and tends to ſweeten the humours. Children who eat honey are ſeldom troubled with worms: they are alſo leſs ſubject to cutaneous diſeaſes, as itch, ſcabbed head, &c.

Many people err in thinking that the diet of children ought to be altogether moiſt. When children live entirely upon ſlops, it relaxes their ſolids, renders them weak, and diſpoſes them to the rickets, the ſcrophula, and other glandular diſorders. Relaxation is one of the moſt general cauſes of the diſeaſes of children. Every thing therefore which tends to unbrace their ſolids, ought to be carefully avoided.

We would not be underſtood by theſe obſervations as confining children to any particular kind of food. Their diet may be frequently varied, provided always that ſufficient regard be had to ſimplicity.

OF THE EXERCISE OF CHILDREN.

Of all the cauſes which conſpire to render the life of man ſhort and miſerable, none has greater influence than the want of proper exerciſe: healthy parents, wholeſome food, and proper clothing, will avail little, where exerciſe is neglected. Sufficient exerciſe will make up for ſeveral defects in nurſing; but nothing can ſupply the want of it. It is abſolutely neceſſary to the health, the growth, and the ſtrength of children.

The deſire of exerciſe is coeval with life itſelf. Were this principle attended to, many diſeaſes might be prevented. But, while indolence and ſedentary employments prevent two-thirds of mankind from either taking ſufficient exerciſe themſelves, or giving it to their children, what have we to expect but diſeaſes and deformity among their offspring? The rickets, ſo deſtructive to children, never appeared in Britain till manufactures began to flouriſh, and people, attracted by the love of gain, left the country to follow ſedentary employments in great towns. It is among theſe people that this diſeaſe chiefly prevails, and not only deforms but kills many of their offspring.

The conduct of other young animals ſhews the propriety of giving exerciſe to children. Every other animal makes uſe of its organs of motion as ſoon as it can, and many of them, even when under no neceſſity of moving in queſt of food, cannot be reſtrained without force. This is evidently the caſe with the calf, the lamb, and moſt other young animals. If theſe creatures were not permitted to friſk about and take exerciſe, they would ſoon die or become diſeaſed. The ſame inclination appears very early in the human ſpecies; but as they are not able to take exerciſe themſelves, it is the buſineſs of their parents and nurſes to aſſiſt them.

Children may be exerciſed various ways. The beſt method, while they are light, is to carry them about in the nurſe's arms. This gives the nurſe an opportunity of talking to the child, and of pointing out every thing that may pleaſe and delight its fancy. Beſides, it is much ſafer than ſwinging an infant in a machine, or leaving it to the care of ſuch as are not fit to take care of themſelves. Nothing can be more abſurd than to ſet one child to keep another; this conduct has proved fatal to many infants, and has rendered others miſerable for life.

The nurſe ought to be careful to keep the child in a proper poſition, as deformity is often the conſequence of inattention to this circumſtance. Its ſituation ought alſo to be frequently changed. I have known a child's legs bent all on one ſide, by the nurſe carrying it conſtantly on one arm.

When children begin to walk, the ſafeſt and beſt method of leading them about is by the hands. The common way, of ſwinging them in leading ſtrings fixed to their backs, has ſeveral bad conſequences. It makes them throw their bodies forward, and preſs with their whole weight upon the ſtomach and breaſt; by this means the breathing is obſtructed, the breaſt flattened, and the bowels compreſſed; which muſt hurt the digeſtion, and occaſion conſumptions of the lungs and other diſeaſes.

It is a common notion, that if children are ſet upon their feet too ſoon, their legs will become crooked. There is reaſon to believe that the very reverſe of this is true. Every member acquires ſtrength in proportion as it is exerciſed. The limbs of children are weak indeed, but their bodies are proportionally light; and had they ſkill to direct themſelves, they would ſoon be able to ſupport their own weight. Who ever heard of any other animal that became crooked by uſing its legs too ſoon? Indeed, if a child is not permitted to make any uſe of its own legs till a conſiderable time after the birth, and be then ſet upon them with its whole weight at once, there may be ſome danger; but this proceeds entirely from the child's not having been accuſtomed to uſe its legs from the beginning.

Mothers of the poorer ſort think they are great gainers by making their children lie or ſit while they themſelves work. In this they are greatly miſtaken. By neglecting to give their children exerciſe, they are obliged to keep them a long time before they can do any thing for themſelves, and to ſpend more on medicine than would have paid for proper care.

To take care of their children, is the moſt uſeful buſineſs in which

even the poor can be employed: but, alas! it is not always in their power. Poverty often obliges them to neglect their offspring in order to procure the neceſſaries of life. When this is the caſe, it becomes the intereſt as well as the duty of the public to aſſiſt them. Ten thouſand times more benefit would accrue to the State, by enabling the poor to bring up their own children, than from all the hoſpitals that ever can be erected for that purpoſe.

Whoever conſiders the ſtructure of the human body will ſoon be convinced of the neceſſity of exerciſe for the health of children. The body is compoſed of an infinite number of tubes, whoſe fluids cannot be puſhed on without the action and preſſure of the muſcles. But, if the fluids remain inactive, obſtructions muſt happen, and the humours will of courſe be vitiated, which cannot fail to occaſion diſeaſes. Nature has furniſhed both the veſſels which carry the blood and lymph with numerous valves, in order that the action of every muſcle might puſh forward their contents; but without action, this admirable contrivance can have no effect. This part of the animal œconomy proves to a demonſtration the neceſſity of exerciſe for the preſervation of health.

Arguments to ſhew the importance of exerciſe might be drawn from every part of the animal œconomy: without exerciſe, the circulation of the blood cannot be properly carried on, nor the different ſecretions duly performed; without exerciſe, the fluids cannot be properly prepared, nor the ſolids rendered ſtrong nor firm. The action of the heart, the motion of the lungs and all the vital functions, are greatly aſſiſted by exerciſe. But to point out the manner in which theſe effects are produced, would lead us further into the œconomy of the human body, than moſt of thoſe for whom this treatiſe is intended would be able to follow. We ſhall therefore only add, that, when exerciſe is neglected, none of the animal functions can be duly performed; and when that is the caſe, the whole conſtitution muſt go to wreck.

A good conſtitution ought certainly to be our firſt object in the management of children. It lays a foundation for their being uſeful and happy in life: and whoever neglects it, not only fails in his duty to his offspring, but to ſociety.

One very common error of parents, by which they hurt the conſtitutions of their children, is the ſending them too young to ſchool. This is often done ſolely to prevent trouble. When the child is at ſchool, he needs no keeper. Thus the ſchoolmaſter is made the nurſe; and the poor child is fixed to a ſeat ſeven or eight hours a day, which time ought to be ſpent in exerciſe and diverſions. Sitting ſo long cannot fail to produce the worſt effects upon the body; nor is the mind leſs injured. Early application weakens the faculties, and often fixes in the mind an averſion to books, which continues for life.

But ſuppoſe this were the way to make children ſcholars, it certainly ought not to be done at the expence of their conſtitutions. Our anceſtors, who ſeldom went to ſchool very young, were not leſs learned than we. But we imagine the boy's education will be quite

marred, unleſs he be carried to ſchool in the nurſe's arms. No wonder if ſuch hot-bed plants ſeldom become either ſcholars or men!

It is undoubtedly the duty of parents to inſtruct their children, at leaſt till they are of an age proper to take ſome care of themſelves. This would tend much to confirm the ties of parental tenderneſs and filial affection, of the want of which there are at preſent ſo many deplorable inſtances. Though few fathers have time to inſtruct their children, yet moſt mothers have; and ſurely they cannot be better employed.

Not only the confinement of children in public ſchools, but their number, often proves hurtful. Children are much injured by being kept in crowds within doors; their breathing not only renders the place unwholeſome, but if any of them happens to be diſeaſed, the reſt catch the infection. A ſingle child has been often known to communicate the bloody flux, the hooping cough, the itch, or other diſeaſes, to almoſt every individual in a numerous ſchool.

But, if faſhion muſt prevail, and infants are to be ſent to ſchool, we would recommend it to teachers, as they value the intereſts of ſociety, not to confine them too long at a time, but allow them to run about and play at ſuch active diverſions as may promote their growth and ſtrengthen their conſtitutions. Were boys, inſtead of being whipped for ſtealing an hour to run, ride, ſwim, or the like, encouraged to employ a proper part of their time in theſe manly and uſeful exerciſes, it would have many excellent effects.

It would be of great ſervice to boys, if, at a proper age, they were taught the military exerciſe. This would increaſe their ſtrength, inſpire them with courage, and, when their country called for their aſſiſtance, would enable them to act in her defence, without being obliged to undergo a tedious and troubleſome courſe of inſtructions, at a time when they are leſs fit to learn new motions, geſtures, &c.

An effeminate education will infallibly ſpoil the beſt natural conſtitution; and if boys are brought up in a more delicate manner than even girls ought to be, they will never be men.

Nor is the common education of girls leſs hurtful to the conſtitution than that of boys. Miſs is ſet down to her frame before ſhe can put on her clothes; and is taught to believe, that to excel at the needle is the only thing that can entitle her to general eſteem. It is unneceſſary here to inſiſt upon the dangerous conſequences of obliging girls to ſit too much. They are pretty well known, and are too often felt at a certain time of life. But ſuppoſing this critical period to be got over, greater dangers ſtill await them when they come to be mothers. Women who have been early accuſtomed to a ſedentary life, generally run great hazard in childbed; while thoſe who have been uſed to romp about, and take ſufficient exerciſe, are ſeldom in any danger.

One hardly meets with a girl who can at the ſame time boaſt of early performances by the needle, and a good conſtitution. Cloſe and early confinement generally occaſions indigeſtions, head-achs, pale complexions, pain of the ſtomach, loſs of appetite, coughs,

conſumptions of the lungs, and deformity of body. The laſt of theſe indeed is not to be wondered at, conſidering the awkward poſtures in which girls ſit at many kinds of needle-work, and the delicate flexible ſtate of their bodies in the early periods of life.

Would mothers, inſtead of having their daughters inſtructed in many trifling accompliſhments, employ them in plain work and houſewifery, and allow them ſufficient exerciſe in the open air, they would both make them more healthy mothers, and more uſeful members of ſociety. I am no enemy to genteel accompliſhments, but would have them only conſidered as ſecondary, and always diſregarded when they impair health.

Many people imagine it a great advantage for children to be early taught to earn their bread. This opinion is certainly right, provided they were ſo employed as not to hurt their health or growth; but, when theſe ſuffer, ſociety, inſtead of being benefitted, is a real loſer by their labour. There are few employments, except ſedentary ones, by which children can earn a livelihood; and if they be ſet to theſe too ſoon, it ruins their conſtitutions. Thus, by gaining a few years from childhood, we generally loſe twice as many in the latter period of life, and even render the perſon leſs uſeful while he does live.

In order to be ſatisfied of the truth of this obſervation, we need only look into the great manufacturing towns, where we ſhall find a puny degenerate race of people, weak and ſickly all their lives, ſeldom exceeding the middle period of life; or if they do, being unfit for buſineſs, they become a burden to ſociety. Thus arts and manufactures, though they may increaſe the riches of a country, are by no means favourable to the health of its inhabitants. Good policy would therefore require, that ſuch people as labour during life ſhould not be ſet too early to work. Every perſon converſant in the breed of horſes, or other working animals, knows, that if they be ſet to hard labour too ſoon, they never will turn out to advantage. This is equally true with reſpect to the human ſpecies.

There are nevertheleſs various ways of employing young people, without hurting their health. The eaſier parts of gardening, huſbandry, or any buſineſs carried on without doors, are moſt proper. Theſe are employments which moſt young people are fond of, and ſome parts of them may always be adapted to their age, taſte, and ſtrength.

Such parents, however, as are under the neceſſity of employing their children within doors, ought to allow them ſufficient time for active diverſions without. This would both encourage them to do more work, and prevent their conſtitutions from being hurt.

Some imagine that exerciſe within doors is ſufficient; but they are greatly miſtaken. One hour ſpent in running, or any other exerciſe without doors, is worth ten within. When children cannot go abroad, they may indeed be exerciſed at home. The beſt method of doing this, is to make them run about in a long room, or dance. This laſt kind of exerciſe, if not carried to exceſs, is of excellent ſervice to young people. It cheers the ſpirits, promotes perſpiration, ſtrengthens the limbs, &c. I know an eminent phyſician who uſed to ſay,

that he made his children dance, inſtead of giving them phyſic. It were well if more people followed his example.

The COLD BATH may be conſidered as an aid to exerciſe. By it the body is braced and ſtrengthened, the circulation and ſecretions promoted, and, were it conducted with prudence, many diſeaſes, as the rickets, ſcrophula, &c. might thereby be prevented. The ancients, who took every method to render children hardy and robuſt, were no ſtrangers to the uſe of the cold bath; and, if we may credit report, the practice of immerſing children daily in cold water muſt have been very common among our anceſtors.

The greateſt objection to the uſe of the cold bath ariſes from the ſuperſtitious prejudices of nurſes. Theſe are often ſo ſtrong, that it is impoſſible to bring them to make a proper uſe of it. I have known ſome of them who would not dry a child's ſkin after bathing it, leſt it ſhould deſtroy the effect of the water. Others will even put cloths dipt in the water upon the child, and either put it to bed, or ſuffer it to go about in that condition. Some believe, that the whole virtue of the water depends upon its being dedicated to a particular ſaint; while others place their confidence in a certain number of dips, as three, ſeven, nine, or the like; and the world could not perſuade them, if theſe do not ſucceed, to try it a little longer. Thus, by the whims of nurſes, children loſe the benefit of the cold bath, and the hopes of the phyſician from that medicine are often fruſtrated.

We ought not, however, entirely to ſet aſide the cold bath, becauſe ſome nurſes make a wrong uſe of it. Every child, when in health, ſhould at leaſt have its extremities daily waſhed in cold water. This is a partial uſe of the cold bath, and is better than none. In winter this may ſuffice; but, in the warm ſeaſon, if a child be relaxed, or ſeem to have a tendency to the rickets or ſcrophula, its whole body ought to be frequently immerſed in cold water. Care however muſt be taken not to do this when the body is hot, or the ſtomach full. The child ſhould be dipped only once at a time, ſhould be taken out immediately, and have its ſkin well rubbed with a dry cloth.

THE BAD EFFECTS OF UNWHOLESOME AIR UPON CHILDREN.

Few things prove more deſtructive to children than confined or unwholeſome air. This is one reaſon why ſo few of thoſe infants who are put into hoſpitals, or pariſh workhouſes, live. Theſe places are generally crowded with old, ſickly, and infirm people; by which means the air is rendered ſo extremely pernicious, that it becomes a poiſon to infants.

Want of wholeſome air is likewiſe deſtructive to many of the children born in great towns. There the poorer ſort of inhabitants live in low, dirty, confined houſes, to which the freſh air has hardly any acceſs. Though grown people, who are hardy and robuſt, may live in ſuch ſituations, yet they generally prove fatal to their offſpring, few of whom arrive at maturity, and thoſe who do are weak and deformed. As ſuch people are not in a condition to carry their children abroad into the open air, we muſt lay our account with loſing the greater part of them. But the rich have not this excuſe.

It is their buſineſs to ſee that their children be daily carried abroad, and that they be kept in the open air for a ſufficient time. This will always ſucceed better if the mother goes along with them. Servants are often negligent in theſe matters, and allow a child to ſit or lie on the damp ground, inſtead of leading or carrying it about. The mother ſurely needs air as well as her children: and how can ſhe be better employed than in attending them?

A very bad cuſtom prevails, of making children ſleep in ſmall apartments, or crowding two or three beds into one chamber. Inſtead of this, the nurſery ought always to be the largeſt and beſt aired room in the houſe. When children are confined in ſmall apartments, the air not only becomes unwholeſome, but the heat relaxes their ſolids, renders them delicate, and diſpoſes them to colds and many other diſorders. Nor is the cuſtom of wrapping them up too cloſe in cradles leſs pernicious. One would think that nurſes were afraid leſt children ſhould ſuffer by breathing free air, as many of them actually cover the child's face while aſleep, and others wrap a covering over the whole cradle, by which means the child is forced to breathe the ſame air over and over all the time it ſleeps. Cradles indeed are on many accounts hurtful to children, and it would be better if the uſe of them were totally laid aſide.

A child is generally laid to ſleep with all its clothes on; and if a number of others are heaped above them, it muſt be overheated; by which means it cannot fail to catch cold on being taken out of the cradle, and expoſed to the open air with only its uſual clothing, which is too frequently the caſe.

Children who are kept within doors all day, and ſleep all night in warm, cloſe apartments, may, with great propriety, be compared to plants nurſed in a hot-houſe, inſtead of the open air. Though ſuch plants may by this means be kept alive for ſome time, they will never arrive at that degree of ſtrength, vigour, and magnitude, which they would have acquired in the open air, nor would they be able to bear it afterwards, ſhould they be expoſed to it.

Children brought up in the country, who have been accuſtomed to open air, ſhould not be too early ſent to great towns, where it is confined and unwholeſome. This is frequently done with a view to forward their education, but proves very hurtful to their health. All ſchools and ſeminaries of learning, ought, if poſſible, to be ſo ſituated as to have freſh, dry, wholeſome air, and ſhould never be too much crowded.

Without entering into a detail of the particular advantages of wholeſome air to children, or of the bad conſequences which proceed from the want of it, I ſhall only obſerve, that, of ſeveral thouſands of children which have been under my care, I do not remember one inſtance of a ſingle child who continued healthy in a cloſe confined ſituation; but have often known the moſt obſtinate diſeaſes cured by removing them from ſuch a ſituation to an open free air. Infants apparently expiring in convulſion fits have been recovered by being removed into the freſh air, and by being diveſted of the many folds of flannel in which they were rolled and muffled,

OF NURSES.

It is not here intended to lay down rules for the choice of nurſes: this would be waſting time. Common ſenſe will direct every one to chuſe a woman who is healthy, and has plenty of milk. If ſhe be at the ſame time cleanly, careful, and good-natured, ſhe can hardly fail to make a proper nurſe. After all, however, the only certain proof of a good nurſe, is a healthy child upon her breaſt. But, as the miſconduct of nurſes often proves fatal to children, it will be of importance to point out a few of their moſt baneful errors, in order to rouſe the attention of parents, and to make them look more ſtrictly into the conduct of thoſe to whom they commit the care of their infant offspring.

Though it admits of ſome exceptions, yet we may lay it down as a general rule, *that every woman who nurſes for hire ſhould be carefully looked after, otherwiſe ſhe will not do her duty*. For this reaſon parents ought always to have their children nurſed under their own eye, if poſſible; and where this cannot be done, they ſhould be extremely circumſpect in the choice of thoſe perſons to whom they intruſt them. It is folly to imagine that any woman who abandons her own child to ſuckle another for the ſake of gain ſhould feel all the affections of a parent towards her nurſling: yet ſo neceſſary are the affections in a nurſe, that but for them the human race would ſoon be extinct.

One of the moſt common faults of thoſe who nurſe for hire, is dozing children with ſtupefactives, or ſuch things as lull them aſleep. An indolent nurſe, who does not give a child ſufficient exerciſe in the open air to make it ſleep, and does not chuſe to be diſturbed by it in the night, will ſeldom fail to procure for it a doſe of laudanum, diacodium, ſaffron, or, what anſwers the ſame purpoſe, a doſe of ſpirits, or other ſtrong liquors. Theſe, though they be certain poiſon to infants, are every day adminiſtered by many who bear the character of very good nurſes; but if a mother on viſiting her child at nurſe finds it always aſleep, I would adviſe her to remove it immediately, otherwiſe it will ſoon ſleep its laſt.

A nurſe who has not milk enough is apt to imagine that this defect may be ſupplied by giving the child wines, cordial waters, or other ſtrong liquors. This is an egregious miſtake. The only thing that has any chance to ſupply the place of the nurſe's milk muſt be ſomewhat nearly of the ſame quality, as cow's milk, aſs's milk, or beef tea, with a little bread. It never can be done by the help of ſtrong liquors. Theſe, inſtead of nouriſhing an infant, never fail to produce the contrary effect.

Children are often hurt by nurſes ſuffering them to cry long and vehemently. This ſtrains their tender bodies, and frequently occaſions ruptures, inflammations of the throat, lungs, &c. A child never continues to cry long without ſome cauſe, which might always be diſcovered by proper attention; and the nurſe who can hear an infant cry till it has almoſt ſpent itſelf, without endeavouring to pleaſe it, muſt be cruel indeed, and is unworthy to be entruſted with the care of a human creature.

Nurſes who deal much in medicine are always to be ſuſpected.

They truſt to it, and neglect their duty. I never knew a good nurſe who had her Godfrey's cordial, Daffy's elixirs, Dalby's carminative, &c. at hand. Such generally imagine, that a doſe of medicine will make up for all defects in food, air, exerciſe, and cleanlineſs. By errors of this kind, I will venture to ſay that one half the children who die annually in London loſe their lives.

Allowing children to continue long wet, is another very pernicious cuſtom of indolent nurſes. This is not only diſagreeable, but it galls and frets the infant, and by relaxing the ſolids, occaſions ſcrophulas, rickets, and other diſeaſes. A dirty nurſe is always to be ſuſpected.

Nature often attempts to free the bodies of children from bad humours, by throwing them upon the ſkin: by this means fevers and other diſeaſes are prevented. Nurſes are apt to miſtake ſuch critical eruptions for an itch, or ſome other infectious diſorder. Accordingly they take every method to drive them in. In this way many children loſe their lives; and no wonder, as Nature is oppoſed in the very method ſhe takes to relieve them. It ought to be a rule, which every nurſe ſhould obſerve, never to ſtop any eruption without proper advice, or being well aſſured that it is not of a critical nature. At any rate it is never to be done without previous evacuations.

Looſe ſtools is another method by which Nature often prevents or carries off the diſeaſes of infants. If theſe proceed too far, no doubt they ought to be checked; but this is never to be done without the greateſt caution. Nurſes, upon the firſt appearance of looſe ſtools, frequently fly to the uſe of aſtringents, or ſuch things as bind the body. Hence inflammatory fevers, and other fatal diſeaſes, are occaſioned. A doſe of rhubarb, a gentle vomit, or ſome other evacuation, ſhould always precede the uſe of aſtringent medicines.

One of the greateſt faults of nurſes is, concealing the diſeaſes of children from their parents. This they are extremely ready to do, eſpecially when the diſeaſe is the effect of their own negligence. Many inſtances might be given of perſons who have been rendered lame for life by a fall from their nurſe's arms, which ſhe, through fear, concealed till the misfortune was paſt cure. Every parent who intruſts a nurſe with the care of a child, ought to give her the ſtricteſt charge not to conceal the moſt trifling diſorder or misfortune that may befall it.

We can ſee no reaſon why a nurſe, who conceals any misfortune which happens to a child under her care till it loſes its life or limbs, ſhould not be puniſhed. A few examples of this would ſave the lives of many infants; but as there is little reaſon to expect that it will ever be the caſe, we would earneſtly recommend it to all parents to look carefully after their children, and not to truſt ſo valuable a treaſure entirely in the hands of a hireling.

No perſon ought to imagine theſe things unworthy of his attention. On the proper management of children depend not only their health and uſefulneſs in life, but likewiſe the ſafety and proſperity of the ſtate to which they belong. Effeminacy ever will prove the ruin of any ſtate where it prevails; and, when its foundations are laid in infancy, it can never afterwards be wholly eradicated. Parents who

love their offspring, and wiſh well to their country, ought therefore, in the management of their children, to avoid every thing that may have a tendency to make them weak or effeminate, and to take every method in their power to render their conſtitutions ſtrong and hardy.

———By arts like theſe
Laconia nurs'd of old her hardy ſons;
And Rome's unconquer'd legions urg'd their way,
Unhurt, thro' every toil in every clime. ARMSTRONG.

CHAP. II.

OF THE LABORIOUS, THE SEDENTARY, AND THE STUDIOUS.

THAT men are expoſed to particular diſeaſes from the occupations which they follow, is a fact well known; but to remedy this evil is a matter of ſome difficulty. Moſt people are under the neceſſity of following thoſe employments to which they have been bred, whether they be favourable to health or not. For this reaſon, inſtead of inveighing in a general way, as ſome authors have done, againſt thoſe occupations which are hurtful to health, we ſhall endeavour to point out the circumſtances in each of them from which the danger chiefly ariſes, and to propoſe the moſt rational methods of preventing it.

Chemiſts, founders, forgers, glaſs-makers, and ſeveral other artiſts, are hurt by the unwholeſome air which they are obliged to breathe. This air is not only loaded with the noxious exhalations ariſing from metals and minerals, but is ſo charged with phlogiſton as to be rendered unfit for expanding the lungs ſufficiently, and anſwering the other important purpoſes of reſpiration. Hence proceed aſthmas, coughs, and conſumptions of the lungs, ſo incident to perſons who follow theſe employments.

To prevent ſuch conſequences, as far as poſſible, the places where theſe occupations are carried on ought to be conſtructed in ſuch a manner as to diſcharge the ſmoke and other exhalations, and admit a free current of freſh air. Such artiſts ought never to continue long at work; and when they give over, they ſhould ſuffer themſelves to cool gradually, and put on their clothes before they go into the open air. They ought never to drink large quantities of cold, weak, or watery liquors, while their bodies are hot, nor to indulge in raw fruits, ſalads, or any thing that is cold on the ſtomach. Yet when perſons heated with labour have drank cold liquor, they ought to continue at work for ſome time after.

Miners, and all who work under ground, are likewiſe hurt by unwholeſome air. The air, by its ſtagnation in deep mines, not only loſes its proper ſpring and other qualities neceſſary for reſpiration, but is often loaded with ſuch noxious exhalations as to become a moſt deadly poiſon.

The two kinds of air which prove moſt deſtructive to miners, are what they call the *fire-damp* and the *choke-damp*. In both caſes the air becomes a poiſon by its being loaded with phlogiſton. The dan-

ger from the former may be obviated by making it explode before it accumulates in too great quantities; and the latter may be generally carried off by promoting a free circulation of air in the mine.

Miners are not only hurt by unwholeſome air, but likewiſe by the particles of metal which adhere to their ſkin, clothes, &c. Theſe are abſorbed, or taken up into the body, and occaſion palſies, vertigoes, and other nervous affections, which often prove fatal. Fallopius obſerves, that thoſe who work in mines of mercury ſeldom live above three or four years. Lead, and ſeveral other metals, are likewiſe very pernicious to the health.

Miners ought never to go to work faſting, nor to continue too long at work. Their food ought to be nouriſhing, and their liquor generous: nothing more certainly hurts them than living too low. They ſhould by all means avoid coſtiveneſs. This may either be done by chewing a little rhubarb, or taking a ſufficient quantity of ſalad oil. Oil not only opens the body, but ſheathes and defends the inteſtines from the ill effects of the metals. All who work in mines or metals ought to waſh carefully, and to change their clothes as ſoon as they give over working. Nothing would tend more to preſerve the health of ſuch people than a ſtrict and almoſt religious regard to cleanlineſs.

Plumbers, painters, gilders, ſmelters, makers of white lead, and many others who work in metals, are liable to the ſame diſeaſes as miners, and ought to obſerve the ſame directions for avoiding them.

Tallow-chandlers, boilers of oil, and all who work in putrid animal ſubſtances, are likewiſe liable to ſuffer from the unwholeſome ſmells or effluvia of theſe bodies. They ought to pay the ſame regard to cleanlineſs as miners; and when they are affected with nauſea, ſickneſs, or indigeſtion, we would adviſe them to take a vomit or a gentle purge. Such ſubſtances ought always to be manufactured as ſoon as poſſible. When long kept, they not only become unwholeſome to thoſe who manufacture them, but likewiſe to people who live in the neighbourhood.

It would greatly exceed the limits of this part of our ſubject, to ſpecify the diſeaſes peculiar to perſons of every occupation; we ſhall therefore conſider mankind under the general claſſes of *Laborious, Sedentary*, and *Studious*.

THE LABORIOUS.

Though thoſe who follow laborious employments are in general the moſt healthy of mankind, yet the nature of their occupations, and the places where they are carried on, expoſe them more particularly to ſome diſeaſes. Huſbandmen, for example, are expoſed to all the viciſſitudes of the weather, which, in this country, are often very great and ſudden, and occaſion colds, coughs, quinſies, rheumatiſms, fevers, and other acute diſorders. They are likewiſe forced to work hard, and often to carry burdens above their ſtrength, which, by overſtraining the veſſels, occaſion aſthmas, ruptures, pleuriſies, &c.

Thoſe who labour without doors are often afflicted with intermitting fevers or agues, occaſioned by the frequent viciſſitudes of heat and cold, poor living, bad water, ſitting or lying on the damp

ground, evening dews, night air, &c. to which they are frequently expoſed.

Such as bear heavy burdens, as porters, labourers, &c. are obliged to draw in the air with much greater force, and alſo to keep their lungs diſtended with more violence than neceſſary for common reſpiration: by this means the tender veſſels of the lungs are overſtretched, and often burſt, inſomuch that a ſpitting of blood or fever enſues. Hippocrates mentions an inſtance to this purpoſe, of a man, who, upon a wager, carried an aſs; but was ſoon after ſeized with a fever, a vomiting of blood, and a rupture.

Carrying heavy burdens is generally the effect of mere lazineſs, which prompts people to do at once what ſhould be done at twice. Sometimes it proceeds from vanity or emulation. Hence it is, that the ſtrongeſt men are moſt commonly hurt by heavy burdens, hard labour, or feats of activity. It is rare to find one who boaſts of his ſtrength without a rupture, a ſpitting of blood, or ſome other diſeaſe, which he reaps as the fruit of his folly. One would imagine the daily inſtances we have of the fatal effects of carrying great weights, running, wreſtling, and the like, would be ſufficient to prevent ſuch practices.

There are indeed ſome employments which neceſſarily require a great exertion of ſtrength; as porters, blackſmiths, carpenters, &c. None ought to follow theſe but men of ſtrong body; and they ſhould never exert their ſtrength to the utmoſt, nor work too long. When the muſcles are violently ſtrained, frequent reſt is neceſſary, in order that they may recover their tone; without this, the ſtrength and conſtitution will ſoon be worn out, and a premature old age be induced.

The eryſipelas, or St. Anthony's fire, is a diſeaſe very incident to the laborious. It is occaſioned by whatever gives a ſudden check to the perſpiration, as drinking cold water when the body is warm, wet feet, keeping on wet clothes, ſitting or lying on the damp ground, &c. It is impoſſible for thoſe who labour without doors always to guard againſt theſe inconveniences; but it is known from experience that their ill conſequences might often be prevented by proper care.

The iliac paſſion, the colic, and other complaints of the bowels, are often occaſioned by the ſame cauſes as the eryſipelas; but they may likewiſe proceed from flatulent and indigeſtible food. Labourers generally eat unfermented bread, made of peaſe, beans, rye, and other windy ingredients. They alſo devour great quantities of unripe fruits, baked, ſtewed, or raw, with various kinds of roots and herbs, upon which they often drink ſour milk, ſtale ſmall beer, or the like. Such a mixture cannot fail to fill the bowels with wind, and occaſion diſeaſes of thoſe parts.

Inflammations, whitloes, and other diſeaſes of the extremities, are likewiſe common among thoſe who labour without doors. Theſe diſeaſes are often attributed to venom, or ſome kind of poiſon; but they generally proceed either from ſudden heat after cold, or the contrary. When labourers, milk-maids, &c. come from the field cold or wet, they run to the fire, and often plunge their hands in

warm water, by which means the blood and other humours in thoſe parts are ſuddenly expanded, and, the veſſels not yielding ſo quickly, a ſtrangulation happens, and an inflammation or a mortification enſues.

When ſuch perſons come home cold, they ought to keep at a diſtance from the fire for ſome time, to waſh their hands in cold water, and to rub them well with a dry cloth. It ſometimes happens, that people are ſo benumbed with cold, as to be quite deprived of the uſe of their limbs. In this caſe the only remedy is to rub the parts affected with ſnow, or, where it cannot be had, with cold water. If they be held near the fire, or plunged into warm water, a mortification will generally enſue.

Labourers in the hot ſeaſon are apt to lie down aſleep in the ſun. This practice is ſo dangerous, that they often awake in a burning fever. Theſe ardent fevers, which prove ſo fatal about the end of ſummer and beginning of autumn, are frequently occaſioned by this means. When labourers leave off work, which they ought always to do during the heat of the day, they ſhould go home, or at leaſt get under ſome cover where they may repoſe themſelves in ſafety.

Many people follow their employments in the fields from morning till night, without eating any thing. This cannot fail to hurt their health. However homely their fare be, they ought to have it at regular times; and the harder they work, the more frequently they ſhould eat. If the humours be not frequently repleniſhed with freſh nouriſhment, they ſoon become putrid, and produce fevers of the very worſt kind.

Many labourers are extremely careleſs with reſpect to what they eat or drink, and often, through mere indolence, uſe unwholeſome food, when they might, for the ſame expence, have that which is wholeſome. In ſome parts of Britain, the peaſants are too careleſs even to take the trouble of dreſſing their own victuals. Such people would live upon one meal a-day in indolence, rather than labour, though it were to procure them the greateſt affluence.

Fevers of a very bad kind are often occaſioned among labourers by *poor living*. When the body is not ſufficiently nouriſhed, the humours become vitiated, and the ſolids weak; from whence the moſt fatal conſequences enſue. *Poor living* is likewiſe productive of many of thoſe cutaneous diſeaſes ſo frequent among the lower claſs of people. It is remarkable that cattle, when pinched in their food, are generally affected with diſeaſes of the ſkin, which ſeldom fail to diſappear when they are put upon a good paſture. This ſhews how much a good ſtate of the humours depends upon a ſufficient quantity of proper nouriſhment.

Poverty not only occaſions, but aggravates, many of the diſeaſes of the laborious. Few of them have much foreſight; and, if they had, it is ſeldom in their power to ſave any thing. They are glad to make a ſhift to live from day to day; and when any diſeaſe overtakes them, they are miſerable indeed. Here the godlike virtue of charity ought always to exert itſelf. To relieve the induſtrious poor in diſ-

treſs, is ſurely the moſt exalted act of religion and humanity. They alone, who are witneſſes of thoſe ſcenes of calamity, can form a notion of what numbers periſh in diſeaſes for want of proper aſſiſtance, and even for want of the neceſſaries of life.

Labourers are often hurt by a fooliſh emulation, which prompts them to vie with one another, till they overheat themſelves to ſuch a degree as to occaſion a fever, or even to drop down dead. Such as wantonly throw away their lives in this manner, deſerve to be looked upon in no better light than ſelf-murderers.

The office of a *ſoldier*, in time of war, may be ranked among the laborious employments. Soldiers ſuffer many hardſhips from the inclemency of ſeaſons, long marches, bad proviſions, hunger, watching, unwholeſome climates, bad water, &c. Theſe occaſion fevers, fluxes, rheumatiſms, and other fatal diſeaſes, which generally do greater execution than the ſword, eſpecially when campaigns are continued too late in the year.

Thoſe who have the command of armies ſhould take care that their ſoldiers be well clothed and well fed. They ought alſo to finiſh their campaigns in due ſeaſon, and to provide their men with dry and well-aired winter quarters. Theſe rules, taking care, at the ſame time, to keep the ſick at a proper diſtance from thoſe in health, would tend greatly to preſerve the lives of the ſoldiery.

It is indeed to be regretted, that ſoldiers ſuffer not leſs from indolence and intemperance in time of peace, than from hardſhips in time of war. If men are idle, they will be vicious; it would therefore be of great importance, could a ſcheme be formed for rendering the military, in times of peace, both more healthy and more uſeful. Theſe deſirable objects might, in our opinion, be obtained, by employing them for ſome hours every day, and advancing their pay accordingly. By this means, idleneſs, the mother of vice, might be prevented; the price of labour lowered; public works, as harbours, canals, turnpike roads, &c. might be made without hurting manufactures; and ſoldiers might be enabled to marry and bring up children. A ſcheme of this kind might eaſily be conducted, ſo as not to depreſs the martial ſpirit, provided the men were only to work four or five hours every day, and always to work without doors; no ſoldiers ſhould be ſuffered to work too long, nor to follow any ſedentary employment. Sedentary employments render men weak and effeminate, quite unfit for the hardſhips of war: whereas working for a few hours every day without doors would inure them to the weather, brace their nerves, and increaſe the ſtrength and courage.

Sailors may alſo be numbered among the laborious. They undergo great hardſhips from change of climate, the violence of the weather, hard labour, bad proviſions, &c. Sailors are of ſo great importance both to the trade and ſafety of this kingdom, that too much pains can never be beſtowed in pointing out the means of preſerving their lives.

One great ſource of the diſeaſes of ſea-faring people, is exceſs. When they get on ſhore, after having been long at ſea, without regard to the climate or their own conſtitutions, they plunge head-

long into all manner of riot, and often perſiſt till a fever puts an end to their lives. Thus intemperance, and not the climate, is often the cauſe why ſo many of our brave ſailors die on foreign coaſts. Such people ought not to live too low; but they will find moderation the beſt defence againſt fevers and many other maladies.

Sailors, when on duty, cannot avoid ſometimes getting wet. When this happens, they ſhould change their clothes as ſoon as they are relieved, and take every method to reſtore the perſpiration. They ſhould not, in this caſe, make too free with ſpirits or other ſtrong liquors, but ſhould rather drink them diluted with warm water, and go immediately to bed, where a ſound ſleep and a gentle ſweat would ſet all to rights.

But the health of ſailors ſuffers moſt from unwholeſome food. The conſtant uſe of ſalted proviſions vitiates their humors, and occaſions the ſcurvy, and other obſtinate maladies. It is no eaſy matter to prevent this diſeaſe in long voyages; yet we cannot help thinking, that much might be done towards effecting ſo deſirable an end, were due pains beſtowed for that purpoſe. For example, various roots, greens, and fruits, might be kept a long time at ſea, as onions, potatoes, cabbages, lemons, oranges, tamarinds, apples, &c. When fruits cannot be kept, the juices of them, either freſh or fermented, may. With theſe all the drink, and even the food of the ſhip's company, ought to be acidulated in long voyages.

Stale bread and beer likewiſe contribute to vitiate the humours. Flour will keep for a long time on board, of which freſh bread might frequently be made. Malt too might be kept, and infuſed with boiling water at any time. This liquor, when drank even in form of wort, is very wholeſome, and is found to be an antidote againſt the ſcurvy. Small wines and cyder might likewiſe be plentifully laid in; and ſhould they turn ſour, they would ſtill be uſeful as vinegar. Vinegar is a great antidote againſt diſeaſes, and ſhould be uſed by all travellers, eſpecially at ſea. It may either be mixed with the water they drink, or taken in their food.

Such animals as can be kept alive ought likewiſe to be carried on board, as hens, ducks, pigs, &c. Freſh broths made of portable ſoup, and puddings made of peaſe or other vegetables, ought to be uſed plentifully. Many other things will readily occur to people converſant in theſe matters, which would tend to preſerve the health of that brave and uſeful ſet of men.

The principal means, employed with remarkable ſucceſs by our celebrated circumnavigator Captain Cooke, were ſtrict attention to cleanlineſs, procuring abundance of vegetable aliment and freſh proviſions, eſpecially good water. In dry weather his people aired their hammocks, and were allowed at all times a ſufficient time for reſt.

We have reaſon to believe, if due attention were paid to the diet, air, clothing, and above all things to the cleanlineſs of ſea-faring people, they would be the moſt healthy ſet of men in the world; but when theſe are neglected, the very reverſe will happen.

The beſt *medical antidote* that we can recommend to ſailors or ſoldiers on foreign coaſts, eſpecially where dampneſs prevails, is the

Peruvian bark: this will often prevent fevers, and other fatal diſeaſes. About a drachm of it may be chewed every day; or if this ſhould prove diſagreeable, an ounce of bark, with half an ounce of orange peel, and two drachms of ſnake root coarſely powdered, may be infuſed for two or three days in an Engliſh quart of brandy, and half a wine glaſs of it taken twice or thrice a-day, when the ſtomach is empty. This has been found to be an excellent antidote againſt fluxes, putrid, intermitting, and other fevers, in unhealthy climates. It is not material in what form this medicine is taken. It may either be infuſed in water, wine, or ſpirits, as recommended above, or made into an electuary with ſyrup of lemons, oranges, or the like.

THE SEDENTARY.

Though nothing can be more contrary to the nature of man than a ſedentary life, yet this claſs comprehends by far the greater part of the ſpecies. Almoſt the whole female world, and in manufacturing countries the major part of the males, may be reckoned ſedentary.

The appellation of ſedentary has generally been given only to the ſtudious; we can ſee no reaſon, however, for reſtricting it to them alone. Many artificers may, with as much propriety, be denominated ſedentary as the ſtudious, with this particular diſadvantage, that they are often obliged to ſit in very awkward poſtures, which the ſtudious need not do, unleſs they pleaſe.

Agriculture, the firſt and moſt healthful of all employments, is now followed by few who are able to carry on any other buſineſs. But thoſe who imagine that the culture of the earth is not ſufficient to employ all its inhabitants, are greatly miſtaken. An ancient Roman, we are told, could maintain his family from the produce of one acre of ground. So might a modern Briton, if he would be contented to live like a Roman. This ſhews what an immenſe increaſe of inhabitants Britain might admit of, and all of them live by the culture of the ground.

Agriculture is the great ſource of domeſtic riches. Where it is neglected, whatever wealth may be imported from abroad, poverty and miſery will abound at home. Such is, and ever will be, the fluctuating ſtate of trade and manufactures, that thouſands of people may be in full employment to-day and in beggary to-morrow. This can never happen to thoſe who cultivate the ground. They can eat the fruit of their labour, and can always by induſtry obtain, at leaſt, the neceſſaries of life.

Though ſedentary employments are neceſſary, yet there ſeems to be no reaſon why any perſon ſhould be confined for life to theſe alone. Were ſuch employments intermixed with the more active and laborious, they would never do hurt. It is conſtant confinement that ruins the health. A man may not be hurt by ſitting five or ſix hours a-day; but if he is obliged to ſit ten or twelve, he will ſoon become a prey to diſeaſe.

But it is not want of exerciſe alone which hurts ſedentary people: they likewiſe ſuffer from the confined air which they breathe. It is very common to ſee ten or a dozen taylors, for example, crowded

into one ſmall apartment, where there is hardly room for one perſon to breathe freely. In this ſituation they generally continue for many hours at a time, often with the addition of ſeveral candles, which tend likewiſe to waſte the air, and render it leſs fit for reſpiration. Air that is breathed repeatedly becomes unfit for expanding the lungs. This is one cauſe of the phthiſical coughs, and other complaints of the breaſt, ſo incident to ſedentary artificers.

Even the perſpiration from a great number of perſons pent up together renders the air unwholeſome. The danger from this quarter will be greatly increaſed, if any one of them happens to have bad lungs, or to be otherwiſe diſeaſed. Thoſe who ſit near him, being forced to breathe the ſame air, can hardly fail to be infected. It would be a rare thing, however, to find a dozen of ſedentary people all in good health. The danger of crowding them together muſt therefore be evident to every one.

Many of thoſe who follow ſedentary employments are conſtantly in a bending poſture, as ſhoemakers, taylors, cutlers, &c. Such a ſituation is extremely hurtful. A bending poſture obſtructs all the vital motions, and of courſe muſt deſtroy the health. Accordingly we find ſuch artificers generally complaining of indigeſtions, flatulences, head-achs, pains of the breaſt, &c.

The aliment in ſedentary people, inſtead of being puſhed forwards by an erect poſture and the action of the muſcles, is in a manner confined in the bowels. Hence indigeſtions, coſtiveneſs, wind, and other hypochondriacal affections, the conſtant companions of the ſedentary. Indeed none of the excretions can be duly performed where exerciſe is wanting; and when the matter which ought to be diſcharged in this way is retained too long in the body, it muſt have bad effects, as it is again taken up into the maſs of humours.

A bending poſture is likewiſe hurtful to the lungs. When this organ is compreſſed, the air cannot have free acceſs into all its parts, ſo as to expand them properly. Hence tubercles, adheſions, &c. are formed, which often end in conſumptions. Beſides, the proper action of the lungs being abſolutely neceſſary for making good blood, when that organ fails, the humours ſoon become univerſally depraved, and the whole conſtitution goes to wreck.

Sedentary artificers are not only hurt by preſſure on the bowels but alſo on the inferior extremities, which obſtructs the circulation in theſe parts, and renders them weak and feeble. Thus taylors, ſhoemakers, &c. frequently loſe the uſe of their legs altogether; beſides, the blood and humours are, by ſtagnation, vitiated, and the perſpiration is obſtructed; from whence proceed the ſcab, ulcerous ſores, foul blotches, and other cutaneous diſeaſes, ſo common among this claſs of the community.

A bad figure of body is a very common conſequence of cloſe application to ſedentary employments. The ſpine, for example, by being continually bent, puts on a crooked ſhape, and generally remains ſo ever after. But a bad figure of body has already been obſerved to be hurtful to health, as the vital functions are thereby impeded.

A ſedentary life ſeldom fails to occaſion an univerſal relaxation of

the ſolids. This is the great ſource from whence moſt of the diſeaſes of ſedentary people flow. The ſcrophula, conſumption, hyſterics, and nervous diſeaſes, now ſo common, were very little known in this country before ſedentary artificers became ſo numerous; and they are very little known ſtill among ſuch of our people as follow active employments without doors, though in great towns at leaſt two thirds of the inhabitants are afflicted with them.

It is very difficult to remedy thoſe evils, becauſe many who have been accuſtomed to a ſedentary life, like ricketty children, loſe all inclination for exerciſe; we ſhall, however, throw out a few hints with reſpect to the moſt likely means for preſerving the health of this uſeful ſet of people, which ſome of them, we hope, will be wiſe enough to pay attention to.

It has been already obſerved, that ſedentary artificers are often hurt by their bending poſture. They ought therefore to ſtand or ſit as erect as the nature of their employments will permit. They ſhould likewiſe change their poſture frequently, and ſhould never ſit too long at a time, but leave off work, and walk, ride, run, or do any thing that will promote the vital motions.

Sedentary artificers are generally allowed too little time for exerciſe; yet ſhort as it is, they ſeldom employ it properly. A journeyman taylor or weaver, for example, inſtead of walking abroad for exerciſe and freſh air at his hours of leiſure, chuſes often to ſpend them in a public-houſe, or in playing at ſome ſedentary game, by which he generally loſes both his time and his money.

The awkward poſtures in which many ſedentary artificers work, ſeem rather to be the effect of cuſtom than neceſſity. For example, a table might ſurely be contrived for ten or a dozen taylors to ſit round with liberty for their legs either to hang down, or reſt upon a foot-board, as they ſhould chuſe. A place might likewiſe be cut out for each perſon, in ſuch a manner that he might ſit as conveniently for working as in the preſent mode of ſitting croſs-legged.

All ſedentary artificers ought to pay the moſt religious regard to cleanlineſs. Both their ſituations and occupations render this highly neceſſary. Nothing would contribute more to preſerve their health, than a ſtrict attention to it; and ſuch of them as neglect it, not only run the hazard of loſing health, but of becoming a nuiſance to their neighbourhood and friends.

Sedentary people ought to avoid food that is windy or hard of digeſtion, and ſhould pay the ſtricteſt regard to ſobriety. A perſon who works hard without doors will ſoon throw off a debauch; but one who ſits has by no means an equal chance. Hence it often happens, that ſedentary people are ſeized with fevers after hard drinking. When ſuch perſons feel their ſpirits low, inſtead of running to the tavern for relief, they ſhould ride or walk in the fields. This would remove the complaint more effectually than ſtrong liquor, and would never hurt the conſtitution.

Inſtead of multiplying rules for preſerving the health of the ſedentary, we ſhall recommend to them the following general plan, viz. That every perſon who follows a ſedentary employment ſhould culti-

vate a piece of ground with his own hands. This he might dig, plant, ſow, and weed at leiſure hours, ſo as to make it both an exerciſe and amuſement, while it produced many of the neceſſaries of life. After working an hour in a garden, a man will return with more keenneſs to his employment within doors, than if he had been all the while idle.

Labouring the ground is every way conducive to health. It not only gives exerciſe to every part of the body, but the very ſmell of the earth and freſh herbs revives and cheers the ſpirits, whilſt the perpetual proſpect of ſomething coming to maturity delights and entertains the mind. We are ſo formed as to be always pleaſed with ſomewhat in proſpect, however diſtant, or however trivial. Hence the happineſs that moſt men feel in planting, ſowing, building, &c. Theſe ſeem to have been the chief employments of the more early ages: and, when kings and conquerors cultivated the ground, there is reaſon to believe that they knew as well wherein true happineſs conſiſted as we do.

It may ſeem romantic to recommend gardening to manufacturers in great towns; but obſervation proves that the plan is very practicable. In the town of Sheffield, in Yorkſhire, where the great iron manufacture is carried on, there is hardly a journeyman cutler who does not poſſeſs a piece of ground, which he cultivates as a garden. This practice has many ſalutary effects. It not only induces theſe people to take exerciſe without doors, but alſo to eat many greens, roots, &c. of their own growth, which they would never think of purchaſing. There can be no reaſon why manufacturers in any other town in Great Britain ſhould not follow the ſame plan.

Mechanics are too much inclined to crowd into great towns. The ſituation may have ſome advantages; but it has likewiſe many diſadvantages. All mechanics who live in the country have it in their power to cultivate a piece of ground; which indeed moſt of them do. This not only gives them exerciſe, but enables them to live more comfortably. So far at leaſt as my obſervation extends, mechanics who live in the country are far more happy than thoſe in great towns. They enjoy better health, live in greater affluence, and ſeldom fail to rear a healthy and numerous offspring.

In a word, exerciſe without doors, in one ſhape or another, is abſolutely neceſſary to health. Thoſe who neglect it, though they may for a while drag out life, can hardly be ſaid to enjoy it. Their humours are generally vitiated, their ſolids relaxed, and their ſpirits languid and depreſſed.

THE STUDIOUS.

Intenſe thinking is ſo deſtructive to health, that few inſtances can be produced of ſtudious perſons who are ſtrong and healthy. Hard ſtudy always implies a ſedentary life; and when intenſe thinking is joined to the want of exerciſe, the conſequences muſt be bad. We have frequently known even a few months of cloſe application to ſtudy ruin an excellent conſtitution, by inducing a train of nervous complaints which never could be removed. Man is evidently not formed for continual thought more than for perpetual action, and would be as ſoon worn out by the one as by the other.

So great is the power of the mind over the body, that, by its influence, the whole vital motions may be accelerated or retarded to almoſt any degree. Thus cheerfulneſs and mirth quicken the circulation, and promote all the ſecretions; whereas ſadneſs and profound thought never fail to retard them. Hence it would appear, that even a degree of thoughtleſſneſs is neceſſary to health. Indeed the perpetual thinker ſeldom enjoys either health or ſpirits; while the perſon who can hardly be ſaid to think at all, generally enjoys both.

Perpetual thinkers, as they are called, ſeldom think long. In a few years they generally become quite ſtupid, and exhibit a melancholy proof how readily the greateſt bleſſings may be abuſed. Thinking, like every thing elſe, when carried to extreme, becomes a vice; nor can any thing afford a greater proof of wiſdom, than for a man frequently and ſeaſonably to unbend his mind. This may generally be done by mixing in cheerful company, active diverſions, or the like.

Inſtead of attempting to inveſtigate the nature of that connection which ſubſiſts between the mind and body, or to inquire into the manner in which they mutually affect each other, we ſhall only mention thoſe diſeaſes to which the learned are more peculiarly liable, and endeavour to point out the means of avoiding them.

Studious perſons are very ſubject to the gout. This painful diſeaſe in a great meaſure proceeds from indigeſtion, and an obſtructed perſpiration. It is impoſſible that the man who ſits from morning till night ſhould either digeſt his food, or have any of the ſecretions in due quantity. But when that matter which ſhould be thrown off by the ſkin is retained in the body, and the humours are not duly prepared, diſeaſes muſt enſue.

The ſtudious are likewiſe very liable to the ſtone and gravel. Exerciſe greatly promotes both the ſecretion and diſcharge of urine; conſequently a ſedentary life muſt have the contrary effect. Any one may be ſatisfied of this by obſerving that he paſſes much more urine by day than in the night, and alſo when he walks or rides, than when he ſits.

The circulation in the liver being ſlow, obſtructions in that organ can hardly fail to be the conſequence of inactivity. Hence ſedentary people are frequently afflicted with ſchirrous livers. But the proper ſecretion and diſcharge of the bile is ſo neceſſary a part of the animal œconomy, that where theſe are not duly performed, the health muſt ſoon be impaired. Jaundice, indigeſtion, loſs of appetite, and a waſting of the whole body, ſeldom fail to be the conſequences of a vitiated ſtate of the liver or obſtructions of the bile.

Few diſeaſes prove more fatal to the ſtudious than conſumptions of the lungs. It has already been obſerved, that this organ cannot be duly expanded in thoſe who do not take proper exerciſe; and where that is the caſe, obſtructions and adheſions will enſue. Not only want of exerciſe, but the poſture in which ſtudious perſons generally ſit, is very hurtful to the lungs. Thoſe who read or write much are ready to contract a habit of bending forwards, and often preſs with their breaſt upon a table or bench. This poſture cannot fail to hurt the lungs.

No perſon can enjoy health who does not properly digeſt his food. But intenſe thinking and inactivity never fail to weaken the powers of digeſtion. Hence the humours become crude and vitiated, the ſolids weak and relaxed, and the whole conſtitution goes to ruin.

Long and intenſe thinking often occaſions grievous head-achs, which bring on vertigoes, apoplexies, palſies, and other fatal diſorders. The beſt way to prevent theſe is, never to ſtudy too long at one time, and to keep the body regular, either by proper food, or taking frequently a little of ſome opening medicine.

Thoſe who read or write much are often afflicted with ſore eyes. Studying by candle-light is peculiarly hurtful to the ſight. This ought to be practiſed as ſeldom as poſſible. When it is unavoidable, the eyes ſhould be ſhaded, and the head ſhould not be held too low. When the eyes are weak or painful, they ſhould be bathed every night and morning in cold water, to which a little brandy may be added.

It has already been obſerved, that the excretions are very defective in the ſtudious. The dropſy is often occaſioned by the retention of thoſe humours which ought to be carried off in this way. Any perſon may obſerve, that ſitting makes his legs ſwell, and that this goes off by exerciſe; which clearly points out the method of prevention.

Fevers, eſpecially of the nervous kind, are often the effect of ſtudy. Nothing affects the nerves ſo much as intenſe thought. It in a manner unhinges the whole human frame, and not only hurts the vital motions, but diſorders the mind itſelf. Hence a delirium, melancholy, and even madneſs, are often the effect of cloſe application to ſtudy. In fine, there is no diſeaſe which can proceed either from a bad ſtate of the humours, a defect of the uſual ſecretions, or a debility of the nervous ſyſtem, which may not be induced by intenſe thinking.

The moſt afflicting of all the diſeaſes which attack the ſtudious is the hypochondriac. This diſeaſe ſeldom fails to be the companion of deep thought. It may rather be called a complication of maladies than a ſingle one. To what a wretched condition are the beſt of men often reduced by it! Their ſtrength and appetite fail; a perpetual gloom hangs over their minds; they live in the conſtant dread of death, and are continually in ſearch of relief from medicine, where, alas! it is not to be found. Thoſe who labour under this diſorder, though they are often made the ſubject of ridicule, juſtly claim our higheſt ſympathy and compaſſion.

Hardly any thing can be more prepoſterous than for a perſon to make ſtudy his ſole buſineſs. A mere ſtudent is ſeldom an uſeful member of ſociety. He often neglects the moſt important duties of life, in order to purſue ſtudies of a very trifling nature. Indeed, it rarely happens that any uſeful invention is the effect of mere ſtudy. The farther men dive into profound reſearches, they generally deviate the more from common ſenſe, and too often loſe ſight of it altogether. Profound ſpeculations, inſtead of making men wiſer or better, generally render them abſolute ſceptics, and overwhelm them with doubt and uncertainty. All that is neceſſary for man to know in order to be happy, is eaſily obtained; and the reſt, like the forbidden fruit, ſerves only to increaſe his miſery.

Studious perſons, in order to relieve their minds, muſt not only diſcontinue to read and write, but engage in ſome employment or diverſion that will ſo far occupy the thought as to make them forget the buſineſs of the cloſet. A ſolitary ride or walk is ſo far from relaxing the mind, that it rather encourages thought. Nothing can divert the mind when it gets into a train of ſerious thinking, but attention to ſubjects of a more trivial nature. Theſe prove a kind of play to the mind, and conſequently relieve it.

Learned men often contract a contempt for what they call trifling company. They are aſhamed to be ſeen with any but philoſophers. This however is no proof of their being philoſophers themſelves. No man deſerves that name who is aſhamed to unbend his mind, by aſſociating with the cheerful and gay. Even the ſociety of children will relieve the mind and expel the gloom which application to ſtudy is too apt to occaſion.

As ſtudious people are neceſſarily much within doors, they ſhould make choice of a large and well aired place for ſtudy. This would not only prevent the bad effects which attend confined air, but would cheer the ſpirits, and have a moſt happy influence both on the body and mind. It is ſaid of Euripides, the tragedian, that he uſed to retire to a dark cave to compoſe his tragedies; and of Demoſthenes, the Grecian orator, that he choſe a place for ſtudy where nothing could be either heard or ſeen. With all deference to ſuch venerable names, we cannot help condemning their taſte. A man may ſurely think to as good purpoſe in an elegant apartment as in a cave; and may have as happy conceptions where the all-cheering rays of the ſun render the air wholeſome, as in places where they never enter.

Thoſe who read or write much ſhould be very attentive to their poſture. They ought to ſit and ſtand by turns, always keeping as nearly in an erect poſture as poſſible. Thoſe who dictate, may do it walking. It has an excellent effect frequently to read or ſpeak aloud. This not only exerciſes the lungs, but almoſt the whole body. Hence ſtudious people are greatly benefited by delivering diſcourſes in public. Public ſpeakers, indeed, ſometimes hurt themſelves by overacting their part; but this is their own fault. The martyr to mere vociferation merits not our ſympathy.

The morning has, by all medical writers, been reckoned the beſt time for ſtudy. It is ſo. But it is alſo the moſt proper ſeaſon for exerciſe, while the ſtomach is empty, and the ſpirits refreſhed with ſleep. Studious people ſhould therefore ſometimes ſpend the morning in walking, riding, or ſome manly diverſions without doors. This would make them return to ſtudy with greater alacrity, and would be of more ſervice than twice the time after their ſpirits are worn out with fatigue. It is not ſufficient to take diverſion only when we can think no longer. Every ſtudious perſon ſhould make it a part of his buſineſs, and ſhould let nothing interrupt his hours of recreatio nmore than thoſe of ſtudy.

Muſic has a very happy effect in relieving the mind when fatigued with ſtudy. It would be well if every ſtudious perſon were ſo far acquainted with that ſcience as to amuſe himſelf after ſevere

thought by playing ſuch airs as have a tendency to raiſe the ſpirits, and inſpire cheerfulneſs and good humour.

It is a reproach to learning, that any of her votaries, to relieve the mind after ſtudy, ſhould betake themſelves to the uſe of ſtrong liquors. This indeed is a remedy; but it is a deſperate one, and always proves deſtructive. Would ſuch perſons, when their ſpirits are low, get on horſeback, and ride ten or a dozen miles, they would find it a more effectual remedy than any cordial medicine in the apothecary's ſhop, or all the ſtrong liquors in the world.

It is much to be regretted, that learned men, while in health, pay ſo little regard to theſe things. There is not any thing more common than to ſee a miſerable object over-run with nervous diſeaſes, bathing, walking, riding, and, in a word, doing every thing for health after it is gone; yet, if any one had recommended theſe things to him by way of prevention, the advice would, in all probability, have been treated with contempt, or, at leaſt, with neglect. Such is the weakneſs and folly of mankind, and ſuch the want of foreſight, even in thoſe who ought to be wiſer than others!

With regard to the diet of the ſtudious, we ſee no reaſon why they ſhould abſtain from any kind of food that is wholeſome, provided they uſe it in moderation. They ought, however, to be ſparing in the uſe of every thing that is windy, rancid, or hard of digeſtion. Their ſuppers ſhould always be light, or taken ſoon in the evening. Their drink may be water, fine malt liquor not too ſtrong, good cyder, wine and water, or, if troubled with acidities, water mixed with a little brandy, or any other genuine ſpirit.

We ſhall only obſerve, with regard to thoſe kinds of exerciſe which are moſt proper for the ſtudious, that they ſhould not be too violent, nor ever carried to the degree of exceſſive fatigue. They ought likewiſe to be frequently varied ſo as to give action to all the different parts of the body; and ſhould, as often as poſſible, be taken in the open air. In general, riding on horſeback, walking, working in a garden, or playing at ſome active diverſions, are the beſt.

We would likewiſe recommend the uſe of the cold bath to the ſtudious. It will, in ſome meaſure, ſupply the place of exerciſe, and ſhould not be neglected by perſons of a relaxed habit, eſpecially in the warm ſeaſon.

No perſon ought either to take violent exerciſe or to ſtudy immediately after a full meal.

CHAP. III.

OF ALIMENT.

UNWHOLESOME food and irregularities of diet occaſion many diſeaſes. There is no doubt but the whole conſtitution of body may be changed by diet alone. The fluids may be thereby attenuated or condenſed, rendered mild or acrimonious, coagulated or diluted, to almoſt any degree. Nor are its effects upon the ſolids leſs conſiderable. They may be braced or relaxed, have their ſenſibility, motions, &c.

greatly increaſed or diminiſhed, by different kinds of aliment. A very ſmall attention to theſe things will be ſufficient to ſhew how much the preſervation of health depends upon a proper regimen of the diet.

Nor is an attention to diet neceſſary for the preſervation of health only: it is likewiſe of importance in the cure of diſeaſes. Every intention in the cure of many diſeaſes may be anſwered by diet alone. Its effects, indeed, are not always ſo quick as thoſe of medicine, but they are generally more laſting: beſides, it is neither ſo diſagreeable to the patient, nor ſo dangerous as medicine, and is always more eaſily obtained.

Our intention here is not to inquire minutely into the nature and properties of the various kinds of aliment in uſe among mankind; nor to ſhew their effects upon the different conſtitutions of the human body; but to mark ſome of the moſt pernicious errors which people are apt to fall into, with reſpect both to the quantity and quality of their food, and to point out their influence upon health.

It is not indeed an eaſy matter to aſcertain the exact quantity of food proper for every age, ſex, and conſtitution: but a ſcrupulous nicety here is by no means neceſſary. The beſt rule is to avoid all extremes. Mankind were never intended to weigh and meaſure their food. Nature teaches every creature when it has enough; and the calls of thirſt and hunger are ſufficient to inform them when more is neceſſary.

Though *moderation* is the chief rule with regard to the quantity, yet the quality of food merits a farther conſideration. There are many ways by which proviſions may be rendered unwholeſome. Bad ſeaſons may either prevent the ripening of grain, or damage it afterwards. Theſe, indeed, are acts of Providence, and we muſt ſubmit to them; but ſurely no puniſhment can be too ſevere for thoſe who ſuffer proviſions to ſpoil by hoarding them on purpoſe to raiſe the price.

The poor, indeed, are generally the firſt who ſuffer by unſound proviſions; but the lives of the labouring poor are of great importance to the ſtate; beſides, diſeaſes occaſioned by unwholeſome food often prove infectious, by which means they reach people in every ſtation. It is therefore the intereſt of all to take care that no ſpoiled proviſions of any kind be expoſed to ſale.

Animal as well as vegetable food may be rendered unwholeſome by being kept too long. All animal ſubſtances have a conſtant tendency to putrefaction; and, when that has proceeded too far, they not only become offenſive to the ſenſes, but hurtful to the health. Diſeaſed animals, and ſuch as die of themſelves, ought never to be eaten. It is a common practice, however, in ſome grazing countries, for ſervants and poor people to eat ſuch animals as die of any diſeaſe, or are killed by accident. Poverty, indeed, may oblige people to do this; but they had better eat a ſmaller quantity of what is ſound and wholeſome: it would both afford a better nouriſhment, and be attended with leſs danger.

The injunctions given to the Jews, not to eat any creature which died of itſelf, ſeem to have a ſtrict regard to health; and ought to be

obſerved by Chriſtians as well as Jews. Animals never die themſelves without ſome previous diſeaſe; but how a diſeaſed animal ſhould be wholeſome food, is inconceivable: even thoſe which die by accident muſt be hurtful, as their blood is mixed with the fleſh, and ſoon turns putrid.

Animals which feed groſsly, as tame ducks, hogs, &c. are neither ſo eaſily digeſted, nor afford ſuch wholeſome nouriſhment, as others. No animal can be wholeſome which does not take ſufficient exerciſe. Moſt of our ſtalled cattle are crammed with groſs food, but not allowed exerciſe nor free air; by which means they indeed grow fat, but their juices, not being properly prepared or aſſimilated, remain crude, and occaſion indigeſtions, groſs humours, and oppreſſion of the ſpirits, in thoſe who feed upon them.

Animals are often rendered unwholeſome by being overheated. Exceſſive heat cauſes a fever, exalts the animal ſalts, and mixes the blood ſo intimately with the fleſh, that it cannot be ſeparated. For this reaſon, butchers ſhould be ſeverely puniſhed who over-drive their cattle. No perſon would chuſe to eat the fleſh of an animal which had died in a high fever; yet that is the caſe with all over-drove cattle; and the fever is often raiſed even to the degree of madneſs.

But this is not the only way by which butchers render meat unwholeſome. The abominable cuſtom of filling the cellular membrane of animals with air, in order to make them appear fat, is every day practiſed. This not only ſpoils the meat, and renders it unfit for keeping, but is ſuch a dirty trick, that the very idea of it is ſufficient to diſguſt a perſon of any delicacy at every thing which comes from the ſhambles. Who can bear the thought of eating meat which has been blown up with air from the lungs of a dirty fellow, perhaps labouring under the very worſt of diſeaſes?

No people in the world eat ſuch quantities of animal food as the Engliſh, which is one reaſon why they are ſo generally tainted with the ſcurvy and its numerous train of conſequences, indigeſtion, low ſpirits, hypochondriaciſm, &c. Animal food was ſurely deſigned for man, and, with a proper mixture of vegetables, it will be found the moſt wholeſome; but to gorge beef, mutton, pork, fiſh, and fowl, twice or thrice a-day, is certainly too much. All who value health ought to be contented with making one meal of fleſh in the twenty-four hours, and this ought to conſiſt of one kind only.

The moſt obſtinate ſcurvy has often been cured by a vegetable diet; nay, milk alone will frequently do more in that diſeaſe than any medicine. Hence it is evident, that if vegetables and milk were more uſed in diet, we ſhould have leſs ſcurvy, and likewiſe fewer putrid and inflammatory fevers.

Our aliment ought neither to be too moiſt nor too dry. Moiſt aliment relaxes the ſolids, and renders the body feeble. Thus we ſee females, who live much on tea and other watery diet, generally become weak and unable to digeſt ſolid food: hence proceed hyſterics, and all their dreadful conſequences. On the other hand, food that is too dry renders the ſolids in a manner rigid, and the humours

viſcid, which diſpoſes the body to inflammatory fevers, ſcurvies, and the like.

Much has been ſaid on the ill effects of tea in diet. They are, no doubt, numerous; but they proceed rather from the imprudent uſe of it, than from any bad qualities in the tea itſelf. Tea is now the univerſal breakfaſt in this part of the world; but the morning is ſurely the moſt improper time of the day for drinking it. Moſt delicate perſons, who, by the bye, are the greateſt tea drinkers, cannot eat any thing in the morning. If ſuch perſons, after faſting ten or twelve hours, drink four or five cups of green tea without eating almoſt any bread, it muſt hurt them. Good tea, taken in a moderate quantity, not too ſtrong, nor too hot, nor drank upon an empty ſtomach, will ſeldom do harm; but if it be bad, which is often the caſe, or ſubſtituted in the room of ſolid food, it muſt have many ill effects.

The arts of cookery render many things unwholeſome which are not ſo in their own nature. By jumbling together a number of different ingredients, in order to make a poignant ſauce, or rich ſoup, the compoſition proves almoſt a poiſon. All high ſeaſoning, pickles, &c. are only incentives to luxury, and never fail to hurt the ſtomach. It were well for mankind, if cookery, as an art, were entirely prohibited. Plain roaſting or boiling is all that the ſtomach requires: theſe alone are ſufficient for people in health, and the ſick have ſtill leſs need of a cook.

The liquid part of our aliment likewiſe claims our attention. Water is not only the baſis of moſt liquors, but alſo compoſes a great part of our ſolid food. Good water muſt therefore be of the greateſt importance in diet. The beſt water is that which is moſt pure, and free from any mixture of foreign bodies. Water takes up parts of moſt bodies with which it comes into contact; by this means it is often impregnated with metals or minerals of a hurtful or poiſonous nature. Hence the inhabitants of ſome hilly countries have peculiar diſeaſes, which in all probability proceed from the water. Thus the people who live near the Alps in Switzerland, and the inhabitants of the Peak of Derby in England, have large tumours or wens on their necks. This diſeaſe is generally imputed to the ſnow water; but there is more reaſon to believe it is owing to the minerals in the mountains through which the waters paſs.

When water is impregnated with foreign bodies, it generally appears by its weight, colour, taſte, ſmell, heat, or ſome other ſenſible quality; our buſineſs therefore is to chuſe ſuch water for common uſe, as is lighteſt, and without any particular colour, taſte, or ſmell. In moſt places of Britain the inhabitants have it in their power to make choice of their water; and few things would contribute more to health than a due attention to this article. But mere indolence often induces people to make uſe of the water that is neareſt to them, without conſidering its qualities.

Before water is brought into great towns, the ſtricteſt attention ought to be paid to its qualities, as many diſeaſes may be occaſioned or aggravated by bad water; and when once it has been procured at a great expence, people are unwilling to give it up.

The common methods of rendering water clear by filtration or

ſoft, by expoſing it to the ſun and air, &c. are ſo generally known, that it is unneceſſary to ſpend time in explaining them. We ſhall only, in general, adviſe all to avoid waters which ſtagnate long in ſmall lakes, ponds, or the like, as ſuch waters often become putrid by the corruption of animal and vegetable bodies with which they abound. Even cattle frequently ſuffer by drinking, in dry ſeaſons, water which has ſtood long in ſmall reſervoirs, without being ſupplied by ſprings, or freſhened with ſhowers. All wells ought to be kept clean, and to have a free communication with the air.

As fermented liquors, notwithſtanding they have been exclaimed againſt by many writers, ſtill continue to be the common drink of almoſt every perſon who can afford them, we ſhall rather endeavour to aſſiſt people in the choice of theſe liquors, than pretend to condemn what cuſtom has ſo firmly eſtabliſhed. It is not the moderate uſe of ſound fermented liquors which hurts mankind: it is exceſs, and uſing ſuch as are ill prepared or vitiated.

Fermented liquors which are too ſtrong hurt digeſtion; and the body is ſo far from being ſtrengthened by them, that it is weakened and relaxed. Many imagine that hard labour could not be ſupported without drinking ſtrong liquors, which is a very erroneous notion. Men who never taſte ſtrong liquors are not only able to endure more fatigue, but alſo live much longer than thoſe who uſe them daily. But, ſuppoſe ſtrong liquors did enable a man to do more work, they muſt nevertheleſs waſte the powers of life, and occaſion premature old age. They keep up a conſtant fever, which exhauſts the ſpirits, inflames the blood, and diſpoſes the body to numberleſs diſeaſes.

But fermented liquors may be too weak as well as too ſtrong: when that is the caſe, they muſt either be drank new, or they become ſour and dead: when ſuch liquors are drank new, the fermentation not being over, they generate air in the bowels, and occaſion flatulencies; and, when kept till ſtale, they turn ſour on the ſtomach, and hurt digeſtion. For this reaſon, all malt liquors, cyder, &c. ought to be of ſuch ſtrength as to keep till they be ripe, and then they ſhould be uſed. When ſuch liquors are kept too long, though they ſhould not become ſour, yet they generally contract a hardneſs which renders them unwholeſome.

All families, who can, ought to prepare their own liquors. Since preparing and vending of liquors became one of the moſt general branches of buſineſs, every method has been tried to adulterate them. The great object both to the makers and venders of liquor is, to render it intoxicating, and give it the appearance of age. But it is well known that this may be done by other ingredients than thoſe which ought to be uſed for making it ſtrong. It would be imprudent even to name thoſe things which are daily made uſe of to render liquors heady; ſuffice it to ſay, that the practice is very common, and that all the ingredients uſed for this purpoſe are of a narcotic or ſtupefactive quality. But as all opiates are poiſonous, it is eaſy to ſee what muſt be the conſequence of their general uſe. Though they do not kill ſuddenly, yet they hurt the nerves, relax and weaken the ſtomach, and ſpoil the digeſtion.

Were fermented liquors faithfully prepared, kept to a proper age, and uſed in moderation, they would prove real bleſſings to mankind. But, while they are ill prepared, various ways adulterated, and taken to exceſs, they muſt have many pernicious effects.

We would recommend it to families not only to prepare their own liquors, but likewiſe their bread. Bread is ſo neceſſary a part of diet, that too much care cannot be beſtowed in order to have it ſound and wholeſome. For this purpoſe, it is not only neceſſary that it be made of good grain, but likewiſe properly prepared, and kept free from all unwholeſome ingredients. This, however, we have reaſon to believe, is not always the caſe with bread prepared by thoſe who make a trade of vending it. Their object is rather to pleaſe the eye, than to conſult the health. The beſt bread is that which is neither too coarſe nor too fine; well fermented, and made of wheat flour, or rather of wheat and rye mixed together.

To ſpecify the different kinds of aliment, to explain their nature and properties, and to point out their effects in different conſtitutions, would far exceed the limits of our deſign. Inſtead of a detail of this kind, which would not be generally underſtood, and of courſe little attended to, we ſhall only mention the following eaſy rules with reſpect to the choice of aliment.

Perſons whoſe ſolids are weak and relaxed, ought to avoid all viſcid food, or ſuch things as are hard of digeſtion. Their diet, however, ought to be nouriſhing; and they ſhould take ſufficient exerciſe in the open air.

Such as abound with blood ſhould be ſparing in the uſe of every thing that is highly nouriſhing, as fat meat, rich wines, ſtrong ale, and ſuch like. Their food ſhould conſiſt chiefly of bread and other vegetable ſubſtances; and their drink ought to be water, whey, and the like.

Fat people ſhould not eat freely of oily nouriſhing diet. They ought frequently to uſe radiſh, garlic, ſpices, or ſuch things as are heating, and promote perſpiration and urine. Their drink ſhould be water, coffee, tea, or the like; and they ought to take much exerciſe and little ſleep.

Thoſe who are too lean muſt follow an oppoſite courſe.

Such as are troubled with acidities, or whoſe food is apt to ſour on the ſtomach, ſhould live much on animal food; and thoſe who are afflicted with hot alkaline eructations, ought to uſe a diet conſiſting chiefly of acid vegetables.

People who are affected with the gout, low ſpirits, hypochondriac or hyſteric diſorders, ought to avoid all flatulent food, every thing that is viſcid or hard of digeſtion, all ſalted or ſmoke-dried proviſions, and whatever is auſtere, acid, or apt to turn ſour on the ſtomach. Their food ſhould be light, ſpare, cool, and of an opening nature.

The diet ought not only to be ſuited to the age and conſtitution, but alſo to the manner of life: a ſedentary or ſtudious perſon ſhould live more ſparingly than one who labours hard without doors. Many kinds of food will nouriſh a peaſant very well which would be

almoſt indigeſtible to a citizen; and the latter will live upon a diet on which the former would ſtarve.

Diet ought not to be too uniform. The conſtant uſe of one kind of food might have ſome bad effects. Nature teaches us this, by the great variety of aliment which ſhe has provided for man, and likewiſe by giving him an appetite for different kinds of food.

Thoſe who labour under any particular diſeaſe ought to avoid ſuch aliments as have a tendency to increaſe it: for example, a gouty perſon ſhould not indulge in rich wines, ſtrong ſoups, or gravies, and ſhould avoid all acids. One who is troubled with the gravel, ought to ſhun all auſtere and aſtringent aliments; and thoſe who are ſcorbutic ſhould be ſparing in the uſe of ſalted animal food.

In the firſt period of life, our food ought to be light, but nouriſhing, and frequently taken. Food that is ſolid, with a ſufficient degree of tenacity, is moſt proper for the ſtate of manhood. The diet ſuited to the laſt period of life, when nature is upon the decline, approaches nearly to that of the firſt. It ſhould be light and more ſucculent than that of vigorous age, and likewiſe more frequently taken.

Is is not only neceſſary for health that our diet be wholeſome, but alſo that it be taken at regular periods. Some imagine long faſting will atone for exceſs; but this, inſtead of mending the matter, generally makes it worſe. When the ſtomach and inteſtines are over-diſtended with food, they loſe their proper tone, and, by long faſting, they become weak and inflated with wind. Thus, either gluttony or faſting deſtroys the powers of digeſtion.

The frequent repetition of aliment is not only neceſſary for repairing the continual waſte of our bodies, but likewiſe to keep the fluids ſound and ſweet. Our humours, even in the moſt healthy ſtate, have a conſtant tendency to putrefaction, which can only be prevented by frequent ſupplies of freſh nouriſhment: when that is wanting too long, the putrefaction often proceeds ſo far as to occaſion very dangerous fevers. From hence we may learn the neceſſity of regular meals. No perſon can enjoy a good ſtate of health whoſe veſſels are either frequently overcharged, or the humours long deprived of freſh ſupplies of chyle.

Long faſting is extremely hurtful to young people; it not only vitiates their humours, but prevents their growth. Nor is it leſs injurious to the aged. Moſt perſons, in the decline of life, are afflicted with wind: this complaint is not only increaſed, but even rendered dangerous, and often fatal, by long faſting. Old people, when their ſtomachs are empty, are frequently ſeized with giddineſs, head-achs, and faintneſs. Theſe complaints may generally be removed by a piece of bread and a glaſs of wine, or taking any other ſolid food; which plainly points out the method of preventing them.

It is more than probable, that many of the ſudden deaths which happen in the advanced periods of life are occaſioned by faſting too long, as it exhauſts the ſpirits, and fills the bowels with wind; we would therefore adviſe people in the decline of life, never to allow

their ſtomachs to be too long empty. Many people take nothing but a few cups of tea and a little bread, from nine o'clock at night till two or three next afternoon. Such may be ſaid to faſt almoſt three-fourths of their time. This can hardly fail to ruin the appetite, vitiate the humours, and fill the bowels with wind; all which might be prevented by a ſolid breakfaſt.

It is a very common practice to eat a light breakfaſt and a heavy ſupper. This cuſtom ought to be reverſed. When people ſup late, their ſupper ſhould be very light; but the breakfaſt ought always to be ſolid. If any one eats a light ſupper, goes ſoon to bed, and riſes betimes in the morning, he will be ſure to find an appetite for his breakfaſt, and he may freely indulge it.

The ſtrong and healthy do not indeed ſuffer ſo much from faſting as the weak and delicate; but they run great hazard from its oppoſite, viz. repletion. Many diſeaſes, eſpecially fevers, are the effect of a plethora, or too great fulneſs of the veſſels. Strong people, in high health, have generally a great quantity of blood and other humours. When theſe are ſuddenly increaſed, by an overcharge of rich and nouriſhing diet, the veſſels become too much diſtended, and obſtructions and inflammations enſue. Hence ſo many people are ſeized with inflammatory and eruptive fevers, apoplexies, &c. after a feaſt or debauch.

All great and ſudden changes in diet are dangerous. What the ſtomach has been long accuſtomed to digeſt, though leſs wholeſome, will agree better with it than food of a more ſalutary nature to which it has not been uſed. When therefore a change becomes neceſſary, it ought always to be made gradually: a ſudden tranſition from a poor and low to a rich and luxurious diet, or the contrary, might ſo diſturb the functions of the body as to endanger health, or even to occaſion death itſelf.

When we recommend regularity in diet, we would not be underſtood as condemning every ſmall deviation from it. It is next to impoſſible for people at all times to avoid ſome degree of exceſs, and living too much by rule might make even the ſmalleſt deviation dangerous. It may therefore be prudent to vary a little, ſometimes taking more, ſometimes leſs, than the uſual quantity of meat and drink, provided always that a due regard be had to moderation.

CHAP. IV.

OF AIR.

UNWHOLESOME air is a very common cauſe of diſeaſes. Few are aware of the danger ariſing from it. People generally pay ſome attention to what they eat or drink, but ſeldom regard what goes into the lungs, though the latter proves often more ſuddenly fatal than the former.

Air, as well as water, takes up parts of moſt bodies with which it

comes in contact, and is often ſo repleniſhed with thoſe of a noxious quality, as to occaſion immediate death. But ſuch violent effect ſeldom happen, as people are generally on their guard againſt them. The leſs perceptible influences of bad air prove more generally hurtful to mankind; we ſhall therefore endeavour to point out ſome of theſe, and to ſhew whence the danger chiefly ariſes.

Air may become noxious many ways. Whatever greatly alters its degree of heat, cold, moiſture, &c. renders it unwholeſome; for example, that which is too hot diſſipates the watery parts of the blood, exalts the bile, and renders the whole humours aduſt and thick. Hence proceed bilious and inflammatory fevers, cholera morbus, &c. Very cold air obſtructs the perſpiration, conſtringes the ſolids, and condenſes the fluids. It occaſions rheumatiſms, coughs, and catarrhs, with other diſeaſes of the throat and breaſt. Air that is too moiſt deſtroys the elaſticity or ſpring of the ſolids, induces phlegmatic or lax conſtitutions, and diſpoſes the body to agues, or intermitting fevers, dropſies, &c.

Wherever great numbers of people are crowded into one place, if the air has not a free circulation, it ſoon becomes unwholeſome. Hence it is that delicate perſons are ſo apt to turn ſick or faint in crowded churches, aſſemblies, or any place where the air is injured by breathing, fires, candles, or the like.

In great cities ſo many things tend to contaminate the air, that it is no wonder it proves ſo fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewiſe loaded with ſulphur, ſmoke, and other exhalations, beſides the vapours continually ariſing from innumerable putrid ſubſtances, as dunghills, ſlaughter-houſes, &c. All poſſible care ſhould be taken to keep the ſtreets of large towns open and wide, that the air may have a free current through them. They ought likewiſe to be kept very clean. Nothing tends more to pollute and contaminate the air of a city than dirty ſtreets.

It is very common in this country to have churchyards in the middle of populous cities. Whether this be the effect of ancient ſuperſtition, or owing to the increaſe of ſuch towns, is a matter of no conſequence. Whatever gave riſe to the cuſtom, it is a bad one. It is habit alone which reconciles us to theſe things; by means of which the moſt ridiculous, nay pernicious cuſtoms, often become ſacred. Certain it is, that thouſands of putrid carcaſſes, ſo near the ſurface of the earth, in a place where the air is confined, cannot fail to taint it; and that ſuch air, when breathed into the lungs, muſt occaſion diſeaſes.

Burying within churches is a practice ſtill more deteſtable. The air in churches is ſeldom good, and the effluvia from putrid carcaſſes muſt render it ſtill worſe. Churches are commonly old buildings with arched roofs. They are ſeldom opened above once a week, are never ventilated by fires nor open windows, and rarely kept clean. This occaſions that damp, muſty, unwholeſome ſmell which one feels on entering a church, and renders it a very unſafe place for the weak and valetudinary. Theſe inconveniences might in a great meaſure be

obviated, by prohibiting all perſons from burying within churches, by keeping them clean, and permitting a ſtream of freſh air to paſs frequently through them.

Wherever air ſtagnates long, it becomes unwholeſome. Hence the unhappy perſons confined in jails not only contract malignant fevers themſelves, but often communicate them to others. Nor are many of the holes, for we can not call them houſes, poſſeſſed by the poor in great towns, much better than jails. Theſe low dirty habitations are the very lurking places of bad air and contagious diſeaſes. Such as live in them ſeldom enjoy good health; and their children commonly die young. In the choice of a houſe, thoſe who have it in their power ought always to pay the greateſt attention to freſh air.

The various methods which luxury has invented to make houſes cloſe and warm, contribute not a little to render them unwholeſome. No houſe can be wholeſome unleſs the air has a free paſſage through it; for which reaſon houſes ought daily to be ventilated by opening oppoſite windows, and admitting a current of freſh air into every room. Beds, inſtead of being made up as ſoon as people riſe out of them, ought to be turned down, and expoſed to the freſh air from the open windows through the day. This would expel any noxious vapour, and could not fail to promote the health of the inhabitants.

In hoſpitals, jails, ſhips, &c. where that cannot be conveniently done, ventilators ſhould be uſed. The method of expelling foul, and introducing freſh air, by means of ventilators, is a moſt ſalutary invention, and is indeed the moſt uſeful of all our modern medical improvements. It is capable of univerſal application, and is fraught with numerous advantages, both to thoſe in health and ſickneſs. In all places, where numbers of people are crowded together, ventilation becomes abſolutely neceſſary.

Air which ſtagnates in mines, wells, cellars, &c. is extremely noxious. That kind of air is to be avoided as the moſt deadly poiſon; it often kills almoſt as quickly as lightning. For this reaſon, people ſhould be very cautious in opening cellars that have been long ſhut, or going down into deep wells or pits, eſpecially if they have been kept cloſe covered. Many fatal accidents might be prevented by only letting down a lighted candle before them, and ſtopping when they perceive it to go out; yet this precaution, ſimple as it is, is ſeldom uſed.

Many people who have ſplendid houſes, chuſe to ſleep in ſmall apartments. This conduct is very imprudent. A bed chamber ought always to be well aired; as it is generally occupied in the night only, when all doors and windows are ſhut. If a fire be kept in it, the danger from a ſmall room becomes ſtill greater. Numbers have been ſtifled when aſleep by a fire in a ſmall apartment, which is always hurtful.

Thoſe who are obliged, on account of buſineſs, to ſpend the day in cloſe towns, ought, if poſſible, to ſleep in the country. Breathing free air in the night will, in ſome meaſure, make up for the want of it through the day. This practice would have a greater effect in preſerving the health of citizens than is commonly imagined.

Delicate perſons ought, as much as poſſible, to avoid the air of

great towns. It is peculiarly hurtful to the aſthmatic and conſumptive. Such perſons ſhould avoid cities as they would the plague. The hypochondriac are likewiſe much hurt by it. I have often ſeen perſons ſo much afflicted with this malady while in town, that it ſeemed impoſſible for them to live, who, upon being removed to the country, were immediately relieved. The ſame obſervation holds with regard to nervous and hyſteric women. Many people, indeed, have it not in their power to change their ſituation in queſt of better air. All we can ſay to ſuch perſons is, that they ſhould go as often abroad into the open air as they can, that they ſhould admit freſh air frequently into their houſes, and take care to keep them very clean.

It was neceſſary in former times, for ſafety, to ſurround cities, colleges, and even ſingle houſes, with high walls. Theſe, by obſtructing the free current of air, never fail to render ſuch places damp and unwholeſome. As ſuch walls are now, in moſt parts of this country, become uſeleſs, they ought to be pulled down, and every method taken to admit a free paſſage to the air. Proper attention to AIR and CLEANLINESS would tend more to preſerve the health of mankind, than all the endeavours of the faculty.

Surrounding houſes too cloſely with planting or thick woods likewiſe tends to render the air unwholeſome. Wood not only obſtructs the free current of the air, but ſends forth great quantities of moiſt exhalations, which render it conſtantly damp. Wood is very agreeable at a proper diſtance from a houſe, but ſhould never be planted too near it, eſpecially in a flat country. Many of the gentlemen's ſeats in England are rendered very unwholeſome from the great quantity of wood which ſurrounds them.

Houſes ſituated in low marſhy countries, or near large lakes of ſtagnating water, are likewiſe unwholeſome. Waters which ſtagnate not only render the air damp, but load it with putrid exhalations, which produce the moſt dangerous and fatal diſeaſes. Thoſe who are obliged to inhabit marſhy countries, ought to make choice of the dryeſt ſituations they can find, to live generouſly, and to pay the ſtricteſt regard to cleanlineſs.

If freſh air be neceſſary for thoſe in health, it is ſtill more ſo for the ſick, who often loſe their lives for want of it. The notion that ſick people muſt be kept very hot, is ſo common, that one can hardly enter the chamber where a patient lies, without being ready to faint, by reaſon of the hot ſuffocating ſmell. How this muſt affect the ſick, any one may judge. No medicine is ſo beneficial to the ſick as freſh air. It is the moſt reviving of all cordials, if it be adminiſtered with prudence. We are not, however, to throw open doors and windows at random upon the ſick. Freſh air is to be let into the chamber gradually, and, if poſſible, by opening the windows of ſome other apartment.

The air of a ſick perſon's chamber may be greatly freſhened, and the patient much revived, by ſprinkling the floor, bed, &c. frequently with vinegar, juice of lemon, or any other ſtrong vegetable acid.

In places where numbers of ſick are crowded into the ſame houſe, or, which is often the caſe, into the ſame apartment, the frequent admiſſion of freſh air becomes abſolutely neceſſary. Infirmaries,

hoſpitals, &c. are often rendered ſo noxious, for want of proper ventilation, that the ſick run more hazard from them than from the diſeaſe. This is particularly the caſe when putrid fevers, dyſenteries, and other infectious diſeaſes, prevail.

Phyſicians, ſurgeons, and others, who attend hoſpitals, ought, for their own ſafety, to take care that they be properly ventilated. Such perſons as are obliged to ſpend moſt of their time amongſt the ſick, run great hazard of being themſelves infected when the air is bad. All hoſpitals and places of reception for the ſick ought to have an open ſituation, at ſome diſtance from any great town, and ſuch patients as labour under any contagious diſeaſe ought never to be ſuffered to come near the reſt.

CHAP. V.

OF EXERCISE.

MANY people look upon the neceſſity man is under of earning his bread by labour as a curſe. Be this as it may, it is evident, from the ſtructure of the body, that exerciſe is not leſs neceſſary than food for the preſervation of health: thoſe whom poverty obliges to labour for daily bread are not only the moſt healthy, but generally the moſt happy part of mankind. Induſtry ſeldom fails to place them above want, and activity ſerves them inſtead of phyſic. This is peculiarly the caſe with thoſe who live by the culture of the ground. The great increaſe of inhabitants in infant colonies, and the longevity of ſuch as follow agriculture every where, evidently prove it to be the moſt healthful as well as the moſt uſeful employment.

The love of activity ſhews itſelf very early in man: ſo ſtrong is this principle, that a healthy youth cannot be reſtrained from exerciſe, even by the fear of puniſhment. Our love of motion is ſurely a ſtrong proof of its utility. Nature implants no diſpoſition in vain. It ſeems to be a catholic law throughout the whole animal creation, that no creature, without exerciſe, ſhould enjoy health, or be able to find ſubſiſtence. Every creature, except man, takes as much of it as is neceſſary. He alone, and ſuch animals as are under his direction, deviate from this original law, and they ſuffer accordingly.

Inactivity never fails to induce an univerſal relaxation of the ſolids, which diſpoſes the body to innumerable diſeaſes. When the ſolids are relaxed, neither the digeſtion nor any of the ſecretions can be duly performed. In this caſe, the worſt conſequences muſt enſue. How can perſons, who loll all day in eaſy chairs, and ſleep all night on beds of down, fail to be relaxed? Nor do ſuch greatly mend the matter, who never ſtir abroad but in a coach, ſedan, or ſuch like. Theſe elegant pieces of luxury are become ſo common, that the inhabitants of great towns ſeem to be in ſome danger of loſing the uſe of their limbs altogether. It is now below any one to walk, who can afford to be carried. How ridiculous would it ſeem, to a perſon unacquainted with modern luxury, to behold the young and healthy ſwinging along on the ſhoulders of their fellow creatures! or to ſee a fat

carcaſs, over-run with diſeaſes occaſioned by inactivity, dragged through the ſtreets by half a dozen horſes!

Glandular obſtructions, now ſo common, generally proceed from inactivity. Theſe are the moſt obſtinate of maladies. So long as the liver, kidnies, and other glands, duly perform their functions, health is ſeldom impaired; but when they fail, nothing can reſtore it. Exerciſe is almoſt the only cure we know for glandular obſtructions; indeed, it does not always ſucceed as a remedy; but there is reaſon to believe that it would ſeldom fail to prevent theſe complaints, were it uſed in due time. One thing is certain, that, amongſt thoſe who take ſufficient exerciſe, glandular diſeaſes are very little known; whereas the indolent and inactive are ſeldom free from them.

Weak nerves are the conſtant companions of inactivity. Nothing but exerciſe and open air can brace and ſtrengthen the nerves, or prevent the endleſs train of diſeaſes which proceed from a relaxed ſtate of theſe organs. We ſeldom hear the active or laborious complain of nervous diſeaſes; theſe are reſerved for the ſons of eaſe and affluence. Many have been completely cured of theſe diſorders by being reduced, from a ſtate of opulence, to labour for their daily bread. This plainly points out the ſources from whence nervous diſeaſes flow, and the means by which they may be prevented.

It is abſolutely impoſſible to enjoy health where the perſpiration is not duly carried on; but that can never be the caſe where exerciſe is neglected. When the matter which ought to be thrown off by perſpiration is retained in the body, it vitiates the humours, and occaſions the gout, fevers, rheumatiſm, &c. Exerciſe alone would prevent many of thoſe diſeaſes which cannot be cured, and would remove others where medicine proves ineffectual.

A late author (Cheyne), in his excellent Treatiſe on Health, ſays that the weak and valetudinary ought to make exerciſe a part of their religion. We would recommend this, not only to the weak and valetudinary, but to all whoſe buſineſs does not oblige them to take ſufficient exerciſe, as ſedentary artificers, ſhopkeepers, ſtudious perſons, &c. Such ought to uſe exerciſe as regularly as they take food. This might generally be done without any interruption to buſineſs or real loſs of time.

Sedentary occupations ought chiefly to be followed by women. They bear confinement much better than men, and are fitter for every kind of buſineſs which does not require much ſtrength. It is ridiculous enough to ſee a luſty fellow making pins, needles, or watch wheels, while many of the laborious parts of huſbandry are carried on by the other ſex. The fact is, we want men for laborious employments, while one half of the other ſex are rendered uſeleſs for want of occupations ſuited to their ſtrength, &c. Were girls bred to the loom or other mechanical employments, we ſhould not ſee ſuch numbers of them proſtitute themſelves for bread, nor find ſuch a want of men for the important purpoſes of navigation and agriculture.

No piece of indolence hurts the health more than the modern cuſtom of lying a bed too long in a morning. This is the general practice in great towns. The inhabitants of cities ſeldom riſe before eight

or nine o'clock; but the morning is undoubtedly the beſt time for exerciſe while the ſtomach is empty, and the body refreſhed with ſleep. Beſides, the morning air braces and ſtrengthens the nerves, and in ſome meaſure anſwers the purpoſe of a cold bath. Let any one who has been accuſtomed to lie a-bed till eight or nine o'clock, riſe by ſix or ſeven, ſpend a couple of hours in walking, riding, or any active diverſion without doors, and he will find his ſpirits cheerful and ſerene through the day, his appetite keen, and his body braced and ſtrengthened. Cuſtom ſoon renders early riſing agreeable, and nothing contributes more to the preſervation of health.

The inactive are continually complaining of pains in the ſtomach, flatulencies, indigeſtions, &c. Theſe complaints, which pave the way to many others, are not to be removed by medicines. They can only be cured by a vigorous courſe of exerciſe, to which indeed they ſeldom fail to yield.

Exerciſe, if poſſible, ought always to be taken in the open air. When that cannot be done, various methods may be contrived for exerciſing the body within doors, as the dumb bell, dancing, fencing, &c. It is not neceſſary to adhere ſtrictly to any particular kind of exerciſe. The beſt way is to take them by turns, and to uſe that longeſt which is moſt ſuitable to the ſtrength and conſtitution. Thoſe kinds of exerciſe which give action to moſt of the bodily organs are always to be preferred, as walking, running, riding, digging, ſwimming, and ſuch like.

It is much to be regretted that active and manly diverſions are now ſo little practiſed. Diverſions make people take more exerciſe than they otherwiſe would do, and are of the greateſt ſervice to ſuch as are not under the neceſſity of labouring for their bread. As active diverſions loſe ground, thoſe of a ſedentary kind ſeem to prevail. Sedentary diverſions are of no other uſe but to conſume time. Inſtead of relieving the mind, they often require more thought than either ſtudy or buſineſs. Every thing that induces people to ſit ſtill, unleſs it be ſome neceſſary employment, ought to be avoided.

The diverſions which afford the beſt exerciſe are hunting, ſhooting, playing at cricket, hand ball, bowling, golff. Golff is a diverſion very common in North Britain. It is well calculated for exerciſing the body, and may always be taken in ſuch moderation, as neither to over-heat nor fatigue: it has greatly the preference over cricket, tennis, or any of thoſe games which cannot be played without violence. Theſe exerciſe the limbs, promote perſpiration, and the other ſecretions. They likewiſe ſtrengthen the lungs, and give firmneſs and agility to the whole body.

Such as can, ought to ſpend two or three hours a-day on horſeback; thoſe who cannot ride, ſhould employ the ſame time in walking. Exerciſe ſhould never be continued too long. Over-fatigue prevents the benefit of exerciſe, and inſtead of ſtrengthening the body, tends to weaken it.

Every man ſhould lay himſelf under ſome ſort of neceſſity to take exerciſe. Indolence, like other vices when indulged, gains ground, and at length becomes agreeable. Hence many who were fond of

exercife in the early part of life, become quite averſe from it afterwards. This is the caſe of moſt hypochondriac and gouty people, which renders their diſeaſes in a great meaſure incurable.

In ſome countries laws have been made, obliging every man, of whatever rank, to learn ſome mechanical employment. Whether ſuch laws were deſigned for the preſervation of health, or the encouragement of manufacture, is a queſtion of no importance. Certain it is, that if gentlemen were frequently to amuſe and exerciſe themſelves in this way, it might have many good effects. They would at leaſt derive as much honour from a few maſterly ſpecimens of their own workmanſhip, as from the character of having ruined moſt of their companions by gaming or drinking. Beſides, men of leiſure, by applying themſelves to the mechanical arts, might improve them, to the great benefit of ſociety.

Indolence not only occaſions diſeaſes, and renders men uſeleſs to ſociety, but promotes all manner of vice. To ſay a man is idle, is little better than to call him vicious. The mind, if not engaged in ſome uſeful purſuit, is conſtantly in queſt of ideal pleaſures, or impreſſed with the apprehenſion of ſome imaginary evil. From theſe ſources proceed moſt of the miſeries of mankind. Certainly man was never intended to be idle. Inactivity fruſtrates the very deſign of his creation; whereas an active life is the beſt guardian of virtue, and the greateſt preſervative of health.

CHAP. VI.

OF SLEEP AND CLOTHING.

SLEEP, as well as diet, ought to be duly regulated. Too little ſleep weakens the nerves, exhauſts the ſpirits, and occaſions diſeaſes; and too much renders the mind dull, the body groſs, and diſpoſes to apoplexies, lethargies, and other complaints of a ſimilar nature. A medium ought therefore to be obſerved; but this is not eaſy to fix. Children require more ſleep than grown perſons, the laborious than the idle, and ſuch as eat and drink freely, than thoſe who live abſtemiouſly. Beſides, the real quantity of ſleep cannot be meaſured by time; as one perſon will be more refreſhed by five or ſix hours ſleep than another by eight or ten.

Children may always be allowed to take as much ſleep as they pleaſe; but for adults, ſix or ſeven hours is certainly ſufficient, and no one ought to exceed eight. Thoſe who lie a-bed more than eight hours may ſlumber, but they can hardly be ſaid to ſleep: ſuch generally toſs and dream away the fore part of the night, ſink to reſt towards morning, and doſe till noon. The beſt way to make ſleep ſound and refreſhing is to riſe betimes. The cuſtom of lying a-bed for nine or ten hours not only makes the ſleep leſs refreſhing, but relaxes the ſolids, and greatly weakens the conſtitution.

Nature points out night as the proper ſeaſon for ſleep. Nothing more certainly deſtroys the conſtitution than night-watching. It is a great pity that a practice ſo deſtructive to health ſhould be ſo much in

faſhion. How quickly the want of reſt in due ſeaſon will blaſt the moſt blooming complexion, or ruin the beſt conſtitution, is evident from the ghaſtly countenances of thoſe who, as the phraſe is, turn day into night, and night into day.

To make ſleep refreſhing, the following things are requiſite: Firſt, to take ſufficient exerciſe in the open air; to avoid ſtrong tea or coffee; next, to eat a light ſupper; and, laſtly, to lie down with a mind as cheerful and ſerene as poſſible.

It is certain that too much exerciſe will prevent ſleep, as well as too little. We ſeldom however hear the active and laborious complain of reſtleſs nights. It is the indolent and ſlothful who generally have theſe complaints. Is it any wonder that a bed of down ſhould not be refreſhing to a perſon who ſits all day in an eaſy chair? A great part of the pleaſure of life conſiſts in alternate reſt and motion: but they who neglect the latter can never reliſh the former. The labourer enjoys more true luxury in plain food and ſound ſleep, than is to be found in ſumptuous tables and downy pillows, where exerciſe is wanting.

That light ſuppers cauſe ſound ſleep is true even to a proverb. Many perſons, if they exceed the leaſt at that meal, are ſure to have uneaſy nights; and, if they fall aſleep, the load and oppreſſion on their ſtomach and ſpirits occaſion frightful dreams, broken and diſturbed repoſe, the nightmare, &c. Were the ſame perſons to go to bed with a light ſupper, or ſit up till that meal was pretty well digeſted, they would enjoy ſound ſleep, and riſe refreſhed and cheerful. There are indeed ſome people who cannot ſleep unleſs they have eat ſome ſolid food at night, but this does not imply the neceſſity of a heavy ſupper; beſides, theſe are generally perſons who have accuſtomed themſelves to this method, and who do not take a ſufficient quantity of ſolid food and exerciſe in the courſe of the day.

Nothing more certainly diſturbs our repoſe than anxiety. When the mind is not at eaſe, one ſeldom enjoys ſound ſleep. This greateſt of human bleſſings flies the wretched, and viſits the happy, the cheerful, and the gay. This is a ſufficient reaſon why every man ſhould endeavour to be as eaſy in his mind as poſſible when he goes to reſt. Many, by indulging grief and anxious thought, have baniſhed ſound ſleep ſo long, that they could never afterwards enjoy it.

Sleep, when taken in the fore-part of the night, is generally reckoned moſt refreſhing. Whether this be the effect of habit or not, is hard to ſay; but as moſt people are accuſtomed to go early to bed when young, it may be preſumed that ſleep, at this ſeaſon, will prove moſt refreſhing to them ever after. Whether the fore-part of the night be beſt for ſleep or not, ſurely the fore-part of the day is fitteſt both for buſineſs and amuſement. I hardly ever knew an early riſer who did not enjoy a good ſtate of health.

It conſiſts with obſervation, that all very old men have been early riſers. This is the only circumſtance attending longevity to which (ſays Dr. Buchan) I never knew an exception.

OF CLOTHING.

The clothing ought to be ſuited to the climate. Cuſtom has no doubt a very great influence in this article; but no cuſtom can ever change the nature of things ſo far, as to render the ſame clothing fit for an inhabitant of Nova Zembla and the iſland of Jamaica. It is not indeed neceſſary to obſerve an exact proportion between the quantity of clothes we wear, and the degree of latitude which we inhabit; but, at the ſame time, proper attention ought to be paid to it, as well as to the openneſs of the country, the frequency and violence of ſtorms, and other viciſſitudes of the weather.

In youth, while the blood is hot and the perſpiration free, it is leſs neceſſary to cover the body with a great quantity of clothes; but in the decline of life, when the ſkin becomes rigid and the humours more cool, the clothing ſhould be increaſed. Many diſeaſes in the latter period of life proceed from a defect of perſpiration: theſe may, in ſome meaſure, be prevented by a ſuitable addition to the clothing, or by wearing ſuch as are better calculated for promoting the diſcharge from the ſkin, as clothes made of cotton, flannel, &c.

The clothing ought likewiſe to be ſuited to the ſeaſon of the year. Clothing may be warm enough for ſummer, which is by no means ſufficient for winter. The greateſt caution, however, is neceſſary in making theſe changes. We ought neither to put off our winter clothes too ſoon, nor to wear our ſummer ones too long. In this country, the winter often ſets in very early with great rigour, and we have frequently cold weather even after the commencement of the ſummer months. It would likewiſe be prudent not to make the change all at once, but to do it gradually; and indeed the changes of apparel in this climate ought to be very inconſiderable, eſpecially among thoſe who have paſſed the meridian of life.

Clothes often become hurtful by their being made ſubſervient to the purpoſes of pride or vanity. Mankind in all ages ſeem to have conſidered clothes in this view; accordingly their faſhion and figure have been continually varying, with very little regard either to health, the climate, or conveniency: a farthingale, for example, may be very neceſſary in hot ſouthern climates, but ſurely nothing can be more ridiculous in the cold regions of the north.

Even the human ſhape is often attempted to be mended by dreſs, and thoſe who know no better believe that mankind would be monſtrous without its aſſiſtance. All attempts of this nature are highly pernicious. The moſt deſtructive of them in this country is that of ſqueezing the ſtomach and bowels into as narrow a compaſs as poſſible, to procure what is falſely called a fine ſhape. This madneſs ſeems to have pervaded the minds of mothers in every age and country. Terence, in his comedy of the Eunuch, ridicules the Roman matrons for attempting to mend the ſhape of their daughters. By this practice the action of the ſtomach and bowels, the motion of the heart and lungs, and almoſt all the vital functions, are obſtructed. Hence proceed indigeſtion, ſyncopes or fainting fits, coughs, con-

ſumptions of the lungs, and other complaints ſo common among females.

The feet likewiſe often ſuffer by preſſure. How a ſmall foot came to be reckoned genteel, I will not pretend to ſay; but certain it is, that this notion has made many perſons lame. Almoſt nine-tenths of mankind are troubled with corns; a diſeaſe that is ſeldom or never occaſioned but by ſtrait ſhoes. Corns are not only very troubleſome, but, by rendering people unable to walk, they may likewiſe be conſidered as the remote cauſe of other diſeaſes.

In fixing on the clothes, due care ſhould be taken to avoid all tight bandages. Garters, buckles, &c. when drawn too tight, not only prevent the free motion and uſe of the parts about which they are bound, but likewiſe obſtruct the circulation of the blood, which prevents the equal nouriſhment and growth of theſe parts, and occaſions various diſeaſes. Tight bandages about the neck, as ſtocks, cravats, necklaces, &c. are extremely dangerous. They obſtruct the blood in its courſe from the brain, by which means headachs, vertigoes, apoplexies, and other fatal diſeaſes, are often occaſioned.

The perfection of dreſs is to be eaſy and clean. Nothing can be more ridiculous than for any one to make himſelf a ſlave to fine clothes. Such a one, and many ſuch there are, would rather remain as fixt as a ſtatue from morning till night, than diſcompoſe a ſingle hair or alter the poſition of a pin. Were we to recommend any particular pattern for dreſs, it would be that which is worn by the people called Quakers. They are always neat, clean, and often elegant, without any thing ſuperfluous. What others lay out upon tawdry laces, ruffles, and ribands, they beſtow upon ſuperior cleanlineſs. Finery is only the affectation of dreſs, and very often covers a great deal of dirt.

We ſhall only add, with regard to clothing, that it ought not only to be ſuited to the climate, the ſeaſon of the year, and the period of life, but likewiſe to the temperature and conſtitution. Robuſt perſons are able to endure either cold or heat better than the delicate; conſequently may be leſs attentive to their clothing. But the preciſe quantity of clothes neceſſary for any perſon cannot be determined by reaſoning. It is entirely a matter of experience, and every man is the beſt judge for himſelf what quantity of clothes is neceſſary to keep him warm.

CHAP. VII.

OF INTEMPERANCE.

A MODERN author (Rouſſeau) obſerves, that temperance and exerciſe are the two beſt phyſicians in the world. He might have added, that if theſe were duly regarded, there would be little occaſion for any other. Temperance may juſtly be called the parent of health; yet numbers of mankind act as if they thought diſeaſes and death too ſlow in their progreſs, and by intemperance and debauch ſeem, as it were, to ſolicit their approach.

The danger of intemperance appears from the very conſtruction of the human body. Health depends on that ſtate of the ſolids and fluids which fits them for the due performance of the vital functions; and while theſe go regularly on, we are ſound and well; but whatever diſturbs them neceſſarily impairs health. Intemperance never fails to diſorder the whole animal œconomy; it hurts the digeſtion, relaxes the nerves, renders the different ſecretions irregular, vitiates the humours, and occaſions numberleſs diſeaſes.

The analogy between the nouriſhment of plants and animals affords a ſtriking proof of the danger of intemperance. Moiſture and manure greatly promote vegetation; yet an over-quantity of either will entirely deſtroy it. The beſt things become hurtful, nay deſtructive, when carried to exceſs. Hence we learn, that the higheſt degree of human wiſdom conſiſts in regulating our appetites and paſſions ſo as to avoid all extremes. It is that chiefly which entitles us to the character of rational beings. The ſlave of appetite will ever be the diſgrace of human nature.

The Author of Nature hath endued us with various paſſions, for the propagation of the ſpecies, the preſervation of the individual, &c. Intemperance is the abuſe of theſe paſſions, and moderation conſiſts in the proper regulation of them. Men, not contented with ſatisfying the ſimple calls of Nature, create artificial wants, and are perpetually in ſearch after ſomething that may gratify them; but imaginary wants can never be gratified. Nature is content with little; but luxury knows no bounds. Hence the epicure, the drunkard, and the debauchee, ſeldom ſtop in their career till their money or their conſtitution fails: then, indeed, they generally ſee their error when too late.

It is impoſſible to lay down fixed rules with regard to diet, on account of the different conſtitutions of mankind. The moſt ignorant perſon, however, certainly knows what is meant by exceſs; and it is in the power of every man, if he chooſes, to avoid it.

The great rule of diet is to ſtudy ſimplicity. Nature delights in the moſt plain and ſimple food, and every animal, except man, follows her dictates. Man alone riots at large, and ranſacks the whole creation in queſt of luxuries, to his own deſtruction. Addiſon, an elegant writer of the laſt age, ſpeaks thus of intemperance in diet: "For my part, when I behold a faſhionable table ſet out in all its "magnificence, I fancy that I ſee gouts and dropſies, fevers and "lethargies, with other innumerable diſtempers, lying in ambuſcade "among the diſhes."

Nor is intemperance in other things leſs deſtructive than in diet. How quickly does the immoderate purſuit of carnal pleaſures, or the abuſe of intoxicating liquors, ruin the beſt conſtitution! Indeed theſe vices generally go hand in hand. Hence it is that we ſo often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn-out with diſeaſes, and haſtening with ſwift pace to an untimely grave. Did men reflect on the painful diſeaſes and premature deaths which are daily occaſioned by intemperance,

it would be ſufficient to make them ſhrink back with horror from the indulgence even of their darling pleaſures.

Intemperance does not hurt its votaries alone; the innocent too often feel the direful effects of it. How many wretched orphans are to be ſeen embracing dunghills, whoſe parents, regardleſs of the future, ſpent in riot and debauch what might have ſerved to bring up their offspring in a decent manner! How often do we behold the miſerable mother, with her helpleſs infants, pining in want, while the cruel father is indulging his inſatiate appetites!

Families are not only reduced to miſery, but even extirpated, by intemperance. Nothing tends ſo much to prevent propagation, and to ſhorten the lives of children, as the intemperance of parents. The poor man who labours all day, and at night lies down contented with his humble fare, can boaſt a numerous offspring; while his pampered lord, ſunk in eaſe and luxury, often languiſhes without an heir to his ample fortunes. Even ſtates and empires feel the influence of intemperance, and riſe or fall as it prevails.

Inſtead of mentioning the different kinds of intemperance, and pointing out their influence upon health, we ſhall only, by way of example, make a few obſervations on one particular ſpecies of that vice, viz. the abuſe of intoxicating liquors.

Every act of intoxication puts nature to the expence of a fever, in order to diſcharge the poiſonous draught. When this is repeated almoſt every day, it is eaſy to foreſee the conſequences. The conſtitution muſt be ſtrong indeed, which is able long to hold out under a daily fever: but fevers occaſioned by drinking do not always go off in a day; they frequently end in an inflammation of the breaſt, liver, or brain, and produce fatal effects.

Though the drunkard ſhould not fall by an acute diſeaſe, he ſeldom eſcapes thoſe of a chronic kind. Intoxicating liquors, when uſed to exceſs, weaken the bowels and ſpoil the digeſtion; they deſtroy the power of the nerves, and occaſion paralytic and convulſive diſorders; they likewiſe heat and inflame the blood, deſtroy its balſamic quality, render it unfit for circulation, and the nouriſhment of the body. Hence obſtructions, atrophies, dropſies, and conſumptions of the lungs. Theſe are the common ways in which drunkards make their exit. Diſeaſes of this kind, when brought on by hard drinking, ſeldom admit of a cure.

Many people injure their health by drinking, who ſeldom get drunk. The continual habit of ſoaking, as it is called, though its effects be not ſo violent, is not leſs pernicious. When the veſſels are kept conſtantly full and upon the ſtretch, the different digeſtions can neither be duly performed, nor the humours properly prepared: hence moſt people of this character are afflicted with the gout, the gravel, ulcerous ſores in the legs, &c. If theſe diſorders do not appear, they are ſeized with low ſpirits, hypochondriacal affections, and other ſymptoms of indigeſtion.

Conſumptions are now ſo common, that it is thought one-tenth of the inhabitants of great towns die of that diſeaſe. Hard drinking is no doubt one of the cauſes to which we muſt impute the in-

creaſe of conſumptions. The great quantities of viſcid malt liquor drank by the common people of England, cannot fail to render the blood ſizy and unfit for circulation; from whence proceed obſtructions, and inflammations of the lungs. There are few great ale-drinkers who are not phthiſical: nor is that to be wondered at, conſidering the glutinous and almoſt indigeſtible nature of ſtrong ale.

Thoſe who drink ardent ſpirits or ſtrong wines run ſtill greater hazard; theſe liquors heat and inflame the blood, and tear the tender veſſels of the lungs to pieces; yet ſo great is the conſumption of them in this country, that one would almoſt be induced to think that the inhabitants lived upon them.

The habit of drinking proceeds frequently from misfortunes in life. The miſerable fly to it for relief. It affords them indeed a temporary eaſe. But, alas! this ſolace is ſhort lived; and when it is over, the ſpirits ſink as much below their uſual tone as they had before been raiſed above it. Hence a repetition of the doſe becomes neceſſary, and every freſh doſe makes way for another, till the unhappy wretch becomes a ſlave to the bottle, and at length falls a ſacrifice to what at firſt, perhaps, was taken only as a medicine. No man is ſo dejected as the drunkard when his debauch is gone off. Hence it is, that thoſe who have the greateſt flow of ſpirits while the glaſs circulates freely, are of all others the moſt melancholy when ſober, and often put an end to their own miſerable exiſtence in a fit of ſpleen or ill humour.

Drunkenneſs not only proves deſtructive to health, but likewiſe to the faculties of the mind. It is ſtrange that creatures who value themſelves on account of a ſuperior degree of reaſon to that of brutes, ſhould take pleaſure in ſinking ſo far below them. Were ſuch as voluntarily deprive themſelves of the uſe of reaſon to continue ever after in that condition, it would ſeem but a juſt puniſhment. Though this be not the conſequence of one act of intoxication, it ſeldom fails to ſucceed a courſe of it. By a habit of drinking, the greateſt genius is often reduced to a mere idiot.

It is amazing that our improvements in arts, learning, and politeneſs, have not put the barbarous cuſtom of drinking to exceſs out of faſhion. It is indeed leſs common in South Britain than it was formerly; but it ſtill prevails very much in the North, where this relic of barbarity is miſtaken for hoſpitality. There no man is ſuppoſed to entertain his gueſts well, who does not make them drunk. Forcing people to drink is certainly the greateſt piece of rudeneſs that any man can be guilty of. Manlineſs, complaiſance, or mere good-nature, may induce a man to take his glaſs, if urged to it, at a time when he might as well take poiſon. The cuſtom of drinking to exceſs has long been out of faſhion in France; and, as it begins to loſe ground among the politer part of the Engliſh, we hope it will ſoon be baniſhed from every part of this iſland.

Intoxication is peculiarly hurtful to young perſons. It heats their blood, impairs their ſtrength, and obſtructs their growth; beſides, the frequent uſe of ſtrong liquors in the early part of life deſtroys any benefit that might ariſe from them afterwards. Thoſe who

make a practice of drinking generous liquors when young, cannot expect to reap any benefit from them as a cordial in the decline of life.

Drunkenneſs is not only in itſelf a moſt abominable vice, but is an inducement to many others. There is hardly any crime ſo horrid that the drunkard will not perpetrate for the love of liquor. We have known mothers ſell their children's clothes, the food that they ſhould have eat, and afterwards even the infants themſelves, in order to purchaſe the accurſed draught.

CHAP. VIII.

OF CLEANLINESS.

THE want of cleanlineſs is a fault which admits of no excuſe. Where water can be had for nothing, it is ſurely in the power of every perſon to be clean. The continual diſcharge from our bodies by perſpiration renders frequent change of apparel neceſſary. Changing apparel greatly promotes the ſecretion from the ſkin, ſo neceſſary for health. When that matter which ought to be carried off by perſpiration is either retained in the body, or reſorbed from dirty clothes, it muſt occaſion diſeaſes.

Diſeaſes of the ſkin are chiefly owing to want of cleanlineſs. They may indeed be caught by infection, or brought on by poor living, unwholeſome food, &c. but they will ſeldom continue long where cleanlineſs prevails. To the ſame cauſe muſt we impute the various kinds of vermin which infeſt the human body, houſes, &c. Theſe may always be baniſhed by cleanlineſs alone; and wherever they abound, we have reaſon to believe it is neglected.

Mr. Pott, in his Surgical Obſervations, mentions a diſeaſe which he calls the chimney ſweeper's cancer, as it is almoſt peculiar to that unhappy ſet of people. This he juſtly attributes to neglect of cleanlineſs.

One common cauſe of putrid and malignant fevers is the want of cleanlineſs. Theſe fevers commonly begin among the inhabitants of cloſe dirty houſes, who breathe unwholeſome air, take little exerciſe, and wear dirty clothes. There the infection is generally hatched, which often ſpreads far and wide, to the deſtruction of many. Henee cleanlineſs may be conſidered as an object of public attention. It is not ſufficient that I be clean myſelf, while the want of it in my neighbour affects my health as well as his. If dirty people cannot be removed as a common nuiſance, they ought at leaſt to be avoided as infectious. All who regard their health ſhould keep at a diſtance even from their habitations.

In places where great numbers of people are collected, cleanlineſs becomes of the utmoſt importance. It is well known that infectious diſeaſes are communicated by tainted air: every thing, therefore, which tends to pollute the air, or ſpread the infection, ought with the utmoſt care to be guarded againſt. For this rea-

ſon, in great towns, no filth, of any kind, ſhould be permitted to lie upon the ſtreets. Nothing is more apt to convey infection than the excrements of the diſeaſed.

In many great towns the ſtreets are little better than dunghills, being frequently covered with aſhes, dung, and naſtineſs of every kind. Even ſlaughter-houſes, or killing ſhambles, are often to be ſeen in the very centre of great towns. The putrid blood, excrements, &c. with which theſe places are generally covered, cannot fail to taint the air, and render it unwholeſome. How eaſily might this be prevented by active magiſtrates, who have it always in their power to make proper laws relative to things of this nature, and to enforce the obſervance of them!

We are ſorry to ſay, that the importance of general cleanlineſs does not ſeem to be ſufficiently underſtood by the magiſtrates of moſt great towns in Britain; though health, pleaſure, and delicacy, all conſpire to recommend an attention to it. Nothing can be more agreeable to the ſenſes, more to the honour of the inhabitants, or more conducive to their health, than a clean town; nor can any thing impreſs a ſtranger with a more diſreſpectful idea of any people than its oppoſite. Whatever pretenſions people may make to learning, politeneſs, or civilization, we will venture to affirm, that while they neglect cleanlineſs, they are in a ſtate of barbarity.

The peaſants in moſt countries ſeem to hold cleanlineſs in a ſort of contempt. Were it not for the open ſituation of their houſes, they would often feel the bad effects of this diſpoſition. One ſeldom ſees a farm houſe without a dunghill before the door, and frequently the cattle and their maſters lodge under the ſame roof. Peaſants are likewiſe extremely careleſs with reſpect to change of apparel, keeping their houſes, &c. clean. This is merely the effect of indolence and a dirty diſpoſition. Habit may, indeed, render it leſs diſagreeable to them, but no habit can ever make it ſalutary to wear dirty clothes or breathe unwholeſome air.

In camps the ſtricteſt regard ſhould be paid to cleanlineſs. By negligence in this matter, infectious diſeaſes are often ſpread amongſt a whole army; and frequently more die of theſe than by the ſword. The Jews, during their encampments in the wildnerneſs, received particular inſtructions (Deut. xxii) with reſpect to cleanlineſs. The rules enjoined them ought to be obſerved by all in the like ſituation. Indeed the whole ſyſtem of laws delivered to that people has a manifeſt tendency to promote cleanlineſs. Whoever conſiders the nature of their climate, the diſeaſes to which they were liable, and their dirty diſpoſition, will ſee the propriety of ſuch laws.

It is remarkable that, in moſt eaſtern countries, cleanlineſs makes a great part of their religion. The Mahometan as well as the Jewiſh religion enjoins various bathings, waſhing, and purifications. No doubt theſe might be deſigned to repreſent inward purity; but they were at the ſame time calculated for the preſervation of health. However whimſical theſe waſhings may appear to ſome, few things would tend more to prevent diſeaſes than a proper attention to many of them.

Where every perſon, for example, after viſiting the ſick, handling a dead body, or touching any thing that might convey infection, to waſh before he went into company, or ſat down to meat, he would run leſs hazard either of catching the infection himſelf or of communicating it to others.

Frequent waſhing not only removes the filth and ſordes which adhere to the ſkin, but likewiſe promotes the perſpiration, braces the body, and enlivens the ſpirits. How refreſhed, how cheerful, and agreeable, does one feel on being ſhaved, waſhed, and ſhifted; eſpecially when theſe offices have been neglected longer than uſual!

The eaſtern cuſtom of waſhing the feet, though leſs neceſſary in this country, is nevertheleſs a very agreeable piece of cleanlineſs, and contributes greatly to the preſervation of health. The ſweat and dirt with which theſe parts are frequently covered, cannot fail to obſtruct the perſpiration. This piece of cleanlineſs would often prevent colds and fevers. Were people careful to bathe their feet and legs in lukewarm water at night, after being expoſed to cold or wet through the day, they would ſeldom experience the ill effects which often proceed from theſe cauſes.

A proper attention to cleanlineſs is no where more neceſſary than on ſhipboard. If epidemical diſtempers break out there, no one can be ſafe. The beſt way to prevent them, is to take care that the whole company be cleanly in their clothes, bedding, &c. When infectious diſeaſes do break out, cleanlineſs is the moſt likely means to prevent their ſpreading; it is likewiſe neceſſary to prevent their returning afterwards, or being conveyed to other places. For this purpoſe, the clothes, bedding, &c. of the ſick ought to be carefully waſhed, and fumigated with brimſtone. Infection will lodge a long time in dirty clothes, and afterwards break out in the moſt terrible manner.

In places where great numbers of ſick people are collected together, cleanlineſs ought to be moſt religiouſly obſerved. The very ſmell in ſuch places is often ſufficient to make one ſick. It is eaſy to imagine what effect that is likely to have upon the diſeaſed. In an hoſpital or infirmary, where cleanlineſs is neglected, a perſon in perfect health has a greater chance to become ſick, than a ſick perſon has to get well.

Few things are more unaccountable than that neglect, or rather dread of cleanlineſs, which appears among thoſe who have the care of the ſick; they think it almoſt criminal to ſuffer any thing that is clean to come near a perſon in a fever, for example, and would rather allow him to wallow in all manner of filth, than change the leaſt bit of his linen. If cleanlineſs be neceſſary for perſons in health, it is certainly more ſo for the ſick. Many diſeaſes may be cured by cleanlineſs alone; moſt of them might be mitigated by it; and, where it is neglected, the ſlighteſt diſorders are often changed into the moſt malignant. The ſame miſtaken care which prompted people to prevent the leaſt admiſſion of freſh air to the ſick, ſeems to have induced them to keep them dirty. Both theſe deſtructive prejudices will, we hope, be ſoon entirely exploded.

Cleanlineſs is certainly agreeable to our nature. We cannot help approving it in others, even though we ſhould not practiſe it our-

ſelves. It ſooner attracts our regard than even finery itſelf, and often gains eſteem where that fails. It is an ornament to the higheſt as well as the loweſt ſtation, and cannot be diſpenſed with in either. Few virtues are of more importance to ſociety than general cleanlineſs. It ought to be carefully cultivated every where; but in populous cities it ſhould be almoſt revered.

As it is impoſſible to be thoroughly clean without a ſufficient quantity of water, we would earneſtly recommend it to the magiſtrates of great towns to be particularly attentive to this article. Moſt great towns in Britain are ſo ſituated as to be eaſily ſupplied with water; and thoſe perſons who will not make a proper uſe of it, after it is brought to their hand, certainly deſerve to be ſeverely puniſhed. The ſtreets of great towns, where water can be had, ought to be waſhed every day. This is the only effectual method for keeping them thoroughly clean; and, upon trial, we are perſuaded it will be found the cheapeſt.

Some of the moſt dreadful diſeaſes incident to human nature might, in my opinion, be entirely eradicated by cleanlineſs.

CHAP. IX.

OF INFECTION.

MANY diſeaſes are infectious: every perſon ought, therefore, as far as he can, to avoid all communication with the diſeaſed. The common practice of viſiting the ſick, though often well meant, has many ill conſequences. Far be it from me to diſcourage any act of charity or benevolence, eſpecially towards thoſe in diſtreſs; but I cannot help blaming ſuch as endanger their own or their neighbours lives by a miſtaken friendſhip or an impertinent curioſity.

The houſes of the ſick, eſpecially in the country, are generally crowded from morning till night with idle viſitors. It is cuſtomary, in ſuch places, for ſervants and young people to wait upon the ſick by turns, and even to ſit up with them all night. It would be a miracle indeed ſhould ſuch always eſcape. Experience teaches us the danger of this conduct. People often catch fevers in this way, and communicate them to others, till at length they become epidemic.

It would be thought highly improper for one who had not had the ſmall pox to wait upon a patient in that diſeaſe; yet many other fevers are almoſt as infectious as the ſmall pox, and not leſs fatal. Some imagine that fevers prove more fatal in villages than in great towns, for want of proper medical aſſiſtance. This may ſometimes be the caſe; but I am inclined to think it oftener proceeds from the cauſe above mentioned.

Were a plan to be laid down for communicating infection, it could not be done more effectually than by the common method of viſiting the ſick. Such viſitors not only endanger themſelves and their connections, but likewiſe hurt the ſick. By crowding the houſe they render the air unwholeſome, and by their private whiſpers and diſ-

mal countenances disturb the imagination of the patient, and depress his spirits. Persons who are ill, especially in fevers, ought to be kept as quiet as possible. The sight of strange faces, and every thing that disturbs the mind, hurts them.

The common practice in country places of inviting great numbers of people to funerals, and crowding them into the same apartment where the corpse lies, is another way of spreading infection. The infection does not always die with the patient. Every thing that comes into contact with his body while alive receives the contagion, and some of them, as clothes, blankets, &c. will retain it for a long time. Persons who die of infectious disorders ought not to lie long unburied; and people should keep as much as possible at a distance from them.

It would tend greatly to prevent the spreading of infectious diseases, if those in health were kept at a proper distance from the sick. The Jewish Legislator, among many other wise institutions for preserving health, has been peculiarly attentive to the means of preventing infection, or *defilement* as it is called, either from a diseased person or a dead body. In many cases the diseased were to be separated from those in health; and it was deemed a crime even to approach their habitations. If a person only touched a diseased or dead body, he was appointed to wash himself in water, and to keep for some time at a distance from society.

Infectious diseases are often communicated by clothes. It is extremely dangerous to wear apparel which has been worn by the deceased, unless it has been well washed and fumigated, as infection may lodge a long time in it, and afterwards produce very tragical effects. This shews the danger of buying at random the clothes which have been worn by other people.

Infectious disorders are frequently imported. Commerce, together with the riches of foreign climes, bring us also their diseases. These do often more than counterbalance all the advantages of that trade by means of which they are introduced. It is to be regretted that so little care is commonly bestowed, either to prevent the introduction or spreading of infectious maladies. Some attention, indeed, is generally paid to the plague; but other diseases pass unregarded.

Were the tenth part of the care taken to prevent the importation of diseases that there is to prevent smuggling, it would be attended with many happy consequences. This might easily be done by appointing a physician at every considerable sea-port, to inspect the ship's company, passengers, &c. before they came ashore; and if any fever or other infectious disorder prevailed, to order the ship to perform a short quarantine, and to send the sick to some hospital or proper place to be cured. He might likewise order all the clothes, bedding, &c. which had been used by the sick during the voyage, to be either destroyed, or thoroughly cleansed by fumigation, &c. before any of them were sent ashore. A scheme of this kind, if properly conducted, would prevent many fevers, and other infectious diseases, from being brought by sailors into sea-port towns, and by this means diffused all over the country.

Infection is often ſpread through cities by gaols, hoſpitals, &c. Theſe are frequently ſituated in the very middle of populous towns; and when infectious diſeaſes break out in them, it is impoſſible for the inhabitants to eſcape. Did magiſtrates pay any regard to the health of the people, this evil might be eaſily remedied.

Many are the cauſes which tend to diffuſe infection through populous cities. The whole atmoſphere of a large town is one contaminated maſs, abounding with various kinds of infection, and muſt be pernicious to health. The beſt advice that we can give to ſuch as are obliged to live in large cities, is to chuſe an open ſituation; to avoid narrow, dirty, crowded ſtreets; to keep their own houſe and offices clean; and to be as much abroad in the open air as their time will permit.

It would tend greatly to prevent the ſpreading of infectious diſeaſes, were proper nurſes every where employed to take care of the ſick. This might often ſave a family, or even a whole town, from being infected by one perſon. We do not mean that people ſhould abandon their friends or relations in diſtreſs, but only to put them on their guard againſt being too much in company with thoſe who are afflicted with diſeaſes of an infectious nature.

Such as wait upon the ſick in infectious diſeaſes run very great hazard. They ſhould ſtuff their noſes with tobacco, or ſome other ſtrong ſmelling herb, as rue, tanſy, or the like. They ought likewiſe to keep the patient very clean; to ſprinkle the room where he lies with vinegar, or other ſtrong acids; frequently to admit a ſtream of freſh air into it, and to avoid the ſmell of his breath as much as they can. They ought never to go into company without having changed their clothes and waſhed their hands; otherwiſe, if the diſeaſe be infectious, they will in all probability carry the contagion along with them.

There is reaſon to believe that infection is often conveyed from one place to another by the careleſſneſs of the faculty themſelves. Many phyſicians affect a familiar way of ſitting upon the patient's bedſide, and holding his arm for a conſiderable time. If the patient has the ſmall-pox, or any other infectious diſeaſe, there is no doubt but the doctor's hands, clothes, &c. will carry away ſome of the infection; and if he goes directly to viſit another patient without waſhing his hands, changing his clothes, or being expoſed to the open air, which is not ſeldom the caſe, is it any wonder that he ſhould carry the diſeaſe along with him? Phyſicians not only endanger others, but alſo themſelves, by this practice. And indeed they ſometimes ſuffer for their want of care.

However trifling it may appear to inconſiderate perſons, we will venture to affirm, that a due attention to thoſe things which tend to diffuſe infection would be of great importance in preventing diſeaſes. As moſt diſeaſes are in ſome degree infectious, no one ſhould continue long with the ſick, except the neceſſary attendants. I mean not, however, by this caution, to deter thoſe whoſe duty or office leads them to wait upon the ſick from ſuch a laudable and neceſſary employment.

Many things are in the power of the magiſtrate which would tend to prevent the ſpreading of infection; as the promoting of public cleanlineſs; removing gaols, hoſpitals, burying grounds, and other places where infection may be generated, at a proper diſtance from great towns; widening the ſtreets; pulling down uſeleſs walls, and taking all methods to promote a free circulation of air through every part of the town, &c. Public hoſpitals, or proper places of reception for the ſick, provided they were kept clean, well ventilated, and placed in an open ſituation, would likewiſe tend to prevent the ſpreading of infection. Such places of reception would prevent the poor, when ſick, from being viſited by their idle or officious neighbours. They would likewiſe render it unneceſſary for ſick ſervants to be kept in their maſters' houſes. Maſters had better pay for having their ſervants taken care of in an hoſpital, than run the hazard of having an infectious diſeaſe diffuſed among a numerous family. Sick ſervants and poor people, when placed in hoſpitals, are not only leſs apt to diffuſe infection among their neighbours, but have likewiſe the advantage of being well attended.

We are not, however, to learn, that hoſpitals, inſtead of preventing infection, may become the means of diffuſing it. When they are placed in the middle of great towns; when numbers of patients are crowded together in ſmall apartments; when there is a conſtant communication kept up between the citizens and the patients; and when cleanlineſs and ventilation are neglected, they become neſts for hatching diſeaſes, and every one who goes into them not only runs a riſk of receiving infection himſelf, but likewiſe of communicating it to others: this however is not the fault of the hoſpitals, but of thoſe who have the management of them. It were to be wiſhed that they were both more numerous, and upon a more reſpectable footing, as that would induce people to go into them with leſs reluctance. This is the more to be deſired, becauſe moſt of the putrid fevers and other infectious diſorders break out among the poor, and are by them communicated to the better ſort. Were proper attention paid to the firſt appearances of ſuch diſorders, and the patients early conveyed to an hoſpital, we ſhould ſeldom ſee a putrid fever, which is almoſt as infectious as the plague, become epidemic.

To purify hoſpitals, ſhips, houſes, or apartments infected with contagion, immerſe a tea-cup into a pipkin of heated ſand; put into the tea-cup half an ounce of concentrated vitriolic acid (oil of vitriol) gently heated, and half an ounce of purified nitre in powder: ſtir them together with a glaſs ſpatula until a conſiderable degree of vapour ariſes. It may be left ſtanding ſome time, or carried about in the hands of the operator, to render the fumes more generally diffuſivē. Or put three or four handfulls of common ſalt into a plate or pipkin, and pour on it a little nitrous acid *(aqua fortis)* from time to time, till you think the premiſes are ſufficiently fumigated.

CHAP. X.

OF THE PASSIONS.

THE paſſions have great influence both in the cauſe and cure of diſeaſes. How the mind affects the body, will in all probability ever remain a ſecret. It is ſufficient for us to know, that there is eſtabliſhed a reciprocal influence between the mental and corporeal parts, and that whatever injures the one diſorders the other.

OF ANGER.

The paſſion of *anger* ruffles the mind, diſtorts the countenance, hurries on the circulation of the blood, and diſorders the whole vital and animal functions. It often occaſions fevers, and other acute diſeaſes; and ſometimes even ſudden death. This paſſion is peculiarly hurtful to the delicate, and thoſe of weak nerves. I have known ſuch perſons frequently loſe their lives by a violent fit of anger, and would adviſe them to guard againſt the exceſs of this paſſion with the utmoſt care.

It is not, indeed, always in our power to prevent being angry; but we may ſurely avoid harbouring reſentment in our breaſt. Reſentment preys upon the mind, and occaſions the moſt obſtinate chronical diſorders, which gradually waſte the conſtitution. Nothing ſhews true greatneſs of mind more than to forgive injuries; it promotes the peace of ſociety, and greatly conduces to our own eaſe, health, and felicity.

Such as value health ſhould avoid violent guſts of anger, as they would the moſt deadly poiſon. Neither ought they to indulge reſentment, but to endeavour at all times to keep their minds calm and ſerene. Nothing tends ſo much to the health of the body, as a conſtant tranquillity of mind.

OF FEAR.

The influence of *fear*, both in occaſioning and aggravating diſeaſes, is very great. No man ought to be blamed for a decent concern about life; but too great a deſire to preſerve it is often the cauſe of loſing it. Fear and anxiety, by depreſſing the ſpirits, not only diſpoſe us to diſeaſes, but often render thoſe diſeaſes fatal which an undaunted mind would overcome.

Sudden fear has generally violent effects. Epileptic fits, and other convulſive diſorders, are often occaſioned by it: hence the danger of that practice, ſo common among young people, of frightening one another. Many have loſt their lives, and others have been rendered miſerable, by frolics of this kind. It is dangerous to tamper with the human paſſions. The mind may eaſily be thrown into ſuch diſorder as never again to act with regularity.

But the gradual effects of fear prove moſt hurtful. The conſtant dread of ſome future evil, by dwelling upon the mind, often occaſions the very evil itſelf: hence it comes to paſs, that ſo many die of thoſe very diſeaſes of which they long had a dread, or which had been impreſſed on their minds by ſome accident, or fooliſh predic-

tion. This, for example, is often the caſe with women in child-bed. Many of thoſe who die in that ſituation are impreſſed with the notion of their death a long time before it happens; and there is reaſon to believe that this impreſſion is often the cauſe of it.

The methods taken to impreſs the minds of women with the apprehenſions of the great *pain* and *peril* of child-birth are very hurtful. Few women die in labour, though many loſe their lives after it; which may be thus accounted for. A woman after delivery, finding herſelf weak and exhauſted, immediately apprehends ſhe is in danger; but this fear ſeldom fails to obſtruct the neceſſary evacuations, upon which her recovery depends. Thus the ſex often fall a ſacrifice to their own imaginations, when there would be no danger, did they apprehend none.

It ſeldom happens that two or three women in a great town die in child-bed but their death is followed by many others. Every woman of their acquaintance who is with child dreads the ſame fate, and the diſeaſe becomes epidemical by the mere force of imagination. This ſhould induce pregnant women to deſpiſe fear, and by all means to avoid thoſe tattling goſſips who are continually buzzing in their ears the misfortunes of others. Every thing that may in the leaſt alarm a pregnant or child-bed woman ought with the greateſt care to be guarded againſt.

Many women have loſt their lives in child-bed by the old ſuperſtitious cuſtom, ſtill kept up in moſt parts of Britain, of tolling the pariſh bell for every perſon who dies. People who think themſelves in danger are very inquiſitive; and if they come to know that the bell tolls for one who died in the ſame ſituation as themſelves, what muſt be the conſequence? At any rate, they are apt to ſuppoſe that this is the caſe; and it will often be found a very difficult matter to perſuade them of the contrary.

But this cuſtom is not pernicious to child-bed women only. It is hurtful in many other caſes. When low fevers, in which it is difficult to ſupport the patient's ſpirits, prevail, what muſt be the effect of a funeral peal ſounding five or ſix times a day in his ears? No doubt his imagination will ſuggeſt that others died of the ſame diſeaſe under which he labours. This apprehenſion will have a greater tendency to depreſs his ſpirits, than all the cordials of which medicine can boaſt will have to raiſe them.

If this uſeleſs piece of ceremony cannot be aboliſhed, we ought to keep the ſick as much from hearing it as poſſible, and from every other thing that may tend to alarm them. So far however is this from being generally attended to, that many make it their buſineſs to viſit the ſick, on purpoſe to whiſper diſmal ſtories in their ears. Such may paſs for ſympathizing friends, but they ought rather to be conſidered as enemies. All who wiſh well to the ſick ought to keep ſuch perſons at the greateſt diſtance from them.

A cuſtom has long prevailed among phyſicians of prognoſticating, as they call it, the patient's fate, or foretelling the iſſue of the diſeaſe. Vanity no doubt introduced this practice, and ſtill ſupports it, in ſpite of common ſenſe and the ſafety of mankind. I

have known a phyſician barbarous enough to boaſt, that he pronounced more *ſentences* than all his Majeſty's judges. Would to God that ſuch ſentences were not often equally fatal! It may indeed be alledged that the doctor does not declare his opinion before the patient. So much the worſe. A ſenſible patient had better hear what the doctor ſays, than learn it from the diſconſolate looks, the watery eyes, and the broken whiſpers of thoſe about him. It ſeldom happens, when the doctor gives an unfavourable opinion, that it can be concealed from the patient. The very embarraſſment which the friends and attendants ſhew in diſguiſing what he has ſaid is generally ſufficient to diſcover the truth.

We do not ſee what right any man has to announce the death of another, eſpecially if ſuch a declaration has a chance to kill him. Mankind are, indeed, very fond of prying into future events, and ſeldom fail to ſolicit the phyſician for his opinion. A doubtful anſwer, however, or one that may tend rather to encourage the hopes of the ſick, is ſurely the moſt proper. This conduct could neither hurt the patient nor the phyſician. Nothing tends more to deſtroy the credit of phyſic than thoſe bold prognoſticators, who, by the bye, are generally the moſt ignorant of the faculty. The miſtakes which daily happen in this way are ſo many ſtanding proofs of human vanity and the weakneſs of ſcience.

We readily admit that there are caſes where the phyſician ought to give intimation of the patient's danger to ſome of his near connections, though even this ought always to be done with the greateſt caution; but it never can be neceſſary in any caſe that the whole town and country ſhould know, immediately after the doctor has made his firſt viſit, *that he has no hopes of his patient's recovery*. Perſons whoſe impertinent curioſity leads them to queſtion the phyſician, with regard to the fate of his patient, certainly deſerve no other than an evaſive anſwer.

The vanity of foretelling the fate of the ſick is not peculiar to the faculty. Others follow their example, and thoſe who think themſelves wiſer than their neighbours often do much hurt in this way. Humanity ſurely calls upon every one to comfort the ſick, and not to add to their affliction by alarming their fears. A friend, or even a phyſician, may often do more good by a mild and ſympathizing behaviour than by medicine, and ſhould never neglect to adminiſter that greateſt of all cordials, HOPE.

OF GRIEF.

Grief is the moſt deſtructive of all the paſſions. Its effects are permanent; and, when it ſinks deep into the mind, it generally proves fatal. Anger and fear, being of a more violent nature, ſeldom laſt long; but grief often changes into a fixed melancholy, which preys upon the ſpirits, and waſtes the conſtitution. This paſſion ought not to be indulged. It may generally be conquered at the beginning; but, when it has gained ſtrength, all attempts to remove it are vain.

No perſon can prevent misfortunes in life; but it ſhews true great-

neſs of mind to bear them with ſerenity. Many perſons make a merit of indulging grief, and, when misfortunes happen, they obſtinately refuſe all conſolation, till the mind, overwhelmed with melancholy, ſinks under the load. Such conduct is not only deſtructive to health, but inconſiſtent with reaſon, religion, and common ſenſe.

Change of ideas is as neceſſary for health as change of poſture. When the mind dwells long upon one ſubject, eſpecially of a diſagreeable nature, it hurts the whole functions of the body. Hence grief indulged ſpoils the digeſtion and deſtroys the appetite; by which means the ſpirits are depreſſed, the nerves relaxed, the bowels inflated with wind, and the humours, for want of freſh ſupplies of chyle, vitiated. Thus many an excellent conſtitution has been ruined by a family misfortune, or any thing that occaſions exceſſive grief.

It is utterly impoſſible that any perſon of a dejected mind ſhould enjoy health. Life may indeed be dragged out for a few years; but whoever would live to a good old age, muſt be good humoured, and cheerful. This indeed is not altogether in our own power; yet our temper of mind, as well as our actions, depend greatly upon ourſelves. We can either aſſociate with cheerful or melancholy companions, mingle in the amuſements and offices of life, or ſit ſtill and brood over our calamities as we chooſe: theſe and many ſuch things are certainly in our power, and from theſe the mind generally takes its caſt.

The variety of ſcenes which preſent themſelves to the ſenſes were certainly deſigned to prevent our attention from being too long fixed upon any one object. Nature abounds with variety, and the mind, unleſs fixed down by habit, delights in contemplating new objects. This at once points out the method of relieving the mind in diſtreſs. Turn the attention frequently to new objects. Examine them for ſome time. When the mind begins to recoil, ſhift the ſcene. By this means a conſtant ſucceſſion of new ideas may be kept up, till the diſagreeable ones entirely diſappear. Thus travelling, the ſtudy of any art or ſcience, reading, or writing on ſuch ſubjects as deeply engage the attention, will ſooner expel grief than the moſt ſprightly amuſements.

It has already been obſerved, that the body cannot be healthy unleſs it be exerciſed; neither can the mind. Indolence nouriſhes grief. When the mind has nothing elſe to think of but calamities, no wonder that it dwells there. Few people who purſue buſineſs with attention are hurt by grief. Inſtead therefore of abſtracting ourſelves from the world or buſineſs when misfortunes happen, we ought to engage in it with more than uſual attention, to diſcharge with double diligence the functions of our ſtation, and to mix with friends of a cheerful and ſocial temper.

Innocent amuſements are by no means to be neglected. Theſe, by leading the mind inſenſibly to the contemplation of agreeable objects, help to diſpel the gloom which misfortunes caſt over it. They make time ſeem leſs tedious, and have many other happy effects.

Many perſons, when overwhelmed with grief, betake themſelves

to drinking. This is making the cure worſe than the diſeaſe. It ſeldom fails to end in the ruin of fortune, character, and conſtitution.

OF LOVE.

Love is perhaps the ſtrongeſt of all the paſſions; at leaſt, when it becomes violent it is leſs ſubject to the controul either of the underſtanding or will, than any of the reſt. Fear, anger, and ſeveral other paſſions, are neceſſary for the preſervation of the individual, but love is neceſſary for the continuation of the ſpecies itſelf: it was therefore proper that this paſſion ſhould be deeply rooted in the human breaſt.

Though love be a ſtrong paſſion, it is ſeldom ſo rapid in its progreſs as ſeveral of the others. Few perſons fall deſperately in love all at once. We would therefore adviſe every one, before he tampers with this paſſion, to conſider well the probability of his being able to obtain the object of his wiſhes. When that is not likely, he ſhould avoid every occaſion of increaſing it. He ought immediately to flee the company of the beloved object; to apply his mind attentively to buſineſs or ſtudy; to take every kind of amuſement; and, above all, to endeavour, if poſſible, to find another object which may engage his affections, and which it may be in his power to obtain.

Some men make love for amuſement, others from mere vanity, or on purpoſe to ſhew their conſequence with the fair. Hence the too credulous fair are often betrayed into a ſituation which is truly deplorable. And the conduct of parents with regard to the diſpoſal of their children in marriage is often very blameable. An advantageous match is the conſtant aim of parents; while their children often ſuffer a real martyrdom betwixt their inclinations and duty. The firſt thing which parents ought to conſult in diſpoſing their children in marriage, is certainly their inclinations. Were due regard always paid to theſe, there would be fewer unhappy couples, and parents would not have ſo often cauſe to repent the ſeverity of their conduct, after a ruined conſtitution, a loſt character, or a diſtracted mind, has ſhewn them their miſtake.

OF RELIGIOUS MELANCHOLY.

Many perſons of a religious turn of mind behave as if they thought it a crime to be cheerful. They imagine the whole of religion conſiſts in certain mortifications, or denying themſelves the ſmalleſt indulgence, even of the moſt innocent amuſements. A perpetual gloom hangs over their countenances, while the deepeſt melancholy preys upon their minds. At length the faireſt proſpects vaniſh, every thing puts on a diſmal appearance, and thoſe very objects which ought to give delight, afford nothing but diſguſt. Life itſelf becomes a burden, and the unhappy wretch, perſuaded that no evil can equal what he feels, often puts an end to his miſerable exiſtence.

It is a great pity that ever religion ſhould be ſo far perverted as to become the cauſe of thoſe very evils which it was deſigned to cure. Nothing can be better calculated than *True Religion* to raiſe and ſupport the mind of its votaries under every affliction that can befal them. It teaches men that even the ſufferings of this life are prepa-

ratory to the happineſs of the next; and that all who perſiſt in a courſe of virtue ſhall at length arrive at complete felicity.

Thoſe whoſe buſineſs it is to recommend religion to others, ſhould beware of dwelling too much on gloomy ſubjects. That peace and tranquillity of mind, which true religion is calculated to inſpire, is a more powerful argument in its favour than all the terrors that can be uttered. Terror may, indeed, deter men from outward acts of wickedneſs, but can never inſpire them with that love of God, and real goodneſs of heart, in which alone true religion conſiſts.

To conclude; the beſt way to counteract the violence of any paſſion is to keep the mind cloſely engaged in ſome uſeful purſuit.

CHAP. XI.

OF THE COMMON EVACUATIONS.

THE principal evacuations from the human body are thoſe by *ſtool*, *urine*, and *inſenſible perſpiration*. None of theſe can be long obſtructed without impairing the health. When that which ought to be thrown out of the body is too long retained, it not only occaſions a *plethora*, or too great fulneſs of the veſſels, but acquires qualities which are hurtful to the health, as acrimony, putreſcence, &c.

OF THE EVACUATION BY STOOL.

Few things conduce more to health than keeping the body regular. When the *fæces* lie too long in the bowels, they vitiate the humours; and when they are too ſoon diſcharged, the body is not ſufficiently nouriſhed. A medium is therefore to be deſired, which can only be obtained by regularity in diet, ſleep, and exerciſe. Whenever the body is not regular, there is reaſon to ſuſpect a fault in one or other of theſe.

Perſons who eat and drink at irregular hours, and who eat various kinds of food, and drink of ſeveral different liquors at every meal, have no reaſon to expect either that their digeſtion will be good, or their diſcharges regular. Irregularity in eating and drinking diſturbs every part of the animal œconomy, and never fails to occaſion diſeaſes. Either too much or too little food will have this effect. The former, indeed, generally occaſions looſeneſs, and the latter coſtiveneſs; but both have a tendency to hurt the health.

It would be difficult to aſcertain the exact number of ſtools which may be conſiſtent with health, as theſe differ in the different periods of life, in different conſtitutions, and even in the ſame conſtitution under a different regimen of diet, exerciſe, &c. It is however generally allowed, that one ſtool a day is ſufficient for an adult, and that leſs is hurtful. But this, like moſt general rules, admits of many exceptions. I have known perſons in perfect health who did not go to ſtool above once a-week; and ſome perſons have told me, that they did not go to ſtool above once a-month. Such a degree of coſtiveneſs however is not ſafe: though the perſon who

labours under it may for ſome time enjoy tolerable health, yet at length it may occaſion diſeaſes.

One method of procuring a ſtool every day is to riſe betimes, and go abroad in the open air. Not only the poſture in bed is unfavourable to regular ſtools, but alſo the warmth. This, by promoting the perſpiration, leſſens all the other diſcharges.

The method recommended for this purpoſe by Mr. Locke is likewiſe very proper, viz. *to ſolicit nature, by going regularly to ſtool every morning whether one has a call or not.* Habits of this kind may be acquired, which will in time become natural.

Perſons who have a frequent recourſe to medicines for preventing coſtiveneſs ſeldom fail to ruin their conſtitution. Purging medicines frequently repeated weaken the bowels, hurt the digeſtion, and every doſe makes way for another, till at length they become as neceſſary as daily bread. Thoſe who are troubled with coſtiveneſs ought rather, if poſſible, to remove it by diet than by drugs. They ſhould likewiſe go thinly cloathed, and avoid every thing of an aſtringent or of an heating nature. The diet and other regimen neceſſary in this caſe will be found under the article *Coſtiveneſs*, where this ſtate of the bowels is treated as a diſeaſe.

Such perſons as are troubled with an habitual looſeneſs ought likewiſe to ſuit their diet to the nature of their complaint: they ſhould uſe food which braces and ſtrengthens the bowels, and which is rather of an aſtringent quality, as wheat-bread made of the fineſt flour, cheeſe, eggs, rice boiled in milk, &c. Their drink ſhould be red port, claret, brandy and water in which toaſted bread has been boiled, and ſuch like.

As an habitual looſeneſs is often owing to an obſtructed perſpiration, perſons affected with it ought to keep their feet warm, to wear flannel next their ſkin, and take every other method to promote the perſpiration. Further directions with regard to the treatment of this complaint will be found under the article *Looſeneſs*.

OF URINE.

So many things tend to change both the quantity and appearances of the urine, that it is very difficult to lay down any determined rules for judging of either. Dr. Cheyne ſays, the urine ought to be equal to three fourths of the liquid part of our aliment. But ſuppoſe any one were to take the trouble of meaſuring both, he would find that every thing which altered the degree of perſpiration would alter this proportion, and likewiſe that different kinds of aliment would afford very different quantities of urine. Though for theſe, and other reaſons, no rule can be given for judging of the preciſe quantity of urine which ought to be diſcharged, yet a perſon of common ſenſe will ſeldom be at a loſs to know when it is in either extreme.

It has long been an obſervation among phyſicians, that the appearances of the urine are very uncertain, and very little to be depended on. No one will be ſurpriſed at this who conſiders how many ways it may be affected, and conſequently have its appearance altered. The paſſions, the ſtate of the atmoſphere, the quantity and quality of the food, the exerciſe, the clothing, the ſtate of the other

evacuations, and numberleſs other cauſes, are ſufficient to induce a change either in the quantity or appearance of the urine. Any one who attends to this will be aſtoniſhed at the impudence of thoſe daring quacks, who pretend to find out diſeaſes, and preſcribe to patients from the bare inſpection of their urine. Theſe impoſtors, however, are very common all over Britain, and, by the amazing credulity of the populace, many of them have amaſſed conſiderable fortunes.

As a free diſcharge of urine not only prevents but actually cures many diſeaſes, it ought by all means to be promoted; and every thing that may obſtruct it ſhould be carefully avoided. Both the ſecretion and diſcharge of urine are leſſened by a ſedentary life, ſleeping on beds that are too ſoft and warm, food of a dry and heating quality, liquors which are aſtringent and heating, as red port, claret, and ſuch like. Thoſe who have reaſon to ſuſpect that their urine is in too ſmall quantity, or who have any ſymptoms of the gravel, ought not only to avoid theſe things, but whatever elſe they find has a tendency to leſſen the quantity of their urine.

When the urine is too long retained, it is not only reſorbed, or taken up again into the maſs of fluids, but by ſtagnating in the bladder it becomes thicker, the more watery parts flying off firſt, and the more groſs and earthy remaining behind. By the conſtant tendency which theſe have to concrete, the formation of ſtones and gravel in the bladder is promoted: hence it comes to paſs that indolent and ſedentary people are much more liable to theſe diſeaſes than perſons of a more active life.

Many perſons have loſt their lives, and others have brought on very tedious and even incurable diſorders, by retaining their urine too long, from a falſe delicacy. When the bladder has been overdiſtended, it often loſes its power of action altogether, or becomes paralytic, by which means it is rendered unable either to retain the urine, or expel it properly. The calls of nature ought never to be poſtponed. Delicacy is doubtleſs a virtue, but that can never be reckoned true delicacy which induces any one to riſk his health or hazard his life.

But the urine may be in too great as well as too ſmall a quantity. This may be occaſioned by drinking large quantities of weak watery liquors, by the exceſſive uſe of alkaline ſalts, or any thing that ſtimulates the kidnies, dilutes the blood, &c. This diſorder very ſoon weakens the body, and induces a conſumption. It is difficult to cure, but may be mitigated by ſtrengthening diet and aſtringent medicines, ſuch as are recommended under the article *Diabetes*, or exceſſive diſcharge of urine.

OF THE PERSPIRATION.

Inſenſible perſpiration is generally reckoned the greateſt of all the diſcharges from the human body. It is of ſo great importance to health, that few diſeaſes attack us while it goes properly on; but when it is obſtructed, the whole frame is ſoon diſordered. This diſcharge however, being leſs perceptible than any of the reſt, is conſequently leſs attended to: hence it is, that acute fevers, rheumatiſms,

agues, &c. often proceed from obſtructed perſpiration before we are aware of its exiſtence.

On examining patients, we find moſt of them impute their diſeaſes either to violent colds which they had caught, or to ſlight ones which had been neglected. For this reaſon, inſtead of a critical enquiry into the nature of the perſpiration, its difference in different ſeaſons, climates, conſtitutions, &c. we ſhall endeavour to point out the cauſes which moſt commonly obſtruct it, and to ſhew how far they may be either avoided, or have their influence counteracted by timely care. The want of due attention to theſe, coſts Britain annually ſome thouſands of uſeful lives. Warm clothing of ſailors in cold climates is indiſpenſibly neceſſary to preſerve their health.

CHANGES IN THE ATMOSPHERE.

One of the moſt common cauſes of obſtructed perſpiration, or catching cold, in this country, is the changeableneſs of the weather, or ſtate of the atmoſphere. There is no place where ſuch changes happen more frequently than in Great Britain. With us the degrees of heat and cold are not only very different in the different ſeaſons of the year, but often change almoſt from one extreme to another in a few days, and ſometimes even in the courſe of one day. That ſuch changes muſt affect the ſtate of perſpiration is obvious to every one.

The beſt method of fortifying the body againſt the changes of the weather, is to be abroad every day. Thoſe who keep moſt within doors, are moſt liable to catch cold. Such perſons generally render themſelves ſo delicate as to feel even the ſlighteſt changes in the atmoſphere, and by their pains, coughs, oppreſſions of the breaſt, &c. they become a kind of living barometers.

WET CLOTHES.

Wet clothes not only by their coldneſs obſtruct the perſpiration, but their moiſture, by being abſorbed, or taken up into the body, greatly increaſes the danger. The moſt robuſt conſtitution is not proof againſt the danger ariſing from wet clothes; they daily occaſion fevers, rheumatiſms, and other fatal diſorders, even in the young and healthy.

It is impoſſible for people who go frequently abroad to avoid ſometimes being wet. But the danger might generally be leſſened, if not wholly prevented, by changing their clothes ſoon: when this cannot be done, they ſhould keep in motion till they be dry. So far are many from taking this precaution, that they often ſit or lie down in the fields with their clothes wet, and frequently ſleep even whole nights in this condition. The frequent inſtances which we have of the fatal effects of this conduct ought certainly to deter all from being guilty of it.

WET FEET.

Even wet feet often occaſion fatal diſeaſes. The cholic, inflammations of the breaſt and of the bowels, the iliac paſſion, *cholera morbus*, &c. are often occaſioned by wet feet. Habit will, no doubt,

render this leſs dangerous; but it ought, as far as poſſible, to be avoided. The delicate, and thoſe who are not accuſtomed to have their clothes or feet wet, ſhould be peculiarly careful in this reſpect.

NIGHT AIR.

The perſpiration is often obſtructed by night air: even in ſummer, this ought to be avoided. The dews which fall plentifully after the hotteſt day, make the night more dangerous than when the weather is cool: hence, in warm countries, the evening dews are more hurtful than where the climate is more temperate.

It is very agreeable after a warm day to be abroad in a cool evening; but this is a pleaſure to be avoided by all who value their health. The effects of evening dews are gradual indeed, and almoſt imperceptible; but they are not the leſs to be dreaded: we would therefore adviſe travellers, labourers, and all who are much heated by day, carefully to avoid them. When the perſpiration has been great, theſe become dangerous in proportion. By not attending to this, in flat marſhy countries, where the exhalations and dews are copious, labourers are often ſeized with intermitting fevers, quinſeys, and other dangerous maladies.

DAMP BEDS.

Beds become damp, either from their not being uſed, ſtanding in damp houſes, or in rooms without fire, or from the linen not being dry when laid on the bed. Nothing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is ſcarce. When a traveller, cold and wet, arrives at an inn, he may by means of a good fire, warm diluting liquor, and a dry bed, have the perſpiration reſtored; but if he be put into a cold room, and laid in a damp bed, it will be more obſtructed, and the worſt conſequences will enſue. Travellers ſhould avoid inns which are noted for damp beds, as they would a houſe infected with the plague, as no man, however robuſt, is proof againſt the danger ariſing from them.

But inns are not the only places where damp beds are to be met with. Beds kept in private families for the reception of ſtrangers are often equally dangerous. All kinds of linen and bedding, when not frequently uſed, become damp. How, then, is it poſſible that beds, which are not ſlept in above two or three times a year, ſhould be ſafe? Nothing is more common than to hear people complain of having caught cold by changing their bed. The reaſon is obvious: were they careful never to ſleep in a bed but what was frequently uſed, they would ſeldom find any ill conſequences from a change.

Nothing is more to be dreaded by a delicate perſon when on a viſit than being laid in a bed which is kept on purpoſe for ſtrangers: that ill-judged piece of complaiſance becomes a real injury. All the bad conſequences from this quarter might eaſily be prevented in private families, by cauſing their ſervants to ſleep in the ſpare beds, and reſign them to ſtrangers when they come. In inns, where the beds are uſed almoſt every night, nothing elſe is neceſſary than to keep the rooms well ſeaſoned by frequent fires, and the linen dry.

DAMP HOUSES.

Damp houſes frequently produce the like ill conſequences; for this reaſon, thoſe who build ſhould be careful to chuſe a dry ſituation. A houſe which ſtands on a damp marſhy ſoil or deep clay will never be thoroughly dry. All houſes, unleſs where the ground is exceedingly dry, ſhould have the firſt floor a little raiſed. Servants and others, who are obliged to live in cellars and ſunk ſtories, ſeldom continue long in health: maſters ought ſurely to pay ſome regard to the health of their ſervants as well as to their own.

Nothing is more common than for people, merely to avoid ſome trifling inconveniency, to hazard their lives, by inhabiting a houſe almoſt as ſoon as the maſons, plaiſterers, &c. have done with it: ſuch houſes are not only dangerous from their dampneſs, but likewiſe from the ſmell of lime, paint, &c. The aſthmas, conſumptions, and other diſeaſes of the lungs, ſo incident to people who work in theſe articles, are ſufficient proofs of their being unwholeſome.

Rooms are often rendered damp by an unſeaſonable piece of cleanlineſs; I mean the pernicious cuſtom of waſhing them immediately before company is put into them. Moſt people catch cold if they ſit but a very ſhort time in a room that has been lately waſhed: the delicate ought carefully to avoid ſuch a ſituation, and even the robuſt are not always proof againſt its baneful influence.

SUDDEN TRANSITIONS FROM HEAT TO COLD.

The perſpiration is commonly obſtructed by SUDDEN TRANSITIONS from heat to cold. Colds are ſeldom caught, unleſs when people have been too much heated. Heat rarifies the blood, quickens the circulation, and increaſes the perſpiration; but when theſe are ſuddenly checked, the conſequences muſt be bad. It is, indeed, impoſſible for labourers not to be too hot upon ſome occaſions; but it is generally in their power to let themſelves cool gradually, to put on their clothes when they leave off work, to make choice of a dry place to reſt themſelves in, and to avoid ſleeping in the open fields. Theſe eaſy rules, if obſerved, would ſave many uſeful lives.

It is very uſual for people, when hot, to drink freely of cold water, or ſmall liquors. This conduct is extremely dangerous. Thirſt indeed is hard to bear, and the inclination to gratify that appetite frequently gets the better of reaſon, and makes us do what our judgment diſapproves. Every peaſant, however, knows, if his horſe be permitted to drink his bellyful of cold water after violent exerciſe, and be immediately put into the ſtable, or ſuffered to remain at reſt, that it will kill him. This they take the utmoſt care to prevent. It were well if they were equally attentive to their own ſafety.

Thirſt may be quenched many ways without ſwallowing large quantities of cold liquor. The fields afford variety of acid fruits and plants, the very chewing of which would abate thirſt. Water kept in the mouth for ſome time, and ſpit out again, if frequently repeated, will have the ſame effect. If a bit of bread be eaten along with a few mouthfuls of water, it will both quench thirſt more effectually, and make the danger leſs. When a perſon is extremely hot, a mouthful

of brandy, or other ſpirits, if it can be obtained, ought to be preferred to any thing elſe. But if any one has been ſo fooliſh, when hot, as to drink freely of cold liquor, he ought to continue his exerciſe at leaſt till what he drank be thoroughly warmed upon his ſtomach.

It would be tedious to enumerate all the bad effects which flow from drinking cold liquors when the body is hot. Sometimes this has occaſioned immediate death. Hoarſeneſs, quinſeys, and fevers of various kinds, are its common conſequences. Neither is it ſafe when warm to eat freely of raw fruits, ſalads, or the like. Theſe, indeed, have not ſo ſudden an effect on the body as cold liquors, but they are notwithſtanding dangerous, and ought to be avoided.

Sitting in a warm room, and drinking hot liquors till the pores are quite open, and immediately going into the cold air, is extremely dangerous. Colds, coughs, and inflammations of the breaſt, are the uſual effects of this conduct; yet nothing is more common than for people, after they have drank warm liquors for ſeveral hours, to walk or ride a number of miles in the coldeſt night, or to ramble about in the ſtreets.

People are very apt, when a room is hot, to throw open a window, and to ſit near it. This is a moſt dangerous practice. Any perſon had better ſit without doors than in ſuch a ſituation, as the current of air is directed againſt one particular part of the body. Inflammatory fevers and conſumptions have often been occaſioned by ſitting or ſtanding thinly clothed near an open window. Nor is ſleeping with open windows leſs to be dreaded. That ought never to be done, even in the hotteſt ſeaſon, unleſs the window is at a diſtance. I have known mechanics frequently contract fatal diſeaſes by working ſtript at an open window, and would adviſe all of them to beware of ſuch a practice.

Few things expoſe people more to catch cold than keeping their own houſes too warm; ſuch perſons may be ſaid to live in a ſort of hot-houſes; they can hardly ſtir abroad to viſit a neighbour but at the hazard of their lives. Were there no other reaſon for keeping houſes moderately cool, that alone is ſufficient: but no houſe that is too hot can be wholeſome: heat deſtroys the ſpring and elaſticity of the air, and renders it leſs fit for expanding the lungs, and the other purpoſes of reſpiration. Hence it is that conſumptions and other diſeaſes of the lungs prove ſo fatal to people who work in forges, glaſs-houſes, and the like.

Some are even ſo fool-hardy as to plunge themſelves when hot in cold water. Not only fevers, but madneſs itſelf, has frequently been the effect of this conduct. Indeed, it looks too like the action of a madman to deſerve a ſerious conſideration.

The reſult of all theſe obſervations is, that every one ought to avoid, with the utmoſt attention, all ſudden tranſitions from heat to cold, and to keep the body in as uniform a temperature as poſſible; or where that cannot be done, to take care to let it cool gradually.

People may imagine that too ſtrict an attention to theſe things would tend to render them delicate. So far however is this from being my deſign, that the very firſt rule propoſed for preventing colds is to harden the body, by inuring it daily to the open air.

I ſhall conclude what relates to this part of my ſubject by giving an abſtract of the juſtly celebrated advice of Celſus, with reſpect to the preſervation of health. "A man," ſays he, "who is bleſſed "with good health, ſhould confine himſelf to no particular rules, "either with reſpect to regimen or medicine. He ought frequent- "ly to diverſify his manner of living; to be ſometimes in town, "ſometimes in the country; to hunt, ſail, indulge himſelf in reſt, "but more frequently to uſe exerciſe. He ought to refuſe no kind "of food that is commonly uſed, but ſometimes to eat more and "ſometimes leſs; ſometimes to make one at an entertainment, "and ſometimes to forbear it; and to make rather two meals a-day "than one, and always to eat heartily, provided he can digeſt it. "He ought neither too eagerly to purſue nor too ſcrupulouſly to "avoid intercourſe with the fair ſex: pleaſures of this kind, rarely "indulged, render the body alert and active; but when too fre- "quently repeated, weak and languid. He ſhould be careful in "time of health not to deſtroy, by exceſſes of any kind, that vigour "of conſtitution which ſhould ſupport him under ſickneſs."

PART II.

OF DISEASES.

CHAP. XII.

OF THE KNOWLEDGE AND CURE OF DISEASES.

IT is, no doubt, difficult to obtain ſuch a knowledge of diſeaſes ſo as to diſtinguiſh them from one another: this, however, does not depend ſo much upon ſcientific principles as ſome imagine. It is chiefly the reſult of experience and obſervation. By attending the ſick, and carefully obſerving the various occurrences in diſeaſes, a great degree of accuracy may be acquired, both in diſtinguiſhing their ſymptoms and in the application of medicines: hence ſenſible nurſes, and other perſons who wait upon the ſick, often foreſee the patient's fate ſooner than thoſe who have been bred to phyſic. We do not, however, mean to inſinuate that a medical education is of no uſe: it is doubtleſs of the greateſt importance; but it never can ſupply the place of experience and obſervation.

Every diſeaſe may be conſidered as an aſſemblage of ſymptoms, and muſt be diſtinguiſhed by thoſe which are moſt obvious and permanent. Inſtead, therefore, of giving a claſſical arrangement of diſeaſes, according to the ſyſtematic method, it will be more ſuitable, in a performance of this nature, to give a full and accurate deſcription of each particular diſeaſe as it occurs; and, where any

of the ſymptoms of one diſeaſe have a near reſemblance to thoſe of another, to take notice of that circumſtance, and at the ſame time to point out the peculiar or characteriſtic ſymptoms by which it may be diſtinguiſhed. By a due attention to theſe, the inveſtigation of diſeaſes will be found to be a leſs difficult matter than moſt people would at firſt be ready to believe.

A proper attention to the patient's age, ſex, temper of mind, conſtitution, and manner of life, will likewiſe greatly aſſiſt, both in the inveſtigation and treatment of diſeaſes.

In childhood the fibres are lax and ſoft, the nerves extremely irritable, and the fluids thin; whereas in old age the fibres are rigid, the nerves become almoſt inſenſible, and many of the veſſels imperviable. Theſe and other peculiarities render the diſeaſes of the young and aged very different, and of courſe they muſt require a different method of treatment.

Females are liable to many diſeaſes which do not afflict the other ſex: beſides, the nervous ſyſtem being more irritable in them than in men, their diſeaſes require to be treated with greater caution. They are leſs able to bear large evacuations; and all ſtimulating medicines ought to be adminiſtered to them with a ſparing hand.

Particular conſtitutions not only diſpoſe perſons to peculiar diſeaſes, but likewiſe render it neceſſary to treat theſe diſeaſes in a peculiar manner. A delicate perſon, for example, with weak nerves, who lives moſtly within doors, muſt not be treated, under any diſeaſe, preciſely in the ſame manner as one who is hardy and robuſt, and who is much expoſed to the open air.

The temper of mind ought to be carefully attended to in diſeaſes. Fear, anxiety, and a fretful temper, both occaſion and aggravate diſeaſes. In vain do we apply medicines to the body to remove maladies which proceed from the mind. When it is affected, the beſt medicine is to ſooth the paſſions, to divert the mind from anxious thought, and to keep the patient as eaſy and cheerful as poſſible.

Attention ought likewiſe to be paid to the climate, or place where the patient lives, the air he breathes, his diet, &c. Such as live in low marſhy ſituations are ſubject to many diſeaſes which are unknown to the inhabitants of high countries. Thoſe who breathe the impure air of cities have many maladies to which the more happy ruſtics are entire ſtrangers. Perſons who feed groſsly, and indulge in ſtrong liquors, are liable to diſeaſes which do not affect the temperate and abſtemious.

It has already been obſerved, that the different occupations and ſituations in life diſpoſe men to peculiar diſeaſes. It is therefore neceſſary to inquire into the patient's occupation, manner of life, &c. This will not only aſſiſt us in finding out the diſeaſe, but will likewiſe direct us in the treatment of it. It would be very imprudent to treat the laborious and the ſedentary preciſely in the ſame manner, even ſuppoſing them to labour under the ſame diſeaſe.

It will likewiſe be proper to inquire, whether the diſeaſe be conſtitutional or accidental; whether it has been of long or ſhort duration; whether it proceeds from any great and ſudden alteration

in the diet, manner of life, &c. The ſtate of the patient's body, and of the other evacuations, ought alſo to be inquired into; and likewiſe whether he can with eaſe perform all the vital and animal functions, as breathing, digeſtion, &c.

Laſtly, it will be proper to inquire what diſeaſes the patient has formerly been liable to, and what medicines were moſt beneficial to him; if he has a ſtrong averſion to any particular drug, &c.

As many of the indications of cure may be anſwered by diet alone, it is always the firſt thing to be attended to in the treatment of diſeaſes. Thoſe who know no better, imagine that every thing which goes by the name of a medicine poſſeſſes ſome wonderful power or ſecret charm, and think, if the patient ſwallows enough of drugs, that he muſt do well. This miſtake has many ill conſequences; it makes people truſt to drugs, and neglect their own endeavours; beſides, it diſcourages all attempts to relieve the ſick where medicines cannot be procured.

Medicines are, no doubt, uſeful in their places; and when adminiſtered with prudence, they may do much good; but when they are put in place of every thing elſe, or adminiſtered at random, which is not ſeldom the caſe, they muſt do miſchief. We would therefore wiſh to call the attention of mankind from the purſuit of ſecret medicines, to ſuch things as they are acquainted with. The proper regulation of theſe may often do much good, and there is little danger of their ever doing hurt.

Every diſeaſe weakens the digeſtive powers; the diet ought therefore, in all diſeaſes, to be light and of eaſy digeſtion. It would be as prudent for a perſon with a broken leg to attempt to walk, as for one in a fever to eat the ſame kind of food, and in the ſame quantity, as when he was in perfect health. Even abſtinence alone will often cure a fever, eſpecially when it has been occaſioned by exceſs in eating or drinking.

In all fevers attended with inflammation, as pleuriſies, peripneumonies, &c. thin gruels, wheys, watery infuſions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewiſe the beſt medicines which can be adminiſtered.

In fevers of a ſlow, nervous, or putrid kind, where there are no ſymptoms of inflammation, and where the patient muſt be ſupported with cordials, that intention can always be more effectually anſwered by nouriſhing diet and generous wines than by any medicines yet known.

Nor is a proper attention to diet of leſs importance in chronic than in acute diſeaſes. Perſons afflicted with low ſpirits, wind, weak nerves, and other hypochondriacal affections, generally find more benefit from the uſe of ſolid food and generous liquors, than from all the cordial and carminative medicines which can be adminiſtered to them.

The ſcurvy, that moſt obſtinate malady, will ſooner yield to a proper vegetable diet, than to all the boaſted antiſcorbutic remedies of the ſhops.

In conſumptions, when the humours are vitiated, and the ſtomach ſo much weakened as to be unable to digeſt the ſolid fibres of animals, or even to aſſimilate the juices of vegetables, a diet conſiſting chiefly of *milk* will not only ſupport the patient, but will often cure the diſeaſe after every other medicine has failed.

Nor is an attention to other things of leſs importance than to diet. The ſtrange infatuation which has long induced people to ſhut up the ſick from all communication with the external air has done great miſchief. Not only in fevers, but in many other diſeaſes, the patient will receive more benefit from having the freſh air prudently admitted into his chamber, than from all the medicines which can be given him.

Exerciſe may likewiſe in many caſes be conſidered as a medicine. Sailing, or riding on horſeback, for example, will be of more ſervice in the cure of conſumptions, glandular obſtructions, &c. than any medicine yet known. In diſeaſes which proceed from a relaxed ſtate of the ſolids, the cold bath, and other parts of the gymnaſtic regimen, will be found equally beneficial.

Few things are of greater importance in the cure of diſeaſes than cleanlineſs. When a patient is ſuffered to lie in dirty clothes, whatever perſpires from his body is again reſorbed, or taken up into it, which ſerves to nouriſh the diſeaſe and increaſe the danger. Many diſeaſes may be cured by cleanlineſs alone; moſt of them may be mitigated by it, and in all of them it is highly neceſſary both for the patient and thoſe who attend him.

Many other obſervations, were it neceſſary, might be adduced to prove the importance of a proper regimen in diſeaſes. Regimen will often cure diſeaſes without medicine, but medicine will ſeldom ſucceed where a proper regimen is neglected. For this reaſon, in the treatment of diſeaſes, we have always given the firſt place to regimen. Thoſe who are ignorant of medicine may confine themſelves to it only. For others who have more knowledge, we have recommended ſome of the moſt ſimple but approved forms of medicine in every diſeaſe. Theſe, however, are never to be adminiſtered but by people of better underſtanding; nor even by them without a reaſonable degree of precaution.

CHAP. XIII.

OF FEVERS IN GENERAL.

AS more than one half of mankind is ſaid to periſh by fevers, it is of importance to be acquainted with their cauſes. The moſt general cauſes of fevers are, *infection, errors in diet, unwholeſome air, violent emotions of the mind, exceſs or ſuppreſſion of uſual evacuations, external or internal injuries,* and *extreme degrees of heat and cold.* As moſt of theſe have already been treated of at conſiderable length, and their effects ſhewn, we ſhall not now reſume the conſideration of them, but ſhall only recommend it to all, as they would wiſh to avoid fevers and

other fatal diſeaſes, to pay the moſt punctual attention to theſe articles.

Fevers are not only the moſt frequent of all diſeaſes, but they are likewiſe the moſt complex. In the moſt ſimple ſpecies of fever there is always a combination of ſeveral different ſymptoms. The diſtinguiſhing ſymptoms of fever are, *increaſed heat, frequency of pulſe, loſs of appetite, general debility, pain in the head,* and *a difficulty in performing ſome of the vital or animal functions.* The other ſymptoms uſually attendant on fevers are, naufea, thirſt, anxiety, delirium, wearineſs, waſting of the fleſh, want of ſleep, or the ſleep diſturbed, and not refreſhing.

When the fever comes on gradually, the patient generally complains firſt of languor or liſtleſſneſs, ſoreneſs of the fleſh, or the bones, as the country people expreſs it, heavineſs of the head, loſs of appetite, ſickneſs, with clamminеſs of the mouth; after ſome time come on exceſſive heat, violent thirſt, reſtleſſneſs, &c.

When the fever attacks ſuddenly, it always begins with an uneaſy ſenſation of exceſſive cold, accompanied with debility and loſs of appetite; frequently the cold is attended with ſhivering, oppreſſion about the heart, and ſickneſs at ſtomach, or vomiting.

Fevers are divided into continual, remitting, intermitting, and ſuch as are attended with cutaneous eruption or topical inflammation, as the ſmall-pox, eryſipelas, &c. By a continual fever is meant that which never leaves the patient during the whole courſe of the diſeaſe, or which ſhews no remarkable increaſe or abatement in the ſymptoms. This kind of fever is likewiſe divided into acute, ſlow, and malignant. The fever is called *acute* when its progreſs is quick, and the ſymptoms violent; but when theſe are more gentle, it is generally denominated *ſlow*. When livid or petechial ſpots ſhew a putrid ſtate of the humours, the fever is called *malignant, putrid,* or *petechial*.

A remitting fever differs from a continual only in a degree. It has frequent increaſes and decreaſes, or exacerbations and remiſſions, but never wholly leaves the patient during the courſe of the diſeaſe. Intermitting fevers or agues are thoſe which, during the time that the patient may be ſaid to be ill, have evident intervals or remiſſions of the ſymptoms.

As a fever is only an effort of Nature to free herſelf from an offending cauſe, it is the buſineſs of thoſe who have the care of the ſick to obſerve with diligence which way Nature points, and to endeavour to aſſiſt her operations. Our bodies are ſo framed, as to have a conſtant tendency to expel or throw off whatever is injurious to health. This is generally done by urine, ſweat, ſtool, expectoration, vomit, or ſome other evacuation.

There is reaſon to believe that, if the efforts of Nature, at the beginning of a fever, were duly attended to and promoted, it would ſeldom continue long; but when her attempts are either neglected or counteracted, it is no wonder if the diſeaſe proves fatal. There are daily inſtances of perſons who, after catching cold, have all the ſymptoms of a beginning fever; but by keeping warm, drinking diluting liquors,

bathing their feet in warm water, &c. the ſymptoms in a few hours diſappear, and the danger is prevented. When fevers of a putrid kind threaten, the beſt method of obviating their effects is by repeated vomits.

Our deſign is not to enter into a critical enquiry into the nature and immediate cauſes of fevers, but to mark their moſt obvious ſymptoms, and to point out the proper treatment of the patient with reſpect to his diet, drink, air, &c. in the different ſtages of the diſeaſe. In theſe articles the inclinations of the patient will in a great meaſure direct our conduct.

Almoſt every perſon in a fever complains of great thirſt, and calls out for drink, eſpecially of a cooling nature. This at once points out the uſe of *water*, and other cooling liquors. What is ſo likely to abate the heat, attenuate the humours, remove ſpaſms and obſtructions, promote perſpiration, increaſe the quantity of urine, and in ſhort produce every ſalutary effect in an ardent or inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor, of which water is the baſis? The neceſſity of diluting liquors is pointed out by the dry tongue, the parched ſkin, and the burning heat, as well as by the unquenchable thirſt of the patient.

Many cooling liquors, which are extremely grateful to patients in a fever, may be prepared from fruits, as decoctions of tamarinds, apple tea, orange whey, and the like. Mucilaginous liquors might alſo be prepared from marſh-mallow roots, linſeed, lime-tree buds, and other mild vegetables. Theſe liquors, eſpecially when acidulated, are highly agreeable to the patient, and ſhould never be denied him.

At the beginning of a fever the patient generally complains of great laſſitude or wearineſs, and has no inclination to move. This evidently ſhews the propriety of keeping him eaſy, and if poſſible in bed. Lying in bed relaxes the ſpaſms, abates the violence of the circulation, and gives Nature an opportunity of exerting all her force to overcome the diſeaſe. The bed alone would often remove a fever at the beginning; but when the patient ſtruggles with the diſeaſe, inſtead of driving it off, he only fixes it the deeper, and renders it more dangerous. This obſervation is too often verified in travellers, who happen when on a journey to be ſeized with a fever. Their anxiety to get home induces them to travel with the fever upon them, which conduct ſeldom fails to render it fatal.

In fevers the mind as well as the body ſhould be kept eaſy. Company is ſeldom agreeable to the ſick. Indeed, every thing that diſturbs the imagination increaſes the diſeaſe; for which reaſon every perſon in a fever ought to be kept perfectly quiet, and neither allowed to ſee nor hear any thing that may in the leaſt affect or diſcompoſe his mind.

Though the patient in a fever has the greateſt inclination for drink, yet he ſeldom has any appetite for ſolid food: hence the impropriety of urging him to take victuals is evident. Much ſolid food in a fever is every way hurtful: it oppreſſes nature, and, inſtead of nouriſhing the patient, ſerves only to feed the diſeaſe. What food the patient takes ſhould be in ſmall quantity, light, and of eaſy di-

geſtion. It ought to be chiefly of the vegetable kind, as panada, roaſted apples, gruels, and ſuch like.

Poor people, when any of their family are taken ill, run directly to their rich neighbour for cordials, and pour wine, ſpirits, &c. into the patient, who perhaps never had been accuſtomed to taſte ſuch liquors when in health. If there be any degree of fever, this conduct muſt increaſe it; and if there be none, this is the ready way to raiſe one. Stuffing the patient with ſweetmeats and other delicacies is likewiſe very pernicious: theſe are always harder to digeſt than common food, and cannot fail to prove injurious.

Nothing is more deſired by a patient in a fever than freſh air: it not only removes his anxiety, but cools the blood, revives the ſpirits, and proves every way beneficial. Many patients are in a manner ſtifled to death in fevers for want of freſh air; yet ſuch is the unaccountable infatuation of moſt people, that the moment they think a perſon in a fever, they imagine he ſhould be kept in a cloſe chamber, into which not one particle of freſh air muſt be admitted: inſtead of this, there ought to be a conſtant ſtream of freſh air into a ſick perſon's chamber, ſo as to keep it moderately cool. Indeed, its degree of warmth ought never to be greater than is agreeable to one in perfect health.

Nothing ſpoils the air of a ſick perſon's chamber, or hurts the patient more, than a number of people breathing in it. When the blood is inflamed, or the humours in a putrid ſtate, air that has been breathed repeatedly will greatly increaſe the diſeaſe. Such air not only loſes its ſpring, and becomes unfit for the purpoſe of reſpiration, but acquires a noxious quality, which renders it in a manner poiſonous to the ſick.

In fevers, when the patient's ſpirits are low and depreſſed, he is not only to be ſupported with cordials, but every method ſhould be taken to cheer and comfort his mind. Many, from a miſtaken zeal, when they think a perſon in danger, inſtead of ſolacing his mind with the hopes and conſolations of religion, fright him with the views of hell and damnation. It would be unſuitable here to dwell upon the impropriety and dangerous conſequences of this conduct; it often hurts the body, and there is reaſon to believe ſeldom benefits the ſoul.

Among common people, the very name of a fever generally ſuggeſts the neceſſity of bleeding. This notion ſeems to have taken its riſe from moſt fevers in this country having formerly been of an inflammatory nature; but true inflammatory fevers are now ſeldom to be met with. Sedentary occupations, and a different manner of living, have ſo changed the ſtate of diſeaſes in Britain, that there is now hardly one fever in ten where the lancet is neceſſary. In moſt low, nervous, and putrid fevers, which are now ſo common, bleeding is really hurtful, as it weakens the patient, ſinks his ſpirits, &c. We would recommend this general rule, Never to bleed at the beginning of a fever, unleſs there be evident ſigns of inflammation. Bleeding is an excellent medicine when neceſſary, but ſhould never be wantonly performed.

It is likewiſe a common notion, that ſweating is always neceſſary in the beginning of a fever. When the fever proceeds from an obſtructed perſpiration, this notion is not ill-founded. If the patient only lies in bed, bathes his feet and legs in warm water, and drinks freely of warm water-gruel, or any other weak diluting liquor, he will ſeldom fail to perſpire freely. The warmth of the bed, and the diluting drink, will relax the univerſal ſpaſm, which generally affects the ſkin at the beginning of a fever; it will open the pores, and promote the perſpiration, by means of which the fever may often be carred off. But inſtead of this, the common practice is to heap clothes upon the patient, and to give him things of a hot nature, as ſpirits, ſpiceries, &c. which fire his blood, increaſe the ſpaſms, and render the diſeaſe more dangerous.

In all fevers a proper attention ſhould be paid to the patient's longings. Theſe are the calls of Nature, and often point out what may be of real uſe. Patients are not indeed to be indulged in every thing that the ſickly appetite may crave; but it is generally right to let them have a little of what they eagerly deſire, though it may not ſeem altogether proper. What the patient longs for, his ſtomach will generally digeſt; and ſuch things have ſometimes a very happy effect.

When a patient is recovering from a fever, great care is neceſſary to prevent a relapſe. Many perſons, by too ſoon imagining themſelves well, have loſt their lives, or contracted other diſeaſes of an obſtinate nature. As the body after a fever is weak and delicate, it is neceſſary to guard againſt catching cold. Moderate exerciſe in the open air will be of uſe, but great fatigue is by all means to be avoided: agreeable company will alſo have a good effect. The diet muſt be light but nouriſhing; it ſhould be taken frequently, but in ſmall quantities. It is dangerous, at ſuch a time, to eat as much as the ſtomach may crave.

CHAP. XIV.

OF INTERMITTING FEVERS, OR AGUES.

INTERMITTING fevers afford the beſt opportunity both of obſerving the nature of a fever, and alſo the effects of medicine. No perſon can be at a loſs to diſtinguiſh an intermitting fever from any other, and the proper medicine for it is now almoſt univerſally known.

The ſeveral kinds of intermitting fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

CAUSES.——Agues are occaſioned by effluvia from putrid ſtagnating water. This is evident from their abounding in rainy ſeaſons, and being moſt frequent in countries where the ſoil is marſhy, as in Holland, the Fens of Cambridgeſhire, the Hundreds of Eſſex, &c. This diſeaſe may alſo be occaſioned by eating too much ſtone fruit, by a poor watery diet, damp houſes, evening dews, lying upon the damp ground, watching, fatigue, depreſſing paſſions, and the

like. When the inhabitants of a high country remove to a low one, they are generally ſeized with intermitting fevers, and to ſuch the diſeaſe is moſt apt to prove fatal. In a word, whatever relaxes the ſolids, diminiſhes the perſpiration, or obſtructs the circulation in the capillary or ſmall veſſels, diſpoſes the body to agues.

SYMPTOMS.——An intermitting fever generally begins with a pain of the head and loins, wearineſs of the limbs, coldneſs of the extremities, ſtretching, yawning, with ſometimes great ſickneſs and vomiting; to which ſucceed ſhivering and violent ſhaking. Afterwards the ſkin becomes moiſt, and a profuſe ſweat breaks out, which generally terminates the fit or paroxyſm. Sometimes, indeed, the diſeaſe comes on ſuddenly, when the perſon thinks himſelf in perfect health; but it is more commonly preceded by liſtleſſneſs, loſs of appetite, and the ſymptoms mentioned above.

REGIMEN.——While the fit continues, the patient ought to drink freely of water-gruel, orange-whey, weak camomile tea; or, if his ſpirits be low, ſmall wine-whey ſharpened with the juice of lemon. All his drink ſhould be warm, as that will aſſiſt in bringing on the ſweat, and conſequently ſhorten the paroxyſm.

Dr. Lind ſays, that twenty or twenty-five drops of laudanum put into a cup of the patient's drink, and given about half an hour after the commencement of the hot fit, promotes the ſweat, ſhortens the fit, relieves the head, and tends greatly to remove the diſeaſe.

Between the paroxyſms the patient muſt be ſupported with food that is nouriſhing, but light and eaſy of digeſtion, as veal or chicken broths, ſago, gruel with a little wine, light puddings, and ſuch like. His drink may be ſmall negus, acidulated with the juice of lemons or oranges, and ſometimes a little weak punch. He may likewiſe drink infuſions of bitter herbs, as camomile, wormwood, or water trefoil, and may now and then take a glaſs of ſmall wine, in which gentian root, centaury, or ſome other bitter, has been infuſed.

As the chief intentions of cure in an ague are to brace the ſolids, and promote perſpiration, the patient ought to take as much exerciſe between the fits as he can bear. If he be able to go abroad, riding on horſeback, or in a carriage, will be of great ſervice; but if he cannot bear that kind of exerciſe, he ought to take ſuch as his ſtrength will permit. Nothing tends more to prolong an intermitting fever than indulging a lazy indolent diſpoſition.

Intermitting fevers, under a proper regimen, will often go off without medicine; and when the diſeaſe is mild, in an open dry country, there is ſeldom any danger from allowing it to take its courſe; but when the patient's ſtrength ſeems to decline, or the paroxyſms are ſo violent that his life is in danger, medicine ought immediately to be adminiſtered. This, however, ſhould never be done till the diſeaſe be properly formed, that is to ſay, till the patient has had ſeveral fits of ſhaking and ſweating.

MEDICINE.——The firſt thing to be done in the cure of an intermitting fever is to cleanſe the ſtomach and bowels: this not only renders the application of other medicines more ſafe, but likewiſe more efficacious. In this diſeaſe, the ſtomach is generally loaded

with cold viſcid phlegm, and frequently great quantities of bile are diſcharged by vomit; which plainly points out the neceſſity of ſuch evacuations. Vomits are therefore to be adminiſtered before the patient takes any other medicine. A doſe of ipecacuanha will generally anſwer this purpoſe very well. A ſcruple or half a dram of the powder will be ſufficient for an adult, and for a younger perſon the doſe muſt be leſs in proportion. After the vomit begins to operate, the patient ought to drink plentifully of weak camomile-tea. The vomit ſhould be taken two or three hours before the return of the fit, and may be repeated at the diſtance of two or three days. Vomits not only cleanſe the ſtomach, but increaſe the perſpiration, and all the other ſecretions, which render them of ſuch importance, that they often cure intermitting fevers without the aſſiſtance of any other medicine.

Purging medicines are likewiſe uſeful and often neceſſary in intermitting fevers. A ſmart purge has been known to cure an obſtinate ague, after the Peruvian bark and other medicine had been uſed in vain. Vomits, however, are more ſuitable in this diſeaſe, and render purging leſs neceſſary; but if the patient be afraid to take a vomit, he ought in this caſe to cleanſe the bowels by a doſe or two of Glauber's ſalt, jalap, or rhubarb.

Bleeding may ſometimes be proper at the beginning of an intermitting fever, when exceſſive heat, a delirium, &c. give reaſon to ſuſpect an inflammation; but as the blood is ſeldom in an inflammatory ſtate in intermitting fevers, this operation is rarely neceſſary. When frequently repeated, it tends to prolong the diſeaſe.

After proper evacuations the patient may ſafely uſe the Peruvian bark, which may be taken in any way that is moſt agreeable to him. No preparation of the bark ſeems to anſwer better than the moſt ſimple form in which it can be given, viz. in powder.

Two ounces of the beſt Peruvian bark, finely powdered, may be divided into twenty-four doſes. Theſe may either be made into boluſſes as they are uſed, with a little ſyrup of lemon, or mixed in a glaſs of red wine, a cup of camomile-tea, water-gruel, or any other drink that is more agreeable to the patient.

In an ague which returns every day, one of the above doſes may be taken every two hours during the interval of the fits. By this method the patient will be able to take five or ſix doſes between each paroxyſm. In a tertian or third day ague it will be ſufficient to take a doſe every third hour during the interval, and in a quartan every fourth. If the patient cannot take ſo large a doſe of the bark, he may divide each of the powders into two parts, and take one every hour, &c. For a young perſon a ſmaller quantity of this medicine will be ſufficient, and the doſe muſt be adapted to the age, conſtitution, and violence of the ſymptoms. In very obſtinate intermitting fevers, as well as in caſes of gangrene or mortification, cinchona (i. e. the Peruvian bark) muſt be thrown in as faſt as the ſtomach will bear it.

The above quantity of bark will frequently cure an ague; the patient, however, ought not to leave off taking the medicine as ſoon

as the paroxyſms are ſtopped, but ſhould continue to uſe it till there is reaſon to believe the diſeaſe is entirely overcome. Moſt of the failures in the cure of this diſeaſe are owing to patients not continuing to uſe the medicine long enough. They are generally directed to take it till the fits are ſtopped, then to leave it off, and begin again at ſome diſtance of time; by which means the diſeaſe gathers ſtrength, and often returns with as much violence as before. A relapſe may always be prevented by the patient's continuing to take doſes of the medicine for ſome time after the ſymptoms diſappear. This is both the moſt ſafe and effectual method of cure.

An ounce of gentian root, calamus aromaticus, and orange-peel, of each half an ounce, with three or four handfuls of camomile flowers, and an handful of coriander-ſeed, all bruiſed together in a mortar, may be uſed in form of infuſion or tea. About half an handful of theſe ingredients may be put into a tea-pot, and an Engliſh pint of boiling water poured on them. A cup of this infuſion drank three or four times a-day will greatly promote the cure. Such patients as cannot drink the watery infuſion, may put two handfuls of the ſame ingredients into a bottle of white wine, and take a glaſs of it twice or thrice a-day. If patients drink freely of the above, or any other proper infuſion of bitters, a ſmaller quantity of bark than is generally uſed will be ſufficient to cure an ague. We cannot, however, omit taking notice, that the Peruvian bark is very often adulterated, and that it requires conſiderable ſkill to diſtinguiſh between the genuine and the falſe. This ought to make people very cautious of whom they purchaſe it.

Thoſe who cannot ſwallow the bark in ſubſtance, may take it in decoction or infuſion. An ounce of bark in powder may be infuſed in a bottle of white wine for four or five days, frequently ſhaking the bottle; afterwards let the powder ſubſide, and pour off the clear liquor. A wine glaſs may be drank three or four times a-day, or oftener, as there is occaſion. If a decoction be more agreeable, an ounce of the bark, and two drams of ſnake-root bruiſed, with an equal quantity of ſalt of wormwood, may be boiled in a quart of water, to an Engliſh pint. To the ſtrained liquor may be added an equal quantity of red wine, and a glaſs of it taken frequently.

In obſtinate agues, the bark will be found much more efficacious when aſſiſted by brandy, or other warm cordials, than taken alone: this I have had frequently occaſion to obſerve in a country where intermittent fevers were endemical. The bark ſeldom ſucceeded unleſs aſſiſted by ſnake-root, ginger, canella alba, or ſome other warm aromatic. When the fits are very frequent and violent, in which caſe the fever often approaches towards an inflammatory nature, it will be ſafer to keep out the aromatics, and to add ſalt of tartar in their ſtead. But in an obſtinate tertian or quartan, in the end of autumn or beginning of winter, warm and cordial medicines are abſolutely neceſſary.

In obſtinate agues, when the patient is old, the habit phlegmatic, the ſeaſon rainy, the ſituation damp, or the like, it will be neceſſary to mix with two ounces of the bark, half an ounce of Virginian ſnake-

root, and a quarter of an ounce of ginger, or ſome other warm aromatic; but when the ſymptoms are of an inflammatory nature, half an ounce of ſalt of wormwood or ſalt of tartar may be added to the above quantity of bark.

As autumnal and winter agues generally prove much more obſtinate than thoſe which attack the patient in ſpring or ſummer, it will be neceſſary to continue the uſe of medicines longer in the former than in the latter. A perſon who is ſeized with an intermitting fever in the beginning of winter, ought frequently, if the ſeaſon proves rainy, to take a little medicine, although the diſeaſe may ſeem to be cured, to prevent a relapſe, till the return of the warm ſeaſon. He ought likewiſe to take care not to be much abroad in wet weather, eſpecially in cold eaſterly winds.

When agues are not properly cured, they often degenerate into obſtinate chronical diſeaſes, as the dropſy, jaundice, &c. For this reaſon all poſſible care ſhould be taken to have them radically cured, before the conſtitution has been much impaired.

Though nothing is more rational than the method of treating intermitting fevers, yet, by ſome ſtrange infatuation, more charms and whimſical remedies are daily uſed for removing this than any other diſeaſe. There is hardly an old woman who is not in poſſeſſion of a noſtrum for ſtopping an ague; and it is amazing with what readineſs their pretenſions are believed. Thoſe in diſtreſs eagerly graſp at any thing that promiſes ſudden relief; but the ſhorteſt way is not always the beſt in the treatment of diſeaſes. The only method to obtain a ſafe and laſting cure, is gradually to aſſiſt Nature in removing the cauſe of the diſeaſe.

Some indeed try bold or rather fool-hardy experiments to cure agues, as drinking great quantities of ſtrong liquors, jumping into a river, taking arſenic, &c. Theſe may ſometimes have the deſired effect, but muſt always be attended with danger. Arſenic is commonly uſed in Poland as a quack remedy for intermittents; but in no caſe ſhould it be given, unleſs it is directed by a phyſician. When there is any degree of inflammation, or the leaſt tendency to it, ſuch experiments may prove fatal. The only patient whom I remember to have loſt in an intermitting fever, evidently killed himſelf by drinking ſtrong liquor, which ſome perſon had perſuaded him would prove an infallible remedy.

Many dirty things are extolled for the cure of intermitting fevers, as ſpiders, cobwebs, ſnuffings of candles, &c. Though theſe may ſometimes ſucceed, yet their very naſtineſs is ſufficient to ſet them aſide, eſpecially when cleanly medicines will anſwer the purpoſe better. The only medicine that can be depended upon for thoroughly curing an intermittent fever, is the Peruvian bark. It may always be uſed with ſafety; and I can honeſtly declare, that in all my practice I never knew it fail, when combined with the medicines mentioned above, and duly perſiſted in.

Where agues are endemical, even children are often afflicted with that diſeaſe. Such patients are very difficult to cure, as they can ſeldom be prevailed upon to take the bark, or any other diſagreeable

medicine. One method of rendering this medicine more palatable, is to make it into a mixture with diſtilled waters and ſyrup, and afterwards to give it an agreeable ſharpneſs with the elixir or ſpirit of vitriol. This both improves the medicine, and takes off the naufeous taſte. In caſes where the bark cannot be adminiſtered, the *ſaline mixture* (ſee Appendix) may be given with advantage to children, to whom cinchona (Peruvian bark) may be adminiſtered in form of clyſter when they will not take it by the mouth.

Wine-whey is a very proper drink for a child in an ague; to half an Engliſh pint of which may be put a tea ſpoonful of the ſpirit of hartſhorn. Exerciſe is likewiſe of conſiderable ſervice; and when the diſeaſe proves obſtinate, the child ought, if poſſible, to be removed to a warm dry air. The food ought to be nouriſhing, and ſometimes a little generous wine ſhould be allowed.

To children and ſuch as cannot ſwallow the bark, or when the ſtomach will not bear it, it may be given by clyſter. Half an ounce of the extract of bark, diſſolved in four ounces of warm water, with the addition of half an ounce of ſweet oil, and ſix or eight drops of laudanum, is the form recommended by Dr. Lind for an adult, and this to be repeated every fourth hour, or oftener, as the occaſion ſhall require. For children the quantity of extract and laudanum muſt be proportionably leſſened. Children have been cured of agues by making them wear a waiſtcoat with powdered bark quilted between the folds of it; by bathing them frequently in a ſtrong decoction of the bark, and by rubbing the ſpine with ſtrong ſpirits, or with a mixture of equal parts of laudanum and the ſaponaceous liniment.

We have been the more full upon this diſeaſe, becauſe it is very common, and becauſe few patients in an ague apply to phyſicians unleſs in extremities. There are, however, many caſes in which the diſeaſe is very irregular, being complicated with other diſeaſes, or attended with ſymptoms which are both very dangerous and very difficult to underſtand. All theſe we have purpoſely paſſed over, as they would only bewilder the generality of readers. When the diſeaſe is very irregular, or the ſymptoms dangerous, the patient ought immediately to apply to a phyſician, and ſtrictly to follow his advice.

To prevent agues, people muſt endeavour to avoid their cauſes. Theſe have been already pointed out in the beginning of this ſection: we ſhall therefore only add one preventive medicine, which may be of uſe to ſuch as are obliged to live in low marſhy countries, or who are liable to frequent attacks of this diſeaſe.

Take an ounce of the beſt Peruvian bark; Virginian ſnake-root, and orange peel, of each half an ounce; bruiſe them all together, and infuſe for five or ſix days in a bottle of brandy, Holland gin, or any good ſpirit; afterwards pour off the clear liquor, and take a wine glaſs of it twice or thrice a day. This indeed is recommending a dram; but the better ingredients in a great meaſure take off the ill effects of the ſpirit. Thoſe who do not chuſe it in brandy, may infuſe it in wine; and ſuch as can bring themſelves to chew the bark, will find that method ſucceed very well. Gentian root, or calamus

aromaticus, may alſo be chewed by turns for the purpoſe. All bitters ſeem to be antidotes to agues, eſpecially thoſe that are warm and aſtringent.

CHAP. XV.

OF AN ACUTE CONTINUAL FEVER.

THIS fever is denominated acute, ardent, or inflammatory. It moſt commonly attacks the young, or perſons about the prime and vigour of life, eſpecially ſuch as live high, abound with blood, and whoſe fibres are ſtrong and elaſtic. It ſeizes people at all ſeaſons of the year, but is moſt frequent in the ſpring and beginning of ſummer.

CAUSES.——An ardent fever may be occaſioned by any thing that overheats the body, or produces plethora, as violent exerciſe, ſleeping in the ſun, drinking ſtrong liquors, eating ſpiceries, a full diet, with little exerciſe, &c. It may likewiſe be occaſioned by whatever obſtructs the perſpiration, as lying on the damp ground, drinking cold liquor when the body is hot, night watching, or the like.

SYMPTOMS.——A rigour of chilline's generally uſhers in this fever, which is ſoon ſucceeded by great heat, a frequent and full pulſe, pain of the head, dry ſkin, redneſs of the eyes, a florid countenance, pains in the back, loins, &c. To theſe ſucceed difficulty of breathing, ſickneſs, with an inclination to vomit. The patient complains of great thirſt, has no appetite for ſolid food, is reſtleſs, and his tongue generally appears black and rough.

A delirium, exceſſive reſtleſſneſs, great oppreſſion of the breaſt, with laborious reſpiration, ſtarting of the tendons, hiccup, cold clammy ſweats, and an involuntary diſcharge of urine, are very dangerous ſymptoms.

As this diſeaſe is always attended with danger, the beſt medical aſſiſtance ought to be procured as ſoon as poſſible. A phyſician may be of uſe at the beginning, but his ſkill is often of no avail afterwards. Nothing can be more unaccountable than the conduct of thoſe who have it in their power, at the beginning of a fever, to procure the beſt medical aſſiſtance, yet put it off till things come to an extremity. When the diſeaſe, by delay or wrong treatment, has become incurable, and has exhauſted the ſtrength of the patient, it is in vain to hope for relief from medicine. Phyſicians may indeed aſſiſt Nature; but their attempts muſt ever prove fruitleſs, when ſhe is no longer able to co-operate with their endeavours.

REGIMEN.——From the ſymptoms of this diſeaſe, it is evident that the blood and other humours require to be attenuated; that the perſpiration, urine, ſaliva, and all the other ſecretions, are in too ſmall quantity; that the veſſels are rigid, and the heat of the whole body too great: all theſe clearly point out the neceſſity of a regimen calculated to dilute the blood, correct the acrimony of the humours, allay the exceſſive heat, remove the ſpaſmodic ſtricture of the veſſels, and promote the ſecretions.

Theſe important purpoſes may be greatly promoted by drinking plentifully of diluting liquors; as water-gruel or oatmeal-tea, clear-whey, barley-water, balm-tea, apple-tea, &c. Theſe may be ſharpened with juice of orange, jelly of currants, raſpberries, and ſuch like; orange-whey is likewiſe an excellent cooling drink. It is made by boiling among milk and water a bitter orange ſliced, till the curd ſeparates. If no orange can be had, a lemon, a little cream of tartar, or a few ſpoonfuls of vinegar, will have the ſame effect. Two or three ſpoonfuls of white wine may occaſionally be added to the liquor when boiling.

If the patient be coſtive, an ounce of tamarinds, with two ounces of ſtoned raiſins of the ſun, and a couple of figs, may be boiled in three Engliſh pints of water to a quart. This makes a very pleaſant drink, and may be uſed at diſcretion. The common *pectoral decoction* (ſee the Appendix) is likewiſe a very proper drink in this diſeaſe. A tea-cup full of it may be taken every two hours, or oftener, if the patient's heat and thirſt be very great.

The above liquids muſt all be drank a little warm. They may be uſed in ſmaller quantities at the beginning of a fever, but more freely afterwards, in order to aſſiſt in carrying off the diſeaſe by promoting the different excretions. We have mentioned a variety of drinks, that the patient may have it in his power to chuſe thoſe which are moſt agreeable, and that, when tired of one, he may have recourſe to another.

The patient's diet muſt be very ſpare and light. All ſorts of fleſh-meats, and even chicken-broths, are to be avoided. He may be allowed groat gruel, panado, or light bread boiled in water; to which may be added a few grains of common ſalt, and a little ſugar, which will render it more palatable. He may eat roaſted apples with a little ſugar, toaſted bread with jelly of currants, boiled prunes, &c.

It will greatly relieve the patient, eſpecially in an hot ſeaſon, to have freſh air frequently let into his chamber. This, however, muſt always be done in ſuch a manner as not to endanger his catching cold.

It is too common in fevers to load the patient with bed clothes, under the pretence of making him ſweat, or defending him from the cold. This cuſtom has many ill effects: it increaſes the heat of the body, fatigues the patient, and retards, inſtead of promoting, the perſpiration.

Sitting upright in bed, if the patient is able to bear it, will often have a good effect: it relieves the head, by retarding the motion of the blood to the brain. But this poſture ought never to be continued too long: and if the patient is inclined to ſweat, it will be more ſafe to let him lie, only raiſing his head a little with pillows.

Sprinkling the chamber with vinegar, juice of lemon, or vinegar and roſe-water, with a little nitre diſſolved in it, will greatly refreſh the patient. This ought to be done frequently, eſpecially if the weather is hot.

The patient's mouth ſhould be often waſhed with a mixture of water and honey, to which a little vinegar may be added, or with a decoction of figs in barley-water. His feet and hands ought likewiſe

frequently to be bathed in lukewarm water; eſpecially if the head is affected.

The patient ſhould be kept as quiet and eaſy as poſſible. Company, noiſe, and every thing that diſturbs the mind, is hurtful. Even too much light, or any thing that affects the ſenſes, ought to be avoided. His attendants ſhould be as few as poſſible, and they ought not to be too often changed. His inclinations ought rather to be ſoothed than contradicted: even the promiſe of what he craves will often ſatisfy him as much as its reality.

MEDICINE.——In this and all other fevers attended with a hard, full, quick pulſe, bleeding is of the greateſt importance. This operation ought always to be performed as ſoon as the ſymptoms of an inflammatory fever appear. The quantity of blood to be taken away, however, muſt be in proportion to the ſtrength of the patient and the violence of the diſeaſe. If after the firſt bleeding the fever ſhould increaſe, and the pulſe become more frequent and hard, there will be a neceſſity for repeating it a ſecond, and perhaps a third, or even a fourth time, which may be done at the diſtance of twelve, eighteen, or twenty-four hours from each other, as the ſymptoms require. If the pulſe continues ſoft, and the patient is tolerably eaſy after the firſt bleeding, it ought not to be repeated.

If the heat and fever be very great, forty or fifty drops of the *ſpirit of nitrous ether* (dulcified or ſweet ſpirit of nitre) may be made into a draught, with an ounce of roſe water, two ounces of common water, and half an ounce of ſimple ſyrup, or a bit of loaf-ſugar. This draught may be given to the patient every three or four hours while the fever is violent; afterwards once in five or ſix hours will be ſufficient.

If the patient be afflicted with retching, or an inclination to vomit, it will be right to aſſiſt Nature's attempts, by giving him weak camomile-tea or lukewarm water to drink.

If the body is bound, a clyſter of milk and water, with a little ſalt, and a ſpoonful of ſweet oil or freſh butter in it, ought to be daily adminiſtered. Should this not have the deſired effect, a tea ſpoonful of magneſia alba, or cream of tartar, may be frequently put into his drink. He may likewiſe eat tamarinds, boiled prunes, roaſted apples, and the like.

If about the tenth, eleventh, or twelfth day, the pulſe become more ſoft, the tongue moiſter, and the urine begins to let fall a reddiſh ſediment, there is reaſon to expect a favourable iſſue to the diſeaſe. But if, inſtead of theſe ſymptoms, the patient's ſpirits grow languid, his pulſe ſink, and his breathing becomes difficult; with a ſtupor, trembling of the nerves, ſtarting of the tendons, &c. there is reaſon to fear that the conſequences will be fatal. In this caſe bliſtering plaſters muſt be applied to the head, ankles, inſide of the legs or thighs, as there may be occaſion: poultices of wheat-bread, muſtard, and vinegar, may likewiſe be applied to the ſoles of the feet, and the patient muſt be ſupported with cordials, as ſtrong wine-whey, negus, ſago-gruel with wine in it, and ſuch like.

The juice of the China or ſweet orange is uſed in its ſimple ſtate with great advantage, both as a cooling medicine and as an uſeful

antiſeptic in fevers of the worſt kinds, as well as in many other acute diſeaſes, being highly beneficial in alleviating thirſt and reſiſting putrefaction.

A proper regimen is not only neceſſary during the fever, but likewiſe after the patient begins to recover: by neglecting this, many relapſe, or fall into other diſeaſes, and continue valetudinary for life. Though the body is weak after a fever, yet the diet for ſome time ought to be rather light than of too nouriſhing a nature. Too much food, drink, exerciſe, company, &c. are carefully to be avoided. The mind ought likewiſe to be kept eaſy, and the patient ſhould not attempt to purſue ſtudy, or any buſineſs that requires intenſe thinking.

If the digeſtion is bad, or the patient is ſeized at times with feveriſh heats, an infuſion of Peruvian bark in cold water will be of uſe: it will ſtrengthen the ſtomach, and help to ſubdue the remains of the fever.

When the patient's ſtrength is pretty well recovered, he ought to take ſome gentle laxative. An ounce of tamarinds and a dram of ſenna may be boiled for a few minutes in an Engliſh pint of water, and an ounce of manna diſſolved in the decoction; afterwards it may be ſtrained, and a teacupful drank every hour till it operates. This doſe may be repeated twice or thrice, five or ſix days intervening.

Thoſe who follow laborious employments ought not to return too ſoon to their labour after a fever, but ſhould keep eaſy till their ſtrength and ſpirits are ſufficiently recruited.

CHAP. XVI.

OF THE PLEURISY.

THE true pleuriſy is an inflammation of that membrane called the *pleura*, which lines the inſide of the breaſt. It is diſtinguiſhed into the moiſt and dry. In the former, the patient ſpits freely; in the latter, little or none at all. There is likewiſe a ſpecies of this diſeaſe, which is called the *ſpurious* or *baſtard pleuriſy*, in which the pain is more external, and chiefly affects the muſcles between the ribs. The pleuriſy prevails among labouring people, eſpecially ſuch as work without doors, and are of a ſanguine conſtitution. It is moſt frequent in the ſpring ſeaſon.

CAUSES.—The pleuriſy may be occaſioned by whatever obſtructs the perſpiration; as cold northerly winds; drinking cold liquors when the body is hot; ſleeping without doors on the damp ground; wet clothes; plunging the body into cold water, or expoſing it to the cold air, when covered with ſweat, &c. It may likewiſe be occaſioned by drinking ſtrong liquors; by the ſtoppage of uſual evacuations, as old ulcers, iſſues, ſweating of the feet or hands, &c; the ſudden ſtriking in of any eruption, as the itch, the meaſles, or the ſmall-pox. Thoſe who have been accuſtomed to bleed at a certain ſeaſon of the year are apt, if they neglect it, to be ſeized with a pleuriſy. Keeping the body too warm by means of fire, clothes, &c. renders it more liable to this diſeaſe. A pleuriſy may likewiſe be occaſioned

by violent exercise, as running, wrestling, leaping, or by supporting great weight, blows on the breast, &c. A bad conformation of the body renders persons more liable to this disease, as a narrow chest, a straitness of the arteries of the pleura, &c.

SYMPTOMS.——This, like most other fevers, generally begins with chillness and shivering, which are followed by heat, thirst, and restlessness. To these succeeds a violent pricking pain in one of the sides among the ribs. Sometimes the pain extends towards the back-bone, sometimes towards the fore-part of the breast, and at other times towards the shoulder blades. The pain is generally most violent when the patient draws his breath.

The pulse in this disease is commonly quick and hard, the urine high coloured; and if blood be let, it is covered with a tough crust, or buffy coat. The patient's spittle is at first thin, but afterwards it becomes grosser, and is often streaked with blood.

REGIMEN.——Nature generally endeavours to carry off this disease by a critical discharge of blood from some part of the body, by expectoration, sweat, loose stools, thick urine, or the like. We ought, therefore, to second her intentions by lessening the force of the circulation, relaxing the vessels, diluting the humours, and promoting expectoration.

For these purposes the diet, as in the former disease, ought to be cool, slender, and diluting. The patient must avoid all food that is viscid, hard of digestion, or that affords much nourishment; as flesh, butter, cheese, eggs, milk, and also every thing that is of a heating nature. His drink may be whey, or an infusion of pectoral and balsamic vegetables; for which see the Appendix.

Barley-water, with a little honey or jelly of currants mixed with it, is likewise a very proper drink in this disease. It is made by boiling an ounce of pearl-barley in three English pints of water to two, which must afterwards be strained. The decoction of figs, raisins, barley, recommended in the preceding disease, is here likewise very proper. These and other diluting liquors are not to be drank in large quantities at a time; but the patient ought to keep continually sipping them, so as to render his mouth and throat always moist. All his food and drink should be taken a little warm.

The patient should be kept quiet, cool, and every way easy, as directed under the foregoing disease. His feet and hands ought daily to be bathed in lukewarm water; and he may sometimes sit up in bed for a short space, in order to relieve his head.

MEDICINE.——Almost every person knows, when a fever is attended with a violent pain of the side and a quick hard pulse, that bleeding is necessary. When these symptoms come on, the sooner this operation is performed the better; and the quantity at first must be pretty large, provided the patient is able to bear it. A large quantity of blood let at once, in the beginning of a pleurisy, has a much better effect than repeated small bleedings. A man may lose twelve or fourteen ounces of blood as soon as it is certainly known that he is seized with a pleurisy. For a younger person, or one of a delicate constitution, the quantity must be less.

If, after the firſt bleeding, the ſtitch, with the other violent ſymptoms, ſhould ſtill continue, it will be neceſſary, at the diſtance of twelve or eighteen hours, to let eight or nine ounces more. If the ſymptoms do not then abate, and the blood ſhews a ſtrong buffy coat, a third or even a fourth bleeding may be requiſite. If the pain of the ſide abates, the pulſe becomes ſofter, or the patient begins to ſpit freely, bleeding ought not to be repeated. This operation is ſeldom neceſſary after the third or fourth day of the fever, and ought not then to be performed, unleſs in the moſt urgent circumſtances.

The blood may be many ways attenuated without bleeding. There are likewiſe many things that may be done to eaſe the pain of the ſide without this operation, as fomenting, bliſtering, &c. Fomentations may be made by boiling a handful of the flowers of elder, camomile, and common mallows, or any other ſoft vegetables, in a proper quantity of water. The herbs may be either put into a flannel bag, and applied warm to the ſide, or flannels may be dipped in the decoction, afterwards wrung out, and applied to the part affected, with as much warmth as the patient can eaſily bear. As the cloths grow cool, they muſt be changed, and great care taken that the patient do not catch cold. A bladder may be filled with warm milk and water, and applied to the ſide, if the above method of fomenting be found inconvenient. Fomentations not only eaſe the pain, but relax the veſſels, and prevent the ſtagnation of the blood and other humours. The ſide may likewiſe be frequently rubbed with a little of the *liniment of ammonia*, (volatile liniment) deſcribed in the Appendix.

Topical bleeding has often a very good effect in this diſeaſe. It may either be performed by applying a number of leeches to the part affected, or by cupping, which is both a more certain and expeditious method than the other.

Leaves of various plants might likewiſe be applied to the patient's ſide with advantage. I have often ſeen great benefit from young cabbage leaves applied warm to the ſide in a pleuriſy. Theſe not only relax the parts, but likewiſe draw off a little moiſture, and may prevent the neceſſity of bliſtering-plaſters; which, however, when other things fail, muſt be applied.

If the ſtitch continues after repeated bleedings, fomentations, &c. a bliſtering-plaſter muſt be applied over the part affected, and ſuffered to remain for two days. This not only procures a diſcharge from the ſide, but takes off the ſpaſm, and by that means aſſiſts in removing the cauſe of the diſeaſe. To prevent a ſtrangury when the bliſtering-plaſter is on, the patient may drink freely of the *Arabic emulſion*, as directed in the Appendix.

If the patient is coſtive, a clyſter of thin water-gruel, or of barley-water, in which a handful of mallows or any other emollient vegetable has been boiled, may be daily adminiſtered. This will not only empty the bowels, but have the effect of a warm fomentation applied to the inferior viſcera, which will help to make a derivation from the breaſt.

The expectoration may be promoted by ſharp, oily, and mucilaginous medicines. For this purpoſe an ounce of the oxymel, or the vi-

negar of ſquills, may be added to ſix ounces of the pectoral decoction, and two table-ſpoonfuls of it taken every two hours.

Should the ſquill diſagree with the ſtomach, the *oily emulſion* may be adminiſtered; or, in place of it, two ounces of the oil of ſweet almonds, or oil of olives, and two ounces of the ſyrup of violets may be mixed with as much ſugar-candy, powdered, as will make an electuary of the conſiſtence of honey. The patient may take a tea-ſpoonful of this frequently, when the cough is troubleſome. Should oily medicines prove naufeous, which is ſometimes the caſe, two table-ſpoonfuls of the *ſolution of gum ammoniac* in barley-water may be given three or four times a-day.

If the patient does not perſpire, but has a burning heat upon his ſkin, and paſſes very little water, ſome ſmall doſes of purified nitre and camphire will be of uſe. Two drams of the former may be rubbed with five or ſix grains of the latter in a mortar, and the whole divided into ſix doſes, one of which may be taken every five or ſix hours in a little of the patient's ordinary drink.

We ſhall only mention one medicine more, which ſome reckon almoſt a ſpecific in the pleuriſy, viz. the *decoction of the ſeneka rattleſnake root*. After bleeding and other evacuations have been premiſed, the patient may take two, three, or four table-ſpoonfuls of this decoction, according as his ſtomach will bear it, three or four times a-day. If it ſhould occaſion vomiting, two or three ounces of ſimple cinnamon-water may be mixed with the quantity of decoction here directed, or it may be taken in ſmaller doſes. As this medicine promotes perſpiration and urine, and likewiſe keeps the body eaſy, it may be of ſome ſervice in a pleuriſy, or any other inflammation of the breaſt.

No one will imagine that theſe medicines are all to be uſed at the ſame time. We have mentioned different things, on purpoſe that people may have it in their power to chuſe; and likewiſe, that when one cannot be obtained, they may make uſe of another. Different medicines are, no doubt, neceſſary in the different periods of a diſorder; and where one fails of ſucceſs, or diſagrees with the patient, it will be proper to try another.

What is called the criſis or height of the fever is ſometimes attended with very alarming ſymptoms, as difficulty of breathing, an irregular pulſe, convulſive motions, &c. Theſe are apt to frighten the attendants, and induce them to do improper things, as bleeding the patient, giving him ſtrong ſtimulating medicines, or the like. But they are only the ſtruggles of Nature to overcome the diſeaſe, in which ſhe ought to be aſſiſted by plenty of diluting drink, which is then peculiarly neceſſary. If the patient's ſtrength, however, be much exhauſted by the diſeaſe, it will be prudent at this time to ſupport him with frequent ſmall draughts of wine-whey, negus, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered ſufficient ſtrength, to give him ſome gentle purges as thoſe directed towards the end of an acute continual fever. He ought likewiſe to uſe a light diet, of eaſy digeſtion, and his drink ſhould be butter-milk, whey, and other things of a cleanſing nature.

OF THE BASTARD PLEURISY.

That ſpecies of pleuriſy which is called the *baſtard* or *ſpurious* generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and obſerving a cooling regimen.

It is known by a dry cough, a quick pulſe, and a difficulty of lying on the affected ſide, which laſt does not always happen in the true pleuriſy. Sometimes, indeed, this diſeaſe proves obſtinate, and requires bleeding, with cupping, and ſcarifications of the part affected. Theſe, together with the uſe of nitrous and other cooling medicines, ſeldom fail to effect a cure.

OF THE PARAPHRENITIS.

The *paraphrenitis*, or inflammation of the diaphragm, is ſo nearly connected with the pleuriſy, and reſembles it ſo much in the manner of treatment, that it is ſcarcely neceſſary to conſider it as a ſeparate diſeaſe.

It is attended with a very acute fever, and an extreme pain in the part affected, which is generally augmented by coughing, ſneezing, drawing in the breath, taking food, going to ſtool, making water, &c. Hence the patient breathes quick, and draws in his bowels to prevent the motion of the diaphragm; is reſtleſs, anxious, has a dry cough, a hiccup, and often a delirium. A convulſive laugh, or rather a kind of involuntary grin, is no uncommon ſymptom of this malady.

Every method muſt be taken to prevent a ſuppuration, as it is impoſſible to ſave the patient's life when this happens. The regimen and medicine are in all reſpects the ſame as in the pleuriſy. We ſhall only add, that, in this diſeaſe, emollient clyſters are peculiarly uſeful, as they relax the bowels, and by that means make a derivation from the part affected.

CHAP. XVII.

OF A PERIPNEUMONY, OR INFLAMMATION OF THE LUNGS.

AS this diſeaſe affects an organ which is abſolutely neceſſary to life, it muſt always be attended with danger. Perſons who abound with thick blood, whoſe fibres are tenſe and rigid, who feed upon groſs aliment, and drink ſtrong viſcid liquors, are moſt liable to a peripneumony. It is generally fatal to thoſe who have a flat breaſt, or narrow cheſt, and to ſuch as are afflicted with an aſthma, eſpecially in the decline of life. Sometimes the inflammation reaches to one lobe of the lungs only; at other times the whole of the organ is affected, in which caſe the diſeaſe can hardly fail to prove fatal.

When the diſeaſe proceeds from a viſcid pituitous matter obſtructing the veſſels of the lungs, it is called a *ſpurious* or *baſtard peripneumony*. When it ariſes from a thin acrid defluxion on the lungs, it is denominated a *catarrhal peripneumony*, &c.

CAUSES.——An inflammation of the lungs is ſometimes a primary diſeaſe, and ſometimes it is the conſequence of other diſeaſes, as a quinſey, a pleuriſy, &c. It proceeds from the ſame cauſes as the pleuriſy, viz. an obſtructed perſpiration from cold, wet clothes, &c. or from an increaſed circulation of the blood by violent exerciſe, the uſe of ſpiceries, ardent ſpirits, and ſuch like. The pleuriſy and peripneumony are often complicated; in which caſe the diſeaſe is called a *pleuro-peripneumony*.

SYMPTOMS.——Moſt of the ſymptoms of a pleuriſy likewiſe attend an inflammation of the lungs; only in the latter the pulſe is more ſoft, and the pain leſs acute; but the difficulty of breathing and oppreſſion of the breaſt are generally greater.

REGIMEN.——As the regimen and medicine are in all reſpects the ſame in the true peripneumony as in the pleuriſy, we ſhall not here repeat them, but refer the reader to the treatment of that diſeaſe. It may not, however, be improper to add, that the aliment ought to be more ſlender and thin in this than in any other inflammatory diſeaſe. The learned Dr. Arbuthnot aſſerts, that even common whey is ſufficient to ſupport the patient, and that decoctions of barley, and infuſions of fennel roots in warm water with milk, are the moſt proper both for drink and nouriſhment. He likewiſe recommends the ſteam of warm water taken in by the breath, which ſerves as a kind of internal fomentation, and helps to attenuate the impacted humours. If the patient has looſe ſtools, but is not weakened by them, they are not to be ſtopped, but rather promoted by the uſe of emollient clyſters.

It has already been obſerved, that the *ſpurious* or *baſtard* peripneumony is occaſioned by a viſcid pituitous matter obſtructing the veſſels of the lungs. It commonly attacks the old, infirm, and phlegmatic, in winter and wet ſeaſons.

The patient at the beginning is cold and hot by turns, has a ſmall quick pulſe, feels a ſenſe of weight upon his breaſt, breathes with difficulty, and ſometimes complains of a pain and giddineſs of his head. His urine is uſually pale, and his colour very little changed.

The diet, in this as well as in the true peripneumony, muſt be very ſlender, as weak broths ſharpened with the juice of orange or lemon, and ſuch like. His drink may be thin water-gruel ſweetened with honey, or a decoction of the roots of fennel, liquorice, and quick graſs. An ounce of each of theſe may be boiled in three Engliſh pints of water to a quart, and ſharpened with a little currant-jelly, or the like.

Bleeding and purging are generally proper at the beginning of this diſeaſe; but if the patient's ſpittle is pretty thick, or well concocted, neither of them are neceſſary. It will be ſufficient to aſſiſt the expectoration by ſome of the ſharp medicines recommended for that purpoſe in the pleuriſy, as the ſolution of gum-ammoniac with oxymel of ſquills, &c. Bliſtering-plaſters have generally a good effect, and ought to be applied pretty early.

If the patient does not ſpit, he muſt be bled according as his ſtrength will permit, and have a gentle purge adminiſtered. After-

wards his body may be kept open by clyſters, and the expectoration promoted by taking every four hours two table-ſpoonfuls of the ſolution mentioned above.

When an inflammation of the breaſt does not yield to bleeding, bliſtering, and other evacuations, it commonly ends in a ſuppuration, which is more or leſs dangerous, according to the part where it is ſituated. When this happens in the pleura, it ſometimes breaks outwardly, and the matter is diſcharged by the wound.

When the ſuppuration happens within the ſubſtance or body of the lungs, the matter may be diſcharged by expectoration; but if the matter floats in the cavity of the breaſt, between the pleura and the lungs, it can only be diſcharged by an inciſion made betwixt the ribs.

If the patient's ſtrength does not return after the inflammation is to all appearance removed; if his pulſe continues quick though ſoft, his breathing difficult and oppreſſed; if he has cold ſhiverings at times, his cheeks flushed, his lips dry; and if he complains of thirſt, and want of appetite, there is reaſon to fear a ſuppuration, and that a phthiſis or conſumption of the lungs will enſue. We ſhall therefore next proceed to conſider the proper treatment of that diſeaſe.

CHAP. XVIII.

OF CONSUMPTIONS.

A CONSUMPTION is a waſting or decay of the whole body from an ulcer, tubercles, or concretions of the lungs, an empyema, a nervous atrophy, or cachexy.

Dr. Arbuthnot obſerves, that in his time conſumptions made up above one-tenth part of the bills of mortality in and about London. There is reaſon to believe they have rather increaſed ſince; and we know from experience that they are not leſs fatal in ſome other towns of England than in London.

Young perſons, between the age of fifteen and thirty, of a ſlender make, long neck, high ſhoulders, and flat breaſts, are moſt liable to this diſeaſe.

Conſumptions prevail more in England than in any other part of the world, owing perhaps to the great uſe of animal food and malt liquors, the general application to ſedentary employments, and the great quantity of pit coal which is there burnt; to which we may add the perpetual changes in the atmoſphere, or variableneſs of the weather.

CAUSES.——It has already been obſerved, that an inflammation of the breaſt often ends in an impoſthume; conſequently whatever diſpoſes people to this diſeaſe muſt likewiſe be conſidered as a cauſe of conſumption.

Other diſeaſes, by vitiating the habit, may likewiſe occaſion conſumptions; as the ſcurvy, the ſcrophula or king's evil, the venereal diſeaſe, the aſthma, ſmall-pox, meaſles, &c.

As this diſeaſe is ſeldom cured, we ſhall endeavour the more particularly to point out its cauſes, in order that people may be enabled to avoid it. Theſe are:

——Confined or unwholeſome air. When this fluid is impregnated with the fumes of metals or minerals, it proves extremely hurtful to the lungs, and often corrodes the tender veſſels of that neceſſary organ.

——Violent paſſions, exertions, or affections of the mind; as grief, diſappointment, anxiety, or cloſe application to the ſtudy of abſtruſe arts or ſciences.

——Great evacuations; as ſweating, diarrhœas, diabetes, exceſſive venery, the fluor albus, an over-diſcharge of the menſtrual flux, giving ſuck too long, &c.

——The ſudden ſtoppage of cuſtomary evacuations; as the bleeding piles, ſweating of the feet, bleeding at the noſe, the menſes, iſſues, ulcers, or eruptions of any kind.

——Injuries done to the lungs, calculi, &c. I lately ſaw the ſymptoms of a phthiſis occaſioned by a ſmall bone ſticking in the *bronchæ*. It was afterwards vomited along with a conſiderable quantity of purulent matter, and the patient, by a proper regimen and the uſe of the Peruvian bark, recovered.

——Making a ſudden tranſition from a hot to a very cold climate, change of apparel, or whatever greatly leſſens the perſpiration.

——Frequent and exceſſive debaucheries. Late watching, and drinking ſtrong liquors, which generally go together, can hardly fail to deſtroy the lungs. Hence the *bon companion* generally falls a ſacrifice to this diſeaſe.

——Infection. Conſumptions are likewiſe caught by ſleeping with the diſeaſed; for which reaſon this ſhould be carefully avoided. It cannot be of great benefit to the ſick, and muſt hurt thoſe in health.

——Occupations in life. Thoſe artificers who ſit much, and are conſtantly leaning forward, or preſſing upon the ſtomach and breaſt, as cutlers, taylors, ſhoe-makers, ſeamſtreſſes, &c. often die of conſumptions. They likewiſe prove fatal to fingers, and all who have occaſion to make frequent and violent exertions of the lungs.

——Cold. More conſumptive patients date the beginning of their diſorders from wet feet, damp beds, night air, wet clothes, or catching cold after the body had been heated, than from all other cauſes.

Sharp, ſaline, and aromatic aliments, which heat and inflame the blood, are likewiſe frequently the cauſe of conſumptions.

We ſhall only add, that this diſeaſe is often owing to an hereditary taint, or a ſcrophulous habit; in which caſe it is generally incurable.

SYMPTOMS.——This diſeaſe generally begins with a dry cough, which often continues for ſome months. If a diſpoſition to vomit after eating be excited by it, there is ſtill greater reaſon to fear an approaching conſumption. The patient complains of a more than

uſual degree of heat, a pain and oppreſſion of the breaſt, eſpecially after motion; his ſpittle is of a ſaltiſh taſte, and ſometimes mixed with blood. He is apt to be ſad; his appetite is bad, and his thirſt great. There is generally a quick, ſoft, ſmall pulſe; though ſometimes the pulſe is pretty full, and rather hard. Theſe are the common ſymptoms of a beginning conſumption.

Afterwards the patient begins to ſpit a greeniſh, white, or bloody matter. His body is extenuated by the hectic fever, and colliquative ſweats, which mutually ſucceed one another, viz. the one towards night, and the other in the morning. A looſeneſs and an exceſſive diſcharge of urine are often troubleſome ſymptoms at this time, and greatly weaken the patient. There is a burning heat in the palms of the hands, and the face generally fluſhes after eating; the fingers become remarkably ſmall, the nails are bent inwards, and the hair falls off.

At laſt the ſwelling of the feet and legs, the total loſs of ſtrength, the ſinking of the eyes, the difficulty of ſwallowing, and the coldneſs of the extremities, ſhew the immediate approach of death, which however the patient ſeldom believes to be ſo near. Such is the uſual progreſs of this fatal diſeaſe, which, if not early checked, commonly ſets all medicine at defiance.

REGIMEN.——On the firſt appearance of a conſumption, if the patient lives in a large town, or any place where the air is confined, he ought immediately to quit it, and to make choice of a ſituation in the country, where the air is pure and free. Here he muſt not remain inactive, but take every day as much exerciſe as he can bear.

The beſt method of taking exerciſe is to ride on horſeback, as this gives the body a great deal of motion without much fatigue. Such as cannot bear this kind of exerciſe, muſt make uſe of a carriage. A long journey, as it amuſes the mind by a continual change of objects, is greatly preferable to riding the ſame ground over and over. Care, however, muſt be taken to avoid catching cold from wet clothes, damp beds, or the like. The patient ought always to finiſh his ride in the morning, or at leaſt before dinner; otherwiſe it will oftener do harm than good.

It is a pity thoſe who attend the ſick ſeldom recommend riding in this diſeaſe till the patient is either unable to bear it, or the malady has become incurable. Patients are likewiſe apt to trifle with every thing that is in their own power. They cannot ſee how one of the common actions of life ſhould prove a remedy in an obſtinate diſeaſe, and therefore they reject it, while they greedily hunt after relief from medicine, merely becauſe they do not underſtand it.

Thoſe who have ſtrength and courage to undertake a pretty long ſea voyage, may expect great advantage from it. This, to my knowledge, has frequently cured a conſumption after the patient was, to all appearance, far advanced in that diſeaſe, and where medicine had proved ineffectual: hence it is reaſonable to conclude, that if a voyage were undertaken in due time, it would ſeldom fail to perform a cure. But phyſicians ſeldom order it till the diſeaſe is too far advanced, and frequently the patient cannot go a voyage of ſufficient length. The late Dr. Buchan ſaid, "though I do not remember to

have ſeen one inſtance of a genuine conſumption of the lungs cured by medicine, yet I have known a Weſt India voyage work wonders in that dreadful diſorder:" and that "a voyage of this kind, if taken in due time, would ſeldom fail to cure a conſumption."

Such as try this method of cure ought to carry as much freſh proviſions along with them as will ſerve for the whole time they are at ſea. As milk is not eaſily obtained in this ſituation, they ought to live upon fruits, and the broth of chickens or other young animals which can be kept alive on board. It is ſcarcely neceſſary to add, that ſuch voyages ſhould be undertaken, if poſſible, in the mildeſt ſeaſon, and that they ought to be towards a warmer climate.

Thoſe who have not courage for a long voyage may travel into a more ſouthern climate, as the ſouth of France, Spain, or Portugal; and if they find the air of theſe countries agree with them, they ſhould continue there at leaſt till their health be confirmed.

Next to proper air and exerciſe, we would recommend a due attention to diet. The patient ſhould eat nothing that is either heating or hard of digeſtion, and his drink muſt be of a ſoft and cooling nature. All the diet ought to be calculated to leſſen the acrimony of the humours, and to nouriſh and ſupport the patient; for this purpoſe he muſt keep chiefly to the uſe of vegetables and milk. Milk alone is of more value in this diſeaſe than the whole *materia medica*.

Aſſes milk is commonly reckoned preferable to any other; but it cannot always be obtained: beſides, it is generally taken in a very ſmall quantity; whereas, to produce any effects, it ought to make a conſiderable part of the patient's diet. It is hardly to be expected that a gill or two of aſſes milk, drank in the ſpace of twenty-four hours, ſhould be able to produce any conſiderable change in the humours of an adult; and when people do not perceive its effects ſoon, they loſe hope, and ſo leave it off: hence it happens that this medicine, however valuable, very ſeldom performs a cure. The reaſon is obvious; it is commonly uſed too late, is taken in too ſmall quantities, and is not duly perſiſted in.

I have known very extraordinary effects from aſſes milk in obſtinate coughs, which threatened a conſumption of the lungs, and do verily believe, if uſed at this period, that it would ſeldom fail; but if it be delayed till an ulcer is formed, which is generally the caſe, how can it be expected to ſucceed?

Aſſes milk ought to be drank, if poſſible, in its natural warmth, and, by a grown perſon, in the quantity of half an Engliſh pint at a time. Inſtead of taking this quantity night and morning only, the patient ought to take it four times or at leaſt thrice a-day, and to eat a little light bread along with it, ſo as to make it a kind of meal.

If the milk ſhould happen to purge, it may be mixed with old conſerve of roſes: when that cannot be obtained, the powder of crabs claws may be uſed in its ſtead. Aſſes milk is uſually ordered to be drank warm in bed: but as it generally throws the patient in a ſweat when taken in this way, it would perhaps be better to give it after he riſes. Dr. Reid however obſerves, that "a peculiar anti-

phthifical property has been attributed to aſſes milk. The only advantage that it has over cows milk, conſiſts in its being in a ſlight degree more eaſy of digeſtion." Mint water mixed with the latter will prevent its curdling in the ſtomach.

Some extraordinary cures in conſumptive caſes have been performed by women's milk. Could this be obtained in ſufficient quantity, we would recommend it in preference to any other. It is better if the patient can ſuck it from the breaſt, than to drink it afterwards. I knew a man who was reduced to ſuch a degree of weakneſs in a conſumption, as not to be able to turn himſelf in bed. His wife was at that time giving ſuck, and the child happening to die, he ſucked her breaſts, not with a view to reap any advantage from the milk, but to give her eaſe. Finding himſelf, however, greatly benefited by it, he continued to ſuck her till he became perfectly well, and is at preſent a ſtrong and healthy man.

Some prefer butter-milk to any other, and it is indeed a very valuable medicine, if the ſtomach be able to bear it. It does not agree with every perſon at firſt; and is therefore often laid aſide without a ſufficient trial. It ſhould at firſt be taken ſparingly, and the quantity gradually increaſed, until it comes to be almoſt the ſole food. I never knew it ſucceed unleſs where the patient almoſt lived upon it.

Cows milk is moſt readily obtained of any, and though it be not ſo eaſily digeſted as that of aſſes or mares, it may be rendered lighter, by adding to it an equal quantity of barley-water, or allowing it to ſtand for ſome hours, and afterwards taking off the cream. If it ſhould, notwithſtanding, prove heavy on the ſtomach, a ſmall quantity of brandy or old rum, with a little ſugar, may be added, which will render it both more light and nutritive.

It is not to be wondered, that milk ſhould for ſome time diſagree with a ſtomach that has not been accuſtomed to digeſt any thing but freſh and ſtrong liquors, which is the caſe with many of thoſe who fall into conſumptions. We do not, however, adviſe thoſe who have been accuſtomed to animal food and ſtrong liquors to leave them off all at once: this might be dangerous. It will be neceſſary for ſuch to eat a little once a day of the fleſh of ſome young animal, or rather to uſe the broth made of chickens, veal, lamb, or ſuch like. They ought likewiſe to drink a little wine made into negus, or diluted with twice or thrice its quantity of water, and to make it gradually weaker till they can leave it off altogether.

Theſe muſt be uſed only as preparatives to a diet conſiſting chiefly of milk and vegetables, ſuch as rice and milk, or barley and milk, boiled with a little ſugar, which is very proper food. Ripe fruits roaſted, baked, or boiled, are likewiſe proper, as gooſe or currant-berry tarts, apples roaſted, or boiled in milk.

The jellies, conſerves, and preſerves, of ripe ſubacid fruits, ought to be eaten plentifully, as the jelly of currants, conſerve of roſes, preſerved plums, cherries, or China oranges.

Wholeſome air, proper exerciſe, and a diet conſiſting chiefly of theſe and other vegetables, with milk, is the only courſe that can be depended on in a beginning conſumption. If the patient has ſtrength

and ſufficient reſolution to perſiſt in this courſe, he will ſeldom be diſappointed of a cure.

In a populous town in England (Sheffield), where conſumptions are very common, I have frequently ſeen conſumptive patients, who had been ſent to the country with orders to ride and live upon milk and vegetables, return in a few months quite plump, and free from any complaint. This, indeed, was not always the caſe, eſpecially when the diſeaſe was hereditary, or far advanced; but it was the only method in which ſucceſs was to be expected: where it failed, I never knew medicine ſucceed.

If the patient's ſtrength and ſpirits flag, he muſt be ſupported by ſtrong broths, jellies, and ſuch like. Some recommend ſhell-fiſh in this diſorder, and with ſome reaſon, as they are nouriſhing and reſtorative. I have often known perſons of a conſumptive habit, where the ſymptoms were not violent, reap great benefit from the uſe of oyſters. They generally ate them raw, and drank the juice along with them. All the food and drink ought, however, to be taken in ſmall quantities, leſt an overcharge of freſh chyle ſhould oppreſs the lungs, and too much accelerate the circulation of the blood.

The patient's mind ought to be kept as eaſy and cheerful as poſſible. Conſumptions are often occaſioned, and always aggravated, by a melancholy caſt of mind; for which reaſon muſic, cheerful company, and every thing that inſpires mirth, are highly beneficial. The patient ought ſeldom to be left alone, as brooding over his calamities is ſure to render him worſe.

MEDICINE.——Though the cure of this diſeaſe depends chiefly upon regimen and the patient's own endeavours, yet we ſhall mention a few things which may be of ſervice in relieving ſome of the more violent ſymptoms.

In the firſt ſtage of a conſumption, the cough may ſometimes be appeaſed by bleeding; and the expectoration may be promoted by the following medicines. Take freſh ſquills, gum-ammoniac, and powdered cardamum ſeeds, of each a quarter of an ounce; beat them together in a mortar, and if the maſs proves too hard for pills, a little of any kind of ſyrup may be added to it. This may be formed into pills of a moderate ſize, and four or five of them taken twice or thrice a-day, according as the patient's ſtomach will bear them.

The *lac ammoniacum*, or milk of gum-ammoniac, as it is called, is likewiſe a proper medicine in this ſtage of the diſeaſe. It may be uſed as directed in the pleuriſy.

A mixture made of equal parts of lemon-juice, fine honey, and ſyrup of poppies, may likewiſe be uſed. Four ounces of each of theſe may be ſimmered together in a ſauce-pan, over a gentle fire, and a table-ſpoonful of it taken at any time when the cough is troubleſome.

It is common in this ſtage of the diſeaſe to load the patient's ſtomach with oily and balſamic medicines. Theſe, inſtead of removing the cauſe of the diſeaſe, tend rather to increaſe it by heating the blood, while they pall the appetite, relax the ſolids, and

prove every way hurtful to the patient. Whatever is uſed for removing the cough, beſides riding and other proper regimen, ought to be medicines of a ſharp and cleanſing nature; as oxymel, ſyrup of lemon, &c.

Acids ſeem to have peculiarly good effects in this diſeaſe; they both tend to quench the patient's thirſt and cool the blood. The vegetable acids, as apples, oranges, lemons, &c. appear to be the moſt proper. I have known patients ſuck the juice of ſeveral lemons every day with manifeſt advantage, and would for this reaſon recommend acid vegetables to be taken in as great quantity as the ſtomach will bear them.

For the patient's drink, we would recommend infuſions of the bitter plants, as ground-ivy, the leſſer centaury, camomile flowers, or water-trefoil. Theſe infuſions may be drank at pleaſure. They ſtrengthen the ſtomach, promote digeſtion, and at the ſame time anſwer all the purpoſes of dilution, and quench the thirſt much better than things that are luſcious or ſweet. But if the patient ſpits blood, he ought to uſe, for his ordinary drink, infuſions or decoctions of the vulnerary roots and plants. [See a formula in the Appendix.]

There are many other mucilaginous plants and ſeeds, of a healing and agglutinating nature, from which decoctions or infuſions may be prepared with the ſame intention; as the orches, the quince-ſeed, coltsfoot, linſeed, ſarſaparilla, &c. It is not neceſſary to mention the different ways in which theſe may be prepared. Simple infuſion or boiling is all that is neceſſary, and the doſe may be at diſcretion.

The conſerve of roſes is here peculiarly proper. It may either be put into the decoction above preſcribed, or eaten by itſelf. No benefit is to be expected from trifling doſes of this medicine. I never knew it of any ſervice, unleſs where three or four ounces at leaſt were uſed daily for a conſiderable time. In this way I have ſeen it produce very happy effects, and would recommend it wherever there is a diſcharge of blood from the lungs.

When the ſpitting up of groſs matter, oppreſſion of the breaſt, and the hectic ſymptoms, ſhew that an impoſthume is formed in the lungs, we would recommend the Peruvian bark, that being the only drug which has any chance to counteract the general tendency which the humours then have to putrefaction.

An ounce of the *cinchona* in powder may be divided into eighteen or twenty doſes, of which one may be taken every three hours through the day, in a little ſyrup, or a cup of the patient's ordinary drink; for which we recommend tea made of equal parts of coltsfoot leaves and horehound.

If the bark ſhould happen to purge, it may be made into an electuary, with the conſerve of roſes, thus: Take old conſerve of roſes a quarter of a pound, Peruvian bark half an ounce, ſyrup of orange or lemon, as much as will make it the conſiſtence of honey. This quantity will ſerve the patient four or five days, and may be repeated as there is occaſion.

Such as cannot take the bark in ſubſtance, may infuſe it in cold water. This ſeems to be the beſt menſtruum for extracting the vir-

tues of that drug. Half an ounce of bark in powder may be infuſed for twenty-four hours in half an Engliſh pint of water. Afterwards let it be paſſed through a fine ſtrainer, and an ordinary tea-cupful of it taken three or four times a-day.

We would not recommend the bark while there are any ſymptoms of an inflammation of the breaſt; but when it is certainly known that matter is collected there, it is one of the beſt medicines which can be uſed. Few patients indeed have reſolution enough to give Peruvian bark a fair trial at this period of the diſeaſe, otherwiſe we have reaſon to believe that ſome benefit might be reaped from it.

When it is evident that there is an impoſthume in the breaſt, and the matter can neither be ſpit up nor carried off by abſorption, the patient muſt endeavour to make it break inwardly, by drawing in the ſteams of warm water or vinegar with his breath, coughing, laughing, or bawling aloud, &c. When it happens to burſt within the lungs, the matter may be diſcharged by the mouth. Sometimes, indeed, the burſting of the vomica occaſions immediate death by ſuffocating the patient. When the quantity of matter is great, and the patient's ſtrength exhauſted, this is commonly the caſe. At any rate the patient is ready to fall into a ſwoon, and ſhould have volatile ſalts or ſpirits held to his noſe.

If the matter diſcharged be thick, and the cough and breathing become eaſier, there may be ſome hopes of a cure. The diet at this time ought to be light but reſtorative, as chicken-broths, ſago-gruel, rice-milk, &c.: the drink, butter-milk or whey, ſweetened with honey. This is likewiſe a proper time for uſing *cinchona* (the Peruvian bark), which may be taken as directed above.

If the vomica or impoſthume ſhould diſcharge itſelf into the cavity of the breaſt, between the pleura and the lungs, there is no way of getting the matter out but by an inciſion, as has already been obſerved. As this operation muſt always be performed by a ſurgeon, it is not neceſſary here to deſcribe it. We ſhall only add, that it is not ſo dreadful as people are apt to imagine, and that it is the only chance the patient in this caſe has for his life.

The preceding plan of treating conſumptions having been recommended by the late Dr. Buchan, with ſcarcely any variation, for upwards of five and twenty years, we ſhall ſubjoin an account of ſome methods of cure that have been more recently propoſed by gentlemen, who, like him, have endeavoured to render themſelves uſeful in their beneficent profeſſion.

In the year 1779 an Inaugural Theſis or Diſſertation was publiſhed by J. T. P. Chris. Ebeling, entitled "De Lichen Islandicus," a plant deſcribed by our celebrated botaniſts, Ray, Morriſon, Hudſon, and Lightfoot; alſo by Linnæus and other foreign writers. Dr. Ebeling informed us, that, in ſome of the northern countries (Iceland, Ruſſia, &c.), *lichen iſlandicus*, or Iceland moſs, is uſed, not only as a medicine, but as an article of diet; from the mild, nutritious qualities of which it is evidently poſſeſſed, we may account for the good effects which had been ſaid to be derived from it in caſes of emaciation and in conſumptive diſorders, and which, at the time

above mentioned, had been confirmed by the teſtimony of many accurate obſervers.

The lichen is purely and to a high degree mucilaginous; but notwithſtanding this plant has been in great repute as a remedy both as aliment and a medicine in pulmonary complaints, and as a reſtorative in *tabes dorſalis*, it was ſcarcely noticed in the medical practice of this country until Drs. Crichton, Reece, and Regnault, lately recommended it to the public. We ſhall have reaſon to congratulate our readers, if future experience juſtify the high, we fear too flattering, encomiums they have beſtowed upon it, as having effected a cure in many caſes of phthiſis, which thoſe gentlemen, and other writers on the Continent, have adduced.

In order to obtain the virtues of the lichen iſlandicus, it muſt be infuſed in boiling water, to ſeparate all the earthy particles which adhere to it, and to take off the bitterneſs which renders it diſagreeable; after which it may be boiled in water, or milk, juſt as it is intended to employ the mucilage obtained in this manner either as food or medicine. It may be rendered more or leſs agreeable by the addition of honey or ſyrup.

To concentrate in ſome degree all the medicinal properties of the Iceland moſs, a jelly is directed to be formed, by boiling ſix ounces of the lichen with three quarts of ſpring water for an hour; preſs the boiling decoction through a fine hair ſieve, and then put it over a ſlow fire in a jelly baſin, and let it evaporate till it is reduced to a pint; then add ſix ounces of refined ſugar, and evaporate the mixture till you have a pound of thick ſyrup, which, when cold, will aſſume the conſiſtence of a jelly. Four to ſix table-ſpoonfuls of this preparation are to be taken in the courſe of the day. As this anti-phthiſical remedy is pectoral, agglutinant, and demulcent, affording nutriment and ſupport without producing inordinate irritation, it may be uſefully employed as an auxiliary to more powerful remedies, eſpecially while the patient is taking, under the direction of ſkill and prudence, any preparation of the Foxglove.

Some have given the Iceland liverwort, or moſs, in the form of a decoction, made by boiling an ounce and a half in a quart of milk, *over a ſlow fire, exactly one quarter of an hour;* the doſe ſix or eight table-ſpoonfuls, to be taken frequently in the day. If the milk diſagrees, water may be uſed in its ſtead; but care muſt be taken to boil it over a ſlow fire, and not more than fifteen minutes. Another medical practitioner directs two ounces of the herb (previouſly waſhed in cold water) to be boiled with a little liquorice in a quart of water to a pint and a half: a tea-cup full may be taken three times a-day.

The Icelanders and many of the Dutch phyſicians uſe this herb in a ſtate of powder, which is prepared by carefully freeing it from the little ſticks and green moſs that is generally gathered with it; and after being waſhed in cold water, re-dried in an oven gently heated, ſo as not to ſcorch it, then being ground, it muſt be paſſed through a fine ſieve to deprive it of its fibrous parts, which are inſoluble, and devoid of medicinal virtue. This farina may be taken in doſes of a

quarter of an ounce or three drachms (two or three large tea ſpoonsful) boiled with half a pint of pure water or milk, which coincides with its virtues, and ſo far covers its bitter taſte as to render it an agreeable breakfaſt, and an evening repaſt.

The real Iceland moſs may be had at Mr. LABROW'S, chemiſt, No. 128, St. John's Street, Weſt Smithfield; of Mr. OGILVY, chemiſt, No. 147, Minories; and at ſome other reſpectable drug warehouſes in London. Conſumptive patients, who are ſo ſituated as to be unable to obtain the genuine plant, may employ the artificial aſſes milk, or the decoction of marſh mallows: an ounce or more of the dried root may be boiled in three pints of water to a quart; half an ounce of liquorice root may be added towards the end of the boiling. The ſtrained liquor may either be drank alone, or uſed as a vehicle for other medicines; or the decoction may be boiled up with three pounds of fine ſugar, and formed into ſyrup, for obtunding and incraſſating acrimonious, thin fluids; in tickling coughs from defluxions on the lungs; in hoarſeneſs; eroſions of the ſtomach, inteſtines, and urinary organs; lubricating and relaxing the paſſages in calculous complaints.

Nature has furniſhed us with another variety of demulcent and mucilaginous vegetables in the Orchis Root, a plant that flouriſhes in various parts of Aſia and Europe, and grows ſpontaneouſly and in great abundance in our own country. Salep is ſaid to contain the greateſt quantity of nouriſhment in the ſmalleſt bulk; and furniſhes a cheap, wholeſome, and reſtorative article of diet. The ſubſtance brought from the eaſtern countries under the name of ſalep, and recommended, like our orchis root, in bilious dyſenteries, defluxions of the breaſt, conſumption, diarrhœa, dyſentery, ſtrangury, and dyſury, appears to be no other than the prepared roots of plants of the orchis kind: reduced into powder, they ſoften or diſſolve, as it were, in boiling water, into a kind of mucilage, which may be diluted for uſe with water or milk. Salep retards the acetous fermentation of milk, and is conſequently an uſeful ingredient for milk pottage, &c. eſpecially in and near large towns, where the cows, being frequently fed with ſour grains, muſt yield milk of an aceſcent quality.

Dr. Bourne has recently publiſhed a treatiſe in recommendation of Uva-Urſi, a plant that, having previouſly been employed with apparent ſucceſs in certain diſorders, which like pulmonary conſumption are characterized by hectic fever, Dr. Bourne was induced to direct the powder of Uva-Urſi in caſes both of genuine conſumption and other diſorders attended by hectic, in which caſes it was attended by a greater or leſs degree of beneſit to the patient, to whom the author moſtly exhibited the *uva-urſi* in doſes of eight to fifteen grains of the powder three times a-day.

A favourable change, the Doctor obſerves, generally occurs in the appearance of the urine after the remedy has been taken for a while: it is made in the natural quantity, is of the natural colour, and depoſits no more ſediment than urine in its healthy ſtate. When the tongue is foul from hectic depending on phthiſis, it becomes, if I miſtake not (ſays the author), either comparatively clean, or abſolutely ſo, under

the influence of *uva-urſi*, excepting in deplorably advanced ſtages of the diſeaſe; and in proportion as the tongue becomes clean, there is a return of the proper deſire and reliſh for food.

In the pituitous conſumption of the lungs of aged patients, this medicine has proved beneficial; but in ſome other ſpecies of that intractable diſeaſe, we do not expect that an aſtringent which tends to reſtrain the ſecretions of morbid mucus from the lungs can afford to thoſe who are labouring under this malady any laſting relief. For their benefit we have inſerted a formula in the Appendix for preparing artificial aſſes milk, which may be taken alone, or combined with other medicines.

The common drink of conſumptive patients may be either Briſtol or Seltzer water, or freſh common whey. The dry vomit is ſometimes ſerviceable; and in all caſes of phthiſis, ſuppuration may be prevented or reſtrained by iſſues, ſetons, or open bliſters on the cheſt. Small repeated bleedings, ſuited to the ſtrength of the patient and the degree of inflammation, are admiſſible. Good effects rarely attend the uſe of cinchona in this diſeaſe; but the colliquative ſweats may be moderated by the uſe of the diluted vitriolic acid, or the infuſion of roſes, inſerted in the Appendix.

For abating the exacerbations of hectic fever, we have ſeen the moſt beneficial effects reſult from the uſe of the warm bath and the exhibition of the Foxglove; theſe, Dr. Reid has well obſerved, claim a high rank in the ſcale of modern improvements. The utility of warm bathing may perhaps be principally referred to three ſources. It affords a grateful, mild, and uniform ſtimulus; inſures cleanlineſs of the external ſurface; and preſerves a freedom and regularity in cutaneous perſpiration. When the tepid bath is employed, during the decided exiſtence of hectic fever in particular, the proper time for immerſion is about noon: the temperature of the water muſt be in a great meaſure regulated by the ſenſations and pulſe of the patient. As a general rule, an appropriate warmth will be found in the range of 90 to 96 degrees of Fahrenheit's thermometer. The propriety of bathing on ſucceſſive or alternate days muſt be determined by the actual and individual experience of the patient.

Foxglove diminiſhes the frequency of the pulſe and the irritability of the ſyſtem: it increaſes the action of the abſorbent veſſels and the diſcharge by urine; but advantage cannot be expected from an indiſcriminate or incautious employment of this delicate and important inſtrument of medicine. To inſure ſucceſs in the adminiſtration of foxglove, great attention muſt be given to regulate the diet and regimen of the patient. The alvine diſcharges muſt be maintained with regularity, to obviate the irritation conſequent upon a retention of fæces. Every other artificial ſource of irritation muſt likewiſe be carefully avoided: ardent ſpirits, particularly in an undiluted form, are for the moſt part highly injurious. Thoſe articles of food and drink ſhould be reſorted to which ſupply nutriment without inducing any conſiderable degree of irritation. A milk diet is generally and with propriety recommended. But the caution which, in the early ſtages of conſumption, requires to be moſt ſtrenuouſly urged to give

effect to the beneficial operation of the medicine, and to prevent a confirmed conſumption, is carefully to *preſerve the feet from chill;* to avoid an expoſure to ſudden and partial variations of the atmoſphere; to obſerve moderation in the indulgence of the appetite and paſſions: an equable warmth is as much as poſſible to be preſerved; and all irritation, either corporeal or mental, carefully to be avoided.

Ten drops of the tincture of *foxglove* (ſee the Appendix) may generally be given in the firſt inſtance to an adult, which may be repeated, with a very gradual increaſe, to fifteen drops, two or three times in the courſe of the day, till the pulſe be conſiderably reduced, or the irritability of the patient be in a great meaſure ſubdued.

As every hint that has a tendency to reſtrain the ravages of this formidable foe to the human race cannot fail to be acceptable to our readers, we muſt not conclude this ſubject without informing them that Dr. Ruſh, profeſſor of phyſic in the Univerſity of Pennſylvania, mentioned a few years ago, that he had ſucceeded in curing ſome caſes of phthiſis pulmonalis by the uſe of mercury, ſo as to excite a ſalivation. By a late communication from this gentleman, it appears that he continues to experience a great degree of ſucceſs from the employment of this remedy, which, in the early ſtages of conſumption, he looks upon as almoſt certain; while it has occaſionally ſucceeded even in thoſe caſes that were far advanced: in the latter, however, he finds it difficult to excite ſalivation.

A NERVOUS CONSUMPTION is a waſting or decay of the whole body, without any conſiderable degree of fever, cough, or difficulty of breathing. It is attended with indigeſtion, general debility, waſting of the body, and want of appetite.

Thoſe who are of a fretful temper, who indulge in ſpirituous liquors, or who breathe an unwholeſome air, are moſt liable to this diſeaſe.

We would chiefly recommend for the cure of a nervous conſumption a light and nouriſhing diet, plenty of exerciſe in a free open air, and the uſe of ſuch bitters as brace and ſtrengthen the ſtomach; as the Peruvian bark, gentian root, camomile, horehound, &c. Theſe may be infuſed in water or wine, and a glaſs of it drank frequently.

It will greatly aſſiſt the digeſtion, and promote the cure of this diſeaſe, to take twice a-day twenty or thirty drops of the elixir of vitriol in a glaſs of wine or water. The *wine of iron* (chalybeate wine) is likewiſe an excellent medicine in this caſe. It ſtrengthens the ſolids, and powerfully aſſiſts Nature in the preparation of good blood.

Agreeable amuſements, cheerful company, and riding about, are however preferable to all medicines in this diſeaſe. For which reaſon, when the patient can afford it, we would recommend a long journey of pleaſure, as the moſt likely means to reſtore his health.

What is called a *ſymptomatic conſumption*, cannot be cured without firſt removing the diſeaſe by which it is occaſioned. Thus, when a conſumption proceeds from the ſcrophula or king's evil, from the ſcurvy, the aſthma, the venereal diſeaſe, &c. a due attention muſt be paid to the malady from whence it ariſes, and the regimen and medicine directed accordingly.

When *exceſſive evacuations* of any kind occaſion a conſumption, they muſt not only be reſtrained, but the patient's ſtrength muſt be reſtored by gentle exerciſe, nouriſhing diet, and generous cordials. Young and delicate mothers often fall into conſumptions, by giving ſuck too long. As ſoon as they perceive their ſtrength and appetite begin to fail, they ought immediately to wean the child, or provide another nurſe, otherwiſe they cannot expect a cure.

Before we quit this ſubject, we would earneſtly recommend it to all, as they wiſh to avoid conſumptions, to take as much exerciſe without doors as they can; to avoid unwholeſome air, and to ſtudy ſobriety. Conſumptions owe their preſent increaſe not a little to the faſhion of ſitting up late, eating hot ſuppers, and ſpending every evening over a bowl of hot punch or rather ſtrong liquors. Theſe liquors, when too freely uſed, not only hurt the digeſtion, and ſpoil the appetite, but heat and inflame the blood, and ſet the whole conſtitution on fire.

Among the various domeſtic medicines which have been employed for the cure of what is called a *nervous atrophy*, we are warranted by experience to add that few are better calculated to reſtore an emaciated frame, than the ſalep-root, or meadow-orchis, and the jelly obtained from the red garden-ſnail. Two drams of the former in powder, boiled in a pint of whey to the conſiſtence of a thick mucilage, ought to be taken twice a-day; and from ſix to eight of the latter, diſſolved over a ſlow fire in equal quantities of milk and water, with the addition of a little cinnamon and ſugar, ſhould be uſed every morning. If the patient's appetite ſhould be conſiderably impaired, he may begin with ſmaller doſes: they may be imperceptibly increaſed, and mixed with the ſyrup of lemon-juice.

CHAP. XIX.

OF THE SLOW OR NERVOUS FEVER.

NERVOUS fevers have increaſed greatly of late years in this iſland, owing doubtleſs to our different manner of living and the increaſe of ſedentary employments; as they commonly attack perſons of a weak relaxed habit, who neglect exerciſe, eat little ſolid food, ſtudy hard, or indulge in ſpirituous liquors.

CAUSES.——Nervous fevers may be occaſioned by whatever depreſſes the ſpirits, or impoveriſhes the blood; as grief, fear, anxiety, want of ſleep, intenſe thought, living on poor watery diet, unripe fruits, cucumbers, melons, muſhrooms, &c.: they may likewiſe be occaſioned by damp, confined, or unwholeſome air. Hence they are very common in rainy ſeaſons, and prove moſt fatal to thoſe who live in dirty low houſes, crowded ſtreets, hoſpitals, jails, or ſuch like places.

Perſons whoſe conſtitutions have been broken by exceſſive venery, frequent ſalivations, too free an uſe of purgative medicines, or any other exceſſive evacuations, are moſt liable to this diſeaſe.

Keeping on wet clothes, lying on the damp ground, exceſſive fatigue, and whatever obſtructs the perſpiration, or cauſes a ſpaſmodic

ſtricture of the ſolids, may likewiſe occaſion nervous fevers. We ſhall only add, frequent and great irregularities in diet. Too great abſtinence, as well as exceſs, is hurtful. Nothing tends ſo much to preſerve the body in a ſound ſtate as a regular diet; nor can any thing contribute more to occaſion fevers of the worſt kind than its oppoſite.

SYMPTOMS.——Low ſpirits, want of appetite, weakneſs, wearineſs after motion, watchfulneſs, deep ſighing, and dejection of mind, are generally the forerunners of this diſeaſe. Theſe are ſucceeded by a quick-low pulſe, a dry tongue without any conſiderable thirſt, chillineſs and fluſhing in turns, &c.

After ſome time the patient complains of a giddineſs and pain of the head, has a nauſea, with retchings and vomiting; the pulſe is quick, and ſometimes intermitting; the urine pale, reſembling dead ſmall-beer; and the breathing difficult, with oppreſſion of the breaſt, and ſlight alienations of mind.

If towards the ninth, tenth, or twelfth day, the tongue becomes more moiſt, with a plentiful ſpitting, a gentle purging, or a moiſture upon the ſkin; or if a ſuppuration happens in one or both ears, or large puſtules break out about the lips and noſe, there is reaſon to hope for a favourable criſis.

But if there is an exceſſive looſeneſs or waſting ſweats, with frequent fainting fits; if the tongue, when put out, trembles exceſſively, and the extremities feel cold, with a fluttering or ſlow creeping pulſe; if there is a ſtarting of the tendons, an almoſt total loſs of ſight and hearing, and an involuntary diſcharge by ſtool and urine, there is great reaſon to fear that death is approaching.

REGIMEN.——It is very neceſſary in this diſeaſe to keep the patient cool and quiet. The leaſt motion would fatigue him, and will be apt to occaſion wearineſs, and even faintings. His mind ought not only to be kept eaſy, but ſoothed and comforted with the hopes of a ſpeedy recovery. Nothing is more hurtful in low fevers of this kind than preſenting to the patient's imagination gloomy or frightful ideas. Theſe of themſelves often occaſion nervous fevers, and it is not to be doubted but they will likewiſe aggravate them.

The patient muſt not be kept too low. His ſtrength and ſpirits ought to be ſupported by nouriſhing diet and generous cordials. For this purpoſe his gruel, panado, or whatever food he takes, muſt be mixed with wine according as the ſymptoms may require. Pretty ſtrong wine-whey, or ſmall negus ſharpened with the juice of orange or lemon, will be proper for his ordinary drink. *Muſtard-whey* is likewiſe a very proper drink in this fever, and may be rendered an excellent cordial medicine by the addition of a proper quantity of white-wine.

Wine in this diſeaſe, if it could be obtained genuine, is almoſt the only medicine that would be neceſſary. Good wine poſſeſſes all the virtues of the cordial medicines, while it is free from many of their bad qualities. I ſay good wine; for however common this article of luxury is now become, it is rarely to be obtained genuine, eſpecially by the poor, who are obliged to purchaſe it in ſmall quantities.

I have often ſeen patients in low nervous fevers where the pulſe could hardly be felt, with a conſtant delirium, coldneſs of the extremities, and almoſt every other mortal ſymptom, recover by uſing in whey, gruel, and negus, a bottle or two of ſtrong wine every day. Good old ſound claret is the beſt, and may be made into negus, or given by itſelf, as circumſtances require.

In a word, the great aim in this diſeaſe is to ſupport the patient's ſtrength, by giving him frequently ſmall quantities of the above, or other drinks of a warm and cordial nature. He is not, however, to be overheated either with liquor or clothes; and his food ought to be light, and given in ſmall quantities.

MEDICINE.——Where a nauſea, load, and ſickneſs at ſtomach, prevail at the beginning of the fever, it will be neceſſary to give the patient a gentle vomit. Fifteen or twenty grains of ipecacuanha in fine powder, or a few ſpoonfuls of the *vomiting julep*, will generally anſwer this purpoſe very well. This may be repeated any time before the third or fourth day, if the above ſymptoms continue. Vomits not only clean the ſtomach, but, by the general ſhock which they give, promote the perſpiration, and have many other excellent effects in ſlow fevers, where there are no ſigns of inflammation, and nature wants rouſing.

Such as dare not venture upon a vomit may clean the bowels by a ſmall doſe of Turkey rhubarb, or an infuſion of ſenna and manna.

In all fevers, the great point is to regulate the ſymptoms, ſo as to prevent them from going to either extreme. Thus, in fevers of the inflammatory kind, where the force of the circulation is too great, or the blood denſe, and the fibres too rigid, bleeding and other evacuations are neceſſary. But in nervous fevers, where nature flags, where the blood is vapid and poor, and the ſolids relaxed, the lancet muſt be ſpared, and wine, with other cordials, plentifully adminiſtered.

It is the more neceſſary to caution people againſt bleeding in this diſeaſe, as there is generally at the beginning an univerſal ſtricture upon the veſſels, and ſometimes an oppreſſion and difficulty of breathing, which ſuggeſt the idea of a plethora, or too great a quantity of blood. I have known even ſome of the faculty deceived by their own feelings in this reſpect, ſo far as to inſiſt upon being bled, when it was evident from the conſequences that the operation was improper.

Though bleeding is generally improper in this diſeaſe, yet bliſtering is highly neceſſary. Bliſtering-plaſters may be applied at all times of the fever with great advantage. If the patient is delirious, he ought to be bliſtered on the neck or head; and it will be the ſafeſt courſe, when the inſenſibility continues, as ſoon as the diſcharge occaſioned by one bliſtering-plaſter abates, to apply another to ſome other part of the body, and by that means keep up a continual ſucceſſion of them till he be out of danger.

I have been more ſenſible of the advantage of bliſtering in this than in any other diſeaſe. Bliſtering-plaſters not only ſtimulate the ſolids to action, but likewiſe occaſion a continual diſcharge, which may in ſome meaſure ſupply the want of critical evacuations, which

ſeldom happen in this kind of fever. They are moſt proper, however, either towards the beginning, or after ſome degree of ſtupor has come on, in which laſt caſe it will always be proper to bliſter the head.

If the patient is coſtive through the courſe of the diſeaſe, it will be neceſſary to procure a ſtool, by giving him every other day a clyſter of milk and water, with a little ſugar, to which may be added a ſpoonful of common ſalt, if the above does not operate.

Should a violent looſeneſs come on, it may be checked by ſmall quantities of Venice treacle, or giving the patient for his ordinary drink the compound decoction of chalk, or *chalk mixture*.

A miliary eruption ſometimes breaks out about the ninth or tenth day. As eruptions are often critical, great care ſhould be taken not to retard Nature's operation in this particular. The eruption ought neither to be checked by bleeding nor other evacuations, nor puſhed out by a hot regimen; but the patient ſhould be ſupported by gentle cordials, as wine-whey, ſmall negus, ſago-gruel with a little wine in it, and ſuch like. He ought not to be kept too warm; yet a kindly breathing ſweat ſhould by no means be checked.

Though bliſtering and the uſe of cordial liquors are the chief things to be depended on in this kind of fever, yet, for thoſe who may chuſe to uſe them, we ſhall mention one or two of the forms of medicine which are commonly preſcribed in it.

When the patient is low, ten grains of Virginian ſnake-root, and the ſame quantity of contrayerva-root, with five grains of Ruſſian caſtor, all in fine powder, may be made into a bolus with a little of the cordial confection of ſyrup of ſaffron. One of theſe may be taken every four or five hours.

The following powder may be uſed with the ſame intention: Take wild Valerian-root in powder one ſcruple, ſaffron and caſtor each four grains. Mix theſe by rubbing them together in a mortar, and give one, in a cup of wine-whey, three or four times a-day.

In deſperate caſes, where the hiccup and ſtarting of the tendons have already come on, we have ſometimes ſeen extraordinary effects from large doſes of muſk frequently repeated. Muſk is doubtleſs an antiſpaſmodic, and may be given to the quantity of a ſcruple three or four times a-day, or oftener if neceſſary. Sometimes it may be proper to add to the muſk a few grains of camphire and ſalt of hartſhorn, as theſe tend to promote perſpiration and the diſcharge of urine. Thus fifteen grains of muſk, with three grains of camphire, and ſix grains of ſalt of hartſhorn, may be made into a bolus with a little ſyrup, and given as above.

If the fever ſhould happen to intermit, which it frequently does towards the decline, or if the patient's ſtrength ſhould be waſted with colliquative ſweats, &c. it will be neceſſary to give him the Peruvian bark. Half a drachm, or a whole drachm, if the ſtomach will bear it, of the bark in fine powder, may be given four or five times a-day in a glaſs of red port or claret. Should the bark in ſubſtance not ſit eaſy on the ſtomach, an ounce of it in powder may be infuſed in a bottle of Liſbon or Rheniſh wine for two or three days; afterwards it may be ſtrained, and a glaſs of it taken frequently.

The Peruvian bark may likewiſe be very properly adminiſtered, along with other cordials, in the following manner: Take an ounce of Peruvian bark, orange-peel half an ounce, Virginian ſnake-root two drachms, ſaffron one drachm. Let all of them be powdered, and infuſed in an Engliſh pint of the beſt brandy for three or four days. Afterwards the liquor may be ſtrained, and two tea-ſpoonfuls of it given three or four times a-day in a glaſs of ſmall wine or negus.

Some give the bark in this and other fevers where there are no ſymptoms of inflammation, without any regard to the remiſſion or intermiſſion of the fever. How far future obſervations may tend to eſtabliſh this practice, we will not pretend to ſay; but we have reaſon to believe that the bark is a very univerſal febrifuge, and that it may be adminiſtered with advantage in moſt fevers where bleeding is not neceſſary, or where there are no ſymptoms of topical inflammation.

CHAP. XX.

OF THE MALIGNANT, PUTRID, or SPOTTED FEVER.

THIS may be called the *peſtilential fever* of Europe, as in many of its ſymptoms it bears a great reſemblance to that dreadful diſeaſe the plague. Perſons of a lax habit, a melancholy diſpoſition, and thoſe whoſe vigour has been waſted by long faſting, watching, hard labour, exceſſive venery, frequent ſalivations, &c. are moſt liable to it.

CAUSES.——This fever is occaſioned by foul air, from a number of people being confined in a narrow place not properly ventilated; from putrid animal and vegetable effluvia, &c. Hence it prevails in camps, jails, hoſpitals, and infirmaries, eſpecially where ſuch places are too much crowded, and cleanlineſs is neglected.

A cloſe conſtitution of the air, with long rainy or foggy weather, likewiſe occaſions putrid fevers. They often ſucceed great inundations in low and marſhy countries, eſpecially when theſe are preceded or followed by a hot and ſultry ſeaſon.

Living too much upon animal food, without a proper mixture of vegetables, or eating fiſh or fleſh that has been kept too long, are likewiſe apt to occaſion this kind of fever. Hence ſailors on long voyages, and the inhabitants of beſieged cities, are very often viſited with putrid fevers.

Corn that has been greatly damaged by rainy ſeaſons or long keeping, and water which has become putrid by ſtagnation, &c. may likewiſe occaſion this fever.

Dead carcaſſes tainting the air, eſpecially in hot ſeaſons, are very apt to occaſion putrid diſeaſes. Hence this kind of fever often prevails in countries which are the ſcenes of war and bloodſhed. This ſhews the propriety of removing burying-grounds, ſlaughter-houſes, &c. at a proper diſtance from great towns.

Want of cleanlineſs is a very general cauſe of putrid fevers. Hence they prevail amongſt the poor inhabitants of large towns, who breathe a confined unwholeſome air, and neglect cleanlineſs. Such mechanics as carry on dirty employments, and are conſtantly confined within doors, are likewiſe very liable to this diſeaſe.

We ſhall only add, that putrid, malignant, or ſpotted fevers, are highly infectious, and are, therefore, often communicated by contagion. For which reaſon all perſons ought to keep at a diſtance from thoſe affected with ſuch diſeaſes, unleſs their attendance is abſolutely neceſſary.

SYMPTOMS.——The malignant fever is generally preceded by a remarkable weakneſs or loſs of ſtrength, without any apparent cauſe: this is ſometimes ſo great, that the patient can ſcarce walk, or even ſit upright without being in danger of fainting away. His mind too is greatly dejected; he ſighs, and is full of dreadful apprehenſions.

There is a nauſea, and ſometimes a vomiting of bile; a violent pain of the head, with a ſtrong pulſation or throbbing of the temporal arteries: the eyes often appear red and inflamed, with a pain at the bottom of the orbit; there is a noiſe in the ears, the breathing is laborious, and often interrupted with a ſigh; the patient complains of a pain about the region of the ſtomach, and in his back and loins; the tongue is at firſt white, but afterwards it appears black and chapped; and his teeth are covered with a black cruſt. He ſometimes paſſes worms both upwards and downwards, is affected with tremors or ſhaking, and often becomes delirious.

If blood is let, it appears diſſolved, or with a very ſmall degree of coheſion, and ſoon becomes putrid; the ſtools ſmell extremely fœtid, and are ſometimes of a greeniſh, black, or reddiſh caſt. Spots of a pale purple, dun, or black colour, often appear upon the ſkin, and ſometimes there are violent hæmorrhages or diſcharges of blood from the mouth, eyes, noſe, &c.

Putrid fevers may be diſtinguiſhed from the inflammatory by the ſmallneſs of the pulſe, the great dejection of mind, the diſſolved ſtate of the blood, the petechiæ or purple ſpots, and the putrid ſmell of the excrements. They may likewiſe be diſtinguiſhed from the low or nervous fever by the heat and thirſt being greater, the urine of a higher colour, and the loſs of ſtrength, dejection of mind, and all the other ſymptoms, more violent.

It ſometimes happens, however, that the inflammatory, nervous, and putrid ſymptoms, are ſo blended together, as to render it very difficult to determine to which claſs the fever belongs. In this caſe the greateſt caution and ſkill are requiſite. Attention muſt be paid to thoſe ſymptoms which are moſt prevalent, and both the regimen and medicines adapted to them.

Inflammatory and nervous fevers may be converted into malignant and putrid by too hot a regimen or improper medicines.

The duration of putrid fevers is extremely uncertain; ſometimes they terminate between the ſeventh and fourteenth day, and at other times they are prolonged for five or ſix weeks. Their duration depends greatly upon the conſtitution of the patient, and the manner of treating the diſeaſe.

The moſt favourable ſymptoms are, a gentle looſeneſs after the fourth or fifth day, with a warm mild ſweat. Theſe, when continued for a conſiderable time, often carry off the fever, and ſhould never

be imprudently ſtopped. Small miliary puſtules appearing between the petechiæ or purple ſpots are likewiſe favourable, as alſo hot ſcabby eruptions about the mouth and noſe. It is a good ſign when the pulſe riſes upon the uſe of wine, or other cordials, and the nervous ſymptoms abate: deafneſs coming on towards the decline of the fever is likewiſe often a favourable ſymptom, as are abſceſſes in the groin or parotid glands; but deafneſs is not always a favourable ſymptom in this diſeaſe. Perhaps it is only ſo when occaſioned by abſceſſes formed within the ears.

Among the unfavourable ſymptoms may be reckoned an exceſſive looſeneſs with a hard ſwelled belly; large black or livid blotches breaking out upon the ſkin; aphthæ in the mouth; cold clammy ſweats; blindneſs; change of the voice; a wild ſtaring of the eyes; difficulty of ſwallowing; inability to put out the tongue; and a conſtant inclination to uncover the breaſt. When the ſweat and ſaliva are tinged with blood, and the urine is black, or depoſits a black ſooty ſediment, the patient is in great danger. Starting of the tendons, and fœtid, ichorous, involuntary ſtools, attended with coldneſs of the extremities, are generally the forerunners of death.

REGIMEN.——In the treatment of this diſeaſe we ought to endeavour as far as poſſible to counteract the putrid tendency of the humours; to ſupport the patient's ſtrength and ſpirits; and to aſſiſt Nature in expelling the cauſe of this diſeaſe, by gently promoting perſpiration and the other evacuations.

It has been obſerved that putrid fevers are often occaſioned by unwholeſome air, and of courſe they muſt be aggravated by it: care ſhould, therefore, be taken to prevent the air from ſtagnating in the patient's chamber, to keep it cool, and renew it frequently, by opening the doors or windows of ſome adjacent apartment. The breath and perſpiration of perſons in perfect health ſoon render the air of a ſmall apartment noxious: but this will ſooner happen from the perſpiration and breath of a perſon whoſe whole maſs of humours are in a putrid ſtate.

Beſides the frequent admiſſion of freſh air, we would recommend the uſe of vinegar, verjuice, juice of lemon, Seville orange, or any kind of vegetable acid that can be moſt readily obtained. Theſe ought frequently to be ſprinkled upon the floor, the bed, and every part of the room. They may alſo be evaporated with a hot iron, or by boiling, &c. The freſh ſkins of lemons or oranges ought likewiſe to be laid in different parts of the room, and they ſhould be frequently held to the patient's noſe. The uſe of acids in this manner would not only prove very refreſhing to the patient, but would likewiſe tend to prevent the infection from ſpreading among thoſe who attend him. Strong ſcented herbs, as rue, tanſy, roſemary, wormwood, &c. may likewiſe be laid in different parts of the houſe, and ſmelled to by thoſe who go near the patient.

The patient muſt not only be kept cool, but likewiſe quiet and eaſy. The leaſt noiſe will affect his head, and the ſmalleſt fatigue will be apt to make him faint.

Few things are of greater importance in this diſeaſe than acids,

which ought to be mixed with all the patient's food as well as drink. Orange, lemon, or vinegar-whey, are all very proper, and may be drank by turns, according to the patient's inclination. They may be rendered cordial by the addition of wine in ſuch quantity as the patient's ſtrength ſeems to require. When he is very low, he may drink negus, with only one half water, and ſharpened with the juice of orange or lemon. In ſome caſes a glaſs of wine may now and then be allowed. The moſt proper wine is Rheniſh; but if the body be open, red port or claret is to be preferred.

When the body is bound, a tea-ſpoonful of the cream of tartar may be put into a cup of the patient's drink, as there is occaſion; or he may drink a decoction of tamarinds, which will both quench his thirſt, and promote a diſcharge by ſtool.

If camomile-tea will ſit upon his ſtomach, it is a very proper drink in this diſeaſe. It may be ſharpened by adding to every cup of the tea, ten or fifteen drops of the *diluted vitriolic acid*.

The food muſt be light, as panado, or groat-gruel, to which a little wine may be added, if the patient be weak and low; and they ought all to be ſharpened with the juice of orange, the jelly of currants, or the like. The patient ought likewiſe to eat freely of ripe fruits, as roaſted apples, currant or gooſeberry tarts, preſerved cherries, or plums, &c.

Taking a little food or drink frequently, not only ſupports the ſpirits, but counteracts the putrid tendency of the humours; for which reaſon the patient ought frequently to be ſipping ſmall quantities of ſome of the acid liquors mentioned above, or any that may be more agreeable to his palate, or more readily obtained.

If he is delirious, his feet and hands ought to be frequently fomented with a ſtrong infuſion of camomile-flowers. This, or an infuſion of the bark, to ſuch as can afford it, cannot fail to have a good effect. Fomentations of this kind not only relieve the head, by relaxing the veſſels in the extremities; but as their contents are abſorbed, and taken into the ſyſtem, they may aſſiſt in preventing the putreſcency of the humours.

MEDICINE.——If a vomit be given at the beginning of this fever, it will hardly fail to have a good effect; but if the fever has gone on for ſome days, and the ſymptoms are violent, vomits are not quite ſo ſafe. The body, however, is always to be kept gently open by clyſters, or mild laxative medicines.

Bleeding is ſeldom neceſſary in putrid fevers. If there be ſigns of an inflammation, it may ſometimes be permitted at the firſt onſet; but the repetition of it generally proves hurtful.

Bliſtering-plaſters are never to be uſed unleſs in the greateſt extremities. If the petechiæ or ſpots ſhould ſuddenly diſappear, the patient's pulſe ſink remarkably, and a delirium with other bad ſymptoms come on, bliſtering may be permitted. In this caſe the bliſtering-plaſters are to be applied to the head, and inſide of the legs or thighs. But as they are ſometimes apt to occaſion a gangrene, we would rather recommend warm cataplaſms, or poultices of muſtard

and vinegar to be applied to the feet, having recourſe to bliſters on in the utmoſt extremities.

It is common in the beginning of this fever to give the emetic ta tar in ſmall doſes, repeated every ſecond or third hour, till it ſha either vomit, purge, or throw the patient into a ſweat. This pra tice is very proper, provided it be not puſhed ſo far as to weaken th patient.

A very ridiculous notion has long prevailed of expelling the po ſonous matter of malignant diſeaſes by trifling doſes of cordial alexipharmic medicines. In conſequence of this notion, the co trayerva-root, the cordial confection, the mithridate, &c. have be extolled as infallible remedies. There is reaſon, however, to believ that theſe ſeldom do much good. Where cordials are neceſſary, know none that is ſuperior to good wine; and therefore again recom mend it both as the ſafeſt and beſt. Wine, with acids and antiſe tics, are the only things to be relied on in the cure of malign fevers.

In the moſt dangerous ſpecies of this diſeaſe, when it is attend with purple, livid, or black ſpots, the Peruvian bark muſt be a miniſtered. I have ſeen it, when joined with acids, prove ſucce ful, even in caſes where the petechiæ had the moſt threatening a pect. But to anſwer this purpoſe, it muſt not only be given in lar doſes, but duly perſiſted in.

The beſt method of adminiſtering the bark is certainly in ſu ſtance. An ounce of it in powder may be mixed with half an En liſh pint of water, and the ſame quantity of red wine, and ſharpen with the elixir or the ſpirit of vitriol, which will both make it ſit eaſ on the ſtomach, and render it more beneficial. Two or three ounc of the ſyrup of lemon may be added, and two table-ſpoonfuls of t mixture taken every two hours, or oftener, if the ſtomach is able bear it.

Thoſe who cannot take the bark in ſubſtance may infuſe it in wi as recommended in the preceding diſeaſe.

All drinks in putrid fevers ought to be given cold, becauſe th are then much more tonic.

If there be a violent looſeneſs, the bark muſt be boiled in red wi with a little cinnamon, and ſharpened with the elixir of vitriol, above. Nothing can be more beneficial in this kind of looſeneſs th plenty of acids, and ſuch things as promote a gentle perſpiration.

If the patient be troubled with vomiting, a drachm of the ſalt wormwood, diſſolved in an ounce and a half of freſh lemon-juice, a made into a draught with an ounce of ſimple cinnamon water, a a bit of ſugar, may be given and repeated as often as it is neceſſary

As the alimentary canal is the ſtorehouſe of putrefaction, the bo els ſhould be cautiouſly evacuated; that being done, aſtoniſhing cu in putrid fevers have been performed by *yeaſt*. The patients, fr being reduced to the laſt extremity, were in four-and-twenty hou ſo far reſtored to health, as to leave not only their beds, but the hou alſo, and to purſue their uſual occupations. Two large ſpoonfuls *yeaſt* were given in three hours, interpoſing cinchona (Peruvi

ark), wine, and ſuitable nutriment. In ten minutes an alteration as been perceived for the better in the pulſe, which became more ompoſed and regular. The antiſeptic quality of the *yeaſt*, like hat of cinchona, evidently tended to check the progreſs of putrid rmentation. An infant in the advanced ſtage of this diſeaſe is aid to have been recovered in three days, by firſt vomiting it with the olution of *tartarized antimony* (ſee Appendix), which quickly acted s an emetic. After the operation was over, the inteſtines were clear- d by rhubarb, and then the child had, every two hours, *yeaſt* and *ater*, with wine and cinchona. In Germany, yeaſt has lately een conſidered as a ſpecific againſt putrid fever; they give ſix or ight ſpoonfuls of it daily.

If ſwellings of the glands appear, their ſuppuration is to be pro- noted by the application of poultices, ripening cataplaſms, &c. nd as ſoon as there is any appearance of matter in them, they ought o be laid open, and the poultices continued.

I have known large ulcerous ſores break out in various parts of the ody, in the decline of this fever, of a livid gangrenous appearance, nd a moſt putrid cadaverous ſmell. Theſe gradually healed, and he patient recovered, by the plentiful uſe of Peruvian bark and ine, ſharpened with the vitriolic acid.

For preventing putrid fevers we would recommend a ſtrict regard to leanlineſs; a dry ſituation; ſufficient exerciſe in the open air; holeſome food, and a moderate uſe of generous liquors. Infection ught above all things to be avoided. No conſtitution is proof gainſt it. I have known perſons ſeized with a putrid fever, by only aking a ſingle viſit to a patient in it; others have caught it by lodg- ng for one night in a town where it prevailed; and ſome by attend- ng the funerals of ſuch as died of it.

When a putrid fever ſeizes any perſon in a family, the greateſt at- ention is neceſſary to prevent the diſeaſe from ſpreading. The ſick ught to be placed in a large apartment, as remote from the reſt of he family as poſſible; he ought likewiſe to be kept extremely clean, nd ſhould have freſh air frequently let into his chamber: whatever omes from him ſhould be immediately removed, his linen ſhould be requently changed, and thoſe in health ought to avoid all unneceſſary ommunication with him.

Any one who is apprehenſive of having caught the infection, ought mmediately to take a vomit, and to work it off by drinking plenti- ully of camomile-tea. This may be repeated in a day or two, if the pprehenſions ſtill continue, or any unfavourable ſymptoms appear.

The perſon ought likewiſe to take an infuſion of the bark and ca- momile flowers for his ordinary drink; and before he goes to bed, he may drink an Engliſh pint of pretty ſtrong negus, or a few glaſſes of generous wine. I have been frequently obliged to follow this courſe when malignant fevers prevailed, and have likewiſe recommended it o others with conſtant ſucceſs.

People generally fly to bleeding and purging as antidotes againſt infection; but theſe are ſo far from ſecuring them, that they often by debilitating the body, increaſe the danger.

Thoſe who wait upon the ſick in putrid fevers, ought always to have a piece of ſponge or a handkerchief dipt in vinegar, or juice of lemon, to ſmell to while near the patient. They ought likewiſe to waſh their hands, and, if poſſible, to change their clothes, before they go into company.

CHAP. XXI.

OF THE MILIARY FEVER.

THIS fever takes its name from the ſmall puſtules or bladders which appear on the ſkin, reſembling, in ſhape and ſize, the ſeeds of millet. The puſtules are either red or white, and ſometimes both are mixed together.

The whole body is ſometimes covered with puſtules; but they are generally more numerous where the ſweat is moſt abundant, as on the breaſt, the back, &c. A gentle ſweat, or moiſture on the ſkin greatly promotes the eruption; but when the ſkin is dry, the eruption is both more painful and dangerous.

Sometimes this is a primary diſeaſe; but it is much oftener only a ſymptom of ſome other malady, as the ſmall-pox, meaſles, ardent, putrid, or nervous fever, &c. In all theſe caſes it is generally the effect of too hot a regimen or medicines.

The miliary fever chiefly attacks the idle and the phlegmatic, or perſons of a relaxed habit. The young and aged are more liable to it than thoſe in the vigour and prime of life. It is likewiſe more incident to women than men, eſpecially the delicate and the indolent who, neglecting exerciſe, keep continually within doors, and live upon weak watery diet. Such females are extremely liable to be ſeized with this diſeaſe in childbed, and often loſe their lives by it.

CAUSES.——The miliary fever is ſometimes occaſioned by violent paſſions or affections of the mind; as exceſſive grief, anxiety, thoughtfulneſs, &c. It may likewiſe be occaſioned by exceſſive watching, great evacuations, a weak watery diet, rainy ſeaſons, eating too freely of cold, crude, unripe fruits, as plums, cherries, cucumbers, melons, &c. Impure waters, or proviſions which have been ſpoiled by rainy ſeaſons, long keeping, &c. may likewiſe cauſe miliary fevers. They may alſo be occaſioned by the ſtoppage of any cuſtomary evacuation, as iſſues, ſetons, ulcers, the bleeding piles in men, or the menſtrual flux in women.

This diſeaſe in childbed-women is ſometimes the effect of great coſtiveneſs during pregnancy; it may likewiſe be occaſioned by the exceſſive uſe of green traſh, and other unwholeſome things, in which pregnant women are too apt to indulge. But its moſt general cauſe is indolence. Such women as lead a ſedentary life, eſpecially during pregnancy, and at the ſame time live groſsly, can hardly eſcape this diſeaſe in childbed. Hence it proves extremely fatal to women of faſhion, and likewiſe to thoſe women in manufacturing towns who, in order to aſſiſt their huſbands, ſit cloſe within doors for a

moſt the whole of their time. But among women who are active and laborious, who live in the country, and take ſufficient exerciſe without doors, this diſeaſe is very little known.

SYMPTOMS.——When this is a primary diſeaſe, it makes its attack, like moſt other eruptive fevers, with a ſlight ſhivering, which is ſucceeded by heat, loſs of ſtrength, faintiſhneſs, ſighing, a low quick pulſe, difficulty of breathing, with great anxiety and oppreſſion of the breaſt. The patient is reſtleſs, and ſometimes delirious; the tongue appears white, and the hands ſhake, with often a burning heat in the palms; and in childbed-women the milk generally goes away, and the other diſcharges ſtop.

The patient feels an itching or pricking pain under the ſkin, after which innumerable ſmall puſtules of a red or white colour begin to appear. Upon this the ſymptoms generally abate, the pulſe becomes more full and ſoft, the ſkin grows moiſter, and the ſweat, as the diſeaſe advances, begins to have a peculiar fœtid ſmell; the great load on the breaſt, and oppreſſion of the ſpirits, generally go off, and the cuſtomary evacuations gradually return. About the ſixth or ſeventh day from the eruption, the puſtules begin to dry and fall off, which occaſions a very diſagreeable itching in the ſkin.

It is impoſſible to aſcertain the exact time when the puſtules will either appear or go off. They generally come out on the third or fourth day, when the eruption is critical; but when ſymptomatical, they may appear at any time of the diſeaſe.

Sometimes the puſtules appear and vaniſh by turns. When that is the caſe, there is always danger; but when they go in all of a ſudden, and do not appear again, the danger is very great.

In childbed-women the puſtules are commonly at firſt filled with clear water, afterwards they grow yellowiſh. Sometimes they are interſperſed with puſtules of a red colour. When theſe only appear, the diſeaſe goes by the name of a *raſh*.

REGIMEN.——In all eruptive fevers of whatever kind, the chief point is to prevent the ſudden diſappearing of the puſtules, and to promote their maturation. For this purpoſe the patient muſt be kept in ſuch a temperature, as neither to puſh out the eruption too faſt, nor to cauſe it to retreat prematurely. The diet and drink ought, therefore, to be in a moderate degree nouriſhing and cordial; but neither ſtrong nor heating. The patient's chamber ought neither to be kept too hot nor cold; and he ſhould not be too much covered with clothes. Above all, the mind is to be kept eaſy and cheerful. Nothing ſo certainly makes an eruption go in as fear, or the apprehenſion of danger.

The food muſt be weak chicken-broth with bread, panado, ſago, or groat-gruel, &c. to a gill of which may be added a ſpoonful or two of wine, as the patient's ſtrength requires, with a few grains of ſalt and a little ſugar. Good apples roaſted or boiled, with other ripe fruits of an opening cooling nature, may be eaten.

The drink may be ſuited to the ſtate of the patient's ſtrength and ſpirits. If theſe be pretty high, the drink ought to be weak; as water-gruel, balm-tea, or the following decoction: Take two ounces of

the ſhavings of hartſhorn, and the ſame quantity of ſarſaparilla; boil them in two Engliſh quarts of water. To the ſtrained decoction add a little white ſugar, and let the patient take it for his ordinary drink.

When the patient's ſpirits are low, and the eruption does not riſe ſufficiently, his drink muſt be a little more generous; as wine-whey, or ſmall negus, ſharpened with the juice of orange or lemon, and made ſtronger or weaker, as circumſtances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which caſe the patient's ſtrength muſt be ſupported with generous cordials, joined with acids; and, if the degree of putreſcence be great, the Peruvian bark muſt be adminiſtered. If the head be much affected, the body muſt be kept open by emollient clyſters.

In the *Commercium Literarium* for the year 1735, we have the hiſtory of an epidemical miliary fever which raged at Straſburgh in the months of November, December, and January; from which we learn the neceſſity of a temperate regimen in this malady, and likewiſe that phyſicians are not always the firſt who diſcover the proper treatment of diſeaſes. "This fever made terrible havock even among men of robuſt conſtitutions, and all medicine proved in vain. They were ſeized in an inſtant with ſhivering, yawning, ſtretching, and pains in the back, ſucceeded by a moſt intenſe heat; at the ſame time there was a great loſs of ſtrength and appetite. On the ſeventh or ninth day the miliary eruptions appeared, or ſpots like flea-bites, with great anxiety, a delirium, reſtleſſneſs, and toſſing in bed. Bleeding was fatal. While matters where in this unhappy ſituation, a midwife, of her own accord, gave to a patient, in the height of the diſeaſe, a clyſter of rain water and butter without ſalt, and for his ordinary drink a quart of ſpring water, half a pint of generous wine, the juice of a lemon, and ſix ounces of the whiteſt ſugar, gently boiled till a ſcum aroſe, and this with great ſucceſs; for the belly was ſoon looſened, the grievous ſymptoms vaniſhed, and the patient was reſtored to his ſenſes, and ſnatched from the jaws of death." This practice was imitated by others with the like happy effects.

MEDICINE.——If the food and drink be properly regulated, there will be little occaſion for medicine in this diſeaſe. Should the eruption however not riſe, or the ſpirits flag, it will not only be neceſſary to ſupport the patient with cordials, but likewiſe to apply bliſtering-plaſters. The moſt proper cordial, in this caſe, is good wine, which may either be taken in the patient's food or drink; and if there be ſigns of putreſcence, the bark and acids may be mixed with wine, as directed in the putrid fever.

Some recommend bliſtering through the whole courſe of this diſeaſe; and where Nature flags, and the eruption comes and goes, it may be neceſſary to keep up a ſtimulus, by a continual ſucceſſion of ſmall bliſtering-plaſters; but we would not recommend above one at a time. If however the pulſe ſhould ſink remarkably, the puſtules fall in, and the head be affected, it will be neceſſary to apply ſeveral bliſtering-plaſters to the moſt ſenſible parts, as the inſide of the legs and thighs, &c.

Bleeding is ſeldom neceſſary in this diſeaſe, and ſometimes it does much hurt, as it weakens the patient, and depreſſes his ſpirits. It is therefore never to be attempted unleſs by the advice of a phyſician. We mention this, becauſe it has been cuſtomary to treat this diſeaſe in childbed-women by plentiful bleeding and other evacuations, as if it were highly inflammatory. But this practice is generally very unſafe. Patients in this ſituation bear evacuations very ill. And indeed the diſeaſe ſeems often to be more of a putrid than of an inflammatory nature.

Though this fever is often occaſioned in childbed-women by too hot a regimen, yet it would be dangerous to leave that off all of a ſudden, and have recourſe to a very cool regimen, and large evacuations. We have reaſon to believe, that ſupporting the patient's ſpirits, and promoting the natural evacuations, is here much ſafer than to have recourſe to artificial ones, as theſe, by ſinking the ſpirits, ſeldom fail to increaſe the danger.

If the diſeaſe proves tedious, or the recovery ſlow, we would recommend the Peruvian bark, which may either be taken in ſubſtance, or infuſed in wine or water, as the patient inclines.

The miliary fever, like other eruptive diſeaſes, requires gentle purging, which ſhould not be neglected, as ſoon as the fever is gone off, and the patient's ſtrength will permit.

To prevent this diſeaſe, a pure dry air, ſufficient exerciſe, and wholeſome food, are neceſſary. Pregnant women ſhould guard againſt coſtiveneſs, and take daily as much exerciſe as they can bear, avoiding all green traſhy fruits, and other unwholeſome things; and when in childbed, they ought ſtrictly to obſerve a cool regimen.

CHAP. XXII.

OF THE REMITTING FEVER.

THIS fever takes its name from a remiſſion of the ſymptoms which happens ſometimes ſooner, and ſometimes later, but generally before the eighth day. The remiſſion is commonly preceded by a gentle ſweat, after which the patient ſeems greatly relieved, but in a few hours the fever returns. Theſe remiſſions return at very irregular periods, and are ſometimes of longer, ſometimes of ſhorter duration; the nearer however that the fever approaches to regular intermittent, the danger is the leſs.

CAUSES.——Remitting fevers prevail in low marſhy countries abounding with wood and ſtagnating water; but they prove moſt fatal in places where great heat and moiſture are combined, as in ſome parts of Africa, the province of Bengal in the Eaſt Indies, &c. where remitting fevers are generally of a putrid kind, and prove very fatal. They are moſt frequent in cloſe calm weather, eſpecially after rainy ſeaſons, great inundations, or the like. No age, ſex, or conſtitution, is exempted from the attack of this fever; but it chiefly ſeizes perſons

of a relaxed habit, who live in low dirty habitations, breathe an impure ſtagnating air, take little exerciſe, and uſe unwholeſome diet.

SYMPTOMS.——The firſt ſymptoms of this fever are generally yawning, ſtretching, pain and giddineſs in the head, with alternate fits of heat and cold. Sometimes the patient is affected with a delirium at the very firſt attack. There is a pain, and ſometimes a ſwelling, about the region of the ſtomach; the tongue is white, the eyes and ſkin frequently appear yellow, and the patient is often afflicted with bilious vomitings. The pulſe is ſometimes a little hard, but ſeldom full, and the blood, when let, rarely ſhews any ſigns of inflammation. Some patients are exceedingly coſtive, and others are afflicted with a very troubleſome looſeneſs.

It is impoſſible to deſcribe all the ſymptoms of this diſeaſe, as they vary according to the ſituation, the ſeaſon of the year, and the conſtitution of the patient. They may likewiſe be greatly changed by the method of treatment, and by many other circumſtances too tedious to mention. Sometimes the bilious ſymptoms predominate, ſometimes the nervous, and at other times the putrid. Nor is it at all uncommon to find a ſucceſſion of each of theſe, or even a complication of them at the ſame time, in the ſame perſon.

REGIMEN.——The regimen muſt be adapted to the prevailing ſymptoms. When there are any ſigns of inflammation, the diet muſt be ſlender, and the drink weak and diluting. But when nervous or putrid ſymptoms prevail, it will be neceſſary to ſupport the patient with food and liquors of a more generous nature, ſuch as are recommended in the immediately preceding fevers. We muſt however be very cautious in the uſe of things of a heating quality, as this fever is frequently changed into a *continual* by a hot regimen and improper medicines.

Whatever the ſymptoms are, the patient ought to be kept cool, quiet, and clean. His apartment, if poſſible, ſhould be large, and frequently ventilated by letting in freſh air at the doors and windows. It ought likewiſe to be ſprinkled with vinegar, juice of lemon, or the like. His linen, bed-clothes, &c. ſhould be frequently changed, and all his excrements immediately removed. Though theſe things have been recommended before, we think it neceſſary to repeat them here, as they are of more importance to the ſick than practitioners are apt to imagine.

The ingenious Dr. Lind, of Windſor, in his inaugural diſſertation concerning the putrid remitting fever of Bengal, has the following obſervation: "The patient's ſhirt, bed-clothes, and bedding, ought frequently to be changed, and expoſed to the air, and all his excrements immediately removed; the bed-chamber ſhould be well ventilated, and frequently ſprinkled with vinegar; in ſhort, every attention ſhould be paid to the patient. I can affirm, that a phyſician who puts theſe in practice will much oftener ſucceed than one who is even more ſkilful, but has not opportunity of uſing theſe means."

MEDICINE.——In order to cure this fever, we muſt endeavour to bring it to a regular intermiſſion. This intention may be promoted by bleeding, if there be any ſigns of inflammation; but when that

is not the caſe, bleeding ought by no means to be attempted, as it will weaken the patient and prolong the diſeaſe. A vomit however will ſeldom be improper, and is generally of great ſervice. Twenty or thirty grains of ipecacuanha will anſwer this purpoſe very well; but, where it can be obtained, we would rather recommend a grain or two of tartar emetic, with five or ſix grains of ipecacuanha, to be made into a draught, and given for a vomit. This may be repeated once or twice at proper intervals, if the ſickneſs or nauſea continues.

The body ought to be kept open either by clyſters or gentle laxatives, as weak infuſions of ſenna and manna, ſmall doſes of the lenitive electuary, cream of tartar, tamarinds, ſtewed prunes, or the like; but all ſtrong or draſtic purgatives are to be carefully avoided.

By this courſe the fever in a few days may generally be brought to a pretty regular or diſtinct intermiſſion, in which caſe the Peruvian bark may be adminiſtered, and it will ſeldom fail to perfect the cure. It is needleſs here to repeat the methods of giving the bark, as we have already had occaſion frequently to mention them.

The moſt likely way to avoid this fever is to uſe a wholeſome or nouriſhing diet, to pay the moſt ſcrupulous attention to cleanlineſs, to keep the body warm, to take ſufficient exerciſe, and in hot countries to avoid damp ſituations, night air, evening dews, and the like. In countries where it is endemical, the beſt preventive medicine which we can recommend is the Peruvian bark, which may either be chewed, or infuſed in brandy or wine, &c. Some recommend ſmoaking tobacco as very beneficial in marſhy countries, both for the prevention of this and intermitting fevers.

CHAP. XXIII.

OF THE SMALL-POX, AND THE VACCINE OR COW-POX.

OF THE SMALL-POX.

THIS diſeaſe, which originally came from Arabia, is now become ſo general, that very few eſcape it at one time of life or another. It is a moſt contagious malady, and has for many years proved the ſcourge of Europe.

The ſmall-pox generally appear towards the ſpring. They are very frequent in ſummer, leſs ſo in autumn, and leaſt of all in winter. Children are moſt liable to this diſeaſe; and thoſe whoſe food is unwholeſome, who want proper exerciſe, and abound with groſs humours, run the greateſt hazard from it.

The diſeaſe is diſtinguiſhed into the diſtinct and confluent kind, the latter of which is always attended with danger. There are likewiſe other diſtinctions of the ſmall-pox; as the cryſtalline, the bloody, &c.

CAUSES.——The ſmall-pox is commonly caught by infection. Since the diſeaſe was firſt brought into Europe, the infection has never been wholly extinguiſhed, nor have any proper methods, as far as I know, been taken for that purpoſe; ſo that now it has become

in a manner conſtitutional. Children who have over-heated themſelves by running, wreſtling, &c. or adults after a debauch, are moſt apt to be ſeized with the ſmall-pox.

SYMPTOMS.——This diſeaſe is ſo generally known, that a minute deſcription of it is unneceſſary. Children commonly look a little dull, ſeem liſtleſs and drowſy for a few days before the more violent ſymptoms of the ſmall-pox appear. They are likewiſe more inclined to drink than uſual, have little appetite for ſolid food, complain of wearineſs, and, upon taking exerciſe, are apt to ſweat. Theſe are ſucceeded by ſlight fits of cold and heat in turns, which, as the time of the eruption approaches, become more violent, and are accompanied with pains of the head and loins, vomiting, &c. The pulſe is quick, with a great heat of the ſkin, and reſtleſſneſs. When the patient drops aſleep, he wakes in a kind of horror, with a ſudden ſtart, which is a very common ſymptom of the approaching eruption; as are alſo convulſion-fits in very young children.

About the third or fourth day from the time of ſickening, the ſmall-pox generally begin to appear; ſometimes indeed they appear ſooner, but that is no favourable ſymptom. At firſt they very nearly reſemble flea-bites, and are ſooneſt diſcovered on the face, arms, and breaſt.

The moſt favourable ſymptoms are a ſlow eruption, and an abatement of the fever as ſoon as the puſtules appear. In a mild diſtinct kind of ſmall-pox the puſtules ſeldom appear before the fourth day from the time of ſickening, and they generally keep coming out gradually for ſeveral days after. Puſtules which are diſtinct, with a florid red baſis, and which fill with thick purulent matter, firſt of a whitiſh and afterwards of a yellowiſh colour, are the beſt.

A livid brown colour of the puſtules is an unfavourable ſymptom; as alſo when they are ſmall and flat, with black ſpecks in the middle. Puſtules which contain a thin watery ichor are very bad. A great number of pox on the face is always attended with danger. It is likewiſe a very bad ſign when they run into one another.

It is a moſt unfavourable ſymptom when petechiæ, or purple, brown, or black ſpots are interſperſed among the puſtules. Theſe are ſigns of a putrid diſſolution of the blood, and ſhew the danger to be very great. Bloody ſtools or urine, with a ſwelled belly, are bad ſymptoms; as is alſo a continual ſtrangury. Pale urine and a violent throbbing of the arteries of the neck are ſigns of an approaching delirium, or of convulſion-fits. When the face does not ſwell, or falls before the pox come to maturity, it is very unfavourable. If the face begins to fall about the eleventh or twelfth day, and at the ſame time the hands and feet begin to ſwell, the patient generally does well; but when theſe do not ſucceed to each other, there is reaſon to apprehend danger. When the tongue is covered with a brown cruſt, it is an unfavourable ſymptom. Cold ſhivering fits coming on at the height of the diſeaſe are likewiſe unfavourable. Grinding of the teeth, when it proceeds from an affection of the nervous ſyſtem, is a bad ſign; but ſometimes it is occaſioned by worms, or a diſordered ſtomach.

REGIMEN.——When the firſt ſymptoms of the ſmall-pox appear,

people are ready to be alarmed, and often fly to the uſe of medicine, to the great danger of the patient's life. I have known children, to appeaſe the anxiety of their parents, bled, bliſtered, and purged during the fever which preceded the eruption of the ſmall-pox, to ſuch a degree, that Nature was not only diſturbed in her operation, but rendered unable to ſupport the puſtules after they were out; ſo that the patient, exhauſted by mere evacuations, ſunk under the diſeaſe.

When convulſions appear, they give a dreadful alarm. Immediately ſome noſtrum is applied, as if this were a primary diſeaſe; whereas it is only a ſymptom, and far from being an unfavourable one, of the approaching eruption. As the fits generally go off before the actual appearance of the ſmall-pox, it is attributed to the medicine, which by this means acquires a reputation without any merit.

Convulſion-fits are no doubt very alarming, but their effects are often ſalutary. They ſeem to be one of the means made uſe of by Nature for breaking the force of a fever. I have always obſerved the fever abated, and ſometimes quite removed, after one or more convulſion-fits. This readily accounts for convulſions being a favourable ſymptom in the fever which precedes the eruption of the ſmall-pox, as every thing that mitigates this fever leſſens the eruption.

All that is, generally ſpeaking, neceſſary during the eruptive fever, is to keep the patient cool and eaſy, allowing him to drink freely of ſome weak diluting liquors; as balm-tea, barley-water, clear whey, gruels, &c. He ſhould not be confined to bed, but ſhould ſit up as much as he is able, and ſhould have his feet and legs frequently bathed in lukewarm water. His food ought to be very light, and he ſhould be as little diſturbed with company as poſſible.

Much miſchief is done at this period by confining the patient too ſoon to his bed, and plying him with warm cordials or ſudorific medicines. Every thing that heats and inflames the blood increaſes the fever, and puſhes out the puſtules prematurely. This has numberleſs ill effects. It not only increaſes the number of puſtules, but likewiſe tends to make them run into one another; and when they have been puſhed out with too great violence, they generally fall in before they come to maturity.

The good women, as ſoon as they ſee the ſmall-pox begin to appear, commonly ply their tender charge with cordials, ſaffron, and marigold-teas, wine, punch, and even brandy itſelf. All theſe are given with a view, as they term it, to throw out the eruption from the heart. This, like moſt other popular miſtakes, is the abuſe of a very juſt obſervation, *that when there is a moiſture on the ſkin, the pox riſe better, and the patient is eaſier, than when it continues dry and parched.* But that is no reaſon for forcing the patient into a ſweat. Sweating never relieves unleſs where it comes ſpontaneouſly, or is the effect of drinking weak diluting liquors.

Children are often ſo peeviſh, that they will not lie a-bed without a nurſe conſtantly by them. Indulging them in this, we have reaſon to believe, has many bad effects both upon the nurſe and child. Even the natural heat of the nurſe cannot fail to augment

the fever of the child; but if ſhe too proves feveriſh, which is often the caſe, the danger muſt be increaſed.

I have known a nurſe, who had the ſmall-pox before, ſo infected by lying conſtantly a-bed with a child in a bad kind of ſmall-pox, that ſhe had not only a great number of puſtules which broke out all over her body, but afterwards a malignant fever which terminated in a number of impoſthumes or boils, and from which ſhe narrowly eſcaped with her life. We mention this to put others upon their guard againſt the danger of this virulent infection.

Laying ſeveral children who have the ſmall-pox in the ſame bed has many ill conſequences. They ought if poſſible never to be in the ſame chamber, as the perſpiration, the heat, the ſmell, &c. all tend to augment the fever, and to heighten the diſeaſe. It is common among the poor to ſee two or three children lying in the ſame bed, with ſuch a load of puſtules that even their ſkins ſtick together. One can hardly view a ſcene of this kind without being ſickened by the ſight. But how muſt the effluvia affect the poor patients, many of whom periſh by this uſage!

This obſervation is likewiſe applicable to hoſpitals, workhouſes, &c. where numbers of children happen to have the ſmall-pox at the ſame time. I have ſeen above forty children cooped up in one apartment all the while they had this diſeaſe, without any of them being admitted to breathe the freſh air. No one can be at a loſs to ſee the impropriety of ſuch conduct. It ought to be a rule not only in hoſpitals for the ſmall-pox, but likewiſe for other diſeaſes, that no patient ſhould be within ſight or hearing of another. This is a matter to which too little regard is paid. In moſt hoſpitals and infirmaries, the ſick, the dying, and the dead, are often to be ſeen in the ſame apartment.

A very dirty cuſtom prevails among the lower claſs of people, of allowing children in the ſmall-pox to keep on the ſame linen during the whole period of that loathſome diſeaſe. This is done leſt they ſhould catch cold; but it has many ill conſequences. The linen becomes hard by the moiſture which it abſorbs, and frets the tender ſkin. It likewiſe occaſions a bad ſmell, which is very pernicious both to the patient and thoſe about him; beſides, the filth and ſordes which adhere to the linen being reſorbed, or taken up again into the body, greatly augment the diſeaſe.

A patient ſhould not be ſuffered to be dirty in an internal diſeaſe, far leſs in the ſmall-pox. Cutaneous diſorders are often occaſioned by naſtineſs alone, and are always increaſed by it. Were the patient's linen to be changed every day, it would greatly refreſh him. Care indeed is to be taken that the linen be thoroughly dry. It ought likewiſe to be put on when the patient is moſt cool.

So ſtrong is the vulgar prejudice in this country, notwithſtanding all that has been ſaid againſt the hot regimen in the ſmall-pox, that numbers ſtill fall a ſacrifice to that error. I have ſeen poor women travelling in the depth of winter, and carrying their children along with them in the ſmall-pox, and have frequently obſerved others begging by the way-ſide with infants in their arms, covered with the puſtules; yet I could never learn that one of theſe children

died by this ſort of treatment. This is certainly a ſufficient proof of the ſafety, at leaſt, of expoſing patients in the ſmall-pox to the open air. There can be no reaſon, however, for expoſing them to public view. It is now very common in the environs of great towns to meet patients in the ſmall-pox on the public walks. This practice, however well it may ſuit the purpoſes of boaſting inoculators, is dangerous to the citizens, and contrary to the laws of humanity and ſound policy.

The food in this diſeaſe ought to be very light, and of a cooling nature, as panado, or bread boiled with equal quantities of milk and water, good apples roaſted or boiled with milk, and ſweetened with a little ſugar or ſuch like.

The drink may be equal parts of milk and water, clear ſweet whey, barley-water, or thin gruel, &c. After the pox are full, butter-milk, being of an opening and cleanſing nature, is a very proper drink.

MEDICINE.——This diſeaſe is generally divided into four different periods, viz. the fever which precedes the eruption, the eruption itſelf, the ſuppuration or maturation of the puſtules, and the ſecondary fever.

It has already been obſerved, that little more is neceſſary during the primary fever than to keep the patient cool and quiet, allowing him to drink diluting liquors, and bathing his feet frequently in warm water. Though this be generally the ſafeſt courſe that can be taken with infants, yet adults, of a ſtrong conſtitution and plethoric habit, ſometimes require bleeding. When a full pulſe, a dry ſkin, and other ſymptoms of inflammation, render this operation neceſſary, it ought to be performed; but unleſs theſe ſymptoms are urgent, it is ſafer to let it alone: if the body is bound, emollient clyſters may be thrown in.

If there is a great nauſea or inclination to vomit, weak camomile tea or lukewarm water may be drank, in order to cleanſe the ſtomach. At the beginning of a fever, Nature generally attempts a diſcharge, either upwards or downwards, which, if promoted by gentle means, would tend greatly to abate the violence of the diſeaſe.

Though every method is to be taken during the primary fever, by a cool regimen, &c. to prevent too great an eruption; yet after the puſtules have made their appearance, our buſineſs is to promote the ſuppuration by diluting drink, light food, and, if Nature ſeems to flag, by generous cordials. When a low creeping pulſe, faintiſhneſs, and great loſs of ſtrength, render cordials neceſſary, we would recommend good wine, which may be made into negus, with an equal quantity of water, and ſharpened with the juice of orange, the jelly of currants, or the like. Wine-whey, ſharpened as above, is likewiſe a proper drink in this caſe; great care however muſt be taken not to overheat the patient by any of theſe things. This, inſtead of promoting, would retard the eruption.

The riſing of the ſmall-pox is often prevented by the violence of the fever; in this caſe the cool regimen is ſtrictly to be obſerved. The patient's chamber muſt not only be kept cool, but he ought

likewiſe frequently to be taken out of bed, and to be lightly covered with clothes while in it.

Exceſſive reſtleſſneſs often prevents the riſing and filling of the ſmall-pox. When this happens, gentle opiates are neceſſary. Theſe however ought always to be adminiſtered with a ſparing hand. To an infant, a tea-ſpoonful of the ſyrup of poppies may be given every five or ſix hours, till it has the deſired effect. An adult will require a table-ſpoonful in order to anſwer the ſame purpoſe.

If the patient be troubled with a ſtrangury, or ſuppreſſion of urine, which often happens in the ſmall-pox, he ſhould be frequently taken out of bed, and, if he be able, ſhould walk acroſs the room with his feet bare. When he cannot do this, he may be frequently ſet on his knees in bed, and ſhould endeavour to paſs his urine as often as he can. When theſe do not ſucceed, a tea-ſpoonful of the ſweet ſpirits of nitre may be occaſionally mixed with his drink. Nothing more certainly relieves the patient, or is more beneficial in the ſmall-pox, than a plentiful diſcharge of urine.

If the mouth be foul, and the tongue dry and chapped, it ought frequently to be waſhed, and the throat gargled with water and honey, ſharpened with a little vinegar or currant jelly.

During the riſing of the ſmall-pox, it frequently happens that the patient is eight or ten days without a ſtool. This not only tends to heat and inflame the blood, but the fæces, by lodging ſo long in the body, become acrid, and even putrid; from whence bad conſequences muſt enſue. It will therefore be proper, when the body is bound, to throw an emollient clyſter every ſecond or third day through the whole courſe of the diſeaſe. This will greatly cool and relieve the patient.

When petechiæ, or purple, black, or livid ſpots appear among the ſmall-pox, the Peruvian bark muſt immediately be adminiſtered in as large doſes as the patient's ſtomach can bear. For a child, two drachms of the bark in powder may be mixed in three ounces of common water, one ounce of ſimple cinnamon water, and two ounces of the ſyrup of orange or lemon. This may be ſharpened with the ſpirits of vitriol, and a table-ſpoonful of it given every hour. If it be given to an adult in the ſame form, he may take at leaſt three or four ſpoonfuls every hour. This medicine ought not to be trifled with, but muſt be adminiſtered as frequently as the ſtomach can bear it; in which caſe it will often produce very happy effects. I have frequently ſeen the petechiæ diſappear, and the ſmall-pox, which had a very threatening aſpect, riſe and fill with laudable matter, by the uſe of the bark and acids.

The patient's drink ought likewiſe in this caſe to be generous, as wine or ſtrong negus acidulated with ſpirits of vitriol, vinegar, the juice of lemon, jelly of currants, or ſuch like. His food muſt conſiſt of apples roaſted or boiled, preſerved cherries, plums, and other fruits of an acid nature.

The bark and acids are not only neceſſary when the petechiæ or putrid ſymptoms appear, but likewiſe in the lymphatic or cryſtalline ſmall-pox, where the matter is thin, and not duly prepared. The Peruvian bark ſeems to poſſeſs a ſingular power of aſſiſting Nature in preparing laudable pus, or what is called good matter; conſequently

it muſt be beneficial both in this and other diſeaſes, where the criſis depends on a ſuppuration. I have often obſerved where the ſmall-pox were flat, and the matter contained in them quite clear and tranſparent, and where at firſt they had the appearance of running into one another, that the Peruvian bark, acidulated as above, changed the colour and conſiſtence of the matter, and produced the moſt happy effects.

When the eruption ſubſides ſuddenly, or, as the good women term it, when the ſmall-pox *ſtrike in*, before they have arrived at maturity, the danger is very great. In this caſe bliſtering plaſters muſt be immediately applied to the wriſts and ar...es, and the patient's ſpirits ſupported with cordials.

Sometimes bleeding has a ſurpriſing effect in raiſing the puſtules after they have ſubſided; but it requires ſkill to know when this is proper, or to what length the patient can bear it. Sharp cataplaſms however may be applied to the feet and hands, as they tend to promote the ſwelling of theſe parts, and by that means to draw the humours towards the extremities.

The moſt dangerous period of this diſeaſe is what we call the ſecondary fever. This generally comes on when the ſmall-pox begin to blacken, or turn on the face; and moſt of thoſe who die of the ſmall-pox are carried off by this fever.

Nature generally attempts, at the turn of the ſmall-pox, to relieve the patient by looſe ſtools. Her endeavours this way are by no means to be counteracted, but promoted, and the patient at the ſame time ſupported by food and drink of a nouriſhing and cordial nature.

If at the approach of the ſecondary fever the pulſe be very quick, hard, and ſtrong, the heat intenſe, and the breathing laborious, with other ſymptoms of an inflammation of the breaſt, the patient muſt immediately be bled. The quantity of blood to be let muſt be regulated by the patient's ſtrength, age, and the urgency of the ſymptoms.

But in the ſecondary fever, if the patient be faintiſh, the puſtules become ſuddenly pale, and if there be great coldneſs of the extremities, bliſtering plaſters muſt be applied, and the patient muſt be ſupported with generous cordials. Wine and even ſpirits have ſometimes been given in ſuch caſes with amazing ſucceſs.

As the ſecondary fever is in great meaſure, if not wholly, owing to the abſorption of the matter, it would ſeem highly conſonant to reaſon, that the puſtules, as ſoon as they come to maturity, ſhould be opened. This is every day practiſed in other phlegmons which tend to ſuppuration; and there ſeems to be no cauſe why it ſhould be leſs proper here. On the contrary, we have reaſon to believe that by this means the ſecondary fever might always be leſſened, and often wholly prevented.

The puſtules ſhould be opened when they begin to turn of a yellow colour. Very little art is neceſſary for this operation. They may either be opened with a lancet or a needle, and the matter abſorbed by a little dry lint. As the puſtules are generally firſt ripe on the face, it will be proper to begin with opening theſe, and the others

in courſe as they become ripe. The puſtules generally fill again, a ſecond or even a third time; for which cauſe the operation muſt be repeated, or rather continued as long as there is any conſiderable appearance of matter in the puſtules.

We have reaſon to believe that this operation, rational as it is, has been neglected from a piece of miſtaken tenderneſs in parents. They believe that it muſt give great pain to the poor child; and therefore would rather ſee it die than have it thus tortured. This notion however is entirely without foundation. I have frequently opened the puſtules when the patient did not ſee me, without his being in the leaſt ſenſible of it; but ſuppoſe it were attended with a little pain, that is nothing in compariſon to the advantages which ariſe from it.

Opening the puſtules not only prevents the reſorption of the matter into the blood, but likewiſe takes off the tenſion of the ſkin, and by that means greatly relieves the patient. It likewiſe tends to prevent the pitting, which is a matter of no ſmall importance. Acrid matter, by lodging long in the puſtules, cannot fail to corrode the tender ſkin; by which many a handſome face becomes ſo deformed as hardly to bear a reſemblance to the human figure.

Though this operation can never do harm, yet it is only neceſſary when the patient has a great load of ſmall-pox, or when the matter which they contain is of ſo thin and acrid a nature, that there is reaſon to apprehend bad conſequences from its being too quickly reſorbed, or taken up again into the maſs of circulating humours.

It is generally neceſſary, after the ſmall-pox are gone off, to purge the patient. If however the body has been open through the whole courſe of the diſeaſe, or if butter-milk and other things of an opening nature have been drank freely after the height of the ſmall-pox, purging becomes leſs neceſſary; but it ought never wholly to be neglected.

For very young children, an infuſion of ſenna and prunes, with a little rhubarb, may be ſweetened with coarſe ſugar, and given in ſmall quantities till it operates. Thoſe who are farther advanced muſt take medicines of a ſharper nature. For example, a child of five or ſix years of age may take eight or ten grains of fine rhubarb in powder over night, and the ſame quantity of jalap in powder next morning. This may be wrought off with freſh broth or water-gruel, and may be repeated three or four times, five or ſix days intervening between each doſe. For children further advanced, and adults, the doſe muſt be increaſed in proportion to the age and conſtitution; or at bed-time give one, two, three, or four grains of calomel, according to the age of the patient: repeat this medicine four or five times at intervals of three or four days, and, if neceſſary, a ſuitable doſe of powdered jalap or rhubarb may be given in the morning.

When impoſthumes happen after the ſmall-pox, which is not ſeldom the caſe, they muſt be brought to ſuppuration as ſoon as poſſible, by means of ripening poultices; and when they have been opened, or have broke of their own accord, the patient muſt be purged. The Peruvian bark and a milk diet will likewiſe be uſeful in this caſe.

When a cough, a difficulty of breathing, or other ſymptoms of a conſumption, ſucceed to the ſmall-pox, the patient muſt be ſent to

a place where the air is good, and put upon a courſe of aſſes milk, with ſuch exerciſe as he can bear. For further directions in this caſe, ſee the article *Conſumptions*.

OF INOCULATION.

Though no diſeaſe, after it is formed, baffles the powers of medicine more effectually than the ſmall-pox, yet more may be done beforehand to render this diſeaſe favourable than any one we know, as almoſt all the danger from it may be prevented by inoculation. This ſalutary invention has been known in Europe above half a century; but, like moſt other uſeful diſcoveries, it has till of late made but ſlow progreſs. It muſt however be acknowledged, to the honour of this country, that inoculation has met with a more favourable reception here, than among any of our neighbours. It is ſtill however far from being general, which we have reaſon to fear will be the caſe, as long as the practice continues in the hands of the faculty.

No diſcovery can be of general utility, while the practice of it is kept in the hands of a few. Had the inoculation of the ſmall-pox been introduced as a faſhion, and not as a medical diſcovery, or had it been practiſed by the ſame kind of operators here as it is in thoſe countries from whence we learned it, it had long ago been univerſal. The fears, the jealouſies, the prejudices, and the oppoſite intereſts of the faculty, are, and ever will be, the moſt effectual obſtacles to the progreſs of any ſalutary diſcovery. Hence it is that the practice of inoculation never became in any meaſure general, even in England, till taken up by men not bred to phyſic. Theſe have not only rendered the practice more extenſive, but likewiſe more ſafe; and by acting under leſs reſtraint than the regular practitioners, have taught them that the patient's greateſt danger aroſe, not from the want of care, but from the exceſs of it.

Common ſenſe and prudence alone are ſufficient both in the choice of the ſubject and management of the operation. Whoever is poſſeſſed of theſe, may perform this office for his children whenever he finds it convenient, *provided they be in a good ſtate of health.*

This ſentiment is not the reſult of theory, but of obſervation. Though few phyſicians have had more opportunities of trying inoculation in all its different forms, ſo little appears to me to depend on thoſe, generally reckoned important circumſtances, of preparing the body, communicating the infection by this or the other method, &c. that for ſeveral years paſt I have perſuaded the parents or nurſes to perform the whole themſelves, and have found that method followed with equal ſucceſs, while it is free from many inconveniencies that attend the other.

A critical ſituation, too often to be met with, firſt put me upon trying this method. A gentleman who had loſt all his children except one ſon by the natural ſmall-pox, was determined to have him inoculated. He told me his intention, and deſired I would perſuade the mother and grandmother, &c. of its propriety. But that was impoſſible. They were not to be perſuaded, and either could not get the better of their fears, or were determined againſt conviction. It was always a point with me not to perform the operation without

the conſent of the parties concerned. I therefore adviſed the father, after giving his ſon a doſe or two of rhubarb, to go to a patient who had the ſmall-pox of a good kind, to open two or three of the puſtules, taking up the matter with a little cotton, and as ſoon as he came home to take his ſon apart, and give his arm a ſlight ſcratch with a pin, afterwards to rub the place well with the cotton, and take no farther notice of it. All this he punctually performed: and at the uſual period the ſmall-pox made their appearance, which were of an exceeding good kind, and ſo mild as not to confine the boy an hour to his bed. None of the other relations knew but the diſeaſe had come in the natural way, till the boy was well.

The ſmall-pox may be communicated in a great variety of ways with nearly the ſame degree of ſafety and ſucceſs. In Turkey, from whence we learned the practice, the women communicate the diſeaſe to children, by opening a bit of the ſkin with a needle, and putting into the wound a little matter taken from a ripe puſtule. On the coaſt of Barbary they paſs a thread wet with the matter through the ſkin between the thumb and fore-finger; and in ſome of the ſtates of Barbary, inoculation is performed by rubbing in the variolous matter between the thumb and fore-finger, or on other parts of the body. The practice of communicating the ſmall-pox, by rubbing the variolous matter upon the ſkin, has been long known in many parts of Aſia and Europe as well as in Barbary, and has generally gone by the name of *buying the ſmall-pox*.

The preſent method of inoculating in Britain is to make two or three ſlanting inciſions in the arm, ſo ſuperficial as not to pierce quite through the ſkin, with a lancet wet with freſh matter taken from a ripe puſtule; afterwards the wounds are cloſed up, and left without any dreſſing. Some make uſe of a lancet covered with the dry matter; but this is leſs certain, and ought never to be uſed unleſs where freſh matter cannot be obtained: when this is the caſe, the matter ought to be moiſtened by holding the lancet for ſome time in the ſteam of warm water.

Indeed, if freſh matter be applied long enough to the ſkin, there is no occaſion for any wound at all. Let a bit of thread, about half an inch long, wet with the matter, be immediately applied to the arm, midway between the ſhoulder and the elbow, and covered with a piece of the common ſticking plaſter, and kept on for eight or ten days. This will ſeldom fail to communicate the diſeaſe. We mention this method, becauſe many people are afraid of a wound; and doubtleſs the more eaſily the operation can be performed, it has the greater chance to become general. Some people imagine, that the diſcharge from a wound leſſens the eruption; but there is no great ſtreſs to be laid upon this notion; beſides, deep wounds often ulcerate, and become troubleſome.

We do not find that inoculation is at all conſidered as a medical operation in thoſe countries from whence we learned it. In Turkey it is performed by the women, and in the Eaſt Indies by the Brachmins or prieſts. In this country the cuſtom is ſtill in its infancy; we make no doubt, however, but it will ſoon become ſo familiar,

that parents will think no more of inoculating their children than at preſent they do of giving them a purge.

No ſet of men have it ſo much in their power to render the practice of inoculation general as the clergy, the greateſt oppoſition to it ſtill ariſing from ſome ſcruples of conſcience, which they alone can remove. I would recommend it to them not only to endeavour to remove the religious objections which weak minds may have to this ſalutary practice, but to enjoin it as a duty, and to point out the danger of neglecting to make uſe of a mean which Providence has put in our power for ſaving the lives of our offspring. Surely, ſuch parents as wilfully neglect the means of ſaving their children's lives, are as guilty as thoſe who put them to death. I wiſh this matter were duly weighed. No one is more ready to make allowance for human weakneſs and religious prejudices; yet I cannot help recommending it, in the warmeſt manner, to parents, to conſider how great an injury they do their children, by neglecting to give them this diſeaſe in the early period of life.

The numerous advantages ariſing from the inoculation of the ſmall-pox have been pretty fully pointed out by the learned Dr. M'Kenzie, in his Hiſtory of Health. "Many and great," ſays this humane author, "are the dangers attending the natural infection, from all which the inoculation is quite ſecure. The natural infection may invade weak or diſtempered bodies, by no means diſpoſed for its kindly reception. It may attack them at a ſeaſon of the year either violently hot or intenſely cold. It may be communicated from a ſort of ſmall-pox impregnated with the utmoſt virulence. It may lay hold upon people unexpectedly, when a dangerous ſort is imprudently imported into a maritime place. It may ſurpriſe us ſoon after exceſſes committed in luxury, intemperance, or lewdneſs. It may likewiſe ſeize on the innocent after indiſpenſable watchings, hard labour, or neceſſary journies. And is it a trivial advantage, that all theſe unhappy circumſtances can be prevented by inoculation? By inoculation numbers are ſaved from deformity as well as from death. In the natural ſmall-pox how often are the fineſt features, and the moſt beautiful complexions, miſerably diſfigured! Whereas inoculation rarely leaves any ugly marks or ſcars, even where the number of puſtules on the face has been very conſiderable, and the ſymptoms by no means favourable. And many other grievous complaints that are frequently ſubſequent to the natural ſort, ſeldom follow the artificial. Does not inoculation alſo prevent thoſe inexpreſſible terrors that perpetually haraſs perſons who never had this diſeaſe, inſomuch that when the ſmall-pox is epidemical, entire villages are depopulated, markets ruined, and the face of diſtreſs ſpread over the whole country? From this terror it ariſes, that juſtice is frequently poſtponed, or diſcouraged, at ſeſſions or aſſizes where the ſmall-pox rages. Witneſſes and juries dare not appear; and by reaſon of the neceſſary abſence of ſome gentlemen, our honourable and uſeful judges are not attended with that reverence and ſplendour due to their office and merit. Does not inoculation, in like manner, prevent our brave ſailors from being ſeized with this diſtemper on

ſhipboard, where they muſt quickly ſpread the infection among ſuch of the crew who never had it before, and where they have ſcarce any chance to eſcape, being half ſtifled with the cloſeneſs of their cabins, and but very indifferently nurſed? Laſtly, with regard to the ſoldiery, the miſeries attending theſe poor creatures, when attacked by the ſmall-pox on a march, are inconceivable, without attendance, without lodgings, without any accommodation; ſo that one of three commonly periſhes." To theſe mentioned by the Doctor we ſhall only add, that ſuch as have not had the ſmall-pox in the early period of life are not only rendered unhappy, but likewiſe in a great meaſure unfit for ſuſtaining many of the moſt uſeful and important offices. Few people would chuſe even to hire a ſervant who had not had the ſmall-pox, far leſs to purchaſe a ſlave, who had the chance of dying of this diſeaſe. How could a phyſician or a ſurgeon, who had never had the ſmall-pox himſelf, attend others under that malady? How deplorable is the ſituation of females, who arrive at mature age without having had the ſmall-pox! A woman with child ſeldom ſurvives this diſeaſe: and if an infant happen to be ſeized with the ſmall-pox upon the mother's breaſt, who has not had the diſeaſe herſelf, the ſcene muſt be diſtreſſing! If ſhe continue to ſuckle the child, it is at the peril of her own life; and if ſhe wean it, in all probability it will periſh. How often is the affectionate mother forced to leave her houſe, and abandon her children, at the very time when her care is moſt neceſſary! Yet, ſhould parental affection get the better of her fears, the conſequences would often prove fatal. I have known the tender mother and her ſucking infant laid in the ſame grave, both untimely victims to this dreadful malady. But theſe are ſcenes too ſhocking even to mention. Let parents who run away with their children to avoid the ſmall-pox, or who refuſe to inoculate them in infancy, conſider to what deplorable ſituations they may be reduced by this miſtaken tenderneſs.

As the ſmall-pox is now become an epidemical diſeaſe in moſt parts of the known world, no other choice remains but to render the malady as mild as poſſible. This is the only manner of extirpation now left in our power; and though it may ſeem paradoxical, the artificial method of communicating the diſeaſe, could it be rendered univerſal, would amount to nearly the ſame thing as rooting it out. It is a matter of ſmall conſequence, whether a diſeaſe be entirely extirpated, or rendered ſo mild as neither to deſtroy life nor hurt the conſtitution; but that this may be done by inoculation, does not now admit of a doubt. The numbers who die under inoculation hardly deſerve to be named. In the natural way, one in four or five generally dies; but by inoculation not one of a thouſand. Nay, ſome can boaſt of having inoculated ten thouſand without the loſs of a ſingle patient.

I have often wiſhed to ſee ſome plan eſtabliſhed for rendering this ſalutary practice univerſal; but am afraid I ſhall never be ſo happy. The difficulties indeed are many; yet the thing is by no means impracticable. The aim is great: no leſs than ſaving the lives of one

fourth part of mankind. What ought not to be attempted in order to accompliſh ſo deſirable an end?

The firſt ſtep towards rendering the practice univerſal, muſt be to remove the religious prejudices againſt it. This, as already obſerved, can only be done by the clergy. They muſt not only recommend it as a duty to others, but likewiſe practiſe it on their own children. Example will ever have more influence than precept.

The next thing requiſite is to put it in the power of all. For this purpoſe we would recommend it to the Faculty to inoculate the children of the poor *gratis*. It is hard that ſo uſeful a part of mankind ſhould, by their poverty, be excluded from ſuch a benefit.

Should this fail, it is ſurely in the power of any State to render the practice general, at leaſt as far as their dominion extends. We do not mean that it ought to be enforced by a law. The beſt way to promote it would be to employ a ſufficient number of operators at the public expence to inoculate the children of the poor. This would only be neceſſary till the practice became general; afterwards cuſtom, the ſtrongeſt of all laws, would oblige every individual to inoculate his children to prevent reflections.

It may be objected to this ſcheme, that the poor would refuſe to employ the inoculators: this difficulty is eaſily removed. A ſmall premium to enable mothers to attend their children while under the diſeaſe, would be a ſufficient inducement; beſides, the ſucceſs attending the operation would ſoon baniſh all objections to it. Even conſiderations of profit would induce the poor to embrace this plan. They often bring up their children to the age of ten or twelve, and when they come to be uſeful, they are ſnatched away by this malady, to the great loſs of their parents, and detriment of the public.

The Britiſh legiſlature has of late years ſhewn great attention to the preſervation of infant lives, by ſupporting the Foundling Hoſpital, &c. But we will venture to ſay, if one tenth part of the ſums laid out in ſupporting that inſtitution had been beſtowed towards promoting the practice of inoculation of the ſmall-pox among the poor, that not only more uſeful lives had been ſaved, but the practice, ere now, rendered quite univerſal in this iſland. It is not to be imagined what effect example and a little money will have upon the poor; yet, if left to themſelves, they would go on for ever in the old way, without thinking of any improvement. We only mean this as a hint to the humane and public-ſpirited. Should ſuch a ſcheme be approved, a proper plan might eaſily be laid down for the execution of it. But as public plans are very difficult to bring about, and often, by the ſelfiſh views and miſconduct of thoſe entruſted with the execution of them, fail of anſwering the noble purpoſes for which they were deſigned, we ſhall therefore point out ſome other method by which the benefits of inoculation may be extended to the poor.

There is no doubt but inoculators will daily become more numerous. We would therefore have every pariſh in Britain to allow one of them a ſmall annual ſalary for inoculating all the children of the pariſh at a proper age. This might be done at a very trifling expence

and it would enable every one to enjoy the benefit of this falutary invention.

Two things chiefly operate to prevent the progreſs of inoculation. The one is a wiſh to put the evil day as far off as poſſible. This is a principle in our nature; and as inoculation ſeems rather to be anticipating a future evil, it is no wonder mankind are ſo averſe to it. But this objection is ſufficiently anſwered by the ſucceſs. Who in his ſenſes would not prefer a leſſer evil to-day to a greater to-morrow, provided they were equally certain?

The other obſtacle is the fear of reflections. This has a very great weight with the bulk of mankind. Should the child die, they think the world would blame them. This they cannot bear. Here lies the difficulty; and, till that be removed, inoculation will make but ſmall progreſs. Nothing, however, can remove it but cuſtom. Make the practice faſhionable, and all objections will ſoon vaniſh. It is faſhion alone that has led the multitude ſince the beginning of the world, and will lead them to the end. We muſt therefore call upon the more enlightened part of mankind to ſet a pattern to the reſt. Their example, though it may for ſome time meet with oppoſition, will at length prevail.

I am aware of an objection to this practice from the expence with which it may be attended: this is eaſily obviated. We do not mean that every pariſh ought to employ a Sutton or a Dimſdale as inoculators. Theſe have by their ſucceſs already recommended themſelves to crowned heads, and are beyond the vulgar reach; but have not others an equal chance to ſucceed? They certainly have. Let them make the ſame trial, and the difficulties will ſoon vaniſh. There is not a pariſh, and hardly a village, in Britain deſtitute of ſome perſon who can bleed. But this is a far more difficult operation, and requires both more ſkill and dexterity than inoculation.

The perſons to whom we would chiefly recommend the performance of this operation are the clergy. Moſt of them know ſomething of medicine. Almoſt all of them bleed, and can order a purge, which are all the qualifications neceſſary for the practice of inoculation. The prieſts among the leſs enlightened Indians perform this office, and why ſhould a Chriſtian teacher think himſelf above it? Surely the bodies of men, as well as their ſouls, merit a part of the paſtor's care: at leaſt the greateſt Teacher who ever appeared among men ſeems to have thought ſo.

Should all other methods fail, we would recommend it to parents to perform the operation themſelves. Let them take any method of communicating the diſeaſe they pleaſe: provided the ſubjects be healthy and of a proper age, they will ſeldom fail to ſucceed to their wiſh. I have known many inſtances even of mothers performing the operation, and never ſo much as heard of one bad conſequence. A planter in one of the Weſt India iſlands is ſaid to have inoculated, with his own hand, in one year, three hundred of his ſlaves, who notwithſtanding the warmth of the climate, and other unfavourable circumſtances, all did well. Common mechanics have often, to my knowledge, performed the operation with as good ſucceſs as phyſi-

cians. We do not, however, mean to diſcourage thoſe who have it in their power from employing people of ſkill to inoculate their children, and attend them while under the diſeaſe; but only to ſhew, that where ſuch cannot be had, the operation ought not upon that account to be neglected.

Inſtead of multiplying arguments to recommend this practice, I ſhall juſt beg leave to mention the method which I took with my own ſon, then an only child. After giving him two gentle purges, I ordered the nurſe to take a bit of thread which had been previouſly wet with freſh matter from a pock, and to lay it upon his arm, covering it with a piece of ſticking plaſter. This remained on ſix or ſeven days, till it was rubbed off by accident. At the uſual time the ſmall-pox made their appearance, and were exceedingly favourable. Surely this, which is all that is generally neceſſary, may be done without any ſkill in medicine.

We have been the more full on this ſubject, becauſe the benefits of inoculation cannot be extended to ſociety by any other means than making the practice general. While it is confined to a few, it muſt prove hurtful to the whole. By means of it the contagion is ſpread, and is communicated to many who might otherwiſe never have had the diſeaſe. Accordingly it is found that nearly the ſame number die of the ſmall-pox now as before inoculation was introduced; and this important diſcovery, by which alone more lives might be ſaved than by all the endeavours of the faculty, is in a great meaſure loſt by its benefits not being extended to the whole community. Yet by a well-concerted plan for extending *vaccine* inoculation, more lives might be ſaved at a ſmall expence, than are at preſent preſerved by all the hoſpitals in England, which coſt the public ſuch an amazing ſum.

The ſpring and autumn have been uſually reckoned the moſt proper ſeaſons for inoculation, on account of the weather being then moſt temperate; but it ought to be conſidered that theſe are generally the moſt unhealthy ſeaſons of the whole year. Undoubtedly the beſt preparation for the diſeaſe is a previous good ſtate of health. I have always obſerved that children in particular are more ſickly towards the end of ſpring and autumn than at any other time of the year. On this account, as well as for the advantage of cool air, I would propoſe winter as the moſt proper ſeaſon for inoculation; though, on every other conſideration, the ſpring would ſeem to be preferable.

The moſt proper age for inoculation is between three and five. Many approve of inoculation on the breaſt, and where no circumſtances forbid this practice, I have no objection to it; for when the fibres begin to grow rigid, and children make uſe of groſſer food, the ſmall-pox become more dangerous.

Children who have conſtitutional diſeaſes muſt nevertheleſs be inoculated. It will often mend the habit of body; but ought to be performed at a time when they are moſt healthy. Accidental diſeaſes ſhould always be removed before inoculation.

It is generally thought neceſſary to regulate the diet for ſome time before the diſeaſe be communicated. In children, however, great alteration in diet is ſeldom neceſſary, their food being commonly

of the moſt ſimple and wholeſome kind, as milk, water-pap, weak broths, bread, light puddings, mild roots, and white meats.

But children who have been accuſtomed to a richer diet, who are of a groſs habit, or abound with bad humours, ought to be put upon a ſpare diet before they are inoculated. Their food ſhould be of a light cooling nature, and their drink whey, butter-milk, and ſuch like.

We would recommend no other medicinal preparation but two or three mild purges, which ought to be ſuited to the age and ſtrength of the patient. The ſucceſs of inoculators does not depend *ſo much* on the preparation of their patients, as on their management of them while under the diſeaſe. Their conſtant care is to keep them cool, and their bodies gently open, by which means the fever is kept low, and the eruption greatly leſſened. The danger is ſeldom great when the puſtules are few; and their number is generally in proportion to the fever which precedes and attends the eruption. Hence the chief ſecret of inoculation conſiſts in regulating the eruptive fever, which generally may be kept ſufficiently low by the methods mentioned above.

The regimen during the diſeaſe is in all reſpects the ſame as under the natural ſmall-pox. The patient muſt be kept cool, his diet ſhould be light, and his drink weak and diluting, &c. Should any bad ſymptoms appear, which is ſeldom the caſe, they muſt be treated in the ſame way as directed in the natural ſmall-pox. Purging is not leſs neceſſary after the ſmall-pox by inoculation than in the natural way, and ought by no means to be neglected.

IN EVERY STAGE OF THE SMALL-POX, AMIMAL FOOD SHOULD BE AVOIDED.

The CHICKEN-POX and SWINE POX differ ſo little from each other, and are attended with ſo little danger, or difficulty of cure, that it is not neceſſary to treat of them ſeparately. The only material diſtinction between theſe two diſeaſes is, that the pimples or puſtules of the latter are frequently of a larger ſize than the former, but this is not always the caſe. The chicken-pox, like the ſmall-pox, ſeem to depend upon a ſpecific contagion. Perſons who have had the ſmall-pox may have the chicken-pox; but thoſe who have had the chicken-pox are as rarely affected again by it, as by the ſmall-pox; but to thoſe perſons who never had the chicken-pox, it is as infectious a diſtemper as the ſmall-pox.

The ſymptoms which generally precede the chicken-pox reſemble thoſe of the ſmall-pox, but they are much leſs violent and of ſhorter duration. The eruption is frequently preceded by chilline ſs, ſucceeded by flushing heats: thirſt, reſtleſſneſs, a quick pulſe, pains in the head and back, loſs of appetite, and averſion to exerciſe, are followed by the appearance of the eruption in little more than twenty-four hours from the firſt indiſpoſition. The puſtules firſt appear red in the ſkin, but ſoon riſe, become prominent, and fill with a watery fluid inſtead of matter. Were it not for this difference, theſe diſorders ſo nearly reſemble the ſmall-pox, that the chicken-pox has frequently been miſtaken for that diſeaſe: a miſtake that has been productive

and by inſpiring the patient with a belief that he has had the ſmall-pox, putting him off his guard, and leaving him expoſed to take the infection in the natural way, at ſeaſons and under circumſtances which may occaſion extreme inconvenience and danger.

On the ſecond or at fartheſt on the third day from the eruption, as many of thoſe pocks as are not broken ſeem arrived at their full maturity, and thoſe which are fulleſt of that yellow liquor very much reſemble what the genuine ſmall-pox are on the fifth or ſixth day.

The diſeaſe as above deſcribed ſeldom ſtands in need of any remedies, but ſometimes it appears in a more malignant form. For three or four days, all the ſymptoms which precede the eruption run much higher. On the fourth or fifth day the eruption appears, with very little abatement of the fever. The pains likewiſe of the back and limbs continue, which are alſo accompanied with pains of the gums. The pocks are redder than the common chicken-pox, and hardly riſe ſo high, at leaſt not in proportion to their ſize, but go off in the ſame manner.

In this diſeaſe, if the feveriſh ſymptoms run high, they muſt be treated in the ſame manner as the ſmall-pox under ſimilar circumſtances; but in general it is only neceſſary to uſe a ſpare regimen under the firſt appearance of the eruption, and to give one, two, or three cooling purgatives afterwards.

OF THE VACCINE OR COW-POX.

ONE of the moſt remarkable and important phenomena in the hiſtory of animal nature, is the *cow-pox*. This malady appears on the nipples of cows in the form of puſtules. Its power to prevent infection of the ſmall-pox was noticed in a periodical work publiſhed by Mr. Steinbeck, at Gottingen, in the year 1769; and Dr. Barry, of Cork, has aſſerted, in a letter to Dr. Pearſon, of Leiceſter-ſquare, London, that the cow-pox has been known in Ireland from time immemorial: in the neighbourhood of Cork it has been called *Shinagh*, a term which belongs to the ancient language of the country. This diſorder is known in moſt of the counties in England; in Glouceſterſhire, in particular, it has been long ſuppoſed that thoſe perſons who had received the cow-pox were thereby rendered ſecure againſt the ſmall-pox.

In the year 1798, Dr. Jenner, who had long reſided in the county of Glouceſter, publiſhed obſervations on the nature and properties of this diſeaſe, which, by the active aſſiſtance of Dr. Pearſon and the late Dr. Woodville, ſoon attracted a conſiderable degree of the public attention; for the *late* Dr. Buchan had juſtly and long before obſerved, that "The benefits of inoculation" (of the ſmall-pox) "cannot be extended to ſociety by any other means than making the practice general. While it is confined to a few, it muſt prove hurtful to the whole. By means of inoculation the contagion is ſpread, and is communicated to many who might otherwiſe never have had the diſeaſe. Accordingly it is found, that nearly the ſame number" (nay more) "die of the ſmall-pox now, than before the practice of inoculation was introduced."

A multitude of proofs might be adduced of the juſtice of our au-

thor's aſſertions, and of the neceſſity of legiſlative interference in this momentous buſineſs; but our limits confine us to the following extract, from the monthly report of the prevailing diſeaſes in a particular part of London by an eminent phyſician.

"I cannot here paſs over a ſtriking inſtance of the bad effects ariſing from partial inoculation. A child was inoculated in April whoſe parents kept a ſhop in a court conſiſting of about twenty houſes. As the inhabitants repaired every day for neceſſary articles to the ſource of infection, the conſequence was, that ſixteen of them were affected with the ſmall-pox in the natural way within a fortnight after the child's recovery, and four of them died of the diſeaſe."——*Vide Monthly Mag. May* 1796, *p.* 826.

Having had occaſion to regret many ſimilar inſtances of the havock made by this loathſome and deſtructive diſtemper, we read with much ſatisfaction, which however was not unalloyed by a conſiderable portion of diſtruſt, Dr. Jenner's account of the advantages of the cow-pox inoculation over that of the ſmall-pox. They are repreſented by this author to be, 1. Its uniform mildneſs; that of two thouſand perſons inoculated with the cow-pox, not one died, and therefore may be practiſed at all ages with ſafety.—2. That it is not communicable by effluvia, and therefore any part of the family may be infected without affecting the reſt.—3. It does not diſfigure the ſkin.—4. Requiring no medical attendance, it may be practiſed by any intelligent perſon; and, laſtly, perſons who have once been affected with the cow-pox are thereby rendered incapable of variolous infection.

It was not, however, until we had ſeen ſeveral hundred patients inoculated; until, as far as circumſtances would poſſibly permit, we had traced the effect of the cow-pox; it was not until we were aſſured by the late Dr. Woodville (whom we had known longer than any governor of the Small-pox Hoſpital, and whoſe experience on this ſubject carries the higheſt authority); it was not until Dr. W. aſſured us that he had communicated the vaccine diſeaſe to upwards of a thouſand perſons, who had afterwards been inoculated with variolous matter, and of whom *none* took the ſmall-pox; it was not before this, that we recommended, as we now conſcientiouſly do, the practice of vaccination.

The adverſaries to that practice not only deny the mildneſs of this diſeaſe, and that it prevents the ſmall-pox, but aſſert that it is dangerous and ſometimes fatal. But the antivacciniſts in general ſubſtitute fictions for facts, and irony for argument: ſuch was the diſingenuous practice of a late ingenious, indefatigable, eccentric phyſician. When he was examined by a committee of the Houſe of Commons, he ſpoke in diſparagement of the cow-pock inoculation, and referred to a converſation to that effect with Profeſſor Wall, at Oxford: the accuracy of that ſtatement was afterwards contradicted by Dr. Wall, in a letter addreſſed to the chairman of the committee.

Dr. Rowley having been ſworn, ſaid, "He ſaw two children at the Mary-le-bonne Infirmary in the ſmall-pox, whoſe father informed him theſe children had been inoculated with the cow-pox in the preceding autumn. He did not examine the arms of the children,

where the cow-pox inoculation was ſaid to have taken place. He had not ſeen many caſes of ſpurious cow-pox; he has ſeen ulcers ſucceed in the beginning of vaccine inoculation, but that has been entirely obviated by the ſubſequent practice; he does not know by what change in the practice theſe diſaſtrous circumſtances are now prevented; he has ſeen ſymptoms of a *worſe* nature ariſe after ſmall-pox inoculation, particularly ſcrophula; and abſceſſes, which have appeared in different parts, and at laſt proved fatal." Nevertheleſs the doctor renewed his attack on vaccine inoculation by publiſhing a random collection of caſes of its morbid tendency; and to the great terror of ſome, and the aſtoniſhment of others, he aſſerted the probability of children having ox-like countenances in conſequence of being inoculated with the cow-pock. Is it not *paſſing ſtrange* that ſuch a prepoſterous aſſertion ſhould excite any ſenſation but contempt? As well might the lovers of mutton expect nature to inveſt their bodies with *fleecy hoſiery*; as well may the lovers of milk, or ox beef, or veniſon, live in dread of having their brows burthened with horns or crowned with antlers! Yet ſuch has been the pernicious effect of Dr. R.'s inconſiſtent and fallacious reaſonings, that the parents of many hundred children, who have lately fallen victims to the ſmall-pox in the capital, were deterred from ſecuring their offſpring from the deadly contagion by means of vaccination, of which not one in a thouſand have died in any quarter of the globe.

Authors who are bent on diſplaying their wit, phyſicians who are determined to render themſelves notorious by the ſingularity of their opinions on ſubjects that are intimately connected with the health and welfare of the people, would do well, before they *mount their hobbies*, to conſider the notice given in the ninth chapter of Geneſis: "Surely at the hand of man, at the hand of every man's brother will I require the life of man."

The grand objection to the cow-pock inoculation ſeems to be, that it does not univerſally, and without exception, produce the effect it is intended to produce; that is, that it does not in all caſes, and without exception, prevent the infection by natural or inoculated ſmall-pock. Granting that there may have been even well authenticated inſtances of perſons vaccinated in *a proper manner* having notwithſtanding yielded to the other infection; granting all this, we ſay, it is no ſolid objection to the practice of vaccination. The true and real objection, if ſuch a thing exiſts, is whether the vaccination be *dangerous*; whether any conſiderable number of perſons vaccinated in *proper circumſtances* have *died*, or become *dangerouſly ill* in *conſequence* of vaccination; and whether theſe numbers equal or nearly approach to the numbers that have died by the natural ſmall-pock, or in conſequence of the common mode of inoculation. This is the true criterion. If ſmall-pox and cow-pock ſtand on the ſame ground in this reſpect, the apparent failures of the latter, even ſuppoſing they were much more numerous than has ever been pretended, afford no argument againſt the practice of vaccine inoculation.

The Peruvian bark ſometimes fails to cure the ague, and other diſorders for which it is generally deemed a ſpecific. Mercury ſometimes fails to cure certain caſes of the *Lues Venerea*. Shall *cinchona* and *quickſilver* be excluded from the *materia medica*, becauſe once in

a thouſand times they do not produce the effect for which they are, agreeably to univerſal experience, uſually adminiſtered?

Shall vaccination be exploded, becauſe there may have occurred rare inſtances, either from unſkilful management, or owing to an uncommon peculiarity of the habit and conſtitution, of its not having prevented ſmall-pock, or rendered the perſon for ever unſuſceptible of variolous contagion?

It is well known that perſons labouring under pulmonary conſumption require that the atmoſphere they breathe ſhould be pure and mild, and that phyſicians have been induced to adopt a variety of expedients to anſwer this purpoſe. As a cow is a moſt clean and healthy animal, many ſickly perſons have gladly lodged near a cow-yard: and Dr. Bergius, a Swediſh phyſician of conſummate ſkill, and many others his followers in Britain and France, recommend a reſidence in a cow-houſe, which has uniformly relieved the patient, particularly during the cold ſeaſon.

Can we, therefore, be ſurpriſed that almoſt every part of the civilized world has produced abundant teſtimonies of the ſafety and efficacy of vaccine inoculation? Atteſtations of its complete ſucceſs have been publiſhed by a great number of the Faculty at Edinburgh, Liverpool, and Dublin. Our readers will find able and ſatisfactory anſwers to all the objections that have been urged againſt the JENNERIAN practice in the following

REPORT.

"The Medical Council of the Royal Jennerian Society having been informed that various caſes had occurred, which excited prejudices againſt vaccine inoculation, and tended to check the progreſs of that important diſcovery in this kingdom, appointed a Committee of twenty-five of their members to enquire not only into the nature and truth of ſuch caſes, but alſo into the evidence reſpecting inſtances of ſmall-pox alledged to have occurred twice in the ſame perſon.

"In conſequence of this reference, the Committee made diligent inquiry into the hiſtory of a number of caſes, in which it was ſuppoſed that vaccination had failed to prevent the ſmall-pox, and alſo of ſuch caſes of ſmall-pox as were ſtated to have happened ſubſequently to the natural or inoculated ſmall-pox.

"In the courſe of their examination the Committee learned, that opinions and aſſertions had been advanced and circulated, which charged the cow-pox with rendering patients liable to particular diſeaſes, frightful in their appearance, and hitherto unknown; and judging ſuch opinions to be connected with the queſtion as to the efficacy of the practice, they thought it incumbent upon them to examine alſo into the validity of theſe injurious ſtatements reſpecting vaccination.

"After a very minute inveſtigation of theſe ſubjects, the reſult of their inquiries has been ſubmitted to the Medical Council; and from the report of the Committee it appears:

"I. That moſt of the caſes which have been brought forward as inſtances of the failure of vaccination to prevent the ſmall-pox, and which have been the ſubjects of public attention and converſation, are either wholly unfounded or groſsly miſrepreſented.

" II. That ſome of the caſes are now allowed, by the very perſons who firſt related them, to have been erroneouſly ſtated.

" III. That the ſtatements of ſuch of thoſe caſes as are publiſhed have, for the moſt part, been carefully inveſtigated, ably diſcuſſed, and fully refuted, by different writers on the ſubject.

" IV. That notwithſtanding the moſt inconteſtable proofs of ſuch miſrepreſentations, a few medical men have perſiſted in repeatedly bringing the ſame unfounded and refuted reports and miſrepreſentations before the public, thus perverſely and diſingenuouſly labouring to excite prejudices againſt vaccination.

" V. That in ſome printed accounts adverſe to vaccination, in which the writers had no authenticated facts to ſupport the opinions they advanced, nor any reaſonable arguments to maintain them, the ſubject has been treated with indecent and diſguſting levity; as if the good or evil of ſociety were fit objects for ſarcaſm and ridicule.

" VI. That when the practice of vaccination was firſt introduced and recommended by Dr. JENNER, many perſons, who had never ſeen the effects of the vaccine fluid on the human ſyſtem, who were almoſt wholly unacquainted with the hiſtory of vaccination, the characteriſtic marks of the genuine veſicle, and the cautions neceſſary to be obſerved in the management of it, and were therefore incompetent to decide whether patients were properly vaccinated or not, nevertheleſs ventured to inoculate for the cow-pox.

" VII. That many perſons have been declared duly vaccinated, when the operation was performed in a very negligent and unſkilful manner, and when the inoculator did not afterwards ſee the patients, and therefore could not aſcertain whether infection had taken place or not; and that to this cauſe are certainly to be attributed many of the caſes adduced in proof of the inefficacy of cow-pox.

" VIII. That ſome caſes have been brought before the Committee on which they could form no deciſive opinion, from the want of neceſſary information as to the regularity of the preceding vaccination, or the reality of the ſubſequent appearance of the ſmall-pox.

" IX. That it is admitted by the Committee, that a few caſes have been brought before them of perſons having the ſmall-pox who had apparently paſſed through the cow-pox in a regular way.

" X. That caſes, ſupported by evidence equally ſtrong, have been alſo brought before them, of perſons who, after having once regularly paſſed through the ſmall-pox, either by inoculation or natural infection, have had that diſeaſe a ſecond time.

" XI. That in many caſes, in which the ſmall-pox has occurred a ſecond time, after inoculation or the natural diſeaſe, ſuch recurrence has been particularly ſevere, and often fatal; whereas, when it has appeared to occur after vaccination, the diſeaſe has generally been ſo mild, as to loſe ſome of its characteriſtic marks, and even ſometimes to render its exiſtence doubtful.

" XII. That it is a fact well aſcertained, that, in ſome particular ſtates of certain conſtitutions, whether vaccine or variolous matter be employed, a local diſeaſe only will be excited by inoculation, the conſtitution remaining unaffected; yet that matter taken from ſuch

local vaccine or variolous puſtule is capable of producing a general and perfect diſeaſe.

" XIII. That if a perſon bearing the ſtrongeſt and moſt indubitable marks of having had the ſmall-pox be repeatedly inoculated for that diſeaſe, a puſtule may be produced, the matter of which will communicate the diſeaſe to thoſe who have not been previouſly infected.

" XIV. That, although it is difficult to determine preciſely the number of exceptions to the practice, the Medical Council are fully convinced that the failure of vaccination, as a preventive of the ſmall-pox, is a very rare occurrence.

" XV. That of the immenſe number who have been vaccinated in the Army and Navy, in different parts of the United Kingdom, and in every quarter of the globe, ſcarcely any inſtances of ſuch failure have been reported to the Committee, but thoſe which are ſaid to have occurred in the metropolis or its vicinity.

" XVI. That the Medical Council are fully aſſured, that in very many places, in which the ſmall-pox raged with great violence, the diſeaſe has been ſpeedily and effectually arreſted in its progreſs, and in ſome populous cities wholly exterminated, by the practice of vaccination.

" XVII. That the practice of inoculation for the ſmall-pox, on its firſt introduction into this country, was oppoſed and very much retarded, in conſequence of miſrepreſentations and arguments drawn from aſſumed facts, and of miſcarriages ariſing from the want of correct information, ſimilar to thoſe now brought forward againſt vaccination, ſo that nearly fifty years elapſed before ſmall-pox inoculation was fully eſtabliſhed.

" XVIII. That, by a reference to the bills of mortality, it will appear that, to the unfortunate neglect of vaccination, and to the prejudices raiſed againſt it, we may, in a great meaſure, attribute the loſs of nearly two thouſand lives by the ſmall-pox, in this metropolis alone, within the preſent year.

" XIX. That the few inſtances of failure, either in the inoculation of the cow-pox or of the ſmall-pox, ought not to be conſidered as objections to either practice, but merely as deviations from the ordinary courſe of nature.

" XX. That if a compariſon be made between the preſervative effects of vaccination and thoſe of inoculation for the ſmall-pox, it would be neceſſary to take into account the greater number of perſons who have been vaccinated within a given time ; as it is probable that, within the laſt ſeven years nearly as many perſons have been inoculated for the cow-pox as were ever inoculated for the ſmall-pox, ſince the practice was introduced into this kingdom.

" XXI. That, from all the facts which they have been able to collect, it appears to the Medical Council, that the cow-pox is generally mild and harmleſs in its effects ; and that the few caſes which have been alledged againſt this opinion may be fairly attributed to peculiarities of conſtitution.

" XXII. That many well-known cutaneous diſeaſes; and ſome ſcrophulous complaints, have been repreſented as the effects of vac-

cine inoculation, when in fact they originated from other cauſes, and in many inſtances occurred long after vaccination; and that ſuch diſeaſes are infinitely leſs frequent after vaccination, than after either the natural or inoculated ſmall-pox.

"Having ſtated theſe facts, and made theſe obſervations, the Medical Council cannot conclude their Report upon a ſubject ſo highly important and intereſting to all claſſes of the community, without making this ſolemn Declaration:

"That, in their opinion, founded on their own individual experience, and the information which they have been able to collect from that of others, mankind have already derived great and incalculable benefit from the diſcovery of vaccination; and that it is their full belief, that the ſanguine expectations of advantage and ſecurity, which have been formed from the inoculation of the cow-pox, will be ultimately and completely fulfilled."

This Report and Declaration was ſigned at the Society's Houſe, *Saliſbury-ſquare, Fleet-ſtreet*, January 2, 1806, by fifty phyſicians and ſurgeons, who, we may ſafely preſume to ſay, are not exceeded in medical ſkill, or intellectual worth, by any other fifty gentlemen of the profeſſion in this great metropolis.

INSTRUCTIONS FOR VACCINE INOCULATION,

Publiſhed by Order of the Medical Council of the Royal Jennerian Society.

AN ACCURATE KNOWLEDGE OF THE SIGNS OF INFECTION, AND OF THE CHARACTER AND PROGRESS OF THE VACCINE VESICLE, IS ESSENTIAL TO THE SUCCESS OF THIS INOCULATION.

The Signs of Infection, and Deſcription of the Vaccine Veſicle.

WHEN Vaccine Inoculation proves ſucceſsful, a ſmall red ſpot, with a degree of elevation which may be felt, commonly commences on the third day. When examined with a magnifying glaſs, it ſeems to conſiſt of a ſmall tumor, ſurrounded by a ſlight efflorescence.

Between the third and ſixth day, a veſicle appears; the ſhape and magnitude of which depend much on the mode in which the inoculation has been performed: when it is performed by a ſlight puncture, the veſicle will be ſmall and circular.

The edge of the Vaccine Veſicle is elevated and well defined; the centre is depreſſed, and a ſpeck is there viſible, of a darker colour than the reſt of the ſurface. This veſicle is diſtinguiſhed from other veſicles by the peculiarity of its ſtructure, which is cellular, and ſomewhat hard and firm. At firſt it is of a light pink colour, ſometimes blended with a bluiſh tint, gradually changing in its progreſs into a pearl colour. Its contents are limpid, and almoſt colourleſs. It commonly increaſes in ſize till about the tenth day.

In its early ſtages it has uſually a ſmall inflamed ring round its baſe, which about the ninth day begins to ſpread rapidly; and about the tenth forms an areola, more or leſs circular, an inch and half or more in diameter. This areola is of a pink, ſcarlet, or crimſon hue; and is attended with ſome degree of hardneſs and tumefaction. It

continues nearly ſtationary a day or two, and then begins to fade; ſometimes forming, on its decline, two or three concentric circles.

When the areola is perfectly formed, the veſicle begins to decline; firſt it turns brown in the centre; then it is gradually converted into a hard, ſmooth, ſhining ſcab, of a dark mahogany brown colour approaching to black; and, in its general appearance, has not unaptly been compared to the ſection of a tamarind ſtone. This ſcab commonly falls off about the end of the third week, and leaves a circumſcribed cicatrix, clearly denoting that the true ſkin has been affected.

In the computation of time, the day of inoculation is to be conſidered as the firſt day.

Occaſional Deviations of the Vaccine Veſicle from its ordinary Appearances and Character.

Deviations are occaſionally met with, even in the genuine vaccine veſicle; chiefly with regard to its riſe, duration, and contents.

It ſeldom or never appears earlier, but often later than the period already mentioned; ſometimes not till after the expiration of a fortnight or three weeks; but if it then makes a regular progreſs, it renders the patient equally ſecure as if it had appeared at the uſual time.

Sometimes the veſicle is ruptured by external violence. In that caſe, the ſcab will in general be leſs firm, and of a lighter colour. Occaſionally alſo, inſtead of the regular progreſs to deſiccation, as above deſcribed, it paſſes into a ſtate of ulceration, with a much more extended inflammation.

The contained fluid, inſtead of being limpid as uſual, is now and then found opake.

Spurious Puſtules which afford no Security againſt the Small-Pox.

The ſucceſs of the operation is doubtful when there is any conſiderable deviation from the uſual courſe of the diſeaſe; whether premature inflammation, irritation, itching, or veſication occurs; or the progreſs of the veſicle is too rapid, its contents yellow or opake, its texture ſoft, its centre elevated, or its form not well defined; or whether a premature efflorescence takes place, and a diſtinct, vivid, circumſcribed areola is wanting.

This anomalous veſicle, or ſpurious puſtule, as it is called, is more liable to be broken than the regular genuine veſicle, from its centre being more elevated, and its texture leſs firm. When broken, it is frequently ſucceeded by ulceration; or by a light brown or amber-coloured creeping ſcab.

Probable Cauſes of Spurious Puſtules.

Spurious puſtules may be occaſioned not only by matter taken from a ſpurious puſtule, but alſo by matter taken from a genuine veſicle at too late a period; or by that which has been injured by keeping, expoſure to heat, or any other cauſe. They may alſo be occaſioned by uſing ruſty lancets in inoculating; by rude and unſkilful methods of performing the inoculation; or by the genuine veſicle having been deſtroyed at an early ſtage, and the regular progreſs of the diſeaſe thus interrupted.

The Methods of taking Vaccine Matter for Inoculation, and of preſerving and conveying it.

Matter may be taken from a genuine veſicle at any time from its commencement till the areola begins to ſpread; commonly till the eighth or ninth day, ſometimes later, but never after the areola is fully formed.

It is to be taken by ſmall ſuperficial punctures, made in ſeveral parts of the veſicle with the point of a lancet introduced horizontally. Time ſhould be allowed for the fluid to exude, which will appear on the veſicle in the form of ſmall pellucid drops. If neceſſary, very ſlight preſſure may be applied with the flat ſurface of the lancet, to quicken the diſcharge.

Great caution muſt be obſerved in this proceſs; or violent inflammation and extenſive ulceration may ſometimes enſue.

The matter may be received on the points of common lancets, when it is deſigned for uſe immediately, or within a very few days; otherwiſe theſe inſtruments cannot with propriety be employed either for the preſervation or conveyance of vaccine matter, as when charged with that fluid they ſoon ruſt. An ivory lancet is not liable to this objection. It may be fixed in a handle, and ſcrewed into a caſe, in order to exclude air.

A common method is, to take two ſmall ſquare pieces of glaſs, on the centre of one of which the matter may be received, by applying the glaſs to the veſicle, punctured in ſeveral places, in the manner before deſcribed, and covered with the fluid; it may then be ſuffered to dry, and applied to the veſicle repeatedly. When fully charged and dry, it is to be covered with the correſponding piece of glaſs, and wrapped up in writing-paper, or gold-beater's ſkin.

Matter may be alſo taken on thread, which being imbued with it, muſt be ſuffered to dry, and then charged again: this proceſs may be repeated till it is well ſaturated: it may be kept in a phial, or in a quill, or a piece of a tobacco-pipe ſtopped with white wax:—the heat neceſſary to melt ſealing-wax might injure the matter.

Another way of preſerving matter is, to take it on the end of a quill, which, when dry, may be inſerted into the barrel of another quill; or if ſlender portions of a quill be pointed like tooth-picks, a number of them, when charged, may be incloſed in the barrel of one quill. Theſe, as well as the thread, afford convenient modes of conveying the matter in a letter to any diſtant place.

A ſmall inſtrument made of ivory, ſhaped like the tooth of a comb and pointed like a lancet, which may be called a vaccinator, is in every reſpect as well adapted to the ſame purpoſe; and not being liable to bend, it is introduced into the puncture with more eaſe and certainty than the tooth-pick. Theſe inſtruments require much leſs matter to charge them than thread or glaſs; but when they are not intended to be uſed ſoon, they ought to be repeatedly charged.—When they are to be uſed in a ſhort time, it is ſufficient to wrap them in paper.

Matter muſt always be allowed to dry without heat in the ſhade, and be kept in a dry cool place.

Every practitioner who has not a conſtant ſucceſſion of patients, ought to take matter when he has an opportunity, and to preſerve it for any future occaſion.

The Modes of Inoculation.

The conſtitutional as well as the local ſymptoms of the vaccine affection depend in a great degree on the mode in which the virus is inſerted. The ſmaller the wound of the ſkin is, the lighter in general is the diſeaſe.

Fluid matter is better than dry, when it can be procured, becauſe it is more likely to produce infection; and the operation is more lightly and quickly performed. Hence it is evident, that in every inſtance where it is practicable, the patient from whom the matter is to be taken ſhould be preſent, and the matter ſhould be transferred immediately from arm to arm.

Inoculation is generally performed in the upper arm, near the inſertion of the deltoid muſcle; but in ſome adults, who are likely to uſe the arm much, it is more adviſable to inoculate on the inſide of the leg, a little below the knee.

The point of a lancet being charged, the ſkin ſhould be ſtretched, that the cuticle may be penetrated with more eaſe. A ſmall ſuperficial puncture is then to be made with the point of the lancet, which will be more likely to leave the matter in contact with the ſkin, and to produce the deſired effect, if it be held nearly in a horizontal direction. It is alſo worthy of remark that, when held in this direction, the lancet meets with greater obſtruction when it has penetrated to a ſufficient depth. On the contrary, when it is inſerted in a more oblique or a perpendicular direction, it often penetrates ſuddenly to ſuch a depth as to cauſe an effuſion of blood, which waſhes away the matter, and prevents the operation from ſucceeding. In order to render infection more certain, the point of the lancet may be charged with matter a ſecond time, and wiped on the puncture.

When ſeveral ſucceſſive inoculations are to be performed, the lancet ſhould be dipped in cold water, and wiped after every puncture.

Dry matter has been ſometimes known to ſucceed after the expiration of ſeveral months, but that which is recent is always preferable.

Dry matter on glaſs may be moiſtened with a little cold or tepid water on the point of a lancet, allowing it ſome time to diſſolve, and blending it by a little friction with the lancet. It muſt not be much diluted, but of a thick conſiſtence. It is to be inſerted in the ſame manner as the recent fluid.

Dry matter on the barrel of a quill may be applied, without dilution, to a very ſmall abraſion or inciſion of the ſkin; and, being held in contact for ſome time, and then repeatedly drawn over the part, it will diſſolve and be lodged in the wound.

When ivory lancets, tooth-picks, and vaccinators, charged with dry matter, are uſed, the matter ſhould not be firſt diluted, but, a puncture having been firſt made with a common lancet, the point of the inſtrument is to be inſerted, and held in the puncture half a minute or more; when the matter will gradually diſſolve, and remain

in the part. If the part of the inſtrument which is charged be afterwards wiped repeatedly upon the edges of the puncture, it will tend to enſure ſucceſs.

Thread, charged with dry matter, may be uſed either dry or juſt moiſtened with cold or tepid water. A ſlight inciſion or abraſion is then to be made, not more than an eighth part of an inch in length, on which a ſmall portion of the thread is to be placed. This is to be covered with a ſmall bit of paper, and to be retained two or three days by a mild adheſive plaſter :—what is called court-plaſter is liable to produce irritation.

Inoculated patients muſt be cautioned not to wear tight ſleeves, and not to injure the arm by preſſure, friction, or any other violence, leſt extenſive inflammation or ulceration ſhould enſue.

One vaccine veſicle ſecures the patient from all danger of the ſmall-pox ; but in many inſtances it is better to inoculate in both arms, eſpecially when the ſmall-pox is epidemic, or the matter is dry, or the place of the patient's reſidence diſtant.

Lancets uſed for inoculation ſhould be kept clean and bright.

Conſtitutional Symptoms.

The conſtitutional ſymptoms ſometimes occur at a very early period, but more commonly from the ſeventh to the eleventh day.

In ſome caſes the patient is drowſy ; in others reſtleſs. Sometimes there is a chilline ſs, ſucceeded by heat, thirſt, head-ach, and other marks of febrile affection. Now and then a ſickneſs or vomiting takes place, eſpecially in infants.

The conſtitutional ſymptoms, of whatever kind, are in general ſlight and tranſient, and ſuch as require no remedy.

In a great proportion of caſes there is no perceptible indiſpoſition; nevertheleſs, the perſon vaccinated is not the leſs ſecure from the future infection of the ſmall-pox, provided the progreſs of the veſicle has been regular and complete.

Care muſt be taken not to confound the ſymptoms of infantile or other diſeaſes with thoſe of vaccine inoculation.

Medical Treatment.

In general no medicine is required in this mild affection ; but if the ſymptoms happen to run a little more high than uſual, the ſame remedies are to be applied as if they proceeded from any other cauſe.

No preparation is neceſſary ; and no cathartics need be given either before or after vaccination.

Should inflammation of the arm exceed the uſual bounds, which rarely happens but from tight ſleeves, preſſure, or friction, it may ſoon be checked by the very frequent application of compreſſes of linen dipped in water, *aqua lythargyri acetati compoſita*, or a ſolution of one drachm of *ceruſſa acetata* in a pint of water. Theſe are to be applied cold.

If the ſcab be rubbed off prematurely, and ulceration take place, cooling and aſtringent applications may be uſed, ſuch as a drop of *aqua lythargyri acetati*, which ſhould be allowed to dry on the part, and then be covered with compreſſes dipped in water, or any of the ſaturnine applications above mentioned, and frequently renewed.

When the ulceration is deep or extenſive, a poultice, either of bread and milk, or of bread with any of the ſaturnine preparations, may be applied, as the caſe ſeems to require. They muſt never be applied till they are nearly or quite cold.

In ſuch foul and obſtinate ſores as reſiſt the foregoing applications, the ointment of nitrated quickſilver, the nitrated quickſilver or lunar cauſtic, or other ſimilar applications, are ſometimes reſorted to with advantage. A ſingle dreſſing with theſe ſubſtances is uſually ſufficient, after which the ſore heals under the mildeſt applications.

Spurious puſtules are frequently followed by ulceration at an early period. This ulceration is to be treated in the ſame manner as if it proceeded from the genuine ſpecies.

An aſſurance of perfect ſecurity from vaccine inoculation can only be obtained by carefully obſerving the whole progreſs of the diſeaſe. If any doubt remain, the operation ought to be repeated.

When the patient has been previouſly expoſed to the infection of the ſmall-pox, that diſeaſe will be ſuperſeded more or leſs, according to the time which is ſuffered to elapſe before the inoculation of the cow-pock.

The advantages of vaccine inoculation being now fully aſcertained, it is the duty of every member of ſociety, and particularly of every member of the medical profeſſion, to diſcourage the inoculation of the ſmall-pox.

*** *Communications of real importance, relating to the vaccine practice, will meet with ready attention by the Medical Council of the Royal Jennerian Society—It is requeſted that they be drawn up concijely and well authenticated.*

CHAP. XXIV.

OF THE MEASLES.

THE meaſles appeared in Europe about the ſame time with the ſmall-pox, and have a great affinity to that diſeaſe. They both came from the ſame quarter of the world, are both infectious, and ſeldom attack the ſame perſon more than once. The meaſles are moſt common in the ſpring ſeaſon, and generally diſappear in ſummer. The diſeaſe itſelf, when properly managed, ſeldom proves fatal; but its conſequences are often very troubleſome.

CAUSE.——This diſeaſe, like the ſmall-pox, proceeds from infection, and is more or leſs dangerous according to the conſtitution of the patient, the ſeaſon of the year, the climate, &c.

SYMPTOMS.——The meaſles, like other fevers, are preceded by alternate fits of heat and cold, with ſickneſs, and loſs of appetite. The tongue is white, but generally moiſt. There is a ſhort cough, a heavineſs of the head and eyes, drowſineſs, and a running at the noſe. Sometimes indeed the cough does not come before the eruption has appeared. There is an inflammation and heat in the eyes, accompanied with a defluxion of ſharp rheum, and great acuteneſs of

ſenſation, ſo that they cannot bear the light without pain. The eye-lids frequently ſwell ſo as to occaſion blindneſs. The patient generally complains of his throat; and a vomiting or looſeneſs often precedes the eruption. The ſtools in children are commonly greeniſh; they complain of an itching of the ſkin, and are remarkably peeviſh. Bleeding at the noſe is common, both before and in the progreſs of the diſeaſe.

About the fourth day, ſmall ſpots, reſembling flea-bites, appear, firſt upon the face, then upon the breaſt, and afterwards on the extremities: theſe may be diſtinguiſhed from the ſmall-pox by their ſcarcely riſing above the ſkin. The fever, cough, and difficulty of breathing, inſtead of being removed by the eruption, as in the ſmall-pox, are rather increaſed; but the vomiting generally ceaſes.

About the ſixth or ſeventh day from the time of ſickening, the meaſles begin to turn pale on the face, and afterwards upon the body; ſo that by the ninth day they entirely diſappear. The fever however, and difficulty of breathing, often continue, eſpecially if the patient has been kept upon too hot a regimen. Petechiæ, or purple ſpots, may likewiſe be occaſioned by this error.

A violent looſeneſs ſometimes ſucceeds the meaſles; in which caſe the patient's life is in imminent danger.

Such as die of the meaſles generally expire about the ninth day from the invaſion, and are commonly carried off by a peripneumony, or inflammation of the lungs.

The moſt favourable ſymptoms are a moderate looſeneſs, a moiſt ſkin, and a plentiful diſcharge of urine.

When the eruption ſuddenly falls in, and the patient is ſeized with a delirium, he is in the greateſt danger. If the meaſles turn too ſoon of a pale colour, it is an unfavourable ſymptom, as are alſo great weakneſs, vomiting, reſtleſſneſs, and difficulty of ſwallowing. Purple or black ſpots appearing among the meaſles are very unfavourable. When a continual cough, with hoarſeneſs, ſucceeds the diſeaſe, there is reaſon to ſuſpect an approaching conſumption of the lungs.

Our buſineſs in this diſeaſe is to aſſiſt Nature, by proper cordials, in throwing out the eruption, if her efforts be too languid; but when they are too violent they muſt be reſtrained by evacuations, and cool diluting liquors, &c. We ought likewiſe to endeavour to appeaſe the moſt urgent ſymptoms, as the cough, reſtleſſneſs, and difficulty of breathing.

REGIMEN.——The cool regimen is neceſſary here as well as in the ſmall-pox. The food too muſt be light, and the drink diluting. Acids however do not anſwer ſo well in the meaſles as in the ſmall-pox, as they tend to exaſperate the cough. Small-beer likewiſe, though a good drink in the ſmall-pox, is here improper. The moſt ſuitable liquors are decoctions of liquorice with marſh-mallow roots and ſarſaparilla, infuſions of linſeed or of the flowers of elder, balm-tea, clarified whey, barley-water, and ſuch like. Theſe, if the patient be coſtive, may be ſweetened with honey; or if that ſhould diſagree with the ſtomach, a little manna may occaſionally be added to them

MEDICINE.——The meaſles being an inflammatory diſeaſe, without any critical diſcharge of matter, as in the ſmall-pox, bleeding is commonly neceſſary, eſpecially when the fever runs high, with difficulty of breathing, and great oppreſſion of the breaſt. But if the diſeaſe be of a mild kind, bleeding, which in few diſeaſes is more neceſſary, may be omitted.

Bathing the feet and legs frequently in lukewarm water both tends to abate the violence of the fever, and to promote the eruption.

The patient is often greatly relieved by vomiting. When there is a tendency this way, it ought to be promoted by drinking lukewarm water, or weak camomile-tea.

When the cough is very troubleſome, with dryneſs of the throat, and difficulty of breathing, the patient may hold his head over the ſteam of warm water, and draw the ſteam into his lungs.

He may likewiſe lick a little ſpermaceti and ſugar-candy pounded together; or take now and then a ſpoonful of the oil of ſweet almonds, with ſugar-candy diſſolved in it. Theſe will ſoften the throat, and relieve the tickling cough.

If at the turn of the diſeaſe the fever aſſumes new vigour, and there appears great danger of ſuffocation, the patient muſt be bled according to his ſtrength, and bliſtering-plaſters applied, with a view to prevent the load from being thrown on the lungs, where, if an inflammation ſhould fix itſelf, the patient's life will be in imminent danger.

In caſe the meaſles ſhould ſuddenly diſappear, it will be neceſſary to purſue the ſame method which we have recommended when the ſmall-pox recede. The patient muſt be ſupported with wine and cordials. Bliſtering-plaſters muſt be applied to the legs and arms, and the body rubbed all over with warm flannels. Warm poultices may likewiſe be applied to the feet and palms of the hands.

When purple or black ſpots appear, the patient's drink ſhould be ſharpened with ſpirits of vitriol; and if the putrid ſymptoms increaſe, the Peruvian bark muſt be adminiſtered in the ſame manner as directed in the ſmall-pox.

Opiates are ſometimes neceſſary, but ſhould never be given except in caſes of extreme reſtleſſneſs, a violent looſeneſs, or when the cough is very troubleſome. For children the ſyrup of poppies is ſufficient. A tea-ſpoonful or two may be occaſionally given, according to the patient's age, or the violence of the ſymptoms.

After the meaſles are gone off, the patient ought to be purged. This may be conducted in the ſame manner as directed in the ſmall-pox.

If a violent looſeneſs ſucceeds the meaſles, it may be checked by taking for ſome days a gentle doſe of rhubarb in the morning, and an opiate over night: but if theſe do not remove it, bleeding will ſeldom fail to have that effect.

Patients recovering after the meaſles ſhould be careful what they eat or drink. Their food for ſome time ought to be light, and in ſmall quantities, and their drink diluting, and rather of an opening nature, as butter-milk, whey, and ſuch like. They ought alſo to

beware of expoſing themſelves too ſoon to the cold air, leſt a ſuffocating catarrh, an aſthma, or a conſumption of the lungs, ſhould enſue.

Should a cough, with difficulty of breathing, and other ſymptoms of a conſumption, remain after the meaſles, ſmall quantities of blood may be frequently let at proper intervals, as the patient's ſtrength and conſtitution will permit. He ought likewiſe to drink aſſes milk, to remove to a free air if in a large town, and to ride daily on horſeback. He muſt keep cloſe to a diet conſiſting of milk and vegetables; and laſtly, if theſe do not ſucceed, let him remove to a warmer climate.

OF THE SCARLET FEVER.

The ſcarlet fever is ſo called from the colour of the patient's ſkin, which appears as it were tinged with red wine. It happens at any ſeaſon of the year, but is moſt common towards the end of ſummer; at which time it often ſeizes whole families. Whenever the ſcarlet fever is epidemical, it uſually affects women two or three days after lying in, and often proves fatal to them. Children and young perſons are moſt ſubject to this diſeaſe, which may be ſuppreſſed in its commencement by different means, as emetics of the wine of ipecacuanha; doſes of equal parts of rhubarb and ſal-polychreſt, ſufficient to procure two motions every day; but ſometimes the perſon who thus eſcapes the formation of the diſeaſe is liable to be reinfected, a circumſtance which otherwiſe rarely occurs. It appears alſo, from ſatisfactory evidence, that convaleſcents from ſcarlet fever are capable of communicating infection ten days, or longer, according to the previous violence of the diſeaſe, after their perfect recovery.

Scarlet fever, like other fevers, begins with coldneſs, ſhivering, and pains in the head, without any violent ſickneſs. About the third day the ſkin is covered with red ſpots, which are broader, more florid, and leſs uniform than the meaſles: the whole ſkin becomes of a bright ſcarlet colour, which in three or four days diſappears; after which the cuticle, or ſcarfskin, falls off.

There is ſeldom any occaſion for medicine in this diſeaſe. The patient ought however to keep within doors, to abſtain from fleſh, ſtrong liquors, and cordials, and to drink freely of cool diluting liquors. If the fever runs high, the body muſt be kept gently open by emollient clyſters, or ſmall doſes of nitre and rhubarb. A ſcruple of the former with ſix grains of the latter may be taken thrice a-day, or oftener, if neceſſary.

Children and young perſons are ſometimes ſeized at the beginning of this diſeaſe with a kind of ſtupor and epileptic fits. In this caſe the feet and legs ſhould be bathed in warm water, and a large bliſtering plaſter applied to the neck: his drink ſhould be barley-water acidulated with lemon-juice or tamarinds; and a doſe of the ſyrup of white poppies given every night till the patient recovers.

The ſcarlet fever however is not always of ſo mild a nature. It is ſometimes attended with putrid or malignant ſymptoms, in which caſe it is always dangerous. In the malignant ſcarlet fever the patient is

not only affected with coldneſs and ſhivering, but with languor, ſickneſs, and great oppreſſion: to theſe ſucceed ſucceſſive heat, nauſea and vomiting, with a ſoreneſs of the throat; the pulſe is extremely quick, ſmall, and depreſſed; the breathing frequent and laborious; the ſkin hot, but not quite dry; the tongue moiſt, and covered with a whitiſh mucus; the tonſils inflamed and ulcerated. When the eruption appears, it brings no relief; on the contrary, the ſymptoms generally grow worſe, and freſh ones come on, as purging, delirium, &c.

When this diſeaſe is miſtaken for a ſimple inflammation, and treated with repeated bleedings and ſtrong cathartics, or too cooling medicines, it generally proves fatal. The medicines to be depended on in this caſe are cordials and antiſeptics, as cinchona, wine, ſnakeroot, and the like. The treatment muſt be in general ſimilar to that of putrid fever, or of the malignant ulcerous ſore throat.

In the year 1774 a very bad ſpecies of this fever prevailed during winter in Edinburgh. It raged chiefly among young people. The eruption was generally attended with a quinſey; and the inflammatory ſymptoms were ſo blended with others of a putrid nature, as to render the treatment of the diſeaſe very difficult. Many of the patients, towards the decline of the fever, were afflicted with large ſwellings of the ſubmaxillary glands, and not a few had a ſuppuration in one or both ears.

If ſoreneſs of the throat accompanies this fever, it may perhaps be the *putrid* or *malignant ſore throat*, which will probably require the utmoſt exertions of the moſt able phyſician. Wine, cordials, and food which are pernicious in *meaſles* and the *ſcarlet fever*, are abſolutely neceſſary, and to be exhibited with perſeverance.

When the ſcarlet fever is ſucceeded by anaſarcous ſwelling, the greateſt care is required, ſince ſhould it be neglected an incurable dropſy may be the conſequence.

Waſhing the hands and feet with tepid water, or vinegar, nay, ſometimes waſhing the whole body daily with equal parts of vinegar and water, has been practiſed with ſucceſs, particularly in the treatment of typhus fever; nevertheleſs, bathing in fevers has not been reckoned among the regular means of regular phyſicians, till it was lately brought into notice by Dr. Jackſon and the late Dr. Currie of Liverpool. To their uſeful writings we owe the revival of a practice of great antiquity; for this remedy was not unknown in the time of the Emperor Auguſtus, and its uſe and management were well known to Galen, and accurately defined by him.

The cold and tepid affuſion is now employed as a remedy in fever, confluent ſmall-pox, meaſles, and influenza. Of its uſe in ſcarlet fever, Dr. Gregory, Profeſſor of Medicine at the Univerſity of Edinburgh, gives the following ſtriking inſtance, in a letter to the late Dr. Currie.

"This day ſe'nnight (1ſt November) my eldeſt ſon, a boy of ſix years of age, of a ſanguine temperament and very irritable conſtitution, was taken ill about noon, when out at his walk. Your friend Benjamin Bell ſaw him before I did; for having called on me to ſpeak about a patient, he enquired for my wife, and found the child with her

lying on a settee. She anxiously begged of him to examine the child, and see whether he had got the scarlet fever, which she suspected to be the case. Mr. Bell had no difficulty in pronouncing the disease was the scarlet fever; for even by that time (within two hours from the invasion) the eruption of red prominent points was very copious and evident, so as to give a general roughness and redness to the skin of his breast. In that state I found him soon after Mr. Bell had left him; his pulse frequent and small; his skin but just beginning to grow hot, and his hands rather cold. He complained of general oppression, uneasiness, and head-ach. The velum pendulum, uvula, and tonsils, were of a dark purple red; but there were no ulcers or aphthæ on them that I could see. Before six at night, he had much more severe head-ach and oppression, with nausea, vomiting, and diarrhœa; his pulse 140 and very strong; his skin very hot, and of a bright red, with a considerable degree of roughness all over it.

"Conceiving this to be a case of the most imminent danger, and, in every respect, proper for your cold practice, I lost no time in getting him taken out of bed, stripped and set erect in a tub, in which situation I poured a gardener's watering-pan full of cold water all over him, from head to foot. This relieved him a good deal, and, as you may believe, cooled him very effectually: but before ten at night the symptoms had recurred with more violence than ever. His pulse was 160, and very strong; his face turgid, his eyes growing red, his skin very red from head to foot, and very hot. I did not measure the heat of his skin by the thermometer; but I think it must have been at least 104 degrees of Fahrenheit. I immediately repeated the cold affusion as before, and with the same good effect. He was immediately cooled and refreshed, and half an hour after I found his pulse 120, and the heat of his skin very moderate. He had a pretty good night; but before eight next morning was become very hot again; on which account the affusion was repeated in the same manner. He said he did not like my way of bathing, and would rather be bathed in his own tub; and as I thought, from the state of the symptoms, that there was occasion for it, he was bathed in his tub, and fairly laid under water, over head and ears, between eleven and twelve at noon, and again at six in the evening of the second day.

"These five good sousings in twenty-four hours seemed to have done the business completely. The eruption was not repelled, but the progress of the local affection in the throat seemed to be stopped. I could never see any ulcerations in it, though I looked carefully for them, in consequence of having observed much fœtor of his breath on the second evening. The force of the fever, as to heat and frequency, and strength of pulse, was quite broken after the fifth ducking; to such a degree even, that I began to have some fears that the *vis vitæ* might fail, and had actually provided wine to be at hand, to give him from time to time in case of need; and I saw him several times during the night, between the second and third day of his disease. But I found no occasion to give him any of it; nor has he had a grain of medicine, or even a drop of wine, during his illness; so that you must allow it has been a very fair experiment

of the cold affuſion, as a remedy for the ſcarlet fever. His throat was quite well the morning of the fourth day: the ſame day he had ſome ſlight ſwelling of the hands, but not the twentieth part of what I have often ſeen after a ſevere attack of the *ſcarlatina*. He is loſing his cuticle by deſquamation, as was to be expected; he has been waſhed with tepid water and ſoap for three or four nights, to promote that deſquamation, and relieve the itching of his ſkin. He has not yet recovered his fleſh, ſtrength, or colour, but ſeems in a fair way to do ſo ſoon, for he has a keen appetite and digeſtion. This is only the ninth day of his diſeaſe.

"You may be ſure, from this detail, that I am perfectly well pleaſed with your practice in this diſeaſe, and that I ſhall gladly follow it in any proper caſe of the ſame kind that may come under my care, if I am allowed to do ſo. It is more than poſſible that I ſhall ſoon have occaſion to try it on two other of my ſons, one of them paſt four, the other of them almoſt two years of age, and both of them of the ſame ſanguine temperament of their eldeſt brother. Both of theſe younger children were expoſed to the contagion from their couſin, as much as my eldeſt ſon was, and both of them were with *him* when he ſickened, and for two hours after, ſo that I could have no hope of preſerving them from the contagion:—they have both had the *cow-pox*."

"*Wedneſday, Nov.* 9.

"Yeſterday afternoon my youngeſt ſon ſickened, and had the uſual ſymptoms of oppreſſion, ſickneſs, vomiting, diarrhœa, frequent crying, frequent pulſe; copious red eruption on the ſkin in leſs than three hours after he began to be uneaſy, flushing of the face, and increaſe of heat: his voice is ſomewhat affected, and hoarſe; but he ſwallows liquids and ſolids without difficulty, ſo that I have no great fears for his throat.

"Though he was never ſo hot as his brother, he was waſhed in a tub with cold water about ſeven o'clock, and again about eleven, laſt night, and twice to-day already with tepid water, as he was ſtill leſs hot than yeſterday, and his feet even cool. He has been relieved by the waſhing all the four times, and has always gone to ſleep after it for a longer or ſhorter time.

"My other ſon (the four year old gentleman) has not yet ſickened, but I expect him to be taken ill to-night or to-morrow; for laſt night he had very little ſleep, and frequently through the night and to-day he has complained of being *tired*. *Laſſitudines ſpontaneæ morbos denunciant* is one of the oldeſt maxims that I know of in phyſic. Whenever he ſickens I mean to treat him as I have done his brothers.

"Your's, moſt truly,

"J. GREGORY."

To the ſame.

"Dear Sir, Edinburgh, 10th Dec. 1803.

"I AM ſure it will give you ſatisfaction to know that my children have ALL done very well under your practice for the ſcarlatina. The eldeſt and youngeſt, though they have not yet fully recovered their ſtrength, are recovering very faſt, are in excellent ſpirits, and on the whole ſo well that they have been out of doors repeatedly, both in the

carriage and on foot, though the weather has been very cold, even with froſt and ſnow for ſome days. Both of them have ſtill ſome ſwelling of the lymphatic glands on both ſides of the neck, extending from the ear almoſt to the ſhoulder. This I think the more remarkable, as I could ſee no ulceration of the throat, and no particular cutaneous affection on the hairy ſcalp of either of them. The ſwelled glands are no longer painful, and are already growing ſmaller and ſofter, ſo I preſume they will diſcuſs completely without any difficulty.

"The four year old gentleman whom you enquire after, ſickened on Monday morning, 14th of November. He had been complaining for five days, much and frequently, both day and night, of being tired: at day-break on Monday he complained much of the head-ach, and, upon looking at his ſkin, he was found to be from head to foot as red as a boiled lobſter. His pulſe for two days was nearly as quick as his elder brother's had been (from 130 to 150), but it was not nearly ſo ſtrong; nor was his ſkin ever ſo hot as his elder brother's had been. He had no vomiting, or diarrhœa, as both the others had, but his body continued quite open as in his perfect health. Suppoſing the head-ach, which in him was very ſevere, to proceed from the ſtomach or bowels being in ſome meaſure loaded, I gave him, on the afternoon of the ſecond day, three grains of calomel, which did not operate as a purge, but ſoon and very effectually as an emetic, and ſeemed to remove his head-ach; but as this returned on the morning of the third day, after being ſuſpended about ſixteen hours, two good leeches were applied to his temples, by which he loſt a good deal of blood, with great and immediate relief to the head-ach, which has not returned.

"The cure in this boy, as in the other two, was truſted to the waſhing; but as his pulſe was not very ſtrong, nor his heat very great, the water was not perfectly cold, though very gently tepid; ſo little warm as to make him ſhiver. It ſeems to have ſucceeded as well with him as with either of his brothers.

"I have had much pleaſure in obſerving repeatedly in the youngeſt child (the two year old gentleman) the great and immediate good effects of the cold or tepid waſhing, not only in leſſening the frequency of the pulſe and heat of the ſkin, but in relieving the febrile oppreſſion and uneaſineſs. The little patient, who juſt before was crying very much, unable to hold up its head, incapable of being pleaſed or amuſed with any thing, nay almoſt incapable of looking at any thing, immediately after being waſhed (I mean in two or three minutes), would begin to look up and take notice of the people near him; then amuſe himſelf with his playthings; then get upon his legs, and run about upon the floor; and at laſt go quietly to ſleep."

The ſafeſt and moſt advantageous time for uſing the cold affuſion is when the exacerbation is at its height, or immediately after its declination is begun. This is generally from ſix till nine o'clock in the evening; but it may be ſafely uſed at any time of the day *when there is no ſenſe of chilline/s preſent; when the heat of the ſurface is ſteadily above what is natural; and when there is no general or profuſe perſpiration.*

The late Dr. Currie, for ſeveral of the laſt years of his uſeful life, invariably employed this "DOMESTIC" remedy, viz. the affuſion of water, cold and tepid, in the diſeaſes above mentioned. Uſed in the three firſt days of fever, the cold affuſion generally ſtops the diſeaſe: the ſame happy effects ſometimes follow its uſe on the fourth or even the fifth day, but ſeldom later. Even in the ſubſequent ſtages where the heat continues preternaturally great, and the ſkin dry, it is of great and manifeſt advantage, almoſt immediately relieving the moſt diſtreſſing ſymptoms, particularly reſtleſſneſs and delirium, and conducting the diſeaſe to a ſafe and ſpeedier iſſue.

The tepid affuſion (the water being 87° to 97° of Fahrenheit's thermometer) is applicable to all the diſeaſes to which the cold affuſion is applicable, and poſſeſſes very conſiderable though inferior efficacy. It is, however, very ſafe, eaſy of application, and in a high degree grateful, and Dr. Currie extended its employment to almoſt the whole claſs of febrile diſeaſes. "In my practice" (ſaid he) "the cold and tepid affuſions are very often combined in the ſame diſeaſe. While the heat is great, the ſkin dry, and the vaſcular action ſtrong, I uſe water perfectly cold; when theſe ſymptoms diminiſh, I uſe it cool (87° to 75°); and as they ſubſide ſtill farther, I make it tepid."

In fevers *ariſing from or unaccompanied by topical inflammation*, Dr. Currie's experience does not juſtify the uſe of the cold affuſion; though in a great variety of thoſe caſes the warm affuſion may be uſed with advantage. "And," ſays he, "though I have uſed the cold affuſion as late as the twelfth and even the fourteenth day of contagious fever, with ſafety and ſucceſs, yet it can only be employed in this advanced period in the inſtances *in which the heat keeps up ſteadily above the natural ſtandard, and the reſpiration continues free.* In ſuch caſes I have ſeen it appeaſe agitation and reſtleſſneſs, diſſipate delirium, and, as it were, ſnatch the patient from impending diſſolution."

Every arrangement ſhould be made for the affuſion before the patient is moved at all, and much fatigue, as well as diſquiet, ſhould be particularly avoided. And after all, the tepid affuſion may be ſubſtituted for the more powerful remedy, in caſes where the delicacy of the ſyſtem, or the apprehenſions of the bye-ſtanders, prevent the other from being employed.

Three years ago, Mr. Braithwaite, ſurgeon at Lancaſter, publiſhed ſome obſervations on the utility of the oxygenated muriatic acid in the cure of the ſcarlet fever, which well deſerve the attention of medical practitioners. We ſhall ſtate the mode of practice he recommends:—

"When called to a patient, in whatever ſtage of the ſcarlet fever, my practice," ſays he, "for two years paſt has uniformly been as follows: One drachm of oxygenated muriatic acid is mixed with eight ounces of diſtilled water in a phial, and ſhaken together. This quantity ſhould be taken every twelve hours by a patient from fourteen to twenty years of age. But it is preferable to adminiſter it in draughts, divided from the quantity above-mentioned; from two ounces to half an ounce, as the patient's age and ſituation require;

ordering them to be taken at ſuch periods, as, for an adult, to conſume the quantity in the time mentioned; and to younger patients ſmaller doſes, as half a drachm or two ſcruples of the acid to eight ounces of water. By this method the oxygen gas is not ſeparated and loſt each time the phial is opened, as may eaſily be perceived by its ſmell in the apartment. It is alſo abſolutely neceſſary that the medicine be placed in a dark ſituation, wrapped in paper, to prevent the diſoxygenating influence of light."

Since the uſe of this medicine Mr. B. ſays he never had recourſe to emetics, purgatives, bliſters, or diaphoretics. A regular perſeverance in the oxygenant remedy has univerſally ſucceeded; "my patients," ſays he, "rapidly recovered, and are ſeldom afflicted with thoſe complaints ſucceeding the ſcarlet fever, ſuch as pain of the joints, paucity of urine, and univerſal anaſarcous ſwellings. Even when theſe follow, I recommend a continuance of the medicine until theſe ſymptoms entirely diſappear, which will be found much earlier than by the uſual mode of treatment. Indeed, if the oxygenated preparation be duly perſevered in, I am of opinion thoſe painful and diſtreſſing affections will rarely occur. It is alſo poſſeſſed of this deſirable property, that it may be eaſily taken by children, who generally are the moſt numerous patients in this diſeaſe, and to whom all medicines are adminiſtered with difficulty. I have heard them repeatedly cry for that ſtuff which mended their throat, as they expreſſed it. Indeed, in that reſpect, its effects are truly admirable, far ſurpaſſing the diſagreeable practice of gargling and ſyringing, which in numerous inſtances, even if poſſible to do it, is productive of miſchief. How far ſuperior, then, muſt be a remedy, which by paſſing immediately over the infected and frequently ulcerated part, not only gives inſtantaneous relief, but entirely removes that fœtid ſmell originating, in ſevere caſes, from theſe parts!

"Patients often wiſh to be frequently ſipping a little of the oxygenant liquid, which is not improper; but it muſt always be done out of a wine-glaſs, as admeaſurement with a ſpoon is dangerous; the oxygen rapidly oxydating the metal of which it is compoſed, and by that means conveying into the ſtomach a poiſonous fluid from which death might enſue."

Beſides the internal uſe of oxygenated muriatic acid, Mr. Braithwaite, following Guyton Morveau and others, recommends the vapour of this acid for deſtroying contagious miaſmata even in rooms where the ſick are preſent, without the ſlighteſt inconvenience.

The gaſeous oxygenant, he obſerves, poſſeſſed of amazing expanſibility, diffuſes itſelf over the moſt extenſive apartments; leaving nothing untouched, and touching nothing it does not appropriate; rapidly oxydating metallic bodies, particularly iron and ſteel, which on that account ſhould be removed; and radically deſtroying the moſt offenſive odours, thereby rendering innocuous perhaps deadly contagious poiſons.

To completely purify any apartment where a patient ſuffers in the ſcarlet fever, or any other contagious diſeaſe, ſo as to render it perfectly ſafe, not only to the attendants, but to the reſt of the family,

take a china tea-cup and ſaucer; put into the tea-cup two ounces of common culinary ſalt, and half an ounce of the black oxyd of manganeſe, previouſly powdered, with one ounce of water; then take an ounce and a half of *ſulphuric acid* (ſpirit of vitriol or vitriolic acid), and pour a little of it now and then into the tea-cup among the other ingredients. Immediately an amazing quantity of oxygenated muriatic acid gas will be diſengaged and diffuſed through the apartment. This ſhould be ſuffered to remain only a few minutes, removing it out of the room into the ſtair-caſe, by which means the whole houſe will become impregnated with this geous oxygenant. It will be proper to take it into the room frequently in the courſe of the day, adding to it a little freſh *ſulphuric acid*, and then replacing it in its former ſituation.

By this ſimple plan, any prudent and attentive nurſe may with the utmoſt facility and ſafety deſtroy contagion in any private apartment, or ward of an hoſpital. The gas extricated from common ſalt by ſulphuric acid has been employed in the Royal Infirmary at Edinburgh with very great benefit.

OF THE BILIOUS FEVER.

When a continual, remitting, or intermitting fever is accompanied with a frequent or copious evacuation of bile, either by vomit or ſtool, the fever is denominated bilious. In Britain the bilious fever generally makes its appearance about the end of ſummer, and ceaſes towards the approach of winter. It is moſt frequent and fatal in warm countries, eſpecially where the ſoil is marſhy, and when great rains are ſucceeded by ſultry heats. Perſons who work without doors, lie in camps, or who are expoſed to the night air, are moſt liable to this kind of fever.

If there are ſymptoms of inflammation at the beginning of this fever, it will be neceſſary to bleed, and to put the patient upon the cool diluting regimen recommended in the inflammatory fever. The ſaline draught may likewiſe be frequently adminiſtered, and the patient's body kept open by clyſters or mild purgatives. But if the fever ſhould remit or intermit, bleeding will ſeldom be neceſſary. In this caſe a vomit may be adminiſtered, and, if the body be bound, a gentle purge; after which the Peruvian bark will generally complete the cure.

In caſe of a violent looſeneſs, the patient muſt be ſupported with chicken broths, jellies of hartſhorn, and the like; and he may uſe the *compound decoction of chalk* for his ordinary drink. If a bloody flux ſhould accompany this fever, it muſt be treated in the manner recommended under the article *Dyſentery*.

When there is a burning heat, and the patient does not ſweat, that evacuation may be promoted by giving him, three, four, or ſix times a-day, a table-ſpoonful of *acetated water of ammonia* (Mindererus's ſpirit) mixed in a cup of his ordinary drink.

If the bilious fever be attended with the nervous, malignant, or putrid ſymptoms, which is ſometimes the caſe, the patient muſt be treated in the ſame manner as directed under theſe diſeaſes.

After this fever, proper care is neceſſary to prevent a relapſe. For this purpoſe the patient, eſpecially towards the end of autumn, ought to continue the uſe of the Peruvian bark for ſome time after he is well. He ſhould likewiſe abſtain from all traſhy fruits, new liquors, and every kind of flatulent aliment.

CHAP. XXV.

OF THE ERYSIPELAS, OR ST. ANTHONY's FIRE.

THIS diſeaſe, which in ſome parts of Britain is called *the roſe*, attacks perſons at any period of life, but is moſt common between the age of thirty and forty. Perſons of a ſanguine or plethoric habit are moſt liable to it. It often attacks young people and pregnant women; and ſuch as have once been afflicted with it, are very liable to have it again. Sometimes it is a primary diſeaſe, and at other times only a ſymptom of ſome other malady. Every part of the body is liable to be attacked by an eryſipelas, but it moſt frequently ſeizes the legs or face, eſpecially the latter. It is moſt common in autumn, or when hot weather is ſucceeded by cold and wet.

CAUSES.——The eryſipelas may be occaſioned by violent paſſions or affections of the mind; as fear, anger, &c. When the body has been heated to a great degree, and is immediately expoſed to the cold air, ſo that the perſpiration is ſuddenly checked, an eryſipelas will often enſue. It may alſo be occaſioned by drinking to exceſs, by continuing too long in a warm bath, or by any thing that overheats the blood. If any of the natural evacuations be obſtructed, or in too ſmall quantity, it may cauſe an eryſipelas. The ſame effect will follow from the ſtoppage of artificial evacuations as iſſues, ſetons, or the like.

The country people in many parts of Britain call this diſeaſe a *blaſt*, and imagine it proceeds from foul air, or ill wind, as they term it. The truth is, they often lie down to reſt them, when warm and fatigued, upon the damp ground, where they fall aſleep, and lie ſo long as to catch cold, which occaſions the eryſipelas. This diſeaſe may indeed proceed from other cauſes, but we may venture to ſay that nine times out of ten it is occaſioned by cold caught after the body has been greatly heated or fatigued.

SYMPTOMS.——The eryſipelas attacks with ſhivering, thirſt, loſs of ſtrength, pain in the head and back, heat, reſtleſſneſs, and a quick pulſe; to which may be added vomiting, and ſometimes a delirium. On the ſecond, third, or fourth day, the part ſwells, becomes red, and ſmall puſtules appear; at which time the fever generally abates.

When the eryſipelas ſeizes the foot, the parts contiguous ſwell, the ſkin ſhines; and, if the pain be violent, it will aſcend to the leg, and will not bear to be touched.

When it attacks the face, it ſwells, appears red, and the ſkin is covered with ſmall puſtules filled with clear water. One or both eyes

are generally cloſed with a ſwelling; and there is a difficulty of breathing. If the mouth and noſtrils be very dry, and the patient drowſy, there is reaſon to ſuſpect an inflammation of the brain.

If the eryſipelas affects the breaſt, it ſwells and becomes exceedingly hard, with great pain, and is apt to ſuppurate. There is a violent pain in the arm-pit on the ſide affected, where an abſceſs is often formed.

If in a day or two the ſwelling ſubſides, the heat and pain abate, the colour of the part turns yellow, and the cuticle breaks and falls off in ſcales, the danger is over.

When the eryſipelas is large, deep, and affects a very ſenſible part of the body, the danger is great. If the red colour changes into a livid or black, it will end in a mortification. Sometimes the inflammation cannot be diſcuſſed, but comes to a ſuppuration; in which caſe fiſtulas, a gangrene, or mortification, often enſue.

Such as die of this diſeaſe are commonly carried off by the fever, which is attended with difficulty of breathing, and ſometimes with a delirium and great drowſineſs. They generally die about the ſeventh or eighth day.

REGIMEN.——In the eryſipelas the patient muſt neither be kept too hot nor too cold, as either of theſe extremes will tend to make it retreat, which is always to be guarded againſt. When the diſeaſe is mild, it will be ſufficient to keep the patient within doors, without confining him to his bed, and to promote the perſpiration by diluting liquors, &c.

The diet ought to be ſlender, and of a moderately cooling and moiſtening quality, as groat-gruel, panado, chicken or barley-broth, with cooling herbs and fruits, &c. avoiding fleſh, fiſh, ſtrong drink, ſpices, pickles, and all other things that may heat and inflame the blood: the drink may be barley-water, an infuſion of elder-flowers, common whey, and ſuch like.

But if the pulſe be low, and the ſpirits ſink, the patient muſt be ſupported with negus, and other things of a cordial nature. His food may be ſago-gruel, with a little wine, and nouriſhing broths, taken in ſmall quantities, and often repeated. Great care, however, muſt be taken not to overheat him.

MEDICINE.——In this diſeaſe much miſchief is often done by medicine, eſpecially by external applications. People, when they ſee an inflammation, immediately think that ſomething ought to be applied to it. This indeed is neceſſary in large phlegmons; but in an eryſipelas the ſafer courſe is to apply nothing. Almoſt all ointments, ſalves, and plaſters, being of a greaſy nature, tend rather to obſtruct and repel, than promote any diſcharge from the part. At the beginning of this diſeaſe it is neither ſafe to promote a ſuppuration, nor to repel the matter too quickly. The eryſipelas in many reſpects reſembles the gout, and is to be treated with the greateſt caution. Fine wool, or very ſoft flannel, are the ſafeſt applications to the part. Theſe not only defend it from the external air, but likewiſe promote the perſpiration, which has a great tendency to carry off

the diſeaſe. In Scotland the common people generally apply a mealy cloth to the parts affected, which is far from being improper.

It is common to bleed in the eryſipelas; but this likewiſe requires caution. If however the fever be high, the pulſe hard and ſtrong, and the patient vigorous, it will be proper to bleed; but the quantity muſt be regulated by theſe circumſtances, and the operation repeated as the ſymptoms may require. If the patient has been accuſtomed to ſtrong liquors, and the diſeaſe attacks his head, bleeding is abſolutely neceſſary.

Bathing the feet and legs frequently in lukewarm water, when the diſeaſe attacks the face or brain, has an excellent effect. It tends to make a derivation from the head, and ſeldom fails to relieve the patient. When bathing proves ineffectual, poultices, or ſharp ſinapiſms, may be applied to the ſoles of the feet, for the ſame purpoſe.

In caſes where bleeding is requiſite, it is likewiſe neceſſary to keep the body open. This may be effected by emollient clyſters, or ſmall doſes of nitre and rhubarb. Some, indeed, recommend very large doſes of nitre in the eryſipelas; but nitre ſeldom ſits eaſy on the ſtomach when taken in large doſes. It is, however, one of the beſt medicines when the fever and inflammation run high. Half a drachm of it, with four or five grains of rhubarb, may be taken in the patient's ordinary drink four times a-day.

When the eryſipelas leaves the extremities, and ſeizes the head ſo as to occaſion a delirium or ſtupor, it is abſolutely neceſſary to open the body. If clyſters and mild purgatives fail to have this effect, ſtronger ones muſt be given. Bliſtering-plaſters muſt likewiſe be applied to the neck, or behind the ears, and ſharp cataplaſms laid to the ſoles of the feet.

When the inflammation cannot be diſcuſſed, and the part has a tendency to ulcerate, it will then be proper to promote ſuppuration, which may be done by the application of ripening poultices, with ſaffron, warm fomentations, and ſuch like.

When the black, livid, or blue colour of the part ſhews a tendency to mortification, the Peruvian bark muſt be adminiſtered. It may be taken along with acids, as recommended in the ſmall-pox, or in any other form more agreeable to the patient. It muſt not, however, be trifled with, as the patient's life is at ſtake. A drachm may be given every two hours, if the ſymptoms be threatening, and cloths dipped in warm *camphorated ſpirit of wine*, or the tincture of myrrh and aloes, may be applied to the part, and frequently renewed. It may likewiſe be proper in this caſe to apply poultices of the bark, or to foment the part affected with a ſtrong decoction of it.

In what is commonly called the *ſcorbutic eryſipelas*, which continues for a conſiderable time, it will only be neceſſary to give gentle laxatives, and ſuch things as purify the blood and promote the perſpiration. Thus, after the inflammation has been checked by opening medicines, the *decoction of woods* may be drank, after which a courſe of bitters will be proper.

But the editor muſt here obſerve, that in the form in which eryſipelatous inflammation often occurs now, it is in many caſes moſt

ſucceſsfully combated by the exhibition of cinchona. Take decoction of Peruvian bark one pint, compound tincture of Peruvian bark one ounce, powder of Peruvian bark half an ounce, mixed: the doſe four table-ſpoonfuls every four or ſix hours.

Such as are liable to frequent attacks of the eryſipelas ought carefully to guard againſt all violent paſſions; to abſtain from ſtrong liquors, and all fat, viſcid, and highly-nouriſhing food. They ſhould likewiſe take ſufficient exerciſe, carefully avoiding the extremes of heat or cold. Their food ſhould conſiſt chiefly of milk, and ſuch fruits, herbs, and roots, as are of a cooling quality; and their drink ought to be ſmall-beer, whey, butter-milk, and ſuch like. They ſhould never ſuffer themſelves to be long coſtive. If that cannot be prevented by ſuitable diet, it will be proper to take frequently a gentle doſe of rhubarb, cream of tartar, the lenitive electuary, or ſome other mild purgative.

If the eryſipelas attack the lower extremities, diſſolve two ounces of *vitriolated magneſia*, and one drachm of calcined magneſia, in two pints of boiling water; take ſix table-ſpoonfuls, or a gill, every morning. If the patient is of a coſtive habit, the doſe may be doubled. Bathe the affected leg, and apply linen cloths frequently moiſtened with the following lotion: Good vinegar four ounces, *acetated ceruſe* (commonly called ſugar of lead) two drachms, ſpring water two pints, mixed.

CHAP. XXVI.

OF THE PHRENITIS, OR INFLAMMATION OF THE BRAIN.

THIS is ſometimes a primary diſeaſe, but oftener only a ſymptom of ſome other malady; as the inflammatory, eruptive, or ſpotted fever, &c. It is very common, however, as a primary diſeaſe in warm climates, and is moſt incident to perſons about the prime or vigour of life. The paſſionate, the ſtudious, and thoſe whoſe nervous ſyſtem is irritable in a high degree, are moſt liable to it.

CAUSES.——This diſeaſe is often occaſioned by night watching, eſpecially when joined with hard ſtudy; it may likewiſe proceed from hard drinking, anger, grief, or anxiety. It is often occaſioned by the ſtoppage of uſual evacuations; as the bleeding piles in men, the cuſtomary diſcharges of women, &c. Such as imprudently expoſe themſelves to the heat of the ſun, eſpecially by ſleeping without doors in a hot ſeaſon, with their heads uncovered, are often ſuddenly ſeized with an inflammation of the brain, ſo as to awake quite delirious. When repellents are imprudently uſed in an eryſipelas, an inflammation of the brain is ſometimes the conſequence. It may likewiſe be occaſioned by external injuries, as blows or bruiſes upon the head, &c.

SYMPTOMS.——The ſymptoms which uſually precede a true inflammation of the brain are pain of the head, redneſs of the eyes,

a violent flushing of the face, disturbed sleep, or a total want of it, great dryness of the skin, costiveness, a retention of urine, a small dropping of blood from the nose, singing of the ears, and extreme sensibility of the nervous system.

When the inflammation is formed, the symptoms in general are similar to those of the inflammatory fever. The pulse indeed is often weak, irregular, and trembling; but sometimes it is hard and contracted. When the brain itself is inflamed, the pulse is always soft and low; but when the inflammation only affects the integuments of the brain, viz. the dura and pia mater, it is hard. A remarkable quickness of hearing is a common symptom of this disease; but that seldom continues long. Another usual symptom is a great throbbing or pulsation in the arteries of the neck and temples. Though the tongue is often black and dry, yet the patient seldom complains of thirst, and even refuses drink. The mind chiefly runs upon such objects as have before made a deep impression on it; and sometimes, from a sullen silence, the patient becomes all of a sudden quite outrageous.

A constant trembling and starting of the tendons is an unfavourable symptom, as are also a suppression of urine; a total want of sleep; a constant spitting; a grinding of the teeth; which last may be considered as a kind of convulsion. When a phrenitis succeeds an inflammation of the lungs, of the intestines, or of the throat, &c. it is owing to a translation of the disease from these parts to the brain, and generally proves fatal. This shews the necessity of proper evacuations, and the danger of repellents in all inflammatory diseases.

The favourable symptoms are, a free perspiration, copious discharge of blood from the nose, the bleeding piles, a plentiful discharge of urine which lets fall a copious sediment. Sometimes the disease is carried off by a looseness, and in women by an excessive flow of the menses.

As this disease often proves fatal in a few days, it requires the most speedy applications. When it is prolonged, or improperly treated, it sometimes ends in madness, or a kind of stupidity which continues for life.

In the cure, two things are chiefly to be attended to, viz. to lessen the quantity of blood in the brain, and to retard the circulation towards the head.

REGIMEN.——The patient ought to be kept very quiet. Company, noise, and every thing that affects the senses or disturbs the imagination, increases the disease. Even too much light is hurtful; for which reason the patient's chamber ought to be a little darkened, and he should neither be kept too hot nor cold. It is not however necessary to exclude the company of an agreeable friend, as this has a tendency to sooth and quiet the mind. Neither ought the patient to be kept too much in the dark, lest it should occasion a gloomy melancholy which is too often the consequence of this disease.

The patient must, as far as possible, be soothed and humoured in every thing. Contradiction will ruffle his mind and increase his malady. Even when he calls for things which are not to be obtained,

or which might prove hurtful, he is not to be poſitively denied them, but rather put off with the promiſe of having them as ſoon as they can be obtained, or by ſome other excuſe. A little of any thing that the mind is ſet upon, though not quite proper, will hurt the patient leſs than a poſitive refuſal. In a word, whatever he was fond of, or uſed to be delighted with, when in health, may here be tried; as pleaſing ſtories, ſoft muſic, or whatever has a tendency to ſooth the paſſions and compoſe the mind. Boerhaave propoſes ſeveral mechanical experiments for this purpoſe; as the ſoft noiſe of water diſtilling by drops into a baſin, and the patient trying to reckon them, &c. Any uniform ſound, if low and continued, has a tendency to procure ſleep, and conſequently may be of ſervice.

The aliment ought to be light, conſiſting chiefly of farinaceous ſubſtances; as panado, and water-gruel, ſharpened with jelly of currants or juice of lemons; ripe fruits roaſted or boiled, jellies, preſerves, &c. The drink ſmall, diluting, and cooling; as whey, barley-water, or decoctions of barley and tamarinds, which latter not only render the liquor more palatable, but likewiſe more beneficial, as they are of an opening nature.

MEDICINE.——In an inflammation of the brain, nothing more certainly relieves the patient than a free diſcharge of blood from the noſe. When this comes of its own accord, it is by no means to be ſtopped, but rather promoted, by applying cloths dipped in warm water to the part. When bleeding at the noſe does not happen ſpontaneouſly, it may be provoked, by putting a ſtraw or any other ſharp body up the noſtril.

Bleeding in the temporal arteries greatly relieves the head; but as this operation cannot always be performed, we would recommend in its ſtead bleeding in the jugular veins. When the patient's pulſe and ſpirits are ſo low, that he cannot bear bleeding with the lancet, leeches may be applied to the temples. Theſe not only draw off the blood more gradually, but, by being applied nearer to the part affected, generally give more immediate relief.

A diſcharge of blood from the hæmorrhoidal veins is likewiſe of great ſervice, and ought by all means to be promoted. If the patient has been ſubject to the bleeding piles, and that diſcharge has been ſtopped, every method muſt be tried to reſtore it; as the application of leeches to the parts, ſitting over the ſteams of warm water, ſharp clyſters, or ſuppoſitories made of honey, aloes, and rock-ſalt.

If the inflammation of the brain be occaſioned by the ſtoppage of evacuations either natural or artificial, as the menſes, iſſues, ſetons, or ſuch like, all means muſt be uſed to reſtore them as ſoon as poſſible, or to ſubſtitute others in their ſtead.

The patient's body muſt be kept open by ſtimulating clyſters or ſmart purges; and ſmall quantities of nitre ought frequently to be mixed with his drink. Two or three drachms, or more, if the caſe be dangerous, may be uſed in the ſpace of twenty-four hours.

The head ſhould be ſhaved and frequently rubbed with vinegar and roſe-water. Cloths dipped in this mixture may likewiſe be applied to the temples. Cold water may be poured upon it; or even ice applied,

The feet ought frequently to be bathed in lukewarm water, and ſoft poultices of bread and milk may be kept conſtantly applied to them.

If the diſeaſe proves obſtinate, and does not yield to theſe medicines, it will be neceſſary to apply a bliſtering-plaſter to the whole head.

Smart purges, as calomel in doſes of five to eight grains, and opiates, are alſo ſometimes neceſſary in this diſeaſe.

CHAP. XXVII.

OF THE OPHTHALMIA, OR INFLAMMATION OF THE EYES.

THIS diſeaſe may be occaſioned by external injuries; as blows, burns, bruiſes, and the like. It may likewiſe proceed from duſt, quick-lime, or other ſubſtances, getting into the eyes. It is often cauſed by the ſtoppage of cuſtomary evacuations; as the healing of old ſores, drying up of iſſues, the ſuppreſſing of gentle morning ſweats, or of the ſweating of the feet, &c. Long expoſure to the night air, eſpecially in cold northerly winds, or whatever ſuddenly checks the perſpiration, eſpecially after the body has been much heated, is very apt to cauſe an inflammation of the eyes. Viewing ſnow or other white bodies for a long time, or looking ſtedfaſtly at the ſun, a clear fire, or any bright object, will likewiſe occaſion this malady. A ſudden tranſition from darkneſs to very bright light will often have the ſame effect.

Nothing more certainly occaſions an inflammation of the eyes than night-watching, eſpecially reading or writing by candle-light. Drinking ſpirituous liquors, and exceſs of venery, are likewiſe very hurtful to the eyes. The acrid fumes of metals, and of ſeveral kinds of fuel, are alſo pernicious. Sometimes an inflammation of the eyes proceeds from a venereal taint, and often from a ſcrophulous or gouty habit. It may likewiſe be occaſioned by hairs in the eye-lids turning inwards, and hurting the eyes. Sometimes the diſeaſe is epidemic, eſpecially after wet ſeaſons; and I have frequently known it prove infectious, particularly to thoſe who lived in the ſame houſe with the patient.

It may be occaſioned by moiſt air, or living in low damp houſes, eſpecially in perſons who are not accuſtomed to ſuch ſituations. In children it often proceeds from imprudently drying up of ſcabbed heads, a running behind the ears, or any other diſcharge of that kind. Inflammations of the eyes often ſucceed the ſmall-pox or meaſles, eſpecially in children of a ſcrophulous habit.

SYMPTOMS.——An inflammation of the eyes is attended with acute pain, heat, redneſs, and ſwelling. The patient is not able to bear the light, and ſometimes he feels a pricking pain, as if his eyes were pierced with a thorn. Sometimes he imagines his eyes are full of motes, or thinks he ſees flies dancing before him. The eyes are filled with a ſcalding rheum, which ruſhes forth in great quantities, whenever the patient attempts to look up. The pulſe is generally quick and hard, with ſome degree of fever. When the diſeaſe is violent, the neighbouring parts ſwell, and there is a throbbing or pulſation in the temporal arteries, &c.

A ſlight inflammation of the eyes, eſpecially from an external cauſe, is eaſily cured; but when the diſeaſe is violent, and continues long, it often leaves ſpecks upon the eyes, or dimneſs of ſight, and ſometimes total blindneſs.

If the patient be ſeized with a looſeneſs, it has a good effect; and when the inflammation paſſes from one eye to another, as it were by infection, it is no unfavourable ſymptom. But when the diſeaſe is accompanied with a violent pain of the head, and continues long, the patient is in danger of loſing his ſight.

REGIMEN.——The diet, unleſs in ſcrophulous caſes, can hardly be too ſpare, eſpecially at the beginning. The patient muſt abſtain from every thing of a heating nature. His food ſhould conſiſt chiefly of mild vegetables, weak broths, and gruels. His drink may be barley-water, balm-tea, common whey, and ſuch like.

The patient's chamber muſt be darkened, or his eyes ſhaded by a cover, ſo as to exclude the light, but not to preſs upon the eyes. He ſhould not look at a candle, the fire, or any luminous object; and ought to avoid all ſmoke, as the fumes of tobacco, or any thing that may cauſe coughing, ſneezing, or vomiting. He ſhould be kept quiet, avoiding all violent efforts, either of body or mind, and encouraging ſleep as much as poſſible.

MEDICINE.——This is one of thoſe diſeaſes wherein great hurt is often done by external applications. Almoſt every perſon pretends to be poſſeſſed of a remedy for the cure of ſore eyes. Theſe remedies generally conſiſt of eye-waters and ointments, with other external applications, which do miſchief twenty times for once they do good. People ought therefore to be very cautious how they uſe ſuch things, as even the preſſure upon the eyes often increaſes the malady.

Bleeding, in a violent inflammation of the eyes, is always neceſſary. This ſhould be performed as near the part affected as poſſible. An adult may loſe ten or twelve ounces of blood from the jugular vein, and the operation may be repeated according to the urgency of the ſymptoms. If it ſhould not be convenient to bleed in the neck, the ſame quantity may be let from the arm, or any other part of the body.

Leeches are often applied to the temples, or under the eyes, with good effect. The wounds muſt be ſuffered to bleed for ſome hours, and if the bleeding ſtop ſoon, it may be promoted by the application of cloths dipt in warm water. In obſtinate caſes, it will be neceſſary to repeat this operation ſeveral times.

Opening and diluting medicines are by no means to be neglected. The patient may take a ſmall doſe of *vitriolated natron* (Glauber's ſalts), and cream of tartar, every ſecond or third day, or a decoction of tamarinds with ſenna. If theſe be not agreeable, gentle doſes of rhubarb and nitre, a little of the lenitive electuary, or any other mild purgative, will anſwer the ſame end. The patient at the ſame time muſt drink freely of water-gruel, tea, whey, or any other weak diluting liquor. He ought likewiſe to take, at bed-time, a large draught of very weak wine-whey, in order to promote perſpiration. His feet and legs muſt frequently be bathed in lukewarm water, and his head

ſhaved twice or thrice a week, and afterwards waſhed in cold water. This has often a remarkably good effect.

If the inflammation does not yield to theſe evacuations, bliſtering-plaſters muſt be applied to the temples, behind the ears, or upon the neck, and kept open for ſome time by the mild bliſtering ointment. I have ſeldom known theſe, if long enough kept open, fail to remove the moſt obſtinate inflammation of the eyes; but for this purpoſe it is often neceſſary to continue the diſcharge for ſeveral weeks.

When the diſeaſe has been of long ſtanding, I have ſeen very extraordinary effects from a ſeton in the neck, or between the ſhoulders, eſpecially the latter. It ſhould be put upwards and downwards, or in the direction of the ſpine, and in the middle between the ſhoulder-blades. It may be dreſſed twice a day with *ointment of yellow wax* (yellow baſilicon). I have known patients, who had been blind for a conſiderable time, recover ſight by means of a ſeton placed as above. When the ſeton is put acroſs the neck, it ſoon wears out, and is both more painful and troubleſome than between the ſhoulders; beſides, it leaves a diſagreeable mark, and does not diſcharge ſo freely.

When the heat and pain of the eyes are very great, a poultice of bread and milk, ſoftened with ſweet oil or freſh butter, may be applied to them, at leaſt all night; and they may be bathed with lukewarm milk and water in the morning.

If the patient cannot ſleep, which is ſometimes the caſe, he may take twenty or thirty drops of laudanum, or two ſpoonfuls of the ſyrup of white poppies, over night, more or leſs according to his age, or the violence of the ſymptoms.

After the inflammation is gone off, if the eyes ſtill remain weak and tender, they may be bathed every night and morning with cold water and a little brandy, ſix parts of the former to one of the latter. A method ſhould be contrived by which the eye can be quite immerſed in the brandy and water, where it ſhould be kept for ſome time. I have generally found this, or cold water and vinegar, as good a ſtrengthener of the eyes as any of the moſt celebrated collyriums.

When an inflammation of the eyes proceeds from a ſcrophulous habit, it generally proves very obſtinate. In this caſe the patient's diet muſt not be too low, and he may be allowed to drink ſmall negus, or now and then a glaſs of wine. The moſt proper medicine is the Peruvian bark, which may either be given in ſubſtance, or prepared in the following manner:

Take an ounce of the *cinchona* in powder, with two drachms of Winter's bark, and boil them in an Engliſh quart of water to a pint: when it has boiled nearly long enough, add half an ounce of liquorice root ſliced. Let the liquor be ſtrained. Two, three, or four table-ſpoonfuls, according to the age of the patient, may be taken three or four times a-day. It is impoſſible to ſay how long this medicine ſhould be continued, as the cure is ſooner performed in ſome than in others; but in general it requires a conſiderable time to produce any laſting effects.

Dr. Cheyne ſays, 'that *quickſilver with ſulphur* (Æthiop's mineral) never fails in obſtinate inflammations of the eyes, even ſcrophulous

ones, if given in a ſufficient doſe, and duly perſiſted in.' There is no doubt but this and other preparations of mercury may be of ſingular ſervice in ophthalmias of long continuance, but they ought always to be adminiſtered with the greateſt caution, or by perſons of ſkill in phyſic.

It will be proper frequently to look into the eyes, to ſee if any hairs be turned inwards, or preſſing upon them. Theſe ought to be removed by plucking them out with a pair of ſmall pincers.

Thoſe who are liable to frequent returns of this diſeaſe ought conſtantly to have an iſſue in one or both arms. Bleeding or purging in the ſpring and autumn will be very beneficial to ſuch perſons. They ought likewiſe to live with the greateſt regularity, avoiding ſtrong liquor and every thing of a heating quality. Above all, let them avoid the night-air and late ſtudies.

As moſt people are fond of uſing eye-waters and ointments in this and other diſeaſes of the eyes, we have inſerted ſome of the moſt approved forms of theſe medicines in the Appendix. See Appendix, *Eye-water* and *Eye-ſalve*.

CHAP. XXVIII.

OF THE QUINSEY, OR INFLAMMATION OF THE THROAT.

THIS diſeaſe is very common in Britain, and is frequently attended with great danger. It prevails in the winter and ſpring, and is moſt fatal to young people of a ſanguine temperament.

CAUSES.——In general it proceeds from the ſame cauſes as other inflammatory diſorders, viz. an obſtructed perſpiration, or whatever heats or inflames the blood. An inflammation of the throat is often occaſioned by omitting ſome part of the covering uſually worn about the neck, by drinking cold liquor when the body is warm, by riding or walking againſt a cold northerly wind, or any thing that greatly cools the throat and parts adjacent. It may likewiſe proceed from the neglect of bleeding, purging, or any cuſtomary evacuation.

Singing, ſpeaking loud and long, or whatever ſtrains the throat, may likewiſe cauſe an inflammation of that organ. I have often known the quinſey prove fatal to jovial companions, who, after ſitting long in a warm room, drinking hot liquors, and ſinging with vehemence, were ſo imprudent as to go abroad in the cold night-air. Sitting with wet feet, or keeping on wet clothes, are very apt to occaſion this malady. It is likewiſe frequently occaſioned by continuing long in a moiſt place, ſitting near an open window, ſleeping in a damp bed, ſitting in a room that has been newly plaſtered, &c. I know people who never fail to have a ſore throat if they ſit even but a ſhort time in a room that has been lately waſhed.

Acrid or irritating food may likewiſe inflame the throat, and occaſion a quinſey. It may alſo proceed from bones, pins, or other ſharp ſubſtances, ſticking in the throat; or from the cauſtic fumes of metals

or minerals, as arſenic, antimony, &c. taken in by the breath. This diſeaſe is ſometimes epidemic and infectious.

SYMPTOMS.——The inflammation of the throat is evident from inſpection, the parts appearing red and ſwelled; beſides, the patient complains of pain in ſwallowing. His pulſe is quick and hard, with other ſymptoms of a fever. If blood be let, it is generally covered with a tough coat of a whitiſh colour, and the patient ſpits a tough phlegm. As the ſwelling and inflammation increaſe, the breathing and ſwallowing become more difficult; the pain affects the ears; the eyes generally appear red; and the face ſwells. The patient is often obliged to keep himſelf in an erect poſture, being in danger of ſuffocation: there is a conſtant nauſea, or inclination to vomit; and the drink, inſtead of paſſing into the ſtomach, is often returned by the noſe. The patient is ſometimes ſtarved at laſt, merely from an inability to ſwallow any kind of food.

When the breathing is laborious with ſtraitneſs of the breaſt, and anxiety, the danger is great. Though the pain in ſwallowing be very great, yet while the patient breathes eaſy, there is not ſo much danger. An external ſwelling is no unfavourable ſymptom; but if it ſuddenly falls, and the diſeaſe affects the breaſt, the danger is very great. When a quinſey is the conſequence of ſome other diſeaſe which has already weakened the patient, his ſituation is dangerous. A frothing at the mouth, with a ſwelled tongue, a pale ghaſtly countenance, and coldneſs of the extremities, are fatal ſymptoms.

REGIMEN.——The regimen in this diſeaſe is in all reſpects the ſame as in the pleuriſy, or peripneumony. The food muſt be light, and in ſmall quantity, and the drink plentiful, weak, and diluting, mixed with acids.

It is highly neceſſary that the patient be kept eaſy and quiet. Violent affections of the mind, or great efforts of the body, may prove fatal. He ſhould not even attempt to ſpeak but in a low voice. Such a degree of warmth as to promote a conſtant, gentle ſweat, is proper. When the patient is in bed, his head ought to be raiſed a little higher than uſual.

It is peculiarly neceſſary that the neck be kept warm: for which purpoſe ſeveral folds of ſoft flannel may be wrapt round it. That alone will often remove a ſlight complaint of the throat, eſpecially if applied in due time. We cannot here omit obſerving the propriety of a cuſtom which prevails among the peaſants in Scotland. When they feel any uneaſineſs of the throat, they wrap a ſtocking about it all night. So effectual is this remedy, that in many places it paſſes for a charm, and the ſtocking is applied with particular ceremonies: the cuſtom, however, is undoubtedly a good one, and ſhould never be neglected. When the throat has been thus wrapped up all night, it muſt not be expoſed to the cold air through the day, but a handkerchief or a piece of flannel kept about it till the inflammation be removed.

The jelly of black currants is a medicine very much in eſteem for complaints of the throat; and indeed it is of ſome uſe. It ſhould be almoſt conſtantly kept in the mouth, and ſwallowed down leiſurely.

It may likewiſe be mixed in the patient's drink, or taken any other way. When it cannot be obtained, the jelly of red currants, or of mulberries, may be uſed in its ſtead.

Gargles for the throat are very beneficial. They may be made of ſage-tea, with a little vinegar and honey, or by adding to half an Engliſh pint of the pectoral decoction two or three ſpoonfuls of honey, and the ſame quantity of currant jelly. This may be uſed three or four times a-day; and if the patient be troubled with tough viſcid phlegm, the gargle may be rendered more ſharp and cleanſing by adding to it a tea-ſpoonful of the ſpirit of *ſal ammoniac*. Some recommend gargles made of a decoction of the leaves of bark of the black currant-buſh; but where the jelly can be had, theſe are unneceſſary.

There is no diſeaſe wherein the benefit of bathing the feet and legs in lukewarm water is more apparent: that practice ought, therefore, never to be neglected. If people were careful to keep warm, to wrap up their throats with flannel, to bathe their feet and legs in warm water, and to uſe a ſpare diet, with diluting liquors, at the beginning of this diſeaſe, it would ſeldom proceed to a great height, or be attended with any danger; but when theſe precautions are neglected, and the diſeaſe becomes violent, it is proper to employ more powerful medicines.

MEDICINE.——An inflammation of the throat being a moſt acute and dangerous diſtemper, which ſometimes takes off the patient very ſuddenly, it will be proper, as ſoon as the ſymptoms appear, to bleed in the arm, or rather in the jugular vein, and to repeat the operation if circumſtances require.

The body ſhould likewiſe be kept gently open. This may either be done by giving the patient for his ordinary drink a decoction of figs and tamarinds, or ſmall doſes of rhubarb and nitre, as recommended in the eryſipelas. Theſe may be increaſed according to the age of the patient, and repeated till they have the deſired effect.

I have often known very good effects from a bit of *ſal prunel*, or purified nitre, held in the mouth, and ſwallowed down as it melted. This promotes the diſcharge of *ſaliva*, by which means it anſwers the end of a gargle, while at the ſame time it abates the fever, by promoting the diſcharge of urine, &c.

The throat ought likewiſe to be rubbed twice or thrice a-day with a little of the volatile liniment. This ſeldom fails to produce ſome good effects. At the ſame time the neck ought to be carefully covered with wool or flannel, to prevent the cold from penetrating the ſkin, as this application renders it very tender. Many other external applications are recommended in this diſeaſe, as a ſwallow's neſt, poultices made of the fungus called Jew's ears, album Græcum, &c. But as we do not look upon any of theſe to be preferable to a common poultice of bread and milk, we ſhall take no farther notice of them.

Dr. Home recommends the gum-guaiacum as a ſpecific in this diſeaſe. Half a drachm of the gum in powder may be made into an

electuary with the rob of elder-berries or the jelly of currants for a doſe, and repeated occaſionally.

Bliſtering upon the neck or behind the ears in violent inflammations of the throat is very beneficial; and in bad caſes it will be neceſſary to lay a bliſtering-plaſter quite acroſs the throat, ſo as to reach from ear to ear. After the plaſters are taken off, the parts ought to be kept running by the application of iſſue ointment, till the inflammation is gone; otherwiſe, upon their drying up, the patient will be in danger of a relapſe.

When the patient has been treated as above, a ſuppuration ſeldom happens. This, however, is ſometimes the caſe, in ſpite of all endeavours to prevent it. When the inflammation and ſwelling continue, and it is evident that a ſuppuration will enſue, it ought to be promoted by drawing the ſteam of warm water into the throat through a tunnel, or the like. Soft poultices ought likewiſe to be applied outwardly, and the patient may keep a roaſted fig conſtantly in his mouth.

It ſometimes happens, before the tumour breaks, that the ſwelling is ſo great, as entirely to prevent any thing from getting down into the ſtomach. In this caſe the patient muſt inevitably periſh, unleſs he can be ſupported in ſome other way. This can only be done by nouriſhing clyſters of broth, or gruel with milk, &c. Patients have often been ſupported by theſe for ſeveral days, till the tumour has broke; and afterwards they have recovered.

Not only the ſwallowing, but the breathing, is often prevented by the tumour. In this caſe nothing can ſave the patient's life but opening the *trachea* or wind-pipe. As that has been often done with ſucceſs, no perſon, in ſuch deſperate circumſtances, ought to heſitate a moment about the operation; but as it can only be performed by a ſurgeon, it is not neceſſary here to give any directions about it.

When a difficulty of ſwallowing is not attended with an acute pain or inflammation, it is generally owing to an obſtruction of the glands about the throat, and only requires that the part be kept warm, and the throat frequently gargled with ſomething that may gently ſtimulate the glands, as a decoction of figs with vinegar and honey; to which may be added a little muſtard, or a ſmall quantity of ſpirits. But this gargle is never to be uſed where there are ſigns of an inflammation. This ſpecies of *angina* has various names among the common people, as *the pap of the throat*, the falling down of the *almonds of the ears*, &c. Accordingly, to remove it, they lift the patient up by the hair of the head, and thruſt their fingers under his jaws, &c.; all which practices are at beſt uſeleſs, and often hurtful.

Thoſe who are ſubject to inflammations of the throat, in order to avoid that diſeaſe, ought to live temperate. Such as do not chooſe to obſerve this rule, muſt have frequent recourſe to purging and other evacuations, to diſcharge the ſuperfluous humours. They ought likewiſe to beware of catching cold, and ſhould abſtain from aliment and medicines of an aſtringent or ſtimulating nature.

Violent exerciſe, by increaſing the motion and force of the blood, is apt to occaſion an inflammation of the throat, eſpecially if cold

liquor be drank immediately after it, or the body ſuffered ſuddenly to cool. Thoſe who would avoid this diſeaſe ought, therefore, after ſpeaking aloud, ſinging, running, drinking warm liquor, or doing any thing that may ſtrain the throat, or increaſe the circulation of the blood towards it, to take care to cool gradually, and to wrap ſome additional covering about their necks.

I have often known perſons who had been ſubject to ſore throats, entirely freed from that complaint by only wearing a riband, or a bit of flannel, conſtantly about their necks, or by wearing thicker ſhoes, a flannel waiſtcoat, or the like. Theſe may ſeem trifling, but they have great effect. There is danger indeed in leaving them off after perſons have been accuſtomed to them; but ſurely the inconveniency of uſing ſuch things for life is not to be compared with the danger which may attend the neglect of them.

Sometimes, after an inflammation, the glands of the throat continue ſwelled, and become hard and callous. This complaint is not eaſily removed, and is often rendered dangerous by the too frequent application of ſtrong ſtimulating and ſyptic medicines. The beſt method is to keep it warm, and to gargle it twice a-day with a decoction of figs ſharpened a little with the elixir of vitriol, or with good vinegar: the vinegar procured from pickled walnuts is excellent for this purpoſe; it may be diluted with water and honey.

OF THE MALIGNANT QUINSEY, OR PUTRID ULCEROUS SORE THROAT.

This kind of quinſey is but little known in the northern parts of Britain, though, for ſome time paſt, it has been fatal in the more ſouthern counties. Children are more liable to it than adults, females than males, and the delicate than thoſe who are hardy and robuſt. It prevails chiefly in autumn, and is moſt frequent after a long courſe of damp or ſultry weather.

CAUSES.——This is evidently a contagious diſtemper, and is generally communicated by infection. Whole families, and even entire villages, often receive the infection from one perſon. This ought to put people upon their guard againſt going near ſuch patients as labour under the diſorder; as by that means they endanger not only their own lives, but likewiſe thoſe of their friends and connexions. Whatever tends to produce putrid or malignant fevers may likewiſe occaſion the putrid ulcerous ſore throat, as unwholeſome air, damaged proviſions, neglect of cleanlineſs, or the like.

SYMPTOMS.——It begins with alternate fits of ſhivering and heat. The pulſe is quick, but low and unequal, and generally continues ſo through the whole courſe of the diſeaſe. The patient complains greatly of weakneſs and oppreſſion of the breaſt; his ſpirits are low, and he is apt to faint away when ſet upright; he is troubled with a naufea, and often with a vomiting or purging. The two latter are moſt common in children. The eyes appear red and watery, and the face ſwells. The urine is at firſt pale and crude; but, as the diſeaſe advances, it turns more of a yellowiſh colour. The tongue is white, and generally moiſt, which diſtinguiſhes this from

an inflammatory diſeaſe. Upon looking into the throat, it appears ſwelled, and of a florid red colour. Pale or aſh-coloured ſpots, however, are here and there interſperſed; and ſometimes one broad patch or ſpot, of an irregular figure, and pale white colour, ſurrounded with florid red, only appears. Theſe whitiſh ſpots or ſloughs cover ſo many ulcers.

An efflorescence or eruption upon the neck, arms, breaſt, and fingers, about the ſecond or third day, is a common ſymptom of this diſeaſe. When it appears, the purging and vomiting generally ceaſe.

There is often a ſlight degree of delirium, and the face frequently appears bloated, and the inſide of the noſtrils red and inflamed. The patient complains of a diſagreeable putrid ſmell, and his breath is very offenſive.

The putrid ulcerous ſore throat may be diſtinguiſhed from the inflammatory by the vomiting and looſeneſs with which it is generally uſhered in; the foul ulcers in the throat covered with a white or livid coat; and by the exceſſive weakneſs of the patient; with other ſymptoms of a putrid fever.

Unfavourable ſymptoms are, an obſtinate purging, extreme weakneſs, dimneſs of the ſight, a livid or black colour of the ſpots, and frequent ſhiverings, with a weak, fluttering pulſe. If the eruption upon the ſkin ſuddenly diſappears, or becomes of a livid colour, with a diſcharge of blood from the noſe or mouth, the danger is very great.

If a gentle ſweat break out about the third or fourth day, and continue with a ſlow, firm, and equal pulſe; if the ſloughs caſt off in a kindly manner, and appear clean and florid at the bottom; and if the breathing is ſoft and free, with a lively colour of the eyes, there is reaſon to hope for a ſalutary criſis. The malignity of this diſeaſe, and the rapidity of its progreſs, render the beſt medical advice neceſſary.

REGIMEN.——The patient muſt be kept quiet, and for the moſt part in bed, as he will be apt to faint when taken out of it. His food muſt be nouriſhing and reſtorative; as ſago gruel with red-wine, jellies, ſtrong broths, &c. His drink ought to be generous, and of an antiſeptic quality; as red-wine negus, white-wine whey, and ſuch like.

MEDICINE.——The medicine in this kind of quinſey is entirely different from that which is proper in the inflammatory. All evacuations, as bleeding, purging, &c. which weaken the patient, muſt be avoided. Cooling medicines, as nitre and cream of tartar, are likewiſe hurtful. If a laxative is neceſſary, give the following:—Simple infuſion of ſenna ſix ounces, *tartarized kali* one ounce; mix, and diſſolve it in powder of *tartarized antimony* two grains. Of this cathartic mixture give the patient four table-ſpoonfuls: the doſe may be repeated every third hour till coſtiveneſs is removed. Strengthening cordials alone can be uſed with ſafety, and theſe ought never to be neglected.

If at the beginning there is a great nauſea, or inclination to vomit, the patient muſt drink an infuſion of green-tea, camomile-flowers, or *carduus benedictus*, in order to cleanſe the ſtomach. If theſe are not ſufficient, he may take a few grains of the powder of ipecacuanha, or any other gentle vomit.

If the diſeaſe is mild, the throat may be gargled with an infuſion of ſage and roſe leaves; to a gill of which may be added a ſpoonful or two of honey, and as much vinegar as will make it agreeably acid; but when the ſymptoms are urgent, the ſloughs large and thick, and the breath very offenſive, the following gargle may be uſed:

To ſix or ſeven ounces of the pectoral decoction, when boiling, add half an ounce of contrayerva-root; let it boil for ſome time, and afterwards ſtrain the liquor; to which add two ounces of white-wine vinegar, an ounce of fine honey, and an ounce of the tincture of myrrh. This ought not only to be uſed as a gargle, but a little of it ſhould frequently be injected with a ſyringe to clean the throat, before the patient takes any meat or drink. This method is peculiarly neceſſary for children, who cannot uſe a gargle.

It will be of great benefit if the patient frequently receives into his mouth, through an inverted funnel, the ſteams of warm vinegar, myrrh, and honey.

But when the putrid ſymptoms run high, and the diſeaſe is attended with danger, the only medicine that can be depended upon is the Peruvian bark. It may be taken in ſubſtance, if the patient's ſtomach will bear it. If not, an ounce of bark groſsly powdered, with two drachms of Virginian ſnake-root, may be boiled in an Engliſh pint and a half of water to half a pint; to which a tea-ſpoonful of the elixir of vitriol may be added, and an ordinary tea-cupful of it taken every three or four hours. Bliſtering-plaſters are very beneficial in this diſeaſe, eſpecially when the patient's pulſe and ſpirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Should the vomiting prove troubleſome, it will be proper to give the patient two table-ſpoonfuls of the ſaline julep every hour. Tea made of mint and a little cinnamon will be very proper for his ordinary drink, eſpecially if an equal quantity of red-port wine be mixed with it; or red-wine negus may be taken freely.

In caſe of a violent looſeneſs, the ſize of a nutmeg of the *ſyrup of white poppies*, or the *confection of catechu*, may be taken two or three times a-day, or oftener if neceſſary.

If a diſcharge of blood from the noſe happens, the ſteams of warm vinegar may be received up the noſtrils frequently; and the drink muſt be ſharpened with *acid of vitriol*, or *infuſion of roſes*.

In caſe of a ſtrangury, the belly muſt be fomented with warm water, and emollient clyſters given three or four times a-day.

After the violence of the diſeaſe is over, the body ſhould ſtill be kept open with mild purgatives; as manna, ſenna, rhubarb, or the like.

If great weakneſs and dejection of ſpirits, or night-ſweats, with other ſymptoms of a conſumption, ſhould enſue, we would adviſe

the patient to continue the uſe of the Peruvian bark, with the elixir of vitriol, and to take frequently a glaſs of generous wine. Theſe, together with a milk diet, and riding on horſeback, are the moſt likely means for recovering his ſtrength.

CHAP. XXIX.

OF COLDS AND COUGHS.

IT has already been obſerved, that colds are the effect of an obſtructed perſpiration; the common cauſes of which we have likewiſe endeavoured to point out, and ſhall not here repeat them. Neither ſhall we ſpend time in enumerating all the various ſymptoms of colds, as they are pretty generally known. It may not, however, be amiſs to obſerve, that almoſt every cold is a kind of fever, which only differs in degree from ſome of thoſe that have already been treated of.

No age, ſex, or conſtitution, is exempted from this diſeaſe; neither is it in the power of any medicine or regimen to prevent it. The inhabitants of every climate are liable to catch cold, nor can even the greateſt circumſpection defend them at all times from its attacks. Indeed, if the human body could be kept conſtantly in an uniform degree of warmth, ſuch a thing as catching cold would be impoſſible; but as that cannot be effected by any means, the perſpiration muſt be liable to many changes. Such changes, however, when ſmall, do not affect the health; but, when great, they muſt prove hurtful.

When oppreſſion of the breaſt, a ſtuffing of the noſe, unuſual wearineſs, pain of the head, &c. give ground to believe that the perſpiration is obſtructed, or, in other words, that the perſon has caught cold, he ought immediately to leſſen his diet, at leaſt the uſual quantity of his ſolid food, and to abſtain from all ſtrong liquors. Inſtead of fleſh, fiſh, eggs, milk, and other nouriſhing diet, he may eat light bread-pudding, veal or chicken broth, panado, gruels, and ſuch like. His drink may be water-gruel ſweetened with a little honey; an infuſion of balm, or linſeed ſharpened with the juice of orange or lemon; a decoction of barley and liquorice, with tamarinds, or any other cool, diluting, acid liquor.

Above all, his ſupper ſhould be light; as ſmall poſſet, or water-gruel ſweetened with honey, and a little toaſted bread in it. If honey ſhould diſagree with the ſtomach, the gruel may be ſweetened with treacle or coarſe ſugar, and ſharpened with the jelly of currants. Thoſe who have been accuſtomed to generous liquors may take wine-whey inſtead of gruel, which may be ſweetened as above.

The patient ought to lie longer than uſual-a-bed, and to encourage a gentle ſweat, which is eaſily brought on towards morning, by drinking tea, or any kind of warm diluting liquor. I have often known this practice carry off a cold in one day, which in all probability, had it been neglected, would have coſt the patient his life, or

have confined him for ſome months. Would people ſacrifice a little time to eaſe and warmth, and practiſe a moderate degree of abſtinence when the firſt ſymptoms of a cold appear, we have reaſon to believe that moſt of the bad effects which flow from an obſtructed perſpiration might be prevented. But, after the diſeaſe has gathered ſtrength by delay, all attempts to remove it often prove vain. A pleuriſy, a peripneumony, or a fatal conſumption of the lungs, are the common effects of colds which have either been totally neglected or treated improperly.

Many attempt to cure a cold by getting drunk: but this, to ſay no worſe of it, is a very hazardous experiment. No doubt it may ſometimes ſucceed, by ſuddenly reſtoring the perſpiration: but when there is any degree of inflammation, which is frequently the caſe, ſtrong liquors, inſtead of removing the malady, will increaſe it. By this means a common cold may be converted into an inflammatory fever.

When thoſe who labour for their daily bread have the misfortune to catch cold, they cannot afford to loſe a day or two, in order to keep themſelves warm, and take a little medicine; by which means the diſorder is often ſo aggravated as to confine them for a long time, or even to render them ever after unable to ſuſtain hard labour. But even ſuch of the labouring poor as can afford to take care of themſelves, are often too hardy to do it; they affect to deſpiſe colds, and as long as they can crawl about, ſcorn to be confined by what they call a *common cold*. Hence it is, that colds deſtroy ſuch numbers of mankind. Like an enemy deſpiſed, they gather ſtrength from delay, till at length they become invincible. We often ſee this verified in travellers, who, rather than loſe a day in the proſecution of their buſineſs, throw away their lives by purſuing their journey, even in the ſevereſt weather, with this diſeaſe upon them.

It is certain, however, that colds may be too much indulged.—When a perſon, for every ſlight cold, ſhuts himſelf up in a warm room, and drinks great quantities of warm liquor, it may occaſion ſuch a general relaxation of the ſolids as will not be eaſily removed. It will therefore be proper, when the diſeaſe will permit, and the weather is mild, to join to the regimen mentioned above gentle exerciſe; as walking, riding on horſeback, or in a carriage, &c. An obſtinate cold, which no medicine can remove, will yield to gentle exerciſe and a proper regimen of the diet.

Bathing the feet and legs in warm water has a great tendency to reſtore the perſpiration. But care muſt be taken that the water be not too warm, otherwiſe it will do hurt. It ſhould never be much warmer than the blood, and the patient ſhould go immediately to bed after uſing it. Bathing the feet in warm water, lying in bed, and drinking warm water-gruel, or other weak liquors, will ſooner take off a ſpaſm, and reſtore the perſpiration, than all the hot ſudorific medicines in the world. This is all that is neceſſary for removing a common cold; and if this courſe be taken at the beginning, it will ſeldom fail.

But when the ſymptoms do not yield to abſtinence, warmth, and diluting liquors, there is reaſon to fear the approach of ſome other diſeaſe, as an inflammation of the breaſt, an ardent fever, or the like. If the pulſe therefore be hard and frequent, the ſkin hot and dry, and the patient complains of his head or breaſt, it will be neceſſary to bleed, and to give the cooling powders recommended in the ſcarlet fever, every three or four hours, till they give a ſtool.

It will likewiſe be proper to put a bliſtering-plaſter on the back, to give two table-ſpoonfuls of the ſaline mixture every two hours, and in ſhort to treat the patient in all reſpects as for a ſlight fever. I have often ſeen this courſe, when obſerved at the beginning, remove the complaint in two or three days, when the patient had all the ſymptoms of an approaching ardent fever, or an inflammation of the breaſt.

The chief ſecret of preventing colds lies in avoiding, as far as poſſible, all extremes either of heat or cold, and in taking care, when the body is heated, to let it cool gradually. Theſe and other circumſtances relating to this important ſubject are ſo fully treated of under the article *Obſtructed Perſpiration*, that it is needleſs here to reſume the conſideration of them.

OF A COMMON COUGH.

A COUGH is generally the effect of a cold which has either been improperly treated, or entirely neglected. When it proves obſtinate, there is always reaſon to fear the conſequences, as this ſhews a weak ſtate of the lungs, and is often the forerunner of a conſumption.

If the cough be violent, and the patient young and ſtrong, with a hard quick pulſe, bleeding will be proper; but in weak and relaxed habits, bleeding rather prolongs the diſeaſe. When the patient ſpits freely, bleeding is unneceſſary, and ſometimes hurtful, as it tends to leſſen that diſcharge.

When the cough is not attended with any degree of fever, and the ſpittle is viſcid and tough, ſharp pectoral medicines are to be adminiſtered; as gum-ammoniac, ſquills, &c. Two table-ſpoonfuls of the ſolution of gum-ammoniac may be taken three or four times a-day, more or leſs, according to the age and conſtitution of the patient. Squills may be given various ways: two ounces of the vinegar, the oxymel, or the ſyrup, may be mixed with the ſame quantity of ſimple cinnamon-water, to which may be added an ounce of common water and an ounce of balſamic ſyrup. Two table-ſpoonfuls of this mixture may be taken three or four times a-day.

A ſyrup made of equal parts of lemon-juice, honey, and ſugar-candy, is likewiſe very proper in this kind of cough. A table-ſpoonful of it may be taken at pleaſure.

But when the defluxion is ſharp and thin, theſe medicines rather do hurt. In this caſe gentle opiates, oils, and mucilages, are more proper. A cup of an infuſion of wild poppy-leaves and marſh-mallow roots, or the flowers of colts-foot, may be taken frequently; or a tea-ſpoonful of the paregoric elixir may be put into the patient's drink twice a-day. Fuller's *Spaniſh infuſion* (ſee the Appendix) is

alſo a very proper medicine in this caſe, and may be taken in the quantity of a tea-cupful three or four times a-day.

When a cough is occaſioned by acrid humours tickling the throat and *fauces*, the patient ſhould keep ſome ſoft pectoral lozenges almoſt conſtantly in his mouth; as the Pontefract liquorice cakes, barley-ſugar, the common balſamic lozenges, Spaniſh juice, &c. Theſe blunt the acrimony of the humours, and, by taking off their ſtimulating quality, help to appeaſe the cough.

In the fifth edition of this book I recommended, for an obſtinate tickling cough, an oily emulſion, made with the paregoric elixir, or *camphorated tincture of opium*, of the Edinburgh Diſpenſatory, inſtead of the common alkaline ſpirit. I have ſince been told by ſeveral practitioners, that they found it to be an excellent medicine in this diſorder, and every way deſerving of the character which I had given it. Where this elixir is not kept, its place may be ſupplied by adding to the common oily emulſion an adequate proportion of the *thebaic tincture*, or liquid laudanum.

In obſtinate coughs, proceeding from a flux of humours upon the lungs, it will often be neceſſary, beſides expectorating medicines, to have recourſe to iſſues, ſetons, or ſome other drain. In this caſe I have often obſerved the moſt happy effects from a Burgundy-pitch plaſter applied between the ſhoulders. I have ordered this ſimple remedy in the moſt obſtinate coughs, in a great number of caſes, and in many different conſtitutions, without ever knowing it fail to give relief, unleſs where there were evident ſigns of an ulcer in the lungs.

About the bulk of a nutmeg of Burgundy-pitch may be ſpread thin upon a piece of ſoft leather, about the ſize of the hand, and laid between the ſhoulder blades. It may be taken off, and wiped every three or four days, and ought to be renewed once a fortnight or three weeks. This is indeed a cheap and ſimple medicine, and conſequently apt to be deſpiſed; but we will venture to affirm, that the whole *materia medica* does not afford an application more efficacious in almoſt every kind of cough. It has not indeed always an immediate effect; but, if kept on for ſome time, it will ſucceed where moſt other medicines fail.

The only inconveniency attending this plaſter is the itching which it occaſions; but ſurely this may be diſpenſed with, conſidering the advantage which the patient may expect to reap from the application; beſides, when the itching becomes very uneaſy, the plaſter may be taken off, and the part rubbed with a dry cloth, or waſhed with a little warm milk and water. Some caution indeed is neceſſary in diſcontinuing the uſe of ſuch a plaſter; this however may be ſafely done by making it ſmaller by degrees, and at length quitting it altogether in a warm ſeaſon.

Some complain that the pitch plaſter adheres too faſt, while others find difficulty in keeping it on. This proceeds from the different kinds of pitch made uſe of, and likewiſe from the manner of making it. I generally find it anſwer beſt when mixed with a little bees-wax, and ſpread as cool as poſſible. The clear, hard, tranſparent pitch anſwers the purpoſe beſt.

But coughs proceed from many other cauſes beſides defluxions upon the lungs. In theſe caſes the cure is not to be attempted by pectoral medicines. Thus, in a cough proceeding from a foulneſs and debility of the ſtomach, ſyrups, oils, mucilages, and all kinds of balſamic medicines, do hurt. The *ſtomach cough* may be known from one that is owing to a fault in the lungs by this, that in the latter the patient coughs whenever he inſpires, or draws in his breath fully; but in the former that does not happen.

The cure of this cough depends chiefly upon cleanſing and ſtrengthening the ſtomach; for which purpoſe gentle vomits and bitter purgatives are moſt proper. Thus, after a vomit or two, the ſacred tincture, as it is called, may be taken for a conſiderable time in the doſe of one or two table-ſpoonfuls twice a-day, or as often as it is found neceſſary, to keep the body gently open. People may make this tincture themſelves, by infuſing an ounce of *hiera picra*, i. e. the *aloetic powder with canella*, mentioned in the Appendix, in an Engliſh pint of white-wine, letting it ſtand a few days, and then ſtraining it.

In coughs which proceed from a debility of the ſtomach, the Peruvian bark is likewiſe of conſiderable ſervice. It may either be chewed, taken in powder, or made into a tincture along with other ſtomachic bitters.

A nervous cough can only be removed by change of air and proper exerciſe; to which may be added the uſe of gentle opiates. Inſtead of the ſaponaceous pill, the paregoric elixir, &c. which are only opium diſguiſed, ten, fifteen, twenty or twenty-five drops of liquid laudanum, moſt or leſs, as circumſtances require, may be taken at bed-time, or when the cough is moſt troubleſome. Immerſing the feet and hands in warm water will often appeaſe the violence of a nervous cough.

When a cough is only the ſymptom of ſome other malady, it is in vain to attempt to remove it without firſt curing the diſeaſe from which it proceeds. Thus, when a cough is occaſioned by *teething*, keeping the body open, ſcarifying the gums, or whatever facilitates the cutting of the teeth, likewiſe appeaſes the cough. In like manner, when *worms* occaſion a cough, ſuch medicines as remove theſe vermin will generally cure the cough; as bitter purgatives, oily clyſters, and ſuch like.

Women, during the laſt months of pregnancy, are often greatly afflicted with a cough, which is generally relieved by bleeding, and keeping the body gently open. They ought to avoid all flatulent food, and to wear a looſe eaſy dreſs.

A cough is not only a ſymptom, but is often likewiſe the forerunner, of diſeaſes. Thus, the gout is frequently uſhered in by a very troubleſome cough, which affects the patient for ſome days before the coming on of the fit. This cough is generally removed by a paroxyſm of the gout, which ſhould therefore be promoted by keeping the extremities warm, drinking warm liquors, and bathing the feet and legs frequently in lukewarm water.

OF THE HOOPING-COUGH, OR CHIN-COUGH.

This cough ſeldom affects adults, but proves often fatal to children. Such children as live upon thin watery diet, who breathe unwholeſome air, and have too little exerciſe, are moſt liable to this diſeaſe, and generally ſuffer moſt from it.

The chin-cough is ſo well known, even to nurſes, that a deſcription of it is unneceſſary. Whatever hurts the digeſtion, obſtructs the perſpiration, or relaxes the ſolids, diſpoſes to this diſeaſe; conſequently its cure muſt depend upon cleanſing and ſtrengthening the ſtomach, bracing the ſolids, and at the ſame time promoting perſpiration and the different ſecretions.

The diet muſt be light, and of eaſy digeſtion: for children, good bread made into pap or pudding; chicken broth, with other light ſpoon meats, are proper; but thoſe who are farther advanced may be allowed ſago-gruel, and, if the fever be not high, a little boiled chicken, or other white meats. The drink may be hyſſop or penny-royal tea, ſweetened with honey or ſugar-candy, ſmall wine-whey; or if the patient be weak, he may ſometimes be allowed a little negus.

One of the moſt effectual remedies in the chin-cough is change of air. This often removes the malady, even when the change ſeems to be from a purer to a leſs wholeſome air. This may in ſome meaſure depend on the patient's being removed from the place where the infection prevails. Moſt of the diſeaſes of children are infectious; nor is it at all uncommon to find the chin-cough prevailing in one town or village, when another, at a very ſmall diſtance, is quite free from it. But whatever be the cauſe, we are ſure of the fact. No time ought, therefore, to be loſt in removing the patient at ſome diſtance from the place where he caught the diſeaſe, and, if poſſible, into a more pure and warm air. Patients have been known to reap benefit from a change of air at all periods of the diſeaſe. It is not ſufficient to take the patient out daily in a carriage. This ſeldom anſwers any good purpoſe, but often does hurt, by giving him cold.

When the diſeaſe proves violent, and the patient is in danger of being ſuffocated by the cough, he ought to be bled, eſpecially if there be a fever with a hard full pulſe. But as the chief intention of bleeding is to prevent an inflammation of the lungs, and to render it more ſafe to give vomits, it will ſeldom be neceſſary to repeat the operation; yet if there are ſymptoms of an inflammation of the lungs, a ſecond or even a third bleeding may be requiſite.

It is generally reckoned a favourable ſymptom when a fit of coughing makes the patient vomit. This cleanſes the ſtomach, and greatly relieves the cough. It will therefore be proper to promote this diſcharge either by ſmall doſes of ipecacuanha, or the vomiting julep recommended in the Appendix.

It is very difficult to make children drink after a vomit. I have often ſeen them happily deceived, by infuſing a ſcruple or half a drachm of the powder of ipecacuanha in a tea-pot, with half an Engliſh pint of boiling water. If this be diſguiſed with a few drops of milk and a little ſugar, they will imagine it tea, and drink it very greedily,

A ſmall tea-cupful of this may be given every quarter of an hour, or rather every ten minutes, till it operates. When the child begins to puke, there will be no occaſion for drinking any more, as the water already on the ſtomach will be ſufficient.

Vomits not only cleanſe the ſtomach, which in this diſeaſe is generally loaded with viſcid phlegm, but they likewiſe promote the perſpiration and other ſecretions, and ought therefore to be repeated according to the obſtinacy of the diſeaſe. They ſhould not however be ſtrong: gentle vomits frequently repeated are both leſs dangerous and more beneficial than ſtrong ones.

The body ought to be kept gently open. The beſt medicines for this purpoſe are rhubarb and its preparations, as the ſyrup, tincture, &c. Of theſe a tea-ſpoonful or two may be given to an infant twice or thrice a-day, as there is occaſion. To ſuch as are farther advanced, the doſe muſt be proportionally increaſed, and repeated till it has the deſired effect. Thoſe who cannot be brought to take the bitter tincture, may have an infuſion of ſenna and prunes, ſweetened with manna, coarſe ſugar, or honey; or a few grains of rhubarb mixed with a tea-ſpoonful or two of ſyrup, or currant jelly, ſo as to diſguiſe the taſte. Moſt children are fond of ſyrups and jellies, and ſeldom refuſe even a diſagreeable medicine when mixed with them.

Many people believe that oily, pectoral, and balſamic medicines poſſeſs wonderful virtues for the cure of the chin-cough, and accordingly exhibit them plentifully to patients of every age and conſtitution, without conſidering that every thing of this nature muſt load the ſtomach, hurt the digeſtion, and of courſe aggravate the diſorder.

Dr. Duplanil ſays, he has ſeen many good effects from the kermes mineral in this complaint, the cough being frequently alleviated even by the firſt doſe. The doſe for a child of one year old is a quarter of a grain diſſolved in a cup of any liquid, repeated two or three times a-day. For a child of two years, the doſe is half a-grain; and the quantity muſt be thus increaſed in proportion to the age of the patient.

The *millepedes*, or wood-lice, are greatly recommended for the cure of the chin-cough. Thoſe who chooſe to make uſe of theſe inſects, may infuſe two ounces of them bruiſed in an Engliſh pint of ſmall white wine for one night. Afterwards the liquor may be ſtrained through a cloth, and a table-ſpoonful of it given to the patient three or four times a-day.

Opiates are ſometimes neceſſary to allay the violence of the cough. For this purpoſe a little of the ſyrup of poppies, or five, ſix, or ſeven drops of laudanum, according to the age of the patient, may be taken in a cup of hyſſop or pennyroyal tea, and repeated occaſionally.

Some recommend the extract of hemlock as an extraordinary remedy in the hooping-cough; but ſo far as I have been able to obſerve, it is no way ſuperior to opium, which, when properly adminiſtered, will often relieve ſome of the moſt troubleſome ſymptoms of this diſorder.

The garlic ointment is a well known remedy in North Britain for the chin-cough. It is made by beating in a mortar garlic with an equal quantity of hogs lard. With this the ſoles of the feet may be

rubbed twice or thrice a-day; but the beſt method is to ſpread it upon a rag, and apply it in the form of plaſter. It ſhould be renewed every night and morning at leaſt, as the garlic ſoon loſes its virtue. This is an exceedingly good medicine both in the chin-cough, and in moſt other coughs of an obſtinate nature. For the latter it was recommended by an Engliſh writer upwards of one hundred and fifty years ago. It ought not however to be uſed when the patient is very hot or feveriſh, leſt it ſhould increaſe theſe ſymptoms.

The feet ſhould be bathed once every two or three days in luke-warm water; and a Burgundy-pitch plaſter kept conſtantly between the ſhoulders. But when the diſeaſe proves very violent, it will be neceſſary, inſtead of it, to apply a bliſtering plaſter, and to keep the part open for ſome time with iſſue-ointment.

When the diſeaſe is prolonged, and the patient is free from a fever, the Peruvian bark, and other bitters, are the moſt proper medicines. The cinchona may either be taken in ſubſtance, or in a decoction or infuſion, as is moſt agreeable. For a child, ten, fifteen, or twenty grains, according to the age of the patient, may be given three or four times a-day. For an adult, half a drachm or two ſcruples will be proper. Some give the extract of the bark (cinchona) with cantharides; but to manage this requires a conſiderable attention. It is more ſafe to give a few grains of caſtor along with the bark. A child of ſix or ſeven years of age may take ſeven or eight grains of caſtor, with fifteen grains of powdered bark, for a doſe. This may be made into a mixture with two or three ounces of any ſimple diſtilled water, and a litle ſyrup, and taken three or four times a-day.

The hooping-cough being evidently a ſpaſmodic diſeaſe, it is probable that tonic medicines will be found the moſt proper to complete its cure.

As it is now very common to employ embrocations for the relief of patients labouring under this diſeaſe, we ſubjoin the following formula, which is probably equally as uſeful as any of thoſe that have hitherto been offered to the public. Take an equal quantity of old rum and ſpirit of turpentine, and mix well; rub the ſpine or back bone from top to bottom, a quarter of an hour or twenty minutes, before the fire. It is aſſerted that if an emetic is occaſionally given to looſen the phlegm, the hooping will ſoon be entirely eradicated. We muſt, however, recommend the occaſional exhibition of a cathartic, ſuited to the age and ſtrength of the patient, to cleanſe the inteſtines.

CHAP. XXX.

INFLAMMATION OF THE STOMACH AND OTHER VISCERA.

ALL inflammations of the bowels are dangerous, and require the moſt ſpeedy aſſiſtance; as they frequently end in a ſuppuration, and ſometimes in a mortification, which is certain death.

CAUSES.——An inflammation of the ſtomach may proceed from

any of the cauſes which produce an inflammatory fever; as cold liquor drank while the body is warm, obſtructed perſpiration, or the ſudden ſtriking in of any eruption. It may likewiſe proceed from the acrimony of the bile, or from acrid and ſtimulating ſubſtances taken into the ſtomach; as ſtrong vomits or purges, corroſive poiſons, ſuddenly paſſing from a cold atmoſphere into a warm room, and ſuch like. When the gout has been repelled from the extremities, either by cold or improper applications, it often occaſions an inflammation of the ſtomach. Hard or indigeſtible ſubſtances taken into the ſtomach, as bones, the ſtones of fruits, &c. may likewiſe have that effect.

SYMPTOMS.——It is attended with a fixed pain and burning heat in the ſtomach; great reſtleſſneſs and anxiety; a ſmall, quick, and hard pulſe; vomiting, or at leaſt a nauſea and ſickneſs; exceſſive thirſt; coldneſs of the extremities; difficulty of breathing; cold clammy ſweats; and ſometimes convulſions and fainting fits. The ſtomach is ſwelled, and often feels hard to the touch. One of the moſt certain ſigns of this diſeaſe is the ſenſe of pain which the patient feels upon taking any kind of food or drink, eſpecially if it be either too hot or too cold.

When the patient vomits every thing he eats or drinks, is extremely reſtleſs, has a hiccup, with an intermitting pulſe, and frequent fainting fits, delirium, or convulſions, the danger is very great.

REGIMEN.——All acrimonious, heating, and irritating food and drink are carefully to be avoided. The weakneſs of the patient may deceive the byſtanders, and induce them to give him wines, ſpirits, or other cordials; but theſe never fail to increaſe the diſeaſe, and often occaſion ſudden death. The inclination to vomit may likewiſe impoſe on the attendants, and make them think a vomit neceſſary; but that too is almoſt certain death.

The food muſt be light, thin, cool, and eaſy of digeſtion. It muſt be given in ſmall quantities, and ſhould neither be quite cold nor too hot. Thin gruel made of barley or oatmeal, light toaſted bread diſſolved in boiling water, or very weak chicken broth, are the moſt proper. The drink ſhould be clear whey, barley-water, water in which toaſted bread has been boiled, or decoctions of emollient vegetables, as liquorice and marſh-mallow roots, ſarſaparilla, or the like.

MEDICINE.——Bleeding in this diſeaſe is abſolutely neceſſary, and is almoſt the only thing that can be depended on. When the diſeaſe proves obſtinate, it will often be proper to repeat this operation ſeveral times, nor muſt the low ſtate of the pulſe deter us from doing ſo. The pulſe indeed generally riſes upon bleeding, and as long as that is the caſe, the operation is ſafe.

Frequent fomentations with lukewarm water, or a decoction of emollient vegetables, are likewiſe beneficial. Flannel cloths dipped in theſe muſt be applied to the region of the ſtomach, and removed as they grow cool. They muſt neither be applied too warm, nor be ſuffered to continue till they become quite cold, as either of theſe extremes would aggravate the diſeaſe.

The feet and legs ought likewiſe to be frequently bathed in luke-

warm water, and warm bricks or poultices may be applied to the ſoles of the feet. The warm bath, if it can be conveniently uſed, will be of great ſervice.

In this, and all other inflammations of the bowels, an epiſpaſtic, or bliſtering-plaſter, applied over the part affected, is one of the beſt remedies I know. I have often uſed it, and do not recollect one inſtance wherein it did not give relief to the patient.

The only internal medicines which we ſhall venture to recommend in this diſeaſe, are mild clyſters. Theſe may be made of warm water, or thin water-gruel; and if the patient is coſtive, a little ſweet oil, honey, or manna, may be added. Clyſters anſwer the purpoſe of an internal fomentation, while they keep the body open, and at the ſame time nouriſh the patient, who is often in this diſeaſe unable to retain any food upon his ſtomach. For theſe reaſons they muſt not be neglected, as the patient's life may depend on them. When the diſeaſe is to all appearance entirely removed, the greateſt care will be neceſſary for a conſiderable time afterwards, leſt a relapſe ſhould be induced.

INFLAMMATION OF THE INTESTINES.

This is one of the moſt painful and dangerous diſeaſes that mankind is liable to. It generally proceeds from the ſame *cauſes* as the inflammation of the ſtomach; to which may be added coſtiveneſs, worms, eating unripe fruits or great quantities of nuts, drinking hard windy malt liquors, as ſtale bottled beer or ale, ſour wine, cyder, &c. It may likewiſe be occaſioned by a rupture, by ſchirrous tumours of the inteſtines, or by their oppoſite ſides growing together.

The inflammation of the inteſtines is denominated *Iliac paſſion*, *Enteritis*, &c. according to the name of the parts affected. The treatment however is nearly the ſame, whatever part of the inteſtinal canal be the ſeat of the diſeaſe; we ſhall therefore omit theſe diſtinctions, leſt they ſhould perplex the reader.

The *ſymptoms* here are nearly the ſame as in the foregoing diſeaſe; only the pain, if poſſible, is more acute, and is ſituated lower. The vomiting is likewiſe more violent, and ſometimes even the excrements, together with the clyſters, are diſcharged by the mouth. The patient is continually belching up wind, and has often an obſtruction of his urine, tenſion of the belly, and obſtinate coſtiveneſs.

While the pain ſhifts, and the vomiting only returns at certain intervals, and while the clyſters paſs downwards, there is ground for hope; but when the clyſters and *fæces* are vomited, and the patient is exceeding weak, with a low fluttering pulſe, a pale countenance, and a diſagreeable or ſtinking breath, there is great reaſon to fear that the conſequences will prove fatal. Clammy ſweats, black fœtid ſtools, with a ſmall intermitting pulſe, and a total ceſſation of pain, are ſigns of a mortification already begun, and of approaching death.

REGIMEN.——The regimen in this diſeaſe is in general the ſame as in an inflammation of the ſtomach. The patient muſt be kept quiet, avoiding cold, and all violent paſſions of the mind. His food ought to be very light, and given in ſmall quantities; his drink weak and diluting; as clear whey, barley-water, and ſuch like.

MEDICINE.——Bleeding in this, as well as in the inflammation of the ſtomach, is of the greateſt importance. It ſhould be performed as ſoon as the ſymptoms appear, and muſt be repeated according to the ſtrength of the patient, and the violence of the diſeaſe.

A bliſtering-plaſter is here likewiſe to be applied immediately over the part where the moſt violent pain is. This not only relieves the pain of the bowels, but even clyſters and purgative medicines, which before had no effect, will operate when the bliſter begins to riſe.

Fomentations and laxative clyſters are by no means to be omitted. The patient's feet and legs ſhould frequently be bathed in warm water, and cloths dipped in it applied to his belly. Bladders filled with warm water may likewiſe be applied to the region of the navel, and warm bricks, or bottles filled with warm water, to the ſoles of the feet. The clyſters may be made of barley-water, or thin gruel with ſalt, and ſoftened with ſweet oil or freſh butter. Theſe may be adminiſtered every two or three hours, or oftener, if the patient continues coſtive.

If the diſeaſe does not yield to clyſters and fomentations, recourſe muſt be had to pretty ſtrong purgatives: but as theſe, by irritating the bowels, often increaſe their contraction, and by that means fruſtrate their own intention, it will be neceſſary to join them with opiates, which by allaying the pain, and relaxing the ſpaſmodic contractions of the guts, greatly aſſiſt the operation of purgatives in this caſe.

What anſwers the purpoſe of opening the body very well is a ſolution of *vitriolated magneſia* (the bitter purging ſalts). Two ounces of theſe may be diſſolved in an Engliſh pint of warm water, or thin gruel, and a tea-cupful of it taken every half hour till it operates. At the ſame time fifteen, twenty, or twenty-five drops of laudanum may be given in a glaſs of peppermint or ſimple cinnamon-water, to appeaſe the irritation, and prevent the vomiting and convulſive motions of the inteſtines.

Acids have often a very happy effect in ſtaying the vomiting and appeaſing the other violent ſymptoms of this diſeaſe. It will therefore be of uſe to ſharpen the patient's drink with cream of tartar, juice of lemon, or, when theſe cannot be obtained, with vinegar.

But it often happens that no liquor whatever will ſtay on the ſtomach. In this caſe the patient muſt take purging pills. I have generally found the following anſwer very well: Take jalap in powder and *vitriolated kali*, of each half a drachm, opium one grain, Caſtile ſoap as much as will make the maſs fit for pills. Theſe muſt be taken at one doſe, and if they do not operate in a few hours, the doſe may be repeated.

If a ſtool cannot be procured by any of the above means, it will be neceſſary to immerſe the patient in warm water up to the breaſt. I have often ſeen this ſucceed when other means had been tried in vain. The patient muſt continue in the water as long as he can eaſily bear it without fainting, and if one immerſion has not the deſired effect, it may be repeated as ſoon as the patient's ſtrength and ſpirits are recruited. It is more ſafe for him to go frequently into the bath,

than to continue too long at a time; and it is often neceſſary to repeat it ſeveral times before it has the deſired effect.

It has ſometimes happened, after all other means of procuring a ſtool had been tried to no purpoſe, that this was brought about by immerſing the patient's lower extremities in cold water, or making him walk upon a wet pavement, and daſhing his legs and thighs with the cold water. This method, when others fail, at leaſt merits a trial. It is indeed attended with ſome danger, but a doubtful remedy is better than none.

In deſperate caſes it is common to give quickſilver. This may be given to the quantity of ſeveral ounces, or even a pound; but ſhould not exceed that. But when quickſilver is given in too large quantities, it defeats its own intention, as it drags down the bottom of the ſtomach, which prevents it getting over the pylorus. In this caſe the patient ſhould be hung up by the heels, in order that the quickſilver may be diſcharged by his mouth. When there is reaſon to ſuſpect a mortification of the guts, this medicine ought not to be tried. In that caſe it cannot cure the patient, and will only haſten his death. But when the obſtruction is occaſioned by any cauſe that can be removed by force, quickſilver is not only a proper medicine, but the beſt that can be adminiſtered, as it is the fitteſt body we know for making its way through the inteſtinal canal.

If the diſeaſe proceeds from a rupture, the patient muſt be laid with his head very low, and the inteſtines returned by gentle preſſure with the hand. If this, with fomentations and clyſters, ſhould not ſucceed, recourſe muſt be had to a ſurgical operation, which may give the patient relief.

Such as would avoid this excruciating and dangerous diſeaſe, muſt take care never to be too long without a ſtool. Some who have died of it have had ſeveral pounds of hard dry *fæces* taken out of their guts. They ſhould likewiſe beware of eating too freely of ſour or unripe fruits, or drinking ſtale windy liquors, &c. I have known it brought on by living too much on baked fruits, which are ſeldom good. It likewiſe proceeds frequently from cold caught by wet clothes, &c. but eſpecially from wet feet.

There is great danger in miſtaking inflammation of the bowels for colicky pains, which may occaſion the moſt dangerous error in the treatment of this diſeaſe, for here aromatic, ſpirituous, and heating liquors, muſt neceſſarily accelerate the termination of this diſeaſe in mortification.

OF THE COLIC.

The colic has a great reſemblance to the two preceding diſeaſes, both in its ſymptoms and method of cure. It is generally attended with coſtiveneſs and acute pain of the bowels; and requires diluting diet, evacuations, fomentations, &c.

Colics are variouſly denominated according to their cauſe, as the *flatulent*, the *bilious*, the *hyſteric*, the *nervous*, &c. As each of theſe requires a particular method of treatment, we ſhall point out their moſt general ſymptoms, and the means to be uſed for their relief.

The *flatulent* or wind-colic is generally occaſioned by an indiſcreet uſe of unripe fruits, meats of hard digeſtion, windy vegetables, fermenting liquors, and ſuch like. It may likewiſe proceed from an obſtructed perſpiration, or catching cold. Delicate people, whoſe digeſtive powers are weak, are moſt liable to this kind of colic.

The flatulent colic may either affect the ſtomach or inteſtines. It is attended with a painful ſtretching of the affected part. The patient feels a rumbling in his guts, and is generally relieved by a diſcharge of wind, either upwards or downwards. The pain is ſeldom confined to any particular part, as the vapour wanders from one diviſion of the bowels to another till it finds a vent.

When the diſeaſe proceeds from windy liquor, green fruit, ſour herbs, or the like, the beſt medicine on the firſt appearance of the ſymptoms is a dram of brandy, gin, or any good ſpirits. The patient ſhould likewiſe ſit with his feet upon a warm hearth-ſtone, or apply warm bricks to them; and warm cloths may be applied to his ſtomach and bowels.

This is the only colic wherein ardent ſpirits, ſpiceries, or any thing of a hot nature, may be ventured upon. Nor indeed are they to be uſed here unleſs at the very beginning, before any ſymptoms of inflammation appear. We have reaſon to believe, that a colic occaſioned by wind or flatulent food might always be cured by ſpirits and warm liquors, if they were taken immediately upon perceiving the firſt uneaſineſs; but when the pain has continued for a conſiderable time, and there is reaſon to fear an inflammation of the bowels is already begun, all hot things are to be avoided as poiſon, and the patient is to be treated in the ſame manner as for the inflammation of the inteſtines.

Several kinds of food, as honey, eggs, &c. occaſion colics in ſome particular conſtitutions. I have generally found the beſt method of cure for theſe was to drink plentifully of ſmall diluting liquors, as water-gruel, ſmall poſſet, water with toaſted bread ſoaked in it, &c.

Colics which proceed from exceſs and indigeſtion generally cure themſelves by occaſioning vomiting or purging. Theſe diſcharges are by no means to be ſtopped, but promoted by drinking plentifully of warm water, or weak poſſet. When their violence is over, the patient may take a doſe of rhubarb, or any other gentle purge, to carry off the dregs of his debauch.

Colics which are occaſioned by wet feet, or catching cold, may generally be removed at the beginning, by bathing the feet and legs in warm water, and drinking ſuch warm diluting liquors as will promote the perſpiration, as weak wine-whey, or water-gruel with a ſmall quantity of ſpirits in it.

Thoſe flatulent colics, which prevail ſo much among country people, might generally be prevented, were they careful to change their clothes when they get wet. They ought likewiſe to take a dram, or to drink ſome warm liquor after eating any kind of green traſh. We do not mean to recommend the practice of dram-drinking, but in this caſe ardent ſpirits prove a real medicine, and indeed the beſt that can be adminiſtered. A glaſs of good pepper-

mint-water will have nearly the ſame effect as a glaſs of brandy, and in ſome caſes is rather to be preferred.

The *bilious* colic is attended with very acute pains about the region of the navel. The patient complains of great thirſt, and is generally coſtive. He vomits a hot, bitter, yellow coloured bile, which being diſcharged, ſeems to afford ſome relief, but is quickly followed by the ſame violent pain as before. As the diſtemper advances, the propenſity to vomit ſometimes increaſes ſo as to become almoſt continual, and the proper motion of the inteſtines is ſo far perverted, that there are all the ſymptoms of an impending iliac paſſion.

If the patient be young and ſtrong, and the pulſe full and frequent, it will be proper to bleed, after which clyſters may be adminiſtered. Clear whey or gruel, ſharpened with the juice of lemon or cream of tartar, muſt be drank freely. Small chicken-broth with a little manna diſſolved in it, or a ſlight decoction of tamarinds, are likewiſe very proper, or any other thin, acid, opening liquor.

Beſides bleeding and plentiful dilution, it will be neceſſary to foment the belly with cloths dipped in warm water; and if this ſhould not ſucceed, the patient muſt be immerſed up to the breaſt in warm water.

In the bilious colic the vomiting is often very difficult to reſtrain. When this happens, the patient may drink a decoction of toaſted bread, or an infuſion of garden-mint in boiling water. Should theſe not have the deſired effect, the ſaline draught, with a few drops of laudanum in it, may be given, and repeated according to the urgency of the ſymptoms. A ſmall quantity of Venice treacle may be ſpread in form of a cataplaſm, and applied to the pit of the ſtomach. Clyſters, with a proper quantity of Venice treacle or liquid laudanum in them, may likewiſe be frequently adminiſtered.

Such as are liable to frequent returns of the bilious colic ſhould uſe fleſh ſparingly, and live chiefly upon a light vegetable diet. They ſhould likewiſe take frequently a doſe of cream of tartar with tamarinds, or any other cool acid purge.

The *hyſteric* colic bears a great reſemblance to the bilious. It is attended with acute pains about the region of the ſtomach, vomiting, &c. What the patient vomits in this caſe is commonly of a greeniſh colour. There is a great ſinking of the ſpirits, with dejection of mind and difficulty of breathing, which are the characteriſtic ſymptoms of this diſorder. Sometimes it is accompanied with the jaundice, but this generally goes off of its own accord in a few days.

In this colic all evacuations, as bleeding, purging, vomiting, &c. do hurt. Every thing that weakens the patient, or ſinks the ſpirits, is to be avoided. If however the vomiting ſhould prove violent, lukewarm water, or ſmall poſſet, may be drank to cleanſe the ſtomach. Afterwards the patient may take fifteen, twenty, or twenty-five drops of *tincture of opium* (liquid laudanum) in a glaſs of cinnamon-water. This may be repeated every ten or twelve hours till the ſymptoms abate.

The patient may likewiſe take four or five of the fœtid pills every ſix hours, and drink a cup of pennyroyal tea after them. If aſafœ-

tida ſhould prove diſagreeable, which is ſometimes the caſe, a tea-ſpoonful of the tincture of caſtor in a cup of pennyroyal tea, or thirty or forty drops of the balſam of Peru dropped upon a bit of loaf ſugar, may be taken in its ſtead. The *anti-hyſteric plaſter* may alſo be uſed, which has often a good effect.

The *nervous* colic prevails among miners, ſmelters of lead, plumbers, the manufacturers of white lead, &c. It is very common in the cyder counties of England, and is ſuppoſed to be occaſioned by the leaden veſſels uſed in preparing that liquor. It is likewiſe a frequent diſeaſe in the Weſt Indies, where it is termed the dry belly-ach.

No diſeaſe of the bowels is attended with more excruciating pain than this. Nor is it ſoon at an end. I have known it continue eight or ten days with very little intermiſſion, the body all the while continuing bound in ſpite of medicine, yet at length yield, and the patient recover. It generally however leaves the patient weak, and often ends in a palſy.

As the ſmoke of tobacco thrown into the bowels will often procure a ſtool when all other means have failed, an apparatus for this purpoſe ought to be kept by every ſurgeon. It may be purchaſed at a ſmall expence, and will be of ſervice in ſeveral other caſes, as the recovery of drowned perſons, &c.

The general treatment of this diſeaſe is ſo nearly the ſame with that of the iliac paſſion, or inflammation of the guts, that we ſhall not inſiſt upon it. The body is to be opened by mild purgatives given in ſmall doſes, and frequently repeated, and their operation muſt be aſſiſted by ſoft oily clyſters, fomentations, &c. The caſtor oil is reckoned peculiarly proper in this diſeaſe. It may both be mixed with the clyſters and given by the mouth. The doſe is from one table-ſpoonful to two or three, if neceſſary to open the body.

The Barbadoes tar is ſaid to be an efficacious medicine in this complaint. It may be taken to the quantity of two drachms three times a-day, or oftener if the ſtomach will bear it. This tar, mixed with an equal quantity of ſtrong rum, is likewiſe proper for rubbing the ſpine, in caſe any tingling, or other ſymptoms of the palſy, are felt. When the tar cannot be obtained, the back may be rubbed with ſtrong ſpirits, or a little oil of nutmegs, or of roſemary.

If the patient remains weak and languid after this diſeaſe, he muſt take exerciſe on horſeback, and uſe an infuſion of the Peruvian bark in wine. When the diſeaſe ends in a palſy, the Bath waters are found to be extremely proper.

To avoid this kind of colic, people muſt ſhun all ſour fruits, acids, auſtere liquors, &c. Thoſe who work in lead ought never to go to their buſineſs faſting, and their food ſhould be oily or fat. They may take a glaſs of ſalad oil, with a little brandy or rum, every morning, but ſhould never take ſpirits alone. Liquid aliment is beſt for them, as fat broths, &c.; but low living is bad. They ſhould frequently go a little out of the tainted air, and ſhould never ſuffer themſelves to be coſtive. In the Weſt Indies, and on the coaſt of Guinea, it has been found of great uſe, for preventing this colic, to

wear a piece of flannel round the waiſt, and to drink an infuſion of ginger by way of tea.

Sundry other kinds of this diſeaſe might be mentioned, but too many diſtinctions would tend only to perplex the reader. Thoſe already mentioned are the moſt material, and ſhould indeed be attended to, as their treatment is very different. But even perſons who are not in a condition to diſtinguiſh very accurately in theſe matters, may nevertheleſs be of great ſervice to patients in colics of every kind, by only obſerving the following general rules, viz. To bathe the feet and legs in warm water; to apply bladders filled with warm water, or cloths wrung out of it, to the ſtomach and bowels; to make the patient drink freely of diluting, mucilaginous liquors; and to give him an emollient clyſter every two or three hours. Should theſe not ſucceed, the patient ought to be immerſed in a warm bath.

INFLAMMATION OF THE KIDNEYS.

CAUSES.——This diſeaſe may proceed from any of thoſe cauſes which produce an inflammatory fever. It may likewiſe be occaſioned by wounds or bruiſes of the kidneys; ſmall ſtones or gravel lodging within them; by ſtrong diuretic medicines, as ſpirits of turpentine, tincture of cantharides, &c. Violent motion, as hard riding or walking, eſpecially in hot weather, or whatever drives the blood too forcibly into the kidneys, may occaſion this malady. It may likewiſe proceed from lying too ſoft, too much on the back, involuntary contractions, or ſpaſms, in the urinary veſſels, &c.

SYMPTOMS.——There is a ſenſe of heat and a ſharp pain about the region of the kidneys, with ſome degree of fever, and a ſtupor or dull pain in the thigh of the affected ſide. The urine is at firſt clear, and afterwards of a reddiſh colour; but in the worſt kind of the diſeaſe it generally continues pale, is paſſed with difficulty, and commonly in ſmall quantities at a time. The patient feels great uneaſineſs when he endeavours to walk or ſit upright. He lies with moſt eaſe on the affected ſide, and has generally a naufea or vomiting, reſembling that which happens in the colic. Delirium with pale urine, or an obſtruction to its ſecretion, are fatal ſymptoms.

This diſeaſe however may be diſtinguiſhed from the colic by the pain being ſeated farther back, and by the difficulty of paſſing urine with which it is conſtantly attended. The piles frequently relieve the patient.

REGIMEN.——Every thing of a heating or ſtimulating nature is to be avoided. The food muſt be thin and light; as panado, ſmall broths, with mild vegetables, and the like. Emollient and thin liquors muſt be plentifully drank; as clear whey, or balm-tea ſweetened with honey, decoctions of marſh-mallow roots, with barley and liquorice, &c. The patient, notwithſtanding the vomiting, muſt conſtantly keep ſipping ſmall quantities of theſe or other diluting liquors. Nothing ſo ſafely and certainly abates the inflammation, and expels the obſtructing cauſe, as copious dilution. The patient muſt be kept eaſy, quiet, and free from cold, as long as any ſymptoms of inflammation remain.

MEDICINE.——Bleeding is generally neceſſary, eſpecially at the beginning. Ten or twelve ounces may be let from the arm or foot with a lancet, and if the pain and inflammation continue, the operation may be repeated in twenty-four hours, eſpecially if the patient be of a full habit. Leeches may likewiſe be applied to the hæmorrhoidal veins, as a diſcharge from theſe will greatly relieve the patient.

Cloths dipped in warm water, or bladders filled with it, muſt be applied as near as poſſible to the part affected, and renewed as they grow cool. If the bladders be filled with a decoction of mallows and camomile flowers, to which a little ſaffron is added, and mixed with about a third part of new milk, it will be ſtill more beneficial. The patient ſhould be ſupplied freely with demulcent drinks, as barley-water, with the addition of gum arabic.

Emollient clyſters ought frequently to be adminiſtered; and if theſe do not open the body, a little ſalt and honey or manna may be added to them.

The ſame courſe is to be followed where gravel or ſtone is lodged in the kidney; but when the gravel or ſtone is ſeparated from the kidney, and lodges in the ureter, it will be proper, beſides the fomentations, to rub the ſmall of the back with ſweet oil, and to give gentle diuretics; as juniper-water and linſeed tea, ſweetened with the ſyrup of marſh-mallows: a tea-ſpoonful of the *ſpirit of nitrous ether* (ſweet ſpirits of nitre), with a few drops of laudanum, may now and then be put in a cup of the patient's drink. He ought likewiſe to take exerciſe on horſeback, or in a carriage, if he be able to bear it.

The ureters are two long and ſmall canals, one on each ſide, which carry the urine from the baſin of the kidneys to the bladder. They are ſometimes obſtructed by ſmall pieces of gravel falling down from the kidneys, and lodging in them.

When the diſeaſe is protracted beyond the ſeventh or eighth day, and the patient complains of a ſtupor and heavineſs of the part, has frequent returns of chilneſs, ſhivering, &c. there is reaſon to ſuſpect that matter is forming in the kidney, and that an abſceſs will enſue, for the kidney is ſubject to inflammation and gangrene.

When matter in the urine ſhews that an ulcer is already formed in the kidney, the patient muſt be careful to abſtain from all acrid, ſour, and ſalted proviſions; and to live chiefly upon mild mucilaginous herbs and fruits, together with the broth of young animals, made with barley, and common pot herbs, &c. His drink may be whey, and butter-milk that is not ſour. The latter is by ſome reckoned a ſpecific remedy in ulcers of the kidneys. To anſwer this character, however, it muſt be drank for a conſiderable time. Chalybeate waters have likewiſe been found beneficial in this diſeaſe. This medicine is eaſily obtained, as it is found in every part of Great Britain. It muſt likewiſe be uſed for a conſiderable time, in order to produce any ſalutary effects.

Thoſe who are liable to frequent returns of inflammation, or obſtructions of the kidneys, muſt abſtain from wines, eſpecially ſuch as abound with tartar; and their food ought to be light and of eaſy di-

geſtion. They ſhould uſe moderate exerciſe, chiefly in the open air, and ſhould not lie too hot, nor too much on their back.

INFLAMMATION OF THE BLADDER.

The inflammation of the bladder proceeds, in a great meaſure, from the ſame cauſes as that of the kidneys. It is known by an acute pain towards the bottom of the belly, and difficulty of paſſing urine, with ſome degree of fever, a conſtant inclination to go to ſtool, and a perpetual deſire to make water.

This diſeaſe is accompanied with fever in proportion to the degree of violence in which it exiſts, and muſt be treated on the ſame principles as the one immediately preceding. The diet muſt be light and thin, and the drink of a cooling nature. Bleeding is very proper at the beginning, and in robuſt conſtitutions it will often be neceſſary to repeat it. The lower part of the belly ſhould be fomented with warm water, or a decoction of mild vegetables; and emollient clyſters, formed with a decoction of camomile-flowers and poppy-heads, ought frequently to be adminiſtered.

The patient ſhould abſtain from every thing that is of a hot, acrid, and ſtimulating quality, and ſhould live entirely upon ſmall broths, gruels, or mild vegetables.

A ſtoppage of urine may proceed from other cauſes beſides an inflammation of the bladder; as a ſwelling of the hæmorrhoidal veins; hard *fæces* lodged in the *rectum;* a ſtone in the bladder; excreſcences in the urinary paſſages; a palſy of the bladder; hyſteric affections, &c. Each of theſe requires a particular treatment, which does not fall under our preſent conſideration. We ſhall only obſerve, that in all of them mild and gentle applications are the ſafeſt, as ſtrong diuretic medicines, or things of an irritating nature, generally increaſe the danger. I have known ſome perſons kill themſelves by introducing probes into the urinary paſſes, to remove, as they thought, ſomewhat that obſtructed the diſcharge of urine; and others bring on a violent inflammation of the bladder, by uſing ſtrong diuretics, as oil of turpentine, &c. for that purpoſe.

INFLAMMATION OF THE LIVER.

The liver is leſs ſubject to inflammation than moſt of the other viſcera, as in it the circulation is ſlower; but when an inflammation does happen, it is with difficulty removed, and often ends in a ſuppuration or ſchirrus.

CAUSES.——Beſides the common cauſes of inflammation, we may here reckon the following, viz. exceſſive fatneſs, a ſchirrus of the liver itſelf, violent ſhocks from ſtrong vomits when the liver was before unſound, an aduſt or atrabiliarian ſtate of the blood, any thing that ſuddenly cools the liver after it has been greatly heated, ſtones obſtructing the courſe of the bile, drinking ſtrong wines and ſpiritnous liquors, uſing hot ſpicy aliment, obſtinate hypochondriacal affections, &c.

SYMPTOMS.——This diſeaſe is known by a painful tenſion of the right ſide under the falſe ribs, attended with ſome degree of fever,

a ſenſe of weight, or fulneſs of the part, difficulty of breathing, loathing of food, great thirſt, with a pale or yelloviſh colour of the ſkin and eyes.

The *ſymptoms* here are various, according to the degree of inflammation, and likewiſe according to the particular part of the liver where the inflammation happens. Sometimes the pain is ſo inconſiderable, that an inflammation is not ſo much as ſuſpected; but when it happens in the upper or convex part of the liver, the pain is more acute, the pulſe quicker, and the patient is often troubled with a dry cough, a hiccup, and a pain extending to the ſhoulder, with difficulty of lying on the left ſide, and difficulty of breathing.

This diſeaſe may be diſtinguiſhed from the pleuriſy by the pain being leſs violent, ſeated under the falſe ribs, the pulſe not ſo hard, and by the difficulty of lying on the left ſide. It may be diſtinguiſhed from the hyſteric and hypochondriac diſorders by the degree of fever with which it is always attended.

This diſeaſe, if properly treated, is ſeldom mortal. A conſtant hiccuping, violent fever, and exceſſive thirſt, are bad ſymptoms. If it ends in a ſuppuration, and the matter cannot be diſcharged outwardly, the danger is great. When the ſchirrus of the liver enſues, the patient, if he obſerves a proper regimen, may nevertheleſs live a number of years tolerably eaſy; but if he indulge in animal food and ſtrong liquors, or take medicines of an acrid or irritating nature, the ſchirrus will be converted into a cancer, which muſt infallibly prove fatal.

REGIMEN.——The ſame regimen is to be obſerved in this as in other inflammatory diſorders. All hot things are to be carefully avoided, and cool diluting liquors, as whey, barley water, &c. drank freely. The food muſt be light and thin, and the body, as well as the mind, kept eaſy and quiet.

MEDICINE.——Bleeding is proper at the beginning of this diſeaſe, and it will often be neceſſary, even though the pulſe ſhould not feel hard, to repeat it. All violent purgatives are to be avoided; the body, however, muſt be kept gently open. A decoction of tamarinds, with a little honey or manna, will anſwer this purpoſe very well. The ſide affected muſt be fomented in the manner directed in the foregoing diſeaſes. Mild laxative clyſters ſhould be frequently adminiſtered; and if the pain ſhould notwithſtanding continue violent, a bliſtering plaſter may be applied over the part affected; or rather a plaſter made of gum ammoniacum and vinegar of ſquills.

Medicines which promote the ſecretion of urine have a very good effect here. For this purpoſe half a drachm of purified nitre, or a tea-ſpoonful of the *ſpirit of nitrous ether*, may be taken in a cup of the patient's drink three or four times a-day.

When there is an inclination to ſweat, it ought to be promoted, but not by warm ſudorifics. The only thing to be uſed for that purpoſe is plenty of diluting liquors drank about the warmth of the human blood. Indeed, the patient in this caſe, as well as in all other

topical inflammations, ought to drink nothing that is colder than the blood.

If the ſtools ſhould be looſe, and even ſtreaked with blood, no means muſt be uſed to ſtop them, unleſs they be ſo frequent as to weaken the patient. Looſe ſtools often prove critical, and carry off the diſeaſe.

If an abſceſs or impoſthume is formed in the liver, all methods ſhould be tried to make it break and diſcharge itſelf outwardly, as fomentations, the application of poultices, ripening cataplaſms, &c. Sometimes indeed the matter of an abſceſs comes away in the urine, and ſometimes it is diſcharged by ſtool, but theſe are efforts of Nature which no means can promote. When the abſceſs burſts into the cavity of the *abdomen* at large, death muſt enſue; nor will the event be more favourable when the abſceſs is opened by an inciſion, unleſs in caſes where the liver adheres to the *peritonæum*, ſo as to form a bag for the matter, and prevent it from falling into the cavity of the *abdomen*; in which caſe opening the abſceſs by a ſufficiently large inciſion will probably ſave the patient's life.

If the diſorder, in ſpite of all endeavours to the contrary, ſhould end in a ſchirrus, the patient muſt be careful to regulate his diet, &c. in ſuch a manner as not to aggravate the diſeaſe. He muſt not indulge in fleſh, fiſh, ſtrong liquors, or any highly ſeaſoned or ſalted proviſions; but ſhould, for the moſt part, live on mild vegetables, as fruits and roots, taking gentle exerciſe, and drinking whey, barley-water, or butter-milk. If he takes any thing ſtronger, it ſhould be fine mild ale, which is leſs heating than wines or ſpirits.

We ſhall take no notice of inflammations of the other viſcera. They muſt in general be treated upon the ſame principles as thoſe already mentioned. The chief rule with reſpect to all of them is, to let blood, to avoid every thing that is ſtrong or of a heating nature, to apply warm fomentations to the part affected, and to cauſe the patient to drink a ſufficient quantity of warm diluting liquors.

When the ſituation and circumſtances of the patient will admit, we recommend, in all caſes of inflammation of the abdominal viſcera, an early application to thoſe who are beſt qualified to adminiſter relief.

CHAP. XXXI.

OF THE CHOLERA MORBUS, AND OTHER EXCESSIVE DISCHARGES FROM THE STOMACH AND BOWELS.

THE *cholera morbus* is a violent purging and vomiting, attended with gripes, ſickneſs, and a conſtant deſire to go to ſtool. It comes on ſuddenly, and is moſt common in autumn. There is hardly any diſeaſe that kills more quickly than this, when proper means are not uſed in due time for removing it.

CAUSES.——It is occaſioned by a redundancy and putrid acrimony of the bile; cold; food that eaſily turns rancid or ſour on the

ſtomach; as butter, rancid bacon, ſweet-meats, cucumbers, melons, cherries, and other cold fruits. It is ſometimes the effect of ſtrong acrid purges or vomits, or of poiſonous ſubſtances taken into the ſtomach. It may likewiſe proceed from violent paſſions or affections of the mind; as fear, anger, &c.

SYMPTOMS.——It is generally preceded by a *cardialgia*, or heart-burn, ſour belchings, and flatulencies, with pain of the ſtomach and inteſtines. To theſe ſucceed exceſſive vomiting and purging of green, yellow, or blackiſh-coloured bile, with a diſtention of the ſtomach, and violent griping pains. There is likewiſe a great thirſt with a very quick unequal pulſe, and often a fixed acute pain about the region of the navel. As the diſeaſe advances, the pulſe often ſinks ſo low as to become quite imperceptible, the extremities grow cold or cramped, and are often covered with a clammy ſweat, the urine is obſtructed, and there is a palpitation of the heart. Violent hiccuping, fainting, and convulſions, are the ſigns of approaching death.

MEDICINE.——At the beginning of this diſeaſe, the efforts of Nature to expel the offending cauſe ſhould be aſſiſted, by promoting the purging and vomiting. For this purpoſe the patient muſt drink freely of diluting liquors; as whey, butter-milk, warm water, thin water-gruel, ſmall poſſet, or, what is perhaps preferable to any of them, very weak chicken broth. This ſhould not only be drank plentifully to promote the vomiting, but a clyſter of it given every hour in order to promote the purging.

After theſe evacuations have been continued for ſome time, a decoction of toaſted oat-bread may be drank to ſtop the vomiting. The bread ſhould be toaſted till it is of a brown colour, and afterwards boiled in ſpring-water. If oat-bread cannot be had, wheat-bread, or oat-meal well toaſted, may be uſed in its ſtead. If this does not put a ſtop to the vomiting, two table-ſpoonfuls of the ſaline julep, with ten drops of laudanum, may be taken every hour till it ceaſes.

The vomiting and purging, however, ought never to be ſtopped too ſoon. As long as theſe diſcharges do not weaken the patient, they are ſalutary, and may be allowed to go on, or rather ought to be promoted. But when the patient is weakened by the evacuations, which may be known from the ſinking of his pulſe, &c. recourſe muſt immediately be had to opiates, as recommended above; to which may be added ſtrong wines, with ſpirituous cinnamon waters, and other generous cordials. Warm negus or ſtrong wine-whey will likewiſe be neceſſary to ſupport the patient's ſpirits, and promote the perſpiration. His legs ſhould be bathed in warm water, and afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks applied to the ſoles of his feet. Flannels wrung out of warm ſpirituous fomentations ſhould likewiſe be applied to the region of the ſtomach.

When the violence of the diſeaſe is over, to prevent a relapſe, it will be neceſſary for ſome time to continue the uſe of ſmall doſes of laudanum. Ten or twelve drops may be taken in a glaſs of wine, at leaſt twice a-day, for eight or ten days. The patient's food ought to

be nouriſhing, but taken in ſmall quantities, and he ſhould uſe moderate exerciſe. As the ſtomach and inteſtines are generally much weakened, an infuſion of the bark, or other bitters, in ſmall wine, ſharpened with the elixir of vitriol, may be drank for ſome time.

Though phyſicians are ſeldom called in due time in this diſeaſe, they ought not to deſpair of relieving the patient even in the moſt deſperate circumſtances. Of this I lately ſaw a very ſtriking proof in an old man and his ſon, who had been both ſeized with it about the middle of the night. I did not ſee them till next morning, when they had much more the appearance of dead than of living men. No pulſe could be felt; the extremities were cold and rigid, the countenance was ghaſtly, and the ſtrength almoſt quite exhauſted. Yet from this deplorable condition they were both recovered by the uſe of opiates and cordial medicines.

OF A DIARRHŒA, OR LOOSENESS.

A LOOSENESS, in many caſes, is not to be conſidered as a diſeaſe, but rather as a ſalutary evacuation. It ought therefore never to be ſtopped, unleſs when it continues too long, or evidently weakens the patient. As this however ſometimes happens, we ſhall point out the moſt common cauſes of a looſeneſs, with the proper method of treatment.

When a looſeneſs is occaſioned by catching cold, or an obſtructed perſpiration, the patient ought to keep warm, to drink freely of weak diluting liquors, to bathe his feet and legs frequently in lukewarm water, to wear flannel next his ſkin, and to take every other method to reſtore the perſpiration.

In a looſeneſs which proceeds from exceſs or repletion, a vomit is the proper medicine. Vomits not only cleanſe the ſtomach, but promote all the ſecretions, which renders them of great importance in carrying off a debauch. Half a drachm of ipecacuanha in powder will anſwer this purpoſe very well. A day or two after the vomit, the ſame quantity of rhubarb may be taken, and repeated two or three times, if the looſeneſs continues. The patient ought to live upon light vegetable food of eaſy digeſtion, and to drink whey, thin gruel, or barley-water.

A looſeneſs occaſioned by the obſtruction of any cuſtomary evacuation generally requires bleeding. If that does not ſucceed, other evacuations may be ſubſtituted in the room of thoſe which are obſtructed. At the ſame time every method is to be taken to reſtore the uſual diſcharges, as not only the cure of the diſeaſe, but the patient's life, may depend on this.

A periodical looſeneſs ought never to be ſtopped. It is always an effort of Nature to carry off ſome offending matter, which, if retained in the body, might have fatal effects. Children are very liable to this kind of looſeneſs, eſpecially while teething. It is however ſo far from being hurtful to them, that ſuch children generally get their teeth with leaſt trouble. If theſe looſe ſtools ſhould at any time prove four or griping, a tea-ſpoonful of magneſia alba, with four or five grains of rhubarb, may be given to the child in a little panado, or

any other food. This, if repeated three or four times, will generally correct the acidity, and carry off the griping ſtools.

A diarrhœa, or looſeneſs, which proceeds from violent paſſions or affections of the mind, muſt be treated with the greateſt caution. Vomits in this caſe are highly improper. Nor are purges ſafe, unleſs they be very mild, and given in ſmall quantities. Opiates and other antiſpaſmodic medicines are moſt proper. Ten or twelve drops of liquid laudanum may be taken in a cup of valerian or penny-royal tea every eight or ten hours, till the ſymptoms abate. Eaſe, cheerfulneſs, and tranquillity of mind, are here of the greateſt importance.

When a looſeneſs proceeds from acrid or poiſonous ſubſtances taken into the ſtomach, the patient muſt drink large quantities of diluting liquors, with oil or fat broths, to promote vomiting and purging. Afterwards, if there be reaſon to ſuſpect that the bowels are inflamed, bleeding will be neceſſary. Small doſes of laudanum may likewiſe be taken to remove their irritation.

When the gout, repelled from the extremities, occaſions a looſeneſs, it ought to be promoted by gentle doſes of rhubarb, or other mild purgatives. The gouty matter is likewiſe to be ſolicited towards the extremities by warm fomentations, cataplaſms, &c. The perſpiration ought at the ſame time to be promoted by warm diluting liquors; as wine-whey, with *volatile liquor of hartſhorn:* a few drops of liquid laudanum may be added to it to allay irritation.

When a looſeneſs proceeds from worms, which may be known from the ſlimineſs of the ſtools, mixed with pieces of decayed worms, &c. medicines muſt be given to kill and carry off theſe vermin, as the powder of tin with purges of rhubarb and calomel. Afterwards lime-water, either alone, or with a ſmall quantity of rhubarb infuſed, will be proper to ſtrengthen the bowels, and prevent the new generation of worms.

A looſeneſs is often occaſioned by drinking bad water. When this is the caſe, the diſeaſe generally proves epidemical. When there is reaſon to believe that this or any other diſeaſe proceeds from the uſe of unwholeſome water, it ought immediately to be changed, or, if that cannot be done, it may be corrected by mixing with it quicklime, chalk, or the like.

In people whoſe ſtomachs are weak, violent exerciſe immediately after eating will occaſion a looſeneſs. Though the cure of this is obvious, yet it will be proper, beſides avoiding violent exerciſe, to uſe ſuch medicines as tend to brace and ſtrengthen the ſtomach, as infuſions of the bark, with other bitter and aſtringent ingredients, in white-wine. Such perſons ought likewiſe to take frequently a glaſs or two of old red port, or good claret.

From whatever cauſe a looſeneſs proceeds, when it is found neceſſary to check it, the diet ought to conſiſt of rice boiled with milk, and flavoured with cinnamon; rice-jelly, ſago with red port; and the lighter ſorts of fleſh-meat roaſted. The drink may be thin water-gruel, rice-water, or weak broth made from lean veal, or with a ſheep's head, as being more gelatinous than mutton, beef, or chicken-broth.

Perſons who, from a peculiar weakneſs, or too great an irritability of the bowels, are liable to frequent returns of this diſeaſe, ſhould live temperately, avoiding crude ſummer fruits, all unwholeſome foods, and meats of hard digeſtion. They ought likewiſe to beware of cold, moiſture, or whatever may obſtruct the perſpiration, and ſhould wear flannel next the ſkin. All violent paſſions, as fear, anger, &c. are likewiſe carefully to be guarded againſt.

OF VOMITING.

VOMITING may proceed from various cauſes; as exceſs in eating and drinking; foulneſs of the ſtomach; the acrimony of the aliments; a tranſlation of the morbific matter of ulcers, of the gout, the eryſipelas, or other diſeaſes, to the ſtomach. It may likewiſe proceed from a looſeneſs having been too ſuddenly ſtopped; from the ſtoppage of any cuſtomary evacuation, as the bleeding piles, the *menſes*, &c.; from a weakneſs of the ſtomach, the colic, the iliac paſſion, a rupture, a fit of the gravel, worms; or from any kind of poiſon taken into the ſtomach. It is an uſual ſymptom of injuries done to the brain; as contuſions, compreſſions, &c. It is likewiſe a ſymptom of wounds or inflammations of the diaphragm, inteſtines, ſpleen, liver, kidneys, &c.

Vomiting may be occaſioned by unuſual motions, as ſailing, being drawn backwards in a carriage, &c. It may likewiſe be excited by violent paſſions, or by the idea of nauſeous or diſagreeable objects, eſpecially of ſuch things as have formerly produced vomiting. Sometimes it proceeds from a regurgitation of the bile into the ſtomach: in this caſe what the patient vomits is generally of a yellow or greeniſh colour, and has a bitter taſte. Perſons who are ſubject to nervous affections are often ſuddenly ſeized with violent fits of vomiting. Laſtly, vomiting is a common ſymptom of pregnancy. In this caſe it generally comes on about two weeks after the ſtoppage of the *menſes*, and continues during the firſt three or four months.

When vomiting proceeds from a foul ſtomach or indigeſtion, it is not to be conſidered as a diſeaſe, but as the cure of a diſeaſe. It ought therefore to be promoted by drinking lukewarm water, or thin gruel. If this does not put a ſtop to the vomiting, a doſe of ipecacuanha may be taken, and worked off with weak camomile-tea.

When the retroceſſion of the gout, or the obſtruction of cuſtomary evacuations, occaſions vomiting, all means muſt be uſed to reſtore theſe diſcharges; or, if that cannot be effected, their place muſt be ſupplied by others, as bleeding, purging, bathing the extremities in warm water, opening iſſues, ſetons, perpetual bliſters, &c.

When vomiting is the effect of pregnancy, it may generally be mitigated by bleeding and keeping the body gently open. The bleeding however ought to be in ſmall quantities at a time, and the purgatives ſhould be of the mildeſt kind, as figs, ſtewed prunes, manna, or ſenna. Pregnant women are moſt apt to vomit in the morning, immediately after getting out of bed, which is owing partly to the change of poſture, but more to the emptineſs of the ſtomach. It may generally be prevented by taking a diſh of coffee, tea, or ſome light breakfaſt, in

bed. Pregnant women who are afflicted with vomiting ought to be kept eaſy both in body and mind. They ſhould neither allow their ſtomachs to be quite empty, nor ſhould they eat much at once. Cold water is a very proper drink in this caſe; if the ſtomach be weak, a little brandy may be added to it. If the ſpirits are low, and the perſon apt to faint, a ſpoonful of cinnamon-water, with a little marmalade of quinces or oranges, may be taken.

If vomiting proceeds from weakneſs of the ſtomach, bitters will be of ſervice. Peruvian bark infuſed in wine or brandy, with as much rhubarb as will keep the body gently open, is an excellent medicine in this caſe. The *dilated acid of vitriol* is alſo a good medicine, and may be taken in the doſe of fifteen or twenty drops, twice or thrice a-day, in a glaſs of wine or water. It has been ſaid that habitual vomitings are ſometimes alleviated by making oyſters a principal part of diet.

A vomiting which proceeds from acidities in the ſtomach is relieved by alkaline purges. The beſt medicine of this kind is the magneſia alba, a tea-ſpoonful of which may be taken in a cupful of tea or a little milk three or four times a-day, or oftener if neceſſary, to keep the body open.

When vomiting proceeds from violent paſſions or affections of the mind, all evacuants muſt be carefully avoided, eſpecially vomits. Theſe are exceedingly dangerous. The patient in this caſe ought to be kept perfectly eaſy and quiet, to have the mind ſoothed, and to take ſome gentle cordial, as negus, or a little brandy and water, to which a few drops of laudanum may occaſionally be added.

When vomiting proceeds from ſpaſmodic affections of the ſtomach, muſk, caſtor, and other antiſpaſmodic medicines, are of uſe. Warm and aromatic plaſters have likewiſe a good effect: The ſtomach-plaſter (i. e. the *compound plaſter of laudanum*) of the London or Edinburgh diſpenſatory may be applied to the pit of the ſtomach, or a plaſter of *theriaca*, which will anſwer rather better. Aromatic medicines may likewiſe be taken inwardly, as cinnamon or mint-tea, wine with ſpiceries boiled in it, &c. The region of the ſtomach may be rubbed with æther, or, if that cannot be had, with ſtrong brandy, or other ſpirits. The belly ſhould be fomented with warm water, or the patient immerſed up to the breaſt in a warm bath.

Saline draughts, taken in the act of effervеſcence, are of ſingular uſe in ſtopping a vomiting, from whatever cauſe it proceeded. Theſe may be prepared by diſſolving a drachm of the ſalt of tartar in an ounce and a half of freſh lemon-juice, and adding to it an ounce of peppermint-water, the ſame quantity of ſimple cinnamon-water, and a little white ſugar. This draught muſt be ſwallowed before the effervеſcence is quite over, and may be repeated every two hours, or oftener, if the vomiting be violent. A violent vomiting has ſometimes been ſtopped by cupping on the region of the ſtomach, after all other means had failed.

As the leaſt motion will often bring on the vomiting again, even after it has been ſtopped, the patient muſt avoid all manner of action. The diet muſt be ſo regulated as to ſit eaſy upon the ſtomach, and

nothing ſhould be taken that is hard of digeſtion. We do not however mean that the patient ſhould live entirely upon ſlops. Solid food, in this caſe, often ſits eaſier on the ſtomach than liquids.

CHAP. XXXII.

OF THE DIABETES, AND OTHER DISORDERS OF THE KIDNEYS AND BLADDER.

THE diabetes is a frequent and exceſſive diſcharge of urine. It is ſeldom to be met with among young people; but often attacks perſons in the decline of life, eſpecially thoſe who follow the more violent employments, or have been hard drinkers in their youth.

CAUSES.——A diabetes is often the conſequence of acute diſeaſes, as fevers, fluxes, &c. where the patient has ſuffered by exceſſive evacuations; it may alſo be occaſioned by great fatigue, as riding long journies upon a hard-trotting horſe, carrying heavy burdens, running, &c. It may be brought on by hard drinking, or the uſe of ſtrong ſtimulating diuretic medicines, as tincture of cantharides, ſpirits of turpentine, and ſuch like. It is often the effect of drinking too great quantities of mineral waters. Many imagine that theſe will do them no ſervice unleſs they be drank in great quantities, by which miſtake it often happens that they occaſion worſe diſeaſes than thoſe they were intended to cure. In a word, this diſeaſe may either proceed from too great a laxity of the organs which ſecrete the urine, from ſomething that ſtimulates the kidneys too much, or from a thin diſſolved ſtate of the blood, which makes too great a quantity of it run off by the urinary paſſages.

SYMPTOMS.——In a diabetes, the urine generally exceeds in quantity all the liquid food which the patient takes. It is thin and pale, of a ſweetiſh taſte, and an agreeable ſmell. The patient has a continual thirſt, with ſome degree of fever; his mouth is dry, and he ſpits frequently a frothy ſpittle. The ſtrength fails, the appetite decays, and the fleſh waſtes away till the patient is reduced to ſkin and bone. There is a heat of the bowels; and frequently the loins, teſticles, and feet, are ſwelled.

This diſeaſe may generally be cured at the beginning; but after it has continued long, the cure becomes very difficult. In drunkards, and very old people, a perfect cure is not to be expected.

REGIMEN.——Every thing that ſtimulates the urinary paſſages, or tends to relax the habit, muſt be avoided. For this reaſon the patient ſhould live as much as poſſible on animal food. His thirſt may be quenched with acids; as ſorrel, juice of lemon, or vinegar. The mucilaginous vegetables, as rice, ſago, and ſalop, with milk, are the moſt proper food. Of animal ſubſtances, ſhell-fiſh are to be preferred; as oyſters, crabs, &c.

The drink may be Briſtol-water. When that cannot be obtained, lime-water, in which a due proportion of oak bark has been macerated, may be uſed: *compound decoction of chalk* (the white decoction), with iſinglaſs diſſolved in it, is likewiſe a very proper drink.

The patient ought daily to take exercise, but it should be so gentle as not to fatigue him. He should lie upon a hard bed or matrass. Nothing hurts the kidneys more than lying too soft. A warm dry air, the use of the flesh-brush, and every thing that promotes perspiration, is of service. For this reason the patient ought to wear flannel next his skin. A large strengthening-plaster may be applied to the back.

MEDICINE.——Gentle purges, if the patient be not too much weakened by the disease, have a good effect. They may consist of rhubarb, with cardamum seeds, or any other spiceries, infused in wine, and may be taken in such quantities as to keep the body gently open.

The patient must next have recourse to astringents and corroborants. Half a drachm of powder made of equal parts of alum and the inspissated juice of catechu, commonly called *Terra Japonica*, may be taken four times a-day, or oftener, if the stomach will bear it. The alum must first be melted in a crucible; afterwards they may both be pounded together. Along with every dose of this powder the patient may take a tea-cupful of the *infusion of roses*.

If the patient's stomach cannot bear the alum in substance, whey may be made of it, and taken in the dose of a tea-cupful three or four times a-day. The alum-whey is prepared by boiling two English quarts of milk over a slow fire, with three drachms of alum, till the curd separates.

Opiates are of service in this disease, even though the patient rests well. They take off spasm and irritation, and at the same time lessen the force of the circulation. Ten or twelve drops of liquid laudanum may be taken in a cup of the patient's drink three or four times a-day. As a general caution however against the indiscriminate exhibition of large doses of opium continued for any length of time, it is always proper to interpose a laxative once in two days, and, where the symptoms are not very urgent, to intermit the use of opium for twelve or twenty-four hours.

The best corroborants which we know, are cinchona (the Peruvian bark) and wine. A drachm of bark may be taken in a glass of red port or claret three times a-day. The medicine will be both more efficacious and less disagreeable, if fifteen or twenty drops of the acid elixir of vitriol be added to each dose. Such as cannot take the bark in substance may use the decoction, mixed with an equal quantity of red wine, and sharpened as above.

There is a disease incident to labouring people in the decline of life, called an *INCONTINENCY of Urine*. But this is very different from a diabetes, as the water passes off involuntarily by drops, and does not exceed the usual quantity. This disease is rather troublesome than dangerous. It is owing to the relaxation of the sphincter of the bladder, and is often the effect of a palsy. Sometimes it proceeds from hurts, or injuries occasioned by blows, bruises, preternatural labours, &c. Sometimes it is the effect of a fever. It may likewise be occasioned by a long use of strong diuretics, or of stimulating medicines injected into the bladder.

This disease may be mitigated by the use of astringent and corrobo-

rating medicines, ſuch as have been mentioned above; but we do not remember ever to have ſeen it cured.

OF A SUPPRESSION OF URINE.

It has already been obſerved, that a ſuppreſſion of urine may proceed from various cauſes; as an inflammation of the kidneys or bladder; ſmall ſtones or gravel lodging in the urinary paſſages, hard *fæces* lying in the *rectum*, pregnancy, a ſpaſm or contraction of the neck of the bladder, clotted blood in the bladder itſelf, a ſwelling of the hæmorrhoidal veins, &c.

Some of theſe caſes require the catheter, both to remove the obſtructing matter, and to draw off the urine; but as this inſtrument can only be managed with ſafety by perſons ſkilled in ſurgery, we ſhall ſay nothiug further of its uſe. A bougie may be uſed by any cautious hand, and will often ſucceed better than the catheter.

We would chiefly recommend in all obſtructions of urine, fomentations and evacuants. Bleeding, as far as the patient's ſtrength will permit, is neceſſary, eſpecially where there are ſymptoms of topical inflammation. Bleeding in this caſe not only abates the fever, by leſſening the force of the circulation, but, by relaxing the ſolids, it takes off the ſpaſm or ſtricture upon the veſſels, which occaſioned the obſtruction.

After bleeding, fomentations muſt be uſed. Theſe may either conſiſt of warm water alone, or of decoctions of mild vegetables; as mallows, camomile-flowers, &c. Cloths dipped in theſe may either be applied to the part affected, or a large bladder filled with the decoction may be kept continually upon it. Some put the herbs themſelves into a flannel bag, and apply them to the part, which is far from being a bad method. Theſe continue longer warm than cloths dipped in the decoction, and at the ſame time keep the part equally moiſt.

In all obſtructions of the urine, the body ought to be kept open. This is not however to be attempted by ſtrong purgatives, but by emollient clyſters, or gentle infuſions of ſenna and manna. Clyſters in this caſe not only open the body, but anſwer the purpoſe of an internal fomentation, and greatly aſſiſt in removing the ſpaſms of the bladder and parts adjacent.

The food muſt be light, and taken in ſmall quantities. The drink may be weak broth, or decoctions and infuſions of mucilaginous vegetables, as marſh-mallow roots, lime-tree buds, &c. A tea-ſpoonful of the *ſpirit of nitrous ether* (ſweet ſpirits of nitre), or a drachm of Caſtile ſoap, may be frequently put into the patient's drink; and, if there be no inflammation, he may drink ſmall gin-punch.

Perſons ſubject to a ſuppreſſion of urine ought to live very temperate. Their diet ſhould be light, and their liquor diluting. They ſhould avoid all acids and auſtere wines, ſhould take ſufficient exerciſe, lie hard, and avoid ſtudy and ſedentary occupations.

We know a perſon upwards of ſeventy years of age, who, labouring under this complaint, had the advice of ſome of the beſt practitioners

in London; but he aſſured us that he did not derive ſo much relief from their preſcriptions, as he does from breakfaſting conſtantly on leek-porridge. When leeks are not in ſeaſon, he takes onions freely. The expreſſed juice of onions is a powerful diuretic, and may be taken in doſes of half an ounce to an ounce and a half, in juniper-water, or gin and water, ſweetened with ſyrup of marſh-mallows.

OF THE GRAVEL AND STONE.

WHEN ſmall ſtones are lodged in the kidneys, or diſcharged along with the urine, the patient is ſaid to be afflicted with the gravel. If one of theſe ſtones happens to make a lodgment in the bladder for ſome time, it accumulates freſh matter, and at length becomes too large to paſs off with the urine. In this caſe the patient is ſaid to have the ſtone.

CAUSES.——The ſtone and gravel may be occaſioned by high living; the uſe of ſtrong aſtringent wines; a ſedentary life; lying too hot, ſoft, or too much on the back; the conſtant uſe of water impregnated with earthy or ſtony particles; aliments of an aſtringent or windy nature, &c. It may likewiſe proceed from an hereditary diſpoſition. Perſons in the decline of life, and thoſe who have been much afflicted with the gout or rheumatiſm, are moſt liable to it.

SYMPTOMS.——Small ſtones or gravel in the kidneys occaſion pain in the loins, ſickneſs, vomiting, and ſometimes bloody urine. When the ſtone deſcends into the *ureter*, and is too large to paſs along with eaſe, all the above ſymptoms are increaſed; the pain extends towards the bladder; the thigh and leg of the affected ſide are benumbed; the teſticles are drawn upwards, and the urine is obſtructed.

A ſtone in the bladder is known from a pain at the time, as well as before and after making water; from the urine coming away by drops, or ſtopping ſuddenly when it was running in a full ſtream; by a violent pain in the neck of the bladder upon motion, eſpecially on horſeback, or in a carriage on a rough road; from a white, thick, copious ſtinking mucous ſediment in the urine; from an itching in the top of the *penis* from bloody urine; from an inclination to go to ſtool during the diſcharge of urine; from the patient's paſſing his urine more eaſily when lying than in an erect poſture; from a kind of convulſive motion occaſioned by the ſharp pain in diſcharging the laſt drops of the urine; and, laſtly, from ſounding or ſearching with the catheter.

REGIMEN.——Perſons afflicted with the gravel or ſtone ſhould avoid aliments of a windy or heating nature, as ſalt meats, ſour fruits, &c. Their diet ought chiefly to conſiſt of ſuch things as tend to promote the ſecretion of urine, and to keep the body open. Artichokes, aſparagus, ſpinage, lettuce, parſley, ſuccory, purſlane, turnips, potatoes, carrots, and radiſhes, may be ſafely eaten. Onions, leeks, and cellery are, in this caſe, reckoned medicinal. The moſt proper drinks are whey, butter-milk and water, barley-water, decoctions or infuſions of the roots of marſh-mallows, parſley, liquorice, or of other mild mucilaginous vegetables, as linſeed, lime-

tree buds or leaves, &c. If the patient has been accuſtomed to generous liquors, he may drink gin and water not too ſtrong.

Gentle exerciſe is proper; but violent motion is apt to occaſion bloody urine. We would therefore adviſe that it ſhould be taken in moderation. Perſons afflicted with the gravel often paſs a great number of ſtones after riding on horſeback, or in a carriage; but thoſe who have a ſtone in the bladder are ſeldom able to bear theſe kinds of exerciſe. Where there is a hereditary tendency to this diſeaſe, a ſedentary life ought never to be indulged. Were people careful, upon the firſt ſymptoms of gravel, to obſerve a proper regimen of diet, and to take ſufficient exerciſe, it might often be carried off, or at leaſt prevented from increaſing; but if the ſame courſe which occaſioned the diſeaſe is perſiſted in, it muſt be aggravated.

MEDICINE.——In what is called a fit of the gravel, which is commonly occaſioned by a ſtone ſticking in the *ureter* or ſome part of the urinary paſſages, the patient muſt be bled; warm fomentations ſhould likewiſe be applied to the part affected, emollient clyſters adminiſtered, and diluting mucilaginous liquors drank, &c. The treatment of this caſe has been fully pointed out under the articles *Inflammation of the Kidneys and Bladder*, to which we refer.

Dr. Whyte adviſes patients who are ſubject to frequent fits of gravel in the kidneys, but have no ſtone in the bladder, to drink every morning, two or three hours before breakfaſt, an Engliſh pint of oyſter or cockle-ſhell lime-water. The doctor very juſtly obſerves, that though this quantity might be too ſmall to have any ſenſible effect in diſſolving a ſtone in the bladder, yet it may very probably prevent its growth.

When a ſtone is formed in the bladder, the doctor recommends Alicant ſoap, and oyſter or cockle-ſhell lime-water, to be taken in the following manner: the patient muſt ſwallow every day, in any form that is leaſt diſagreeable, an ounce of the internal part of Alicant ſoap, and drink three or four Engliſh pints of oyſter or cockle-ſhell lime-water. The ſoap is to be divided into three doſes; the largeſt to be taken faſting in the morning early; the ſecond at noon; and the third at ſeven in the evening, drinking above each doſe a large draught of the lime-water; the remainder of which he may take any time betwixt dinner and ſupper, inſtead of other liquors.

The patient ſhould begin with a ſmaller quantity of the lime-water and ſoap than that mentioned above; at firſt an Engliſh pint of the former and three drachms of the latter may be taken daily. This quantity, however, he may increaſe by degrees, and ought to perſevere in the uſe of theſe medicines, eſpecially if he finds any abatement of his complaints, for ſeveral months; nay, if the ſtone be very large, for years. It may likewiſe be proper for the patient, if he be ſeverely pained, not only to begin with the ſoap and lime-water in ſmall quantities, but to take the ſecond or third lime-water inſtead of the firſt. However, after he has been for ſome time accuſtomed to theſe medicines, he may not only take the firſt water, but if he finds he can eaſily bear it, heighten its diſſolving power ſtill more by pouring it a ſecond time on freſh calcined ſhells.

The caustic alkali, or soap-lees (i. e. *water of pure kali*), is the medicine chiefly in vogue at present for the stone. It is of a very acrid nature, and ought therefore to be given in some gelatinous or mucilaginous liquor; as veal-broth, new-milk, linseed-tea, a solution of gum-arabic, or a decoction of marsh-mallow roots. The patient must begin with small doses of the lees, as thirty or forty drops, and increase by degrees, as far as the stomach can bear it.

The caustic alkali, now called *aqua kali puri*, may be prepared by mixing two parts of quick-lime with one of pot-ashes, and suffering them to stand till the lixivium be formed, which must be carefully filtrated before it be used. If the solution does not happen readily, a small quantity of water may be added to the mixture.

Though the soap-lees and lime-water are the most powerful medicines which have hitherto been discovered for the stone, yet there are some things of a more simple nature, which in certain cases are found to be beneficial, and therefore deserve a trial. An infusion of the seeds of *daucus sylvestris*, or wild carrot, sweetened with honey, has been found to give considerable ease in cases where the stomach could not bear any thing of an acrid nature. A decoction of raw coffee-berries taken morning and evening, to the quantity of eight or ten ounces, with ten drops of *spirit of nitrous ether* (sweet spirit of nitre), sweetened with honey, has likewise been found very efficacious in bringing away large quantities of earthy matter in flakes.

The only other medicine which we shall mention is the *uva ursi*. It has been greatly extolled of late both for the gravel and stone. It seems however to be in all respects inferior to the soap and lime-water; but it is less disagreeable, and has frequently, to my knowledge, relieved gravelly complaints. It is generally taken in powder from half a drachm to a whole drachm, two or three times a-day. It may however be taken to the quantity of seven or eight drachms a-day, with great safety and good effect.

In violent fits of the disorder, the *semicupium* or the warm bath is good: the body should be kept moderately open by a solution of *vitriolated magnesia*, or by the electuary of senna, castor-oil, or the infusion of senna.

CHAP. XXXIII.

OF INVOLUNTARY DISCHARGES OF BLOOD.

SPONTANEOUS or involuntary discharges of blood often happen from various parts of the body. These however are so far from being always dangerous, that they often prove salutary. When such discharges are critical, which is frequently the case in fevers, they ought not to be stopped. Nor indeed is it proper at any time to stop them, unless they be so great as to endanger the patient's life. Most people, afraid of the smallest discharge of blood from any part of the body, fly immediately to the use of styptic and astringent medicines, by which means an inflammation of the brain, or some other fatal

diſeaſe, is occaſioned, which, had the diſcharge been allowed to go on, might have been prevented.

Periodical diſcharges of blood, from whatever part of the body they proceed, muſt not be ſtopped. They are always the efforts of Nature to relieve herſelf; and fatal diſeaſes have often been the conſequence of obſtructing them. It may indeed be ſometimes neceſſary to check the violence of ſuch diſcharges; but even this requires the greateſt caution. Inſtances might be given where the ſtopping of a ſmall periodical flux of blood from one of the fingers has proved fatal to the patient.

In the early period of life, bleeding at the noſe is very common. Thoſe who are farther advanced in years are more liable to hæmoptoe, or diſcharge of blood from the lungs. After the middle period of life, hæmorrhoidal fluxes are moſt common; and in the decline of life, diſcharges of blood from the urinary paſſages.

Involuntary fluxes of blood may proceed from very different and often from quite oppoſite cauſes. Sometimes they are owing to a particular conſtruction of the body, as a ſanguine temperament, a laxity of the veſſels, a plethoric habit, &c. At other times they proceed from a determination of the blood towards one particular part, as the head, the hæmorrhoidal veins, &c. They may likewiſe proceed from an inflammatory diſpoſition of the blood, in which caſe there is generally ſome degree of fever: this likewiſe happens when the flux is occaſioned by an obſtructed perſpiration, or a ſtricture upon the ſkin, the bowels, or any particular part of the ſyſtem.

But a diſſolved ſtate of the blood will likewiſe occaſion hæmorrhages. Thus, in putrid fevers, the dyſentery, the ſcurvy, the malignant ſmall-pox, &c. there are often very great diſcharges of blood from different parts of the body. They may likewiſe be brought on by too liberal an uſe of medicines which tend to diſſolve the blood, as cantharides, the volatile alkaline ſalts, &c. Food of an acrid or irritating quality may likewiſe occaſion hæmorrhages; as alſo ſtrong purges and vomits, or any thing that greatly ſtimulates the bowels.

Violent paſſions or agitations of the mind will likewiſe have this effect. Theſe often cauſe bleeding at the noſe, and I have known them ſometimes occaſion an hæmorrhage in the brain. Violent efforts of the body, by overſtraining or hurting the veſſels, may have the ſame effect, eſpecially when the body is long kept in an unnatural poſture, as hanging the head very low, &c.

The cure of an hæmorrhage muſt be adapted to its cauſe. When it proceeds from too much blood, or a tendency to inflammation, bleeding, with gentle purges and other evacuations, will be neceſſary. It will likewiſe be proper for the patient in this caſe to live chiefly upon a vegetable diet, to avoid all ſtrong liquors, and food that is of an acrid, hot, or ſtimulating quality. The body ſhould be kept cool, and the mind eaſy.

When an hæmorrhage is owing to a putrid or diſſolved ſtate of the blood, the patient ought to live chiefly upon acid fruits with milk, and vegetables of a nouriſhing nature, as ſago, ſalop, &c. His drink may be wine diluted with water, and ſharpened with the juice of

lemon, vinegar, or *diluted acid of vitriol*. The beſt medicine in this caſe is the Peruvian bark, which may be taken according to the urgency of the ſymptoms.

When a flux of blood is the effect of acrid food, or of ſtrong ſtimulating medicines, the cure is to be effected by ſoft and mucilaginous diet. The patient may likewiſe take frequently about the bulk of a nutmeg of Locatelli's balſam, or the ſame quantity of ſpermaceti.

When an obſtructed perſpiration, or a ſtricture upon any part of the ſyſtem, is the cauſe of an hæmorrhage, it may be removed by drinking warm diluting liquors, lying a-bed, bathing the extremities in warm water, &c.

OF BLEEDING AT THE NOSE.

Bleeding at the noſe is commonly preceded by ſome degree of quickneſs of the pulſe, flushing in the face, pulſation of the temporal arteries, heavineſs in the head, dimneſs of the ſight, heat and itching of the noſtrils, &c.

To perſons who abound with blood, this diſcharge is very ſalutary. It often cures a vertigo, the head-ach, a phrenzy, and even an epilepſy. In fevers where there is a great determination of blood towards the head it is of the utmoſt ſervice. It is likewiſe beneficial in inflammations of the liver and ſpleen, and often in the gout and rheumatiſm. In all diſeaſes where bleeding is neceſſary, a ſpontaneous diſcharge of blood from the noſe is of much more ſervice than the ſame quantity let with a lancet.

In a diſcharge of blood from the noſe, the great point is to determine whether it ought to be ſtopped or not. It is a common practice to ſtop the bleeding, without conſidering whether it be a diſeaſe, or the cure of a diſeaſe. This conduct proceeds from fear; but it has often bad and ſometimes fatal conſequences.

When a diſcharge of blood from the noſe happens in an inflammatory diſeaſe, there is always reaſon to believe that it may prove ſalutary; and therefore it ſhould be ſuffered to go on, at leaſt as long as the patient is not weakened by it.

When it happens to perſons in perfect health, who are full of blood, it ought not to be ſuddenly ſtopped, eſpecially if the ſymptoms of plethora, mentioned above, have preceded it. In this caſe it cannot be ſtopped without riſking the patient's life.

In fine, whenever bleeding at the noſe relieves any bad ſymptom, and does not proceed ſo far as to endanger the patient's life, it ought not to be ſtopped. But when it returns frequently, or continues till the pulſe becomes low, the extremities begin to grow cold, the lips pale, or the patient complains of being ſick or faint, it muſt immediately be ſtopped.

For this purpoſe the patient ſhould be ſet nearly upright, with his head reclining a little, and his legs immerſed in water about the warmth of new milk. His hands ought likewiſe to be put in lukewarm water, and his garters may be tied a little tighter than uſual. Ligatures may be applied to the arms, about the place where they are uſually

made for bleeding, and with nearly the ſame degree of tightneſs. Theſe muſt be gradually ſlackened as the blood begins to ſtop, and removed entirely as ſoon as it gives over.

Sometimes dry lint put up the noſtrils will ſtop the bleeding. When this does not ſucceed, doſſils of lint dipped in ſtrong ſpirits of wine may be put up the noſtrils, or if that cannot be had, they may be dipped in brandy. Blue vitriol diſſolved in water may likewiſe be uſed for this purpoſe; or a tent dipped in the white of an egg well beat up, may be rolled in a powder made of equal parts of white ſugar, burnt alum, and white vitriol, and put up the noſtril from whence the blood iſſues.

Internal medicines can hardly be of uſe here, as they have ſeldom time to operate. It may not however be amiſs to give the patient half an ounce of *vitriolated natron* (Glauber's ſalt), and the ſame quantity of manna diſſolved in four or five ounces of barley-water. This may be taken at a draught, and repeated, if it does not operate in a few hours. Ten or twelve grains of nitre may be taken in a glaſs of cold water and vinegar every hour, or oftener, if the ſtomach will bear it. If a ſtronger medicine be neceſſary, a tea-cupful of the *infuſion of roſes*, with twenty or thirty drops of the weak ſpirit of vitriol, may be taken every hour. When theſe things cannot be had, the patient may drink water, with a little common ſalt in it, or equal parts of water and vinegar. From ten to twenty drops of the oil of turpentine in a little water, given frequently, ſeldom fails to ſtop a bleeding at the noſe, or from any other part.

If the genitals be immerſed for ſome time in cold water, it will generally ſtop a bleeding at the noſe. I have not known this fail; or cloths dipped in cold water may be applied to the *teſtes* or *pudenda*.

Sometimes, when the bleeding is ſtopped outwardly, it continues inwardly. This is very troubleſome, and requires particular attention, as the patient is apt to be ſuffocated with the blood, eſpecially if he falls aſleep, which he is very ready to do after loſing a great quantity of blood.

When the patient is in danger of ſuffocation from the blood getting into his throat, the paſſages may be ſtopped by drawing threads up the noſtrils, and bringing them out at the mouth, then faſtening pieces of ſponge or ſmall rolls of linen cloth to their extremities; afterwards drawing them back, and tying them on the outſide with a ſufficient degree of tightneſs.

After the bleeding is ſtopped, the patient ought to be kept as eaſy and quiet as poſſible. He ſhould not pick his noſe, nor take away the tents or clotted blood till they fall off of their own accord, and ſhould not lie with his head low.

Thoſe who are affected with frequent bleeding at the noſe, ought to bathe their feet often in warm water, and to keep them warm and dry. They ought to wear nothing tight about their necks, to keep their body as much in an erect poſture as poſſible, and never to view any object obliquely. If they have too much blood, a vegetable diet, with now and then a cooling purge, is the ſafeſt way to leſſen it.

But when the diſeaſe proceeds from a thin diſſolved ſtate of the blood, the diet ſhould be rich and nouriſhing; as ſtrong broths and jellies, ſago-gruel with wine and ſugar, &c. Infuſions of the Peruvian bark in wine ought likewiſe to be taken and perſiſted in for a conſiderable time.

OF THE BLEEDING AND BLIND PILES.

A DISCHARGE of blood from the hæmorrhoidal veſſels is called the *bleeding piles*. When the veſſels only ſwell, and diſcharge no blood, but are exceeding painful, the diſeaſe is called the *blind piles*.

Perſons of a looſe ſpongy fibre, of a bulky ſize, who live high, and lead a ſedentary, inactive life, are moſt ſubject to this diſeaſe. It is often owing to an hereditary diſpoſition. Where this is the caſe, it attacks perſons more early in life than when it is accidental. Men are more liable to it than women, eſpecially thoſe of a ſanguine, plethoric, or a ſcorbutic habit, or of a melancholy diſpoſition.

The piles may be occaſioned by an exceſs of blood, by ſtrong aloetic purges, high-ſeaſoned food, drinking great quantities of ſweet wines, the neglect of bleeding or other cuſtomary evacuations; much riding, great coſtiveneſs, or any thing that occaſions hard or difficult ſtools. Anger, grief, or other violent paſſions, will likewiſe occaſion the piles. I have often known them brought on by ſitting on the damp ground. A pair of thin breeches will excite the diſorder in a perſon who is ſubject to it, and ſometimes even in thoſe who never had it before. Pregnant women are often afflicted with the piles.

A flux of blood from the *anus* is not always to be treated as a diſeaſe. It is even more ſalutary than bleeding at the noſe, and often prevents or carries off diſeaſes. It is peculiarly beneficial in the gout, rheumatiſm, aſthma, and hypochondriacal complaints, and often proves critical in colics and inflammatory fevers.

In the management of the patient, regard muſt be had to his habit of body, his age, ſtrength, and manner of living. A diſcharge which might be exceſſive and prove hurtful to one, may be very moderate and even ſalutary to another. That only is to be eſteemed dangerous which continues too long, and is in ſuch quantity as to waſte the patient's ſtrength, hurt the digeſtion, nutrition, and other functions neceſſary to life.

When this is the caſe the diſcharge muſt be checked by a proper regimen and aſtringent medicines. The DIET muſt be cool but nouriſhing, conſiſting chiefly of bread, milk, cooling vegetables, and broths. The drink may be chalybeate water, orange-whey, decoctions or infuſions of the aſtringent and mucilaginous plants, as the tormentil root, biſtort, the marſh-mallow root, &c.

Old conſerve of red roſes is a very good medicine in this caſe. It may be mixed with new milk, and taken in the quantity of an ounce three or four times a-day. This medicine is in no great repute, owing to its being ſeldom taken in ſuch quantity as to produce any effects; but when taken as here directed, and duly perſiſted in, I have

known it perform very extraordinary cures in violent hæmorrhages, eſpecially when aſſiſted by the tincture of roſes; a tea-cupful of which may be taken about an hour after every doſe of the conſerve.

Cinchona (the Peruvian bark) is likewiſe proper in this caſe, both as a ſtrengthener and aſtringent. Half a drachm of it may be taken in a glaſs of red wine, ſharpened with a few drops of the elixir of vitriol, three or four times a-day.

The bleeding piles are ſometimes periodical, and return regularly once a-month, or once in three weeks. In this caſe they are always to be conſidered as a ſalutary diſcharge, and by no means to be ſtopped. Some have entirely ruined their health by ſtopping a periodical diſcharge of blood from the hæmorrhoidal veins.

In the *blind piles* bleeding is generally of uſe. The diet muſt be light and thin, and the drink cool and diluting. It is likewiſe neceſſary that the body be kept gently open. This may be done by ſmall doſes of the flowers of brimſtone and cream of tartar. Theſe may be mixed in equal quantities, and a tea-ſpoonful taken two or three times a-day, or oftener if neceſſary. Or an ounce of the flowers of brimſtone and half an ounce of purified nitre may be mixed with three or four ounces of the *electuary of ſenna*, and a tea-ſpoonful of it taken three or four times a-day.

Emollient clyſters are here likewiſe beneficial; but there is ſometimes ſuch an aſtriction of the *anus*, that they cannot be thrown up. In this caſe I have known a vomit have a very good effect.

When the piles are exceeding painful and ſwelled, but diſcharge nothing, the patient muſt ſit over the ſteams of warm water. He may likewiſe apply a linen cloth dipped in warm ſpirits of wine to the part, or poultices made of bread and milk, or of leeks fried with butter. If theſe do not produce a diſcharge, and the piles appear large, leeches muſt be applied as near them as poſſible, or if they will fix upon the piles themſelves, ſo much the better. When leeches will not fix, the piles may be opened with a lancet. The operation is very eaſy, and is attended with no danger.

Various ointments and other external applications are recommended in the piles; but I do not remember to have ſeen any effects from theſe worth mentioning. Their principal uſe is to keep the part moiſt, which may be done as well by a ſoft poultice, or an emollient cataplaſm. When the pain however is very great, a liniment made of two ounces of emollient ointment, and half an ounce of *tincture of opium* (liquid laudanum), beat up with the yolk of an egg, may be applied.

We cannot here forbear to make more generally known the method of curing the *blind piles* by dilatation of the rectum. A ſtriking inſtance of this practice is related in a foreign medical repoſitory, of the radical cure of a very obſtinate hæmorrhoidal affection by ſimply introducing a tent of rolled tow, ſmeared with hog's lard, about two inches long, and an inch in diameter at the baſis, into the anus, after every evacuation. This ſimple practice anſwered the intention completely, after a variety of other meaſures had failed.

SPITTING OF BLOOD.

We mean here to treat of that diſcharge of blood from the lungs only which is called an *hæmoptoe*, or *ſpitting of blood*. Perſons of a ſlender make, and a lax fibre, who have long necks and ſtrait breaſts, are moſt liable to this diſeaſe. It is moſt common in the ſpring, and generally attacks people before they arrive at the prime or middle period of life. It is a common obſervation, that thoſe who have been ſubject to bleeding at the noſe when young, are afterwards moſt liable to an hæmoptoe.

CAUSES.——An hæmoptoe may proceed from exceſs of blood, from a peculiar weakneſs of the lungs, or a bad conformation of the breaſt. It is often occaſioned by exceſſive drinking, running, wreſtling, ſinging, or ſpeaking aloud. Such as have weak lungs ought to avoid all violent exertions of that organ, as they value life. They ſhould likewiſe guard againſt violent paſſions, and every thing that occaſions a rapid circulation of the blood.

This diſeaſe may likewiſe proceed from wounds of the lungs. Theſe may either be received from without, or they may be occaſioned by hard bodies getting into the wind-pipe, and ſo falling down upon the lungs, and hurting that tender organ. The obſtruction of any cuſtomary evacuation may occaſion a ſpitting of blood; as neglect of bleeding or purging at the uſual ſeaſons, the ſtoppage of the bleeding piles in men, or the menſes in women, &c. It may likewiſe proceed from a polypus, ſchirrous concretions, or any thing that obſtructs the circulation of the blood in the lungs. It is often the effect of a long and violent cough, in which caſe it is generally the forerunner of a conſumption. A violent degree of cold ſuddenly applied to the external parts of the body will occaſion an hæmoptoe. It may likewiſe be occaſioned by breathing air which is too much rarefied to be able properly to expand the lungs. This is often the caſe with thoſe who work in hot places, as furnaces, glaſs-houſes, or the like. It is likewiſe ſaid to happen to ſuch as aſcend to the top of very high mountains, as the Peak of Teneriff, &c.

Spitting of blood is not always to be conſidered as a primary diſeaſe. It is often only a ſymptom, and in ſome diſeaſes not an unfavourable one. This is the caſe in pleuriſies, peripneumonies, and ſundry other fevers. In a dropſy, ſcurvy, or conſumption, it is a bad ſymptom, and ſhews that the lungs are ulcerated.

SYMPTOMS.——Spitting of blood is generally preceded by a ſenſe of weight, and oppreſſion of the breaſt, a dry tickling cough, hoarſeneſs, and a difficulty of breathing. Sometimes it is uſhered in with ſhivering coldneſs of the extremities, coſtiveneſs, great laſſitude, flatulence, pain of the back and loins, &c. As theſe ſhew a general ſtricture upon the veſſels, and a tendency of the blood to inflammation, they are commonly the forerunners of a very copious diſcharge. The above ſymptoms do not attend a diſcharge of blood from the gums or fauces, by which means theſe may always be diſtinguiſhed from an hæmoptoe. Sometimes the blood that is ſpit up is thin, and of a florid red colour; and at other times it is thick, and of a dark

or blackiſh colour: nothing however can be inferred from this circumſtance, but that the blood has lain a longer or ſhorter time in the breaſt before it was diſcharged.

Spitting of blood, in a ſtrong healthy perſon, of a ſound conſtitution, is not very dangerous; but when it attacks the tender and delicate, or perſons of a weak lax fibre, it is with difficulty removed. When it proceeds from a ſchirrus or polypus of the lungs, it is bad. The danger is greater when the diſcharge proceeds from the rupture of a large veſſel than of a ſmall one. When the extravaſated blood is not ſpit up, but lodges in the breaſt, it corrupts, and greatly increaſes the danger. When the blood proceeds from an ulcer in the lungs, it is generally fatal.

REGIMEN.——The patient ought to be kept cool and eaſy. Every thing that heats the body or quickens the circulation increaſes the danger. The mind ought likewiſe to be ſoothed, and every occaſion of exciting the paſſions avoided. The diet ſhould be ſoft, cooling, and ſlender; as rice boiled with milk, ſmall broths, barley-gruels, panado, &c. The diet, in this caſe, can ſcarce be too low. Even water-gruel is ſufficient to ſupport the patient for ſome days. All ſtrong liquors muſt be avoided. The patient may drink milk and water, barley-water, whey, butter-milk, and ſuch like. Every thing however ſhould be drank cold, and in ſmall quantities at a time. He ſhould obſerve the ſtricteſt ſilence, or at leaſt ſpeak with a very low voice.

MEDICINE.——This, like the other involuntary diſcharges of blood, ought not to be ſuddenly ſtopped by aſtringent medicines. More miſchief is often done by theſe than if it were ſuffered to go on. It may however proceed ſo far as to weaken the patient, and even endanger his life; in which caſe proper means muſt be uſed for reſtraining it.

The body ſhould be kept gently open by laxative diet; as roaſted apples, ſtewed prunes, and ſuch like. If theſe ſhould not have the deſired effect, a tea-ſpoonful of the lenitive electuary may be taken twice or thrice a-day, as is found neceſſary. If the bleeding proves violent, ligatures may be applied to the extremities, as directed for a bleeding at the noſe.

If the patient be hot or feveriſh, bleeding and ſmall doſes of nitre will be of uſe; a ſcruple or half a drachm of nitre may be taken in a cup of his ordinary drink twice or thrice a-day. His drink may likewiſe be ſharpened with acids, as juice of lemon, or a few drops of the ſpirit of vitriol; or he may take frequently a cup of the *infuſion of roſes*.

Bathing the feet and legs in lukewarm water has likewiſe a very good effect in this diſeaſe. Opiates too are ſometimes beneficial; but theſe muſt be adminiſtered with caution. Ten or twelve drops of laudanum may be given in a cup of barley-water twice a-day, and continued for ſome time, provided they be found beneficial.

The conſerve of roſes is likewiſe a very good medicine in this caſe, provided it be taken in ſufficient quantity, and long enough perſiſted in. It may be taken to the quantity of three or four ounces a-day;

and, if the patient be troubled with a cough, it ſhould be made into an electuary with balſamic ſyrup and a little of the ſyrup of white poppies.

If ſtronger aſtringents be neceſſary, fifteen or twenty drops of the *diluted acid of vitriol* may be given in a glaſs of water three or four times a-day.

Thoſe who are ſubject to frequent returns of this diſeaſe ſhould avoid all exceſs. Their diet ſhould be light and cool, conſiſting chiefly of milk and vegetables. Above all, let them beware of vigorous efforts of the body and violent agitations of the mind.

VOMITING OF BLOOD.

This is not ſo common as the other diſcharges of blood which have already been mentioned; but it is very dangerous, and requires particular attention.

Vomiting of blood is generally preceded by pain of the ſtomach, ſickneſs, and nauſea; and is accompanied with great anxiety, and frequent fainting fits.

This diſeaſe is ſometimes periodical; in which caſe it is leſs dangerous. It often proceeds from an obſtruction of the menſes in women, and ſometimes from the ſtopping of the hæmorrhoidal flux in men. It may be occaſioned by any thing that greatly ſtimulates or wounds the ſtomach, as ſtrong vomits or purges, acrid poiſons, ſharp or hard ſubſtances taken into the ſtomach, &c. It is often the effect of obſtructions in the liver, the ſpleen, or ſome of the other viſcera. It may likewiſe proceed from external violence, as blows or bruiſes, or from any of the cauſes which produce inflammation.

A great part of the danger in this diſeaſe ariſes from the extravaſated blood lodging in the bowels, and becoming putrid, by which means a dyſentery or putrid fever may be occaſioned. The beſt way of preventing this, is to keep the body gently open, by frequently exhibiting emollient clyſters. Purges muſt not be given till the diſcharge is ſtopt, otherwiſe they will irritate the ſtomach, and increaſe the diſorder. All the food and drink muſt be of a mild cooling nature, and taken in ſmall quantities. Even drinking cold water has ſometimes proved a remedy, but it will ſucceed better when ſharpened with the weak ſpirits of vitriol. When there are ſigns of an inflammation, bleeding may be neceſſary; but the patient's weakneſs will ſeldom permit it. Opiates may be of uſe; but they muſt be given in very ſmall doſes, as four or five drops of liquid laudanum twice or thrice a-day.

After the diſcharge is over, as the patient is generally troubled with gripes, occaſioned by the acrimony of the blood lodged in the inteſtines, gentle purges will be neceſſary.

OF BLOODY URINE.

This is a diſcharge of blood from the veſſels of the kidneys or bladder, occaſioned by their being either enlarged, broken, or eroded. It is more or leſs dangerous according to the different circumſtances which attend it.

When pure blood is voided ſuddenly without interruption and without pain, it proceeds from the kidneys; but if the blood be in ſmall quantity, of a dark colour, and emitted with heat and pain about the bottom of the belly, it proceeds from the bladder. When bloody urine is occaſioned by a rough ſtone deſcending from the kidneys to the bladder, which wounds the *ureters*, it is attended with a ſharp pain in the back, and difficulty of making water. If the coats of the bladder are hurt by a ſtone, and the bloody urine follows, it is attended with the moſt acute pain, and a previous ſtoppage of urine.

Bloody urine may likewiſe be occaſioned by falls, blows, the lifting or carrying of heavy burdens, hard riding, or any violent motion. It may alſo proceed from ulcers of the bladder, from a ſtone lodged in the kidneys, or from violent purges, or ſharp diuretic medicines, eſpecially cantharides.

Bloody urine is always attended with ſome degree of danger; but it is peculiarly ſo when mixed with purulent matter, as this ſhews an ulcer ſomewhere in the urinary paſſages. Sometimes this diſcharge proceeds from exceſs of blood, in which caſe it is rather to be conſidered as a ſalutary evacuation than a diſeaſe. If the diſcharge however be very great, it may waſte the patient's ſtrength, and occaſion an ill habit of body, a dropſy, or a conſumption.

The treatment of this diſorder muſt be varied according to the different cauſes from which it proceeds.

When it is owing to a ſtone in the bladder, the cure depends upon an operation, a deſcription of which would be foreign to our purpoſe.

If it be attended with a plethora, and ſymptoms of an inflammation, bleeding will be neceſſary. The body muſt likewiſe be kept open by emollient clyſters, or cooling purgative medicines; as cream of tartar, rhubarb, manna, or ſmall doſes of lenitive electuary, now called *electuary of ſenna*.

When bloody urine proceeds from a diſſolved ſtate of the blood, it is commonly the ſymptom of ſome malignant diſeaſe; as the ſmall-pox, a putrid fever, or the like. In this caſe the patient's life depends on the liberal uſe of the Peruvian bark and acids, as has already been ſhewn.

When there is reaſon to ſuſpect an ulcer in the kidneys or bladder, the patient's diet muſt be cool, and his drink of a ſoft, healing, balſamic quality, as decoctions of marſh-mallow roots with liquorice, ſolutions of gum-arabic, &c. Three ounces of marſh-mallow roots, and half an ounce of liquorice, may be boiled in two Engliſh quarts of water to one: two ounces of gum-arabic, and half an ounce of purified nitre, may be diſſolved in the ſtrained liquor, and a teacupful of it taken four or five times a-day.

The early uſe of aſtringents in this diſeaſe has often bad conſequences. When the flux is ſtopped too ſoon, the grumous blood, by being confined in the veſſels, may produce inflammations, abſceſs, and ulcers. If however the caſe be urgent, or the patient ſeems to ſuffer from the loſs of blood, gentle aſtringents may be neceſſary. In this caſe the patient may take three or four ounces of lime-water, with half an ounce of the tincture of Peruvian bark, three times a-day.

OF THE DYSENTERY, OR BLOODY FLUX.

This diſeaſe prevails in the ſpring and autumn. It is moſt common in marſhy countries, where, after hot and dry ſummers, it is apt to become epidemic. Perſons are moſt liable to it who are much expoſed to the night air, or who live in places where the air is confined and unwholeſome. Hence it often proves fatal in camps, on ſhipboard, in jails, hoſpitals, and ſuch like places.

CAUSES.——The dyſentery may be occaſioned by any thing that obſtructs the perſpiration, or renders the humours putrid; as damp beds, wet clothes, unwholeſome diet, bad air, &c. But it is moſt frequently communicated by infection. This ought to make people extremely cautious in going near ſuch perſons as labour under the diſeaſe. Even the ſmell of the patient's excrements has been known to communicate the infection.

SYMPTOMS.——It is known by a flux of the belly, attended by violent pain of the bowels, a conſtant inclination to go to ſtool, and generally more or leſs blood in the ſtools. It begins, like other fevers, with chilline ſs, loſs of ſtrength, a quick pulſe, great thirſt, and an inclination to vomit. The ſtools are at firſt greaſy and frothy, afterwards they are ſtreaked with blood, and at laſt have frequently the appearance of pure blood, mixed with ſmall filaments reſembling bits of ſkin. Worms are ſometimes paſſed both upwards and downwards through the whole courſe of the diſeaſe. When the patient goes to ſtool, he feels a bearing down, as if the whole bowels were falling out, and ſometimes a part of the inteſtine is actually protruded, which proves exceeding troubleſome, eſpecially in children. Flatulency is likewiſe a troubleſome ſymptom, eſpecially towards the end of the diſeaſe.

This diſeaſe may be diſtinguiſhed from a diarrhœa, or looſeneſs, by the acute pain of the bowels, and the blood which generally appears in the ſtools. It may be diſtinguiſhed from the *cholera morbus* by its not being attended with ſuch violent and frequent fits of vomiting, &c.

When the dyſentery attacks the old, the delicate, or ſuch as have been waſted by the gout, the ſcurvy, or other lingering diſeaſes, it generally proves fatal. Vomiting and hiccuping are bad ſigns, as they ſhew an inflammation of the ſtomach. When the ſtools are green, black, or have an exceeding diſagreeable cadaverous ſmell, the danger is very great, as it ſhews the diſeaſe to be of the putrid kind. It is an unfavourable ſymptom when clyſters are immediately returned; but ſtill more ſo when the paſſage is ſo obſtinately ſhut, that they cannot be injected. A feeble pulſe, coldneſs of the extremities, with difficulty of ſwallowing, and convulſions, are ſigns of approaching death.

REGIMEN.——Nothing is of more importance in this diſeaſe than cleanlineſs. It contributes greatly to the recovery of the patient, and no leſs to the ſafety of ſuch as attend him. In all contagious diſeaſes the danger is increaſed, and the infection ſpread, by the neglect of cleanlineſs; but in no one more than this. Every thing about the patient ſhould be frequently changed. The excre-

ment ſhould never be ſuffered to continue in his chamber, but removed immediately and buried under ground. A conſtant ſtream of freſh air ſhould be admitted into the chamber; and it ought frequently to be ſprinkled with vinegar, juice of lemon, or ſome other ſtrong acid.

The patient muſt not be diſcouraged, but his ſpirits kept up in hopes of a cure. Nothing tends more to render any putrid diſeaſe mortal than the fears and apprehenſions of the ſick. All diſeaſes of this nature have a tendency to ſink and depreſs the ſpirits, and when that is increaſed by fears and alarms from thoſe whom the patient believes to be perſons of ſkill, it cannot fail to have the worſt effects.

A flannel waiſtcoat worn next the ſkin has often a very good effect in the dyſentery. This promotes the perſpiration without overheating the body. Great caution however is neceſſary in leaving it off. I have often known a dyſentery brought on by imprudently throwing off a flannel waiſtcoat before the ſeaſon was ſufficiently warm. For whatever purpoſe this piece of dreſs is worn, it ſhould never be left off but in a warm ſeaſon.

In this diſeaſe the greateſt attention muſt be paid to the patient's diet. Fleſh, fiſh, and every thing that has a tendency to turn putrid or rancid on the ſtomach, muſt be abſtained from. Apples boiled in milk, water-pap, and plain light pudding, with broth made of the gelatinous parts of animals, may conſtitute the principal part of the patient's food. Gelatinous broth not only anſwers the purpoſe of food, but likewiſe of medicine. I have often known dyſenteries, which were not of a putrid nature, cured by it, after pompous medicines had proved ineffectual.

The manner of making this broth is, to take a ſheep's head and feet with the ſkin upon them, and to burn the wool off with a hot iron; afterwards to boil them till the broth is quite a jelly. A little cinnamon or mace may be added, to give the broth an agreeable flavour, and the patient may take a little of it warm with toaſted bread three or four times a-day. A clyſter of it may likewiſe be given twice a-day. Such as cannot uſe the broth made in this way, may have the head and feet ſkinned; but we have reaſon to believe that this injures the medicine. It is not our buſineſs here to reaſon upon the nature and qualities of medicine, otherwiſe this might be ſhewn to poſſeſs virtues every way ſuited to the cure of a dyſentery which does not proceed from a putrid ſtate of the humours. One thing we know, which is preferable to all reaſoning, that whole families have often been cured by it, after they had uſed many other medicines in vain. It will, however, be proper that the patient take a vomit, and a doſe or two of rhubarb, before he begins to uſe the broth. It will likewiſe be neceſſary to continue the uſe of it for a conſiderable time, and to make it the principal food.

Another kind of food very proper in the dyſentery, which may be uſed by ſuch as cannot take the broth mentioned above, is made by boiling a few handfuls of fine flour, tied in a cloth, for ſix or ſeven hours, till it becomes as hard as ſtarch. Two or three table-ſpoonfuls

of this may be grated down, and boiled in ſuch a quantity of new milk and water as to be of the thickneſs of pap. This may be ſweetened to the patient's taſte, and taken for his ordinary food.

The learned and humane Dr. Rutherford, late profeſſor of medicine in the Univerſity of Edinburgh, uſed to mention this food in his public lectures with great encomiums. He directed it to be made by tying a pound or two of the fineſt flour, as tight as poſſible, in a linen rag; afterwards to dip it frequently in water, and to dredge the outſide with flour, till a cake or cruſt was formed around it, which prevents the water from ſoaking into it while boiling. It is then to be boiled till it becomes a hard dry maſs, as directed above. This, when mixed with milk and water, will not only anſwer the purpoſe of food, but may likewiſe be given in clyſters.

In a *putrid dyſentery* the patient may be allowed to eat freely of moſt kinds of good ripe fruit; as apples, grapes, gooſeberries, currant-berries, ſtraw-berries, &c. Theſe may be either eaten raw or boiled, with or without milk, as the patient chooſes. The prejudice againſt fruit in this diſeaſe is ſo great, that many believe it to be the common cauſe of dyſenteries. This however is an egregious miſtake. Both reaſon and experience ſhew, that good fruit is one of the beſt medicines, both for the prevention and cure of the dyſentery. Good fruit is in every reſpect calculated to counteract that tendency to putrefaction, from whence the moſt dangerous kind of dyſentery proceeds. The patient in ſuch a caſe ought therefore to be allowed to eat as much fruit as he pleaſes, provided it be ripe.

The moſt proper drink in this diſorder is whey. The dyſentery has often been cured by the uſe of clear whey alone. It may be taken both for drink and in form of clyſter. When they cannot be had, barley-water ſharpened with cream of tartar may be drank, or a decoction of barley and tamarinds: two ounces of the former and one of the latter may be boiled in two Engliſh quarts of water to one. Warm water, water-gruel, or water wherein hot iron has been frequently quenched, are all very proper, and may be drank in turns. Camomile-tea, if the ſtomach will bear it, is an exceeding proper drink. It both ſtrengthens the ſtomach, and by its antiſeptic quality tends to prevent a mortification of the bowels.

MEDICINE.——At the beginning of this diſeaſe it is always neceſſary to cleanſe the firſt paſſages. For this purpoſe a vomit of ipecacuanha muſt be given, and wrought off with weak camomile-tea. Strong vomits are ſeldom neceſſary here. A ſcruple or at moſt half a drachm of ipecacuanha is generally ſufficient for an adult, and ſometimes a very few grains will ſuffice. The day after the vomit, half a drachm or two ſcruples of rhubarb muſt be taken; or, what will anſwer the purpoſe rather better, an ounce or an ounce and a half of Epſom ſalts. This doſe may be repeated every other day for two or three times. Afterwards ſmall doſes of ipecacuanha may be taken for ſome time. Two or three grains of the powder may be mixed in a table-ſpoonful of the ſyrup of white poppies, and taken three times a-day.

Theſe evacuations, and the regimen preſcribed above, will often

be ſufficient to effect a cure. Should it however happen otherwiſe, the following aſtringent medicines may be uſed.

A clyſter of ſtarch or fat mutton-broth, with thirty or forty drops of liquid laudanum in it, may be adminiſtered twice a-day. At the ſame time an ounce of gum-arabic, and half an ounce of gum-tragacanth, may be diſſolved in an Engliſh pint of barley-water over a ſlow fire, and a table-ſpoonful of it taken every hour.

If theſe have not the deſired effect, the patient may take, four times a-day, about the bulk of a nutmeg of the *electuary of catechu* (Japonic confection), drinking after it a tea-cupful of the decoction of logwood, prepared as directed in the Appendix.

Perſons who have been cured of this diſeaſe are very liable to relapſe; to prevent which, great circumſpection with reſpect to diet is neceſſary. The patient muſt abſtain from all fermented liquors, except now and then a glaſs of good wine; but he muſt drink no kind of malt liquor. He ſhould likewiſe abſtain from animal food, as fiſh and fleſh, and live principally on milk and vegetables.

Gentle exerciſe and wholeſome air are likewiſe of importance. The patient ſhould go to the country as ſoon as his ſtrength will permit, and ſhould take exerciſe daily on horſeback, or in a carriage. He may likewiſe uſe bitters infuſed in wine or brandy, and may drink twice a-day a gill of lime-water mixed with an equal quantity of new milk.

When dyſenteries prevail, we would recommend a ſtrict attention to cleanlineſs, a ſpare uſe of animal food, and the free uſe of ſound ripe fruits and other vegetables. The night air is to be carefully avoided, and all communication with the ſick. Bad ſmells are likewiſe to be ſhunned, eſpecially thoſe which ariſe from putrid animal ſubſtances. The neceſſaries where the ſick go are carefully to be avoided.

When the firſt ſymptoms of the dyſentery appear, the patient ought immediately to take a vomit, to go to bed, and drink plentifully of weak warm liquor to promote a ſweat. This, with a doſe or two of rhubarb at the beginning, would often carry off the diſeaſe. In countries where dyſenteries prevail, we would adviſe ſuch as are liable to them to take either a vomit or a purge every ſpring or autumn as a preventive.

There are ſundry other fluxes of the belly, as the LIENTERY and CŒLIAC PASSION, which, though leſs dangerous than the dyſentery, yet merit conſideration. Theſe diſeaſes generally proceed from a relaxed ſtate of the ſtomach and inteſtines, which is ſometimes ſo great, that the food paſſes through them with hardly any ſenſible alteration, and the patient dies merely from the want of nouriſhment.

When the lientery or cœliac paſſion ſucceeds to a dyſentery, the caſe is bad. They are always dangerous in old age, eſpecially when the conſtitution has been broken by exceſs or acute diſeaſes. If the ſtools be very frequent, and quite crude, the thirſt great, with little urine, the mouth ulcerated, and the face marked with ſpots of different colours, the danger is very great.

The treatment of the patient is in general the ſame as in the dyſentery. In all obſtinate fluxes of the belly, the cure muſt be attempt-

ed by firſt cleanſing the ſtomach and bowels with gentle vomits and purges; afterwards the Lichen Iſlandicus, or Iceland-moſs, in powder or decoction (as recommended in Conſumptions), rice milk, and ſuch a diet as has a tendency to heal and ſtrengthen the bowels, with opiates and aſtringent medicines, will generally complete the cure.

The ſame obſervation holds with reſpect to a TENESMUS, or frequent deſire of going to ſtool. This diſeaſe reſembles the dyſentery ſo much, both in its ſymptoms and method of cure, that we think it needleſs to inſiſt upon it.

CHAP. XXXIV.

OF THE HEAD-ACH.

ACHES and pains proceed from very different cauſes, and may affect any part of the body; but we ſhall point out thoſe only which occur moſt frequently and are attended with the greateſt danger.

When the head-ach is ſlight, and affects a particular part of the head only, it is called *cephalalgia;* when the whole head is affected, *cephalæa;* and when on one ſide only, *hemicrania.* A fixed pain in the forehead, which may be covered with the end of the thumb, is called the *clavis hyſtericus.*

There are alſo other diſtinctions. Sometimes the pain is internal, ſometimes external; ſometimes it is an original diſeaſe, and at other times only ſymptomatic. When the head-ach proceeds from a hot bilious habit, the pain is very acute and throbbing, with a conſiderable heat of the part affected. When from a cold phlegmatic habit, the patient complains of a dull heavy pain, and has a ſenſe of coldneſs in the part. This kind of head-ach is ſometimes attended with a degree of ſtupidity or folly.

Whatever obſtructs the free circulation of the blood through the veſſels of the head may occaſion a head-ach. In perſons of a full habit, who abound with blood, the head-ach often proceeds from the ſuppreſſion of cuſtomary evacuations; as bleeding at the noſe, ſweating of the feet, &c. It may likewiſe proceed from any cauſe that determines a great flux of blood towards the head; as coldneſs of the extremities, or hanging down the head for a long time. Whatever prevents the return of the blood from the head will likewiſe occaſion a head-ach; as looking long obliquely at any object, wearing any thing tight about the neck, a new hat, or the like.

When a head-ach proceeds from the ſtoppage of a running at the noſe, there is a heavy, obtuſe, preſſing pain in the fore part of the head, in which there ſeems to be ſuch a weight, that the patient can ſcarce hold it up. When it is occaſioned by the cauſtic matter of the venereal diſeaſe, it generally affects the ſkull, and often produces a *caries* of the bones.

Sometimes the head-ach proceeds from the repulſion or retroceſſion of the gout, the eryſipelas, the ſmall-pox, meaſles, itch, or other eruptive diſeaſes. What is called a *hemicrania* generally proceeds

from crudities or indigeſtion. Inanition, or emptineſs, will often alſo occaſion head achs. I have often ſeen inſtances of this in nurſes who gave ſuck too long, or who did not take ſufficient quantity of ſolid food.

There is likewiſe a moſt violent, fixed, conſtant, and almoſt intolerable head-ach, which occaſions great debility both of body and mind, prevents ſleep, deſtroys the appetite, cauſes a *vertigo*, dimneſs of ſight, a noiſe in the ears, convulſions, epileptic fits, and ſometimes vomiting, coſtiveneſs, coldneſs of the extremities, &c.

The head-ach is often ſymptomatic in continual and intermitting fevers, eſpecially quartans: it is likewiſe a very common ſymptom in hyſteric and hypochondriac complaints.

When a head-ach attends an acute fever, with pale urine, it is an unfavourable ſymptom. In exceſſive head-achs, coldneſs of the extremities is a bad ſign.

When the diſeaſe continues long, and is very violent, it often terminates in blindneſs, an apoplexy, deafneſs, a *vertigo*, the palſy, or the epilepſy.

In this diſeaſe the cool regimen in general is to be obſerved. The diet ought to conſiſt of ſuch emollient ſubſtances as will correct the acrimony of the humours and keep the body open; as apples boiled in milk, ſpinage, turnips, and ſuch like. The drink ought to be diluting; as barley-water, infuſions of mild mucilaginous vegetables, decoctions of the ſudorific woods, &c. The feet and legs ought to be kept warm, and frequently bathed in lukewarm water; the head ſhould be ſhaved, and bathed with water and vinegar. The patient ought as much as poſſible to keep in an erect poſture, and not to lie with his head too low.

When the head-ach is owing to exceſs of blood, or an hot bilious conſtitution, bleeding is neceſſary. The patient may be bled in the jugular vein, and the operation repeated if there be occaſion. Cupping alſo, or the application of leeches to the temples and behind the ears, will be of ſervice. Afterwards a bliſtering-plaſter may be applied to the neck behind the ears, or to any part of the head that is moſt affected. In ſome caſes it will be proper to bliſter the whole head. In perſons of a groſs habit, iſſues or perpetual bliſters will be of ſervice. The body ought likewiſe to be kept open by gentle laxatives, which, where the ſtrength of the patient will admit, ſhould be preceded by two or three briſk cathartics.

But when the head-ach proceeds from a copious vitiated *ſerum* ſtagnating in the membranes, either within or without the ſkull, with a dull, heavy, continual pain, which will neither yield to bleeding nor gentle laxatives, then more powerful purgatives are neceſſary, as pills made of aloes, reſin of jalap, or the like. It will alſo be neceſſary in this caſe to bliſter the whole head, and to keep the back part of the neck open for a conſiderable time by a perpetual bliſter.

When the head-ach is occaſioned by the ſtoppage of a running at the noſe, the patient ſhould frequently ſmell to a bottle of volatile ſalts; he may likewiſe take ſnuff, or any thing that will irritate the noſe, ſo as to promote a diſcharge from it; as the herb maſtich,

ground ivy, or the compound powder of aſarabucca, commonly called *cephalic ſnuff*.

A *hemicrania*, eſpecially a periodical one, is generally owing to a foulneſs of the ſtomach, for which gentle vomits muſt be adminiſtered, as alſo purges of rhubarb. After the bowels have been ſufficiently cleared, chalybeate waters, and ſuch bitters as ſtrengthen the ſtomach, will be neceſſary. A periodical head-ach has been cured by wearing a piece of flannel over the forehead during the night.

When the head-ach ariſes from a vitiated ſtate of the humours, as in the ſcurvy and venereal diſeaſe, the patient, after proper evacuations, muſt drink freely of the decoction of woods, or the *compound decoction of ſarſaparilla*, with raiſins and liquorice. Theſe, if duly perſiſted in, will produce very happy effects. When a collection of matter is felt under the ſkin, it muſt be diſcharged by an inciſion, otherwiſe it will render the bone carious.

When the head-ach is ſo intolerable as to endanger the patient's life, or is attended with continual watching and delirium, recourſe muſt be had to opiates. Theſe, after proper evacuations by clyſters or mild purgatives, may be applied both externally and internally. The affected part may be rubbed with Bate's anodyne balſam, or a cloth dipped in it may be applied to the part. The patient may, at the ſame time, take twenty drops of *tincture of opium*, in a cup of valerian or penny-royal tea, twice or thrice a-day. This is only to be done in caſe of extreme pain. Proper evacuations ought always to accompany and follow the uſe of opiates.

When the patient cannot bear the loſs of blood, his feet ought frequently to be bathed in lukewarm water, and well rubbed with a coarſe cloth. Cataplaſms with muſtard or horſe-radiſh ought likewiſe to be applied to them. This courſe is peculiarly neceſſary when the pain proceeds from a gouty humour affecting the head.

When the head-ach is occaſioned by great heat, hard labour, or violent exerciſe of any kind, it may be allayed by cooling medicines; as the ſaline draughts with nitre, and the like.

A little æther dropt into the palm of the hand, and applied to the forehead, will ſometimes remove a violent head-ach: and ſo will vinegar applied in the ſame manner, and ſnuffed up the noſe.

OF THE TOOTH-ACH.

This diſeaſe is ſo well known, that it needs no deſcription. It has great affinity with the rheumatiſm, and often ſucceeds pains of the ſhoulders and other parts of the body.

It may proceed from obſtructed perſpiration, or any of the other cauſes of inflammation. I have often known the tooth-ach occaſioned by neglecting ſome part of the uſual coverings of the head, by ſitting with the head bare near an open window, or expoſing it to a draught of cold air. Food or drink either too hot or too cold is very hurtful to the teeth. Great quantities of ſugar, or other ſweet meats, are likewiſe hurtful. Nothing is more deſtructive to the teeth than cracking nuts, or chewing any kind of hard ſubſtances. Picking the teeth with pins, needles, or any thing that may hurt the enamel with

which they are covered, does great miſchief, as the tooth is ſure to be ſpoiled whenever the air gets into it. Breeding women are very ſubject to the tooth-ach, eſpecially during the firſt three or four months of pregnancy. The tooth-ach often proceeds from ſcorbutic humours affecting the gums. In this caſe the teeth are ſometimes waſted, and fall out without any conſiderable degree of pain. The more immediate cauſe of the tooth-ach is a rotten or *carious* tooth.

In order to relieve the tooth-ach, we muſt firſt endeavour to leſſen the flux of humours to the part affected. This may be done by mild purgatives, ſcarifying the gums, or applying leeches to them, and bathing the feet frequently with warm water. The perſpiration ought likewiſe to be promoted by drinking freely of weak wine-whey, or other diluting liquors, with ſmall doſes of nitre. Vomits too have often an exceeding good effect in the tooth-ach. It is ſeldom ſafe to adminiſter opiates, or any kind of heating medicines, or even to draw a tooth, till proper evacuations have been premiſed; and theſe alone will often effect the cure.

If this fails, and the pain and inflammation ſtill increaſe, a ſuppuration may be expected, to promote which a toaſted fig ſhould be held between the gum and the cheek; bags filled with boiled camomile-flowers, flowers of elder, or the like, may be applied near the part affected, with as great a degree of warmth as the patient can bear, and renewed as they grow cool: the patient may likewiſe receive the ſteams of warm water into his mouth through an inverted funnel, or by holding his head over the mouth of a porringer filled with warm water.

Such things as promote the diſcharge of ſaliva, or cauſe the patient to ſpit, are generally of ſervice. For this purpoſe, bitter, hot, or pungent vegetables may be chewed; as gentian, a bit of gall, calamus aromaticus, or pellitory of Spain. Allen recommends the root of *yellow water flower-de-luce* in this caſe. This root may either be rubbed upon the tooth, or a little of it chewed. Brookes ſays he hardly ever knew it fail to eaſe the tooth-ach. It ought however to be uſed with caution.

Many other herbs, roots, and ſeeds, are recommended for curing the tooth-ach; as the leaves or roots of millefoil or yarrow chewed, tobacco ſmoked or chewed, ſtaves-acre, or the ſeeds of muſtard chewed, &c. Theſe bitter, hot, and pungent things, by occaſioning a greater flow of *ſaliva*, frequently give eaſe in the tooth-ach.

Many women, when they are pregnant, are more than uſually liable to pains in the teeth; to procure eaſe, ſome perſons we have known had ſubmitted to the extraction of ſound teeth, and reckoned on "*loſing a tooth for every child:*" in ſeveral of theſe caſes we have ſucceeded by directing the patient to apply from time to time a bit of the pellitory of Spain. If the gums were ſwollen, they were lanced, and ſometimes vitriolic ether was dropped on the affected cheek, the hand being held to the part till that volatile liquor was evaporated: by this ſimple means, with a little patience, they preſerved the remainder of their teeth.

If the patient having the tooth-ach be of a plethoric habit, or the

gums be conſiderably inflamed, recourſe ſhould be had to bleeding, particularly by leeches, or cupping glaſſes applied contiguouſly to the part affected; and as few applications give more relief in this painful complaint than bliſtering plaſters, one may be applied to the nape of the neck; but they are more ſerviceable when placed behind the ears, and made ſo large as to cover a great part of the lower jaw.

Opiates often relieve the tooth-ach; for this purpoſe a little cotton wet with the tincture of *opium* may be held between the teeth; or a drop or two of the oil of cloves, marjoram, or thyme, may be inſerted in the cavity of the tooth, or dropped on the lint, or cotton ſaturated with the tincture; or a piece of ſticking plaſter about the bigneſs of a ſhilling, with a bit of opium in the middle of it, of a ſize not to prevent the ſticking of the other, may be laid on the temporal artery, where the pulſation is moſt ſenſible. *De la Motte* affirms, that there are few caſes in which this will not give relief. If there be a hollow tooth, a ſmall pill made of the opium pill of the London or Edinburgh Diſpenſatory, or of equal parts of camphire and opium, put into the hollow, is often beneficial.

The ethereal oil of Cajeput, which is imported from the Eaſt Indies, has a moſt remarkable effect in aſſuaging the pain of the tooth-ach, if dropped on lint, and placed in the cavity of the tooth, or even around the gum. When this cannot be had, and other means fail to afford relief, the hollow tooth may be filled with gum-maſtich, wax, leaf-gold, tin-foil, or any ſubſtance that will ſtick in it, and keep out the external air. Where the tooth can be conveniently got at, the actual cautery, a red-hot wire or the point of a knitting-pin inſerted in the cavity of a carious tooth, by deſtroying the ſenſibility of the nerve, often reſtores eaſe to the afflicted.

After all, when a tooth is carious, it is often impoſſible to remove the pain without extracting it; and as a ſpoiled tooth never becomes ſound again, it is prudent to draw it ſoon, leſt it ſhould affect the reſt.

Tooth-drawing, like bleeding, is very much practiſed by mechanics, as well as perſons of the medical profeſſion: when the aſſiſtance of the latter can be obtained, it muſt always be deſirable to the patient, becauſe the operation is not without danger, and ought always to be performed with care.

When the tooth-ach returns periodically, and the pain chiefly affects the gums, it may be cured by mild aperients, and by *cinchona* (i. e. Peruvian bark) and ſimilar tonics, which in certain caſes ſhould be preceded by the exhibition of an emetic.

Some pretend to have found great benefit in the tooth-ach from the application of an artificial magnet to the affected tooth. We ſhall not attempt to account for its mode of operation; but if it be found to anſwer, though it only be in particular caſes, it certainly deſerves a trial, as it is attended with no expence, and cannot do any harm. Electricity has likewiſe been recommended, and inſtruments have been invented for ſending a ſhock through the affected tooth.

Keeping the teeth clean has, no doubt, a tendency to prevent the tooth-ach. The beſt method of doing this is to waſh them daily with

ſalt and water, or a weak ſolution of ſoda in water; or a *decoction of cinchona*, or with cold water alone. For cleanſing and preſerving the teeth, the powder of *cinchona*, or of charcoal reduced to an impalpable powder, are alſo found ſafe and uſeful, applied by the ſmall finger, a piece of calico, or the end of a bit of freſh liquorice root. Bruſhing and ſcraping of the teeth is hurtful, unleſs it is performed with great care.

• Fourcroy, a celebrated French chemiſt, is ſaid to have been the firſt who recommended charcoal powder as an antiſeptic poſſeſſing the powder of rendering the teeth white, deſtroying fœtor of the breath, preſerving the gums in an healthy ſtate, and ſuſpending the further decay of a tooth, even when that has taken place, being at the ſame time incapable of injuring either the teeth or gums; it is however certain that our ſagacious and eccentric countryman, Nicholas Culpeper, a name famous among the practitioners of "Domeſtic Medicine," more than a century before Fourcroy, mentioned it as an excellent dentrifice:—"The aſhes of the burnt branches of the vine," ſaid he, "will make teeth that are as black as a coal, to be as white "as ſnow, if you but every morning rub them with it."

OF THE EAR-ACH.

THIS diſorder chiefly affects the membrane which lines the inner cavity of the ear called the *meatus auditorius*. It is often ſo violent as to occaſion great reſtleſſneſs, anxiety, and even delirium. Sometimes epileptic fits, and other convulſive diſorders, have been brought on by extreme pain in the ear.

The ear-ach may proceed from any of the cauſes which produce inflammation. It often proceeds from a ſudden ſuppreſſion of perſpiration, or from the head being expoſed to cold when covered with ſweat. It may alſo be occaſioned by worms or other inſects getting into the ear, or being bred there; or from any hard body ſticking in the ear. Sometimes it proceeds from the tranſlation of morbific matter to the ear. This often happens in the decline of malignant fevers, and occaſions deafneſs, which is generally reckoned a favourable ſymptom.

When the ear-ach proceeds from inſects or any hard body ſticking in the ear, every method muſt be taken to remove them as ſoon as poſſible. The membranes may be relaxed by dropping into the ear oil of ſweet almonds, or olive oil. Afterwards the patient ſhould be made to ſneeze, by taking ſnuff, or ſome ſtrong ſternutatory. If this ſhould not force out the body, it muſt be extracted by art. I have ſeen inſects, which had got into the ear, come out of their own accord upon pouring in oil. In a caſe of this nature, the camphorated oil, we think, would prove moſt effectual.

When the pain of the ear proceeds from inflammation, it muſt be treated, like other topical inflammations, by a cooling regimen and opening medicines. Bleeding at the beginning, either in the arm or jugular vein, or cupping in the neck, will be proper. The ear may likewiſe be fomented with ſteams of warm water; or flannel bags filled with boiled mallows and camomile-flowers may be applied to it

warm; or bladders filled with warm milk and water. An exceeding good method of fomenting the ear is to apply it close to the mouth of a jug filled with warm water, or a strong decoction of camomile-flowers.

The patient's feet should be frequently bathed in lukewarm water, and he ought to take small doses of nitre and rhubarb, viz. a scruple of the former, and ten grains of the latter, three times a-day. His drink may be whey, or decoction of barley and liquorice with figs or raisins. The parts behind the ear ought frequently to be rubbed with camphorated oil, or a little of the *liniment of ammonia*, or equal parts of oil and *volatile liquor of hartshorn*.

When the inflammation cannot be discussed, a poultice of bread and milk, or roasted onions, may be applied to the ear, and frequently renewed, till the abscess breaks, or can be opened. Afterwards the humours may be diverted from the part by gentle laxatives, blisters, or issues; but the discharge must not be suddenly dried up by any external application.

PAIN OF THE STOMACH, &c.

This may proceed from various causes, as indigestion; wind; the acrimony of the bile; sharp, acrid, or poisonous substances taken into the stomach, &c. It may likewise be occasioned by worms; the stoppage of customary evacuations; a translation of gouty matter to the stomach, the bowels, &c.

Women in the decline of life are very liable to pains of the stomach and bowels, especially such as are afflicted with hysteric complaints. It is likewise very common to hypochondriac men of a sedentary and luxurious life. In such persons it often proves so extremely obstinate as to baffle all the powers of medicine.

When the pain of the stomach is most violent after eating, there is reason to suspect that it proceeds from some fault either in the digestion or the food. In this case the patient ought to change his diet, till he finds what kind of food agrees best with his stomach, and should continue chiefly to use it. If a change of diet does not remove the complaint, the patient may take a gentle vomit, and afterwards a dose or two of rhubarb. He ought likewise to take an infusion of camomile-flowers, or some other stomachic bitter, either in wine or water. I have often known exercise remove this complaint, especially sailing, or a long journey on horseback, or in a carriage.

When a pain of the stomach proceeds from flatulency, the patient is constantly belching up wind, and feels an uneasy distention of the stomach after meals. This is a most deplorable disease, and is seldom thoroughly cured. In general, the patient ought to avoid all windy diet, and every thing that sours on the stomach, as greens, roots, &c. This rule however admits of some exceptions. There are many instances of persons very much troubled with wind, who have received great benefit from eating parched pease, though that grain is generally supposed to be of a windy nature. These are prepared by steeping or soaking pease in water, and afterwards drying them in a pot or kiln till they be quite hard. They may be used at pleasure.

This complaint may likewiſe be greatly relieved by labour, eſpecially digging, reaping, mowing, or any kind of active employment by which the bowels are alternately compreſſed and dilated. The moſt obſtinate caſe of this kind I ever met with was in a perſon of a ſedentary occupation, whom I adviſed, after he had tried every kind of medicine in vain, to turn gardener; which he did, and has ever ſince enjoyed good health.

When a pain of the ſtomach is occaſioned by the ſwallowing of acrid or poiſonous ſubſtances, they muſt be diſcharged by vomit: this may be excited by butter, oils, or other ſoft things, which ſheath and defend the ſtomach from the acrimony of its contents.

When pain of the ſtomach proceeds from a tranſlation of gouty matter, warm cordials are neceſſary, as generous wines, French brandy, &c. Some have drank a whole bottle of brandy or rum, in this caſe, in a few hours, without being in the leaſt intoxicated, or even feeling the ſtomach warmed by it. It is impoſſible to aſcertain the quantity neceſſary upon theſe occaſions. This muſt be left to the feelings and diſcretion of the patient. The ſafer way however is, not to go too far. When there is an inclination to vomit, it may be promoted by drinking an infuſion of camomile-flowers, or of *carduus benedictus*.

If a pain of the ſtomach proceed from the ſtoppage of cuſtomary evacuations, bleeding will be neceſſary, eſpecially in ſanguine and very full habits. It will likewiſe be of uſe to keep the body gently open by mild purgatives; as rhubarb or ſenna. When this diſeaſe affects women in the decline of life, after the ſtoppage of the *menſes*, making an iſſue in the leg or arm will be of peculiar ſervice.

When the diſeaſe is occaſioned by worms, they muſt be deſtroyed, or expelled by ſuch means as are recommended in the following ſection.

When the ſtomach is greatly relaxed and the digeſtion bad, which often occaſion flatulencies, the elixir of vitriol will be of ſingular ſervice. Fifteen or twenty drops of it may be taken in a glaſs of wine or water twice or thrice a-day.

Perſons afflicted with flatulency are generally unhappy unleſs they be taking ſome purgative medicines; theſe, though they may give immediate eaſe, tend to weaken and relax the ſtomach and bowels, and conſequently increaſe the diſorder. Their beſt method is to mix purgatives and ſtomachics together. Equal parts of Peruvian bark and rhubarb may be infuſed in brandy or wine, and taken in ſuch quantity as to keep the body gently open.

Pain and a grinding ſenſation occaſioned by indigeſted *fordes* in the ſtomach, we have often known removed by the patient ſwallowing at bed-time, for two or three nights, three or four cloves of garlic: the external rind muſt be peeled off; they may then be dipped in oil, or divided by a knife, and taken as pills.

CHAP. XXXV.

OF WORMS.

THESE are chiefly of three kinds, viz. the *tænia*, or tape-worm; the *teres*, or round and long worm; and the *aſcarides*, or round and ſhort worm. There are many other kinds of worms found in the human body; but as they proceed, in a great meaſure, from ſimilar cauſes, have nearly the ſame ſymptoms, and require almoſt the ſame method of treatment as theſe already mentioned, we ſhall not ſpend time in enumerating them.

The tape-worm is white, very long, and full of joints. It is generally bred either in the ſtomach or ſmall inteſtines. The round and long worm is likewiſe bred in the ſmall guts, and ſometimes in the ſtomach. The round and ſhort worms commonly lodge in the *rectum*, or what is called the end gut, and occaſion a diſagreeable itching about the ſeat.

The long round worms occaſion ſqueamiſhneſs, vomiting, a diſagreeable breath, gripes, looſeneſs, ſwelling of the belly, ſwoonings, loathing of food, and at other times a voracious appetite, a dry cough, convulſions, epileptic fits, and ſometimes a privation of ſpeech. Theſe worms have been known to perforate the inteſtines, and get into the cavity of the belly. The effects of the tape-worm are nearly the ſame with thoſe of the long and round, but rather more violent.

Andry ſays, the following ſymptoms particularly attend the *ſolium*, which is a ſpecies of the tape-worm, viz. ſwoonings, privation of ſpeech, and a voracious appetite. The round worms called *aſcarides*, beſides an itching of the *anus*, cauſe ſwoonings, and teneſmus, or an inclination to go to ſtool.

CAUSES.——Worms may proceed from various cauſes; but they are ſeldom found except in weak and relaxed ſtomachs, where the digeſtion is bad. Sedentary perſons are more liable to them than the active and laborious. Thoſe who eat great quantities of unripe fruit, or who live much on raw herbs and roots, are generally ſubject to worms. There ſeems to be an hereditary diſpoſition in ſome perſons to this diſeaſe. I have often ſeen all the children of a family ſubject to worms of a particular kind. They ſeem likewiſe frequently to be owing to the nurſe. Children of the ſame family, nurſed by one woman, have often worms, when thoſe nurſed by another have none.

SYMPTOMS.——The common ſymptoms of worms are, paleneſs of the countenance, and at other times an univerſal fluſhing of the face; itching of the noſe; this however is doubtful, as children pick their noſes in all diſeaſes; ſtarting, and grinding of the teeth in ſleep; ſwelling of the upper lip; the appetite ſometimes bad, at other times quite voracious; looſeneſs; a ſour or ſtinking breath; a hard ſwelled belly; great thirſt; the urine frothy, and ſometimes of a whitiſh colour; griping or colic pains; an involuntary diſcharge of *ſaliva*, eſpecially when aſleep; frequent pains of the ſide,

with a dry cough, and unequal pulſe; palpitations of the heart; ſwoonings; drowſineſs; cold ſweats; palſy; epileptic fits, with many other unaccountable nervous ſymptoms, which were formerly attributed to witchcraft, or the influence of evil ſpirits. Small bodies in the excrements reſembling melon or cucumber ſeeds are ſymptoms of the tape-worm.

I lately ſaw ſome very ſurpriſing effects of worms in a girl about five years of age, who uſed to lie for whole hours as if dead. She at laſt expired, and, upon opening her body, a number of the *teres*, or long round worms, were found in her guts, which were conſiderably inflamed; and what anatomiſts call an *intus ſuſceptio*, or involving of one part of the gut within another, had taken place in no leſs than four different parts of the inteſtinal canal.

MEDICINE.——A medical writer of the preſent age has enumerated upwards of fifty Britiſh plants, all celebrated for killing and expelling worms; but though numberleſs medicines are extolled for expelling and killing worms, yet no diſeaſe more frequently baffles the phyſician's ſkill. In general, the moſt proper medicines for their expulſion are ſtrong purgatives; and to prevent their breeding, ſtomachic bitters, with now and then a glaſs of good wine.

The beſt purge for an adult is jalap and calomel. Five and twenty or thirty grains of the former with ſix or ſeven of the latter, mixed in ſyrup, may be taken early in the morning, for a doſe. It will be proper that the patient keep the houſe all day, and drink nothing cold. The doſe may be repeated once or twice a week, for a fortnight or three weeks. On the intermediate days the patient may take a drachm of the powder of tin, twice or thrice a-day, mixed with ſyrup, honey, or treacle.

Thoſe who do not chooſe to take calomel may make uſe of the bitter purgatives; as aloes, hiera picra, tincture of ſenna, and rhubarb, &c.

Oily medicines are ſometimes found beneficial for expelling worms. An ounce of ſalad oil and a table-ſpoonful of common ſalt may be taken in a glaſs of red port wine thrice a-day, or oftener, if the ſtomach will bear it. But the more common form of uſing oil is in clyſters. Oily clyſters, ſweetened with ſugar or honey, are very efficacious in bringing away the ſhort round worms called *aſcarides*, and likewiſe the *teres*.

The Harrogate water is an excellent medicine for expelling worms, eſpecially the *aſcarides*. As this water is impregnated with ſulphur, we may hence infer that ſulphur alone muſt be a good medicine in this caſe, which is found to be a fact. Many practitioners give flour of ſulphur in very large doſes, and with great ſucceſs. It ſhould be made into an electuary with honey or treacle, and taken in ſuch quantity as to purge the patient.

Where Harrogate water cannot be obtained, ſea-water may be uſed, which is far from being a contemptible medicine in this caſe. If ſea-water cannot be had, common ſalt diſſolved in water may be drank. I have often ſeen this uſed by country nurſes with very good effect. Some flour of ſulphur may be taken over night, and the ſalt-water in the morning.

But worms, though expelled, will ſoon breed again, if the ſtomach remains weak and relaxed; to prevent which, we would recommend the Peruvian bark. Half a drachm of bark in powder may be taken in a glaſs of red port wine three or four times a-day, after the above medicines have been uſed. Lime-water is likewiſe good for this purpoſe, or a table-ſpoonful of the chalybeate wine taken twice or thrice a-day. Infuſions or decoctions of bitter herbs may likewiſe be drank; as the infuſion of tanſy, water-trefoil, camomile-flowers, tops of wormwood, the leſſer centaury, &c.

For a child of four or five years old, ſix grains of rhubarb, five of jalap, and two of calomel, may be mixed in a ſpoonful of ſyrup or honey, and given in the morning. The child ſhould keep the houſe all day, and take nothing cold. This doſe may be repeated twice a-week for three or four weeks. On the intermediate days the child may take a ſcruple of powdered tin and ten grains of æthiops mineral in a ſpoonful of treacle twice a-day. This doſe muſt be increaſed or diminiſhed according to the age of the patient.

Biſſet ſays, the great baſtard black hellebore, or *bear's foot*, is a moſt powerful vermifuge for the long round worms. He orders the decoction of about a drachm of the green leaves, or about fifteen grains of the dried leaves in powder, for a doſe to a child between four and ſeven years of age. This doſe is to be repeated two or three times. He adds, that the green leaves made into a ſyrup with coarſe ſugar is almoſt the only medicine he has uſed for round worms for three years paſt. Before preſſing out the juice, he moiſtens the bruiſed leaves with vinegar, which corrects the medicine. The doſe is a tea-ſpoonful at bed-time, and one or two next morning.

I have frequently known thoſe big bellies, which in children are commonly reckoned a ſign of worms, quite removed by giving them white ſoap in their pottage or other food. Tanſy, garlic, and rue, are all good againſt worms, and may be uſed various ways. We might here mention many other plants, both for external and internal uſe, as the cabbage bark, &c. but think the powder of tin with æthiops mineral, and the purges of rhubarb and calomel, are more to be depended on.

Dr. Ball's purging vermifuge powder is a very powerful medicine: it is made of equal parts of rhubarb, ſcammony, and calomel, with as much double refined ſugar as is equal to the weight of all the other ingredients. Theſe muſt be well mixed together, and reduced to a fine powder. The doſe for a child is from ten grains to twenty, once or twice a-week. An adult may take a drachm for a doſe.

Parents who would preſerve their children from worms ought to allow them plenty of exerciſe in the open air; to take care that their food be wholeſome and ſufficiently ſolid; and, as far as poſſible, to prevent their eating raw herbs, roots, or green traſhy fruits. It will not be amiſs to allow a child who is ſubject to worms a glaſs of red wine after meals; as every thing that braces and ſtrengthens the ſtomach is good both for preventing and expelling theſe vermin.

We think it neceſſary here to warn people of their danger who buy cakes, powders, and other worm medicines, at random from

quacks, and give them to their children without proper care. The principal ingredients in moſt of theſe medicines is mercury, which is never to be trifled with. I lately ſaw a ſhocking inſtance of the danger of this conduct. A girl, who had taken a doſe of worm powder bought of a travelling quack, went out, and perhaps was ſo imprudent as to drink cold water during its operation: ſhe immediately ſwelled, and died on the following day, with all the ſymptoms of having been poiſoned.

CHAP. XXXVI.

OF THE JAUNDICE.

THIS diſeaſe is firſt obſervable in the white of the eye, which appears yellow. Afterwards the whole ſkin puts on a yellow appearance. The urine too is of a ſaffron hue, and dyes a white cloth of the ſame colour. There is likewiſe a ſpecies of this diſeaſe called the Black Jaundice.

CAUSES.——The immediate cauſe of the jaundice is an obſtruction of the bile. The remote or occaſional cauſes are, the bites of poiſonous animals, as the viper, mad dog, &c.; the bilious or hyſteric colic; violent paſſions, as grief, anger, &c. Strong purges or vomits will likewiſe occaſion the jaundice. Sometimes it proceeds from obſtinate agues, or from that diſeaſe being prematurely ſtopped by aſtringent medicines. In infants it is often occaſioned by the *meconium* not being ſufficiently purged off. Pregnant women are very ſubject to it. It is likewiſe a ſymptom in ſeveral kinds of fever. Catching cold, or the ſtoppage of cuſtomary evacuations, as the *menſes*, the bleeding piles, iſſues, &c. will occaſion the jaundice.

SYMPTOMS.——The patient at firſt complains of exceſſive wearineſs, and has a great averſion to every kind of motion. His ſkin is dry, and he generally feels a kind of itching or pricking pain over the whole body. The ſtools are of a whitiſh or clay colour, and the urine, as was obſerved above, is yellow. The breathing is difficult, and the patient complains of an unuſual load or oppreſſion on his breaſt. There is a heat in his noſtrils, a bitter taſte in the mouth, loathing of food, ſickneſs of the ſtomach, vomiting, flatulency, and other ſymptoms of indigeſtion.

If the patient be young, and the diſeaſe complicated with no other malady, it is ſeldom dangerous; but in old people, where it continues long, returns frequently, or is complicated with the dropſy or hypochondriac ſymptoms, it generally proves fatal. The black jaundice is more dangerous than the yellow.

REGIMEN.——The diet ſhould be cool, light, and diluting, conſiſting chiefly of ripe fruits and mild vegetables; as apples boiled or roaſted, ſtewed prunes, preſerved plums, boiled ſpinage, &c. Veal or chicken-broth, with light bread, are likewiſe very proper. Many have been cured by living almoſt wholly for ſome days on raw eggs. The drink ſhould be butter-milk, whey ſweetened with honey,

or decoctions of cool opening vegetables; or marſh-mallow roots, with liquorice, &c.

The patient ſhould take as much exerciſe as he can bear, either on horſeback or in a carriage; walking, running, and even jumping, are likewiſe proper, provided he can bear them without pain, and there be no ſymptoms of inflammation. Patients have often been cured of this diſeaſe by a long journey, after medicines had proved ineffectual.

Amuſements are likewiſe of great uſe in the jaundice. The diſeaſe is often occaſioned by a ſedentary life, joined to a dull melancholy diſpoſition. Whatever therefore tends to promote the circulation, and to cheer the ſpirits, muſt have a good effect; as dancing, laughing, ſinging, &c.

MEDICINE.——If the patient be young, of a full ſanguine habit, and complains of pain in the right ſide about the region of the liver, bleeding will be neceſſary. After this a vomit muſt be adminiſtered, and, if the diſeaſe proves obſtinate, it may be repeated once or twice. No medicines are more beneficial in the jaundice than vomits, eſpecially where it is not attended with inflammation. Half a drachm of ipecacuanha in powder will be a ſufficient doſe for an adult. It may be wrought off with weak camomile-tea or lukewarm water. The body muſt likewiſe be kept open by taking a ſufficient quantity of Caſtile ſoap, or the pills for the jaundice recommended in the Appendix.

Fomenting the parts about the region of the ſtomach and liver, and rubbing them with a warm hand or fleſh-bruſh, are likewiſe beneficial; but it is ſtill more ſo for the patient to ſit in a bath of warm water up to the breaſt. He ought to do this frequently, and ſhould continue in it as long as his ſtrength will permit.

Many dirty things are recommended for the cure of the jaundice; as lice, millepedes, &c. But theſe do more harm than good, as people truſt to them, and neglect more valuable medicines; beſides, they are ſeldom taken in ſufficient quantity to produce any effects. People always expect that ſuch *things* ſhould act as charms, and conſequently ſeldom perſiſt in the uſe of them. Vomits, purges, fomentations, and exerciſe, will ſeldom fail to cure the jaundice when it is a ſimple diſeaſe; and when complicated with the dropſy, a ſchirrous liver, or other chronic complaints, it is hardly to be cured by any means.

Numberleſs Britiſh herbs are extolled for the cure of this diſeaſe. The author of the *Medicina Britannica* mentions near a hundred, all famous for curing the jaundice. The fact is, the diſeaſe often goes off of its own accord; in which caſe the laſt medicine is always ſaid to have performed the cure. I have ſometimes however ſeen conſiderable benefit, in a very obſtinate jaundice, from a decoction of hemp-ſeed. Four ounces of the ſeed may be boiled in two Engliſh quarts of ale, and ſweetened with coarſe ſugar. The doſe is half an Engliſh pint every morning. It may be continued for eight or nine days.

I have likewiſe known Harrogate ſulphur water cure a jaundice of very long ſtanding. It ſhould be uſed for ſome weeks, and the patient muſt both drink and bathe.

The ſoluble tartar (i. e. *tartarized kali*) is a very proper medicine

in the jaundice. A drachm of it may be taken every night and morning in a cup of tea or water-gruel. If it does not open the body, the doſe may be increaſed.

Perſons ſubject to the jaundice ought to take as much exerciſe as poſſible, and to avoid all heating and aſtringent aliments.

CHAP. XXXVII.

OF THE DROPSY.

THE dropſy is a preternatural ſwelling of the whole body, or ſome part of it, occaſioned by a collection of watery humour. It is diſtinguiſhed by different names, according to the part affected, as the *anaſarca*, or a collection of water under the ſkin; the *aſcites*, or a collection of water in the belly; the *hydrops pectoris*, or dropſy of the breaſt; the *hydrocephalus*, or dropſy of the brain, &c.

CAUSES.——The dropſy is often owing to an hereditary diſpoſition. It may likewiſe proceed from drinking ardent ſpirits, or other ſtrong liquors. It is true, almoſt to a proverb, that great drinkers die of a dropſy. The want of exerciſe is alſo a very common cauſe of the dropſy. Hence it is juſtly reckoned among the diſeaſes of the ſedentary. It often proceeds from exceſſive evacuations, as frequent and copious bleedings, ſtrong purges often repeated, frequent ſalivations, &c. The ſudden ſtoppage of cuſtomary or neceſſary evacuations, as the *menſes*, the hæmorrhoids, fluxes of the belly, &c. may likewiſe cauſe a dropſy.

I have known the dropſy occaſioned by drinking large quantities of cold, weak, watery liquor, when the body was heated by violent exerciſe. A low, damp, or marſhy ſituation is likewiſe a frequent cauſe of it. Hence it is a common diſeaſe in moiſt, flat, fenny countries. It may alſo be brought on by a long uſe of poor watery diet, or of viſcous aliment that is hard of digeſtion. It is often the effect of other diſeaſes, as the jaundice, a ſcirrhus of the liver, a violent ague of long continuance, a diarrhœa, a dyſentery, an empyema, or a conſumption of the lungs. In ſhort, whatever obſtructs the perſpiration, or prevents the blood from being duly prepared, may occaſion a dropſy.

SYMPTOMS.——The *anaſarca* generally begins with a ſwelling of the feet and ancles towards night, which for ſome time diſappears in the morning. In the evening the parts, if preſſed with the finger, will pit. The ſwelling gradually aſcends, and occupies the trunk of the body, the arms, and the head. Afterwards the breathing becomes difficult, the urine is in ſmall quantity, and the thirſt great, the body is bound, and the perſpiration is greatly obſtructed. To theſe ſucceed torpor, heavineſs, a ſlow waſting fever, and a troubleſome cough. This laſt is generally a fatal ſymptom, as it ſhews that the lungs are affected.

In an *aſcites*, beſides the above ſymptoms, there is a ſwelling of the belly, and often a fluctuation, which may be perceived by ſtriking

the belly on one ſide, and laying the palm of the hand on the oppoſite. This may be diſtinguiſhed from a *tympany* by the weight of the ſwelling, as well as by the fluctuation. When the *anaſarca* and *aſcites* are combined, the caſe is very dangerous. Even a ſimple *aſcites* ſeldom admits of a radical cure. Almoſt all that can be done is, to let off the water by tapping, which ſeldom affords more than a temporary relief.

When the diſeaſe comes ſuddenly on, and the patient is young and ſtrong, there is reaſon however to hope for a cure, eſpecially if medicine be given early. But if the patient be old, has led an irregular or a ſedentary life, or if there be reaſon to ſuſpect that the liver, lungs, or any of the viſcera, are unſound, there is great reaſon to fear that the conſequences will prove fatal.

REGIMEN.——The patient muſt abſtain, as much as poſſible, from all drink, eſpecially weak and watery liquors, and muſt quench his thirſt with muſtard-whey, or acids, as juice of lemons, oranges, ſorrel, or ſuch like. His aliment ought to be dry, of a ſtimulating and diuretic quality, as toaſted bread, the fleſh of birds, or other wild animals roaſted; pungent and aromatic vegetables, as garlic, muſtard, onions, creſſes, horſe-radiſh, rocambole, ſhalot, &c. He may alſo eat ſea-biſcuit dipped in wine or a little brandy. This is not only nouriſhing, but tends to quench thirſt. Some have been actually cured of a dropſy by a total abſtinence from all liquids, and living entirely upon ſuch things as are mentioned above. If the patient muſt have drink, the Spa-water, or Rheniſh-wine, with diuretic medicines infuſed in it, are the beſt.

Exerciſe is of the greateſt importance in a dropſy. If the patient be able to walk, dig, or the like, he ought to continue theſe exerciſes as long as he can. If he is not able to walk or labour, he muſt ride on horſeback, or in a carriage, and the more violent the motion ſo much the better, provided he can bear it. His bed ought to be hard, and the air of his apartments warm and dry. If he lives in a damp country, he ought to be removed into a dry one, and, if poſſible, into a warmer climate. In a word, every method ſhould be taken to promote the perſpiration and to brace the ſolids. For this purpoſe it will likewiſe be proper to rub the patient's body, two or three times a day, with a hard cloth, or the fleſh-bruſh; and he ought conſtantly to wear flannel next his ſkin.

MEDICINE.——If the patient be young, his conſtitution good, and the diſeaſe has come on ſuddenly, it may generally be removed by ſtrong vomits, briſk purges, and ſuch medicines as promote a diſcharge by ſweat and urine. For an adult, half a drachm of ipecacuanha in powder, and half an ounce of oxymel of ſquills, will be a proper vomit. This may be repeated as often as is found neceſſary, three or four days intervening between the doſes. The patient muſt not drink much after taking the vomit, otherwiſe he deſtroys its effect. A cup or two of camomile-tea will be ſufficient to work it off.

Between each vomit, on one of the intermediate days, the patient may take the following purge: Jalap in powder half a drachm, cream of tartar two drachms, calomel ſix grains. Theſe may be made into a bolus with a little ſyrup of pale roſes, and taken early in the morn-

ing. The leſs the patient drinks after it the better. If he be much griped, he may now and then take a cup of chicken-broth.

The patient may likewiſe take every night at bed-time the following bolus: to four or five grains of camphor add one grain of opium, and as much ſyrup of orange-peel as is ſufficient to make them into a bolus. This will generally promote a gentle ſweat, which ſhould be encouraged by drinking now and then a ſmall cup of wine-whey, with a tea-ſpoonful of the ſpirits of hartſhorn in it. A tea-cupful of the following diuretic infuſion may likewiſe be taken every four or five hours through the day:

Take juniper-berries, muſtard-ſeed, and horſe-radiſh, of each half an ounce, aſhes of broom half a pound; infuſe them in a quart of Rheniſh wine or ſtrong ale for a few days, and afterwards ſtrain off the liquor. Such as cannot take this infuſion, may uſe the decoction of ſeneka-root, which is both diuretic and ſudorific. An obſtinate *anaſarca* has been cured by an infuſion of the aſhes of broom in wine.

The above courſe will often cure an incidental dropſy, if the conſtitution be good; but when the diſeaſe proceeds from a bad habit, or an unſound ſtate of the viſcera, ſtrong purges and vomits are not to be ventured upon. In this caſe, the ſafer courſe is to palliate the ſymptoms by the uſe of ſuch medicines as promote the ſecretions, and to ſupport the patient's ſtrength by warm and nouriſhing cordials.

The ſecretion of urine may be greatly promoted by nitre. Brookes ſays, he knew a young woman who was cured of a dropſy by taking a drachm of nitre every morning in a draught of ale, after ſhe had been given over as incurable. The powder of ſquills is likewiſe a good diuretic. Six or eight grains of it, with a ſcruple of nitre, may be given twice a-day in a glaſs of ſtrong cinnamon-water. Ball ſays, a large ſpoonful of unbruiſed muſtard-ſeed taken every night and morning, and drinking half an Engliſh pint of the decoction of the tops of green broom after it, has performed a cure after other powerful medicines had proved ineffectual.

I have ſometimes ſeen good effects from cream of tartar in this diſeaſe. It promotes the diſcharges by ſtool and urine, and will at leaſt palliate, if it does not perform a cure. The patient may begin by taking an ounce every ſecond or third day, and may increaſe the quantity to two or even to three ounces, if the ſtomach will bear it. This quantity is not however to be taken at once, but divided into three or four doſes.

To promote perſpiration, the patient may uſe the *compound powder of ipecacuanha*, or the decoction of ſeneka-root, as directed above; or he may take two table-ſpoonfuls of *acetated water of ammonia* (Mindererus's ſpirit) in a cup of wine-whey three or four times a-day. To promote a diſcharge of urine, the following infuſion of the London hoſpitals will likewiſe be beneficial:

Take of zedoary-root two drachms; dried ſquills, rhubarb, and juniper-berries bruiſed, of each a drachm; cinnamon in powder, three drachms; *prepared kali*, or ſalt of tartar, a drachm and a half; infuſe in an Engliſh pint and a half of old hock-wine, and, when fit for uſe, filter the liquor. A wine-glaſs of it may be taken three or four times a-day.

In the *anaſarca* it is uſual to ſcarify the feet and legs. By this means the water is often diſcharged: but the operator muſt be cautious not to make the inciſions too deep; they ought barely to pierce through the ſkin, and eſpecial care muſt be taken, by ſpirituous fomentations and proper digeſtives, to prevent a gangrene. A diarrhœa ſpontaneouſly appearing in a dropſy of long continuance is generally fatal.

In an *aſcites*, when the diſeaſe does not evidently and ſpeedily give way to purgative and diuretic medicines, the water ought to be let off by tapping. This is a very ſimple and ſafe operation, and would often ſucceed, if it were performed in due time; but if it be delayed till the humours are vitiated, or the bowels ſpoiled, by long ſoaking in water, it can hardly be expected that any permanent relief will be procured.

After the evacuation of the water, the patient is to be put on a courſe of ſtrengthening medicines; as the Peruvian bark; the elixir of vitriol; warm aromatics, with a due proportion of rhubarb, infuſed in wine, and ſuch like. His diet ought to be dry and nouriſhing, ſuch as is recommended in the beginning of the Chapter; and he ſhould take as much exerciſe as he can bear without fatigue. He ſhould wear flannel, or rather fleecy hoſiery, next his ſkin, and make daily uſe of the fleſh-bruſh.

Few perſons can take ſuch a large quantity as two or three ounces of cream of tartar, as is above recommended: we prefer beginning with half an ounce diſſolved in ten ounces of boiling water, in which a few ſprigs of mint may be infuſed; this quantity of the cryſtals of tartar may be gradually increaſed to one ounce or an ounce and a half diſſolved in a pint of boiling water, to which three or four table-ſpoonfuls of gin, or the compound ſpirit of juniper, may be added, and the whole may be taken in the courſe of a day. This medicine has been given with much ſucceſs by the late ingenious Dr. Leake, phyſician to the Weſtminſter Lying-in Hoſpital, and by the learned Dr. Ferriar of Mancheſter; the latter ſometimes gave half a drachm of the dried powder of golden-rod, which was anciently of great fame in dropſical and nephritic diſorders. It acts as a gentle purgative, but does not prove very diuretic.

Fox-glove, by increaſing the diſcharge of the kidneys, having in a great number of inſtances effected a cure of dropſical affections, we ſhall inſert the formula for taking it in the Appendix: but ſo dangerous and deleterious a drug ought not to be exhibited without the greateſt caution, otherwiſe inceſſant vomiting and purging may deſtroy the patient. Garlic, onions, leeks, muſtard, and horſe-radiſh, may be freely uſed in this diſeaſe.

CHAP. XXXVIII.

OF THE GOUT.

THERE is no diſeaſe which ſhews the imperfection of medicine, or ſets the advantages of temperance and exerciſe in a ſtronger light,

than the gout. Exceſs and idleneſs are the true ſources from whence it originally ſprung, and all who would avoid it muſt be *active* and *temperate*.

Though idleneſs and intemperance are the principal cauſes of the gout, yet many other things may contribute to bring on the diſorder in thoſe who are not, and to induce a paroxyſm in thoſe who are ſubject to it; as intenſe ſtudy; too free a uſe of acidulated liquors; night watching; grief or uneaſineſs of mind; an obſtruction or defect of any of the cuſtomary diſcharges, as the *menſes*, ſweating of the feet, perſpiration, &c.

SYMPTOMS.——A fit of the gout is generally preceded by indigeſtion, drowſineſs, belching of wind, a ſlight head-ach, ſickneſs, and ſometimes vomiting. The patient complains of wearineſs and dejection of ſpirits, and has often a pain in the limbs, with a ſenſation as if wind or cold water were paſſing down the thigh. The appetite is often remarkably keen a day or two before the fit, and there is a ſlight pain in paſſing urine, and frequently an involuntary ſhedding of tears. Sometimes theſe ſymptoms are much more violent, eſpecially upon the near approach of the fit; and it has been obſerved that as is the fever which uſhers in the gout, ſo will the fit be: if the fever be ſhort and ſharp, the fit will be ſo likewiſe; if it be feeble, long, and lingering, the fit will be ſuch alſo. But this obſervation can only hold with reſpect to very regular fits of the gout.

The regular gout generally makes its attack in the ſpring or beginning of winter, in the following manner: About two or three in the morning, the patient is ſeized with a pain in his great toe, ſometimes in the heel, and at other times in the ancle or calf of the leg. This pain is accompanied with a ſenſation as if cold water were poured upon the part, which is ſucceeded by a ſhivering, with ſome degree of fever. Afterwards the pain increaſes, and, fixing among the ſmall bones of the foot, the patient feels all the different kinds of torture, as if the part were ſtretched, burnt, ſqueezed, gnawed, or torn in pieces. The part at length becomes ſo exquiſitely ſenſible, that the patient cannot bear to have it touched, or even ſuffer any perſon to walk acroſs the room.

The patient is generally in exquiſite torture for twenty-four hours from the time of the coming on of the fit: he then becomes eaſier, the part begins to ſwell, appears red, and is covered with a little moiſture. Towards morning he drops aſleep, and generally falls into a gentle breathing ſweat. This terminates the firſt paroxyſm, a number of which conſtitutes a fit of the gout; which is longer or ſhorter according to the patient's age, ſtrength, the ſeaſon of the year, and the diſpoſition of the body to this diſeaſe.

The patient is always worſe towards night, and eaſier in the morning. The paroxyſms however generally grow milder every day, till at length the diſeaſe is carried off by perſpiration, urine, and the other evacuations. In ſome patients this happens in a few days; in others, it requires weeks, and in ſome months, to finiſh the fit. Thoſe whom age and frequent fits of the gout have greatly debilitated, ſeldom get free from it before the approach of ſummer, and ſometimes not till it be pretty far advanced.

REGIMEN.——As there are no medicines yet known that will cure the gout, we ſhall confine our obſervations chiefly to regimen, both in and out of the fit.

In the fit, if the patient be young and ſtrong, his diet ought to be thin and cooling, and his drink of a diluting nature; but where the conſtitution is weak, and the patient has been accuſtomed to live high, this is not a proper time to retrench. In this caſe he muſt keep nearly to his uſual diet, and ſhould take frequently a cup of ſtrong negus, or a glaſs of generous wine. Wine-whey is a very proper drink in this caſe, as it promotes the perſpiration without greatly heating the patient. It will anſwer this purpoſe better if a tea-ſpoonful of *volatile liquor of hartſhorn* be put into a cup of it twice a-day. It will likewiſe be proper to give at bed time a tea-ſpoonful of the volatile tincture of *guaiacum* in a large draught of warm wine-whey. This will greatly promote perſpiration through the night.

As the moſt ſafe and efficacious method of diſcharging the gouty matter is by perſpiration, this ought to be kept up by all means, eſpecially in the affected part. For this purpoſe the leg and foot ſhould be wrapt in ſoft flannel, fur, or wool. The laſt is moſt readily obtained, and ſeems to anſwer the purpoſe better than any thing elſe. The people of Lancaſhire look upon wool as a kind of ſpecific in the gout. They wrap a great quantity of it about the leg and foot affected, and cover it with a ſkin of ſoft dreſſed leather. This they ſuffer to continue for eight or ten days, and ſometimes for a fortnight or three weeks, or longer, if the pain does not ceaſe. I never knew any external application anſwer ſo well in the gout. I have often ſeen it applied when the ſwelling and inflammation were very great, with violent pain, and have found all theſe ſymptoms relieved by it in a few days. The wool which they uſe is generally greaſed, and carded or combed. They chooſe the ſofteſt which can be had, and ſeldom or never remove it till the fit be entirely gone off. The ingenious Mr. Parkinſon recommends relaxing the ſkin, by wrapping the limb in light wool which has been previouſly moiſtened by ſuſpending it over the ſteam of boiling water: over the wool the patient may wear an oil-ſkin bootikin, which by confining the vapour, will excite a copious perſpiration from the exhalants. This practice may be adopted not only with ſafety but advantage at any period of life.

The patient ought likewiſe to be kept quiet and eaſy during the fit. Every thing that affects the mind diſturbs the paroxyſm, and tends to throw the gout upon the nobler parts. All external applications that repel the matter are to be avoided as death. They do not cure the diſeaſe, but remove it from a ſafer to a more dangerous part of the body, where it often proves fatal. A fit of the gout is to be conſidered as Nature's method of removing ſomething that might prove deſtructive to the body; and all that we can do with ſafety, is to promote her intentions, and to aſſiſt her in expelling the enemy in her own way. Evacuations by bleeding, ſtool, &c. are likewiſe to be uſed with caution; they do not remove the cauſe of the diſeaſe, and ſometimes by weakening the patient pro-

long the fit: but where the conſtitution is able to bear it, it will be of uſe to keep the body gently open by diet, or very mild laxative medicines.

Many things will indeed ſhorten a fit of the gout, and ſome will drive it off altogether; but nothing has yet been found which will do this with ſafety to the patient. In pain we eagerly graſp at any thing that promiſes immediate eaſe, and even hazard life itſelf for a temporary relief. This is the true reaſon why ſo many infallible remedies have been propoſed for the gout, and why ſuch numbers have loſt their lives by the uſe of them. It would be as prudent to ſtop the ſmall-pox from riſing, and to drive them into the blood, as to attempt to repel the gouty matter after it has been thrown upon the extremities. The latter is as much an effort of Nature to free herſelf from an offending cauſe as the former, and ought equally to be promoted.

If the patient be young and of a plethoric habit, when the pain is very violent the application of leeches to the inflamed parts will be adviſable; and if the patient is reſtleſs, thirty or forty drops of laudanum, more or leſs, according to the violence of the ſymptoms, may be taken at bed-time. This will eaſe the pain, procure reſt, promote perſpiration, and forward the criſis of the diſeaſe.

After the fit is over, the patient ought to take a gentle doſe or two of the bitter tincture of rhubarb, or ſome other warm ſtomachic purge. He ſhould alſo drink a weak infuſion of ſtomachic bitters in ſmall wine or ale, as the Peruvian bark, with cinnamon, Virginian ſnake-root, and orange-peel. The diet at this time ſhould be light, but nouriſhing, and gentle exerciſe ought to be taken on horſeback or in a carriage.

During the abſence of the fit, it is in the patient's power to do many things towards preventing a return of the diſorder, or rendering the fit, if it ſhould return, leſs ſevere. This however is not to be attempted by medicine. I have frequently known the gout kept off for ſeveral years by the Peruvian bark and other aſtringent medicines; but in all the caſes where I had occaſion to ſee this tried, the perſons died ſuddenly, and to all appearance for want of a regular fit of the gout. One would be apt, from hence, to conclude that a fit of the gout, to ſome conſtitutions, in the decline of life, is rather ſalutary than hurtful.

Though it may be dangerous to ſtop a fit of the gout by medicine, yet, if the conſtitution can be ſo changed by diet and exerciſe as to leſſen or totally prevent its return, there certainly can be no danger in following ſuch a courſe. It is well known that the whole habit may be ſo altered by a proper regimen, as quite to eradicate this diſeaſe; and thoſe only who have ſufficient reſolution to perſiſt in ſuch a courſe have reaſon to expect a cure.

The courſe which we would recommend for preventing the gout is as follows: In the firſt place, *univerſal temperance*. In the next place, *ſufficient exerciſe*. By this we do not mean ſauntering about in an indolent manner, but labour, ſweat, and toil: theſe only can render the humours wholeſome, and keep them ſo. Going early to bed, and riſing betimes, are alſo of great importance. It is likewiſe

proper to avoid night ſtudies and intenſe thinking. The ſupper ſhould be light, and taken early. All ſtrong liquors, eſpecially generous wines, ſour punch, and pickles, are to be avoided.

Celſus ſtrongly recommends *muſcular exerciſe*; and whoever will ſubmit to it in the fulleſt extent, may expect to reap ſolid and permanent advantages.

We would likewiſe recommend ſome doſes of *magneſia alba* and rhubarb to be taken every ſpring and autumn; and afterwards a courſe of ſtomachic bitters, as tanſy or water-trefoil tea, an infuſion of gentian and camomile-flowers, or a decoction of burdock-root, &c. Any of theſe, or an infuſion of any wholeſome bitter that is more agreeable to the patient, may be drank for two or three weeks in March and October twice a-day. An iſſue or perpetual bliſter has a great tendency to prevent the gout. If theſe were more generally uſed in the decline of life, they would not only often prevent the gout, but alſo other chronic maladies. Such as can afford to go to Bath, will find great benefit from bathing and drinking the water. It both promotes digeſtion, and invigorates the habit.

Though there is little room for medicine during a regular fit of the gout, yet when it leaves the extremities, and falls on ſome of the internal parts, proper applications to recal and fix it become abſolutely neceſſary. When the gout affects the head, the pain of the joint ceaſes, and the ſwelling diſappears, while either ſevere headach, drowſineſs, trembling, giddineſs, convulſions, or delirium come on. When it ſeizes the lungs, great oppreſſion, with cough and difficulty of breathing, enſue. If it attacks the ſtomach, extreme ſickneſs, vomiting, anxiety, pain in the epigaſtric region, and total loſs of ſtrength, will ſucceed.

When the gout attacks the head or lungs, every method muſt be taken to fix it in the feet. They muſt be frequently bathed in warm water, and acrid cataplaſms applied to the ſoles. Bliſtering-plaſters ought likewiſe to be applied to the ankles or calves of the legs. Bleeding in the feet or ankles is alſo neceſſary, and warm ſtomachic purges. The patient ought to keep in bed for the moſt part, if there be any ſigns of inflammation, and ſhould be very careful not to catch cold.

If it attack the ſtomach with a ſenſe of cold, the moſt warm cordials are neceſſary; as ſtrong wine boiled up with cinnamon or other ſpices; cinnamon-water; peppermint-water; and even brandy or rum: ſometimes æther is found to be an efficacious remedy in this caſe. The patient ſhould keep his bed, and endeavour to promote a ſweat by drinking warm liquors; and if he ſhould be troubled with a nauſea, or inclination to vomit, he may drink camomile-tea, or any thing that will make him vomit freely.

When the gout attacks the kidneys, and imitates gravel pains, the patient ought to drink freely of a decoction of marſh-mallows, and to have the parts fomented with warm water. An emollient clyſter ought likewiſe to be given, and afterwards an opiate. If the pain be very violent, twenty or thirty drops of *tincture of opium* may be taken in a cup of the decoction.

Perſons who have had the gout ſhould be very attentive to any

complaints that may happen to them about the time when they have reaſon to expect a return of the fit. The gout imitates many other diſorders, and by being miſtaken for them, and treated improperly, is often diverted from its regular courſe, to the great danger of the patient's life.

Thoſe who never had the gout, but who, from their conſtitution or manner of living, have reaſon to expect it, ought likewiſe to be very circumſpect with regard to its firſt approach. If the diſeaſe, by wrong conduct or improper medicines, be diverted from its proper courſe, the miſerable patient has a chance to be ever after tormented with head-achs, coughs, pains of the ſtomach and inteſtines, and to fall at laſt a victim to its attack upon ſome of the more noble parts.

The obſervations of the late Dr. Hamilton, of Lynn, on the cauſe and treatment of gout, the means he recommends of mitigating the ſevere inflammatory pain, leſſening the duration of the paroxyſms, and preventing the rigidity and diſtreſſing lameneſs which remain in many arthritic patients in the intervals of the fits, are valuable and important: being the reſult of many years perſonal experience, we preſume they cannot fail to be acceptable to our readers. From the moſt accurate inveſtigation of the gout in his own perſon, it appeared evidently to him that the attack was accompanied with ſymptoms of a highly inflammatory diſtemper, and, during the commencement of the paroxyſm, was as much ſo as pleurify, peripneumony, acute rheumatiſm, or any other phlogiſtic diſeaſe; reſembling the acute rheumatiſm more than any other. He had intenſe pain, great heat, violent inflammation, fever, and ſtrong, full pulſe. To leſſen the impetus of the blood, to abate the general tenſion and inflammation, and to reſtore the freedom of circulation, Dr. H. took calomel with opium, with the occaſional addition of *tartarized antimony* and camphire, as circumſtances pointed out; and he had recourſe to blood-letting in a quantity proportioned to the degree of inflammation and ſtate of the pulſe, and always with great relief. The Doctor declares that he never felt any thing like a retroceſſion of the gout after it.

While the diſeaſe remained in the inflammatory ſtage, this ſkilful phyſician took cooling cathartics (as *vitriolated magneſia*, or *vitriolated natron*, &c. with nitre); and in the decline of the paroxyſm, he took warmer eccoprotics, as wine of aloes, not only with ſafety but conſiderable advantage.

Medical writers recommend the application of bliſters and ſinapiſms to the extremities when the gout ſeizes the head, cheſt, ſtomach, &c. with a view to make a revulſion from the parts affected. Dr. H., having repeatedly ſeen the application of bliſters attended in thoſe diſtreſſing caſes with the moſt happy conſequences; obſerving that, in proportion as an inflammation was excited on the ſkin by the bliſter, the pain and other ſymptoms abated; and as the bliſter roſe and the pain increaſed they went gradually off; therefore applied *plaſters of cantharides* to his feet, on the inſide near the ankle; on and near the knees whenever thoſe parts were attacked. The benefit he received from them greatly overbalanced the temporary pain they occaſioned. If the bliſters were applied over night, the intenſeneſs of

the pain and inflammation was gone in the morning, and, as the blifters diſcharged, entirely went off. As the bliſters that were firſt applied dried up, during the whole fit ſeveral others were repeatedly applied. So great was the relief he received from them, that as ſoon as the pain begun to be intenſe, with the concomitant inflammation, he directly had recourſe to his certain friends the bliſters: this was the practice of Dr. H., in his own caſe, upwards of eighteen years.

If the foot and knee were affected at the ſame time, he placed the bliſter above the ankle, on the inſide of the leg, on the part where they are generally put in fevers; this place he found more eligible than any other, being fully efficacious in relieving both the foot and the knee. After the bliſters diſcharged two days, there was ſomething like pus appeared upon their ſite; then it is that the ſmell peculiar to the gout takes place in the diſcharge from them, which the gouty effluvia from the ſpontaneous diſcharge of ſweat from the feet ſo ſtrongly exhibits on the decline of a paroxyſm. The inflammation and pain on the bliſters abovementioned, and the peculiar ſmell of their diſcharge, ſeem ſufficient demonſtrations that a great part of the gout is tranſlated from the joints to the bliſters, and is there diſcharged; and are evidences that the diſeaſe depends upon fluid matter, *ſui generis*, which here finds an artificial outlet. Beſides the relief from pain and abatement of inflammation afforded by the diſcharge of the bliſters, this diſcharge is attended with another great advantage; the abatement of tumour occaſioned by the infiltration of a ſerum, or other watery part of the blood, into the cellular membrane of the diſeaſed part; the abſorption of this fluid is certainly promoted by bliſters, and great part at the veſicated ſurface. Another important advantage is obvious: viz. the great accumulation from this extravaſation about the joints is prevented, and that ſtiffneſs from the inſpiſſated ſtagnated fluid about the ligaments, &c. in a great meaſure removed; at leaſt he found it ſo in himſelf, his joints being perfectly free in their motions when he was clear of the paroxyſm. May we not infer from this, that a diſcharge thus procured of the ſtagnant fluid in the cellular membrane may be in ſome degree the means of preventing chalky concretions?

Dr. Hamilton is decidedly averſe to the application of much external heat in the gout, and even to wrapping the parts thickly in fleecy hoſiery, or warm flannel; on the contrary, in all caſes of gout we deem it neceſſary to keep the ſurface of the body warm, but more eſpecially the lower extremities, ſo as to keep up the diſcharge by the ſkin. He ſays acids are not injurious, as is commonly imagined; he always freely uſed them in his own caſe.

Dr. H. condemns the practice of giving ſtrong ſpirituous remedies when the gout attacks the ſtomach, becauſe he thinks the diſeaſe of an equally inflammatory nature wherever ſituated. But the affection of the ſtomach ſo frequently experienced by gouty patients appears to be rather of a ſpaſmodic than an inflammatory nature, and therefore to indicate the uſe of antiſpaſmodic remedies.

Experience, at leaſt, it has been judiciouſly obſerved, ſeems to have decided on their utility in ſuch caſes.

When the gout attacks the head or lungs, the aid of a ſkilful phyſician ought if poſſible to be obtained: blood muſt be immediately taken away, if the ſtate of the pulſe and the ſtrength of the patient will permit. If the diſeaſe attacks the head, apply a large bliſter to it: if the attack is on the internal parts, and is attended with vomiting, give half a grain to a grain of ipecacuanha every ten or fifteen minutes, foment the cheſt with a decoction of camomile-flowers, and rub the part affected with a mixture of equal parts of the *compound ſoap liniment*, commonly called *opodeldoc*, and *vitriolic ether*; immerſe the feet in warm water; apply ſinapiſms of oatmeal and bruiſed garlic, or cataplaſms of rye-meal and flour of muſtard, to the ſoles. As ſoon as the convulſive motions of the ſtomach ſubſide, give a teaſpoonful or two of vitriolic ether in two table-ſpoonfuls of the *camphorated mixture*, to which may be added tincture of opium and tartarized wine of antimony ten to twenty drops or more; to be given directly, and repeated every two, three, or four hours, or oftener, according to the exigency of the caſe. The cuticular diſcharge may alſo be promoted and the inteſtines cleanſed by *powder of aloes with guaiacum* ten to twenty grains, antimonial powder three grains to five, mix and form; two to four pills to be taken at bed-time.

As ſoon as the abatement of the paroxyſm will permit, air, friction by flannel or a fleſh bruſh, muſcular exerciſe, and ſea-bathing, cannot be too ſtrongly recommended, as the beſt means of reſtoring the ſtrength and of preventing rigidity and thickening of the joints. Much benefit may be derived from drinks impregnated with *carbonic acid gas*; i. e. water impregnated with fixed air. From one to four or ſix drachms of powdered ginger boiled in cow's milk have lately been found an excellent preventive. Abſorbent powders, conſiſting of calcined magneſia two ſcruples, purified kali and powdered rhubarb of each three to five grains, have likewiſe been taken every other morning for ſeveral weeks with conſiderable advantage. Theſe, with total abſtinence from ſpirituous liquors, wine, animal food; regular hours, and keeping the feet warm; have reſtored many helpleſs and miſerable patients to active and comfortable life.

The ingenious Mr. Parkinſon recommends occaſional doſes of prepared natron, with a view of deſtroying acidity in the ſtomach, which he conſiders a principal cauſe of gout.

An intelligent country phyſician has lately publiſhed a diſſertation on this deplorable diſeaſe: he aſſerts—"that gout differs in no eſſential circumſtance from common inflammation; that it is not a conſtitutional, but merely a local affection; that its genuine ſeat is excluſively in the ligamentous and tendinous ſtructure;—conſiſting of active inflammation, aſſuming every diverſity which conſtitutional and temperamental conditions of life and health may impart to it;—and that, if ſeaſonably and appropriately treated, it is as eaſily remediable as inflammatory excitement on the muſcular, cuticular, or any other deſcription of organic texture." As cold water is an uſeful application to burns and ſcalds, inſtead of combating this formidable and

ever-varying malady with alteratives, anodynes, bleeding, blifters, and diaphoretics, he fays, as the difeafe is caufed by the accumulation of heat, the obvious way of removing it is by the application of cold. This practice is not *new*, but we truft it will continue to be *rare*. The illuftrious Dr. Harvey, who elucidated the circulation of the blood, lived to complete his feventy-ninth year; yet that elegant and accurate writer, Dr. Aikin, fays, that "it is related that, in the paroxyfms of the gout, he could not be prevented from plunging the affected joint in cold water."

A few years ago we knew a perfon who frequently had fits of an hereditary gout: in the thirty-feventh year of his age, he was attacked with the ufual fymptoms of arthritic inflammation in his feet, and he immerfed them in cold water. This experiment fhortened the paroxyfm, by putting a period to his life!

Linnæus, whofe labours created him a name—"*never to die,*" derived great relief in a fevere attack of the gout by eating freely of ftrawberries: perfevering in the ufe of this fruit every fucceeding fummer, the recurrence of the difeafe became lefs violent, and at length never returned. Two cafes however are mentioned by the late Dr. Pulteney, fhewing that, wholefome as ftrawberries are univerfally confidered, they will notwithftanding act as a *poifon* on fome perfons; occafioning *fyncope*, fucceeded by petechial efflorefcence on the fkin.

OF THE RHEUMATISM.

This difeafe has often a refemblance to the gout. It generally attacks the joints with exquifite pain, and is fometimes attended with inflammation and fwelling. It is moft common in the fpring and towards the end of autumn. It is ufually diftinguifhed into acute and chronic; or the rheumatifm with and without a fever.

CAUSES.——The caufes of a rheumatifm are frequently the fame as thofe of an inflammatory fever, viz. an obftructed perfpiration, the immoderate ufe of ftrong liquors, and the like. Sudden changes of the weather, and all quick tranfitions from heat to cold, are very apt to occafion the rheumatifm. The moft extraordinary cafe of a rheumatifm that I ever faw, where almoft every joint of the body was diftorted, was a man who ufed to work one part of the day by the fire, and the other part of it in the water. Very obftinate rheumatifms have likewife been brought on by perfons not accuftomed to it allowing their feet to continue long wet. The fame effects are often produced by wet clothes, damp beds, fitting or lying on the damp ground, travelling in the night, &c.

The rheumatifm may likewife be occafioned by exceffive evacuations, or the ftoppage of cuftomary difcharges. It is often the effect of chronic difeafes which vitiate the humours; as the fcurvy, the *lues venerea*, obftinate autumnal agues, &c.

The rheumatifm prevails in cold, damp, marfhy countries. It is moft common among the poorer fort of peafants, who are ill clothed, live in low damp houfes, and eat coarfe and unwholefome food which contains but little nourifhment, and is not eafily digefted.

SYMPTOMS.——The *acute* rheumatiſm commonly begins with wearineſs, ſhivering, a quick pulſe, reſtleſſneſs, thirſt, and other ſymptoms of fever. Afterwards the patient complains of flying pains, which are increaſed by the leaſt motion. Theſe at length fix in the joints, which are often affected with ſwelling and inflammation. If blood be let in this diſeaſe, it has generally the ſame appearance as in the pleuriſy.

In this kind of rheumatiſm the treatment of the patient is nearly the ſame as in an acute or inflammatory fever. If he be young and ſtrong, bleeding is neceſſary, which may be repeated according to the exigencies of the caſe. The body ought likewiſe to be kept open by emollient clyſters, or cool opening liquors; as decoctions of tamarinds, cream of tartar, whey, ſenna-tea, and the like. The diet ſhould be light, and in ſmall quantity, conſiſting chiefly of roaſted apples, groat-gruel, or weak chicken broth. After the feveriſh ſymptoms have abated, if the pain ſtill continues, the patient muſt keep his bed, and take ſuch things as promote perſpiration; as wine-whey, with *ſpiritus Mindereri* (i. e. *water of acetated ammonia*). He may likewiſe take, for a few nights, at bed-time, in a cup of wine-whey, a drachm of the cream of tartar, and half a drachm of gum guaiacum in powder.

Warm bathing, after proper evacuations, has often an exceeding good effect. The patient may either be put into a bath of warm water, or have cloths wrung out of it applied to the parts affected. Great care muſt be taken that he do not catch cold after bathing.

The *chronic* rheumatiſm is ſeldom attended with any conſiderable degree of fever, and is generally confined to ſome particular part of the body, as the ſhoulders, the back, or the loins. There is ſeldom any inflammation or ſwelling in this caſe. Perſons in the decline of life are moſt ſubject to the chronic rheumatiſm. In ſuch patients it often proves extremely obſtinate, and ſometimes incurable.

In this kind of rheumatiſm the regimen ſhould be nearly the ſame as in the acute. Cool and diluting diet, conſiſting chiefly of vegetable ſubſtances, as ſtewed prunes, coddled apples, currants, or gooſeberries boiled in milk, is moſt proper. Arbuthnot ſays, "If there be a ſpecific in aliment for the rheumatiſm, it is certainly whey;" and adds, "that he knew a perſon ſubject to this diſeaſe, who could never be cured by any other method but a diet of whey and bread." He likewiſe ſays, "That cream of tartar in water-gruel, taken for ſeveral days, will eaſe rheumatic pains conſiderably." This I have often experienced, but found it always more efficacious when joined with gum guaiacum, as already directed. In this caſe the patient may take the doſe formerly mentioned twice a-day, and likewiſe a tea-ſpoonful of the volatile tincture of gum guaiacum, at bed-time, in wine-whey.

This courſe may be continued for a week, or longer, if the caſe proves obſtinate, and the patient's ſtrength will permit. It ought then to be omitted for a few days, and repeated again. At the ſame time leeches or a bliſtering plaſter may be applied to the part affected. What I have generally found anſwer better than either of theſe,

in obſtinate fixed rheumatic pains, is the *warm plaſter* (ſee Appendix). I have likewiſe known a plaſter of Burgundy pitch worn for ſome time on the part affected give great relief in rheumatic pains. My ingenious friend, Dr. Alexander of Edinburgh, ſays, he has frequently cured very obſtinate rheumatic pains by rubbing the parts affected with tincture of cantharides. When the common tincture did not ſucceed, he uſed it of a double or treble ſtrength. Cupping upon the part affected is likewiſe often very beneficial, and ſo is the application of leeches.

Though this diſeaſe may not ſeem to yield to medicines for ſome time, yet they ought ſtill to be perſiſted in. Perſons who are ſubject to frequent returns of the rheumatiſm, will often find their account in uſing medicines, whether they be immediately affected with the diſeaſe or not. The chronic rheumatiſm is ſimilar to the gout in this reſpect, that the moſt proper time for uſing medicines to extirpate it is when the patient is moſt free from the diſorder.

Some arthritic and rheumatic affections give way to tar-water, perſiſted in for ſome time; conſiderable benefit may alſo be derived by taking the alterative pill mentioned in the Appendix.

To thoſe who can afford the expence, I would recommend the warm baths of Buxton or Matlock in Derbyſhire. Theſe have often, to my knowledge, cured very obſtinate rheumatiſms, and are always ſafe either in or out of the fit. When the rheumatiſm is complicated with ſcorbutic complaints, which is not ſeldom the caſe, the Harrogate waters, and thoſe of Moffat, are proper. They ſhould both be drank and uſed as a warm bath.

There are ſeveral of our own domeſtic plants which may be uſed with advantage in the rheumatiſm. One of the beſt is the white *muſtard*. A table-ſpoonful of the ſeed of this plant may be taken twice or thrice a-day in a glaſs of water or ſmall wine. The water-trefoil is likewiſe of great uſe in this complaint. It may be infuſed in wine or ale, or drank in form of tea. The ground-ivy, camomile, and ſeveral other bitters, are alſo beneficial, and may be uſed in the ſame manner. No benefit however is to be expected from theſe, unleſs they be taken for a conſiderable time. Excellent medicines are often deſpiſed in this diſeaſe, becauſe they do not perform an immediate cure; whereas nothing would be more certain than their effect, were they duly perſiſted in. Want of perſeverance in the uſe of medicines is one reaſon why chronic diſeaſes are ſo ſeldom cured.

Cold bathing, eſpecially in ſalt water, often cures the rheumatiſm. We would alſo recommend exerciſe and wearing flannel next the ſkin. Iſſues are likewiſe very proper, eſpecially in chronic caſes. If the pain affects the ſhoulders, an iſſue may be made in the arm; but if it affects the loins, it ſhould be put into the leg or thigh.

Perſons afflicted with the ſcurvy are very ſubject to rheumatic complaints. The beſt medicines in this caſe are bitters and mild purgatives. Theſe may either be taken ſeparately or together, as the patient inclines. An ounce of *cinchona* (Peruvian bark), and half an ounce of rhubarb in powder, may be infuſed in a bottle of wine; and one, two, or three wine glaſſes of it taken daily, as ſhall be found

neceſſary for keeping the body gently open. In caſes where the bark itſelf proves ſufficiently purgative, the rhubarb may be omitted.

Such as are ſubject to frequent attacks of the rheumatiſm ought to make choice of a dry, warm ſituation; to avoid the night-air, wet clothes, and wet feet, as much as poſſible. Their clothing ſhould be warm, and they ſhould wear flannel next their ſkin, and make frequent uſe of the fleſh-bruſh.

CHAP. XXXIX.

OF THE SCURVY.

THIS diſeaſe prevails chiefly in cold northern countries, eſpecially in low damp ſituations, near large marſhes, or great quantities of ſtagnating water. Sedentary people, of a dull melancholy diſpoſition, are moſt ſubject to it. It proves often fatal to ſailors on long voyages, particularly in ſhips that are not properly ventilated, have many people on board, or where cleanlineſs is neglected.

It is not neceſſary to mention the different ſpecies into which this diſeaſe has been divided, as they differ from one another chiefly in degree. What is called the *land ſcurvy*, however, is ſeldom attended with thoſe highly putrid ſymptoms which appear in patients who have been long at ſea, and which, we preſume, are rather owing to confined air, want of exerciſe, and the unwholeſome food eaten by ſailors on long voyages, than to any ſpecific difference in the diſeaſe.

CAUSES.——The ſcurvy is occaſioned by cold moiſt air; by the long uſe of ſalted or ſmoke-dried proviſions, or any kind of food that is hard of digeſtion and affords little nouriſhment. It may alſo proceed from the ſuppreſſion of cuſtomary evacuations; as the *menſes*, the hæmorrhoidal flux, &c. It is ſometimes owing to an hereditary taint, in which caſe a very ſmall cauſe will excite the latent diſorder. Grief, fear, and other depreſſing paſſions, have a great tendency both to excite and aggravate this diſeaſe. The ſame obſervation holds with regard to neglect of cleanlineſs; bad clothing; the want of proper exerciſe; confined air; unwholeſome food; or any diſeaſe which greatly weakens the body, or vitiates the humours.

SYMPTOMS.——This diſeaſe may be known by unuſual wearineſs, heavineſs, and difficulty of breathing, eſpecially after motion; rottenneſs of the gums, which are apt to bleed on the ſlighteſt touch; a ſtinking breath; frequent bleeding at the noſe; crackling of the joints; difficulty of walking; ſometimes a ſwelling and ſometimes a falling away of the legs, on which there are livid, yellow, or violet coloured ſpots; the face is generally of a pale or leaden colour. As the diſeaſe advances, other ſymptoms come on; as rottenneſs of the teeth; hæmorrhages or diſcharges of blood from different parts of the body; foul obſtinate ulcers; pains in various parts, eſpecially about the breaſt; dry ſcaly eruptions all over the body, &c. At laſt a waſting or hectic fever comes on, and the miſerable patient is often carried off by a dyſentery, a diarrhœa, a dropſy, the palſy, fainting fits, or a mortification of ſome of the bowels.

CURE.——We know no way of curing this diſeaſe but by purſuing a plan directly oppoſite to that which brings it on. It proceeds from a vitiated ſtate of the humours, occaſioned by errors in diet, air, or exerciſe; and this cannot be removed but by a proper attention to theſe important articles.

If the patient has been obliged to breathe a cold, damp, or confined air, he ſhould be removed, as ſoon as poſſible, to a dry, open, and moderately warm one. If there is reaſon to believe that the diſeaſe proceeds from a ſedentary life or depreſſing paſſions, as grief, fear, &c. the patient muſt take daily as much exerciſe in the open air as he can bear, and his mind ſhould be diverted by cheerful company and other amuſements. Nothing has a greater tendency either to prevent or remove this diſeaſe than conſtant cheerfulneſs and good humour. But this, alas! is ſeldom the lot of perſons afflicted with the ſcurvy; they are generally ſurly, peeviſh, and moroſe.

When the ſcurvy has been brought on by a long uſe of ſalted proviſions, the proper medicine is a diet conſiſting chiefly of freſh vegetables; as oranges, apples, lemons, limes, tamarinds, water-creſſes, ſcurvy-graſs, brook-lime, &c. The uſe of theſe, with milk, pot-herbs, new bread, and freſh beer or cyder, will ſeldom fail to remove a ſcurvy of this kind, if taken before it be too far advanced; but to have this effect, they muſt be perſiſted in for a conſiderable time. When freſh vegetables cannot be obtained, pickled or preſerved ones may be uſed; and where theſe are wanting, recourſe muſt be had to the chemical acids. All the patient's food and drink ſhould in this caſe be ſharpened with cream of tartar, elixir of vitriol, vinegar, or the *muriatic acid*.

Theſe things however will more certainly prevent than cure the ſcurvy, for which reaſon ſeafaring people, eſpecially on long voyages, ought to lay in plenty of them. Cabbages, onions, gooſeberries, and many other vegetables, may be kept a long time by *pickling*, *preſerving*, &c. and when theſe fail, the chemical acids, recommended above, which will keep for any length of time, may be uſed. We have reaſon to believe, if ſhips were well ventilated, had got ſtores of fruits, greens, cyder, &c. laid in, and if proper regard were paid to cleanlineſs and warmth, that ſailors would be the moſt healthy people in the world, and would ſeldom ſuffer either from the ſcurvy or putrid fevers, which are ſo fatal to that uſeful ſet of men: but it is too much the temper of ſuch people to deſpiſe all precaution; they will not think of any calamity till it overtakes them, when it is too late to ward off the blow. It muſt indeed be owned, that many of them have it not in their own power to make the proviſion we are ſpeaking of; but in this caſe it is the duty of their employers to make it for them; and no man ought to engage in a long voyage without having theſe articles ſecured.

I have often ſeen very extraordinary effects in the land-ſcurvy from a milk diet. This preparation of Nature is a mixture of animal and vegetable properties, which of all others is the moſt fit for reſtoring a decayed conſtitution, and removing that particular acrimony of the

humours which ſeems to conſtitute the very eſſence of the ſcurvy, and many other diſeaſes. But people deſpiſe this wholeſome and nouriſhing food, becauſe it is cheap, and devour with greedineſs fleſh and fermented liquors, while milk is only deemed fit for their hogs.

The moſt proper drink in the ſcurvy is whey or butter-milk. When theſe cannot be had, ſound cyder, perry, or ſpruce-beer, may be uſed. Wort has likewiſe been found to be a proper drink in the ſcurvy, and may be uſed at ſea, as malt will keep during the longeſt voyage. A decoction of the tops of the ſpruce fir is likewiſe proper: it may be drank in the quantity of an Engliſh pint twice a-day. Tar-water may be uſed for the ſame purpoſe, or decoctions of any of the mild mucilaginous vegetables; as ſarſaparilla, marſh-mallow roots, &c. Infuſions of the bitter plants, as ground-ivy, the leſſer centaury, marſh-trefoil, &c. are likewiſe beneficial: I have ſeen the peaſants in ſome parts of Britain expreſs the juice of the laſt mentioned plant, and drink it with good effect in thoſe foul ſcorbutic eruptions with which they are often troubled in the ſpring ſeaſon.

Harrogate-water is certainly an excellent medicine in the land-ſcurvy. I have often ſeen patients, who had been reduced to the moſt deplorable condition by this diſeaſe, greatly relieved by drinking the ſulphur-water, and bathing in it. The chalybeate-water may alſo be uſed with advantage, eſpecially with a view to brace the ſtomach after drinking the ſulphur-water, which, though it ſharpens the appetite, never fails to weaken the powers of digeſtion.

A ſlight degree of ſcurvy may be carried off by frequently ſucking a little of the juice of a bitter orange or a lemon. When the diſeaſe affects the gums only, this practice, if continued for ſome time, will generally carry it off. We would however recommend the bitter orange as greatly preferable to lemon; it ſeems to be as good a medicine, and is not near ſo hurtful to the ſtomach. Perhaps our own ſorrel may be little inferior to either of them.

All kinds of ſalad are good in the ſcurvy, and ought to be eaten very plentifully, as ſpinage, lettuce, parſley, celery, endive, radiſh, dandelion, &c. It is amazing to ſee how ſoon freſh vegetables in the ſpring cure the brute animals of any ſcab or foulneſs which is upon their ſkins. It is reaſonable to ſuppoſe that their effects would be as great upon the human ſpecies, were they uſed in proper quantity for a ſufficient length of time.

I have ſometimes ſeen good effects in ſcorbutic complaints of very long ſtanding from the uſe of a decoction of the roots of water-dock. It is uſually made by boiling a pound of the freſh root in ſix Engliſh pints of water, till about one-third of it be conſumed. The doſe is from half a pint to a whole pint of the decoction every day. But in all the caſes where I have ſeen it proved beneficial, it was made much ſtronger, and drank in larger quantities. The ſafeſt way however is, for the patient to begin with ſmall doſes, and increaſe them both in ſtrength and quantity as he finds his ſtomach will bear it. It muſt be uſed for a conſiderable time. I have known ſome take it for many months, and have been told of others who had uſed it for ſeveral years,

before they were ſenſible of any benefit, but who nevertheleſs were cured by it at length.

The leproſy, which was ſo common in this country long ago, ſeems to have been near a-kin to the ſcurvy. Perhaps its appearing ſo ſeldom now may be owing to the inhabitants of Britain eating more vegetable food than formerly, living more upon tea and other diluting diet, uſing leſs ſalted meat, being more cleanly, better lodged and clothed, &c.—For the cure of this diſeaſe we would recommend the ſame courſe of diet and medicine as in the ſcurvy.

Scorbutic blotches that often deform the face may frequently be removed by taking fifteen to twenty drops of the *muriatic acid* in a glaſs of diſtilled water. The beſt ſuccedaneum for diſtilled water is river water, boiled a few minutes in a clean veſſel: let it ſtand to cool, and its impurities will ſubſide.

In all ſcorbutic complaints, the moderate uſe of wine, the free uſe of vegetable acids, as the juice of lemons, oranges, vinegar, currants, gooſeberries, &c. together with a milk and vegetable diet, and plentiful ablutions of pure water, are very beneficial. It has lately been aſcertained that the raw roots of carrots, turnips, &c. are more effectual in correcting ſcorbutic acrimony at ſea, than thoſe which have been boiled.

The following rules, obſerved by the late Lord Nelſon for preſerving the health of the crews under his command, merit the attention of all thoſe who are entruſted with the health of mariners: it is well known that they were attended with the moſt ſignal good effects.

1. Great attention in victualling and purveying; wine to be uſed inſtead of ſpirits; freſh beef, vegetables, and fruit, as often as poſſible.

2. To avoid wetting the decks; at leaſt between decks.

3. Conſtant activity; being always or as much as poſſible at ſea, excluding idleneſs.

4. Prohibition of intemperance and *ſkulking*.

5. Cheerfulneſs among the men, promoted by muſic, dancing, &c.

6. Comfortable accommodation of the ſick, by lodging them in airy ſick-berths, placing them on a regular ſick diet, and ſupplying them with live-ſtock, vegetables, fruit, ſoft bread, macaroni, and other articles of diet and refreſhment, whenever the ſituation and circumſtances permit.

7. By a ſtanding order, cinchona (i. e. Peruvian bark) mixed in wine, or ſpirits, was regularly ſerved to the men employed in the wooding and watering ſervice: a drachm of powdered cinchona in one gill of ſpirits, or two of wine, was the proportion allowed for each man; to be adminiſtered in divided proportions on going on ſhore and on returning on board. The method followed was to give the Peruvian bark in a ſmall quantity of wine, or ſpirits, and to waſh it down with a glaſs of wine or ſpirits mixed with an equal proportion of water. It was found that the ſpirit anſwered better as a vehicle for the cinchona than wine.

OF THE SCROPHULA, OR KING'S EVIL.

THIS diſeaſe chiefly affects the glands, eſpecially thoſe of the neck. Children and young perſons of a ſedentary life are very ſubject to it. It is one of thoſe diſeaſes which may be removed by proper regimen, but ſeldom yields to medicine. The inhabitants of cold, damp, marſhy countries are moſt liable to the ſcrophula.

CAUSES.——This diſeaſe may proceed from an hereditary taint, from a ſcrophulous nurſe, &c. Children who have the misfortune to be born of ſickly parents, whoſe conſtitutions have been greatly injured by the pox, or other chronic diſeaſes, are apt to be affected by the ſcrophula. It may likewiſe proceed from ſuch diſeaſes as weaken the habit or vitiate the humours, as the ſmall-pox, meaſles, &c. External injuries, as blows, bruiſes, and the like, ſometimes produce ſcrophulous ulcers; but we have reaſon to believe, when this happens, that there has been a prediſpoſition in the habit to this diſeaſe. In ſhort, whatever tends to vitiate the humours or relax the ſolids paves the way to the ſcrophula; as the want of proper exerciſe, too much heat or cold, confined air, unwholeſome food, bad water, the long uſe of poor, weak, watery aliments, the neglect of cleanlineſs, &c. Nothing tends more to induce this diſeaſe in children than allowing them to continue long wet, and to live on groſs food, leading at the ſame time ſedentary lives.

SYMPTOMS.——At firſt ſmall knots appear under the chin or behind the ears, which gradually increaſe in number and ſize, till they form one large hard tumour. This often continues for a long time without breaking, and when it does break, it only diſcharges a thin *ſanies*, or watery humour. Other parts of the body are likewiſe liable to its attack, as the arm-pits, groins, feet, hands, eyes, breaſts, &c. Nor are the internal parts exempt from it: it often affects the lungs, liver, or ſpleen; and I have frequently ſeen the glands of the meſentery greatly enlarged by it.

Thoſe obſtinate ulcers which break out upon the feet and hands with ſwelling, and little or no redneſs, are of the ſcrophulous kind. They ſeldom diſcharge good matter, and are exceeding difficult to cure. The *white ſwellings* of the joints ſeem likewiſe to be of this kind. They are with difficulty brought to a ſuppuration, and when opened they only diſcharge a thin ichor. There is not a more general ſymptom of the ſcrophula than a ſwelling of the upper lip and noſe.

REGIMEN.——As this diſeaſe proceeds, in a great meaſure, from relaxation, the diet ought to be generous and nouriſhing, but at the ſame time light and of eaſy digeſtion; as well fermented bread made of ſound grain, the fleſh and broth of young animals; with now and then a glaſs of generous wine or good ale. The air ought to be open, dry, and not too cold, and the patient ſhould take as much exerciſe as he can bear. This is of the utmoſt importance. Children who have ſufficient exerciſe are ſeldom troubled with the ſcrophula.

MEDICINE.——The vulgar are remarkably credulous with regard to the cure of the ſcrophula; many of them believing in the virtue of the royal touch, that of the ſeventh ſon, &c. The truth is,

we know but little either of the nature or cure of this diſeaſe, and where reaſon or medicines fail, ſuperſtition always comes in their place. Hence it is, that, in diſeaſes which are the moſt difficult to underſtand, we generally hear of the greateſt number of miraculous cures being performed. Here, however, the deception is eaſily accounted for. The ſcrophula, at a certain period of life, often cures of itſelf; and, if the patient happens to be touched about this time, the cure is imputed to the touch, and not to Nature, who is really the phyſician. In the ſame way the inſignificant noſtrums of quacks and old women often gain applauſe when they deſerve none.

There is nothing more pernicious than the cuſtom of plying children in the ſcrophula with ſtrong purgative medicines. People imagine it proceeds from humours which muſt be purged off, without conſidering that theſe purgatives increaſe the debility and aggravate the diſeaſe. It has indeed been found, that keeping the body gently open for ſome time, eſpecially with ſea-water, has a good effect; but this ſhould only be given in groſs habits, and in ſuch quantity as to procure one or at moſt two ſtools every day.

Bathing in the ſalt-water has alſo a very good effect, eſpecially in the warm ſeaſon. I have often known a courſe of bathing in ſalt-water, and drinking it in ſuch quantities as to keep the body gently open, cure a ſcrophula, after many other medicines had been tried in vain. When ſalt-water cannot be obtained, the patient may be bathed in freſh water, and his body kept open by ſmall quantities of ſalt and water, or ſome other mild purgative.

Next to cold bathing and drinking the ſalt-water, we would recommend *cinchona* (the Peruvian bark). The cold bath may be uſed in ſummer, and the bark in winter. To an adult half a drachm of the bark in powder may be given in a glaſs of red wine four or five times a-day. Children, and ſuch as cannot take it in ſubſtance, may uſe the decoction made in the following manner:

Boil an ounce of *cinchona* and a drachm of Winter's bark, both groſsly powdered, in an Engliſh quart of water, to a pint: towards the end, half an ounce of ſliced liquorice-root and a handful of raiſins may be added, which will both render the decoction leſs diſagreeable, and make it take up more of the bark. The liquor muſt be ſtrained, and two, three, or four table-ſpoonfuls, according to the age of the patient, given three times a-day.

The Moffat and Harrogate waters, eſpecially the latter, are likewiſe very proper medicines in the ſcrophula. They ought not however to be drank in large quantities, but ſhould be taken ſo as to keep the body gently open, and muſt be uſed for a conſiderable time.

The freſh powder or the inſpiſſated juice of hemlock may ſometimes be uſed with advantage in the ſcrophula. Some lay it down as a general rule, that the ſea-water is moſt proper before there are any ſuppuration or ſymptoms of *tabes*; the Peruvian bark, when there are running ſores, and a degree of hectic fever; and the hemlock in old inveterate caſes, approaching to the ſchirrous or cancerous ſtate. Either the extract or the freſh juice of this plant may be uſed. The

doſe may be ſmall at firſt, and increaſed gradually as far as the ſtomach is able to bear it.

External applications are of little uſe. Before the tumour breaks, nothing ought to be applied to it, unleſs a piece of flannel, or ſomething to keep it warm. After it breaks, the ſore may be dreſſed with ſome digeſtive ointment. What I have always found to anſwer beſt, was the *ointment of yellow wax* (yellow baſilicon) mixed with about a ſixth or eighth part of its weight of *red nitrated quickſilver* (red precipitate of mercury). The ſore may be dreſſed with this twice a-day; and if it be very fungous, and does not digeſt well, a larger proportion of the precipitate may be added; or ſprinkle the ſores with the powder of burnt alum.

Medicines which mitigate this diſeaſe, though they do not cure it, are not to be deſpiſed. If the patient can be kept alive by any means till he arrive at the age of puberty, he has a great chance to get well; but if he does not recover at this time, in all probability he never will.

There is no malady which parents are ſo apt to communicate to their offſpring as the ſcrophula, for which reaſon people ought to beware of marrying into families affected with this diſeaſe.

For the means of preventing the ſcrophula we muſt refer the reader to the obſervations on Nurſing at the beginning of the book.

Sea air appears to have a ſpecific virtue in this diſeaſe. To ſcrophulous ſwellings and glandular tumours, the marine plant commonly called *ſea-tang* is applied, bruiſed and formed into a cataplaſm: when that vegetable cannot be obtained in a recent ſtate, a common poultice of ſea-water has been ſubſtituted. Lime-water may be employed both externally and internally in caſes of ſcrophula, for which it is not a contemptible remedy. The decoction or a ſtrong infuſion of colt's-foot leaves, or the compound decoction of ſarſaparilla, may be taken with a ſcruple or half a drachm of burnt ſponge, or a large tea-ſpoonful or two of the following electuary:

Take prepared natron three drachms, powder of cinchona one ounce and a half, *thin* mucilage of gum-arabic enough to form an electuary.

OF THE ITCH.

Though this diſeaſe is commonly communicated by infection, yet it ſeldom prevails where due regard is paid to cleanlineſs, freſh air, and wholeſome diet. It generally appears in form of ſmall watery puſtules, firſt about the wriſts, or between the fingers; afterwards it affects the arms, legs, thighs, &c. Theſe puſtules are attended with an intolerable itching, eſpecially when the patient is warm in bed, or ſits by the fire. Sometimes indeed the ſkin is covered with large blotches or ſcabs, and at other times with a white ſcurf, or ſcaly eruption. This laſt is called the dry itch, and is the moſt difficult to cure.

The itch is ſeldom a dangerous diſeaſe, unleſs when it is rendered ſo by neglect or improper treatment. If it be ſuffered to continue too long, it may vitiate the whole maſs of humours; and, if it be

ſuddenly drove in, without proper evacuations, it may occaſion fevers, inflammations of the viſcera, or other internal diſorders.

The beſt medicine yet known for the itch is ſulphur, which ought to be uſed both internally and externally. The parts moſt affected may be rubbed with an ointment made of the flour of ſulphur, two ounces; crude ſal ammoniac finely powdered, two drachms; hog's lard, or butter, four ounces. If a ſcruple or half a drachm of the eſſence of lemon be added, it will entirely take away the diſagreeable ſmell. About the bulk of a nutmeg of this may be rubbed upon the extremities at bed-time twice or thrice a-week. It is ſeldom neceſſary to rub the whole body; but when it is, it ought not to be done all at once, but by turns, as it is dangerous to ſtop too many pores at the ſame time.

Before the patient begins to uſe the ointment, he ought, if he be of a full habit, to bleed or take a purge or two. It will likewiſe be proper, during the uſe of it, to take every night and morning as much of the flour of brimſtone and cream of tartar, in a little treacle or new milk, as will keep the body gently open. He ſhould beware of catching cold, ſhould wear more clothes than uſual, and take every thing warm. The ſame clothes, the linen excepted, ought to be worn all the time of uſing the ointment; and ſuch clothes as have been worn while the patient was under the diſeaſe are not to be uſed again, unleſs they have been fumigated with brimſtone, and thoroughly cleanſed, otherwiſe they will communicate the infection anew.

The late Sir John Pringle obſerves, that though this diſeaſe may ſeem trifling, there is no one in the army that is more troubleſome to cure, as the infection often lurks in clothes, &c. and breaks out a ſecond or even a third time. The ſame inconveniency occurs in private families, unleſs particular regard is paid to the changing or cleaning of their clothes, which laſt is by no means an eaſy operation.

I never knew brimſtone, when uſed as directed above, fail to cure the itch; and I have reaſon to believe, that, if duly perſiſted in, it never will fail; but if it be only uſed once or twice, and cleanlineſs neglected, it is no wonder if the diſorder returns. The quantity of ointment mentioned above will generally be ſufficient for the cure of one perſon; but, if any ſymptoms of the diſeaſe ſhould appear again, the medicine muſt be repeated. It is both more ſafe and efficacious when perſiſted in for a conſiderable time, than when a large quantity is applied at once. As moſt people diſlike the ſmell of ſulphur, they may uſe in its place the powder of white hellebore root made up into an ointment, in the ſame manner, which will ſeldom fail to cure the itch.

People ought to be extremely cautious leſt they take other eruptions for the itch, as the ſtoppage of theſe may be attended with fatal conſequences. Many of the eruptive diſorders to which children are liable have a near reſemblance to this diſeaſe; and I have often known infants killed by being rubbed with greaſy ointments that make theſe eruptions ſtrike ſuddenly in, which Nature had thrown out to preſerve the patient's life, or prevent ſome other malady.

Much miſchief is likewiſe done by the uſe of mercury in this diſ-

eaſe. Some perſons are ſo fool-hardy as to waſh the parts affected with a ſtrong ſolution of *muriated quickſilver* (the corroſive ſublimate). Others uſe the mercurial ointment, without taking the leaſt care either to avoid cold, keep the body open, or obſerve a proper regimen. The conſequences of ſuch conduct may be eaſily gueſſed. I have known even the mercurial girdles produce bad effects, and would adviſe every perſon, as he values his health, to beware how he uſes them. Mercury ought never to be uſed as a medicine without the greateſt care. Ignorant people look upon theſe girdles as a kind of charm, without conſidering that the mercury enters the body.

It is not to be told what miſchief is done by uſing mercurial ointment for curing the itch and killing vermin; yet it is unneceſſary for either: the former may be always more certainly cured by ſulphur, and the latter will never be found where due regard is paid to cleanlineſs.

Thoſe who would avoid this deteſtable diſeaſe ought to beware of infected perſons, to uſe wholeſome food, and to ſtudy univerſal cleanlineſs.

CHAP. XL.

OF THE ASTHMA.

THE aſthma is a diſeaſe of the lungs, which ſeldom admits of a cure. Perſons in the decline of life are moſt liable to it. It is diſtinguiſhed into the moiſt and dry, or humoral and nervous. The former is attended with expectoration or ſpitting; but in the latter the patient ſeldom ſpits, unleſs ſometimes a little tough phlegm by the mere force of coughing.

CAUSES.——The aſthma is ſometimes hereditary. It may likewiſe proceed from a bad formation of the breaſt; the fumes of metals or minerals taken into the lungs; violent exerciſe, eſpecially running; the obſtruction of cuſtomary evacuations, as the menſes, hæmorrhoids, &c.; the ſudden retroceſſion of the gout, or ſtriking in of eruptions, as the ſmall-pox, meaſles, &c.; violent paſſions of the mind, as ſudden fear or ſurpriſe. In a word, the diſeaſe may proceed from any cauſe that either impedes the circulation of the blood through the lungs, or prevents their being duly expanded by the air.

SYMPTOMS.——An aſthma is known by a quick laborious breathing, which is generally performed with a kind of wheezing noiſe. Sometimes the difficulty of breathing is ſo great that the patient is obliged to keep in an erect poſture, otherwiſe he is in danger of being ſuffocated. A fit or paroxyſm of the aſthma generally happens after a perſon has been expoſed to cold eaſterly winds, or has been abroad in thick foggy weather, or has got wet, or continued long in a damp place underground, or has taken ſome food which the ſtomach could not digeſt, as paſtries, toaſted cheeſe, or the like.

The paroxyſm is commonly uſhered in with liſtleſſneſs, want of ſleep, hoarſeneſs, a cough, belching of wind, a ſenſe of heavineſs

about the breaſt, and difficulty of breathing. To theſe ſucceed heat, fever, pain of the head, ſickneſs and nauſea, great oppreſſion of the breaſt, palpitation of the heart, a weak and ſometimes intermitting pulſe, an involuntary flow of tears, bilious vomitings, &c. All the ſymptoms grow worſe towards night; the patient is eaſier when up than in bed, and is very deſirous of cool air.

REGIMEN.——The food ought to be light and of eaſy digeſtion. Boiled meats are to be preferred to roaſted, and the fleſh of young animals to that of old. All windy food, and whatever is apt to ſwell in the ſtomach, are to be avoided. Light puddings, white broths, and ripe fruits baked, boiled, or roaſted, are proper. Strong liquors of all kinds, eſpecially malt-liquor, are hurtful. The patient ſhould eat a very light ſupper, or rather none at all, and ſhould never ſuffer himſelf to be long coſtive. His clothing ſhould be warm, eſpecially in the winter ſeaſon. As all diſorders of the breaſt are much relieved by keeping the feet warm, and promoting perſpiration, a flannel ſhirt or waiſtcoat, and thick ſhoes, will be of ſingular ſervice.

But nothing is of ſo great importance in the aſthma as pure and moderately warm air. Aſthmatic people can ſeldom bear either the cloſe heavy air of a large town, or the ſharp keen atmoſphere of a bleak hilly country; a medium therefore between theſe is to be choſen. The air near a large town is often better than at a diſtance, provided the patient be removed ſo far as not to be affected by the ſmoke. Some aſthmatic patients indeed breathe eaſier in town than in the country; but this is ſeldom the caſe, eſpecially in towns where much coal is burnt. Aſthmatic perſons who are obliged to be in town all day ought at leaſt to ſleep out of it. Even this will often prove of great ſervice. Thoſe who can afford it ought to travel into a warmer climate. Many aſthmatic perſons who cannot live in Britain, enjoy very good health in the ſouth of France, Portugal, Spain, or Italy.

Exerciſe is likewiſe of very great importance in the aſthma, as it promotes the digeſtion and preparation of the blood. The blood of aſthmatic perſons is ſeldom duly prepared, owing to the proper action of the lungs being impeded. For this reaſon ſuch people ought daily to take as much exerciſe, either on foot, horſeback, or in a carriage, as they can bear.

MEDICINE.——Almoſt all that can be done by medicine in this diſeaſe, is to relieve the patient when ſeized with a violent fit. This indeed requires the greateſt expedition, as the diſeaſe often proves ſuddenly fatal. In a paroxyſm or fit, the body is generally bound; a purging clyſter, with a ſolution of aſafœtida, ought therefore to be adminiſtered, and, if there be occaſion, it may be repeated two or three times. The patient's feet and legs ought to be immerſed in warm water, and afterwards rubbed with a warm hand or dry cloth. Bleeding, unleſs extreme weakneſs or old age ſhould forbid it, is highly proper. If there be a violent ſpaſm about the breaſt or ſtomach, warm fomentations, or bladders filled with warm milk and water, may be applied to the part affected, and warm cataplaſms to the ſoles of the feet. The patient muſt drink freely of diluting liquors, and may take a tea-ſpoonful of the tincture of caſtor and

of ſaffron mixed together in a cup of valerian-tea twice or thrice a-day. Sometimes a vomit has a very good effect, and ſnatches the patient as it were from the jaws of death. This however will be more ſafe after other evacuations have been premiſed. A very ſtong infuſion of roaſted coffee is ſaid to give eaſe in an aſthmatic paroxyſm.

The acid of vinegar, diſtilled vinegar, or if that cannot be obtained common vinegar, in a doſe of two table-ſpoonfuls, diluted with an equal quantity of cold water, is a remedy, from which relief may be frequently obtained in the paroxyſm. Dr. Bree, an experienced aſthmatic, ſays that, "in aſthma proceeding from the irritation of mucus, vinegar is the moſt uſeful medicine, in the paroxyſm which I have tried."

In the moiſt aſthma, garlic, and ſuch things as promote expectoration or ſpitting, ought to be uſed; as the ſyrup of ſquills, gum-ammoniac, and ſuch like. A common ſpoonful of the ſyrup or oxymel of ſquills, mixed with an equal quantity of cinnamon-water, may be taken three or four times through the day, and four or five pills made of equal parts of aſafœtida and gum-ammoniac at bed-time.

After copious evacuations, large doſes of *vitriolic æther* have been found very efficacious in removing a fit of the aſthma. I have likewiſe known the following mixture produce very happy effects. To five or ſix ounces of the ſolution or milk of gum-ammoniacum add two ounces of ſimple cinnamon-water, the ſame quantity of *ſyrup of balſam of tolu*, and half an ounce of *camphorated tincture of opium*. Of this two table-ſpoonfuls may be taken every three hours.

For the convulſive or nervous aſthma, antiſpaſmodics and bracers are the moſt proper medicines. The patient may take a tea-ſpooniful of the *camphorated tincture of opium* (paregoric elixir) twice a-day. The Peruvian bark is ſometimes found to be of uſe in this caſe. It may be taken in ſubſtance, or infuſed in wine. In ſhort, every thing that braces the nerves, or takes off ſpaſm, may be of uſe in a nervous aſthma. It is often relieved by the uſe of aſſes milk; I have likewiſe known cows' milk drank warm in the morning have a very good effect in this caſe.

In every ſpecies of aſthma, ſetons and iſſues have a good effect; they may either be ſet in the back or ſide, and ſhould never be allowed to dry up. We ſhall here, once for all, obſerve, that not only in the aſthma, but in moſt chronic diſeaſes, iſſues are extremely proper. They are both a ſafe and efficacious remedy; and though they do not always cure the diſeaſe, yet they will often prolong the patient's life.

CHAP. XLI.

OF THE APOPLEXY.

THE apoplexy is a ſudden loſs of ſenſe and motion, during which the patient is to all appearance dead; the heart and lungs however ſtill continue to move. Though this diſeaſe proves often fatal, yet it

may ſometimes be removed by proper care. It chiefly attacks ſedentary perſons of a groſs habit, who uſe a rich and plentiful diet, and indulge in ſtrong liquors. People in the decline of life are moſt ſubject to the apoplexy. It prevails moſt in winter, eſpecially in rainy ſeaſons and very low ſtates of the barometer. In this, as well as in many other diſeaſes treated of in this work, the aſſiſtance of a gentleman of integrity and ſkill in the medical profeſſion ought if poſſible to be obtained.

CAUSES.——The immediate cauſe of an apoplexy is a compreſſion of the brain, occaſioned by an exceſs of blood, or a collection of watery humours. The former is called a *ſanguine*, and the latter a *ſerous* apoplexy. It may be occaſioned by any thing that increaſes the circulation towards the brain, or prevents the return of the blood from the head; as intenſe ſtudy; violent paſſions; viewing objects for a long time obliquely; wearing any thing too tight about the neck; a rich and luxurious diet; ſuppreſſion of urine; ſuffering the body to cool ſuddenly after having been greatly heated; continuing long in a warm or cold bath; the exceſſive uſe of ſpiceries, or high ſeaſoned food; exceſs of venery; the ſudden ſtriking in of any eruption; ſuffering iſſues, ſetons, &c. ſuddenly to dry up, or the ſtoppage of any cuſtomary evacuation; a mercurial ſalivation puſhed too far, or ſuddenly checked by cold; wounds or bruiſes on the head; long expoſure to exceſſive cold; poiſonous exhalations, &c.

SYMPTOMS, and Method of CURE.——The uſual forerunners of an apoplexy are giddineſs, pain, and ſwimming of the head; loſs of memory; drowſineſs; noiſe in the ears; the night-mare; a ſponta neous flux of tears; and laborious reſpiration. When perſons of an apoplectic make obſerve theſe ſymptoms, they have reaſon to fear the approach of a fit, and ſhould endeavour to prevent it by bleeding, a ſlender diet, and opening medicines.

In the ſanguine apoplexy, if the patient does not die ſuddenly, the countenance appears florid, the face is ſwelled or puffed up, and the blood veſſels, eſpecially about the neck and temples, are turgid; the pulſe beat ſtrong; the eyes are prominent and fixed, and the breathing is difficult, and performed with a ſnorting noiſe. The excrements and urine are often voided ſpontaneouſly, and the patient is ſometimes ſeized with vomiting.

In this ſpecies of apoplexy every method muſt be taken to leſſen the force of the circulation towards the head. The patient ſhould be kept perfectly eaſy and cool. His head ſhould be raiſed pretty high, and his feet ſuffered to hang down. His clothes ought to be looſened, eſpecially about the neck, and freſh air admitted into his chamber. His garters ſhould be tied pretty tight, by which means the motion of the blood from the lower extremities will be retarded. As ſoon as the patient is placed in a proper poſture, he ſhould be bled freely in the neck or arm, and, if there be occaſion, the operation may be repeated in two or three hours. A laxative clyſter, with plenty of ſweet oil or freſh butter, and a ſpoonful or two of common ſalt in it, may be adminiſtered every two hours; and bliſtering-plaſters applied between the ſhoulders, and to the calves of the legs.

As ſoon as the ſymptoms are a little abated, and the patient is able to ſwallow, he ought to drink freely of ſome diluting opening liquor, as a decoction of tamarinds and liquorice, cream-tartar-whey, or common whey with cream of tartar diſſolved in it. Or he may take any cooling purge, as *vitriolated natron* (Glauber's ſalt), manna diſſolved in an infuſion of ſenna, or the like. All ſpirits and other ſtrong liquors are to be avoided. Even volatile ſalts held to the noſe do miſchief. Vomits, for the ſame reaſon, ought not to be given, or any thing that may increaſe the motion of the blood towards the head. In this ſpecies of apoplexy we preſcribe a vegetable regimen.

In the ſerous apoplexy, the ſymptoms are nearly the ſame, only the pulſe is not ſo ſtrong, the countenance is leſs florid, and the breathing leſs difficult. Bleeding is not ſo neceſſary here as in the former caſe. It may however generally be performed once with ſafety and advantage, but ſhould not be repeated. The patient ſhould be placed in the ſame poſture as directed above, and ſhould have bliſtering-plaſters applied, and receive opening clyſters in the ſame manner. Purges are here likewiſe neceſſary, and the patient may drink ſtrong balm-tea. If he be inclined to ſweat, it ought to be promoted by drinking ſmall wine-whey, or an infuſion of carduus benedictus. A plentiful ſweat kept up for a conſiderable time has often carried off a ſerous apoplexy.

When apoplectic ſymptoms proceed from opium or other narcotic ſubſtances taken into the ſtomach, vomits are neceſſary. The patient is generally relieved as ſoon as he has diſcharged the poiſon in this way: as ſoon as the emetic has operated, we think it adviſable for the patient to take copious draughts of lemonade, or of white-wine vinegar diluted with water.

Perſons of an apoplectic make, or thoſe who have been attacked by it, ought to uſe a very ſpare and ſlender diet, avoiding all ſtrong liquors, ſpiceries, and high-ſeaſoned food. They ought likewiſe to guard againſt all violent paſſions, and to avoid the extremes of heat and cold. The head ſhould be ſhaved, and daily waſhed with cold water. The feet ought to be kept warm, and never ſuffered to continue long wet. The body muſt be kept open either by food or medicine, and a little blood may be let every ſpring and fall. Exerciſe ſhould by no means be neglected; but it ought to be taken in moderation. Nothing has a more happy effect in preventing an apoplexy than perpetual iſſues or ſetons: great care however muſt be taken not to ſuffer them to dry up, without opening others in their ſtead. Apoplectic perſons ought never to go to reſt with a full ſtomach, or to lie with their heads low, or wear any thing tight about their necks.

CHAP. XLII.

OF COSTIVENESS, AND OTHER AFFECTIONS OF THE STOMACH AND BOWELS.

WE do not here mean to treat of thoſe aſtrictions of the bowels which are the ſymptoms of diſeaſes, as of the colic, the iliac paſſion,

&c. but only to take notice of that infrequency of ſtools which ſometimes happens, and which in ſome particular conſtitutions may occaſion diſeaſes.

Coſtiveneſs may proceed from drinking rough red wines, or other aſtringent liquors; too much exerciſe, eſpecially on horſeback. It may likewiſe proceed from a long uſe of cold inſipid food, which does not ſufficiently ſtimulate the inteſtines. Sometimes it is owing to the bile not deſcending to the inteſtines, as in the jaundice; and at other times it proceeds from diſeaſes of the inteſtines themſelves, as a palſy, ſpaſms, torpor, tumours, a cold dry ſtate of the inteſtines, &c.

Exceſſive coſtiveneſs is apt to occaſion pains of the head, vomiting, colics, and other complaints of the bowels. It is peculiarly hurtful to hypochondriac and hyſteric perſons, as it generates wind and other grievous ſymptoms.

Perſons who are generally coſtive ſhould live upon a moiſtening and laxative diet, as roaſted or boiled apples, pears, ſtewed prunes, raiſins, gruels with currants, butter, honey, ſugar, and ſuch like. Broths with ſpinage, leeks, and other ſoft pot-herbs, are likewiſe proper. Rye bread, or that which is made of a mixture of wheat and rye together, ought to be eaten. No perſon troubled with coſtiveneſs ſhould eat white bread alone, eſpecially that which is made of fine flour. The beſt bread for keeping the body ſoluble is what in ſome parts of England they call *meſlin*. It is made of a mixture of wheat and rye, and is very agreeable to thoſe who are accuſtomed to it.

Coſtiveneſs is increaſed by keeping the body too warm, and by every thing that promotes the perſpiration; as wearing flannel, lying too long in bed, &c. Intenſe thought and a ſedentary life are likewiſe hurtful. All the ſecretions and excretions are promoted by moderate exerciſe without doors, and by a gay, cheerful, ſprightly temper of mind.

The drink ſhould be of an opening quality. All ardent ſpirits, auſtere and aſtringent wines, as port, claret, &c. ought to be avoided. Malt-liquor that is fine, and of a moderate ſtrength, is very proper. Butter-milk, whey, and other watery liquors, are likewiſe proper, and may be drank in turns, as the patient's inclination directs.

Thoſe who are troubled with coſtiveneſs, ought, if poſſible, to remedy it by diet, as the conſtant uſe of medicines for that purpoſe is attended with many inconveniencies, and often with bad conſequences. I never knew any one get into a habit of taking medicine, or keeping the body open, who could leave it off. In time the cuſtom becomes neceſſary, and generally ends in a total relaxation of the bowels, indigeſtion, loſs of appetite, waſting of the ſtrength, and death.

When the body cannot be kept open without medicine, we would recommend gentle doſes of rhubarb, or of the *wine of aloes*, to be taken twice or thrice a-week. This is not near ſo injurious to the ſtomach as aloes, jalap, or the other draſtic purgatives ſo much in uſe. Infuſions of ſenna and manna may likewiſe be taken, or half an ounce of *tartarized kali* diſſolved in water-gruel. About the

ſize of a nutmeg of *electuary of ſenna* taken twice or thrice a-day generally anſwers the purpoſe very well.

The learned Dr. Arbuthnot adviſes thoſe who are troubled with coſtiveneſs to uſe animal oils, as freſh butter, cream, marrow, fat broths, eſpecially thoſe made of the internal parts of animals, as the liver, heart, midriff, &c. He likewiſe recommends the expreſſed oils of mild vegetables, as olives, almonds, piſtachios, and the fruits themſelves; all oily and mild fruits, as figs; decoctions of mealy vegetables; theſe lubricate the inteſtines: ſome ſaponaceous ſubſtances which ſtimulate gently, as honey, hydromel, or boiled honey and water, unrefined ſugar, &c.

The Doctor obſerves, that ſuch lenitive ſubſtances are proper for perſons of dry atrabilarian conſtitutions, who are ſubject to aſtriction of the belly, and the piles, and will operate when ſtronger medicinal ſubſtances are ſometimes ineffectual; but that ſuch lenitive diet hurts thoſe whoſe bowels are weak and lax. He likewiſe obſerves, that all watery ſubſtances are lenitive, and that even common water, whey, ſour milk, and butter-milk, have that effect:—That new milk, eſpecially aſſes milk, ſtimulates ſtill more when it ſours on the ſtomach; and that whey turned ſour will purge ſtrongly.

Milk in which the leaves of mallows has been boiled is ſerviceable to perſons of a coſtive habit: a large onion or two, eaten over-night, will in ordinary caſes prove laxative. Some people take Scotch oat-meal (a table-ſpoonful or more), mixed with treacle, before breakfaſt. Perſons afflicted with the ſtone, and pregnant women, may take as a lenient ſtimulant to the bowels, the ſize of a walnut of the *electuary of ſenna*, or a table-ſpoonful or two of caſtor oil, in peppermint-water, or mixed with a little tincture of ſenna.

A late phyſician of conſiderable practice in London and its environs was called to a youth labouring under an obſtinate conſtipation of the bowels, which baffled the Doctor's efforts to remove; a large cataplaſm of boiled onions was therefore ordered to be applied to the abdomen of the patient: that "*domeſtic medicine*" looſened the belly, and procured the deſired relief.

When *enemas*, lavements, or clyſters, are given to remove obſtinate coſtiveneſs, they ſhould be of the moſt ſimple kind, and repeatedly adminiſtered; ſuch as warm water with two or three table-ſpoonfuls of fine oil; or a ſolution of Caſtile ſoap; ſince it is to the diluting, reſolving effects of theſe injections, that we chiefly truſt: if neceſſary, ſome gentle ſtimulant may be added, of which a quarter or half an ounce of common ſalt ſeems to be the beſt for domeſtic practice.

WANT OF APPETITE.

This may proceed from a foul ſtomach; indigeſtion; the want of free air and exerciſe; grief, fear, anxiety, or any of the depreſſing paſſions; exceſſive heat; the uſe of ſtrong broths, fat meats, or any thing that palls the appetite, or is hard of digeſtion; the immoderate uſe of ſtrong liquors, tea, tobacco, opium, &c.

The patient ought, if poſſible, to make choice of an open dry air; to take exerciſe daily on horſeback or in a carriage; to riſe betimes;

and to avoid all intenſe thought. He ſhould uſe a diet of eaſy digeſtion; and ſhould avoid exceſſive heat and great fatigue.

If want of appetite proceeds from errors in diet, or any other part of the patient's regimen, it ought to be changed. If naufea and retchings ſhew that the ſtomach is loaded with crudities, an emetic will be of ſervice. After this a gentle purge or two of rhubarb, *tartarized kali*, or any of the bitter purging ſalts, may be taken. The patient ought next to uſe a cupful of an infuſion of camomile-flowers drank cold every morning for a week or ten days, or ſome of the ſtomachic bitters infuſed in wine. Though gentle evacuations be neceſſary, yet ſtrong purges and vomits are to be avoided, as they weaken the ſtomach, and hurt digeſtion.

Elixir of vitriol is an excellent medicine in moſt caſes of indigeſtion, weakneſs of the ſtomach, or want of appetite. From twenty to thirty drops of it may be taken twice or thrice a-day in a glaſs of wine or water. It may likewiſe be mixed with the tincture of the bark, one drachm of the former to an ounce of the latter, and two tea-ſpoonfuls of it taken in wine and water, as above.

The chalybeate waters of Spa, Tunbridge, or Iſlington, if drank in moderation, are generally of conſiderable ſervice in this caſe. The ſea-water has likewiſe good effects; but it muſt not be uſed too freely. The waters of Harrogate, Scarborough, Moffat, and moſt other ſpas in Britain, may be uſed with advantage. We would adviſe all who are afflicted with indigeſtion and want of appetite, to repair to theſe places of public rendezvous. Change of air, and the cheerful company, will be of ſervice, not to mention the exerciſe, diſſipation, and varied amuſements.

OF THE HEART-BURN.

WHAT is commonly called the *heart-burn* is not a diſeaſe of that organ, but an uneaſy ſenſation of heat, or acrimony, about the pit of the ſtomach, which is ſometimes attended with anxiety, naufea, and vomiting.

It may proceed from debility of the ſtomach, indigeſtion, bile, the abounding of an acid in the ſtomach, &c. Perſons who are liable to this complaint ought to avoid ſtale liquors, acids, windy or greaſy aliments, and ſhould never uſe violent exerciſe ſoon after a plentiful meal. I know many perſons who never fail to have the heart-burn if they ride ſoon after dinner, provided they have drank ale, wine, or any fermented liquor; but are never troubled with it when they have drank rum or brandy and water without any ſugar or acid.

When the heart-burn proceeds from debility of the ſtomach, or indigeſtion, the patient ought to take a doſe or two of rhubarb; afterwards he may uſe infuſions of the Peruvian bark, or any other of the ſtomachic bitters, in wine or brandy. Exerciſe in the open air will likewiſe be of uſe, and every thing that promotes digeſtion.

When bilious humours occaſion the heart-burn, a tea-ſpoonful of the *ſpirit of nitrous ether* in a glaſs of water, or a cup of tea, will generally give eaſe. If it proceeds from the uſe of greaſy aliments, a dram of brandy or rum may be taken.

If acidity or fourneſs of the ſtomach occaſions the heart burn, abſorbents are the proper medicines. In this caſe an ounce of powdered chalk, half an ounce of fine ſugar, and a quarter of an ounce of gum-arabic, may be mixed in an Engliſh quart of water, and a tea-cupful of it taken as often as is neceſſary. Such as do not chuſe chalk may take a tea-ſpoonful of pepared oyſter-ſhells, or of the powder called crabs-eyes, in a glaſs of cinnamon or peppermint-water. But the ſafeſt and beſt abſorbent is *magneſia alba*. This not only acts as an abſorbent, but likewiſe as a purgative; whereas chalk, and other abſorbents of that kind, are apt to lie in the inteſtines, and occaſion obſtructions. This powder is not diſagreeable, and may be taken in a cup of tea, or a glaſs of mint-water. A large tea-ſpoonful is the uſual doſe; but it may be taken in a much greater quantity when there is occaſion. Theſe things are now generally made up into lozenges for the convenience of being carried in the pocket, and taken at pleaſure.

If wind be the cauſe of this complaint, the moſt proper medicines are thoſe called carminatives; as aniſeeds, juniper-berries, ginger, canella alba, cardamomum ſeeds, &c. Theſe may either be chewed, or infuſed in wine, brandy, or other ſpirits. One of the ſafeſt medicines of this kind is the tincture made by infuſing an ounce of rhubarb, and a quarter of an ounce of the leſſer cardamomum ſeeds, in an Engliſh pint of brandy. After this has digeſted for two or three days, it ought to be ſtrained, and four ounces of white ſugar-candy added to it. It muſt ſtand to digeſt a ſecond time till the ſugar be diſſolved. A table-ſpoonful of it may be taken occaſionally for a doſe.

I have frequently known the heart-burn cured, particularly in pregnant women, by chewing green tea. Two table-ſpoonfuls of what is called the milk of gum-ammoniacum, taken once or twice a-day, will ſometimes cure the heart-burn.

CHAP. XLIII.

OF NERVOUS DISEASES.

OF all diſeaſes incident to mankind, thoſe of the nervous kind are the moſt complicated and difficult to cure. A volume would not be ſufficient to point out their various appearances. They imitate almoſt every diſeaſe; and are ſeldom alike in two different perſons, or even the ſame perſon at different times. Proteus-like, they are continually changing ſhape; and upon every freſh attack, the patient thinks he feels ſymptoms which he never experienced before. Nor do they only affect the body; the mind likewiſe ſuffers, and is often thereby rendered extremely weak and peeviſh. The low ſpirits, timorouſneſs, melancholy, and fickleneſs of temper, which generally attend nervous diſorders, induce many to believe that they are entirely diſeaſes of the mind; but this change of temper is rather a conſequence than the cauſe of nervous diſeaſes.

CAUSES.——Every thing that tends to relax or weaken the body diſpoſes it to nervous diſeaſes, as indolence, exceſſive venery, drinking too much tea, or other weak watery liquors warm, frequent bleeding, purging, vomiting, &c. Whatever hurts the digeſtion, or prevents the proper aſſimilation of the food, has likewiſe this effect; as long faſting, exceſs in eating or drinking, the uſe of windy, crude, or unwholeſome aliments, an unfavourable poſture of the body, &c.

Nervous diſorders often proceed from intenſe application to ſtudy. Indeed few ſtudious perſons are entirely free from them. Nor is this at all to be wondered at: intenſe thinking not only preys upon the ſpirits, but prevents the perſon from taking proper exerciſe, by which means the digeſtion is impaired, the nouriſhment prevented, the ſolids relaxed, and the whole maſs of humours vitiated. Grief and diſappointment likewiſe produce the ſame effects. I have known more nervous patients who dated the commencement of their diſorders from the loſs of a huſband, a favourite child, or from ſome diſappointment in life, than from any other cauſe. In a word, whatever weakens the body, or depreſſes the ſpirits, may occaſion nervous diſorders, as unwholeſome air, want of ſleep, great fatigue, diſagreeable apprehenſions, anxiety, vexation, &c.

SYMPTOMS.——We ſhall only mention ſome of the moſt general ſymptoms of theſe diſorders, as it would be both an uſeleſs and an endleſs taſk to enumerate the whole. They generally begin with windy inflations or diſtentions of the ſtomach and inteſtines; the appetite and digeſtion are uſually bad; yet ſometimes there is an uncommon craving for food, and a quick digeſtion. The food often turns ſour on the ſtomach; and the patient is troubled with vomiting of clear water, tough phlegm, or a blackiſh-coloured liquor reſembling the grounds of coffee. Excruciating pains are often felt about the navel, attended with a rumbling or murmuring noiſe in the bowels. The body is ſometimes looſe, but more commonly bound, which occaſions a retention of wind and great uneaſineſs.

The urine is ſometimes in ſmall quantity, at other times very copious and quite clear. There is a great ſtraitneſs of the breaſt, with difficulty of breathing; violent palpitations of the heart; ſudden flaſhings of heat in various parts of the body: at other times a ſenſe of cold, as if water were poured on them; flying pains in the arms and limbs; pains in the back and belly, reſembling thoſe occaſioned by gravel; the pulſe very variable, ſometimes uncommonly ſlow, and at other times very quick; yawning, the hiccup, frequent ſighing, and a ſenſe of ſuffocation, as if from a ball or lump in the throat; alternate fits of crying and convulſive laughing; the ſleep is unſound, and ſeldom refreſhing; and the patient is often troubled with the night-mare.

As the diſeaſe increaſes, the patient is moleſted with head-achs, cramps, and fixed pains in various parts of the body; the eyes are clouded, and often affected with pain and dryneſs; there is a noiſe in the ears, and often a dulneſs of hearing; in ſhort, the whole animal functions are impaired. The mind is diſturbed on the moſt trivial occaſions, and is hurried into the moſt perverſe commotions, inquie-

tudes, terror, ſadneſs, anger, diffidence, &c. The patient is apt to entertain wild imaginations and extravagant fancies; the memory becomes weak, and the judgment fails.

Nothing is more characteriſtic of this diſeaſe than a conſtant dread of death. This renders thoſe unhappy perſons who labour under it peeviſh, fickle, impatient, and apt to run from one phyſician to another; which is one reaſon why they ſeldom reap any benefit from medicine, as they have not ſufficient reſolution to perſiſt in any one courſe till it has time to produce its proper effects. They are likewiſe apt to imagine that they labour under diſeaſes from which they are quite free; and are very angry if any one attempts to ſet them right, or laugh them out of their ridiculous notions.

REGIMEN.——Perſons afflicted with nervous diſeaſes ought never to faſt long. Their food ſhould be ſolid and nouriſhing, but of eaſy digeſtion. Fat meats and heavy ſauces are hurtful. All exceſs ſhould be carefully avoided. They ought never to eat more at a time than they can eaſily digeſt; but if they feel themſelves weak and faint between meals, they ought to eat a bit of bread, and drink a glaſs of wine. Heavy ſuppers are to be avoided. Though wine in exceſs enfeebles the body, and impairs the faculties of the mind, yet taken in moderation it ſtrengthens the ſtomach, and promotes digeſtion. Wine and water is a very proper drink at meals; but if wine ſours on the ſtomach, or the patient is much troubled with wind, brandy and water will anſwer better. Every thing that is windy or hard of digeſtion muſt be avoided. All weak and warm liquors are hurtful, as tea, coffee, punch, &c. People may find a temporary relief in the uſe of theſe, but they always increaſe the malady, as they weaken the ſtomach, and hurt digeſtion. Above all things, drams are to be avoided. Whatever immediate eaſe the patient may feel from the uſe of ardent ſpirits, they are ſure to aggravate the malady, and prove certain poiſons at laſt. Theſe cautions are the more neceſſary, as moſt nervous people are peculiarly fond of tea and ardent ſpirits; to the uſe of which many of them fall victims.

Exerciſe in nervous diſorders is ſuperior to all medicines. Riding on horſeback is generally eſteemed the beſt, as it gives motion to the whole body, without fatiguing it. I have known ſome patients, however, with whom walking agreed better, and others who were moſt benefited by riding in a carriage. Every one ought to uſe that which he finds moſt beneficial. Long ſea-voyages have an excellent effect; and to thoſe who have ſufficient reſolution, we would by all means recommend this courſe. Even change of place, and the ſight of new objects, by diverting the mind, have a great tendency to remove theſe complaints. For this reaſon a long journey, or a voyage, is of much more advantage than riding ſhort journies near home.

A cool and dry air is proper, as it braces and invigorates the whole body. Few things tend more to relax and enervate than hot air, eſpecially that which is rendered ſo by great fires, or ſtoves in ſmall apartments. But when the ſtomach or bowels are weak, the body ought to be well guarded againſt cold, eſpecially in winter, by wearing a thin flannel waiſtcoat next the ſkin. This will keep up an equal

perſpiration, and defend the alimentary canal from many impreſſions to which it would otherwiſe be ſubject upon every ſudden change from warm to cold weather. Rubbing the body frequently with a fleſh-bruſh, or a coarſe linen cloth, is likewiſe beneficial, as it promotes the circulation, perſpiration, &c. Perſons who have weak nerves ought to riſe early, and take exerciſe before breakfaſt, as lying too long a-bed cannot fail to relax the ſolids. They ought likewiſe to be diverted, and to be kept as eaſy and cheerful as poſſible. There is not any thing which hurts the nervous ſyſtem, or weakens the digeſtive powers, more than fear, grief, or anxiety.

MEDICINES.----Though nervous diſeaſes are ſeldom radically cured, yet their ſymptoms may ſometimes be alleviated, and the patient's life rendered at leaſt more comfortable by proper medicines.

When the patient is coſtive, he ought to take a little rhubarb, or ſome other mild purgative, and ſhould never ſuffer his body to be long bound. All ſtrong and violent purgatives are however to be avoided, as aloes, jalap, &c. I have generally ſeen an infuſion of ſenna and rhubarb in brandy anſwer very well. This may be made of any ſtrength, and taken in ſuch quantity as the patient finds neceſſary. When digeſtion is bad, or the ſtomach relaxed and weak, the waters of Tunbridge or Iſlington, or the following infuſion of Peruvian bark and other bitters, may be uſed with advantage:

Take of *cinchona* an ounce; gentian root, orange-peel, and coriander-ſeed, of each half an ounce; let theſe ingredients be all bruiſed in a mortar, and infuſed in a bottle of brandy or rum for the ſpace of five or ſix days. A table-ſpoonful of the ſtrained liquor may be taken in half a glaſs of water, an hour before breakfaſt, dinner, and ſupper.

Few things tend more to ſtrengthen the nervous ſyſtem than cold bathing. This practice, if duly perſiſted in, will produce very extraordinary effects; but when the liver or other *viſcera* are obſtructed, or otherwiſe unſound, the cold bath is improper. It is therefore to be uſed with very great caution. The moſt proper ſeaſons for it are ſummer and autumn. It will be ſufficient, eſpecially for perſons of a ſpare habit, to go into the cold bath three or four times a-week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

In patients afflicted with wind, I have always obſerved the greateſt benefit from the *diluted acid of vitriol*. It may be taken in the quantity of fifteen, twenty, or thirty drops, twice or thrice a-day, in a glaſs of water. This both expels wind, ſtrengthens the ſtomach, and promotes digeſtion.

Opiates are generally extolled in theſe maladies; but as they only palliate the ſymptoms, and generally afterwards increaſe the diſeaſe, we would adviſe people to be extremely ſparing in the uſe of them, leſt habit render them at laſt abſolutely neceſſary.

It would be an eaſy matter to enumerate many medicines which have been extolled for relieving nervous diſorders; but whoever wiſhes for a thorough cure, muſt expect it from regimen alone: we ſhall therefore omit mentioning more medicines, and again recom-

mend the ſtricteſt attention to DIET, AIR, EXERCISE, and AMUSEMENTS.

OF MELANCHOLY.

MELANCHOLY is that ſtate of alienation or weakneſs of mind which renders people incapable of enjoying the pleaſures or performing the duties of life. It is a degree of inſanity, and often terminates in abſolute madneſs.

CAUSES.——It may proceed from an hereditary diſpoſition; intenſe thinking, eſpecially where the mind is long occupied about one object; violent paſſions or affections of the mind, as love, fear, joy, grief, pride, and ſuch like. It may alſo be occaſioned by exceſſive venery, narcotic or ſtupefactive poiſons; a ſedentary life; ſolitude; the ſuppreſſion of cuſtomary evacuations; acute fevers; or other diſeaſes. Violent anger will change melancholy into madneſs; and exceſſive cold, eſpecially of the lower extremities, will force the blood into the brain, and produce all the ſymptoms of madneſs. It may likewiſe proceed from the uſe of aliment that is hard of digeſtion, or which cannot be eaſily aſſimilated; from a callous ſtate of the integuments of the brain, or a dryneſs of the brain itſelf. To all which we may add, gloomy and miſtaken notions of religion.

SYMPTOMS.----When perſons begin to be melancholy, they are timorous; watchful; fond of ſolitude; fretful; fickle; captious and inquiſitive; ſolicitous about trifles; ſometimes niggardly, and at other times prodigal. The body is generally bound; the urine thin, and in ſmall quantity; the ſtomach and bowels inflated with wind; the complexion pale; the pulſe ſlow and weak. The functions of the mind are alſo greatly perverted, inſomuch that the patient often imagines himſelf dead, or changed into ſome other animal. Some have imagined their bodies were made of glaſs, or other brittle ſubſtances, and were afraid to move, leſt they ſhould be broken to pieces. The unhappy patient, in this caſe, unleſs carefully watched, is apt to put an end to his own miſerable life.

When the diſeaſe is owing to an obſtruction of cuſtomary evacuations, or any bodily diſorder, it is eaſier cured than when it proceeds from affections of the mind, or an hereditary taint. A diſcharge of blood from the noſe, looſeneſs, ſcabby eruptions, the bleeding piles, or the *menſes*, ſometimes carry off this diſeaſe.

REGIMEN.----The diet ſhould conſiſt chiefly of vegetables of a cooling and opening quality. Animal food, eſpecially ſalted or ſmoke-dried fiſh or fleſh, ought to be avoided. All kinds of ſhell-fiſh are bad. Aliments prepared with onions, garlic, or any thing that generates thick blood, are likewiſe improper. All kinds of fruits that are wholeſome may be eaten with advantage. Boerhaave gives an inſtance of a patient who, by a long uſe of whey, water, and garden-fruit, recovered after having evacuated a great quantity of black-coloured matter.

Strong liquors of every kind ought to be avoided as poiſon. The moſt proper drink is water, whey, or very ſmall beer. Tea and coffee are improper. If honey agrees with the patient, it may be eaten

freely, or his drink may be ſweetened with it. Infuſions of balm-leaves, pennyroyal, the roots of wild valerian, or the flowers of the lime-tree, may be drank freely, either by themſelves or ſweetened with honey, as the patient ſhall chuſe.

The patient ought to take as much exerciſe in the open air as he can bear. This helps to diſſolve the viſcid humours, it removes obſtructions, promotes the perſpiration, and all the other ſecretions. Every kind of madneſs is attended with a diminiſhed perſpiration; all means ought therefore to be uſed to promote that neceſſary and ſalutary diſcharge. Nothing can have a more direct tendency to increaſe the diſeaſe than confining the patient to a cloſe apartment. Were he forced to ride or walk a certain number of miles every day, it would tend greatly to alleviate his diſorder; but it would have ſtill a better effect, if he were obliged to labour a piece of ground. By digging, hoeing, planting, ſowing, &c. both the body and mind would be exerciſed. A long journey, or a voyage, eſpecially towards a warmer climate, with agreeable companions, have often very happy effects. A plan of this kind, with a ſtrict attention to diet, is a much more rational method of cure, than confining the patient within doors and plying him with medicines.

MEDICINE.——In the cure of this diſeaſe particular attention muſt be paid to the mind. When the patient is in a low ſtate, his mind ought to be ſoothed and diverted with variety of amuſements, as entertaining ſtories, paſtimes, muſic, &c. This ſeems to have been the method of curing melancholy among the Jews, as we learn from the ſtory of King Saul; and indeed it is a very rational one. Nothing can remove diſeaſes of the mind ſo effectually as applications to the mind itſelf, the moſt efficacious of which is muſic. It mitigates bodily pain, ſuſpends the malignant influence of madneſs and deſpair, and ſoothes the ſoul into a peaceful and tranquil ſtate.

"Muſic the fierceſt grief can charm,
"And fate's ſevereſt rage diſarm;
"Muſic can ſoften pain to eaſe,
"And make deſpair and madneſs pleaſe;
"Our joys below it can improve,
"And antedate the bliſs above."

The patient's company ought likewiſe to conſiſt of ſuch perſons as are agreeable to him. People in this ſtate are apt to conceive unaccountable averſions againſt particular perſons; and the very ſight of ſuch perſons is ſufficient to diſtract their minds, and throw them into the utmoſt perturbation.

When the patient is high, evacuations are neceſſary. In this caſe he muſt be bled, and have his body kept open by purging medicines, as manna, rhubarb, cream of tartar, or *tartarized kali*. I have ſeen the laſt have very happy effects. It may be taken in the doſe of half an ounce, diſſolved in water-gruel, every day, for ſeveral weeks, or even for months, if neceſſary. More or leſs may be given according as it operates. Vomits have likewiſe a good effect; but they muſt be pretty ſtrong, otherwiſe they will not operate.

Whatever increaſes the evacuation of urine or promotes perſpiration has a tendency to remove this diſeaſe. Both theſe ſecretions

may be promoted by the uſe of nitre and vinegar. Half a drachm of purified nitre may be given three or four times a-day in any manner that is moſt agreeable to the patient; and an ounce and a half of diſtilled vinegar may be daily mixed with his drink. Dr. Locker ſeems to think vinegar the beſt medicine that can be given in this diſeaſe.

Camphire and muſk have likewiſe been uſed in this caſe with advantage. Ten or twelve grains of camphire may be rubbed in a mortar with half a drachm of nitre, and taken twice a day, or oftener, if the ſtomach will bear it. If it will not ſit upon the ſtomach in this form, it may be made into pills with gum-aſſafœtida and Ruſſian caſtor, and taken in the quantity above directed. If muſk is to be adminiſtered, a ſcruple or twenty-five grains of it may be made into a bolus with a little honey or common ſyrup, and taken twice or thrice a-day. We do not mean that all theſe medicines ſhould be adminiſtered at once; but whichever of them is given muſt be duly perſiſted in, and where one fails another may be tried.

As it is very difficult to induce patients in this diſeaſe to take medicines, we ſhall mention a few outward applications which ſometimes do good; the principal of theſe are iſſues, ſetons, and warm bathing. Iſſues may be made in any part of the body, but they generally have the beſt effect near the ſpine. The diſcharge from theſe may be greatly promoted by dreſſing them with the mild bliſtering ointment, and keeping what are commonly called the orrice peaſe in them. The moſt proper place for a ſeton is between the ſhoulder blades; and it ought to be placed upwards and downwards, or in the direction of the ſpine.

In this, as in nervous diſeaſes, varied amuſements, a long journey, or even change of climate, may be found adviſable.

OF THE PALSY.

The palſy is a loſs or diminution of ſenſe or motion, or of both, in one or more parts of the body. Of all the affections called nervous, this is the moſt ſuddenly fatal. It is more or leſs dangerous, according to the importance of the part affected. A palſy of the heart, lungs, or any part neceſſary to life, is mortal. When it affects the ſtomach, the inteſtines, or the bladder, it is highly dangerous. If the face be affected, the caſe is bad, as it ſhews that the diſeaſe proceeds from the brain. When the part affected feels cold, is inſenſible, or waſtes away, or when the judgment and memory begin to fail, there is ſmall hope of a cure.

CAUSES.——The immediate cauſe of palſy is any thing that prevents the regular exertion of the nervous power upon any particular muſcle or part of the body. The occaſional and prediſpoſing cauſes are various, as drunkenneſs; wounds of the brain, or ſpinal marrow; preſſure upon the brain, or nerves; very cold or damp air; the ſuppreſſion of cuſtomary evacuations; ſudden fear; want of exerciſe; or whatever greatly relaxes the ſyſtem, as drinking much tea, or coffee. The palſy may likewiſe proceed from wounds of the

nerves themſelves; from the poiſonous fumes of metals or minerals, as quickſilver, lead, arſenic.

Many people imagine that tea has no tendency to hurt the nerves, and that drinking the ſame quantity of warm water would be equally pernicious. This however ſeems to be a miſtake. Some perſons drink three or four cups of warm milk and water daily, without feeling any bad conſequences; yet the ſame quantity of tea will make their hands ſhake for twenty-four hours. That tea affects the nerves is likewiſe evident from its preventing ſleep, occaſioning giddineſs, dimneſs of the ſight, ſickneſs, &c.

In young perſons of a full habit, the palſy muſt be treated in the ſame manner as the ſanguine apoplexy. The patient muſt be bled, bliſtered, and have his body opened by ſharp clyſters or purgative medicines. But in old age, or when the diſeaſe proceeds from relaxation or debility, which is generally the caſe, a quite contrary courſe muſt be purſued. The diet muſt be warm and invigorating, ſeaſoned with ſpicy and aromatic vegetables, as muſtard, horſe-radiſh, &c. The drink may be generous wine, muſtard-whey, or brandy and water. Friction with the fleſh-bruſh, or a warm hand, is extremely proper, eſpecially on the parts affected. Bliſtering-plaſters may likewiſe be applied to the affected parts with advantage. When this cannot be done, they may be rubbed with the *liniment of ammonia*, or the nerve ointment of the Edinburgh diſpenſatory. One of the beſt external applications is electricity. The ſhocks, or rather vibrations, ſhould be received on the part affected; and they ought daily to be repeated for ſeveral weeks.

Vomits and chalybeate waters are very beneficial in this kind of palſy, and ought frequently to be adminiſtered. Cephalic ſnuff, or any thing that makes the patient ſneeze, is likewiſe of uſe. Some pretend to have found great benefit from rubbing the parts affected with nettles; but this does not ſeem to be any way preferable to bliſtering. If the tongue is affected, the patient may gargle his mouth frequently with brandy and muſtard; or he may hold a bit of ſugar in his mouth wet with the palſy-drops or compound ſpirits of lavender. The wild valerian-root is a very proper medicine in this caſe: It may either be taken in an infuſion with ſage-leaves, or half a drachm of it in powder may be given in a glaſs of wine three or four times a-day. If the patient cannot uſe the valerian, he may take of *compound ſpirit of ammonia*, compound ſpirits of lavender, and tincture of caſtor, each half an ounce; mix theſe together, and take forty or fifty drops in a glaſs of wine three or four times a-day. A table-ſpoonful of muſtard-ſeed taken frequently is a very good medicine. The patient ought likewiſe to chew cinnamon-bark, ginger, or other warm ſpiceries. He may alſo take every four or ſix hours three or four table-ſpoonfuls of the following mixture: Prepared ammonia two ſcruples; compound tincture of cardamoms and ſyrup of orange-peel, of each one ounce; pennyroyal water eleven ounces; mix.

Exerciſe is of the utmoſt importance in the palſy; but the patient muſt beware of cold, damp, and moiſt air. He ought to wear

flannel next his ſkin; and, if poſſible, ſhould remove into a warmer climate.

Oil of petroleum is an acrid and uſeful ſtimulant in this diſeaſe: in every kind of paralytic complaint, Bath waters, under proper regulations, have been found of advantage.

OF THE EPILEPSY, OR FALLING SICKNESS.

THE epilepſy is a ſudden deprivation of all the ſenſes, wherein the patient falls ſuddenly down, and is affected with violent convulſive motions. Children, eſpecially thoſe who are delicately brought up, are moſt ſubject to it. It more frequently attacks men than women, and is very difficult to cure. When the epilepſy attacks children, there is reaſon to hope it may go off about the time of puberty.

When it attacks any perſon after twenty years of age, the cure is difficult; but when after forty, a cure is hardly to be expected. If the fit continues only for a ſhort ſpace, and returns ſeldom, there is reaſon to hope; but if it continues long, and returns frequently, the proſpect is bad. It is a very unfavourable ſymptom when the patient is ſeized with the fits in his ſleep.

CAUSES.——The epilepſy is ſometimes hereditary. It may likewiſe proceed from blows, bruiſes, or wounds on the head; a collection of water, blood, or ſerous humours in the brain; a polypus; tumours or concretions within the ſkull; exceſſive drinking; intenſe ſtudy; exceſs of venery; worms; teething; ſuppreſſion of cuſtomary evacuations; too great emptineſs or repletion; violent paſſions or affections of the mind, as fear, joy, &c.; hyſteric affections; contagion received into the body, as the infection of the ſmall-pox, meaſles, &c.

SYMPTOMS.——An epileptic fit is generally preceded by unuſual wearineſs; pain of the head; dulneſs; giddineſs; noiſe in the ears; dimneſs of the ſight; palpitation of the heart; diſturbed ſleep; difficult breathing; the bowels are inflated with wind; the urine is in great quantity, but thin; the complexion is pale; the extremities are cold; and the patient often feels, as it were, a ſtream of cold air aſcending towards his head.

In the fit, the patient generally makes an unuſual noiſe; his thumbs are drawn in towards the palms of the hands; his eyes are diſtorted; he ſtarts, and foams at the mouth; his extremities are bent or twiſted various ways; he often diſcharges his feed, urine, and fæces, involuntarily; and is quite deſtitute of all ſenſe and reaſon. After the fit is over, his ſenſes gradually return, and he complains of a kind of ſtupor, wearineſs, and pain of his head; but has no remembrance of what happened to him during the fit.

The fits are ſometimes excited by violent affections of the mind, a debauch of liquor, exceſſive heat, cold, or the like.

This diſeaſe, from the difficulty of inveſtigating its cauſes and its ſtrange ſymptoms, was formerly attributed to the wrath of the gods, or the agency of evil ſpirits. In modern times it has often, by the vulgar, been imputed to witchcraft and faſcination. It depends however as much upon natural cauſes as any other malady; and

its cure may often be effected by perſiſting in the uſe of proper means.

REGIMEN.——Epileptic patients ought, if poſſible, to breathe a pure and free air. Their diet ſhould be light but nouriſhing. They ought to drink nothing ſtrong, to avoid ſwine's fleſh, water-fowl, and likewiſe all windy and oily vegetables, as cabbage, nuts, &c. They ought to keep themſelves cheerful, carefully guarding againſt all violent paſſions, as anger, fear, exceſſive joy, and the like.

Exerciſe is likewiſe of great uſe; but the patient muſt be careful to avoid all extremes either of heat or cold; all dangerous ſituations, as ſtanding upon precipices, riding, deep waters, and ſuch like.

MEDICINE.——The intentions of cure muſt vary according to the cauſe of the diſeaſe. If the patient be of a ſanguine temperament, and there be reaſon to fear an obſtruction in the brain, bleeding and other evacuations will be neceſſary. When the diſeaſe is occaſioned by the ſtoppage of cuſtomary evacuations, theſe, if poſſible, muſt be reſtored; if this cannot be done, others may be ſubſtituted in their place. Iſſues or ſetons in this caſe have often a very good effect. When there is reaſon to believe that the diſeaſe proceeds from worms, aſafœtida and proper medicines muſt be uſed to kill or carry off theſe vermin. When the diſeaſe proceeds from teething, the body ſhould be kept open by emollient clyſters, the feet frequently bathed in warm water, and, if the fits prove obſtinate, a bliſtering-plaſter may be put between the ſhoulders. The ſame method is to be followed when epileptic fits precede the eruption of the ſmall-pox, or meaſles, &c.

When the diſeaſe is hereditary, or proceeds from a wrong formation of the brain, a cure is not to be expected. When it is owing to a debility, or too great an irritability of the nervous ſyſtem, ſuch medicines as tend to brace and ſtrengthen the nerves may be uſed, as the Peruvian bark, and iron; or the *anti-epileptic* electuaries, recommended by Fuller and Mead, as directed in the Appendix.

The flowers of zinc have of late been highly extolled for the cure of the epilepſy. Though this medicine will not be found to anſwer the expectations which have been raiſed concerning it, yet in obſtinate epileptic caſes it deſerves a trial. The doſe is from one to three or four grains, which may be taken either in pills or a bolus, as the patient inclines. The beſt method is to begin with a ſingle grain four or five times a-day; and gradually to increaſe the doſe as far as the patient can bear it. I have known this medicine, when duly perſiſted in, prove beneficial. Half a drachm to a drachm of cardamine flowers, or ladies ſmock, given thrice a-day, is ſometimes of uſe.

Muſk alſo has ſometimes been found to ſucceed in the epilepſy. Ten or twelve grains of it, with the ſame quantity of *red ſulphurated quickſilver*, may be made up into a bolus, and taken every night and morning.

Sometimes the epilepſy has been cured by electricity.

That the patient may not injure himſelf during the violence of his ſtruggles in the paroxyſm, he ſhould be immediately placed on a bed, his clothing every where looſened, and the head moderately elevated. Some ſubſtance ſhould be introduced and held between the teeth, to

prevent their closing on the tongue. His drink should not be offered even in the interval of the convulsion in any glass or other fragile substance, lest, from the sudden return of the spasmodic affection, he may get the broken fragments within his mouth. Should it happen that the patient has been drinking too freely of spirituous liquors, or has loaded his stomach with indigestible and offensive matters, get as soon as may be a pretty strong emetic into the stomach: when that is cleared of its injurious contents, the convulsions subside.

Convulsion-fits proceed from the same causes, and must be treated in the same manner, as the epilepsy.

There is one particular species of convulsion-fits which commonly goes by the name of St. Vitus's dance, wherein the patient is agitated with strange motions and gesticulations, which by the common people are generally believed to be the effects of witchcraft. Bleed if the patient is plethoric: in almost all cases the patient should be repeatedly purged with *pill of aloes with colocynth*; and afterwards using the medicines prescribed above for the epilepsy, viz. the Peruvian bark and snake-root, &c. Chalybeate waters are found to be beneficial in this case. The cold bath is likewise of singular service, and ought never to be neglected when the patient can bear it.

The works of *Peter Andrew Matthiolus*, the commentator on the celebrated writings of *Dioscorides*, were printed at Prague anno 1548 and 1562; a Latin edition was printed at Venice in 1565, containing nearly 1400 figures of roots, plants, trees, &c. An elegant edition, entitled "*Matthioli Compendium de Plantis*," issued from the same press in the year 1571, "for the benefit of students." That small quarto contains nearly a thousand figures, reduced in size, but considerably improved from those of the folio edition: to a print of the *Quercini visci* is subjoined, as well as to the rest, an account of its virtues. He says, "The mistletoe of the oak (as the best), made into powder, and given in drink to those who have the falling-sickness, doth assuredly heal them;" he had tried and healed many; "but it is fit to use it forty days together."

In 1598, about twenty years after the death of Matthiolus, a splendid edition of the works of Dioscorides was printed in folio, containing upwards of 1400 prints, with the notes of Matthiolus; it was published by *Gaspar Bauhinus*, who was deemed by *Boerhaave* "a most learned botanist:" this author (Bauhinus) annexed the botanical *Materia Medica*, or an account of all the simples employed in the practice of physic both by Dioscorides and his commentator; thence also it appears that Matthiolus directed for the cure of the epilepsy, as already mentioned, "*Quercini visci lignum intenuissimum pulverum redactum & diebus quadraginta potum.*"

The same year our countryman *Gerard* published his Herbal; he says, "the mistletoe of the oak, far from being poisonous, as some have asserted, is used in medicine against the falling-sickness."

Soon after Gerard had inscribed his botanical work to Sir William Cecil, afterwards Lord Burleigh, the best compendium of the practice of physic that, we believe, had till then appeared in our language was dedicated to that illustrious person, now "High Treasurer of

England, Knight of the moſt noble Order of the Garter, and one of the Queen's Majeſtie's moſt honourable Privie Councill," entitled, "*The Method of Phyſick*, containing the Cauſes, Signs, and Cures of inward Diſeaſes in Man's Body from the Head to the Foote. Whereunto is added the Form and Rule of making Remedies and Medicines which our Phyſicians commonly uſe at this Day, with the Order, Quantity, and Names of each Medicine. By Philip Barrough;" by ſome aſſerted to have been great grandfather to the late learned Dr. Iſaac Barrow.

This author recommends for the cure "of the falling-ſickneſſe a lohoch of fine white ſugar and oile of ſweet almonds commixed with the *miſcle of the oke* and (powder of) unicorne's horn. Alſo" (after the manner of *Galen* he directs) "hang about the child's necke roote of piony being green, for it helpeth marvelouſly:—When they fall into this diſeaſe after they be paſt child's age,—you muſt open the mouth, putting in a wedge between the teeth; or with a feather dipped in oil of *ireos*" (or the oxymel of ſquills) "provoke vomiting to bring up the fleame. Alſo it is good to quicken the ſenſes with ordoraments" (i. e. medicines of a pungent ſmell), "dog fennel, rew, *bitumen* (Jew's pitch), and put into their mouth caſtoreum with oxymel. When they are raiſed, you muſt caſt in ſharp cliſters: their ſtrength being refreſhed, purge them with *hiera galeni*" (i. e. powder of guaiacum with canella).—"This is the cure of a new and ſharp epilepſie.—To help that which is old, the patient muſt drinke water a long time, or very ſmall ale, unleſs any thing forbid it. Let bloud in the veine of the hamme or the ring finger.—It is good to miniſter preparatives to extenuate, as ſirupes of wormwood, of hyſope or oxymel of ſquills, decoction of hyſope, and roots of piony, and other medicines rehearſed before. Afterward purge with *pilulæ cochiæ*" (i. e. *pill of aloes with colocynth*), "and ſuch as purge fleame. Alſo I judge ſtubium" (i. e. ſtibium, or glaſs of antimony) "to be of great force in this kind of diſeaſe, being uſed as is declared before in the fifteenth chapter, fol. 21*, which doth mightily purge the ſuperfluous humours from the head. Alſo I have knowne this to help many" (epileptic perſons): "Oil of Exitore, and *oleum de lateribus* †" (i. e. oil of bricks). "With it anoint the hinder parts of the head morning and evening warme—for many days together. And every morning and evening let him take theſe things; the firſt day of the powder of the ſkull of a man burned, one dram at once; and the next day of the *miſcle of the oke* made in powder,

* In the 3d edition of this little quarto, printed by Field, 1617, treating "of the Frenſie," the chapter to which Dr. Barrough refers, he ſays, "Matthiolus doth greatly commend ſtubium —I myſelf have proved it in this order to be moſt excellent as followeth: R.—Stubium grains twelve, made into a very fine powder, and put into claret wine four ounces; let it ſtand thirty houres, and every ſix houres ſhake it; at the thirty houres end powre it from the powder, and let him drink it with a little ſugar. This does mightily purge the ſuperfluous humours from the head." Here we have an antimonial preparation, weaker indeed, but very ſimilar to the wine of antimony, ſo highly and juſtly extolled by the late Dr. Huxham.

† Theſe oils have long been eraſed from our diſpenſatories: the Exeter oil conſiſted of eight and twenty herbs, flowers, ſeeds, &c. boiled in wine and oil! Volatile liquor of hartſhorn and oil mixed, or the liniment of ammonia, &c. are better applications in theſe caſes.

one dram; and the third the powder of piony roots, one dram. After theſe three days, take theſe powders each day till the patient be healed, which will be fortie days."

"If this evill be engendered of melancholly, it is lawful to take the barke of dry black hellebore, beat it into fine powder, and miniſter one dram at once with *mulſa*" (i. e. water and honey ſodden together) "and a little pepper to it."—[N. B. Fifteen grains to half a drachm of black hellebore are to conſtitutions of the preſent day ſtrongly purgative.]—"Alſo you may make pills thereof, and give them. When the ſicke is purged enough, bring him to a bath; faſten cupping glaſſes with ſcarification to the ſides and ſhoulders: again purge him with *hiera galeni;* after that faſten cupping glaſſes to the noddle o the neck; then ſhave the head, and anoint it with juice of *pucedanum*" (hog's fennel) "infuſed in vinegar, in which *ireos*" (orris or flower-de-luce) "hath been ſodden: apply a plaſter to the head of bread ſodden in *mulſa*, adding to it bitter almonds brayed, or *ſerpillum*," (wild thyme) "calamints, or mint and rew; do that three days.—Miniſter ſternutaments, maſticatories, and ſuch things as do purge by the noſe.—At the laſt employ ointments, liniments, and emplaſters, which have virtue to diſſolve and drive away" (i. e. diſcutients); "whereof you may find examples plentie in divers places"—in this book.

The famous Riverius, phyſician to Lewis XIV, alſo preſcribed a powder againſt convulſions, conſiſting of miſtletoe of the oak, male-piony, native cinnabar, and, agreeably to the practice of thoſe times, thoſe whimſical ingredients man's ſkull and elks hoof. A compoſition of this kind had during many years a place in the London and Edinburgh diſpenſatories.

The beginning of the laſt century, an Engliſh phyſician publiſhed a Treatiſe of the Miſtletoe, and ſupported his opinion of its virtues both from facts and experience: he warmly recommended it as a ſpecific in epilepſies and many kinds of convulſions, alledging that where it fails it can do no harm. Accordingly it was preſcribed in apoplexies and vertigoes; and, as was the cuſtom of the antients, it was worn about the necks of children, to prevent convulſions. Nevertheleſs, the miſtletoe had been long diſregarded in medical practice, until it was lately brought again into notice by Dr. Henry Fraſer, who aſſerts that "his own experience warrants him in declaring, that, of eleven caſes of epilepſy which were treated during the years 1802, 1803, and 1804, nine were radically cured; one was fatal, and one received no benefit.—He alſo ſtates that by far the greater part of the miſtletoe employed in the caſe laſt mentioned was not the miſtletoe of the oak, but miſtletoe collected from the apple-tree." The former may be had genuine at the druggiſts mentioned in page 105.

"The firſt caſe in which Dr. Fraſer employed the miſtletoe of the oak in the cure of epilepſy was that of a gentleman in the twenty-third year of his age, who had been the ſubject of epilepſy from the third or fourth year of his birth. This caſe was hereditary, and was gradually increaſing upon the patient, until it was become ſo conſiderable as to threaten his intellectual faculties with deſtruction. This gentleman had been under the care of many eminent practitioners at different times with various ſucceſs: one while finding the violence

of his paroxyſms mitigated under their management, another while increaſed. On the 5th of March 1802, he began to uſe the miſtletoe, by taking two ſcruples of the powder in a draught of camphorated emulſion twice daily; the doſe was gradually increaſed to two drachms, and the uſe of this medicine was continued without intermiſſion till the 21ſt day of June. The violence and frequency of the paroxyſms experienced no viſible abatement before the expiration of the firſt month from the commencement of the uſe of the miſtletoe; but after this period they became conſiderably milder; and about the middle of June he bade farewel to his almoſt conſtant but diſagreeable companion.

"The ſubjects of Dr. F.'s ſecond and third caſes were in the prime of life, and the fits which had haraſſed them for ſeveral years were in both very ſevere. Theſe patients took one drachm of the powder of the *viſcus quercinus* twice daily for near three months, at the expiration of which time they were both completely cured. Theſe patients were treated with the miſtletoe, the latter end of 1802, and the diſeaſe had not manifeſted any diſpoſition to return in either," anno 1806.

"The patient in the fourth caſe in which the miſtletoe of the oak effected a radical cure was a delicate female, who had been the ſubject of epilepſy five years. Several phyſicians had been conſulted for her relief, and conſequently various medicines employed, of all which the aſafœtida was the moſt uſeful. She was at laſt cured by the combined uſe of the cold bath and miſtletoe.

"The fifth, ſixth, and ſeventh caſes, were two boys and a young girl. The age of the elder boy was thirteen, the younger twelve, and the girl nine years. Theſe caſes were neither hereditary nor violent, and were ſpeedily cured by the miſtletoe, after a combination of Peruvian bark and valerian had proved ineffectual.

"The eighth caſe was the moſt violent Dr. Fraſer had ever witneſſed. The patient was apparently a robuſt man of thirty years of age, twenty-two of which he had been at various times the ſubject of epilepſy. The paroxyſms in this caſe did not occur very frequently, nor even ever without giving warning of their approach; but, when occurring, were exceſſively violent and long continued. The plethoric ſtate of the patient naturally led to the employment of the antiphlogiſtic plan of treatment; by a rigid perſeverance in which, he was twice nearly reduced to the grave, without reaping the leaſt benefit in his complaint. This patient continued the uſe of the miſtletoe at ſtated intervals for near ſix months; and during this period he drank regularly, every ſecond or third morning, half a pint of tepid water in which two or three drachms of the *vitriolated magneſia* had been previouſly diſſolved. By perſevering in this plan of treatment for the length of time before mentioned, and by ſtudiouſly avoiding irregularities of living and exceſſive exerciſe, he has been fortunate enough to ſhake off his complaint. This caſe was hereditary; it was cured by the *viſcus quercinus* in 1804, and ſince manifeſted (in 1806) no diſpoſition to return.

"The ninth caſe was ſimilar to the fourth. The tenth and fatal

caſe, in which the miſtletoe failed, was that of an elderly lady: here the epilepſy was complicated with a paralyſis of the right ſide. During the ſhort time this lady uſed the *viſcus quercinus*, her attendants thought that the violence of the paroxyſms was mitigated; but, upon being ſtrongly recommended to try Bath, ſhe went, and ſoon afterwards died there."

We have extended this article to a conſiderable length: 1ſt, to ſhew the ancient and preſent practice in the cure of this dreadful diſtemper; 2dly, to prove that, if remedies are judiciouſly ſelected, ſimplicity in preſcription may be efficacious in the cure even of formidable maladies; 3dly, to inſtance that, in our eagerneſs to diſcover new, we are frequently forgetful of old remedies; and, laſtly, with a view to excite medical practitioners to perſevere in their endeavours

To detect the hidden ſtores that lie
Of uſeful medicines in Botany.

OF THE HICCUP.

THE hiccup is a ſpaſmodic or convulſive affection of the ſtomach and midriff, ariſing from any cauſe that irritates their nervous fibres.

It may proceed from exceſs in eating or drinking; from a hurt of the ſtomach; poiſons; inflammations or ſchirrous tumours of the ſtomach, inteſtines, bladder, midriff, or the reſt of the *viſcera*. In gangrenes, acute and malignant fevers, a hiccup is often the forerunner of death.

When the hiccup proceeds from the uſe of aliment that is flatulent, or hard of digeſtion, a draught of generous wine, or a dram of any ſpirituous liquor, will generally remove it. If poiſon be the cauſe, plenty of milk and oil muſt be drank, as has been formerly recommended. When it proceeds from an inflammation of the ſtomach, &c. it is very dangerous. In this caſe the cooling regimen ought to be ſtrictly obſerved. The patient muſt be bled, and take frequently a few drops of the *ſpirit of nitrous ether* in a cup of wine-whey. His ſtomach ſhould likewiſe be fomented with cloths dipped in warm water, or have bladders filled with warm milk and water applied to it.

When the hiccup proceeds from a gangrene or mortification, the Peruvian bark, with other antiſeptics, are the only medicines which have a chance to ſucceed. When it is a primary diſeaſe, and proceeds from a foul ſtomach, loaded either with a pituitous or a bilious humour, a gentle vomit and purge, if the patient be able to bear them, will be of ſervice. If it ariſes from flatulencies, the carminative medicines directed for the heart-burn muſt be uſed.

When the hiccup proves very obſtinate, recourſe muſt be had to the moſt powerful aromatic and antiſpaſmodic medicines. The principal of theſe is muſk; fifteen or twenty grains of which may be made into a bolus, and repeated occaſionally. Opiates are likewiſe of ſervice; but they muſt be uſed with caution. A bit of ſugar dipped in compound ſpirits of lavender, or the *compound ſpirit of ammonia*, may be taken frequently. External applications are ſometimes alſo beneficial; as the *compound plaſter of laudanum*, or a cataplaſm of the

Venice treacle of the Edinburgh or London diſpenſatory, applied to the region of the ſtomach.

I lately attended a patient who had almoſt a conſtant hiccup for above nine weeks. It was frequently ſtopped by the uſe of muſk, opium, wine, and other cordial and antiſpaſmodic medicines, but always returned. Nothing however gave the patient ſo much eaſe as briſk ſmall-beer. By drinking freely of this, the hiccup was often kept off for ſeveral days, which was more than could be done by the moſt powerful medicines. The patient was at length ſeized with a vomiting of blood, which ſoon put an end to his life. Upon opening the body, a large ſchirrous tumour was found near the pylorus or right orifice of the ſtomach.

The hiccup may be removed by taking vinegar and water, or by a few drops of the oil of vitriol taken in mint-water. It may ſometimes be of ſervice to provoke ſneezing.

CRAMP OF THE STOMACH.

This diſeaſe often ſeizes people ſuddenly, is very dangerous, and requires immediate aſſiſtance. It is moſt incident to perſons in the decline of life, eſpecially the nervous, gouty, hyſteric, and hypochondriac.

If the patient has any inclination to vomit, he ought to take ſome draughts of warm water, or weak camomile-tea, to cleanſe his ſtomach. After this, if he has been coſtive, a laxative clyſter may be given. He ought then to take laudanum. The beſt way of adminiſtering it is in a clyſter. Sixty or ſeventy drops of the *tincture of opium* may be given in a clyſter of warm water. This is much more certain than laudanum given by the mouth, which is often vomited, and in ſome caſes increaſes the pain and ſpaſms in the ſtomach.

If the pain and cramps return with great violence, after the effects of the anodyne clyſter are over, another, with an equal or larger quantity of opium, may be given; and every four or five hours a bolus, with ten or twelve grains of muſk, and half a drachm of the Venice treacle.

In the mean time, the ſtomach ought to be fomented with cloths dipped in warm water, or bladders filled with warm milk and water ſhould be conſtantly applied to it. I have often ſeen theſe produce the moſt happy effects. The anodyne balſam may alſo be rubbed on the part affected; and an anti-hyſteric plaſter worn upon it for ſome time after the cramps are removed, to prevent their return.

In very violent and laſting pains of the ſtomach ſome blood ought to be let, unleſs the weakneſs of the patient forbids it. When the pain or cramps proceed from a ſuppreſſion of the *menſes*, bleeding is of uſe, and the patient may take aſafœtida fifteen grains, camphor five grains, opiate confection one ſcruple, ſyrup ſufficient to make a bolus; to be taken every four or ſix hours. If they be owing to the gout, recourſe muſt be had to ſpirits, or ſome of the warm cordial waters; or give fifteen to thirty drops of the ſuccinated ſpirit of ammonia in peppermint-water. Bliſtering plaſters ought likewiſe in this caſe to be applied to the ankles. I have often ſeen violent cramps

and pains of the ſtomach removed by covering it with a large plaſter of Venice treacle.

OF THE NIGHT-MARE.

In this diſeaſe the patient, in time of ſleep, imagines he feels an uncommon oppreſſion or weight about his breaſt or ſtomach, which he can by no means ſhake off. He groans and ſometimes cries out, though oftener he attempts to ſpeak in vain. Sometimes he imagines himſelf engaged with an enemy, and, in danger of being killed, attempts to run away, but finds he cannot. Sometimes he fancies himſelf in a houſe that is on fire, or that he is in danger of being drowned in a river. He often thinks that he is falling over a precipice, and the dread of being daſhed to pieces ſuddenly awakes him.

This diſorder has been ſuppoſed to proceed from too much blood; from a ſtagnation of blood in the brain, lungs, &c. But it is rather a nervous affection, and ariſes chiefly from indigeſtion. Hence we find that perſons of weak nerves, who lead a ſedentary life, and live full, are moſt commonly afflicted with the night-mare. Nothing tends more to produce it than heavy ſuppers, eſpecially when eaten late, or the patient goes to bed ſoon after. Wind is likewiſe a very frequent cauſe of this diſeaſe; for which reaſon thoſe who are afflicted with it ought to avoid all flatulent food and having the belly in a coſtive ſtate. Deep thought, anxiety, or any thing that oppreſſes the mind, ought alſo to be avoided.

As perſons afflicted with the night-mare generally moan, or make ſome noiſe in the fit, they ſhould be waked, or ſpoken to by ſuch as hear them, as the uneaſineſs generally goes off as ſoon as the patient is awake. Dr. Whytt ſays, he generally found a dram of brandy, taken at bed-time, prevent this diſeaſe. That however is a bad cuſtom, and in time loſes its effects. We would rather have the patient depend upon the uſe of food of eaſy digeſtion, cheerfulneſs, exerciſe through the day, and a light ſupper taken early, than to accuſtom himſelf to drams. A glaſs of peppermint water will often promote digeſtion as much as a glaſs of brandy, and is much ſafer. After a perſon of weak digeſtion, however, has eaten flatulent food, a dram may be neceſſary; in this caſe we would recommend it as the moſt proper medicine.

Perſons who are young, and full of blood, if troubled with the night-mare, ought to take a cathartic frequently, and uſe a ſpare diet.

OF SWOONINGS.

People of weak nerves or delicate conſtitutions are liable to ſwoonings or fainting fits. Theſe indeed are ſeldom dangerous when duly attended to; but when wholly neglected, or improperly treated, they often prove hurtful, and ſometimes fatal.

The general cauſes of ſwoonings are, ſudden tranſition from cold to heat; breathing air that is deprived of its proper ſpring or elaſticity; great fatigue; exceſſive weakneſs; loſs of blood; long faſting; fear, grief, and other violent paſſions or affections of the mind.

It is well known, that perſons who have been long expoſed to cold

often faint or fall into a ſwoon upon coming into the houſe, eſpecially if they drink hot liquor, or ſit near a large fire. This might eaſily be prevented by people taking care not to go into a warm room immediately after they have been expoſed to the cold air, to approach the fire gradually, and not to eat or drink any thing hot till the body has been gradually brought into a warm temperature.

When any one, in conſequence of neglecting theſe precautions, falls into a ſwoon, he ought immediately to be removed to a cooler apartment, to have ligatures applied above his knees and elbows, and to have his hands and face ſprinkled with vinegar or cold water. He ſhould likewiſe be made to ſmell to vinegar, and ſhould have a ſpoonful or two of water, if he can ſwallow, with about a third part of vinegar mixed with it, poured into his mouth. If theſe ſhould not remove the complaint, it will be neceſſary to bleed the patient, and afterwards to give him a clyſter.

As air that is breathed frequently loſes its elaſticity or ſpring, it is no wonder if perſons who reſpire in it often fall into a ſwoon or fainting fit. They are in this caſe deprived of the very principle of life. Hence it is that fainting fits are ſo frequent in all crowded aſſemblies, eſpecially in hot ſeaſons. Such fits however muſt be conſidered as a kind of temporary death; and, to the weak and delicate, they ſometimes prove fatal. They ought therefore with the utmoſt care to be guarded againſt. The method of doing this is obvious. Let aſſembly-rooms, and all other places of public reſort, be large and well ventilated; and let the weak and delicate avoid ſuch places, particularly in warm ſeaſons.

A perſon who faints in ſuch a ſituation ought immediately to be carried into the open air; his temples ſhould be rubbed with ſtrong vinegar or brandy, and volatile ſpirits or ſalts held to his noſe. He ſhould be laid upon his back with his head low, and have a little wine, or ſome other cordial, as ſoon as he is able to ſwallow it, poured into his mouth. If the perſon has been ſubject to hyſteric fits, caſtor or aſafœtida ſhould be applied to the noſe, or burnt feathers, horn, or leather, &c.

When fainting fits proceed from mere weakneſs or exhauſtion, which is often the caſe after great fatigue, long faſting, loſs of blood, or the like, the patient muſt be ſupported with generous cordials, as jellies, wines, ſpirituous liquors, and ſuch like. Theſe however muſt be given at firſt in very ſmall quantities, and increaſed gradually as the patient is able to bear them. He ought to be allowed to lie quite ſtill and eaſy upon his back, with his head low, and ſhould have freſh air admitted into his chamber. His food ſhould conſiſt of nouriſhing broths, ſago-gruel with wine, new milk, and other things of a light and cordial nature. Theſe things are to be given out of the fit. All that can be done in the fit is, to let him ſmell to a bottle of Hungary-water, *eau de luce* (i. e. *ſuccinated ſpirit of ammonia*), or *volatile liquor of hartſhorn*; and to rub his temples with warm brandy, or to lay a compreſs dipped in it to the pit of the ſtomach.

In fainting fits that proceed from fear, grief, or other violent paſſions or affections of the mind, the patient muſt be very cautiouſly

managed. He ſhould be ſuffered to remain at reſt, and only made to ſmell ſome vinegar. After he is come to himſelf he may drink freely of warm lemonade, or balm-tea, with ſome orange or lemon-peel in it. It will likewiſe be proper, if the fainting fits have been long and ſevere, to clean the bowels by throwing in an emollient clyſter.

It is common in fainting fits, from whatever cauſe they proceed, to bleed the patient. This practice may be very proper in ſtrong perſons of a full habit; but in thoſe who are weak and delicate, or ſubject to nervous diſorders, it is dangerous. The proper method with ſuch people is, to expoſe them to the free air, and to uſe cordial and ſtimulating medicines, as volatile ſalts, Hungary-water, ſpirit of lavender, tincture of caſtor, and the like.

OF FLATULENCIES, OR WIND.

All nervous patients, without exception, are afflicted with wind or flatulencies in the ſtomach and bowels, which ariſe chiefly from the want of tone or vigour in theſe organs. Crude flatulent aliment, as green peaſe, beans, coleworts, cabbages, and ſuch like, may increaſe this complaint; but ſtrong and healthy people are ſeldom troubled with wind, unleſs they either overload their ſtomachs, or drink liquors that are in a fermenting ſtate, and conſequently full of elaſtic air. While therefore the matter of flatulence proceeds from our aliments, the cauſe which makes air ſeparate from them in ſuch quantity as to occaſion complaints is almoſt always a fault of the bowels themſelves, which are too weak either to prevent the production of elaſtic air, or to expel it after it is produced.

To relieve this complaint, ſuch medicines ought to be uſed as have a tendency to expel wind, and, by ſtrengthening the alimentary canal, to prevent its being produced there.

Many nervous people find great benefit from eating a dry biſcuit, eſpecially when the ſtomach is empty. I look upon this as one of the beſt carminative medicines; and would recommend it in all complaints of the ſtomach ariſing from flatulence, indigeſtion, &c.

The liſt of medicines for expelling wind is very numerous; they often however diſappoint the expectations of both the phyſician and his patient. The moſt celebrated among the claſs of carminatives are juniper-berries; the roots of ginger and zedoary; the ſeeds of aniſe, caraway, and coriander; gum-aſafœtida and opium; the warm waters, tinctures, and ſpirits, as the aromatic water, the tincture of aſafœtida, *compound ſpirit of ammonia*, æther, &c.

Dr. Whytt ſays, he found no medicine more efficacious in expelling wind than æther and laudanum. He generally gave laudanum in a mixture with peppermint-water and tincture of caſtor, or ſpirit of nitrous æther. Sometimes, in place of this, he gave opium in pills with aſafœtida. He obſerves that the good effects of opiates are equally conſpicuous, whether the flatulence be contained in the ſtomach or inteſtines; whereas thoſe warm medicines, commonly called *carminatives*, do not often give immediate relief, except when the wind is in the ſtomach.

With regard to æther, the Doctor ſays, he has often ſeen very good

effects from it in flatulent complaints, where other medicines failed. The dose is a tea-spoonful mixed with two table-spoonfuls of water. In gouty cases he observes, that æther, a glass of French brandy, or of the aromatic water, or ginger, either taken in substance or infused in boiling water, are among the best medicines for expelling wind.

When the case of flatulent patients is such as makes it improper to give them warm medicines inwardly, the Doctor recommends external applications, which are sometimes of advantage. Equal parts of the anti-hysteric and stomach plaster may be spread upon a piece of soft leather of such a size as to cover the greater part of the belly. This should be kept on for a considerable time, provided the patient be able to bear it: if it should cause great uneasiness, it may be taken off, and the following liniment used in its stead:

Take of Bates's anodyne balsam, or *tincture of soap with opium*, an ounce; of the expressed oil of mace half an ounce; oil of mint two drachms. Let these ingredients be mixed together, and about a table-spoonful well rubbed on the parts at bed-time.

For strengthening the stomach and bowels, and consequently for lessening the production of flatulence, the Doctor recommends the Peruvian bark, bitters, chalybeates, and exercise. In flatulent cases, he thinks some nutmeg or ginger should be added to the *tincture of cinchona* and bitters, and that the aromatic powder should be joined with the filings of iron.

When windy complaints are attended with costiveness, which is often the case, few things will be found to answer better than four or five of the following pills taken every night at bed-time:

Take of asafœtida two drachms; succotrine aloes, *vitriolated iron*, and powdered ginger, of each one drachm; as much of the *compound tincture of aloes* as will be sufficient to form them into pills.

On the other hand, when the body is too open, twelve or fifteen grains of rhubarb, with half a drachm or two scruples of the *confection of catechu* given every other evening, will have very good effects.

In those flatulent complaints which come on about the time the *menses* cease, repeated small bleedings often give more relief than any other remedy.

With regard to diet, the Doctor observes, that tea, and likewise all flatulent aliments, are to be avoided; and that for drink, water with a little brandy or rum is not only preferable to malt liquor, but in most cases also to wine.

As Dr. Whytt has paid great attention to this subject, and as his sentiments upon it in a great measure agree with mine, I have taken the liberty to adopt them; and shall only add to his observations, that exercise is in my opinion superior to all medicine, both for preventing the production and likewise for expelling of flatulencies. These effects, however, are not to be expected from sauntering about, or lolling in a carriage; but from labour, or such active amusements as give exercise to every part of the body.

In Portugal, asafœtida is a favourite remedy in flatulent complaints.

OF LOW SPIRITS.

All who have weak nerves are ſubject to low ſpirits in a greater or leſs degree. Generous diet, the cold bath, exerciſe, and amuſements, are the moſt likely means to remove this complaint. It is greatly increaſed by ſolitude and indulging gloomy ideas, but may often be relieved by cheerful company and ſprightly amuſements.

When low ſpirits are owing to a weak and relaxed ſtate of the ſtomach and bowels, an infuſion of the Peruvian bark with cinnamon or nutmeg will be proper. Steel joined with aromatics may likewiſe in this caſe be uſed with advantage; but riding, and a proper diet, are moſt to be depended on.

When they ariſe from a foulneſs of the ſtomach and inteſtines, or obſtruction in the hypochondriac viſcera, aloetic purges will be proper. I have ſometimes known the Harrogate ſulphur-water of ſervice in this caſe.

When low ſpirits proceed from a ſuppreſſion of the menſtrual or of the hæmorrhoidal flux, theſe evacuations may either be reſtored, or ſome others ſubſtituted in their place, as iſſues, ſetons, or the like. Dr. Whytt obſerves, that nothing has ſuch ſudden good effects in this caſe as bleeding.

When low ſpirits have been brought on by long-continued grief, anxiety, or other diſtreſs of mind, agreeable company, variety of amuſements, and change of place, eſpecially travelling into foreign countries, will afford the moſt certain relief.

Perſons afflicted with low ſpirits ſhould avoid all kinds of exceſs, eſpecially of venery and ſtrong liquors. The moderate uſe of wine and other ſtrong liquors is by no means hurtful; but when taken to exceſs they weaken the ſtomach, vitiate the humours, and depreſs the ſpirits. This caution is the more neceſſary, as the unfortunate and melancholy often fly to ſtrong liquors for relief, by which means they never fail to precipitate their own deſtruction.

OF HYSTERIC AFFECTIONS.

These likewiſe belong to the numerous tribe of nervous diſeaſes, which may be juſtly reckoned the reproach of medicine. Women of a delicate habit, whoſe ſtomach and inteſtines are relaxed, and whoſe nervous ſyſtem is extremely ſenſible, are moſt ſubject to hyſteric complaints. In ſuch perſons an hyſteric fit, as it is called, may be brought on by an irritation of the nerves of the ſtomach or inteſtines, by wind, acrid humour, or the like. A ſudden ſuppreſſion of the *menſes* often gives riſe to hyſteric fits. They may likewiſe be excited by violent paſſions or affections of the mind, as fear, grief, anger, or great diſappointments.

Sometimes the hyſteric fit reſembles a ſwoon or fainting fit, during which the patient lies as in a ſleep, only the breathing is ſo low as ſcarcely to be perceived. At other times the patient is affected with catchings and ſtrong convulſions. The ſymptoms which precede hyſteric fits are likewiſe various in different perſons. Sometimes the fits come on with coldneſs of the extremities, yawning and ſtretching,

lowneſs of ſpirits, oppreſſion and anxiety. At other times the approach of the fit is foretold by a feeling, as if there were a ball at the lower part of the belly, which gradually riſes toward the ſtomach, where it occaſions inflation, ſickneſs, and ſometimes vomiting; afterwards it riſes into the gullet, and occaſions a degree of ſuffocation, to which quick breathing, palpitation of the heart, giddineſs of the head, dimneſs of the ſight, loſs of hearing, with convulſive motions of the extremities and other parts of the body, ſucceed. The hyſteric paroxyſm is often introduced by an immoderate fit of laughter, and ſometimes it goes off by crying. Indeed there is not much difference between the laughing and weeping of an highly hyſteric lady.

Our aim in the treatment of this diſeaſe muſt be to ſhorten the fit or paroxyſm when preſent, and to prevent its return. The longer the fits continue, and the more frequently they return, the diſeaſe becomes the more obſtinate. Their ſtrength is increaſed by habit, and they induce ſo great a relaxation of the ſyſtem, that it is with difficulty removed.

It is cuſtomary, during the hyſteric fit or paroxyſm, to bleed the patient. In ſtrong perſons of a plethoric habit, and where the pulſe is full, this may be proper; but in weak and delicate conſtitutions, or where the diſeaſe has been of long ſtanding, or ariſes from inanition, it is not ſafe. The beſt courſe in ſuch caſes is to rouſe the patient by ſtrong ſmells, as burnt feathers, aſafœtida, or the *volatile liquor of hartſhorn*, held to the noſe. Hot bricks may alſo be applied to the ſoles of the feet, and the legs, arms, and belly, may be ſtrongly rubbed with a warm cloth. But the beſt application is to put the feet and legs into warm water. This is peculiarly proper when the fits precede the flow of the menſes. In caſe of coſtiveneſs, a laxative clyſter with aſafœtida will be proper; and as ſoon as the patient can ſwallow, two table-ſpoonfuls of a ſolution of aſafœtida, or of ſome cordial julep, may be given.

The radical cure of this diſorder will be beſt attempted at a time when the patient is moſt free from the fits. It will be greatly promoted by a proper attention to diet. A milk and vegetable diet, when duly perſiſted in, will often perform a cure. If however the patient has been accuſtomed to a more generous diet, it will not be ſafe to leave it off all at once, but by degrees. The moſt proper drink is water with a ſmall quantity of ſpirits. A cool dry air is the beſt. Cold bathing, and every thing that braces the nerves and invigorates the ſyſtem, is beneficial; but lying too long in bed, or whatever relaxes the body, is hurtful. It is of the greateſt importance to have the mind kept conſtantly eaſy and cheerful, and, if poſſible, to have it always engaged in ſome agreeable and intereſting purſuit.

The proper medicines are thoſe which ſtrengthen the alimentary canal and the whole nervous ſyſtem, as the preparations of iron, the Peruvian bark, and other bitters. Twenty drops of the elixir of vitriol, in a cup of the infuſion of the bark, may be taken twice or thrice a-day. The bark and iron may likewiſe be taken in ſubſtance, pro-

vided the ſtomach can bear them; but they are generally given in too ſmall doſes to have any effect. The chalybeate waters generally prove beneficial in this diſorder.

If the ſtomach is loaded with phlegm, vomits will be of uſe; but they ſhould not be too ſtrong, nor frequently repeated, as they tend to relax and weaken the ſtomach. If there be a tendency to coſtiveneſs, it muſt be removed either by diet, or by taking an opening pill as often as it ſhall be found neceſſary: a few grains of pill of myrrh and aloes may be taken for that purpoſe.

To leſſen the irritability of the ſyſtem, antiſpaſmodic medicines will be of uſe. The beſt antiſpaſmodic medicines are muſk, opium, and caſtor. When opium diſagrees with the ſtomach, it may either be applied externally, or given in clyſters. It is often ſucceſsful in removing thoſe periodical head-achs to which hyſteric and hypochondriac patients are ſubject. Caſtor has in ſome caſes been found to procure ſleep where opium failed; for which reaſon Dr. Whytt adviſes that they ſhould be joined together. He likewiſe recommends the anti-hyſteric plaſter to be applied to the *abdomen*, which, with tonic and corroborating medicines, will probably be of great ſervice to the patient.

Hyſteric women are often afflicted with cramps in various parts of the body, which are moſt apt to ſeize them in bed, or when aſleep. The moſt efficacious medicines in this caſe are opium, bliſtering-plaſters, and warm bathing or fomentations. When the cramp or ſpaſm is very violent, opium is the remedy moſt to be depended on. In milder caſes, immerſing the feet and legs in warm water, or applying a bliſtering-plaſter to the part affected, will often be ſufficient to remove the complaint. In patients whoſe nerves are uncommonly delicate and ſenſible, it will be better to omit the bliſtering-plaſter, and to attempt the cure by opiates, muſk, camphor, and the warm bath.

Cramps are often prevented or cured by compreſſion. Thus cramps in the legs are prevented, and ſometimes removed, by tight bandages; and when convulſions ariſe from a flatulent diſtention of the inteſtines, or from ſpaſms beginning in them, they may be often leſſened or cured by making a pretty ſtrong compreſſion upon the *abdomen* by means of a broad belt. A roll of brimſtone held in the hand is frequently uſed as a remedy for cramps. Though this ſeems to owe its effect chiefly to imagination, yet, as it ſometimes ſucceeds, it merits a trial. When ſpaſms or convulſive motions ariſe from ſharp humours in the ſtomach or inteſtines, no laſting relief can be procured till theſe are either corrected or expelled. The *cinchona* has ſometimes cured periodic convulſions after other medicines had failed.

Some perſons afflicted with cramps pretend to reap great benefit from ſmall bundles of roſemary tied all night about their feet, ankles, and knees. We have no doubt that bathing the feet and legs in a warm and pretty ſtrong decoction of roſemary will in general prove beneficial to the patient.

OF HYPOCHONDRIAC AFFECTIONS.

This diſeaſe generally attacks the indolent, the luxurious, the unfortunate, and the ſtudious. It becomes daily more common in

this country, owing, no doubt, to the increaſe of luxury and ſedentary employments. It has ſo near a reſemblance to the immediately preceding, that many authors conſider them as the ſame diſeaſe, and treat them accordingly. They require, however, a very different regimen; and the ſymptoms of the latter, though leſs violent, are more permanent than thoſe of the former.

Men of a melancholy temperament, whoſe minds are capable of great attention, and whoſe paſſions are not eaſily moved, are, in the advanced periods of life, moſt liable to this diſeaſe. It is uſually brought on by long and ſerious attention to abſtruſe ſubjects, grief, the ſuppreſſion of cuſtomary evacuations, exceſs of venery, the repulſion of cutaneous eruptions, long continued evacuations, obſtructions in ſome of the viſcera, as the liver, ſpleen, &c.

Hypochondriac perſons ought never to faſt long, and their food ſhould be ſolid and nouriſhing. All aceſcent and windy vegetables are to be avoided. Fleſh meats agree beſt with them, and their drink ſhould be old claret or good madeira. Should theſe diſagree with the ſtomach, water with a little brandy or rum in it may be drank.

Cheerfulneſs and ſerenity of mind are by all means to be cultivated. Exerciſe of every kind is uſeful. The cold bath is likewiſe beneficial; and, where it does not agree with the patient, frictions with the fleſh-bruſh or a coarſe cloth may be tried. If the patient has it in his power, he ought to travel either by ſea or land. A voyage or a long journey, eſpecially towards a warmer climate, will be of more ſervice than any medicine.

The general intentions of cure, in this diſeaſe, are to ſtrengthen the alimentary canal, and to promote the ſecretions. Theſe intentions will be beſt anſwered by the different preparations of iron and the Peruvian bark, which, after proper evacuations, may be taken in the ſame manner as directed in the preceding diſeaſe.

If the patient be coſtive, it will be neceſſary to make uſe of ſome gentle opening medicine, as pills compoſed of equal parts of aloes, rhubarb, and aſafœtida, with as much of the elixir proprietatis as is neceſſary to form the ingredients into pills. Two, three, or four of theſe may be taken as often as it ſhall be found needful to keep the body gently open. Such as cannot bear the aſafœtida may ſubſtitute Spaniſh ſoap in its place.

Though a cheerful glaſs may have good effects in this diſeaſe, yet all manner of exceſs is hurtful. Intenſe ſtudy, and every thing that depreſſes the ſpirits, are likewiſe pernicious.

Though the general ſymptoms and treatment of nervous diſorders were pointed out in the beginning of this chapter; yet, for the benefit of the unhappy perſons afflicted with thoſe obſtinate and complicated maladies, I have treated ſeveral of their capital ſymptoms under diſtinct or ſeparate heads. Theſe however are not to be conſidered as different diſeaſes, but as various modifications of the ſame diſeaſe. They all ariſe from the ſame general cauſes, and require nearly the ſame method of treatment. There are many other ſymptoms that merit particular attention, which the nature of my plan will not permit me to treat of at full length. I ſhall therefore omit them altoge-

ther, and conclude this chapter with a few general remarks on the moſt obvious means of preventing or avoiding nervous diſorders.

In all perſons afflicted with nervous diſorders, there is a great delicacy and ſenſibility of the whole ſyſtem, and an uncommon degree of weakneſs of the organs of digeſtion. Theſe may be either natural or acquired. When owing to a defect in the conſtitution, they are hardly to be removed, but may be mitigated by proper care. When induced by diſeaſes, as long or repeated fevers, profuſe hæmorrhages, or the like, they prove alſo very obſtinate, and will yield only to a courſe of regimen calculated to reſtore and invigorate the habit.

But nervous affections ariſe more frequently from cauſes which it is in a great meaſure in our own power to avoid, than from diſeaſes, or an original fault in the conſtitution, &c. Exceſſive grief, intenſe ſtudy, improper diet, and neglect of exerciſe, are the great ſources of this extenſive claſs of diſeaſes.

It has been already obſerved, that grief indulged deſtroys the appetite and digeſtion, depreſſes the ſpirits, and induces an univerſal relaxation and debility of the whole ſyſtem. Inſtances of this are daily to be ſeen. The loſs of a near relation, or any other misfortune in life, is often ſufficient to occaſion the moſt complicated ſeries of nervous ſymptoms. Such misfortunes indeed are not to be avoided, but ſurely their effects, by a vigorous and proper exertion of the mind, might be rendered leſs hurtful. For directions in this matter we muſt refer the reader to the article GRIEF, in the chapter on the Paſſions.

The effects of intenſe ſtudy are pretty ſimilar to thoſe occaſioned by grief. It preys upon the animal ſpirits, and deſtroys the appetite and digeſtion. To prevent theſe effects, ſtudious perſons ought, according to the Poet, *to toy with their books.* They ſhould never ſtudy too long at a time; nor attend long to one particular ſubject, eſpecially if it be of a ſerious nature. They ought likewiſe to be attentive to their poſture, and ſhould take care frequently to unbend their minds by muſic, diverſions, or going into agreeable company.

With regard to diet, I ſhall only obſerve, that nervous diſeaſes may be induced either by exceſs or inanition. Both of theſe extremes hurt the digeſtion and vitiate the humours. When Nature is oppreſſed with freſh loads of food, before ſhe has had time to digeſt and aſſimilate the former meal, her powers are weakened, and the veſſels are filled with crude humours. On the other hand, when the food is not ſufficiently nouriſhing, or is taken too ſeldom, the bowels are inflated with wind, and the humours, for want of regular freſh ſupplies of wholeſome chyle, are vitiated. Theſe extremes are therefore with equal care to be avoided. They both tend to induce a relaxation and debility of the nervous ſyſtem, with all its dreadful train of conſequences.

But the moſt general cauſe of nervous diſorders is *indolence*. The active and laborious are ſeldom troubled with them. They are reſerved for the children of eaſe and affluence, who generally feel their keeneſt force. All we ſhall ſay to ſuch perſons is, that the means of

prevention and cure are both in their own power. If the conſtitution of human nature be ſuch, that man muſt either labour or ſuffer diſeaſes, ſurely no individual has any right to expect an exemption from the general rule.

Thoſe however who are willing to take exerciſe, but whoſe occupations confine them to the houſe, and perhaps to an unfavourable poſture, really deſerve our pity. We have in a former part of the book endeavoured to lay down rules for their conduct; and ſhall only add, that where theſe cannot be complied with, their place may, in ſome meaſure, be ſupplied by the uſe of bracing and ſtrengthening medicines, as the Peruvian bark, with other bitters; the preparations of iron; the elixir of vitriol, and ſuch like.

Dr. Wurtzer, a German phyſician, has obſerved that the diſtilled water of the lauro-ceraſus (*prunus lauro-ceraſus*) diminiſhes the too great irritability of the heart and muſcular fibres, and augments at the ſame time the action of the abſorbent veſſels. He lately employed, with complete ſucceſs, this water, in the doſe of fifty drops, repeated three times a-day, in a caſe of hypochondriaſis. If this character of the laurel-water be well founded, it promiſes to be a valuable remedy as a palliative, at leaſt, in organic affections of the heart, but eſpecially in nervous palpitations of that organ.

CHAP. XLIV.

DISORDERS OF THE SENSES.

WE do not mean to treat of the nature of our ſenſations, or to give a minute deſcription of the various organs by which they are performed; but to point out ſome of the diſeaſes to which theſe organs are moſt liable, and to ſhew how they may be prevented or remedied.

OF THE EYE.

No organ of the body is ſubject to more diſeaſes than the eye; nor is there any one of which the diſeaſes are more difficult to cure. Though more ignorant perſons pretend to cure theſe than any other claſs of diſeaſes, yet a very ſuperficial acquaintance with the ſtructure of the eye and the nature of viſion will be ſufficient to convince any one of the danger of truſting to them. Theſe diſeaſes often exceed the ſkill of the moſt learned phyſician; hence we may eaſily infer the danger of truſting them to ignorant quacks, who, without all peradventure, put out more eyes than they cure. But, though the diſeaſes of the eye can ſeldom be cured, they might often, by due care, be prevented; and, even where the ſight is totally loſt, many things might be done which are generally neglected, to render the unhappy perſon both more uſeful to himſelf and to ſociety.

It is a pity thoſe who have the misfortune to be born blind, or who loſe their ſight when young, ſhould be ſuffered to remain in ignorance or to beg. This is both cruelty and want of economy. There are many employments of which blind perſons are very capable, as knit-

ting, carding, turning a wheel, teaching languages, &c. Nor are inſtances wanting of perſons who have arrived at the higheſt pitch of learning, without having the leaſt idea of light. Witneſs the late famous Nicholas Sanderſon of Cambridge, and the late excellent poet Dr. Thomas Blacklock of Edinburgh. The former was one of the firſt mathematicians of his age, and the latter, beſides being a good poet and philoſopher, was maſter of all the learned languages, and a very conſiderable adept in the liberal arts.

The eyes are hurt by viewing bright or luminous objects; keeping the head too long in a hanging poſture; violent head-achs; exceſſive venery; the long uſe of bitters; the effluvia from acrid or volatile ſubſtances; various diſeaſes; as the ſmall-pox, meaſles, &c. but, above all, from night-watching, and candle-light ſtudies. Long faſting is likewiſe hurtful to the eyes, and frequent heats and colds are no leſs pernicious. The eyes are often hurt by the ſtoppage of cuſtomary evacuations; as morning ſweats; ſweating of the feet; the menſes in women; and the bleeding piles in men. All kinds of exceſs are likewiſe hurtful to the ſight, particularly the immoderate uſe of ardent ſpirits and other ſtrong liquors.

In all diſeaſes of the eyes, eſpecially thoſe attended with inflammation, the cool regimen ought to be obſerved. The patient muſt abſtain from all ſpirituous liquors. The ſmoke of tobacco, ſmoky rooms, the vapours of onions and garlic, and all vivid lights and glaring colours, are carefully to be avoided. The drink may be water, whey, or ſmall beer; and the aliment muſt be light and of eaſy digeſtion.

For preventing diſorders of the eyes, iſſues and ſetons are of prime uſe. Every perſon, whoſe eyes are tender, ought to have one or more of theſe in ſome part of the body. It will likewiſe be of uſe to keep the body gently open, and either to bleed or purge every ſpring and fall. All exceſs and night ſtudies are to be avoided. Such as do not chuſe a ſeton or an iſſue, will reap benefit from wearing a ſmall Burgundy-pitch plaſter between their ſhoulders.

A *gutta ſerena* or *amauroſis* is an abolition of the ſight without any apparent cauſe or fault in the eyes. When it is owing to a decay or waſting of the optic nerve, it does not admit of a cure; but when it proceeds from a compreſſion of the nerves by redundant humours, theſe may in ſome meaſure be drained off, and the patient relieved. For this purpoſe, the body muſt be kept upon with the laxative mercurial pills. If the patient be young and of a ſanguine habit, he may be bled. Cupping, with ſcarifications on the back part of the head, will likewiſe be of uſe. A running at the noſe may be promoted by volatile ſalts and ſtimulating powders, as *compound powder of aſarabacca*, &c. But the moſt likely means for relieving the patient are iſſues or bliſters kept open for a long time on the back part of the head, behind the ears, or on the neck. I have known theſe reſtore ſight, even after it had been for a conſiderable time loſt.

Should theſe fail, recourſe muſt be had to a mercurial ſalivation; or what will perhaps anſwer the purpoſe better, twelve grains of *muriated quickſilver* (the corroſive ſublimate of mercury) may be diſ-

ſolved in an Engliſh pint and a half of brandy, and a table-ſpoonful of it taken twice a-day, drinking half a pint of the decoction of ſarſaparilla after it.

A *cataract* is an obſtruction of the pupil, by the interpoſition of ſome opaque ſubſtance which either diminiſhes or totally extinguiſhes the ſight. It is generally an opacity of the cryſtalline humour. In a recent or beginning cataract, the ſame medicines are to be uſed as in the gutta ſerena; and they will ſometimes ſucceed. But when this does not happen, and the cataract becomes firm, it muſt be couched, or rather extracted. I have reſolved a recent cataract by giving the patient frequent purges with calomel, keeping a poultice of freſh hemlock conſtantly upon the eye, and a perpetual bliſter on the neck. In both theſe caſes may not electricity merit a trial?

The *myopia* or *ſhort-ſightedneſs*, and the *preſbyopia* or *ſeeing only at too great a diſtance*, are diſorders which depend on the original ſtructure or figure of the eye, therefore admit of no cure. The inconveniences ariſing from them may however be, in ſome meaſure, remedied by the help of proper glaſſes. The former requires the aid of a concave and the latter of a convex glaſs.

A *ſtrabiſmus*, or *ſquinting*, depends upon an irregular contraction of the muſcles of the eye from a ſpaſm, palſy, epilepſy, or an ill habit. Children often contract this diſorder by having their eyes unequally expoſed to the light. They may likewiſe acquire it by imitation from a ſquinting nurſe or play-fellow, &c. As this diſorder can hardly be cured, parents ought to be careful to prevent it. Almoſt the only thing which can be done for it is to contrive a maſk for the child to wear, which will only permit him to ſee in a ſtraight direction.

Squinting, according to the obſervations of that acute anatomiſt Mr. Home, appears to ariſe from the viſion in one eye being obſcure. It may however be acquired by children who have the lenſes of their eyes of different focuſes; or have one eye leſs perfect in its viſion than the other; living conſtantly with thoſe who do ſquint, and by imitation acquiring a habit of neglecting to uſe one eye.

The power of ſquinting voluntarily may alſo be acquired at any age. Perſons who look much through teleſcopes are led to apply the mind entirely to one eye, not ſeeing at all with the other. In this caſe the neglected eye will at firſt, from habit, follow the other; but in time, if frequently neglected, may loſe this reſtraint, and be moved in another direction. Some aſtronomers, whoſe eyes have been much uſed in this way, are ſaid to be able to ſquint at pleaſure.

From this view of ſquinting, it takes place under the three following circumſtances: where one eye has only an indiſtinct viſion; where both eyes are capable of ſeeing objects, but the one leſs perfect in itſelf than the other; and where the muſcles of one eye have acquired from practice a power of moving it independently of the other.

Where ſquinting ariſes from an abſolute imperfection in the eye there can be no cure.

Where it ariſes from weakneſs only in the ſight of one eye, it may, in ſome inſtances, be got the better of; but to effect the cure there is only one mode, which is that of confining the perſon to the uſe of

the weak eye by covering the other; in this way the muſcles, from conſtant uſe, will become perfect in the habit of directing the eye upon the object, gain ſtrength in that action, and acquire a power of adjuſting the eye: when theſe are eſtabliſhed in a ſufficient degree, the other eye may be ſet at liberty. The time that will be neceſſary for the cure muſt depend on the degree of weakneſs of the ſight, and the length of time the muſcles have been left to themſelves; for it is with difficulty they acquire an increaſed degree of action after having been long habituated to a more limited contraction.

Since a ſmall deviation in the direction of either eye from the axis of viſion may produce ſquinting, it is worthy of notice that this unſightly habit may be acquired by infants who have not any defect in the eyes, but may ariſe from the cradle in which they lay being ſo ſituated with reſpect to the light, as to attract their notice in one particular direction, ſo much as to occaſion a caſt of one eye.

Spots or *ſpecks* on the eyes are generally the effect of inflammation, and often appear after the ſmall-pox, the meaſles, or violent ophthalmias. They are very difficult to cure, and often occaſion total blindneſs. If the ſpecks are ſoft and thin, they may ſometimes be taken off by gentle cauſtics and diſcutients; as vitriol, the juice of ſelandine, &c. When theſe do not ſucceed, a ſurgical operation may be tried: the ſucceſs of this however is always very doubtful.

We read in the book of Tobit in the Apocrypha (chap. vi, and chap. xi), "As for the gall" (of a fiſh) "it is good to anoint a man who hath whiteneſs in his eyes, and he ſhall be healed;—the gall being ſtraked into the eyes of Tobias, his eyes began to ſmart, and he rubbed them, and the whiteneſs pilled away from the corners of his eyes: then Tobias ſaw his ſon, and he fell upon his neck."—A watchmaker at Paris having heard that the gall of a barbel was the remedy which Tobias employed, reſolved to try its effects on his mother-in-law, a widow in her fifty-third year, whoſe eyes had for ſix months been afflicted with ulcers, and covered with film, which rendered them totally blind. He ſqueezed the gall of that fiſh into a phial, and in the evening he rubbed it with the end of a feather into his mother's eyes. It gave her great pain for half an hour, which abated by degrees, and her eyes watered very much. Next morning ſhe could not open them, the water as it were gluing her eyes up. He bathed them with pure water, and ſhe began to ſee with the eye which had received the moſt liquor. He uſed the gall again in the evening: the inflammation diſperſed; the white of her eyes became red, their colour returned by degrees, and her ſight became ſtrong. He repeated the application a third time with the deſired ſucceſs. In ſhort, ſhe recovered her ſight without any other remedy.

The *blood-ſhot* eye may be occaſioned by a ſtroke, a fall, retching, vomiting, violent coughing, &c. I have frequently known it happen to children in the hooping-cough. It appears at firſt like a bit of ſcarlet, and is afterwards of a livid or blackiſh colour. This diſorder generally goes off without medicine. Should it prove obſtinate, the patient may be bled, and have his eyes fomented with a decoction of

comfrey roots and elder flowers. A ſoft poultice may be applied to the eyes; and the body ſhould be kept open by gentle purgatives.

The *watery* or *weeping eye* is often the mark of a ſcrophulous habit, and is generally occaſioned by a relaxation or weakneſs of the glandular parts of that organ. Theſe may be braced and ſtrengthened by bathing the eye with brandy and water, Hungary-water, roſe-water with white vitriol diſſolved in it, &c. Medicines which make a revulſion are likewiſe proper; as mild purgatives, perpetual bliſters on the neck, bathing the feet frequently in lukewarm water, &c.

When this diſeaſe proceeds from an obſtruction of the lachrymal duct, or natural paſſage of the tears, it is called a *fiſtula lachrymalis*, and can only be cured by a ſurgical operation.

OF THE EAR.

The functions of the ear may be injured by wounds, ulcers, or any thing that hurts its fabric. The hearing may likewiſe be hurt by exceſſive noiſe; violent colds in the head; fevers; hard wax or other ſubſtances ſticking in the cavity of the ear; too great a degree of moiſture or dryneſs of the ear. Deafneſs is very often the effect of old age, and is incident to moſt people in the decline of life. Sometimes it is owing to an original fault in the ſtructure or formation of the ear itſelf. When this is the caſe, it admits of no cure; and the unhappy perſon not only continues deaf, but generally likewiſe dumb, for life.

When deafneſs is the effect of wounds or ulcers of the ears, or of old age, it is not eaſily removed. When it proceeds from cold of the head, the patient muſt be careful to keep his head warm, eſpecially in the night; he ſhould likewiſe take ſome gentle purges, and keep his feet warm, and bathe them frequently in lukewarm water at bed-time. When deafneſs is the effect of a fever, it generally goes off after the patient recovers. If it proceeds from dry wax ſticking in the ears, it may be ſoftened by dropping oil into them; afterwards they muſt be ſyringed with warm milk and water.

If deafneſs proceeds from dryneſs of the ears, which may be known by looking into them, half an ounce of the oil of ſweet almonds, and the ſame quantity of the *compound ſoap liniment*, commonly called liquid opodeldoc, or the tincture of aſafœtida, may be mixed together. Or take oil of almonds three drachms, water of ammonia one drachm; mix them for uſe. A few drops of this or the former mixture may be put into the ear every night at bed-time, ſtopping them afterwards with a little wool or cotton. Sneezing powders may then be ſerviceable. Some, inſtead of oil, put a ſmall ſlice of the fat of bacon into each ear, which we have known to anſwer the purpoſe very well. When the ears abound with moiſture, it may be drained off by an iſſue or ſeton, which ſhould be made as near the affected parts as poſſible.

Some, for the cure of deafneſs, recommend the gall of an eel mixed with ſpirit of wine, to be dropped into the ear; others, equal parts of Hungary-water and ſpirit of lavender. Etmuller extols amber and muſk; and Brookes ſays, he has often known hardneſs of hearing

cured by putting a grain or two of muſk into the ear with cotton-wool. But theſe and other applications muſt be varied according to the cauſe of the diſorder.

Though ſuch applications may ſometimes be of ſervice, yet they much oftener fail. Neither the eyes nor ears ought to be tampered with; they are tender organs, and require a very delicate touch. For this reaſon, what we would chiefly recommend in deafneſs is, to keep the head warm. From whatever cauſe the diſorder proceeds, this is always proper; and perhaps more benefit is derived from it alone, in the moſt obſtinate caſes of deafneſs, than from all the medicines uſually employed for the cure of deafneſs.

Dr. Horſley, well known fifty years ago in the northern counties for his ſucceſs in expelling the various ſpecies of worms from the human body, lived to a great age: he frequently waſhed his ears with his own urine, poured warm from a proper veſſel; every night and morning during the latter years of his life, a bit of wool well moiſtened with the ſame fluid. Dr. Horſley frequently recommended this practice to others, and the Editor has often known it reſtore the ſecretion of the auditory organs, after the patient had long been without it. We have ſeen ſome inſtances of deafneſs cured by electricity, and alſo a few inſtances of aged perſons recovering their hearing by wearing ſalt in their ears for a fortnight or three weeks. Perhaps a ſtrong watery ſolution of ſalt merits a preference.

In caſes of ſimple puriform diſcharge from the tympanum of the ear, weak injections, either of vitriolated zinc or of *acetated ceruſe*, are beneficial; and in aid of topical applications, bliſters and even ſetons can never be injurious, but they may often conduce to the cure.

OF THE TASTE AND SMELL.

Though theſe ſenſes are not of ſo great importance to man in a ſtate of ſociety as the ſight and hearing, yet as the loſs of them is attended with ſome inconveniency, they deſerve our notice. They are ſeldom to be reſtored when loſt; which ought to make us very attentive to their preſervation, by carefully avoiding whatever may in the leaſt prove injurious to them. As there is a very great affinity between the organs of taſting and ſmelling, whatever hurts the one generally affects the other.

Luxury is highly injurious to theſe organs. When the noſe and palate are frequently ſtimulated by fragrant and poignant diſhes, they ſoon loſe the power of diſtinguiſhing taſtes and odours with any degree of nicety. Man, in a ſtate of nature, may perhaps have theſe faculties as acute as any other animal.

The ſenſe of ſmelling may be diminiſhed or deſtroyed by diſeaſes; as, the moiſture, dryneſs, inflammation or ſuppuration of that membrane which lines the inſide of the noſe, commonly called the olfactory membrane; the compreſſion of the nerves which ſupply this membrane, or ſome fault in the brain itſelf at their origin. A defect, or too great a degree of ſolidity, of the ſmall ſpungy bones of the upper jaw, the caverns of the forehead, &c. may likewiſe im-

pair the ſenſe of ſmelling. It may alſo be injured by a collection of fœtid matter in thoſe caverns, which keeps conſtantly exhaling from them. Few things are more hurtful to the ſenſe of ſmelling than taking great quantities of ſnuff.

When the noſe abounds with moiſture, after gentle evacuations, ſuch things as tend to take off irritation, and coagulate the thin ſharp ſerum, may be applied; as the oil of aniſe mixed with fine flour; camphor diſſolved in oil of almonds, &c. The vapours of amber, frankincenſe, gum maſtich, and benjamin, may likewiſe be received into the noſe and mouth.

For moiſtening the mucus when it is too dry, ſome recommend ſnuff made of the leaves of marjoram, mixed with the oil of amber, marjoram, and aniſeed; or a ſternutatory of calcined white vitriol, twelve grains of which may be mixed with two ounces of marjoram-water, and filtrated. The ſteam or vapour of vinegar upon hot iron received up the noſtrils is likewiſe of uſe for ſoftening the mucus, opening obſtructions, &c.

If there is an ulcer in the noſe, it ought to be dreſſed with ſome emollient ointment, to which, if the pain be very great, a little *tincture of opium* (laudanum) may be added. If it be a venereal ulcer, it is not to be cured without mercury. In that caſe, the ſolution of the corroſive ſublimate in brandy may be taken, as directed in the gutta ſerena. The ulcer ought likewiſe to be waſhed with it; and the fumes of cinnabar may be received up the noſtrils.

If there be reaſon to ſuſpect that the nerves which ſupply the organs of ſmelling are inert, or want ſtimulating, volatile ſalts, ſtrong ſnuffs, and other things which occaſion ſneezing, may be applied to the noſe. The forehead may likewiſe be anointed with balſam of Peru, to which may be added a little of the oil of amber.

The *taſte* may be diminiſhed by cruſts, filth, mucus, aphthæ, pellicles, warts, &c. covering the tongue; it may be depraved by a fault of the ſaliva, which being diſcharged into the mouth, gives the ſame ſenſations as if the food which the perſon takes had really a bad taſte; or it may be entirely deſtroyed by injuries done to the nerves of the tongue and palate. Few things prove more hurtful either to the ſenſe of taſting or ſmelling than obſtinate colds, eſpecially thoſe which affect the head.

When the taſte is diminiſhed by filth, mucus, &c. the tongue ought to be ſcraped, and frequently waſhed with a mixture of water, vinegar, and honey, or ſome other detergent. When the ſaliva is vitiated, which ſeldom happens unleſs in fevers or other diſeaſes, the curing of the diſorder is the cure of this ſymptom. To relieve it however in the mean time, the following things may be of uſe: if there be a bitter taſte, it may be taken away by vomits, purges, and other things which evacuate bile. What is called a nidorous taſte, ariſing from putrid humours, is corrected by the juice of citrons, oranges, and other acids. A ſalt taſte is cured by plentiful dilution with watery liquors. An acid taſte is deſtroyed by abſorbents, and alkaline ſalts, as powder of oyſter-ſhells, lime-water, or a ſolution of ſalt of tartar or *prepared kali*.

When the ſenſibility of the nerves which ſupply the organs of taſte is diminiſhed, the chewing of horſe-radiſh, or other ſtimulating ſubſtances, will help to recover it.

OF THE TOUCH.

THE ſenſe of touching may be hurt by any thing that obſtructs the nervous influence, or prevents it being regularly conveyed to the organs of touching; as preſſure, extreme cold, &c. It may likewiſe be hurt by too great a degree of ſenſibility, when the nerve is not ſufficiently covered by the cuticle or ſcarf-ſkin, or where there is too great a tenſion of it, or it is too delicate. Whatever diſorders the functions of the brain and nerves, hurts the ſenſe of touching. Hence it appears to proceed from the ſame general cauſes as palſy and apoplexy, and requires nearly the ſame method of treatment.

In a *ſtupor*, or defect of touching, which ariſes from an obſtruction of the cutaneous nerves, the patient muſt firſt be purged; afterwards ſuch medicines as excite the action of the nerves, or ſtimulate the ſyſtem, may be uſed. For this purpoſe, the *volatile liquor of hartſhorn, compound ſpirit of ammonia*, horſe-radiſh, &c. may be taken inwardly; the diſordered parts at the ſame time may be frequently rubbed with freſh nettles, or *water of ammonia*, commonly called ſpirit of ſal ammoniac. Bliſtering-plaſters, and ſinapiſms applied to the parts, will likewiſe be of uſe, as alſo warm bathing, eſpecially in the natural hot baths.

CHAP. XLV.

OF A SCHIRRUS AND CANCER.

A SCHIRRUS is a hard indolent tumor uſually ſeated in ſome of the glands; as the breaſts, the arm-pits, &c. If the tumor becomes large, unequal, of a livid, blackiſh, or leaden colour, and is attended with violent pain, it gets the name of an *occult cancer*. When the ſkin is broken, and a *ſanies* or ichorous matter of an abominable fœtid ſmell is diſcharged from the ſore, it is called an open or ulcerated cancer. Perſons after the age of forty-five, particularly women, and thoſe who lead an indolent ſedentary life, are moſt ſubject to this diſeaſe.

CAUSES.——This diſeaſe is often owing to ſuppreſſed evacuations; hence it proves ſo frequently fatal to women of a groſs habit, particularly old maids and widows, about the time when the menſtrual flux ceaſes. It may likewiſe be occaſioned by exceſſive fear, grief, anger, religious melancholy, or any of the depreſſing paſſions. Hence the unfortunate, the choleric, and thoſe perſons who devote themſelves to a religious life in convents or monaſteries, are often afflicted with it. It may alſo be occaſioned by the long continued uſe of food that is too hard of digeſtion, or of an acrid nature; by barrenneſs; celibacy; indolence; cold; blows; friction; preſſure; or the like. Women often ſuffer from the laſt of theſe by means of their ſtays, which

ſqueeze and compreſs their breaſt ſo as to occaſion great miſchief. Sometimes the diſeaſe is owing to an hereditary diſpoſition.

SYMPTOMS.——This diſorder ſeems often very trifling at the beginning. A hard tumorabout the ſize of an hazel nut, or perhaps ſmaller, is generally the firſt ſymptom. This will often continue for a long time without ſeeming to increaſe, or giving the patient great uneaſineſs; but if the conſtitution be hurt, or the tumor irritated by preſſure or improper treatment of any kind, it begins to extend itſelf towards the neighbouring parts by puſhing out a kind of roots or limbs. It then gets the name of *cancer*, from a fancied reſemblance between theſe limbs and the claws of a crab. The colour of the ſkin begins to change, which is firſt red, afterwards purple, then bluiſh, livid, and at laſt black. The patient complains of heat, with a burning, gnawing, ſhooting pain. The tumor is very hard, rough, and unequal, with a protuberance, or riſing, in the middle; its ſize increaſes daily, and the neighbouring veins become thick, knotty, and of a blackiſh colour.

The ſkin at length gives way, and a thin ſharp ichor begins to flow, which corrodes the neighbouring parts till it forms a large unſightly ulcer. More occult cancers ariſe, and communicate with the neighbouring glands. The pain and ſtench become intolerable; the appetite fails; the ſtrength is much exhauſted by a continual hectic fever; at laſt a violent hæmorrhage, or diſcharge of blood, from ſome part of the body, with faintings, or convulſion fits, generally put an end to the miſerable patient's life.

REGIMEN.——The diet ought to be light, but nouriſhing. All ſtrong liquors, and high-ſeaſoned or ſalted proviſions, are to be avoided. The patient may take as much exerciſe as he can eaſily bear, and ſhould uſe every method to divert thought, and amuſe his fancy. All kinds of external injury are carefully to be guarded againſt, particularly of the affected part, which ought to be defended from all preſſure, and even from the external air, by covering it with fur or ſoft flannel.

MEDICINE.——This is one of thoſe diſeaſes for which no certain remedy is yet known. Its progreſs however may ſometimes be retarded, and ſome of its moſt diſagreeable ſymptoms mitigated, by proper applications. One misfortune attending the diſeaſe is, that the unhappy patient often conceals it too long. Were proper means uſed in due time, a cancer might often be cured; but after the diſorder has arrived at a certain height, it generally ſets all medicine at defiance.

When a ſchirrous tumor is firſt diſcovered, the patient ought to obſerve a proper regimen, and to take twice or thrice a-week a doſe of the common purging *quickſilver* (i. e. mercurial) pill. Some blood may alſo be let, by the occaſional application of leeches to or near the part affected; and it may be gently rubbed twice a-day with a little of the *ointment of quickſilver*, and kept warm with fur or flannel. The food muſt be light, and an Engliſh pint of the decoction of woods or ſarſaparilla may be drank daily. I have ſometimes diſcuſſed hard tumors, which had the appearance of beginning cancers, by a courſe of this kind.

So alſo has a milk diet; and ſmall doſes of calomel and hemlock, as a quarter of a grain of the former with four grains of the *inſpiſſated juice of hemlock*, may be taken every ſix hours: the doſe of the latter may be gradually but cautiouſly increaſed; and the patient may drink three half pints of the following mixture in the courſe of the day: Three pints of the compound decoction of ſarſaparilla, and one pint of lime-water; let them be mixed.

Should the tumor however not yield to this treatment, but, on the contrary, become larger and harder, it will be proper to extirpate it, either by the knife or cauſtic. Indeed, whenever this can be done with ſafety, the ſooner it is done the better. It can anſwer no purpoſe to extirpate a cancer after the conſtitution is ruined, or the whole maſs of humours corrupted by it. This however is the common way, which makes the operation ſo ſeldom ſucceed. Few people will ſubmit to the extirpation till death ſtares them in the face; whereas, if it were done early, the patient's life would not be endangered by the operation, and it would generally prove a radical cure.

When the cancer is ſo ſituated that it cannot be cut off, or if the patient will not ſubmit to the operation, ſuch medicines as will mitigate or relieve the moſt urgent ſymptoms may be uſed. Dr. Home ſays, that half a grain of *muriated quickſilver* (the corroſive ſublimate of mercury) diſſolved in a proper quantity of brandy, and taken night and morning, will often be of ſervice in cancers of the face and noſe. He likewiſe recommends an infuſion of the *ſolanum*, or nightſhade, in cancers of the breaſts.

But the medicine moſt in repute at preſent for this diſeaſe is hemlock. Dr. Stork, phyſician at Vienna, has of late recommended the extract of this plant as very efficacious in cancers of every kind. The Doctor ſays, he has given ſome hundred weights of it without ever hurting any body, and often with manifeſt advantage. He adviſes the patient however to begin with very ſmall doſes, as two or three grains, and to increaſe the doſe gradually till ſome good effect be perceived, and there to reſt without further increaſe. From two or three grains at firſt, the Doctor ſays he has increaſed the doſe to two, three, or four drachms a-day, and finds that ſuch doſes may be continued for ſeveral weeks without any bad conſequences.

The regimen which the Doctor recommends during the uſe of the medicine, is to avoid farinaceous ſubſtances not fermented, and too acrid aromatics. He ſays, good wine will not be hurtful to thoſe who are accuſtomed to it, nor a moderate uſe of acids; and adds, that the patient ſhould live in a pure free air, and keep his mind as quiet and cheerful as poſſible.

The Doctor does not pretend to fix the time in which a cancer may be reſolved by the uſe of hemlock, but ſays he has given it for above two years in large doſes without any apparent benefit; nevertheleſs the patient has been cured by perſiſting in the uſe of it for half a year longer. This is at leaſt encouragement to give it a fair trial. Though we are far from thinking the hemlock merits thoſe extravagant encomiums which the Doctor has beſtowed upon it, yet, in a diſeaſe which

has ſo long baffled the boaſted powers of medicine, we think it ought always to be tried.

The powder of hemlock is by ſome preferred to the extract, or *inſpiſſated juice*. They are both made of the freſh leaves, and may be uſed nearly in the ſame manner. The doſe of the powder may be gradually increaſed from a few grains to half a drachm, and nearly four drachms of it have been given in the day with remarkably good effects. The hemlock may alſo be uſed externally either as a poultice or fomentation. The ſore may likewiſe be kept clean by injecting daily a ſtrong decoction of the tops and leaves into it.

Few things contribute more to the healing of foul ſordid ulcers of any kind than keeping them thoroughly clean. This ought never to be neglected. The beſt application for this purpoſe ſeems to be the carrot poultice. The root of the common carrot may be grated, and moiſtened with as much water as will bring it to the conſiſtence of a poultice or cataplaſm. This muſt be applied to the ſore, and renewed twice a-day: previouſly to its application, the deep ulcers may be waſhed to the bottom by means of a ſyringe with a ſtrong infuſion of *cinchona*, or a decoction of carrots; and the patient ſhould take, four or five times a-day, a glaſs of good wine, with half a drachm of powdered Peruvian bark in it. The ſores, after being waſhed, ſhould be ſprinkled with the ſame powder, or with *red nitrated quickſilver*. This proceſs cleans the ſore, generally aſſuages the pain, and ſuppreſſes the diſagreeable ſmell; which are objects of no ſmall importance in a loathſome and dreadful diſorder.

Pure air ought to have free acceſs during the day to the apartments of the patient; they may alſo be purified with the muriatic acid vapour, by putting a pound of common ſalt into an earthen veſſel, and pouring over it, from time to time, a ſmall quantity of *vitriolic acid*, till the whole of the ſalt is moiſtened. The earthen diſh, thus filled with ſalt, &c. may be placed in a corner, and requires no attention. If the air is foul, and peculiarly offenſive, or if the apartments to be ventilated are ſpacious, the veſſel may be placed in heated ſand, to extricate a larger quantity of vapour.—The ſame proceſs is effectual in correcting the inſalubrious or mephitic air of privies.

Wort, or an infuſion of malt, has been recommended not only as a proper drink, but as a powerful medicine in this diſeaſe. It muſt be frequently made freſh, and the patient may take it at pleaſure. Two, three, or even four Engliſh pints of it may be drank every day for a conſiderable time. No benefit can be expected from any medicine in this diſeaſe, unleſs it be perſiſted in for a long time. It is of too obſtinate a nature to be ſoon removed; and, when it admits of a cure at all, it muſt be brought about by inducing an almoſt total change of the habit, which muſt always be a work of time. Setons or iſſues in the neighbourhood of the cancer have ſometimes good effects.

Arſenic has been adminiſtered internally with evident advantage, for ſome time; it has alſo been employed externally as a lotion, made by boiling one ounce of white arſenic in four pints of water to three pints, the liquor, when cold, being filtered through paper by means of a glaſs funnel: but we do not recommend that deleterious drug to the

uſe of Domeſtic practitioners: when it is reſorted to, it ought to be given under the direction of more than ordinary medical ſkill and experience. It is however with ſatisfaction that we recommend to the notice of our readers, a ſafe, new, and apparently valuable remedy, that has been employed by Mr. Carmichael, a ſurgeon in Dublin, for certain ſpecies of ulcers that have hitherto proved very difficult of cure. Cancerous ſores of the noſe, of the upper eye-lid, on the *ſcrotum*, and on the calf of the leg, are ſaid to have been ſucceſsfully treated, by giving twelve grains, gradually increaſed to doſes of a ſcruple (formed into pills of five grains each), of the *carbonate* or ruſt of iron, every four or ſix hours: the ſores were ſprinkled with levigated ruſt of iron. Or an ointment may be compounded of equal parts of the *carbonate of iron* and hog's lard; this may be rubbed in near the ſore, that the abſorbent veſſels may convey it to the diſeaſed part.

When medicines fail to cure this direful diſeaſe, recourſe muſt be had to opium, or the *inſpiſſated juice of henbane*: theſe will not, indeed, cure the diſeaſe; but they will abate pain, and, by ſoothing the anguiſh of the ſufferer, render life tolerable, while the all-wiſe and ſupreme Diſpoſer of Events ſhall be pleaſed to continue it.

To avoid this dreadful diſorder, people ought to uſe wholeſome food; to take ſufficient exerciſe in the open air; to be as eaſy and cheerful as poſſible; and carefully to guard againſt all blows, bruiſes, and every kind of preſſure upon the breaſts, or other glandular parts.

CHAP. XLVI.

OF POISONS.

EVERY perſon ought, in ſome meaſure, to be acquainted with the nature and cure of poiſons. They are generally taken unawares, and their effects are often ſo ſudden and violent, as not to admit of delay, or allow time to procure the aſſiſtance of phyſicians. Happily indeed no great degree of medical knowledge is here neceſſary; the remedies for moſt poiſons being generally at hand, or eaſily obtained, and nothing but common prudence needful in the application of them.

The cure of all poiſons taken into the ſtomach, without exception, depends chiefly on diſcharging them as ſoon as poſſible; it is ſeldom, indeed, that poiſon remains long in the ſtomach before it occaſions ſickneſs, with an inclination to vomit. If any thing has been taken into the ſtomach which endangers life, it ought to be immediately diſcharged: were this duly regarded, the danger ariſing from poiſons, as well as other indigeſtible matters, might generally be avoided. The methods of prevention are obvious, and the means are eaſily obtained.

Poiſons either belong to the mineral, the vegetable, or the animal kingdom.

Mineral poiſons are commonly of an acrid or corroſive quality; as arſenic, *muriated quickſilver*, &c. They are generally of a narcotic or ſtupefactive quality; as opium, hemlock, henbane, berries of the deadly night-ſhade, &c.

Poiſonous animals communicate their infection either by bite or ſting. This poiſon is very different from the former, and only produces its effects when received into the body by a wound.

MINERAL POISONS.——Arſenic is the moſt common of this claſs; and, as the whole of them are pretty ſimilar both in their effects and method of cure, what is ſaid with reſpect to it will be applicable to every other ſpecies of corroſive poiſon.

When a perſon has taken arſenic, he ſoon perceives a burning heat and a violent pricking pain in his ſtomach and bowels, with an intolerable thirſt, and an inclination to vomit. The tongue and throat feel rough and dry; and, if proper means be not ſoon adminiſtered, the patient is ſeized with great anxiety, hiccuping, faintings, and coldneſs of the extremities. To theſe ſucceed black vomits, fœtid ſtools, with a mortification of the ſtomach and inteſtines, which are the immediate forerunners of death.

On the firſt appearance of theſe ſymptoms the patient ſhould drink large quantities of new milk and ſalad oil till he vomits; or he may drink warm water mixed with oil. Fat broths are likewiſe proper, provided they can be got ready in time. Where no oil is to be had, freſh butter may be melted and mixed with the milk or water. Theſe things are to be drank as long as the inclination to vomit continues. Some have drank eight or ten Engliſh quarts before the vomiting ceaſed; and it is never ſafe to leave off drinking while one particle of the poiſon remains in the ſtomach.

Theſe oily or fat ſubſtances not only provoke vomiting, but likewiſe blunt the acrimony of the poiſon, and prevent its wounding the bowels; but if they ſhould not make the perſon vomit, half a drachm or two ſcruples of the powder of ipecacuanha muſt be given, or a few ſpoonfuls of the oxymel or vinegar of ſquills may be mixed with the water which he drinks. Vomiting may likewiſe be excited by tickling the inſide of the throat with a feather.

Should theſe methods fail, after a ſhort trial (for delay is in this caſe very dangerous), give twenty grains or more of vitriolated zinc; or diſſolve five or ſix grains of *tartarized antimony* in twelve table-ſpoonfuls of water: let half the mixture be taken directly, and two table-ſpoonfuls more every five minutes, until vomiting is excited.

Let the patient then take a drachm of *ſulphurated kali* diſſolved in a pint of warm water; or, if this cannot be procured, diſſolve two drachms of *prepared kali*, or ſalt of tartar, in a pint of water: let the patient drink of this ſolution, every quarter of an hour, as much as he can.

If tormenting pains are felt in the lower belly, and there is reaſon to fear that the poiſon has got down to the inteſtines, beſides the drinks above mentioned, clyſters of milk and oil muſt be very frequently thrown up; and the patient muſt drink emollient decoctions of barley, oatmeal, marſh-mallows, and ſuch like. He muſt likewiſe take an infuſion of ſenna and manna, a ſolution of *vitriolated natron* (i. e. Glauber's ſalts), or of *vitriolated magneſia*.

The *acetate of copper*, or verdigreaſe, is a culinary poiſon, that, when recently ſwallowed, may be obviated by emetics, and afterwards

the ſolution of kali ought to be drank in abundance: the flowers of ſulphur taken freely are beneficial. The ſolution of *ſulphurated kali* moderates the ill effects of this as well as of all other mineral poiſons. The deleterious effects of *muriated quickſilver* (corroſive ſublimate) are counteracted by *ſulphurated kali*, or the alkaline ſolution already mentioned. Common ſalt diſſolved in water readily precipitates the quickſilver, and thereby greatly abates its virulence. This article being always ready, it ought to be reſorted to where the *ſulphurated kali*, or the ſalt of tartar, cannot be obtained. Acids however, even of the mildeſt kind, increaſe the pain and danger occaſioned by an overdoſe of this preparation of quickſilver.

After the poiſon has been evacuated, the patient ought for ſome time to abſtain from fleſh and all ſtrong liquors, and to live upon milk, broth, gruel, light puddings, and upon other ſpoon-meats of eaſy digeſtion. His drink ſhould be barley-water, or infuſions of any of the mild mucilaginous vegetables.

VEGETABLE POISONS, beſides heat and pain of the ſtomach, commonly occaſion ſome degree of giddineſs, and often a kind of ſtupidity and folly. Though, when allowed to remain in the ſtomach, they often prove fatal, yet the danger is generally over as ſoon as they are diſcharged. But although they are leſs apt to erode or inflame the bowels than mineral ſubſtances, no time ought to be loſt in having them diſcharged.

Opium, being frequently taken by miſtake, merits particular attention. It is uſed as a medicine both in a liquid and ſolid form, and is, indeed, an ineſtimable drug when taken in a proper quantity; but an over-doſe proves a ſtrong poiſon, generally occaſioning great drowſineſs, with ſtupor, and other apoplectic ſymptoms. Every method ſhould be tried to keep the patient awake. He ſhould be toſſed, ſhaked, and moved about. Vomiting ſhould be excited by giving ſpearmint-water and oxymel of ſquills of each an ounce, and half a ſcruple of ipecacuanha. Should the ſymptoms continue violent, recourſe muſt be had to blood-letting. Sharp bliſtering-plaſters ſhould be applied to the legs and arms; ſtimulating medicines, as ſalt of hartſhorn, or *volatile liquor of hartſhorn*, &c. ſhould be held under the noſe, to produce a ſalutary degree of irritation. The patient may drink freely of lemonade; or of the alkaline ſolution with lemon juice, commonly called the ſaline mixture; or, if theſe cannot be procured, of vinegar diluted with water. In this manner the poiſonous effects of hemlock, &c. may be obviated. If the body ſhould remain weak and languid after the poiſon has been diſcharged, nouriſhing diet and cordials will be proper; but when there is reaſon to fear that the ſtomach or bowels are inflamed, the greateſt circumſpection is neceſſary both with regard to food and medicine.

We cannot cloſe this ſubject without obſerving that arſenic may be externally applied without detriment; but the deleterious effects of this ſemi-metallic concrete taken internally, where it does not prove immediately fatal, ſeem to be different from thoſe of other poiſons. A perſon after having taken (an exceſſive doſe of) arſenic, although he ſurvive the misfortune, may remain a victim to its virulent and deſtructive tendency.

A man remarkable for his athletic powers, and who, previouſly to his accidentally ſwallowing this poiſon, had enjoyed good health for ten years, in the autumn after this misfortune was attacked with obſtructions of the liver, which left him in a ſtate of paralyſis during the winter. His teeth, which had been remarkable for their whiteneſs, became incruſted with a black ſcale, and he was ſubject to the jaundice three or four times every year.

To detect guilt, as well as to diſſipate groundleſs ſuſpicion, we ſhall mention one of the moſt ſimple and efficacious means of detecting the preſence of arſenic; it conſiſts in infuſing a portion of the ſuſpected matter in a ſolution of vegetable alkali (i. e. ſalt of tartar). After ſtanding an hour or two, pour upon it a ſolution of *ſulphate of copper* (blue vitriol): if any arſenic was preſent, the copper will be immediately converted into an elegant green, and will ſoon be precipitated. In this way, water, or the contents of a ſtomach ſuppoſed to contain arſenic, may be examined.

OF THE BITES OF POISONOUS ANIMALS.

We ſhall begin with the bite of a mad dog, as it is both the moſt common and dangerous animal poiſon in this country.

The creatures naturally liable to contract this diſeaſe are, as far as we yet know, all of the dog kind, viz. foxes, dogs, and wolves. Hence it is called the *rabies canina*, or dog-madneſs. Of the laſt we have none in this iſland; and it ſo ſeldom happens that any perſon is bit by the firſt, that they ſcarce deſerve to be taken notice of. If ſuch a thing ſhould happen, the method of treatment is preciſely the ſame as for the bite of a mad dog.

The ſymptoms of madneſs in a dog are as follow: At firſt he looks dull, ſhews an averſion to food and company: he does not bark as uſual, but ſeems to murmur, is peeviſh, and apt to bite ſtrangers; his ears and tail droop more than uſual, and he appears drowſy: afterwards he begins to loll out his tongue, and froth at the mouth, his eye ſeeming heavy and watery: he now, if not confined, takes off, runs panting along with a kind of dejected air, and endeavours to bite every one he meets. Other dogs are ſaid to fly from him. Some think this a certain ſign of madneſs, ſuppoſing that they know him by the ſmell; but it is not to be depended on. If he eſcapes being killed, he ſeldom runs above two or three days, till he dies exhauſted with heat, hunger, and fatigue.

This diſeaſe is moſt frequent after long, dry, hot ſeaſons; and ſuch dogs as live upon putrid ſtinking carrion, without having enough of freſh-water, are moſt liable to it. Yet it does not appear that madneſs is more frequent in warm than in cold climates; nay, in the iſland of Antigua, where the climate is very hot, and the water very ſcarce, this diſtemper, it is ſaid, has never been obſerved; and dogs are known to have ſubſiſted on putrid aliment for a long time without any detriment. For theſe reaſons, we think the *canine fever* ariſes from a ſpecific contagion like the ſmall-pox or meaſles among the human race, which, being once produced by cauſes unknown, continues to be propagated by the intercourſe dogs have with each

other; as the diſeaſes juſt mentioned continue to be propagated among the human race by means of their reciprocal intercourſe.

When any perſon has been bit by a dog, the ſtricteſt enquiry ought to be made whether the animal was really mad. Many diſagreeable conſequences ariſe from neglecting to aſcertain this point. Some people have lived in continual anxiety for many years, becauſe they had been bit by a dog which they believed to be mad; but, as he had been killed on the ſpot, it was impoſſible to aſcertain the fact. This ſhould induce us, inſtead of killing a dog the moment he has bit any perſon, to do all in our power to keep him alive, at leaſt till we can be certain whether he be mad or not.

Many circumſtances may contribute to make people imagine a dog mad. He loſes his maſter, runs about in queſt of him, is ſet upon by other dogs, and perhaps by men. The creature, thus frightened, beat, and abuſed, looks wild, and lolls out his tongue as he runs along. Immediately a crowd is after him; while he, finding himſelf cloſely purſued, and taking every one he meets for an enemy, naturally attempts to bite him in ſelf-defence. He ſoon gets knocked on the head, and it paſſes currently that he was mad, as it is then impoſſible to prove the contrary.

This being the true hiſtory of, by far, the greater part of thoſe dogs which paſs for mad, is it any wonder that numberleſs whimſical medicines have been extolled for preventing the effects of their bite? This readily accounts for the great variety of infallible remedies for the bite of a mad dog, which are to be met with in almoſt every family. Though not one in a thouſand has any claim to merit, yet they are all ſupported by numberleſs vouchers. No wonder that imaginary diſeaſes ſhould be cured by imaginary remedies. In this way, credulous people firſt impoſe upon themſelves, and then deceive others. The ſame medicine which was ſuppoſed to prevent the effects of the bite when the dog was not mad, is recommended to a perſon who has had the misfortune to be bit by a dog that was really mad. He takes it, truſts to it, and is undone.

From the days of Galen to the preſent time, mankind have never been without ſome boaſted ſpecific, which has been held forth as an infallible remedy for the prevention and cure of the canine phrenſy, till fatal experience demonſtrated their inefficacy. To a reliance on the Ormſkirk medicine, as it is called, many perſons have doubtleſs fallen victims; for what can be effected as a preſervative from this formidable diſeaſe by a compound like the following? for ſuch, after analyſing the "*Ormſkirk medicine*," Drs. Lewis and Heyſham inform us it conſiſts of, viz. *half an ounce of chalk, three drachms of armenian bole, ten grains of alum, one drachm of elecampane in powder; mix them all together, and add ſix drops of oil of anije.*" The efficacy of the medicine, if indeed it ever did prove efficacious, muſt depend on ſome unknown, undetected ingredient.

This poiſon is generally communicated by a wound, which nevertheleſs moſtly heals as ſoon as a common wound: but afterwards it begins to feel painful, and, as the pain ſpreads towards the neighbouring parts, the perſon becomes heavy and liſtleſs. His ſleep generally

becomes unquiet; he ſighs, looks dull, prefers ſolitude, and is troubled with nauſea. Theſe are the forerunners, or rather the firſt ſymptoms, of that dreadful diſeaſe occaſioned by the bite of a mad dog. But as we do not propoſe to treat fully of the diſeaſe itſelf, but to point out the method of preventing it, we ſhall not take up time in ſhewing its progreſs from the firſt invaſion to its commonly fatal termination.

The common notion, that this poiſon may lie in the body for many years, and afterwards prove fatal, is both hurtful and ridiculous. It muſt render ſuch perſons as have had the misfortune to be bit very unhappy, and can have no good effects. If the perſon takes proper medicines for forty days after the time of his being bit, and feels no ſymptoms of the diſeaſe, there is reaſon to believe him out of danger.

Sometimes the characteriſtic ſymptom of this virulent diſorder, *the dread of water*, ſuddenly attacks the patient, and every attempt to ſwallow liquids is accompanied with the moſt convulſive and painful ſenſations. This appears to be a circumſtance peculiar to the human race; for mad animals do not, as ſome have ſuppoſed, evince the leaſt dread of water. There is not the leaſt doubt that the diſeaſe is occaſioned by the ſaliva of the mad creature being mixed with the human blood. Unleſs, therefore, part of the true ſkin be injured by the bite of a rabid animal, the poiſon will not be communicated; but, in the contrary caſe, the ſmalleſt quantity is ſufficient to produce the fatal effect. Hence, if the cuticle has been wounded, it is abſolutely neceſſary to remove the ſurrounding muſcular ſubſtance by the knife, and to loſe no time in ſubmitting to this operation, as it is the only certain and effectual preventive. It is, however, of conſequence previouſly to be convinced whether the animal has been actually mad; though it is affirmed by creditable writers, that the bite of creatures that were neither diſeaſed nor raving, nay even the bite of healthy dogs, has been productive of hydrophobia.

As it is generally allowed that canine madneſs, if the dread of water has once taken place, can ſeldom be cured, the moſt eſſential part of the treatment conſiſts in the ſpeedy application of preventives: for this reaſon, we have already ſtated the immediate neceſſity of cutting away the part contiguous to the wound, eſpecially where that operation can be performed without injuring any large blood-veſſel. Beſides this precaution, the wound ſhould be frequently waſhed by a tooth-bruſh or ſponge, with ſoap and water, ſalt and water, ſalt and vinegar, or by pouring cold water upon it from a conſiderable height; and, to prevent the canine virus from remaining about the wounded part, it ſhould be kept open, and a diſcharge promoted from it for ſeveral weeks, by drawing and ſtimulating ointments: nay, ſhould it be our lot to meet with a misfortune ſo much to be dreaded, we would not heſitate, after cleanſing the wound by ſome of the methods above-mentioned, to apply a cupping glaſs three or four times, and after drawing blood by ſcarification, and applying, during a few hours, a cataplaſm formed of common ſalt ſlightly moiſtened with water, renewed every two hours, we would lay on linen cloths ſaturated with the decoction

of arſenic mentioned in the chapter on Cancer (p. 299), diſſolving in each ounce of that liquor half a drachm of ſtrained opium. This being done during twenty-four hours, the wound being wiped dry with lint, two drachms of the ſtronger ointment of quickſilver ſhould be rubbed into it, and the part covered with a bliſtering-plaſter ſomewhat larger than the wound.

As ſoon as a bladder is perceived to have riſen under the plaſter, puncture the bliſter, let out the lymph, and, in order to promote a diſcharge, dreſs it daily for the ſpace of ſeveral weeks with an ointment compoſed of equal parts of the ointment or of the plaſter of cantharides and the ſtronger *ointment of quickſilver*, melted together by a very gentle heat. Let a drachm of the latter be rubbed into the parts about the wound, or into the forepart of the legs of the patient, every other night; meanwhile, if he is plethoric, bleed. Vomit with a doſe of three to ſix grains of *vitriolated quickſilver*, and every night at bed-time give the following medicine: Camphor five grains, purified opium and *vitriolated quickſilver* of each one grain and a half, tartarized antimony half a grain, conſerve of roſes enough to form theſe into a bolus. To promote perſpiration, let him take from time to time, during the night, four table-ſpoonfuls of the following ſudorific: Camphorated mixture eight ounces, *water of acetated ammonia* four ounces. Twice or thrice a-day for many weeks he may take powder of Virginian ſnake-root twenty grains, cinchona half a drachm, ginger ſix grains; mix, and take it with a glaſs of generous wine.

Camphor may alſo be given in the following manner: Take purified nitre half an ounce, Virginian ſnake-root two drachms, camphor one drachm: rub them together in a mortar, and divide them into ten doſes; one of them to be taken daily, or oftener. The following is likewiſe a good antiſpaſmodic medicine: Take of Virginian ſnake-root in powder half a drachm, gum aſafœtida twelve grains, gum camphor ſeven grains; make theſe into a bolus with a little ſyrup of ſaffron: to be taken as above.

Good vinegar, which is employed as an uſeful addition to drink in inflammatory fevers (in the proportion of an ounce or two to a quart), as a medicine in putrid diſeaſes, and to correct the effects of narcotic poiſons, is likewiſe in this caſe of conſiderable ſervice, and ſhould be taken freely either in the patient's food or drink.

During the uſe of the mercurial ointment, the patient muſt keep within doors, and take nothing cold.

This courſe having been perſiſted in for three or four weeks, he muſt take a ſaline cathartic or two, and wait a few days till the effect of the mercury is gone off. He ſhould then bathe in the ſea or in a cold bath every morning for a week or ten days: both the bathing, and the uſe of the powder of cinchona with ſnake-root and ginger, ſhould be repeated three or four times previouſly to the next full and the changes of the moon, for at leaſt three months. If he feel chilly or cold for a long time after coming out of the cold bath, let him take the powders laſt mentioned with a glaſs of wine; or he may have a tepid bath, or the water a little warmed and leſs heated each time, till by degrees the cold bath excite a pleaſing and healthful glow.

A proper regimen muſt be obſerved throughout the whole courſe. The patient ſhould abſtain from all ſalted and high-ſeaſoned proviſions. He muſt avoid ſtrong liquors, and live moſtly upon a light and rather ſpare diet. His mind ſhould be kept as eaſy and cheerful as poſſible; and all exceſſive heat and violent paſſions avoided with the utmoſt care.

Beſides exciſion, or the removal of the bitten part by the knife, prevention may alſo be attempted by the actual cautery, or by burning with gunpowder after the manner of the Indians, the action of fire being one of the moſt powerful that can be employed for this purpoſe. But ſince moſt of the preventional means hitherto made uſe of to obviate the moſt dangerous and too often fatal effects of this deſtructive poiſon ſometimes fail, it may be proper to mention one, that, if reſorted to immediately, or in a few hours after the bite, if the wound has only been well waſhed with tepid ſalt water, will we doubt not ſecure the patient from the dreadful effects of being bitten by a mad animal.

Cauterize or burn the part above the bite; and by means of a red-hot wire, knitting needle, or the prong of a fork, or any other inſtrument not exceeding the ſize of the dog's tooth, cauterize the wound to the bottom; dreſs and promote a diſcharge for a month by the mercurialized veſicatory above-mentioned; then heal the ſore in the common way. Cruel as this operation may appear, the pain is momentary, and eaſier to the patient than by removing the part with a knife, or deſtroying it by cauſtics; and he may reſort to ſea-bathing, or any other means that may ſatisfy his own mind or thoſe of his friends.

In a neglected caſe, or where the means to prevent the miſchief are unſucceſsfully employed, the virus of the mad animal abſorbed into the ſyſtem may lurk inactive in the conſtitution for fourteen, twenty-one, or forty days. It is obſerved to exert its influence the ſooner in proportion as the bite is nearer to glandular parts, eſpecially to thoſe of the upper part of the throat and mouth, called *ſalival*. Should the wound have been healed, it begins to be affected with pain, ſwells, inflames, and diſcharges a thin, ſharp fluid: this pain is conſidered a primary, invariable mark of beginning *hydrophobia*. The patient becomes dull, languid, and reſtleſs, having frightful dreams: ſuddenly the pains, for the moſt part, ſhoot from the place where the ſkin was lacerated all along up to the throat, where it cauſes a ſenſe of ſuffocation, and generally a total inability of ſwallowing liquids. Inſtances have occurred where the ſight, nay even the noiſe, of falling water created the moſt violent agitations, and could not be borne.

Theſe ſpaſmodic affections of the throat, in the courſe of the diſeaſe, gradually diffuſe themſelves over the whole muſcular ſyſtem, ſimilar to what happens in *tetanus*, or locked jaw, which diſorder is principally and primarily nervous. Flying pains, tightneſs and oppreſſion of the *præcordia*, is one of the conſtant ſymptoms of this diſorder; nor is it uncommon to obſerve, in ſtrong conſtitutions, a priapiſm, or even a luſtful appetite exerting itſelf with ſome degree of violence. The tongue becomes dry and rough, the voice

hoarſe, the thirſt conſiderable; yet they cannot drink: they vomit a bilious matter; they diſlike to ſee a dog come into the room, or any perſon in ſcarlet apparel. A fever with great heat comes on; they ſtart, rage, and foam at the mouth; their pulſe ſinks, their breath fails; cold clammy ſweats, convulſions, and death, terminate the miſery of the wretched ſufferer.

The indications of cure are to take off the ſpaſmodic ſymptoms, and to throw the inſidious poiſon out of the habit: this is to be attempted by a low diet; by bleeding freely; by vomiting with the *vitriolated quickſilver*; by rubbing in the ointment of quickſilver not only near the place where the bite was received, but along the ſpine of the back; by the uſe of the warm bath; by oil thrown into the body by frictions frequently repeated; by the mouth, as often and as much as can be got down, and injected by the anus in the form of a lavement; in fine, by ſpeedily exciting a ſalivation by the internal and external uſe of the preparations of quickſilver, of which the vitriolated, for internal uſe, has in theſe caſes been deemed the moſt uſeful. Take ſolid opium and *vitriolated quickſilver* of each one grain and a half to two grains, camphor three grains, *tartarized antimony* half a grain; let them be well rubbed together in a glaſs mortar, and with conſerve of roſes form a bolus, to be given at bed-time. This (if the patient can take any liquid), mixed with large doſes of the acetated water of ammonia (Mindererus's ſpirit), will act as an anodyne, ſedative, and ſudorific. A bolus formed of muſk fifteen grains, *red ſulphurated quickſilver* one ſcruple, may be given every ſix hours. Every morning let him have a bolus formed of muſk and Ruſſian caſtor of each twelve grains, *vitriolated quickſilver* two grains, conſerve enough to mix them. The camphorated mixture with the acetated water of ammonia, and wine alſo, ſhould be taken freely, provided the averſion to liquids is not ſo ſtrong as to render the exhibition of them impracticable. In this caſe, wine and vinegar ſhould be injected up the rectum, and, when he is deprived of the power of ſwallowing light and nutritive food, glyſters of animal broths muſt be injected, and ſponges moiſtened with them may be applied to the region of the ſtomach. Care muſt be taken that the patient be ſo confined by means of a ſtrait waiſtcoat, as to render him incapable of doing injury to himſelf or his attendants.

To aſſuage his thirſt, wine and water, or negus well acidulated with vegetable acid, may be poured down his throat from the ſpout of a tea-pot; but if his averſion to liquids is inſurmountable, a ſponge dipt in hot vinegar may be kept conſtantly to his mouth and noſtrils.

Topical applications muſt not be neglected: after a dozen leeches have been applied to the throat, place on it a piece of thin flannel moiſtened three or four times a-day with the following anodyne liniment: *Compound ſoap liniment* three ounces, powdered opium two drachms, mixed with a very gentle heat. Or, after rubbing in this liniment, cover the throat and neck from ear to ear with a cerate formed of aſafœtida, camphor, galbanum, crude opium, and rectified oil of amber, each one drachm; beat them into a maſs, and add of the weaker *ointment of quickſilver* enough to make a cerate.

The whole limb which contains the wound ſhould frequently be

rubbed with oil, and wrapped up in an oily flannel. If he is coſtive, give him oil by the mouth, or relieve him by an oily lavement. Oil ſhould not only be adminiſtered internally, but a tepid bath of oil, or frictions with it, cannot here be too frequently uſed. This diſeaſe is ſometimes ſucceeded by inflammatory ſymptoms, in which caſe we may have recourſe to copious bleedings.

In Germany, the powdered root of deadly night-ſhade has been given every ſecond morning to children in doſes from one to five grains, and ten or fifteen grains to adults: this is reported to have proved infallible in the firſt ſtages of the malady.

Should the patient happily be recovered by having gone through the proper courſe of the remedies herein adviſed, then cold or ſea bathing adapted to the powers of the conſtitution, with the uſe of the tonic and ſtimulant powders of cinchona, ſnake-root, &c. and wine, may doubtleſs give ſtrength and vigour to the ſyſtem debilitated by evacuants and ſedatives.

The notion that this diſeaſe could not be cured, has been productive of horrid conſequences. It was uſual either to abandon the unhappy perſons to their fate, to bleed them to death, or to ſuffocate them between mattreſſes or feather-beds: this conduct merits the ſevereſt puniſhment. All perſons who aid or aſſiſt in wilfully cauſing the death of a perſon labouring under *hydrophobia*, as in other caſes, are liable to be indicted, tried, and executed for murder.

The next poiſonous animal which we ſhall mention is the VIPER. The greaſe of this animal rubbed into the wound is ſaid to cure the bite. Though that is all the viper-catchers generally do when bit, we ſhould not think it ſufficient for the bite of an enraged viper. It would ſurely be more ſafe to have the wound well ſucked, and afterwards rubbed with warm ſalad-oil. A poultice of bread and milk, ſoftened with ſalad-oil, ſhould likewiſe be applied to the wound; and the patient ought to drink freely of vinegar-whey, or water-gruel with vinegar in it, to make him ſweat. Vinegar is one of the beſt medicines which can be uſed in any kind of poiſon, and ought to be taken very liberally. If the patient be ſick, he may take a vomit. This courſe will be ſufficient to cure the bite of any of the poiſonous animals of this country.

The practice of ſucking out poiſons is very ancient; and indeed nothing can be more rational. Where the bite cannot be cut out, this is the moſt likely way for extracting the poiſon. There can be no danger in performing this office; it may ſafely be done even in the caſe of the bite of a mad-dog, as the poiſon does no harm unleſs it be taken into the body by a wound. The perſon who ſucks the wound ought however to waſh his mouth frequently with ſalad-oil, which will ſecure him from even the leaſt inconveniency. The *Pſylli* in Africa, and the *Marſi* in Italy, were famed for curing the bites of poiſonous animals by ſucking the wound; and we are told that the Indians in North America practiſe the ſame at this day.

With regard to poiſonous inſects, as the bee, the waſp, the hornet, &c. their ſtings are ſeldom attended with danger, unleſs when a perſon happens to be ſtung by a great number of them at the ſame

time; in which caſe ſomething ſhould be done to abate the inflammation and ſwelling. Some, for this purpoſe, apply honey, oil, and volatile liquor of hartſhorn; others lay pounded parſley to the part. A mixture of vinegar and Venice treacle is likewiſe recommended; but rubbing the part with warm ſalad-oil ſucceeds very well. Indeed, when the ſtings are ſo numerous as to endanger the patient's life, which is ſometimes the caſe, he muſt not only have oily poultices applied to the part, but ſhould likewiſe be bled, and take ſome cooling medicines, as nitre or cream of tartar, and ſhould drink plentifully of diluting liquors.

It is the happineſs of this iſland to have very few poiſonous animals, and thoſe which we have are by no means of the moſt virulent kind. We cannot however make the ſame obſervation with regard to poiſonous vegetables. Theſe abound every where, and prove often fatal to the ignorant and unwary. This indeed is chiefly owing to careleſſneſs. Children ought early to be cautioned againſt eating any kind of fruit, roots, or berries, which they do not know; and all poiſonous plants to which they can have acceſs, ought, as far as poſſible, to be deſtroyed.

Seldom a year paſſes but we have accounts of ſeveral perſons poiſoned by eating hemlock roots inſtead of parſneps, or ſome kinds of fungus which they had gathered for muſhrooms. Theſe examples ought to put people on their guard with reſpect to the former, and to put the lattter entirely out of uſe. Muſhrooms may be a delicate diſh, but they are a dangerous one, as they are generally gathered by perſons who do not know one kind of fungus from another, and take every thing for a muſhroom which has that appearance.

It may not be amiſs to obſerve, for the benefit of ſuch of our countrymen as go to America, that an effectual remedy is now ſaid to be found for the bite of the rattle-ſnake.—The preſcription is as follows: Take of the roots of plantain and horehound, in ſummer, roots and branches together, a ſufficient quantity; bruiſe them in a mortar, and ſqueeze out the juice, of which give, as ſoon as poſſible, one large ſpoonful: if the patient be ſwelled, you muſt force it down his throat. This generally will cure; but, if he finds no relief in an hour after, you may give another ſpoonful, which never fails.—If the roots are dried, they muſt be moiſtened with a little water. To the wound may be applied a leaf of good tobacco moiſtened with rum.

It is poſſible there may be in nature ſpecific remedies for every kind of poiſon; but as we have very little faith in any of thoſe which have yet been pretended to be diſcovered, we ſhall beg leave again to recommend the moſt ſtrict attention to the following rules, viz. That when any poiſonous ſubſtance has been taken into the ſtomach, it ought, as ſoon as poſſible, to be diſcharged by vomits, clyſters, and purges; and, when poiſon has been received into the body by a wound, that it be expelled by medicines which promote the different ſecretions, eſpecially thoſe of ſweat, urine, and inſenſible perſpiration; to which may be joined antiſpaſmodics, or ſuch medicines as take off tenſion and irritation; the chief of which are opium, muſk, camphor, and aſafœtida.

Hemlock, henbane, deadly night ſhade, monk's hood and ſome other narcotic vegetables, under proper management become excellent remedies; but they are virulent poiſons: their exhibition requires the greateſt caution. When they are taken by miſtake, or in an exceſſive doſe, excite vomiting as ſoon as poſſible by emetics; evacuate the bowels by purgatives and glyſters, and give largely vinegar, honey, milk, and oil.

CHAP. XLVII.

OF THE VENEREAL DISEASE.

IN the firſt edition of this book the venereal diſeaſe was omitted. The reaſons however which at that time induced me to leave it out have upon more mature conſideration vaniſhed. Bad conſequences, no doubt, may ariſe from ignorant perſons tampering with medicine in this diſorder; but the danger from that quarter ſeems to be more than balanced by the great and ſolid advantages which muſt ariſe to the patient from an early knowledge of his caſe, and an attention to a plan of regimen, which, if it does not cure the diſeaſe, will be ſure to render it more mild, and leſs hurtful to the conſtitution.

It is peculiarly unfortunate for the unhappy perſons who contract this diſeaſe, that it lies under a ſort of diſgrace. This renders diſguiſe neceſſary, and makes the patient either conceal his diſorder altogether, or apply to thoſe who promiſe a ſudden and ſecret cure; but who in fact only remove the ſymptoms for a time, while they fix the diſeaſe deeper in the habit. By this means a ſlight infection, which might have been eaſily removed, is often converted into an obſtinate and ſometimes incurable malady.

Another unfavourable circumſtance attending this diſeaſe is, that it aſſumes a variety of different ſhapes, and may with more propriety be called an aſſemblage of diſeaſes, than a ſingle one. No two diſeaſes can require a more different method of treatment than this does in its different ſtages. Hence the folly and danger of truſting to any particular noſtrum for the cure of it. Such noſtrums however are generally adminiſtered in the ſame manner to all who apply for them, without the leaſt regard to the ſtate of the diſeaſe, the conſtitution of the patient, the degree of infection, and a thouſand other circumſtances of the utmoſt importance.

Though the venereal diſeaſe is generally the fruit of unlawful embraces, yet it may be communicated to the innocent as well as the guilty. Infants, nurſes, midwives, and married women whoſe huſbands lead diſſolute lives, are often affected with it, and frequently loſe their lives by not being aware of their danger in due time. The unhappy condition of ſuch perſons will certainly plead our excuſe, if any excuſe be neceſſary, for endeavouring to point out the ſymptoms and cure of this too common diſeaſe.

To enumerate all its different ſymptoms, however, and to trace the diſeaſe minutely through its various ſtages, would require a much

larger ſpace than falls to this part of my ſubject; I ſhall therefore confine my obſervations chiefly to circumſtances of importance, omitting ſuch as are either trifling, or which occur but ſeldom.

OF THE VIRULENT GONORRHŒA.

The virulent gonorrhœa is an involuntary diſcharge of infectious matter from the parts of generation in either ſex. It generally makes its appearance within eight or ten days after the infection has been received; ſometimes indeed it appears in two or three days, and at other times not before the end of four or five weeks. Previous to the diſcharge the patient feels an itching, with a ſmall degree of pain in the genitals. Afterwards a thin glary matter begins to diſtil from the urinary paſſage, which ſtains the linen, and occaſions a ſmall degree of titillation, particularly at the time of making water; this gradually increaſing, ariſes at length to a degree of heat and pain, which are chiefly perceived about the extremity of the urinary paſſage, where a ſlight degree of redneſs and inflammation likewiſe begins to appear.

As the diſorder advances, the pain, heat of the urine, and running, increaſe, while freſh ſymptoms daily enſue. In men, the erections become painful and involuntary, and are more frequent and laſting than when natural. This ſymptom is moſt troubleſome when the patient is warm in bed. The pain, which was at firſt only perceived towards the extremity, now begins to reach all up the urinary paſſage, and is moſt intenſe juſt after the patient has done making water. The running gradually recedes from the colour of ſeed, grows yellow, and at length puts on the appearance of mucus.

When the diſorder has arrived at its height, all the ſymptoms are more intenſe; the heat of urine is ſo great, that the patient dreads the making water; and though he feels a conſtant inclination this way, yet it is rendered with the greateſt difficulty, and often only by drops: the involuntary erections now become extremely painful and frequent; there is alſo a pain, heat, and ſenſe of fulneſs about the ſeat, and the running is plentiful and ſharp, of a brown, greeniſh, and ſometimes of a bloody colour.

By a proper treatment, the violence of the ſymptoms gradually abates; the heat of urine goes off; the involuntary and painful erections, and the heat and pain about the ſeat, become eaſier; the running alſo gradually decreaſes, grows whiter and thicker, till at laſt it entirely diſappears.

By attending to theſe ſymptoms the gonorrhœa may be generally diſtinguiſhed from any other diſeaſe. There are however ſome few diſorders for which it may be miſtaken, as an ulcer in the kidneys or bladder, and the *fluor albus* or whites in women. But in the former of theſe the matter comes away only with the urine, or when the ſphincter of the bladder is open; whereas in a gonorrhœa the diſcharge is conſtant. The latter is more difficult to diſtinguiſh, and muſt be known chiefly from its effects, as pain, and its power to communicate the infection.

REGIMEN.——When a perſon has reaſon to ſuſpect that he has

caught the venereal infection, he ought moſt ſtrictly to obſerve a cooling regimen, to avoid every thing of a heating nature, as wines, ſpirituous liquors, rich ſauces, ſpices, ſalted, high-ſeaſoned and ſmoke-dried proviſions, &c. as alſo all aromatic and ſtimulating vegetables, as onions, garlic, ſhalot, nutmeg, muſtard, cinnamon, mace, ginger, and ſuch like. His food ought chiefly to conſiſt of mild vegetables, milk, broths, light puddings, panado, gruels, &c. His drink may be barley-water, milk and water, decoctions of marſh-mallows and liquorice, linſeed-tea, or clear whey. Of theſe he ought to drink plentifully. Violent exerciſe of all kinds, eſpecially riding on horſeback, and venereal pleaſures, are to be avoided. The patient muſt beware of cold, and when the inflammation is violent, he ought to keep his bed.

MEDICINE.——A virulent gonorrhœa cannot always be cured ſpeedily and effectually at the ſame time. It will often continue for two or three weeks, and ſometimes for five or ſix, even where the treatment has been very proper.

Sometimes a ſlight infection may be carried off in a few days by bathing the parts in warm milk and water, and injecting frequently up the urethra a little ſweet oil or linſeed-tea about the warmth of new milk. Should theſe not ſucceed in carrying off the infection, they will at leaſt have a tendency to leſſen its virulence.

To effect a cure, however, aſtringent injections will generally be found neceſſary. Theſe may be various ways prepared, but I think thoſe made with the white vitriol are both moſt ſafe and efficacious. They can be made ſtronger or weaker as circumſtances may require; but it is beſt to begin with the more gentle, and increaſe their power if neceſſary. I generally order a drachm of white vitriol to be diſſolved in eight or nine ounces of common or roſe water, and an ordinary ſyringe full of it to be thrown up three or four times a-day. If this quantity does not perform a cure, it may be repeated, and the doſe increaſed.

A gonorrhœa has actually been cured by an injection of green-tea.

Whether injections be uſed or not, cooling purges are always proper in the gonorrhœa. They ought not however to be of the ſtrong or draſtic kind. Whatever raiſes a violent commotion in the body increaſes the danger, and tends to drive the diſeaſe deeper into the habit. Procuring two or three ſtools every ſecond or third day for the firſt fortnight, and the ſame number every fourth or fifth day for the ſecond, will generally be ſufficient to remove the inflammatory ſymptoms, to diminiſh the running, and to change its colour and conſiſtence. It gradually becomes more white and ropy as the virulence abates.

If the patient can ſwallow a ſolution of *vitriolated magneſia* and manna, he may take ſix drachms, or, if his conſtitution requires it, an ounce of the former, with half an ounce of the latter. Theſe may be diſſolved in an Engliſh pint of boiling water, whey, or thin water-gruel, and taken early in the morning.

If an infuſion of ſenna and tamarinds be more agreeable, two

drachms of the former, and an ounce of the latter, may be infuſed all night in an Engliſh pint of boiling water. The infuſion may be ſtrained next morning, and half an ounce of Glauber's ſalts diſſolved in it. A tea-cupful of this infuſion may be taken every half hour till it operates. We have ordered the ſalts to be diſſolved in a large quantity of water, becauſe it renders their operation more mild.

Should the patient prefer an electuary, the following will anſwer very well. Take of the *electuary of ſenna* four ounces, cream of tartar two ounces, jalap in powder two drachms, rhubarb one drachm, and as much of the ſyrup of roſes as will ſerve to make the whole into a ſoft electuary. Two or three tea-ſpoonfuls of this may be taken over-night, and about the ſame quantity next morning, every day that the patient chooſes to take a purge.

The doſes of the above medicines may be increaſed or diminiſhed according as the patient finds it neceſſary.

When the inflammatory ſymptoms run high, bleeding is always neceſſary at the beginning. This operation, as in other topical inflammations, muſt be repeated according to the ſtrength and conſtitution of the patient, and the vehemence and urgency of the ſymptoms.

Medicines which promote the ſecretion of urine are likewiſe proper in this ſtage of the diſorder. For this purpoſe, an ounce of nitre and two ounces of gum-arabic pounded together, may be divided into twenty-four doſes, one of which may be taken frequently in a cup of the patient's drink. If theſe ſhould make him paſs his urine ſo often as to become troubleſome to him, he may either take them leſs frequently, or leave out the nitre altogether, and take equal parts of gum-arabic and cream of tartar. Theſe may be pounded together, and a tea-ſpoonful taken in a cup of the patient's drink four or five times a-day. I have generally found this anſwer extremely well both as a diuretic, and for keeping the body gently open.

When the pain and inflammation are ſeated high, towards the neck of the bladder, it will be proper frequently to throw up an emollient clyſter, which, beſides the benefit of procuring ſtools, will ſerve as a fomentation to the inflamed parts.

Soft poultices, when they can conveniently be applied to the parts, are of great ſervice. They may be made of the flour of linſeed, or of wheat bread and milk, ſoftened with freſh butter or ſweet oil. When poultices cannot be conveniently uſed, cloths wrung out of warm water, or bladders filled with warm milk and water, may be applied. I have often known the moſt excruciating pains, during the inflammatory ſtate of the gonorrhœa, relieved by one or other of theſe applications.

Few things tend more to keep off inflammation in the ſpermatic veſſels than a proper truſs for the ſcrotum. It ought to be ſo contrived as to ſupport the teſticles, and ſhould be worn from the firſt appearance of the diſeaſe till it has ceaſed ſome weeks.

The above treatment will ſometimes remove the gonorrhœa ſo quickly, that the perſon will be in doubt whether he really laboured under

that diſeaſe. This, however, is too favourable a turn to be often expected. It more frequently happens, that we are able only to procure an abatement or remiſſion of the inflammatory ſymptoms, ſo far as to make it ſafe to have recourſe to the great antidote, *mercury*; yet mercury is often not at all neceſſary in a gonorrhœa; and when taken too early, it may do miſchief.

When bleeding, purging, fomentations, and the other things recommended as above, have eaſed the pain, ſoftened the pulſe, relieved the heat of urine, and rendered the involuntary erections leſs frequent, the patient may begin to uſe mercury in any form that is leaſt diſagreeable to him.

If he take the common *quickſilver pill*, two at night and one in the morning will be a ſufficient doſe at firſt. Should they affect the mouth too much, the doſe muſt be leſſened; if not at all, it may be gradually increaſed to five or ſix pills in the day. If calomel be thought preferable, two or three grains of it, formed into a bolus with a little of the conſerve of hips, may be taken at bed-time, and the doſe gradually increaſed to eight or ten grains. One of the moſt common preparations of mercury now in uſe is the *muriated quickſilver*. This may be taken in the manner afterwards recommended under the confirmed lues or pox. I have always found it one of the moſt ſafe and efficacious medicines when properly uſed.

The above medicines may either be taken every day or every other day, as the patient is able to bear them. They ought never to be taken in ſuch quantity as to raiſe a ſalivation, unleſs in a very ſlight degree. The diſeaſe may be more ſafely, and as certainly, cured without a ſalivation as with it. When the mercury runs off by the mouth, it is not ſo ſucceſsful in carrying off the diſeaſe, as when it continues longer in the body, and is diſcharged gradually.

Should the patient be purged or griped in the night by the mercury, he muſt take an infuſion of ſenna, or ſome other purgative, and drink freely of water-gruel, to prevent bloody ſtools, which are very apt to happen ſhould the patient catch cold, or if the mercury has not been duly prepared. When the bowels are weak and the mercury is apt to gripe or purge, theſe diſagreeable conſequences may be prevented by taking with the above pills or bolus half a drachm or two ſcruples of the *ſyrup of white poppies*, or the *confection of catechu*.

To prevent the diſagreeable circumſtance of the mercury's affecting the mouth too much, or bringing on a ſalivation, it may be combined with purgatives. With this view the laxative *quickſilver pill* has been contrived, the uſual doſe of which is half a drachm, or three pills, night and morning, to be repeated every other day; but the ſafer way is for the patient to begin with two, or even with one pill, gradually increaſing the doſe.

To ſuch perſons as can neither ſwallow a bolus nor a pill, mercury may be given in a liquid form, as it can be ſuſpended even in a watery vehicle, by means of gum-arabic; which not only ſerves this purpoſe, but likewiſe prevents the mercury from affecting the mouth, and renders it in many reſpects a better medicine.

Take quickſilver one drachm, gum-arabic reduced to a mucilage

two drachms; let the quickſilver be rubbed with the mucilage, in a marble mortar, until the globules of mercury entirely diſappear; afterwards add gradually, ſtill continuing the trituration, half an ounce of balſamic ſyrup, and eight ounces of ſimple cinnamon-water. Two table-ſpoonfuls of this ſolution may be taken night and morning. Some reckon this the beſt form in which quickſilver can be exhibited for the cure of a gonorrhœa.

It happens very fortunately for thoſe who cannot be brought to take the preparations of quickſilver inwardly, and likewiſe for perſons whoſe bowels are too tender to bear it, that an external application of it will anſwer equally well, and in ſome reſpects better. It muſt be acknowledged, that mercury, taken inwardly for any length of time, greatly weakens and diſorders the bowels; for which reaſon, when a plentiful uſe of it becomes neceſſary, we would prefer rubbing to the mercurial pills. The common quickſilver or blue ointment will anſwer very well. Of that which is made by rubbing together equal quantities of hog's lard and quickſilver, about a drachm may be uſed at a time. The beſt time for rubbing it on is at night, and the moſt proper place the inner ſide of the thighs. The patient ſhould ſtand before the fire when he rubs, and ſhould wear flannel drawers next his ſkin at the time he is uſing the ointment. If ointment of a weaker or ſtronger kind be uſed, the quantity muſt be increaſed or diminiſhed in proportion.

If, during the uſe of the ointment, the inflammation of the genital parts, together with the heat and feveriſhneſs, ſhould return, or if the mouth ſhould grow ſore, the gums tender, and the breath become offenſive, a doſe or two of *vitriolated natron*, or ſome other cooling purge, may be taken, and the rubbing intermitted for a few days. As ſoon, however, as the ſigns of ſpitting are gone off, if the virulency be not quite corrected, the ointment muſt be repeated, but in ſmaller quantities, and at longer intervals than before. Whatever way mercury is adminiſtered, its uſe may be perſiſted in as long as any virulency is ſuſpected to remain.

During this, which may be called the ſecond ſtage of the diſorder, though ſo ſtrict a regimen is not neceſſary as in the firſt or inflammatory ſtate, yet intemperance of every kind muſt be avoided. The food muſt be light, plain, and of eaſy digeſtion; and the greateſt indulgence that may be allowed with reſpect to drink is, a little wine diluted with a ſufficient quantity of water. Spirituous liquors are to be avoided in every ſhape. I have often known the inflammatory ſymptoms renewed and heightened, the running increaſed, and the cure rendered extremely difficult and tedious, by one fit of exceſſive drinking.

When the above treatment has removed the heat of urine, and foreneſs of the genital parts; when the quantity of running is conſiderably leſſened, without any pain or ſwelling in the groin or teſticle ſupervening; when the patient is free from involuntary erections; and, laſtly, when the running becomes pale, whitiſh, thick, void of ill ſmell, and tenaceous or ropy; when all or moſt of theſe

ſymptoms appear, the gonorrhœa is arrived at its laſt ſtage, and we may gradually proceed to treat it as a gleet with aſtringent and agglutinating medicines.

OF GLEETS.

A GONORRHŒA frequently repeated, or improperly treated, often ends in a gleet, which may either proceed from a relaxation, or from ſome remains of the diſeaſe. It is however of the greateſt importance in the cure of the gleet to know from which of theſe cauſes it proceeds. When the diſcharge proves very obſtinate, and receives little or no check from aſtringent remedies, there is ground to ſuſpect that it is owing to the latter; but if the drain is inconſtant, and is chiefly obſervable when the patient is ſtimulated by laſcivious ideas, or upon ſtraining to go to ſtool, we may reaſonably conclude that it is chiefly owing to relaxation.

In the cure of a gleet proceeding from relaxation, the principal deſign is to brace and reſtore a proper degree of tenſion to the debilitated and relaxed veſſels. For this purpoſe, beſides the medicines recommended in the gonorrhœa, the patient may have recourſe to ſtronger and more powerful aſtringents, as the Peruvian bark, alum, vitriol, galls, tormentil, biſtort, balduſtines, tincture of gum-kino, &c. The injections may be rendered more aſtringent by the addition of a few grains of alum, or increaſing the quantity of vitriol as far as the parts are able to bear it.

Cinchona may be combined with other aſtringents, and prepared in the following manner: Take of Peruvian bark bruiſed ſix drachms, of freſh galls bruiſed two drachms; boil them in a pound and a half of water to a pound: to the ſtrained liquor add three ounces of the ſimple tincture of the bark. A ſmall tea-cupful of this may be taken three times a-day, adding to each cup fifteen or twenty drops of the acid elixir of vitriol.

The laſt remedy which we ſhall mention in this caſe is the cold bath, than which there is not perhaps a more powerful bracer in the whole compaſs of medicine. It ought never to be omitted in this ſpecies of gleet, unleſs there be ſomething in the conſtitution of the patient which renders the uſe of it unſafe. The chief objections to the uſe of the cold bath are a full habit, and an unſound ſtate of the viſcera. The danger from the former may always be leſſened, if not removed, by purging and bleeding; but the latter is an inſurmountable obſtacle, as the preſſure of the water, and the ſudden contraction of the external veſſels, by throwing the blood with too much force upon the internal parts, are apt to occaſion ruptures of the veſſels, or a flux of humours upon the diſeaſed organs. But where no objection of this kind prevails, the patient ought to plunge over head in water every morning faſting, for three or four weeks together. He ſhould not however ſtay long in the water, and ſhould take care to have his ſkin dried as ſoon as he comes out.

The regimen proper in this caſe is the ſame as was mentioned in the laſt ſtage of the gonorrhœa: the diet muſt be drying and aſtringent, and the drink Spa, Pyrmont, or Briſtol waters, with which a little

claret or red wine may ſometimes be mixed. Any perſon may now afford to drink theſe waters, as they can be every where prepared at almoſt no expence, by a mixture of common chalk and oil of vitriol.

When the gleet does not in the ſmalleſt degree yield to theſe medicines, there is reaſon to ſuſpect that it proceeds from ulcers. In this caſe recourſe muſt be had to mercury, and ſuch medicines as tend to correct any predominant acrimony with which the juices may be affected, as the decoction of China, ſarſaparilla, ſaſſafras, or the like.

Mr. Fordyce ſays, he has ſeen many obſtinate gleets, of two, three, or four years ſtanding, effectually cured by a mercurial inunction, when almoſt every other medicine has been tried in vain. Dr. Chapman ſeems to be of the ſame opinion; but ſays, he has always found the mercury ſucceed beſt in this caſe when joined with terebinthinate and other agglutinating medicines. For which reaſon the Doctor recommends pills made of calomel and Venice turpentine, and deſires that their uſe may be accompanied with a decoction of guaiacum or ſarſaparilla.

Take Venice turpentine, boiled to a ſufficient degree of hardneſs, half an ounce, calomel half a drachm. Let theſe be mixed and formed into ſixty pills, of which five or ſix may be taken night and morning. If, during the uſe of theſe pills, the mouth ſhould grow ſore, or the breath become offenſive, they muſt be diſcontinued till theſe ſymptoms diſappear.

The laſt kind of remedy which we ſhall mention for the cure of ulcers in the urinary paſſage, are the ſuppurating candles or bougies: as theſe are prepared various ways, and are generally to be bought ready made, it is needleſs to ſpend time in enumerating the different ingredients of which they are compoſed, or teaching the manner of preparing them. Before a bougie be introduced into the urethra, however, it ſhould be ſmeared all over with ſweet oil, to prevent it from ſtimulating too ſuddenly: it may be ſuffered to continue in from one to ſeven or eight hours, according as the patient can bear it. Obſtinate ulcers are not only often healed, but tumors and excreſcences in the urinary paſſages taken away, and an obſtruction of urine removed by means of bougies. Obſtinate gleets may be removed by the uſe of bougies.

OF THE SWELLED TESTICLE.

The ſwelled teſticle may either proceed from infection lately contracted, or from the venereal poiſon lurking in the body; the latter indeed is not very common, but the former frequently happens both in the firſt and ſecond ſtages of a gonorrhœa, particularly when the running is unſeaſonably checked by cold, hard drinking, ſtrong draſtic purges, violent exerciſe, the too early uſe of aſtringent medicines, or the like.

In the inflammatory ſtage bleeding is neceſſary, which muſt be repeated according to the urgency of the ſymptoms: leeches are often applied to inflamed teſticles with happy effects. Scarifications in

ſome caſes are preferred to leeches, as the relief afforded by the latter is often tranſitory. The food muſt be light, and the drink diluting. High-ſeaſoned food, fleſh, wines, and every thing of a heating nature, are to be avoided. Fomentations are of ſingular ſervice. Poultices of bread and milk, ſoftened with freſh butter or oil; cataplaſms formed of hog's lard and leeks cut ſmall, of each ſix ounces, ſimmered over a ſlow fire, ſtrained, and applied, are likewiſe very proper, and ought conſtantly to be applied when the patient is in bed: when he is up, the teſticles ſhould be kept warm, and ſupported by a bag or truſs, which may eaſily be contrived in ſuch a manner as to prevent the weight of the teſticle from having any effect.

If it ſhould be found impracticable to clear the teſticle by the cooling regimen now pointed out, and extended according to circumſtances, it will be neceſſary to lead the patient through ſuch a complete antivenereal courſe as ſhall enſure him againſt any future uneaſineſs. For this purpoſe, beſides rubbing the mercurial ointment on the thighs as directed in the gonorrhœa, the patient muſt be confined to bed, if neceſſary, for five or ſix weeks, ſuſpending the teſticle, all the while, with a bag or truſs, and plying him inwardly with ſtrong decoctions of ſarſaparilla.

When theſe means do not ſucceed, and there is reaſon to ſuſpect a ſcrophulous or cancerous habit, either of which may ſupport a ſchirrous induration, after the venereal poiſon is corrected, the parts ſhould be fomented daily with a decoction of hemlock, the bruiſed leaves of which may likewiſe be added to the poultice, and the extract (made into pills, and taken in the manner directed under the article Cancer) at the ſame time taken inwardly. This practice is ſtrongly recommended by Dr. Storck in ſchirrous and cancerous caſes; and Mr. Fordyce aſſures us, that by this method he has cured diſeaſed teſticles of two or three years ſtanding, even when ulcerated, and when the ſchirrus had begun to be affected with pricking and lancinating pains.

Hernia humoralis, or ſwelled teſticle ariſing from a ſuppreſſed gonorrhœa, generally diſappears when a bubo ariſes in the groin, and proceeds to ſuppuration.

OF BUBOES.

Venereal buboes are hard tumors ſeated in the groin occaſioned by the venereal poiſon lodged in this part. They are of two kinds; viz. ſuch as proceed from a recent infection, and ſuch as accompany a confirmed lues.

The cure of recent buboes, that is, ſuch as appear ſoon after impure coition, may be firſt attempted by *diſperſion*, and, if that ſhould not ſucceed, by *ſuppuration*. To promote the diſperſion of a bubo, the ſame regimen muſt be obſerved as was directed in the firſt ſtage of a gonorrhœa. The patient muſt likewiſe be bled, and take ſome cooling purges, as the decoction of tamarinds and ſenna, Glauber's ſalts, and the like. If by this courſe the ſwelling and other inflammatory ſymptoms abate, we may ſafely proceed to the uſe of mercury, which muſt be continued till the venereal virus is quite ſubdued. For the

diſperſion of a venereal tumor or a bubo, leeches applied to the part affected will be found equally efficacious as in the inflamed teſticle, and the part may be frequently fomented with a decoction of hemlock leaves, which may alſo be applied as a diſcutient cataplaſm, and is deſcribed in the Appendix.

But if the bubo ſhould from the beginning be attended with great heat, pain, and pulſation, it will be proper to promote its ſuppuration. For this purpoſe the patient may be allowed to uſe his ordinary diet, and to take now and then a glaſs of wine. Emollient cataplaſms, conſiſting of bread and milk ſoftened with oil or freſh butter, may be applied to the part; and, in cold conſtitutions, where the tumor advances ſlowly, white lily-roots boiled, or ſliced onions raw, and a ſufficient quantity of *ointment of yellow wax* (yellow baſilicon), may be added to the poultice.

When the tumor is ripe, which may be known by its conical figure, the ſoftneſs of the ſkin, and a fluctuation of matter plainly to be felt under the finger, it may be opened either by a cauſtic or a lancet, and afterwards dreſſed with digeſtive ointment.

It ſometimes however happens, that buboes can neither be diſperſed nor brought to a ſuppuration, but remain hard indolent tumors. In this caſe the indurated glands muſt be conſumed by cauſtic: if they ſhould become ſchirrous, they muſt be diſſolved by the application of hemlock, both externally and internally, as directed in the ſchirrous teſticle.

OF CHANCRES.

Chancres are ſuperficial, callous, eating ulcers; which may happen either with or without a gonorrhœa. They are commonly ſeated about the glans, and make their appearance in the following manner: Firſt a little red pimple ariſes, which ſoon becomes pointed at top, and is filled with a whitiſh matter inclining to yellow. This pimple is hot, and itches generally before it breaks: afterwards it degenerates into an obſtinate ulcer, the bottom of which is uſually covered with a viſcid mucus, and whoſe edges gradually become hard and callous. Sometimes the firſt appearance reſembles a ſimple excoriation of the cuticle; which, however, if the cauſe be venereal, ſoon becomes a true chancre.

A chancre is ſometimes a primary affection, but it is much oftener ſymptomatic, and is the mark of a confirmed lues. Primary chancres diſcover themſelves ſoon after impure coition, and are generally ſeated in parts covered with a thin cuticle, as the lips, the nipples of women, the *glans penis* of men, &c.

When venereal ulcers are ſeated in the lips, the infection may be communicated by kiſſing. I have ſeen very obſtinate venereal ulcers in the lips, which I have all the reaſon in the world to believe were communicated in this manner.

Nurſes ought to beware of ſuckling infected children, or having their breaſts drawn by perſons tainted with the venereal diſeaſe. This caution is peculiarly neceſſary for nurſes who reſide in the neighbourhood of great towns.

When a chancre appears ſoon after impure coition, its treatment is nearly ſimilar to that of the virulent gonorrhœa. The patient muſt obſerve the cooling regimen, loſe a little blood, and take ſome gentle doſes of ſalts and manna. The parts affected ought frequently to be bathed or rather ſoaked in warm milk and water, and, if the inflammation be great, an emollient poultice or cataplaſm may be applied to them. This courſe will in moſt caſes be ſufficient to abate the inflammation, and prepare the patient for the uſe of mercury.

Symptomatic chancres are commonly accompanied with ulcers in the throat, nocturnal pains, ſcurvy eruptions about the roots of the hair, and other ſymptems of a confirmed lues. Though they may be ſeated in any of the parts mentioned above, they commonly appear upon the private parts, or the inſide of the thigh. They are alſo leſs painful, but frequently much larger and harder than primary chancres. As their cure muſt depend upon that of the pox, of which they are only a ſymptom, we ſhall take no further notice of them, till we come to treat of a confirmed lues. Chancres ſhould be frequently waſhed with milk and water a little warm; once or twice a-day, a little calomel may be ſprinkled upon them, or the patient may apply the *cerate of calomel*, inſerted in the Appendix.

Thus we have related moſt of the ſymptoms which accompany or ſucceed a violent gonorrhœa, and have alſo given a ſhort view of their proper treatment; there are, however, ſeveral others which ſometimes attend this diſeaſe, as a *ſtrangury* or obſtruction of urine, a *phymoſis*, *paraphymoſis*, &c.

A ſtrangury may be occaſioned either by a ſpaſmodic conſtriction, or an inflammation of the urethra and parts about the neck of the bladder. In the former caſe, the patient begins to void his urine with tolerable eaſe; but, as ſoon as it touches the galled or inflamed urethra, a ſudden conſtriction takes place, and the urine is voided by ſpurts, ſometimes by drops only. When the ſtrangury is owing to an inflammation about the neck of the bladder, there is a conſtant heat and uneaſineſs of the part, a perpetual deſire to make water, while the patient can only render a few drops, and a troubleſome *teneſmus*, or conſtant inclination to go to ſtool.

When the ſtrangury is owing to ſpaſm, ſuch medicines as tend to dilute and blunt the ſalts of the urine will be proper. For this purpoſe, beſides the common diluting liquors, ſoft and cooling emulſions, ſweetened with the ſyrup of poppies, may be uſed. Should theſe not have the deſired effect, bleeding and emollient fomentations will be neceſſary.

When the complaint is evidently owing to an inflammation about the neck of the bladder, bleeding muſt be more liberally performed, and repeated according to the urgency of the ſymptoms. After bleeding, if the ſtrangury ſtill continues, ſoft clyſters, with a proper quantity of laudanum in them, may be adminiſtered, and emollient fomentations applied to the region of the bladder. At the ſame time, the patient may take every four hours a tea-cupful of barley-water, to an Engliſh pint of which ſix ounces of the ſyrup of marſh-mallows, four ounces of the oil of ſweet almonds, and half an ounce of nitre,

may be added. If theſe remedies ſhould not relieve the complaint, and a total ſuppreſſion of urine ſhould come on, bleeding muſt be repeated, and the patient ſet in a warm bath up to the middle. It will be proper in this caſe to diſcontinue the diuretics, and to draw off the water with a catheter; but as the patient is ſeldom able to bear its being introduced, we would rather recommend the uſe of mild bougies. Theſe often lubricate the paſſage, and greatly facilitate the diſcharge of urine. Whenever they begin to ſtimulate or give any uneaſineſs, they may be withdrawn.

The *phymoſis* is ſuch a conſtriction of the prepuce over the glans as hinders it from being drawn backwards; the *paraphymoſis*, on the contrary, is ſuch a conſtriction of the prepuce behind the glans as hinders it from being brought forward.

The treatment of theſe ſymptoms is ſo nearly the ſame with that of the virulent gonorrhœa, that we have no occaſion to enlarge upon it. In general, bleeding, purging, poultices, and emollient fomentations, are ſufficient. Should theſe however fail of removing the ſtricture, and the parts be threatened with a mortification, twenty or thirty grains of ipecacuanha, and one grain of emetic tartar, may be given for a vomit, and may be worked off with warm water or thin gruel.

It ſometimes happens, that, in ſpite of all endeavours to the contrary, the inflammation goes on, and ſymptoms of a beginning mortification appear. When this is the caſe, the prepuce muſt be ſcarified with a lancet, and, if neceſſary, divided, in order to prevent a ſtrangulation, and ſet the impriſoned glans at liberty. We ſhall not deſcribe the manner of performing this operation, as it ought always to be done by a ſkilful ſurgeon. When a mortification has actually taken place, it will be neceſſary, beſides performing the above operations, to foment the parts frequently with cloths wrung out of a ſtrong decoction of camomile flowers and Peruvian bark, and to give the patient a drachm of the bark in powder every two or three hours.

With regard to the *priapiſm*, *chordee*, and other diſtortions of the *penis*, their treatment is no way different from that of the gonorrhœa. When they prove very troubleſome, the patient may take a few drops of laudanum at night, eſpecially after the operation of a purgative through the day.

OF A CONFIRMED LUES.

We have hitherto treated of thoſe affections in which the venereal poiſon is ſuppoſed to be confined chiefly to the particular part by which it was received, and ſhall next take a view of the lues in its confirmed ſtate; that is, when the poiſon is actually received into the blood, and, circulating with it through every part of the body, mixes with the ſeveral ſecretions, and renders the whole habit tainted.

The ſymptoms of a confirmed lues are, buboes in the groin; pains of the head and joints, which are peculiarly troubleſome in the night, or when the patient is warm in bed; ſcabs and ſcurfs in various parts of the body, eſpecially on the head, of a yellowiſh colour, re-

ſembling a honeycomb; corroding ulcers in various parts of the body, which generally begin about the throat, from whence they creep gradually, by the palate, towards the cartilage of the noſe, which they deſtroy; excreſcences or exoſtoſes ariſe in the middle of the bones, and their ſpongy ends become brittle, and break upon the leaſt accident; at other times they are ſoft, and bend like wax; the conglobate glands become hard and callous, and form in the neck, arm-pits, groin, and meſentery, hard moveable tumors, like the king's evil; tumors of different kinds are likewiſe formed in the lymphatic veſſels, tendons, ligaments, and nerves, as the *gummata*, *ganglia*, *nodes*, *tophs*, &c.; the eyes are affected with itching, pain, redneſs, and ſometimes with total blindneſs, and the ears with a ſinging noiſe, pain, and deafneſs, whilſt their internal ſubſtance is exulcerated and rendered carious: at length all the animal, vital, and natural functions are depraved; the face becomes pale and livid; the body emaciated and unfit for motion, and the miſerable patient falls into an atrophy or waſting conſumption.

Women have ſymptoms peculiar to the ſex; as cancers of the breaſt; a ſuppreſſion or overflowing of the menſes; the whites; hyſteric affections; an inflammation, abſceſs, ſchirrus, gangrene, cancer, or ulcer of the womb; they are generally either barren or ſubject to abortion; or, if they bring children into the world, they have an univerſal eryſipelas, are half rotten, and covered with ulcers.

Such is the catalogue of ſymptoms attending this dreadful diſeaſe in its confirmed ſtate. Indeed, they are ſeldom all to be met with in the ſame perſon, or at the ſame time: ſo many of them, however, are generally preſent as are ſufficient to alarm the patient; and if he has reaſon to ſuſpect the infection is lurking in his body, he ought immediately to ſet about the expulſion of it, otherwiſe the moſt tragical conſequences will enſue.

The only certain remedy hitherto known in Europe for the cure of this diſeaſe is mercury, which may be uſed in a great variety of forms, with nearly the ſame ſucceſs. The preparations which were chiefly uſed by the late Dr. Buchan in the confirmed *lues* were calomel and calcined mercury; the latter was very often preſcribed by that celebrated ſurgeon, the late John Hunter. Some time ago it was reckoned impoſſible to cure a confirmed lues without a ſalivation. This method is now however pretty generally laid aſide, and mercury is found to be as efficacious, or rather more ſo, in expelling the venereal poiſon, when adminiſtered in ſuch a manner as not to run off by the ſalivary glands.

Though many are of opinion, that the mercurial ointment is as efficacious as any other preparation of that mineral, yet experience has taught me to think otherwiſe. I have often ſeen the moſt obſtinate venereal caſes, where great quantities of mercurial ointment had been uſed in vain, yield to the ſaline preparations of mercury. Nor am I ſingular in this opinion. Mr. Clare, an eminent ſurgeon of this city, aſſures me, that for ſome time paſt he has employed, in venereal caſes, a ſaline preparation of mercury with moſt happy ſuc-

ceſs. This preparation, rubbed with a ſufficient quantity of any mild powder, he applies, in ſmall portions, to the tongue, where, with a gentle degree of friction, it is immediately abſorbed, and produces its full effect upon the ſyſtem, without doing the leaſt injury to the ſtomach or bowels; a matter of the greateſt importance in the application of this moſt active and powerful remedy.

It is impoſſible to aſcertain either the exact quantity of medicines that muſt be taken, or the time they ought to be continued, in order to perform a cure. Theſe will ever vary according to the conſtitution of the patient, the ſeaſon of the year, the degree of infection, the time it has lodged in the body, &c. But though it is difficult, as Aſtruc obſerves, to determine *à priori* what quantity of mercury will, in the whole, be neceſſary to cure this diſtemper completely; yet it may be judged of *à poſteriori*, from the abatement and ceaſing of the ſymptoms. The ſame author adds, that commonly not leſs than two ounces of the ſtrong mercurial ointment is ſufficient, and not more than three or four ounces neceſſary.

The only chemical preparation of quickſilver we ſhall take notice of, is, the corroſive ſublimate, i. e. *muriated quickſilver*. This was ſome time ago brought into uſe for the venereal diſeaſe, in Germany, by the illuſtrious Baron Van Swieten; and was ſoon after introduced into Britain by the learned Sir John Pringle, at that time phyſician to the army. The method of giving it is as follows: One grain of *muriated quickſilver* is diſſolved in two ounces of French brandy or malt ſpirits; and of this ſolution, an ordinary table-ſpoonful, or the quantity of half an ounce, is to be taken twice a-day, and to be continued as long as any ſymptoms of the diſorder remain. To thoſe whoſe ſtomach cannot bear the ſolution, this preparation of quickſilver may be given in form of pill.

It may be given in diſtilled water, or any other liquid that the patient chooſes. I commonly order ten grains to be diſſolved in an ounce of the ſpirit of wine, for the conveniency of carriage, and let the patient take twenty or thirty drops of it night and morning in half a glaſs of brandy or other ſpirits. Mr. Debra, an ingenious chemiſt of this place, informs me, that he prepares a ſalt of mercury much more mild and gentle in its operation than the ſublimate, though equally efficacious.

Several roots, woods, and barks, have been recommended for curing the venereal diſeaſe; but none of them have been found, upon experience, to anſwer the high encomiums which had been beſtowed upon them. Though no one of theſe is to be depended upon alone, yet, when joined with mercury, ſome of them are found to be very beneficial in promoting a cure. One of the beſt we know yet is ſarſaparilla, which may be prepared and taken according to the directions in the Appendix.

The mezereon-root is likewiſe found to be a powerful aſſiſtant to the ſublimate, or any other mercurial. It may either be uſed along with the ſarſaparilla, as directed in the Appendix, or by itſelf. Thoſe who chooſe to uſe the mezereon by itſelf, may boil an ounce of the freſh bark, taken from the root, in twelve Engliſh pints of water to

eight, adding towards the end an ounce of liquorice. The doſe of this is the ſame as of the decoction of ſarſaparilla.

The lobelia and many other roots and woods might be mentioned which have been extolled for curing the venereal diſeaſe, as the china-root, the roots of ſoap wort, burdock, &c. as alſo the wood of guaiacum and ſaſſafras; but as none of theſe have been found to poſſeſs virtues ſuperior to thoſe already mentioned, we ſhall, for the ſake of brevity, paſs them over, and ſhall conclude our obſervations on this diſeaſe with a few general remarks concerning the proper management of the patient, and the nature of the infection.

GENERAL OBSERVATIONS.

The condition of the patient ought always to be conſidered previous to his entering upon a courſe of mercury in any form. It would be equally raſh and dangerous to adminiſter mercury to a perſon labouring under any violent acute diſeaſe, as a putrid fever, pleuriſy, peripneumony, or the like. It would likewiſe be dangerous in ſome chronic caſes; as a ſlow hectic fever, or the laſt ſtage of a conſumption. Sometimes, however, theſe diſeaſes proceed from a confirmed lues; in which caſe it will be neceſſary to give mercury. In chronic diſeaſes of a leſs dangerous nature, as the aſthma, the gravel, and ſuch like, mercury, if neceſſary, may be ſafely adminiſtered. If the patient's ſtrength has been greatly exhauſted by ſickneſs, labour, abſtinence, or any other cauſe, the uſe of mercury muſt be poſtponed, till by time, reſt, and a nouriſhing diet, it can be ſufficiently reſtored.

The preparations of quickſilver ought not to be adminiſtered to women during the menſtrual flux, or when the period is near at hand. Neither ſhould it be given in the laſt ſtage of pregnancy. If, however, the woman be not near the time of her delivery, and circumſtances render it neceſſary, mercury may be given, but in ſmaller doſes and at greater intervals than uſual: with theſe precautions, both the mother and child may be cured at the ſame time; if not, the diſorder will at leaſt be kept from growing worſe, till the woman be brought to bed, and ſufficiently recovered, when a more effectual method may be purſued, which, if ſhe ſuckles her child, will in all probability be ſufficient for the cure of both.

Mercury ought always to be adminiſtered to infants with the greateſt caution. Their tender condition unfits them for ſupporting a ſalivation, and makes it neceſſary to adminiſter even the mildeſt preparations of mercury to them with a ſparing hand. A ſimilar conduct is recommended in the treatment of old perſons, who have the misfortune to labour under a confirmed lues. No doubt the infirmities of age muſt render people leſs able to undergo the fatigues of a ſalivation; but this, as was formerly obſerved, is never neceſſary; beſides, we have generally found that mercury had much leſs effect upon very old perſons than on thoſe who were younger.

Hyſteric and hypochondriac perſons, and ſuch as are ſubject to an habitual diarrhœa or dyſentery, or to frequent and violent attacks of epilepſy, or who are afflicted with the ſcrophula or the ſcurvy,

ought to be cautious in the uſe of mercury. Where any one of theſe diſorders prevails, it ought either, if poſſible, to be cured, or at leaſt palliated, before the patient enters upon a courſe of mercury. When this cannot be done, the mercury muſt be adminiſtered in ſmaller doſes, and at longer intervals than uſual.

The moſt proper ſeaſons for entering upon a courſe of mercury are the ſpring and autumn, when the air is of a moderate warmth. If the circumſtances of the caſe, however, will not admit of delay, we muſt not defer the cure on account of the ſeaſon, but muſt adminiſter the mercury; taking care at the ſame time to keep the patient's chamber warmer or cooler, according as the ſeaſon of the year requires.

Loſs of teeth is no uncommon conſequence of the large uſe of the preparations of quickſilver: this ariſes from the ſeparation of the gums from the teeth; from abſorption of the alveolar proceſſes, and perhaps alſo from the thickening of the membrane lining the ſocket. On examining theſe parts in perſons who have died while under a mercurial courſe, Mr. Fox (in his Hiſtory and Treatment of Diſeaſes of the Teeth) ſays, he found the alveoli much leſs denſe, and of a more porous texture, than the bone in its natural or ſound ſtate.

We have already recommended bleeding and gentle purges previous to the adminiſtration of mercury, and ſhall only now add, that theſe are always to be repeated according to the age, ſtrength, conſtitution, and other circumſtances of the patient. Afterwards, if it can be conveniently done, the patient ought to bathe once or twice a-day, for a few days, in lukewarm water. His diet in the mean time muſt be light, moiſt, and cooling. Wine, and all heating liquors, alſo violent bodily exerciſe, and all great exertions of the mind, are carefully to be avoided.

A proper regimen is likewiſe to be obſerved by ſuch as are under a courſe of mercury. Inattention to this not only endangers the patient's life, but often alſo diſappoints him of a cure. A much ſmaller quantity of mercury will be ſufficient for the cure of a perſon who lives low, keeps warm, and avoids all manner of exceſs, than of one who cannot endure to put the ſmalleſt reſtraint upon his appetites: indeed it but rarely happens that ſuch are thoroughly cured.

There is hardly any thing of more importance, either for preventing or removing venereal infection, than cleanlineſs. By an early attention to this, the infection might often be prevented from entering the body; and, where it has already taken place, its effects may be greatly mitigated. The moment any perſon has reaſon to ſuſpect that he has received the infection, he ought to waſh the parts with water and ſpirits, ſweet oil, or milk and water; a ſmall quantity of the laſt may likewiſe be injected up the urethra, if it can be conveniently done. Whether this diſeaſe at firſt took its riſe from dirtineſs is hard to ſay; but wherever that prevails, the infection is found in its greateſt degree of virulence, which gives ground to believe that a ſtrict attention to cleanlineſs would go far towards extirpating it altogether.

I have not only often ſeen a recent infection carried off in a few

days by means of cleanlineſs, viz. bathing, fomentations, injections, &c. but have likewiſe found it of the greateſt advantage in the more advanced ſtages of the diſeaſe. Of this I had lately a very remarkable inſtance, in a man whoſe penis was almoſt wholly conſumed by venereal ulcers: the matter had been allowed to continue on the ſores, without any care having been taken to clean them, till, notwithſtanding the uſe of mercury and other medicines, it had produced the effects above mentioned. I ordered warm milk and water to be injected three or four times a-day into all the ſinuous ulcers, in order to waſh out the matter; after which they were ſtuffed with dry lint, to abſorb the freſh matter as it was generated. The patient at the ſame time took every day half a grain of *muriated quickſilver*, diſſolved in an ounce of brandy, and drank an Engliſh quart of the decoction of ſarſaparilla. By this treatment, in about ſix weeks, he was perfectly cured; and, what was very remarkable, a part of the penis was actually regenerated.

Doctor Gilchriſt has given an account of a ſpecies of the *lues venerea* which prevails in the weſt of Scotland, to which the natives give the name of *Sibbins* or *Sivvens*. The Doctor obſerves, that the ſpreading of this diſeaſe is chiefly owing to the neglect of cleanlineſs, and ſeems to think that, by due attention to that *virtue*, it might be extirpated. The treatment of this diſeaſe is ſimilar to that of a confirmed lues or pox. The *yaws*, a diſeaſe which is now very common both in America and the Weſt India iſlands, may alſo be cured in the ſame manner.

When the venereal diſeaſe has been neglected, or improperly treated, it often becomes a diſorder of the habit. In this caſe the cure muſt be attempted by reſtoratives, as a milk diet, the decoction of ſarſaparilla, and ſuch like, to which mercury may be occaſionally added. It is a common practice in North Britain to ſend ſuch patients to drink goat-whey. This is a very proper plan, provided the infection has been totally eradicated beforehand; but when that is not the caſe, and the patient truſts to the whey for finiſhing his cure, he will often be diſappointed. I have frequently known the diſeaſe return with all its virulence after a courſe of goat-whey, even when that courſe had been thought quite ſufficient for completing the cure.

Tar-water, made with two pounds of tar to four pints of water, and given in the quantity of one to three pints in twenty-four hours, has been taken, and has alſo been employed externally, with great advantage, in inveterate venereal affections, pains in the bones, caries, exoſtoſes, &c.; therefore tar-water merits the greateſt attention in the cure of ſyphilitic diſorders, being in all caſes an excellent auxiliary to the preparations of quickſilver, eſpecially in inveterate ſtates of the diſeaſe.

One of the moſt unfortunate circumſtances attending patients in this diſeaſe, is the neceſſity they are often laid under of hurrying the cure. This induces them to take medicine too faſt, and to leave it off too ſoon. To avoid this, we would adviſe, that the patient ſhould never leave off taking medicine immediately upon the diſappearing of the ſymptoms, but continue it for ſome time after, gra-

dually leſſening the quantity, till there is ſufficient ground to believe that the diſeaſe is entirely eradicated.

It is not only difficult, but abſolutely impoſſible, to aſcertain the exact degree of virulence that may attend the diſeaſe; for which reaſon it will always be a much ſafer rule to continue the uſe of medicine too long, than to leave it off too ſoon.

It is peculiarly unfortunate for the cure of this diſeaſe, that not one in ten of thoſe who contract it are either able or willing to ſubmit to a proper plan of regimen. The patient is willing to take medicine; but he muſt follow his buſineſs, and, to prevent ſuſpicions, he muſt eat and drink like the reſt of the family. This is the true ſource of nine-tenths of all the miſchief ariſing from the venereal diſeaſe. I never knew the cure attended with any great difficulty or danger where the patient ſtrictly followed the phyſician's advice; but a volume would not be ſufficient to point out the dreadful conſequences which proceed from an oppoſite conduct. Schirrous teſticles, ulcerous ſore throats, madneſs, conſumptions, carious bones, and a rotten progeny, are a few of the bleſſings derived from this ſource.

CHAP. XLVIII.

DISEASES OF WOMEN.

WOMEN, in all civilized nations, have the management of domeſtic affairs, and it is very proper they ſhould, as Nature has made them leſs fit for the more active and laborious employments. This indulgence, however, is generally carried too far; and females, inſtead of being benefited by it, are greatly injured, from the want of exerciſe and free air. To be ſatisfied of this, one need only compare the freſh and ruddy looks of a milk maid with the pale complexion of thoſe females whoſe whole time is ſpent within doors. Though Nature has made an evident diſtinction between the male and the female with regard to bodily ſtrength and vigour, yet ſhe certainly never meant, either that the one ſhould be always without or the other always within doors.

The confinement of females, beſides hurting their figure and complexion, relaxes their ſolids, weakens their minds, and diſorders all the functions of the body. Hence proceed obſtructions, indigeſtion, flatulence, abortions, and the whole train of nervous diſorders. Theſe not only unfit women for being mothers and nurſes, but often render them whimſical and ridiculous. A ſound mind depends ſo much upon a healthy body, that where the latter is wanting, the former is rarely to be found.

I have always obſerved, that women who were chiefly employed without doors, in the different branches of huſbandry, gardening, and the like, were almoſt as hardy as their huſbands, and that their children were likewiſe ſtrong and healthy. We ſhall proceed to point out thoſe circumſtances in the ſtructure and deſign of females, which ſubject them to peculiar diſeaſes; the chief of which are, their

monthly evacuations, pregnancy, and *child-bearing.* Theſe indeed cannot properly be called diſeaſes, but, from the delicacy of the ſex, and their being often improperly managed in ſuch ſituations, they become the ſource of numerous calamities: therefore females whoſe circumſtances will permit ſhould be under the direction of a ſkilful phyſician, on whoſe advice the patient ought with confidence to rely.

OF THE MENSTRUAL DISCHARGE.

Females generally begin to menſtruate about the age of fifteen, and leave it off about fifty, which renders theſe two periods the moſt critical of their lives. About the firſt appearance of this diſcharge, the conſtitution undergoes a very conſiderable change, generally indeed for the better, though ſometimes for the worſe. The greateſt care is now neceſſary, as the future health and happineſs of the female depend in a great meaſure upon her conduct at this period.

It is the duty of mothers, and thoſe who are entruſted with the education of girls, to inſtruct them early in the conduct and management of themſelves at this critical period of their lives. Falſe modeſty, inattention, and ignorance of what is beneficial or hurtful at this time, are the ſources of many diſeaſes and misfortunes in life, which a few ſenſible leſſons from an experienced matron might have prevented. Nor is care leſs neceſſary in the ſubſequent returns of this diſcharge. Taking improper food, violent affections of the mind, or catching cold at this period, is often ſufficient to ruin the health, or to render the female ever after incapable of procreation.

If a girl about this time of life be confined to the houſe, kept conſtantly ſitting, and neither allowed to romp about, nor employed in any active buſineſs which gives exerciſe to the whole body, ſhe becomes weak, relaxed, and puny; her blood not being duly prepared, ſhe looks pale and wan; her health, ſpirits, and vigour decline, and ſhe ſinks into a valetudinarian for life. Such is the fate of numbers of thoſe unhappy females, who, either from too much indulgence, or their own narrow circumſtances, are, at this critical period, denied the benefit of exerciſe and free air.

A lazy, indolent diſpoſition proves likewiſe very hurtful to girls at this period. One ſeldom meets with complaints from obſtructions amongſt the more active and induſtrious part of the ſex; whereas the indolent and lazy are ſeldom free from them. Theſe are in a manner eaten up by the *chloroſis,* or green-ſickneſs, and other diſeaſes of this nature. Chloroſis is a diſeaſe often difficult to remove, and frequently degenerates into a fatal conſumption; we would therefore recommend it to all who wiſh to eſcape theſe calamities, to avoid indolence and inactivity as their greateſt enemies, and to be as much abroad in the open air as poſſible. The patient ſhould have medicines of the alterative, aperient, attenuating kind, aſſiſted by a diet of the lighteſt animal food, broths full of vegetables, light puddings, water, or ſmall beer, without wine.

Another thing which proves very hurtful to girls about this period of life is unwholeſome food. Fond of all manner of traſh, they

often indulge in it, till their whole humours are quite vitiated. Hence enſue indigeſtions, want of appetite, and a numerous train of evils. If the fluids be not duly prepared, it is utterly impoſſible that the ſecretions ſhould go properly on. Accordingly we find, that ſuch girls as lead an indolent life, and eat great quantities of traſh, are not only ſubject to obſtructions of the *menſes*, but likewiſe to glandular obſtructions; as the ſcrophula, or king's evil, &c.

A dull diſpoſition is alſo very hurtful to girls at this period. It is a rare thing to ſee a ſprightly girl who does not enjoy good health, while the grave, moping, melancholy creature, proves the prey of vapours and hyſterics. Youth is the ſeaſon for mirth and cheerfulneſs. Let it therefore be indulged. It is an abſolute duty. To lay in a ſtock of health in time of youth is as neceſſary a piece of prudence, as to make proviſion againſt the decays of old age. While, therefore, wiſe Nature prompts the happy youth to join in ſprightly amuſements, let not the ſevere dictates of hoary age forbid the uſeful impulſe, nor damp with ſerious gloom the ſeaſon deſtined to mirth and innocent feſtivity.

After a female has arrived at that period of life when the *menſes* uſually begin to flow, and they do not appear, but, on the contrary, her health and ſpirits begin to decline, we would adviſe her being placed in a ſituation where ſhe can enjoy the benefit of free air and agreeable company. There let her eat wholeſome food, take ſufficient exerciſe, and amuſe herſelf in the moſt agreeable manner; and we have little reaſon to fear, but Nature, thus aſſiſted, will do her proper work. Indeed ſhe ſeldom fails, unleſs where the fault is on our ſide.

This diſcharge in the beginning is ſeldom ſo inſtantaneous as to ſurpriſe females unawares. It is generally preceded by ſymptoms which foretel its approach; as a ſenſe of heat, weight, and dull pain in the loins; diſtention and hardneſs of the breaſts; head-ach; loſs of appetite; laſſitude; paleneſs of the countenance; and ſometimes a ſlight degree of fever. When theſe ſymptoms appear about the age at which the menſtrual flux uſually begins, every thing ſhould be carefully avoided which may obſtruct that neceſſary and ſalutary evacuation; and all means uſed to promote it, as ſitting frequently over the ſteams of warm water, drinking warm diluting liquors, &c.

After the *menſes* have once begun to flow, the greateſt care ſhould be taken to avoid every thing that may tend to obſtruct them. Females ought to be exceeding cautious of what they eat or drink at the time they are out of order. Every thing that is cold, or apt to ſour on the ſtomach, ought to be avoided; as fruit, butter-milk, and ſuch like. Fiſh, and all kinds of food that are hard of digeſtion, are alſo to be avoided. As it is impoſſible to mention every thing that may diſagree with individuals at this time, we would recommend it to every female to be very attentive to what diſagrees with herſelf, and carefully to avoid it.

Cold is extremely hurtful at this particular period. More of the ſex date their diſeaſes from colds, caught while they are out of order, than from all other cauſes. A degree of cold that will not in the leaſt

hurt them at another time, will at this period be ſufficient entirely to ruin their health and conſtitution.

The greateſt attention ought likewiſe to be paid to the mind, which ſhould be kept as eaſy and cheerful as poſſible. Every part of the animal economy is influenced by the paſſions, but none more ſo than this. Anger, fear, grief, and other affections of the mind, often occaſion obſtructions of the menſtrual flux, which prove abſolutely incurable.

From whatever cauſe this flux is obſtructed, except in the ſtate of pregnancy, proper means ſhould be uſed to reſtore it. For this purpoſe we would recommend ſufficient exerciſe in a dry, open, and rather cool air; wholeſome diet, and, if the body be weak and languid, generous liquors; alſo cheerful company and all manner of amuſements. If theſe fail, recourſe muſt be had to medicine, eſpecially of the ſtrengthening and antiſpaſmodic kind: moderate exerciſe, bleeding, and electricity, by the aſſiſtance of the warm bath, then a temperate, and afterwards the cold bath, may complete the cure.

When obſtructions proceed from a weak relaxed ſtate of the ſolids, ſuch medicines as tend to promote digeſtion, to brace the ſolids, and aſſiſt the body in preparing good blood, ought to be uſed. The principal of theſe are iron and Peruvian bark, with other bitter and aſtringent medicines. Filings of iron may be infuſed in wine or ale, two or three ounces to an Engliſh quart, and after it has ſtood for two or three weeks it may be filtered, and about half a wine-glaſs of it taken twice a-day: or prepared ſteel may be taken in the doſe of half a drachm, mixed with a little honey or treacle, three or four times a-day. The *cinchona* and other bitters may either be taken in ſubſtance or infuſion, as is moſt agreeable to the patient. This diſcharge does not at its commencement obſerve very regular periods of return, but appears only once in two or three months, and afterwards oftener, till at laſt the habit of a regular monthly return is eſtabliſhed.

When obſtructions proceed from a viſcid ſtate of the blood, or for women of a groſs or full habit, exerciſe, evacuations, and ſuch medicines as attenuate the humours, are neceſſary. The patient in this caſe ought to be bled, to bathe her feet frequently in warm water, to take now and then a cooling purge, and to live upon a ſpare thin diet. Her drink ſhould be whey, water, or ſmall beer, and ſhe ought to take ſufficient exerciſe. A tea-ſpoonful of the tincture of black hellebore may alſo be taken twice a-day in a cup of warm water. Warmth in the feet is of great ſervice at the time of menſtruation, and cold very injurious; nay, the *menſes* are often ſuddenly ſtopped by the coldneſs of the feet.

When obſtructions proceed from affections of the mind, as grief, fear, anger, &c. every method ſhould be taken to amuſe and divert the patient. And that ſhe may the more readily forget the cauſe of her affliction, ſhe ought, if poſſible, to be removed from the place where it happened. A change of place, by preſenting the mind with a variety of new objects, has often a very happy influence in relieving it from the deepeſt diſtreſs. A ſoothing, kind, and affable behaviour to females in this ſituation is alſo of the laſt importance.

An obſtruction of the *menſes* is often the effect of other maladies. When this is the caſe, inſtead of giving medicines to force that diſcharge, which might be dangerous, we ought by all means to endeavour to reſtore the patient's health and ſtrength. When that is effected, the other will return of courſe. The power of mineral waters, eſpecially thoſe of Bath, in promoting the menſtrual diſcharge is pretty generally known.

A frequent cough, a quick pulſe, and difficulty of reſpiration, are ſymptoms uſually attending a total abſence or unfrequent return of the menſtrual diſcharge, conſequently theſe ſymptoms alone are not indicative of danger; but if the cough, inſtead of being only occaſional, be conſtant, accompanied with weight and pain in the cheſt, and an increaſed ſecretion of mucus, particularly in the morning; if, with a palid countenance, there be a circumſcribed ſpot of a florid colour in the cheek; if there be on the preſent occaſion, or if ſhe has formerly been liable to, a ſpitting of blood; and if not only debility but emaciation attend theſe ſymptoms now, there is cauſe for alarm reſpecting the ſtate of the lungs, eſpecially if the general ſtructure, and general or hereditary temperament, give her a prediſpoſition to pulmonary conſumption; when ſuch is the caſe, recourſe muſt be had to the beſt medical advice without delay.

But the menſtrual flux may be too great as well as too ſmall. When this happens, the patient becomes weak, the colour pale, the appetite and digeſtion are bad, to which œdematous ſwellings of the feet, dropſies, and conſumptions, often enſue. This frequently happens to women about the age of forty-five or fifty, and is very difficult to cure. It may proceed from a ſedentary life; a full diet, conſiſting chiefly of ſalted, high-ſeaſoned, or acrid food; the uſe of ſpirituous liquors; exceſſive fatigue; relaxation; a diſſolved ſtate of the blood; violent paſſions of the mind, &c.

The treatment of this diſeaſe muſt be varied according to its cauſe. When it is occaſioned by any error in the patient's regimen, an oppoſite courſe to that which induced the diſorder muſt be purſued, and ſuch medicines taken as have a tendency to reſtrain the flux, and counteract the morbid affections of the ſyſtem from whence it proceeds.

To reſtrain the flux, the patient ſhould be kept quiet and eaſy both in body and mind. If it be very violent, ſhe ought to libe enid with her head low; to live upon a cool and ſlender diet, as veal or chicken broths with bread; and to drink decoctions of nettle-roots, or the greater comfrey. If theſe be not ſufficient to ſtop the flux, ſtronger aſtringents may be uſed, as *catechu*, alum, elixir of vitriol, the Peruvian bark, &c.

Two drachms of alum and one of *catechu* may be pounded together, and divided into eight or nine doſes, one of which may be taken three times a-day.

Perſons whoſe ſtomachs cannot bear the alum, may take two table-ſpoonfuls of the *infuſion of roſes* three or four times a-day, to each doſe of which ten drops of laudanum may be added.

If theſe ſhould fail, half a drachm of the Peruvian bark, in pow-

der, with ten drops of the *diluted vitriolic acid*, may be taken in a glaſs of red wine four times a-day.

The *uterine flux* may offend in quality as well as in quantity What is uſually called the *fluor albus*, or whites, is a very common diſeaſe, and proves extremely hurtful to delicate women. This diſcharge, however, is not always white, but ſometimes pale, yellow, green, or of a blackiſh colour; ſometimes it is ſharp and corroſive, ſometimes foul and fœtid, &c. It is attended with a pale complexion, pain in the back, loſs of appetite, ſwelling of the feet, and other ſigns of debility. It generally proceeds from a relaxed ſtate of the body, ariſing from indolence, the exceſſive uſe of tea, coffee, or other weak and watery diet.

To remove this diſeaſe, the patient muſt take as much exerciſe as ſhe can bear without fatigue. Her food ſhould be ſolid and nouriſhing, but of eaſy digeſtion; and her drink rather generous, as red port or claret mixed with Pyrmont, Briſtol, or lime-water. Tea, coffee, and a coſtive ſtate of the inteſtinal canal, are to be avoided. I have often known ſtrong broths have an exceeding good effect, and ſometimes a milk diet alone will perform a cure. The patient ought not to lie too long a bed. When medicine is neceſſary, we know none preferable to the Peruvian bark, which in this caſe ought always to be taken in ſubſtance. In warm weather the cold bath will be of conſiderable ſervice. It is however generally proper for perſons who labour under ſuch complaints to conſult without reſerve a candid and intelligent profeſſor of the healing art.

That period of life at which the *menſes* ceaſe to flow is likewiſe very critical to the ſex. The ſtoppage of any cuſtomary evacuation, however ſmall, is ſufficient to diſorder the whole frame, and often to deſtroy life itſelf: hence it comes to paſs that ſo many women either fall into chronic diſorders, or die about this time. Such of them, however, as ſurvive it, without contracting any chronic diſeaſe, often become more healthy and hardy than they were before, and enjoy ſtrength and vigour to a very great age.

If the *menſes* ceaſe all of a ſudden, in women of a full habit, pains in the ſtomach, giddineſs, flatulence, frequent acid eructations, and pains in the joints reſembling rheumatic affections, form a part of the ſufferings of the patient; they ought then to abate ſomewhat of their uſual quantity of food, eſpecially of the more nouriſhing kind, as fleſh, eggs, &c. They ought likewiſe to take ſufficient exerciſe, and to keep the body open. This may be done by taking, once or twice a-week, a little rhubarb, or half an ounce to an ounce of aloetic wine, or five to fifteen grains of the powder of aloes with guaiacum.

It often happens that women of a groſs habit, at this period of life, have ulcerous ſores break out about their ankles, or in other parts of the body. Such ulcers ought to be conſidered as critical, and ſhould either be ſuffered to continue open, or have artificial drains ſubſtituted in their ſtead. Women who will have ſuch ſores dried up, are often ſoon after carried off by acute diſeaſes, or fall into thoſe of a chronic nature. In very relaxed habits, a *prolapſus uteri* (falling-down of

the womb) not unuſually happens, which requires the aſſiſtance of a ſkilful ſurgeon, and ought never to be neglected.

OF PREGNANCY.

THOUGH pregnancy is not a diſeaſe, yet that ſtate is often attended with a variety of complaints which merit attention, and which ſometimes require the aſſiſtance of medicine. Some women indeed are more healthy during their pregnancy than at any other time; but this is by no means the general caſe: moſt of them *breed in ſorrow*, and are frequently indiſpoſed during the whole time of pregnancy. Few fatal diſeaſes, however, happen during that period; and hardly any, except abortion, that can be called dangerous.

Pregnant women are often afflicted with the heart-burn. The method of treating this complaint has already been pointed out. They are likewiſe, in the more early periods of pregnancy, often haraſſed with ſickneſs and vomiting, eſpecially in the morning. The method of relieving theſe complaints has alſo been ſhewn. Both the head-ach and tooth-ach are very troubleſome ſymptoms of pregnancy. The former may generally be removed by keeping the body gently open by the uſe of prunes, figs, roaſted apples, and ſuch like. When the pain is very violent, bleeding may be neceſſary. For the treatment of the latter, we muſt refer to that article. Several other complaints incident to pregnant women might be mentioned, as a cough and difficulty of breathing, coſtiveneſs, ſuppreſſion and incontinency of urine, &c.; but as all of theſe have been taken notice of before, it is needleſs to repeat them.

Every pregnant woman is more or leſs in danger of abortion. This ſhould be guarded againſt with the greateſt care, as it not only weakens the conſtitution, but renders the woman liable to the ſame misfortune afterwards. Abortion may happen at any period of pregnancy, but it is moſt common in the ſecond or third month. Sometimes, however, it happens in the fourth or fifth. If it happens within the firſt month, it is uſually called a falſe conception; if after the ſeventh month, the child may often be kept alive by proper care.

The common cauſes of abortion are, the death of the child; weakneſs or relaxation of the mother; great evacuations; violent exerciſe; raiſing great weights; reaching too high; jumping, or ſtepping from an eminence; vomiting; coughing; convulſion fits; blows on the belly; falls; fevers; diſagreeable ſmells; exceſs of blood; indolence; high living, or the contrary; violent paſſions or affections of the mind, as fear, grief, &c. The teneſmus to which ſome pregnant women are ſubject, and which ſometimes occaſions abortion, is moſt ſpeedily relieved by clyſters of the oil of almonds, with a few drops of the tincture of opium.

The ſigns of approaching abortion are, pain in the loins, or about the bottom of the belly; a dull heavy pain in the inſide of the thighs; a ſlight degree of coldneſs, or ſhivering; ſickneſs; palpitation of the heart: the breaſts become flat and ſoft; the belly falls; and there is a diſcharge of blood or watery humours from the womb.

To prevent abortion, we would adviſe women of a weak or relaxed

habit to uſe ſolid food, avoiding great quantities of tea, and other weak and watery liquors; to riſe early and go ſoon to bed; to ſhun damp houſes; to take frequent exerciſe in the open air, but to avoid fatigue; and never to go abroad in damp foggy weather, if they can ſhun it; and to take the electuary of *cinchona* with a large cupful of lime-water, with which a little milk may be mixed, three times a-day: two or three glaſſes of port wine may be drank in the courſe of the day, and ſhe may go into the cold bath, or uſe the ſhower bath, once or twice a-week.

Women of a full habit ought to uſe a ſpare diet, avoiding ſtrong liquors, and every thing that may tend to heat the body, or increaſe the quantity of blood. Their diet ſhould be of an opening nature, conſiſting principally of vegetable ſubſtances. Every woman with child ought to be kept cheerful and eaſy in her mind. Her appetite, even though depraved, ought to be indulged as far as prudence will permit. For reſtraining hæmorrhage in theſe caſes, the application of cloths dipped in cold water to the back and external parts will have a much better effect than internal aſtringents, and ought always to be had recourſe to; but the moſt effectual local method of ſtopping the hæmorrhage is by plugging the vagina. This is beſt done by taking a pretty large piece of ſoft cloth, and dipping it in oil, and then wringing it gently; it is to be introduced portion after portion, until the lower part of the vagina be well filled: the remainder is then to be preſſed firmly on the orifice, and held there for ſome time. This gives no pain, produces no irritation, and it acts by giving the effuſed blood time to coagulate.

To reſtrain the velocity of the circulation, and promote a determination to the ſkin, exhibit a quarter to half a grain of the powder of fox-glove with the eighth part of a grain of tartarized antimony every night at bed-time.

Dr. Burns, a profeſſor of midwifery, has obſerved, that ſometimes it is the ſtomach, not the uterus, which is irritable; and the perſon is often very ſick, takes little food, and digeſts ill. A ſmall bliſter applied to the pit of the ſtomach often relieves this; a little of the *compound tincture of cinchona*, taken three or four times a-day, is ſerviceable; or a few drops of muriated iron in a tumbler of water impregnated with fixed air, or in pure water.

When the woman is very reſtleſs and feveriſh, eſpecially if ſhe be of a full habit, immediate relief is given by bleeding, and afterwards ſhe may have for ſome time, every night, half a grain of the powder of the fox-glove, with two grains of the extract of henbane; but in every ſpecies of abortion, and eſpecially in caſes requiring the uſe of ſuch deleterious medicines as we have juſt mentioned, we earneſtly recommend recourſe to be had to the beſt medical aſſiſtance that her ſituation and circumſtances permit.

When any ſigns of abortion appear, the woman ought to be laid in bed on a mattreſs, with her head low. She ſhould be kept quiet, and her mind ſoothed and comforted. She ought not to be kept too hot, nor to take any thing of a heating nature. Her food ſhould

conſiſt of broths, rice, and milk, jellies, gruels made of oatmeal, and the like, all of which ought to be taken cold.

If ſhe be able to bear it, ſhe ſhould loſe at leaſt half a pound of blood from the arm. Her drink ought to be barley-water ſharpened with juice of lemon; or ſhe may take half a drachm of powdered nitre, in a cup of water-gruel, every five or ſix hours. If the woman be ſeized with a violent looſeneſs, ſhe ought to drink the decoction of calcined hartſhorn prepared. If ſhe be affected with vomiting, let her take frequently two table-ſpoonfuls of the ſaline mixture. In general, opiates are of ſervice; but they ſhould always be given with caution.

Sanguine robuſt women, who are liable to miſcarry at a certain time of pregnancy, ought always to be bled a few days before that period arrives. By this means, and obſerving the regimen above preſcribed, they might often eſcape that misfortune.

Though we recommend due care for preventing abortion, we would not be underſtood as reſtraining pregnant women from their uſual exerciſes. This would generally operate the quite contrary way. Want of exerciſe not only relaxes the body, but induces a plethora, or too great a fulneſs of the veſſels, which are the two principal cauſes of abortion. There are, however, ſome women of ſo delicate a texture, that it is neceſſary for them to avoid almoſt every kind of exerciſe during the whole period of pregnancy.

OF CHILD-BIRTH.

MANY diſeaſes proceed from the want of due care in child-bed, and the more hardy part of the ſex are moſt apt to deſpiſe the neceſſary precautions in this ſtate. This is peculiarly the caſe with young wives. They think when the labour pains are ended, the danger is over; but in truth it may only then be ſaid to be begun. Nature, if left to herſelf, will ſeldom fail to expel the *fœtus*; but proper care and management are certainly neceſſary for the recovery of the mother. No doubt miſchief may be done by too much as well as by too little care. Hence females who have the greateſt number of attendants in child-bed generally recover worſt. But this is not peculiar to the ſtate of child-bed. Exceſſive care always defeats its own intention, and is generally more dangerous than none at all.

Though the management of women in child-bed has been practiſed as an employment ſince the earlieſt accounts of time, yet it is ſtill in moſt countries on a very bad footing. Few women think of following this employment till they are reduced to the neceſſity of doing it for bread. Hence not one in a hundred of them have any education, or proper knowledge of their buſineſs. It is true, that Nature, if left to herſelf, will generally expel the *fœtus*; but it is equally true, that moſt women in child-bed require to be managed with ſkill and attention, and that they are often hurt by the ſuperſtitious prejudices of ignorant and officious midwives. The miſchief done in this way is much greater than is generally imagined, moſt of which might be prevented by allowing no women to practiſe mid-

wifery but ſuch as are properly qualified. Were due attention paid to this, it would be the means of ſaving many lives.

During actual labour, nothing of a heating nature ought to be given. The woman may now and then take a little panado, and her drink ought to be toaſt and water, or thin groat-gruel. Spirits, wines, cordial-waters, and other things which are given with a view to ſtrengthen the mother and promote the birth, for the moſt part tend only to increaſe the fever, inflame the womb, and retard the labour. Beſides they endanger the woman afterwards, as they often occaſion violent and mortal hæmorrhages, or diſpoſe her to eruptive and other fevers.

When the labour proves tedious and difficult, to prevent inflammations, it will be proper to bleed. An emollient clyſter ought likewiſe frequently to be adminiſtered, and the patient ſhould ſit over the ſteams of warm water. The paſſage ought to be gently rubbed with a little ſoft *pomatum* or freſh butter, and cloths wrung out of warm water applied over the belly. If nature ſeems to ſink, and the woman is greatly exhauſted with fatigue, a draught of generous wine, a drop or two of the oil of cinnamon on ſugar, or ſome other cordial, may be given, but not otherwiſe. Theſe directions are ſufficient in natural labours; and in all preternatural caſes, a ſkilful ſurgeon, or man-midwife, ought to be called as ſoon as poſſible.

Women who have hard labours, have experienced much benefit by taking repeated doſes of the oil of almonds: the beſt means however of leſſening the pains of child-birth are occaſional blood-letting during the period of geſtation; the frequent uſe of oily purgative lavements, accompanied by a low diet ten or fourteen days before delivery, but eſpecially blood-letting *at the time of labour*, to the extent of thirty, forty, or near fifty ounces, which by diminiſhing the rigidity of the parts facilitates their diſtention; ſo that a lingering labour, which had continued for thirty-ſix hours, after the free uſe of the lancet, has ſpeedily finiſhed by the expulſion of the child without the leaſt degree of pain. The ſeverity and frequency of after-pains may be diminiſhed by giving every two, three, or four hours, ten, or if neceſſary fifteen or twenty, drops of the *tincture of opium* in two or three table-ſpoonfuls of mint-tea or cinnamon water.

After delivery, the woman ought to be kept as quiet and eaſy as poſſible. Take ſpermaceti diſſolved in the yolk of an egg two drachms, compound powder of contrayerva one drachm, purified nitre one ſcruple, ſimple ſyrup one ounce, pennyroyal water ſeven ounces; make a mixture, of which exhibit three table-ſpoonfuls every five or ſix hours; and if pain and reſtleſſneſs continue long, a few drops of the *tincture of opium* may be added to each doſe. Her food ſhould be light and thin; as gruel, panado, &c. and her drink weak and diluting. To this rule however there are exceptions: ſome women cannot be ſupported in child-bed by an abſtemious diet; to ſuch, a glaſs of wine and a bit of chicken may be allowed.

Sometimes an exceſſive hæmorrhage or flooding happens after delivery. In this caſe the patient ſhould be laid with her head low, kept cool, and be in all reſpects treated as for an exceſſive flux of the

menſes. If the flooding proves violent, linen cloths which have been wrung out of a mixture of equal parts of vinegar and water, or red wine, ſhould be applied to the belly, the loins, and the thighs: theſe muſt be changed as they grow dry, and may be diſcontinued as ſoon as the flooding abates.

In a violent flooding after delivery, I have ſeen very good effects from the following mixture: Take of pennyroyal water, ſimple cinnamon water, and ſyrup of white poppies, each two ounces, elixir of vitriol a drachm. Mix, and take two table ſpoonfuls every two hours, or oftener if neceſſary.

If there be violent pains after delivery, the patient ought to drink plentifully of warm diluting liquors, as groat gruel, or tea with a little ſaffron in it; and to take ſmall broths, with caraway-ſeeds, or a bit of orange-peel in them: an ounce of the oil of ſweet almonds may likewiſe be frequently taken in a cup of any of the above liquors; and if the patient be reſtleſs, a ſpoonful of the ſyrup of white poppies may now and then be mixed with a cup of her drink. If ſhe be hot or feveriſh, one of the following powders may be taken in a cup of her uſual drink every five or ſix hours. Take of crabs claws prepared half an ounce, purified nitre two drachms, ſaffron powdered half a drachm; rub them together in a mortar, and divide the whole into eight or nine doſes.

When the patient is low ſpirited, or troubled with hyſterical complaints, ſhe ought to take frequently ten, fifteen, or twenty drops of the tincture of aſafœtida in a cup of pennyroyal tea.

An inflammation of the womb is a dangerous and not unfrequent diſeaſe after delivery. It is known by pains in the lower part of the belly, which are greatly increaſed upon touching; by the tenſion or tightneſs of the parts; great weakneſs; change of countenance; a conſtant fever, with a weak and hard pulſe; a ſlight *delirium*, or raving: ſometimes inceſſant vomiting; a hiccup; a diſcharge of reddiſh, ſtinking, ſharp water from the womb; an inclination to go frequently to ſtool; a heat, and ſometimes total ſuppreſſion of urine.

This muſt be treated, like other inflammatory diſorders, by bleeding and plentiful dilution. The drink may be thin gruel or barley-water; in a cup of which half a drachm of nitre may be diſſolved, and taken three or four times a-day. Clyſters of warm milk and water muſt be frequently adminiſtered: and the belly ſhould be fomented by cloths wrung out of warm water, or by applying bladders filled with warm milk and water to it.

A ſuppreſſion of the *lochia*, or uſual diſcharges after delivery, and the milk-fever, muſt be treated nearly in the ſame manner as an inflammation of the womb. In all theſe caſes, the ſafeſt courſe is plentiful dilution, gentle evacuations, and fomentations of the parts affected. In the milk-fever, the breaſts may be embrocated with a little warm linſeed-oil, or the leaves of red cabbage may be applied to them. The child ſhould be often put to the breaſt, or it ſhould be drawn by ſome other perſon.

Nothing would tend more to prevent the milk-fever than putting the child early to the breaſt. The cuſtom of not allowing children to ſuck for the firſt two or three days is contrary to Nature and common ſenſe, and is very hurtful both to the mother and child.

Every mother who has milk in her breaſts ought either to ſuckle her own child, or to have her breaſts frequently drawn, at leaſt for the firſt month. This would prevent many of the diſeaſes which prove fatal to women in child-bed.

When an inflammation happens in the breaſt attended with redneſs, hardneſs, and other ſymptoms of ſuppuration, the ſafeſt application is a poultice of bread and milk, ſoftened with oil or freſh butter. This may be renewed twice a-day, till the tumor be either diſcuſſed or brought to ſuppuration. The uſe of repellents in this caſe is very dangerous; they often occaſion fevers, and ſometimes cancers; whereas a ſuppuration is ſeldom attended with any danger, and has often the moſt ſalutary effects.

When the nipples are fretted or chapt, they may be anointed with a mixture of oil and bees-wax, or a little powdered gum-arabic may be ſprinkled on them. I have ſeen Hungary water applied to the nipples have a very good effect. Should the complaint prove obſtinate, a cooling purge may be given, which generally removes it.

The miliary fever is a diſeaſe incident to women in child-bed; but as it has been treated of already, we ſhall take no further notice of it. The celebrated Hoffman obſerves, That this fever of child-bed women might generally be prevented, if they, during pregnancy, were regular in their diet, uſed moderate exerciſe, took now and then a gentle laxative of manna, rhubarb, or cream of tartar; not forgetting to bleed in the firſt months, and avoid all ſharp air. When the labour is coming on, it is not to be haſtened with forcing medicines, which inflame the blood and humours, or put them into unnatural commotions. Care ſhould be taken, after the birth, that the natural excretions proceed regularly; and if the pulſe be quick, a little nitrous powder, or ſome other cooling medicines, ſhould be adminiſtered.

The moſt fatal diſorder conſequent upon delivery is the *puerperal* or child-bed fever. It generally makes its attack upon the ſecond or third day after delivery. Sometimes indeed it comes on ſooner, and at other times, though rarely, it does not appear before the fifth or ſixth day.

It begins, like moſt other fevers, with a cold or ſhivering fit, which is ſucceeded by reſtleſſneſs, pain of the head, great ſickneſs at the ſtomach, and bilious vomiting. The pulſe is generally quick, the tongue dry, and there is a remarkable depreſſion of ſpirits and loſs of ſtrength. A great pain is uſually felt in the back, hips, and region of the womb; a ſudden change in the quantity or quality of the *lochia* alſo takes place; and the patient is frequently troubled with a *tenesmus*, or conſtant inclination to go to ſtool. The urine, which is very high coloured, is diſcharged in ſmall quantity, and generally with pain. The belly ſometimes ſwells to a conſiderable bulk, and becomes ſuſceptible of pain from the ſlighteſt touch. When the

fever has continued for a few days, the ſymptoms of inflammation uſually ſubſide, and the diſeaſe acquires a more putrid form. At this period, if not ſooner, a bilious or putrid looſeneſs, of an obſtinate and dangerous nature, comes on, and accompanies the diſeaſe through all its future progreſs.

There is not any diſeaſe that requires to be treated with more ſkill and attention than this; conſequently the beſt aſſiſtance ought always to be obtained as ſoon as poſſible. In women of a plethoric conſtitution, bleeding will generally be proper at the beginning; it ought however to be uſed with caution, and not to be repeated unleſs where the ſigns of inflammation riſe high; in which caſe it will alſo be neceſſary to apply a bliſtering plaſter to the region of the womb.

During the rigour, or cold fit, proper means ſhould be uſed to abate its violence and ſhorten its duration. For this purpoſe the patient may drink freely of warm diluting liquors, and, if low, may take now and then a cup of wine-whey: warm applications to the extremities, as heated bricks, bottles or bladders filled with warm water, and ſuch like, may alſo be uſed with advantage.

Emollient clyſters of milk and water, or of chicken water, ought to be frequently adminiſtered through the courſe of the diſeaſe. Theſe prove beneficial by promoting a diſcharge from the inteſtines, and alſo by acting as a kindly fomentation to the womb and parts adjacent. Great care however is requiſite in giving them, on account of the tenderneſs of the parts in the *pelvis* at this time.

To evacuate the offending bile from the ſtomach, a vomit is generally given. But as this is apt to increaſe the irritability of the ſtomach, already too great, it will be ſafer to omit it, and to give in its ſtead a gentle laxative, as a decoction of tamarinds with ſenna, which will both tend to cool the body, and to procure a free diſcharge of the bile. Neither vomits nor purges, however, ſhould be adminiſtered to women in child-bed without the utmoſt caution; yet as after labour there is a particular increaſe of heat and diſpoſition to fever, a coſtive ſtate of the body may prove, without ſeaſonable relief, fatal in the iſſue. Were this dangerous habit guarded againſt by proper attention before and after delivery, child-bed indiſpoſitions would be leſs frequent than they are.

The ſaline draught, ſo effectual againſt vomiting, ſo efficacious in obviating fever, and correcting any putreſcent tendency, may be given every three or four hours. To a ſcruple of *prepared kali*, or ſalt of tartar, previouſly diſſolved in two table-ſpoonfuls of ſpring water, add a table-ſpoonful of freſh lemon juice: as ſoon as the frothing or ebullition begins, it is to be immediately drank. To render it aperient, two drachms of the tincture of rhubarb may be added to each draught; but ſhould the ſaline mixture run off by ſtool, omit the tincture of rhubarb; and, eſpecially if the patient is reſtleſs, a few drops of *tincture of opium*, or ſome ſyrup of white poppies, may occaſionally be added. After proper evacuations, and an abatement of febrile heat, the ſaline mixture may be omitted, and the following aſtringent, antiſeptic draught given to corroborate the relaxed viſcera: Take two grains of alum, half an ounce of freſh

orange juice, two drachms of the *compound tincture of cinchona* (commonly called Huxham's tincture of bark), and two ounces and a half of ſpring water; mix, and exhibit it every ſix hours.

If the ſtools ſhould prove ſo frequent as to weaken and exhauſt the patient, a ſtarch clyſter may be adminiſtered as occaſion ſhall require; and the drink may be a decoction of hartſhorn, or rice-water, in every Engliſh pint of which half an ounce of gum-arabic has been diſſolved. Should theſe fail, recourſe muſt be had to a bolus compoſed of half a drachm of powdered Columbo root, with a grain of opium, which may be given every three or four hours, and occaſionally the *chalk mixture* ſeven ounces, tincture of *catechu* ſix drachms, opiate confection two drachms: mix, and give a table-ſpoonful or two after every looſe ſtool. Where there is much purging, an emollient glyſter may be thrown up with advantage once or twice in twenty-four hours; and if with the diarrhœa there ſhould be much teneſmus, lavements, with thirty or forty drops of the *tincture of opium*, will be neceſſary, but not otherwiſe.

Though in general the food ought to be light, and the drink diluting, yet when the diſeaſe has been long protracted, and the patient is greatly ſpent by evacuations, it will be neceſſary to ſupport her with nouriſhing diet and generous cordials.

It was obſerved, that this fever, after continuing for ſome time, often acquires a putrid form. In this caſe the Peruvian bark muſt be given, either by itſelf, or joined with cordials, as circumſtances may require. As the *cinchona* in ſubſtance will be apt to purge, it may be given in decoction or infuſion mixed with the tincture of roſes, or other gentle aſtringents; or a ſcruple of the extract of *cinchona*, with half an ounce of ſpirit of cinnamon, two ounces of common water, and ten drops of *tincture of opium*, may be made into a draught, and given every ſecond, third, or fourth hour, as ſhall be found neceſſary.

When the ſtomach will not bear any kind of nouriſhment, the patient may be ſupported for ſome time by clyſters of beef-tea or chicken-water.

To avoid this fever, every woman in child-bed ought to be kept perfectly eaſy; her food ſhould be light and ſimple, and her bed-chamber cool, and properly ventilated. There is not any thing more hurtful to a woman in this ſituation than being kept too warm. She ought not to have her body bound too tight, nor to riſe too ſoon from bed, after delivery: catching cold is alſo to be avoided; and a proper attention ſhould be paid to cleanlineſs.

To prevent the milk-fever, the breaſts ought to be frequently drawn; and if they are filled previous to the onſet of a fever, they ſhould, upon its firſt appearance, be drawn, to prevent the milk from becoming acrid, and its being abſorbed in this ſtate. Coſtiveneſs is likewiſe to be avoided. This will be beſt effected by the uſe of mild clyſters and a laxative diet.

We ſhall conclude our obſervations on child-bed women by recommending it to them, above all things, to beware of cold. Poor women, whoſe circumſtances oblige them to quit their bed too ſoon, often contract diſeaſes from cold, of which they never recover. It is a pity that the poor are not better taken care of in this ſituation.

But the better ſort of women run the greateſt hazard from too much heat. They are generally kept in a ſort of bagnio for the firſt eight or ten days, and then dreſſed out to ſee company. The danger of this conduct muſt be obvious to every one.

The ſuperſtitious cuſtom of obliging women to keep the houſe till they go to church is likewiſe a very common cauſe of catching cold. All churches are damp, and moſt of them cold; conſequently they are the very worſt places to which a woman can go to make her firſt viſit, after having been confined in a warm room for a month.

OF BARRENNESS.

BARRENNESS may be very properly reckoned among the diſeaſes of females, as few married women who have not children enjoy a good ſtate of health. It may proceed from various cauſes, as high living, grief, relaxation, &c., but it is chiefly owing to an obſtruction or irregularity of the menſtrual flux.

It is very certain that high living vitiates the humours, and prevents fecundity. We ſeldom find a barren woman among the labouring poor, while nothing is more common among the rich and affluent. The inhabitants of every country are prolific in proportion to their poverty; and it would be an eaſy matter to adduce many inſtances of women, who, by being reduced to live entirely upon a milk and vegetable diet, have conceived and brought forth children, though they never had any before. Would the rich uſe the ſame ſort of food and exerciſe as the better ſort of peaſants, they would ſeldom have cauſe to envy their poor vaſſals and dependants the bleſſing of a numerous and healthy offspring, while they pine in ſorrow for the want of even a ſingle heir to their extenſive domains.

Affluence begets indolence, which not only vitiates the humours, but induces a general relaxation of the ſolids; a ſtate highly unfavourable to procreation. To remove this, we would recommend the following courſe: Firſt, ſufficient exerciſe in the open air; ſecondly, a diet conſiſting chiefly of milk and vegetables; thirdly, the uſe of aſtringent medicines, as ſteel, alum, dragon's blood, elixir of vitriol, the Spa or Tunbridge waters, Peruvian bark, &c.; and laſtly, above all, the cold bath.

Barrenneſs is often the conſequence of grief, ſudden fear, anxiety, or any of the paſſions which tend to obſtruct the menſtrual flux. When barrenneſs is ſuſpected to proceed from affections of the mind, the perſon ought to be kept as eaſy and cheerful as poſſible; all diſagreeable objects are to be avoided, and every method taken to amuſe and entertain the fancy.

Dr. Cheyne avers, that want of children is oftener the fault of the male than of the female, and ſtrongly recommends a milk and vegetable diet to the former as well as the latter; adding, that his friend Dr. Taylor, whom he calls the Milk-doctor of Croydon, had brought ſundry opulent families in his neighbourhood, who had continued ſome years after marriage without progeny, to have ſeveral fine children, by keeping both parents, for a conſiderable time, to a milk and vegetable diet.

CHAP. XLIX.

DISEASES OF CHILDREN.

MISERABLE indeed is the lot of man in the ſtate of infancy! He comes into the world more helpleſs than any other animal, and ſtands much longer in need of the protection and care of his parents; but, alas! this care is not always beſtowed upon him; and when it is, he often ſuffers as much from improper management as he would have done from neglect. Hence the officious care of parents, nurſes, and midwives, becomes one of the moſt fruitful ſources of the diſorders of infants.

Of the officious and ill-judged care of midwives we ſhall adduce only one inſtance, viz. the common practice of torturing infants by ſqueezing their breaſts, to draw off the milk, as they call it. Though a ſmall quantity of moiſture is generally found in the breaſts of infants, yet, as they are certainly not intended to give ſuck, this ought never to be drawn off. I have ſeen this cruel operation bring on hardneſs, inflammation, and ſuppuration of the breaſts, but never knew any ill conſequences from its being omitted. When the breaſts are hard, the only application that we would recommend is a ſoft poultice, or a little of the diachylon plaſter ſpread thin upon a bit of ſoft leather, about the ſize of half a crown, and applied over each nipple. Theſe may be ſuffered to continue till the hardneſs diſappears.

It muſt be obvious to every attentive perſon, that the firſt diſeaſes of infants ariſe chiefly from their bowels. Nor is this in the leaſt to be wondered at, as they are in a manner poiſoned with indigeſtible drugs and improper diet as ſoon as they come into the world. Every thing that the ſtomach cannot digeſt may be conſidered as a poiſon; and unleſs it can be thrown up, or voided by ſtool, it muſt occaſion ſickneſs, gripes, ſpaſmodic affections of the bowels, or what the good women call inward fits, and at laſt convulſions and death.

As theſe ſymptoms evidently ariſe from ſomewhat that irritates the inteſtines, doubtleſs the proper method of cure muſt be to expel it as ſoon as poſſible. The moſt ſafe and effectual method of doing this is by gentle vomits. Five or ſix grains of the powder of ipecacuanha may be mixed in two table-ſpoonfuls of water, and ſweetened with a little ſugar. A tea-ſpoonful of this may be given to the infant every quarter of an hour till it operates; or, what will more certainly anſwer the purpoſe, a grain of emetic tartar may be diſſolved in three ounces of water, ſweetened with a little ſyrup, and given as above. Thoſe who are unwilling to uſe the *tartarized antimony* may give ſix or ſeven drops of antimonial wine in a tea-ſpoonful of water or thin gruel. Small doſes of the ipecacuanha wine will be found more gentle than any of the above, and ought to be preferred.

Theſe medicines will not only cleanſe the ſtomach, but will generally likewiſe open the body. Should this however not happen, and if the child be coſtive, ſome gentle purge will be neceſſary: for this purpoſe, ſome manna and pulp of caſſia may be diſſolved in boiling water, and given in ſmall quantities till it operates; or, what will an-

ſwer rather better, a few grains of *magneſia alba* may be mixed in any kind of food that is given to the child, and continued till it has the deſired effect. If theſe medicines be properly adminiſtered, and the child's belly and limbs frequently rubbed with a warm hand before the fire, they will ſeldom fail to relieve thoſe affections of the ſtomach and bowels from which infants ſuffer ſo much.

Theſe general directions include moſt of what can be done for relieving the internal diſorders of infants. They will likewiſe go a conſiderable way in alleviating thoſe which appear externally, as the raſh, *gum*, or *fellon*, &c. Theſe, as was formerly obſerved, are principally owing to too hot a regimen, and conſequently will be moſt effectually relieved by gentle evacuations. Indeed, evacuations of one kind or other conſtitute a principal part of the medicine of infants, and will ſeldom, if adminiſtered with prudence, in any of their diſeaſes, fail to give relief.

OF THE MECONIUM.

The ſtomach and bowels of a new-born infant are filled with a blackiſh coloured matter of the conſiſtence of ſyrup, commonly called the *meconium*. This is generally paſſed ſoon after the birth, by the mere effort of Nature; in which caſe it is not neceſſary to give the infant any kind of medicine. But if it ſhould be retained, or not ſufficiently carried off, a little manna or *magneſia alba* may be given, as mentioned above; or, if theſe ſhould not be at hand, a common ſpoonful of whey, ſweetened with a little honey or raw ſugar; or oil of ſweet almonds and ſyrup of roſes of each ſix drachms, mixed, and a tea-ſpoonful given as often as occaſion may require.

The moſt proper medicine for expelling the *meconium* is the mother's milk, which is always at firſt of a purgative quality. Were children allowed to ſuck as ſoon as they ſhew an inclination for the breaſt, they would ſeldom have occaſion for medicines to diſcharge the *meconium*; but even where this is not allowed, they ought never to have daubs of ſyrup, oils, and other indigeſtible ſtuff, crammed down their throats, whereby their tender organs are injured, the circulating fluids heated and thrown into irregular commotions, that ſometimes occaſion obſtructions, at others irritations in the bowels, and convulſions that cauſe "*thouſands to retire from yet untaſted life.*"

OF THE APHTHÆ OR THRUSH.

The aphthæ are little whitiſh or yellow ulcers affecting the whole inſide of the mouth, tongue, throat, and ſtomach of infants. Sometimes they reach through the whole inteſtinal canal; in which caſe they are very dangerous, and often put an end to the infant's life.

If the aphthæ are of a pale colour, pellucid, few in number, ſoft, ſuperficial, and fall eaſily off, they are not dangerous; but if opake, yellow, brown, black, thick, or running together, they ought to be dreaded.

It is generally thought that the aphthæ owe their origin to acid humours; we have reaſon however to believe they are more frequently owing to too hot a regimen both of the mother and child. It is

a rare thing to find a child who is not doſed with wine, punch, or ſome other hot and inflaming liquors, almoſt as ſoon as it is born. It is well known that theſe will occaſion inflammatory diſorders even in adults: is it any wonder, then, that they ſhould heat and inflame the tender bodies of infants, and ſet as it were the whole conſtitution on a blaze?

The moſt proper medicines for the aphthæ are vomits, ſuch as have been already recommended, and gentle laxatives. Five grains of rhubarb and half a drachm of *magneſia alba* may be rubbed together, and divided into ſix doſes, one of which may be given to the infant every four or five hours till they operate. Theſe powders may either be given in the child's food, or a little of the ſyrup of pale roſes, and may be repeated as often as is found neceſſary to keep the body open. It is common in this caſe to adminiſter calomel; but as that medicine ſometimes occaſions gripes, it ought always to be given to infants with caution.

Many things have been recommended for gargling the mouth and throat in this diſeaſe, but it is not eaſy to apply theſe in very young children; we would therefore recommend to the nurſe the uſe of topical applications, ſuch as either the expreſſed juice of roaſted turnips, mulberries, raſpberries, or black currants, ſweetened with honey or ſugar-candy, or to rub the child's mouth frequently with a little borax and honey; or with the following mixture: Take fine honey an ounce, borax a drachm, burnt alum half a drachm, roſe water two drachms; mix them together. A very proper application in this caſe is a ſolution of ten or twelve grains of *vitriolated zinc* in eight ounces of barley-water. Theſe may be applied with the finger, a camel's hair pencil, or by means of a bit of ſoft rag tied to the end of a probe.

The acid and watery purgings in this complaint may be relieved by clyſters of barley-water with a little magneſia and ſyrup of white poppies.

OF ACIDITIES.

The food of children being for the moſt part of an aceſcent nature, it readily turns ſour upon the ſtomach, eſpecially if the body be any way diſordered. Hence moſt diſeaſes of children are accompanied with evident ſigns of acidity, as green ſtools, gripes, &c. Theſe appearances have induced many to believe that all the diſeaſes of children were owing to an acid abounding in the ſtomach and bowels; but whoever conſiders the matter attentively, will find that theſe ſymptoms of acidity are oftener the effect than the cauſe of their diſeaſes.

Nature evidently intended that the food of children ſhould be aceſcent; and unleſs the body be diſordered, or the digeſtion hurt, from ſome other cauſe, we will venture to ſay that the aceſcent quality of their food is ſeldom injurious to them. Acidity, however, is often a ſymptom of diſorders in children, and, as it is ſometimes a troubleſome one, we ſhall point out the method of relieving it.

When green ſtools, gripes, purgings, ſour ſmells, &c. ſhew that the bowels abound with an acid, the child ſhould have a little ſmall

broth, with light white bread in it; and ſhould have ſufficient exerciſe in order to promote the digeſtion. It has been cuſtomary in this caſe to give the chalk, crabs eyes, and other teſtaceous powders. Theſe, indeed, by their abſorbent quality, may correct the acidity; but they are attended with this inconvenience, that they are apt to lodge in the bowels, and occaſion coſtiveneſs, which may prove very hurtful to the infant. For this reaſon they ſhould never be given unleſs mixed with purgative medicines; as rhubarb, manna, or ſuch like.

The beſt medicine which we know, in all caſes of acidity, is that fine inſipid powder called *magneſia alba*. It purges, and at the ſame time corrects the acidity: by which means it not only removes the diſeaſe, but carries off its cauſe. It may be given in any kind of food, or in a *laxative abſorbent mixture*, as recommended in the Appendix.

When an infant is troubled with gripes, it ought not at firſt to be doſed with brandy, ſpiceries, and other hot things; but ſhould have its body opened with an emollient clyſter, or the medicine mentioned above; and at the ſame time a little brandy may be rubbed on its belly with a warm hand before the fire. I have ſeldom ſeen this fail to eaſe the gripes of infants. If it ſhould happen, however, not to ſucceed, a little brandy or other ſpirits may be mixed with thrice the quantity of warm water, and a tea-ſpoonful of it given frequently till the infant be eaſier. Sometimes a little peppermint-water will anſwer this purpoſe very well.

OF GALLING AND EXCORIATION.

These are very troubleſome to children. They happen chiefly about the groin and wrinkles of the neck, under the arms, behind the ears, and in other parts that are moiſtened by the ſweat or urine.

As theſe complaints are, in a great meaſure, owing to want of cleanlineſs, the moſt effectual means of preventing them are, to waſh the parts frequently with cold water, to change the linen often, and, in a word, to keep the child in all reſpects thoroughly clean. When this is not ſufficient, the excoriated parts may be ſprinkled with abſorbent or drying powders; as burnt hartſhorn, tutty, chalk, crab's claws prepared, and the like. When the parts affected are very ſore, and tend to a real ulceration, it will be proper to anoint the place with the ointment of ſpermaceti, or with the white liniment mentioned in the Appendix. If the parts be waſhed with ſpring-water, in which a little *vitriolated zinc* (twelve grains to eight ounces of water) has been diſſolved, it will dry and heal them very powerfully. One of the beſt applications for this purpoſe is to diſſolve ſome fuller's earth in a ſufficient quantity of hot water, and after it has ſtood till it is cold, to rub it gently upon the galled parts once or twice a-day.

OF STOPPAGE OF THE NOSE.

The noſtrils of infants are often plugged up with a groſs *mucus*, which prevents their breathing freely, and likewiſe renders it difficult for them to ſuck or ſwallow.

Some in this caſe order, after a ſuitable purge, two or three grains of white vitriol diſſolved in half an ounce of marjoram-water, and filtered, to be applied now and then to the noſtrils with a linen rag. Wedellus ſays, if two grains of white vitriol, and the ſame quantity of *elaterium*, be diſſolved in half an ounce of marjoram-water, and applied to the noſe, as above directed, that it brings away the *mucus* without ſneezing.

In obſtinate caſes theſe medicines may be tried; but I have never found any thing neceſſary beſides rubbing the noſe at bed-time with a little ſweet oil, or freſh butter. This reſolves the filth, and renders the breathing more free.

OF VOMITING.

From the delicate ſtate of children, and the great ſenſibility of their organs, a vomiting or looſeneſs may be induced by any thing that irritates the nerves of the ſtomach or inteſtines. Hence theſe diſorders are much more common in childhood than in the more advanced periods of life. They are ſeldom however dangerous, and ought never to be conſidered as diſeaſes, unleſs when they are violent, or continue ſo long as to exhauſt the ſtrength of the patient.

Vomiting may be excited by an over-quantity of food; by food that is of ſuch a nature as to irritate the nerves of the ſtomach too much; or by the ſenſibility of the nerves being ſo much increaſed as to render them unable to bear the ſtimulus of even the mildeſt aliment.

When vomiting is occaſioned by too much food, it ought to be promoted, as the cure will depend upon cleanſing the ſtomach. This may be done either by a few grains of ipecacuanha, or a weak ſolution of *tartarized antimony*, as mentioned before. When it is owing to food of an acrid or irritating quality, the diet ought to be changed, and aliment of a milder nature ſubſtituted in its ſtead.

When vomiting proceeds from an increaſed degree of ſenſibility, or too great an irritability of the nerves of the ſtomach, ſuch medicines as have a tendency to brace and ſtrengthen that organ, and to abate its ſenſibility, muſt be uſed. The firſt of theſe intentions may be anſwered by a ſlight infuſion of the Peruvian bark, with the addition of a little rhubarb and orange-peel; and the ſecond by the ſaline draughts, to which a few drops of *tincture of opium* may occaſionally be added.

In obſtinate vomitings the operation of internal medicines may be aſſiſted by aromatic fomentations made with wine, applied warm to the pit of the ſtomach; or the uſe of the *laudanum-plaſter*, with the addition of a little *theriaca*, or Venice treacle.

OF A LOOSENESS.

A looseness may generally be reckoned ſalutary when the ſtools are ſour, ſlimy, green, or curdled. It is not the diſcharge, but the production of ſuch ſtools, which ought to be remedied. Even where the purging is thin and watery, it ought not to be checked too ſuddenly, as it often proves critical, eſpecially when the child has caught cold, or an eruption on the ſkin has diſappeared. Sometimes an evacuation of this kind ſucceeds a humid ſtate of the atmoſphere, in

which caſe it may alſo prove of advantage, by carrying off a quantity of watery humours, which would otherwiſe tend to relax the habit.

As the principal intention of the cure of a looſeneſs is to evacuate the offending matter, it is cuſtomary to give the patient a gentle vomit of ipecacuanha, and afterwards to exhibit ſmall and frequent doſes of rhubarb; interpoſing abſorbent medicines to mitigate the acrimony of the humours. The beſt purge, however, in this caſe, is *magneſia alba*. It is at the ſame time abſorbent and laxative, and operates without exciting gripes.

The wine of antimony, which acts both as an emetic and purge, is alſo an excellent medicine in this caſe. By being diluted with water, it may be proportioned to the weakeſt conſtitution; and, not being diſagreeable to the palate, it may be repeated as often as occaſion requires. Even one doſe will frequently mitigate the diſeaſe, and pave the way for the uſe of abſorbents. If, however, the patient's ſtrength will permit, the medicine ought to be repeated every ſix or eight hours, till the ſtools begin to aſſume a more natural appearance; afterwards a longer ſpace may be allowed to intervene between the doſes. When it is neceſſary to repeat the medicine frequently, the doſe ought always to be a little increaſed, as its efficacy is generally diminiſhed by uſe.

Some, upon the firſt appearance of a looſeneſs, fly immediately to the uſe of abſorbent medicines and aſtringents. If theſe be adminiſtered before the offending humours are diſcharged, though the diſeaſe may appear to be mitigated for a little time, it ſoon afterwards breaks forth with greater violence, and often proves fatal. After proper evacuations, however, theſe medicines may be adminiſtered with conſiderable advantage.

Should any gripings or reſtleſſneſs remain after the ſtomach and bowels have been cleanſed, a tea-ſpoonful of the ſyrup of poppies may be given in a little ſimple cinnamon-water three or four times a-day till theſe ſymptoms have ceaſed; or the following mixture may be given with advantage: Take of crab's claws prepared three drachms, gum-arabic in powder two drachms, cinnamon-water and mint-water each ſix table-ſpoonfuls; refined ſugar three drachms; mix, and after ſhaking the phial, give a pap-ſpoonful or more frequently. If the diſcharge ſtill continue by reaſon of the great irritability of the inteſtines, three or four drops of the *tincture of opium*, or a tea-ſpoonful of the ſyrup of white poppies, may be given with this mixture every four hours.

OF ERUPTIONS.

Children, while on the breaſt, are ſeldom free from eruptions of one kind or other. Theſe, however, are not often dangerous, and ought never to be dried up but with the greateſt caution. They tend to free the bodies of infants from hurtful humours, which, if retained, might produce fatal diſorders.

The eruptions of children are chiefly owing to improper food and neglect of cleanlineſs. If a child be ſtuffed at all hours with food that its ſtomach is not able to digeſt, ſuch food, not being properly aſſimilated, inſtead of nouriſhing the body, fills it with groſs humours.

Theſe muſt either break out in form of eruptions upon the ſkin, or remain in the body, and occaſion fevers and other internal diſorders. That neglect of cleanlineſs is a very general cauſe of eruptive diſorders, muſt be obvious to every one. The children of the poor, and of all who deſpiſe cleanlineſs, are almoſt conſtantly found to ſwarm with vermin, and are generally covered with the ſcab, itch, and other eruptions.

When eruptions are the effect of improper food, or want of cleanlineſs, a proper attention to theſe alone will generally be ſufficient to remove them. If this ſhould not be the caſe, ſome drying medicines will be neceſſary. When they are applied, the body ought at the ſame time to be kept open, and cold is carefully to be avoided. We know no medicine that is more ſafe for drying up cutaneous eruptions than ſulphur, provided it be prudently uſed. A little of the flowers of ſulphur may be mixed with freſh butter, oil, or hog's lard, and the parts affected frequently touched with it.

The moſt obſtinate of all the eruptions incident to children are the *tinea capitis*, or ſcabbed head, and chilblains. The ſcabbed head is often exceeding difficult to cure, and ſometimes indeed the cure proves worſe than the diſeaſe. I have frequently known children ſeized with internal diſorders, of which they died ſoon after their ſcabbed heads had been healed by the application of drying medicines. The cure ought always firſt to be attempted by keeping the head very clean, cutting off the hair, combing and bruſhing away the ſcabs, &c. If this is not ſufficient, let the head be ſhaved once a week; prevent the acceſs of air to the ſores by a bladder properly fitted to the head; waſh it daily with ſoap ſuds, or ſalt and water, or a ſolution of three drachms of *ſulphurated kali* in a pint of lime-water, and gently anoint with either the ointment of tar, or the ointment of ſulphur. And if there be proud fleſh, it ſhould be touched with a bit of blue vitriol, or ſprinkled with a little burnt alum. While theſe things are doing, the patient muſt be confined to a regular light diet; the body ſhould be kept gently open by the flowers of ſulphur, or by ſmall doſes of calomel, and cold, as far as poſſible, ought to be avoided. To prevent any bad conſequences from ſtopping this diſcharge, it will be proper, eſpecially in children of a groſs habit, to make an iſſue in the neck or arm, which may be kept open till the patient becomes more ſtrong, and the conſtitution be ſomewhat mended.

Chilblains commonly attack children in cold weather. They are generally occaſioned by the feet or hands being kept long wet or cold, and afterwards ſuddenly heated. When children are cold, inſtead of taking exerciſe to warm themſelves gradually, they run to the fire. This occaſions a ſudden rarefaction of the humours, and an infarction of the veſſels; which, being often repeated, the veſſels are at laſt over diſtended, and forced to give way.

To prevent it, violent cold and ſudden heat muſt be equally avoided. When the parts begin to look red and ſwell, the patient ought to be purged, and to have the affected parts frequently rubbed with oil of turpentine, muſtard and brandy, or ſomething of a warming nature. They ought likewiſe to be covered with flannel, and kept warm and dry. Some apply warm aſhes between cloths to the ſwelled parts, which frequently help to reduce them. The following em-

brocation generally proves a remedy for this irkſome complaint: diſſolve two drachms of alum in half a pint of vinegar, to which add half a pint of ſpirits of wine; apply it by means of linen rags kept wet on the diſeaſed parts. When there is a ſore, it muſt be dreſſed with *calamine cerate*, the ointment of tutty, or the *ointment of acetated ceruſe*. Theſe ſores are indeed troubleſome, but ſeldom dangerous. They generally heal as ſoon as the warm weather ſets in.

OF THE CROUP.

This diſeaſe firſt appeared, about half a century ago, on the north-eaſt coaſt of England: it is an inflammation of the *trachea*, or wind-pipe, the tube through which the air paſſes to and from the lungs. It happens only to children, and rarely occurs till after they are weaned: the younger they are after this period, they are the more liable to this diſeaſe, which is often violent in its attack, and frequently, by a preternatural ſecretion of matter and mucus, produces ſuch an obſtruction of the paſſage of the air, as ſuffocates and proves ſuddenly fatal to the patient. But if it terminates favourably, the inflammation is reſolved, as is likewiſe the ſpaſm or cramp at the top of the wind-pipe, ſometimes with a conſiderable diſcharge of phlegm from the throat, and ſometimes with little more than happens in a common cold. The croup ſeems to be a ſpecies of ſpaſmodic aſthma, attended with very acute and violent catarrhal ſymptoms: it generally prevails in cold and wet ſeaſons, is moſt common near the ſea coaſt, and in low marſhy countries. Children of a groſs and lax habit are moſt liable to it: its attacks are frequently repeated on the ſame child, and it moſtly aſſails the patient in the night, after he has been much expoſed to damp and cold, or to eaſterly winds, the preceding day. Damp houſes, wet feet, thin ſhoes, wet clothes, or whatever obſtructs the perſpiration, may occaſion the croup, which has not been known to attack children above ten or twelve years of age. It is attended with hoarſeneſs, wheezing, and a dry cough, though ſometimes it is accompanied with purulent expectoration, and a pulſe hard, full, and ſtrong; the breathing is laborious, and performed with a peculiar kind of croaking noiſe that may be heard a conſiderable diſtance; the voice is ſharp and ſhrill. It often happens that this diſeaſe puts on for ſome days the appearance of a common catarrh, but in which the difficulty of breathing increaſes generally in the evening, and a ſenſe of ſuffocation is perceptible, attended with a ſmall quick pulſe often 150, 140, or 150 in a minute. Slight rigors, ſucceeded by heat and fluſhing in the face, are frequent.

When the child is ſeized with theſe ſymptoms, immediate application ſhould be made for medical aſſiſtance: the moſt active remedies muſt be promptly employed, for the diſeaſe often completes its courſe in three or four days. His feet ſhould immediately be immerſed in warm water. If he is of a plethoric habit, as is moſtly the caſe, he muſt be bled. Upon the firſt attack of the diſeaſe, vomiting, immediately after bleeding, ſeems to be of conſiderable uſe, and ſometimes ſuddenly removes the diſeaſe. It is adviſable to have recourſe to thoſe medicines which operate moſt expeditiouſly, ſuch as

vitriolated zinc, even in large doſes. When a taſteleſs emetic is preferred, vomit with the ſolution of *tartarized antimony*: it may be made more detergent and expectorant by adding to it a proper quantity of the oxymel of ſquills. To aſſiſt in reſolving and deſtroying the purulent matter, or tubular membranous ſubſtance that cauſe ſpaſms and often ſuffocates the patient, let him drink frequently a cupful of broth, gruel, or barley-water, in every pint of which a drachm and a half or two drachms of the ſalt of tartar or *prepared kali* has been diſſolved, which may be dulcified a little by honey or the ſyrup of marſh-mallows.

After bleeding and vomiting, give three to ſix grains of calomel mixed with as much ginger, and half a drachm of powdered ſugar; let this be ſwallowed ſlowly, and worked off by drinking broth or gruel, &c. medicated by the fixed alkaline ſalt above mentioned. He ſhould likewiſe be made to inhale the ſteams of warm water and vinegar. Topical bleeding, by the application of three to ſix leeches, according to the age or ſtrength of the patient, applied to the throat, is of conſiderable ſervice. As ſoon as the leeches fall off, the patient may be laid, with his head raiſed high in bed, between blankets, and ſupplied with warm barley-water, mixed with the *acetated water of ammonia*, to excite perſpiration. When the bleeding ceaſes, cover the front of the neck with the compound cerate of galbanum, mentioned in the chapter on Hydrophobia. If in twelve hours the characteriſtic ſymptoms of the diſeaſe do not abate, a bliſtering-plaſter muſt be applied round the neck or between the ſhoulders, and the child may frequently take a table-ſpoonful of the following mixture: milk of gum ammoniacum three ounces, hyſſop or pennyroyal water two ounces, oxymel of ſquills three drachms, ſyrup of marſh-mallows and of white poppies of each an ounce; mix them together.

At the commencement, and throughout the whole courſe of the diſeaſe, the antiphlogiſtic regimen is neceſſary; and calomel, in doſes of one to three grains, may be adminiſtered two or three times in the courſe of twenty-four hours. Cataplaſms of camphor, garlic, and Venice treacle, ſhould be applied to the feet; laxative clyſters are alſo ſaid to be ſerviceable, eſpecially if they are mixed with a few ſpoonfuls of the expreſſed juice of garlic; and it is certain, that, as often as an increaſed difficulty of breathing indicates a freſh accumulation of the inſpiſſated lymph, it ſhould be diſlodged, if poſſible, by emetics once or twice a-day.

Such is the treatment of the diſeaſe when it is purely inflammatory; but when it is almoſt entirely ſpaſmodic, proceeding, as it were, from a cramp of the throat, aſafœtida has a good effect. It may be both given in form of clyſter, and taken by the mouth. Two drachms of aſafœtida may be diſſolved in one ounce of the *acetated water of ammonia*, and three ounces of hyſſop or of pennyroyal water. A table-ſpoonful of this mixture may be given every hour, or oftener, if the patient's ſtomach be able to bear it. If the child cannot be brought to take this medicine, two drachms of aſafœtida may be diſſolved in a common clyſter, and adminiſtered every ſix or eight hours till the violence of the diſeaſe abates.

Tincture of opium, in doſes of five, ſix, to eight drops, given every two hours until ſleep, or a remiſſion of the ſtricture and ſpaſms of the muſcles of the glottis was procured, appears to have averted the fatal iſſue of the croup, which has lately been ſucceſsfully treated by giving five drops of the tincture of fox-glove every four hours.

After the diſeaſe is ſubdued, the decoction of *cinchona* three parts, mixed with infuſion of liquorice one part, may be given to the patient, who, to prevent a relapſe, muſt carefully avoid cold and damp, and eaſterly winds. Children who have been attacked by this diſeaſe, or whoſe conſtitutions ſeem to diſpoſe them to it, ſhould have their diet properly regulated. All food that is viſcid or hard of digeſtion, and all crude, raw, traſhy fruits, are to be avoided. Sometimes a Burgundy-pitch plaſter, worn continually between the ſhoulders for ſeveral years, has been thought to prevent the return of this dangerous diſorder.

OF TEETHING.

Dr. Arbuthnot obſerves, that above a tenth part of infants die in teething, by ſymptoms proceeding from the irritation of the tender nervous parts of the jaws, occaſioning inflammations, fevers, convulſions, gangrenes, &c. Theſe ſymptoms are in a great meaſure owing to the great delicacy and exquiſite ſenſibility of the nervous ſyſtem at this time of life, which is too often increaſed by an effeminate education. Hence it comes to paſs, that children who are delicately brought up always ſuffer moſt in teething, and often fall by convulſive diſorders.

About the ſixth or ſeventh month the teeth generally begin to make their appearance; firſt, the *inciſores*, or fore-teeth; next, the *canini*, or dog-teeth; and, laſtly, the *molares*, or grinders. About the ſeventh year, there comes a new ſet; and about the twentieth, the two inner grinders, called *dentes ſapientiæ*, the teeth of wiſdom.

Children about the time of cutting their teeth ſlaver much, and have generally looſeneſs. An increaſed ſecretion of ſaliva is conſidered as a favourable ſymptom, and coſtiveneſs, fever, vomiting, &c. as unfavourable ones. When the teething is difficult, eſpecially when the dog-teeth begin to make their way through the gums, the child has ſtartings in his ſleep, tumors of the gums, watchings, gripes, green ſtools, the thruſh, fever, difficult breathing, and convulſions.

Difficult teething requires nearly the ſame treatment as an inflammatory diſeaſe. If the infant is wet nurſed, its mother or nurſe ſhould live a little lower than uſual, and occaſionally take a little cooling phyſic. If the body be bound, it muſt be opened either by emollient clyſters or gentle purgatives; as manna, *magneſia alba*, rhubarb, ſenna, or the like. The food ſhould be light, and in ſmall quantity; the drink plentiful, but weak and diluting, as infuſions of balm or of the lime-tree flowers, to which about a third or fourth part of milk may be added.

If the fever be high, bleeding will be neceſſary; but this in very young children ought always to be ſparingly performed. It is an

evacuation which they bear the worſt of any. Purging, vomiting, or ſweating, agree much better with them, and are generally more beneficial. Harris, however, obſerves, that, when an inflammation appears, the phyſician will labour in vain if the *cure* be not begun with applying a leech under each ear. If the child be ſeized with convulſion fits, a bliſtering-plaſter may be applied between the ſhoulders, or one behind each ear.

Sydenham ſays, that, in fevers occaſioned by teething, he never found any remedy ſo effectual as two, three, or four drops of ſpirits of hartſhorn in a ſpoonful of ſimple water, or other convenient vehicle, given every four hours. The number of doſes may be four, five, or ſix. I have often preſcribed this medicine with ſucceſs, but always found a large doſe neceſſary. It may be given from five drops to fifteen or twenty, according to the age of the child; and when coſtiveneſs does not forbid it, three or four drops of laudanum may be added to each doſe.

In Scotland, it is very common, when children are cutting their teeth, to put a ſmall Burgundy pitch plaſter between their ſhoulders. This generally eaſes the tickling cough which attends teething, and is by no means an uſeleſs application. When the teeth are cut with difficulty, it ought to be kept on during the whole time of teething. It may be enlarged as occaſion requires, and ought to be renewed at leaſt once a fortnight.

Several things have been recommended for rubbing the gums, as oils mucilages, &c.; but from theſe much is not to be expected. If any thing of this kind is to be uſed, we would recommend a little fine honey, which may be rubbed on with the finger three or four times a-day. Children are generally at this time diſpoſed to chew whatever they get into their hands. For this reaſon they ought never to be without ſomewhat that will yield a little to the preſſure of their gums, as a cruſt of bread, a wax candle, a bit of liquorice or orris-root, or ſuch like.

With regard to cutting the gums, we have ſeldom known it of any great benefit. In obſtinate caſes, however, it ought to be tried. It may be performed by the finger nail, the edge of a ſix-penny piece that is worn thin, or any ſharp body which can be with ſafety introduced into the mouth; but the lancet, in a ſkilful hand, is certainly the moſt proper.

In order to render the teething leſs difficult, parents ought to take care that their children's food be light and wholeſome, and that their nerves be braced by ſufficient exerciſe without doors, the uſe of the cold bath, &c. The bowels ought always to be kept in a laxative ſtate, as nothing tends to increaſe children's complaints of every kind, eſpecially ſuch as are inflammatory, ſo much as coſtiveneſs. Were theſe things duly regarded, they would have a much better effect than *teething necklaces*, or other nonſenſical amulets worn for that purpoſe.

OF THE RICKETS.

This diſeaſe generally attacks children between the age of ſix months and two years. The rickets firſt appeared in Britain between

1612 and 1620. We are indebted to Dr. Gliſſon, an Engliſh phyſician, for the firſt hiſtory of this malady. That ſkilful anatomiſt and accurate obſerver publiſhed an account of the rickets, wherein he ſhewed how the viſcera of ſuch as had died of that diſorder were affected. This was the more acceptable to the medical philoſophers of that day, as the rickets had then but lately appeared in England, being firſt diſcovered in Dorſet and Somerſetſhire, about the time when luxury began to increaſe and manufactures to flouriſh; and this diſtemper ſtill prevails moſt in towns where the inhabitants follow ſedentary employments, by which means they neglect either to take pure air and proper exerciſe themſelves, or to give it to their children. The reſidents in low marſhy countries are alſo peculiarly liable to the depredations of this diſeaſe.

CAUSES.——One cauſe of the rickets is diſeaſed parents. Mothers of a weak relaxed habit, who neglect exerciſe, and live upon weak watery diet, can neither be expected to bring forth ſtrong and healthy children, or to be able to nurſe them. Accordingly we find that the children of ſuch women generally die of the rickets, the ſcrophula, conſumptions, or ſuch like diſeaſes. Children begotten by men in the decline of life, who are ſubject to the gout, the gravel, or other chronic diſeaſes, or who have been often afflicted with the venereal diſeaſe in their youth, are likewiſe very liable to the rickets.

Any diſorder that weakens the conſtitution, or relaxes the habit of children, as the ſmall-pox, meaſles, teething, the hooping-cough, &c. diſpoſes them to this diſeaſe. It may likewiſe be occaſioned by improper diet, as food that is either too weak and watery, or ſo viſcid that the ſtomach cannot digeſt it.

Bad nurſing is the chief cauſe of this diſeaſe. When the nurſe is either diſeaſed, or has not enough of milk to nouriſh the child, it cannot thrive. But children ſuffer oftener by want of care in nurſes than want of food. Allowing an infant to lie or ſit too much, or not keeping it thoroughly clean in its clothes, has the moſt pernicious effects.

The want of free air is likewiſe very hurtful to children in this reſpect. When a nurſe lives in a cloſe ſmall houſe, where the air is damp, cold, and confined, and is too indolent to carry her child abroad into the open air, it will hardly eſcape this diſeaſe. A healthy child ſhould always be in motion, unleſs when aſleep: if it be ſuffered to lie, or ſit, inſtead of being toſſed and dandled about, it will not thrive.

SYMPTOMS.——At the beginning of this diſeaſe the child's fleſh grows ſoft and flabby; its ſtrength is diminiſhed; it loſes its wonted cheerfulneſs, looks more grave and compoſed than is natural for its age, and does not chooſe to be moved. The head and belly become too large in proportion to the other parts; the face appears full, and the complexion florid. Afterwards the bones begin to be affected, eſpecially in the more ſoft and ſpongy parts. Hence the wriſts and ankles become thicker than uſual; the ſpine or back-bone puts on an unnatural ſhape; the breaſt is likewiſe often deformed; and the bones of the arms and legs grow crooked. All theſe ſymptoms vary according to the violence of the diſeaſe. The pulſe is generally quick, but

feeble; the appetite and digeſtion for the moſt part very indifferent; the teeth come ſlowly and with difficulty, and they often rot and fall out afterwards. Rickety children have generally great acuteneſs of mind, and an underſtanding above their years. Whether this is owing to their being more in the company of adults than other children, or to the preternatural enlargement of the brain, is not material.

REGIMEN.——As this diſeaſe is always attended with evident ſigns of weakneſs and relaxation, our chief aim in the cure muſt be to brace and ſtrengthen the ſolids, and to promote digeſtion and the due preparation of the fluids. Theſe important ends will be beſt anſwered by wholeſome nouriſhing diet, ſuited to the age and ſtrength of the patient, open dry air, and ſufficient exerciſe. If the child has a bad nurſe, who either neglects her duty, or does not underſtand it, ſhe ſhould be changed. If the ſeaſon be cold, the child ought to be kept warm; and when the weather is hot, it ought to be kept cool; as ſweating is apt to weaken it, and too great a degree of cold has the ſame effect. The limbs ſhould be rubbed frequently with a warm hand, the fleſh-bruſh, or with flannel impregnated with the fumes of maſtich, frankincenſe, and myrrh, and the child kept as cheerful as poſſible.

The diet ought to be dry and nouriſhing, as good bread, roaſted fleſh, &c. Biſcuit is generally reckoned the beſt bread; and pigeons, pullets, veal, rabbits, or mutton roaſted or minced, are the moſt proper fleſh. If the child be too young for fleſh meats, he may have beef-tea, rice, arrow-root, or pearl-barley, boiled with raiſins, to which may be added a little wine and ſpice. His drink may be good claret, mixed with an equal quantity of water. Thoſe who cannot afford claret may give the child now and then a wine-glaſs of mild ale or good porter.

MEDICINE.——Medicines here are of litle avail. The diſeaſe may often be cured by the nurſe, but ſeldom by the phyſician. In children of a groſs habit, gentle vomits and repeated purges of calomel or rhubarb may ſometimes be of uſe, but they will ſeldom carry off the diſeaſe; that muſt depend chiefly upon ſuch things as ſtrengthen the ſyſtem: for which purpoſe, beſides the regimen mentioned above, we would recommend the cold bath, eſpecially in the warm ſeaſon. It muſt however be uſed with prudence, as ſome rickety children cannot bear it. The beſt time for uſing the cold bath is in the morning, and the child ſhould be well rubbed with a dry cloth immediately after he comes out of it.

To counteract the chilling effect of this proceſs, give, as ſoon as he is taken out of the bath, a doſe of the following medicine: Compound tincture of *cinchona* and tincture of columba each one ounce, wine of iron two ounces; mix them. From one to four tea-ſpoonfuls may be taken in a table-ſpoonful or two of the decoction or infuſion of *cinchona*, which, if he is not purged, may be acidulated with a little of the diluted acid of vitriol. Or give twenty to ſixty drops of the *ammoniated tincture of iron* in the vehicle juſt mentioned, or in pure water; or in the following ſolution, which even

taken alone is ſerviceable in this and in ſcrophulous caſes. Take prepared *natron* three drachms; diſſolve it in a pint of diſtilled water (or in river water that has boiled a few minutes and ſtood to cool): Doſe, two or three table-ſpoonfuls two or three times a-day.

An infuſion of *cinchona* (Peruvian bark) with a little orange peel, in wine or ale, would be of ſervice, not only to quicken the moving powers after bathing, but as a remedy for this diſeaſe, were it poſſible to prevail on children to take it.

If the child ſhould be weakened by the cold bath, it muſt be diſcontinued, and waſh the ſurface of the body with a ſolution of common potaſh, in the proportion of half an ounce to a pint of ſpring water morning and evening, taking care however to wipe the ſkin perfectly dry with a piece of fine flannel. The back ſhould be well rubbed every night with camphorated ſpirit; and if, for internal uſe, a powder is preferred, take prepared iron and powdered rhubarb of each five grains, white ſugar ten grains; mix and give the patient this doſe every morning faſting and every evening an hour before ſupper. The iron may be gradually increaſed to ten grains for a doſe; but if conſiderable looſeneſs prevail, perſiſt at firſt only in the uſe of one powder every day, giving the patient, then or at any other time, lime water rendered palatable by the addition of a little milk, or the decoction of hartſhorn, for his ordinary drink.

Sometimes iſſues have been found beneficial in this diſeaſe. They are generally neceſſary for children who abound with groſs humours.

OF CONVULSIONS.

Though more children are ſaid to die of convulſions than of any other diſeaſe, yet they are for the moſt part only a ſymptom of ſome other malady. Whatever greatly irritates or ſtimulates the nerves may occaſion convulſions; hence infants, whoſe nerves are eaſily affected, are often thrown into convulſions by any thing that irritates the alimentary canal; likewiſe by teething, ſtrait clothes, the approach of the ſmall-pox, meaſles, or other eruptive diſeaſes. Convulſions have alſo been fatal to thouſands of infants, occaſioned by confined impure air and the want of cleanlineſs.

When convulſions proceed from an irritation of the ſtomach or bowels, whatever clears them of their acrid contents, or renders theſe mild and inoffenſive, will generally perform a cure: wherefore, if the child be coſtive, the beſt way will be to begin with a clyſter, and afterwards to give a gentle vomit, which may be repeated occaſionally, and the body in the mean time kept open by gentle doſes of *magneſia alba*, or ſmall quantities of rhubarb mixed with the powder of crabs claws.

Convulſions which precede the eruption of the ſmall-pox or meaſles generally go off upon theſe making their appearance. The principal danger in this caſe ariſes from the fears and apprehenſions of thoſe who have the care of the patient. Convulſions are very alarming, and ſomething muſt be done to appeaſe the affrighted parents, nurſes, &c. Hence the unhappy infant often undergoes bleeding, bliſtering, and ſeveral other operations, to the great danger of its life, when a little

time, bathing the feet in warm water, or immerſing the child in a warm bath, and throwing in a mild clyſter, would have ſet all to rights.

Bellóſte recommends mercury, in convulſions, to be given along with teſtaceous powders, which the Editor has ſeen attended with beneficial effects; therefore, when coſtiveneſs has preceded pain in the bowels, eſpecially if there be an evident hardneſs and tenſion of the belly, a grain or two of calomel, with a few grains of ginger, and five to eight grains of jalap, may be given; and alſo a clyſter ſhould be exhibited of thin gruel and caſtor oil, which may be repeated every hour till ſtools are obtained. But if the child has been reduced by a long continued looſeneſs, the diſtention of the bowels may be attributed to confined air; and in the gruel of which the clyſters are formed, caraway or aniſeeds may be boiled; or the powder of thoſe ſeeds may be mixed with the victuals of the infant: or take juniper-berries and caraway-ſeeds of each one drachm; after bruiſing them, add four ounces of boiling water: let them ſimmer over a gentle heat for ten minutes; and, when cold, ſtrain off the liquor, and add of prepared crabs eyes or magneſia one drachm, *compound tincture of cardamoms* half an ounce, honey ſufficient to make it palatable. A pap ſpoonful may be given when the child is very reſtleſs and troubled with wind. Or the belly may be fomented with a ſtrong decoction of camomile-flowers; or let camomile-flowers, wetted with gin or other ſpirits made hot, be applied in a flannel bag to the belly, employing alſo friction with a warm hand, and gentle preſſure.

When there is reaſon to believe that worms occaſion convulſions, a grain or two of calomel may be given at bed-time, and thirty drops to a drachm of the *compound tincture of aloes;* or a clyſter may be injected made of a ſtrong decoction of camomile-flowers mixed with a few grains of aloes, or two to four drachms of the tincture of aſafœtida.

Children bear the operation of calomel as well as an adult: to a child of one year old, one, and not more than two, grains may be given; increaſing one grain for every year to the age of five.

When convulſion fits ariſe from the cutting of the teeth, beſides gentle evacuations, we would recommend bliſtering, and the uſe of antiſpaſmodic medicines, as the tincture of aſafœtida, galbanum, or caſtor. A few drops of any of theſe may be mixed in a cup of white wine whey, and given occaſionally.

When convulſions proceed from any external cauſe, as the preſſure occaſioned by ſtrait clothes or bandages, &c. theſe ought immediately to be removed: though in this caſe taking away the cauſe will not always remove the effect, yet it ought to be done. It is not likely that the patient will recover as long as the cauſe which firſt gave riſe to the diſorder continues to act.

When a child is ſeized with convulſions without having any complaint in the bowels, or ſymptoms of teething, or any raſh or other diſcharge which has been ſuddenly dried up, we have reaſon to conclude that it is a primary diſeaſe, and proceeds immediately from the brain. Caſes of this kind, however, happen but ſeldom, which is

very fortunate, as little can be done to relieve the unhappy patient. When a diſeaſe proceeds from an original fault in the formation or ſtructure of the brain itſelf, we cannot expect that it ſhould yield to medicine. But as this is not always the cauſe, even of convulſions which proceed immediately from the brain, ſome attempts ſhould be made to remove them. The chief intention to be purſued for this purpoſe is to make ſome derivation from the head, by bliſtering, purging, and the like. Should theſe fail, iſſues or ſetons may be put in the neck, or between the ſhoulders.

OF WATER IN THE HEAD.

THOUGH water in the head, or a dropſy of the brain, may affect adults as well as children, yet, as the latter are more peculiarly liable to it between two and ten years of age, we thought it would be moſt proper to place it among the diſeaſes of infants.

CAUSES.——A dropſy of the brain may proceed from injuries done to the brain itſelf by falls, blows, or the like; it may likewiſe proceed from an original laxity or weakneſs of the brain; from ſchirrous tumors or excreſcences within the ſkull; a thin watery ſtate of the blood; a diminiſhed ſecretion of urine; a ſudden check of the perſpiration; and, laſtly, from tedious and lingering diſeaſes, which waſte and conſume the patient.

SYMPTOMS.——This diſeaſe has at firſt the appearance of a ſlow fever; the patient complains of pains in the limbs, of a pain in the crown of his head, or over his eyes; he ſhuns the light; is ſick, and ſometimes vomits; his pulſe is irregular and generally low; he is not only coſtive, but it is with the greateſt difficulty that ſtools are procured, which are generally of a dark greeniſh colour, with an oilineſs, or glaſſy bile: though he ſeems heavy and dull, yet he does not ſleep: he is ſometimes delirious, and frequently ſees objects double. Towards the end of this commonly fatal diſeaſe, the pulſe becomes more frequent, the pupils are generally dilated, the cheeks flushed, the patient becomes comatoſe, and convulſions enſue.

MEDICINE.——No medicine has hitherto been found ſufficient to carry off a dropſy of the brain. It is laudable, however, to make ſome attempts, as time or chance may bring many things to light of which at preſent we have no idea. The medicines generally uſed are, purges of rhubarb or jalap, with calomel, and bliſtering-plaſters applied to the neck or back part of the head. To which we would beg leave to add diuretics, or medicines which promote the ſecretion of urine, ſuch as are recommended in the common dropſy. A diſcharge from the noſe ought likewiſe to be promoted by cauſing the patient to ſnuff the powder of aſarum, white hellebore, or the like. Very ſudden relief, it is ſaid, has been ſometimes obtained by bleeding; and the tincture of fox-glove, being one of the moſt powerful diuretic remedies with which we are acquainted, ſeems to be a very proper one in this diſeaſe.

Some practitioners have of late pretended to cure this diſeaſe by the uſe of the preparations of quickſilver. I have not been ſo happy as to ſee any inſtances of a cure being performed in a confirmed

dropſy of the brain; but in ſo deſperate a malady every thing that can poſſibly be of ſervice to the patient deſerves a trial.

CHAP. L.

OF SURGERY.

TO deſcribe all the operations of ſurgery, and to point out the different diſeaſes in which theſe operations are neceſſary, would extend this article far beyond the limits allotted to it: we muſt therefore confine our obſervations to ſuch caſes as moſt generally occur, and in which proper aſſiſtance is either not aſked, or not always to be obtained. Though an acquaintance with the ſtructure of the human body is indiſpenſibly neceſſary to qualify a man for being an expert ſurgeon, yet many things may be done to ſave the lives of their fellow men in emergencies by thoſe who are no adepts in anatomy. It is amazing with what facility the peaſants daily perform operations upon brute animals, which are not of a leſs difficult nature than many of thoſe performed on the human ſpecies; yet they ſeldom fail of ſucceſs.

Indeed, every man is in ſome meaſure a ſurgeon whether he will or not. He feels an inclination to aſſiſt his fellow-men in diſtreſs, and accidents happen every hour which give occaſion to exerciſe this feeling. The feelings of the heart, however, when not directed by the judgment, are apt to miſlead. Thus one, by a raſh attempt to ſave his friend, may ſometimes deſtroy him; while another, for fear of doing amiſs, ſtands ſtill and ſees his boſom friend expire without ſo much as attempting to relieve him, even when the means are in his power. As every good man would wiſh to ſteer a courſe different from either of theſe, it will no doubt be agreeable to him to know what ought to be done upon ſuch emergencies.

OF BLEEDING.

No operation of ſurgery is ſo frequently neceſſary as bleeding; it ought therefore to be very generally underſtood. But though practiſed by midwives, gardeners, blackſmiths, &c. we have reaſon to believe that very few know when it is proper. Even phyſicians themſelves have been ſo much the dupes of theory in this article, as to render it the ſubject of ridicule. It is however an operation of great importance, and muſt, when ſeaſonably and properly performed, be of ſingular ſervice to thoſe in diſtreſs.

Bleeding is proper at the beginning of all inflammatory fevers, as pleuriſies, peripneumonies, &c. It is likewiſe proper in all topical inflammations, as thoſe of the inteſtines, womb, bladder, ſtomach, kidneys, throat, eyes, &c. as alſo in the aſthma, ſciatic pains, coughs, head-achs, rheumatiſms, the apoplexy, epilepſy, and bloody-flux. After falls, blows, bruiſes, or any violent hurt received either externally or internally, bleeding is neceſſary. It is likewiſe neceſſary for perſons who have had the misfortune to be ſtrangled, drowned,

ſuffocated with foul air, the fumes of metal, or the like. In a word, whenever the vital motions have been ſuddenly ſtopt from any cauſe whatever, except in ſwoonings occaſioned by mere weakneſs or hyſteric affections, it is proper to open a vein. But in all diſorders proceeding from a relaxation of the ſolids and an impoveriſhed ſtate of the blood, as dropſies, cacochymies, &c. bleeding is improper.

Bleeding for topical inflammations ought always to be performed as near the part affected as poſſible. When this can be done with a lancet, it is to be preferred to any other method; but where a vein cannot be found, recourſe muſt be had to leeches or cupping.

The quantity of blood to be let muſt always be regulated by the ſtrength, age, conſtitution, manner of life, and other circumſtances relating to the patient. It would be ridiculous to ſuppoſe that a child could bear to loſe as much blood as a grown perſon, or that a delicate lady ſhould be bled to the ſame extent as a robuſt man.

From whatever part of the body blood is to be let, a bandage muſt be applied between that part and the heart. As it is often neceſſary, in order to raiſe the vein, to make the bandage pretty tight, it will be proper in ſuch caſes, as ſoon as the blood begins to flow, to ſlacken it a little. The bandage ought to be applied at leaſt an inch or an inch and a half from the place where the wound is intended to be made.

Perſons not ſkilled in anatomy ought never to bleed in a vein that lies over an artery or a tendon, if they can avoid it. The former may eaſily be known from its pulſation or beating, and the latter from its feeling hard or tight like a whipcord under the finger.

It was formerly a rule, even among thoſe who had the character of being regular practitioners, to bleed their patients in certain diſeaſes till they fainted. Surely a more ridiculous rule could not be propoſed. One perſon will faint at the very ſight of a lancet, while another will loſe almoſt the whole blood of his body before he faints. Swooning depends more upon the ſtate of the mind than of the body; beſides, it may often be occaſioned or prevented by the manner in which the operation is performed.

Children are generally bled with leeches. This, though ſometimes neceſſary, is a very troubleſome and uncertain practice. It is impoſſible to know what quantity of blood is taken away by leeches; beſides, the bleeding is often very difficult to ſtop, and the wounds are not eaſily healed. Would thoſe who practiſe bleeding take a little more pains, and accuſtom themſelves to bleed children, they would not find it ſuch a difficult operation as they imagine.

Certain hurtful prejudices with regard to bleeding ſtill prevail among the country people. They talk, for inſtance, of head-veins, heart-veins, breaſt-veins, &c. and believe that bleeding in theſe will certainly cure all diſeaſes of the parts from whence they are ſuppoſed to come, without conſidering that all the blood-veſſels ariſe from the heart, and return to it again; for which reaſon, unleſs in topical inflammations, it ſignifies very little from what part of the body blood is taken. But this, though a fooliſh prejudice, is not near ſo hurtful as the vulgar notion that the firſt bleeding will perform wonders. This belief makes them often poſtpone the operation when

neceſſary, in order to reſerve it for ſome more important occaſion, and, when they think themſelves in extreme danger, they fly to it for relief, whether it be proper or not. Bleeding at certain ſtated periods or ſeaſons has likewiſe bad effects.

It is a common notion that bleeding in the feet draws the humours downwards, and conſequently cures diſeaſes of the head and other ſuperior parts; but we have already obſerved that, in all topical affections, the blood ought to be drawn as near the part as poſſible. When it is neceſſary, however, to bleed in the foot or hand, as the veins are ſmall, and the bleeding is apt to ſtop too ſoon, the part ought to be immerſed in warm water, and kept there till a ſufficient quantity of blood be let.

We ſhall not ſpend time in deſcribing the manner of performing this operation: that will be better learned by example than precept. Twenty pages of deſcription would not convey ſo juſt an idea of the operation as ſeeing it once performed by an expert hand. Neither is it neceſſary to point out the different parts of the body from whence blood may be taken, as the arm, foot, forehead, temples, neck, &c. Theſe will readily occur to every intelligent perſon, and the foregoing obſervations will be ſufficient for determining which of them is moſt proper upon any particular occaſion. In all caſes where the intention is merely to leſſen the general maſs of blood, the arm is the moſt commodious part of the body in which the operation can be performed.

OF INFLAMMATIONS AND ABSCESSES.

From whatever cauſe an inflammation proceeds, it muſt terminate either by diſperſion, ſuppuration, or gangrene. Though it is impoſſible to foretel with certainty in which of theſe ways any particular inflammation will terminate, yet a probable conjecture may be formed with regard to the event from a knowledge of the patient's age and conſtitution. Inflammations happening in a ſlight degree upon colds, and without any previous indiſpoſition, will moſt probably be diſperſed; thoſe which follow cloſe upon a fever, or happen to perſons of a groſs habit of body, will generally ſuppurate; and thoſe which attack very old people, or perſons of a dropſical habit, will have a ſtrong tendency to gangrene.

If the inflammation be ſlight, and the conſtitution ſound, the diſperſion ought always to be attempted. This will be beſt promoted by a ſlender diluting diet, plentiful bleeding, and repeated purges. The part itſelf muſt be fomented, and, if the ſkin be very tenſe, it may be embrocated with a mixture of three-fourths of ſweet-oil and one-fourth of vinegar, and afterwards covered with a piece of wax-plaſter.

If, notwithſtanding theſe applications, the ſymptomatic fever increaſes, and the tumor becomes larger, with violent pain and pulſation, it will be proper to promote the ſuppuration. The beſt application for this purpoſe is a ſoft poultice, which may be renewed twice a-day. If the ſuppuration proceeds but ſlowly, a raw onion cut ſmall or bruiſed may be ſpread upon the poultice, or apply the ripening cataplaſm. When the abſceſs is ripe or fit for opening, which

may eaſily be known from the thinneſs of the ſkin in the moſt prominent part of it, fluctuation of matter which may be felt under the finger, and, generally ſpeaking, an abatement of the pain, it may be opened either with a lancet or by means of cauſtic.

The laſt way in which an inflammation terminates is in a gangrene or mortification, the approach of which may be known by the following ſymptoms: the inflammation loſes its redneſs, and becomes duſkiſh or livid; the tenſion of the ſkin goes off, and it feels flabby; little bladders filled with ichor of different colours ſpread all over it; the tumor ſubſides, and from a duſkiſh complexion becomes black; a quick low pulſe, with cold clammy ſweats, are the immediate forerunners of death.

When theſe ſymptoms firſt appear, the part ought to be fomented with the decoction for fomentation, embrocated with camphorated ſpirit, and a poultice of oatmeal and beer grounds applied. Opium and wine given internally have been found ſerviceable in gangrene of the toes, eſpecially of old people. Should the ſymptoms become worſe, the part muſt be ſcarified, and afterwards dreſſed with the *ointment of yellow reſin* ſoftened with oil of turpentine. All the dreſſings muſt be applied warm. With regard to internal medicines, the patient muſt be ſupported with wine, generous cordials, and the Peruvian bark exhibited in as large doſes as the ſtomach will bear it. If the mortified parts ſhould ſeparate, the wound will become a common ulcer, and muſt be treated accordingly.

This article includes the treatment of all thoſe diſeaſes, which, in different parts of the country, go by the names of *biles*, *impoſthumes*, *whitloes*, &c. They are all abſceſſes in conſequence of a previous inflammation, which, if poſſible, ought to be diſcuſſed; but when this cannot be done, the ſuppuration ſhould be promoted, and the matter diſcharged by an inciſion, if neceſſary; afterwards the ſore may be dreſſed with the *ointment of yellow reſin*, or ſome other digeſtive ointment.

OF SCHIRROUS TUMORS.

Schirrous tumors often terminate in cancer, a diſeaſe which is local in its origin; and though it may not be hereditary, it occurs more frequently in ſome families, and ſome conſtitutions are doubtleſs more liable to it than others, eſpecially on the application of a blow or external violence to a part like the female breaſt, or the *teſtes*, of a glandular ſtructure.

A common indolent tumor frequently continues for a long time ſtationary, but, on the occurrence of any irritating cauſe, is liable to aſſume the cancerous character; it therefore becomes a moſt important object to accompliſh the diſperſion of theſe tumors; an object which, happily, may be in many inſtances attained.

The means which have been moſt efficient in the diſperſion of ſuch tumors are the application of leeches at ſhort intervals, the period being varied according to circumſtances. The external uſe of ſpirit of wine, camphor, and the *acetated water of litharge* (commonly called Goulard's extract of lead), in different proportions; by the

ointment of quickſilver, of different degrees of ſtrength, with or without camphor; and poultices in which hemlock is the principal ingredient; beſides which, we have uſually found it requiſite to put the patient on an alterative courſe of medicine, continued for a longer or ſhorter time, as the age and conſtitution of the patient ſeemed to require. By ſuch means many tumors in the breaſt have been diſperſed, and that dreadful ſource of ſuffering, a cancer, prevented.

Thoſe tumors which ariſe in conſequence of cold yield moſt readily to the bleeding by leeches. Thoſe which are more indolent, and ſeem connected with a languid ſtate of conſtitution, give way to hemlock or mercury.

The learned and ingenious Mr. Home alſo obſerves, that there is a ſwelling which ſometimes takes place upon the margin of the mammæ, midway between the nipple and the axilla, which appears to be independent of the gland of the breaſt, and only an affection of a lymphatic gland in that ſituation, which readily becomes enlarged, and often yields to an application of folded linen wetted with ſedative lotions, ſuch as may be compoſed of equal proportions of ſpirit of wine and camphorated ſpirit, with one-eighth part of the *acetated water of litharge*.

OF WOUNDS.

No part of medicine has been more miſtaken than the treatment or cure of wounds. Mankind in general believe that certain herbs, ointments, and plaſters, are poſſeſſed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is however a fact, that no external application whatever contibutes towards the cure of a wound, any other way than by keeping the parts ſoft, clean, and defending them from the external air, which may be as effectually done by dry lint as by the moſt pompous applications, while it is exempt from many of the bad conſequences attending them.

The ſame obſervation holds with reſpect to internal applications. Theſe only promote the cure of wounds as far as they tend to prevent a fever, or to remove any cauſe that might obſtruct or impede the operations of Nature. It is Nature alone that cures wounds. All that Art can do is to remove obſtacles, and to put the parts in ſuch a condition as is the moſt favourable to Nature's efforts.

With this ſimple view we ſhall conſider the treatment of wounds, and endeavour to point out ſuch ſteps as ought to be taken to facilitate their cure.

The firſt thing to be done when a perſon has received a wound is to examine whether any foreign body be lodged in it, as wood, ſtone, iron, lead, glaſs, dirt, bits of cloth, or the like. Theſe, if poſſible, ought to be extracted, and the wound cleaned before any dreſſings be applied. When that cannot be effected with ſafety, on account of the patient's weakneſs or loſs of blood, they muſt be ſuffered to remain in the wound, and afterwards extracted when he is more able to bear it.

When a wound penetrates into any of the cavities of the body, as the breaſt, the bowels, &c. or where any conſiderable blood-veſſel is cut, a ſkilful ſurgeon ought immediately to be called, otherwiſe the patient may loſe his life. But ſometimes the diſcharge of blood is ſo great, that, if it be not ſtopt, the patient may die, even before a ſurgeon, though at no great diſtance, can arrive. In this caſe, ſomething muſt be done by thoſe who are preſent. If the wound be in any of the limbs, the bleeding may generally be ſtopt by applying a tight ligature or bandage round the member a little above the wound. The beſt method of doing this is to put a ſtrong broad garter round the part, but ſo ſlack as eaſily to admit a ſmall piece of ſtick to be put under it, which muſt be twiſted in the ſame manner as a countryman does a cart rope to ſecure his loading, till the bleeding ſtops. Whenever this is the caſe, he muſt take care to twiſt it no longer, as ſtraining it too much might occaſion an inflammation of the parts, and endanger a gangrene.

In parts where this bandage cannot be applied, various other methods may be tried to ſtop the bleeding, as the application of ſtyptics, or aſtringents. Dry lint, or flour, or cloths dipped in a ſolution of blue vitriol in water, the *ſtyptic water*, or the *compound tincture of Benjamin* of the diſpenſatories, may be applied to the wound. When theſe cannot be obtained, ſtrong ſpirits of wine may be uſed. Some recommend the *agaric* of the oak as preferable to any of the other ſtyptics; and indeed it deſerves conſiderable encomiums. It is eaſily obtained, and ought to be kept in every family, in caſe of accidents. A piece of it muſt be laid upon the wound, and covered with a good deal of lint, above which a bandage may be applied ſo tight as to keep it firmly on.

Though ſpirits, tinctures, and hot balſams, may be uſed, in order to ſtop the bleeding when it is exceſſive, they are improper at other times. They do not promote but retard the cure, and often change a ſimple wound into an ulcer. People imagine, becauſe hot balſams congeal the blood, and ſeem, as it were, to ſolder up the wound, that they therefore heal it; but this is only a deception. They may indeed ſtop the flowing blood, by ſearing the mouths of the veſſels; but by rendering the parts callous, they obſtruct the cure.

In ſlight wounds, which do not penetrate much deeper than the ſkin, the beſt application is a bit of the common black ſticking plaſter. This keeps the ſides of the wound together, and prevents the air from hurting it, which is all that is neceſſary. When a wound penetrates deep, it is not ſafe to keep its lips quite cloſe: this keeps in the matter, and is apt to make the wound feſter. In this caſe the beſt way is to fill the wound with ſoft lint, commonly called *caddis*. It however muſt not be ſtuffed in too hard, otherwiſe it will do hurt. The lint may be covered with a cloth dipped in oil, or ſpread with the common wax plaſter, and the whole muſt be kept on by a proper bandage.

We ſhall not ſpend time in deſcribing the different bandages that may be proper for wounds in different parts of the body: common ſenſe will generally ſuggeſt the moſt commodious method of applying

a bandage; beſides, deſcriptions of this kind are not eaſily underſtood or remembered.

The firſt dreſſing ought to continue on for at leaſt two days; after which it may be removed, and freſh lint applied as before. If any part of the firſt dreſſing ſticks ſo cloſe as not to be removed with eaſe or ſafety to the patient, it may be allowed to continue, and freſh lint dipped in ſweet oil laid over it. This will ſoften it, ſo as to make it come off eaſily at next dreſſing. Afterwards the wound may be dreſſed twice a-day in the ſame manner till it be quite healed. Thoſe who are fond of ſalves or ointments, may, after the wound is become very ſuperficial, dreſs it with the *ointment of yellow reſin*; and if fungous, or what is called *proud fleſh*, ſhould riſe in the wound, it may be checked, by mixing with the ointment a little burnt alum or red precipitate of quickſilver.

When a wound is greatly inflamed, the moſt proper application is a poultice of bread and milk, ſoftened with a little ſweet oil or freſh butter. This muſt be applied inſtead of a plaſter, and ſhould be changed twice a-day.

If the wound be large, and there is reaſon to fear an inflammation, the patient ſhould be kept on a very low diet. He muſt abſtain from fleſh, ſtrong liquors, and every thing that is of a heating nature. If he be of a full habit, and has loſt but little blood from the wound, he muſt be bled; and, if the ſymptoms be urgent, the operation may be repeated. But when the patient has been greatly weakened by the loſs of blood from the wound, it will be dangerous to bleed him, even though a fever ſhould enſue. Nature ſhould never be too far exhauſted. It is always more ſafe to allow her to ſtruggle with the diſeaſe in her own way, than to ſink the patient's ſtrength by exceſſive evacuations.

Wounded perſons ought to be kept perfectly quiet and eaſy. Every thing that ruffles the mind or moves the paſſions, as love, anger, fear, exceſſive joy, &c. are very hurtful. They ought above all things to abſtain from venery. The body ſhould be kept gently open, either by laxative clyſters or by a cool vegetable diet, as roaſted apples, ſtewed prunes, boiled ſpinage, and ſuch like.

OF BURNS AND SCALDS.

Immediately immerſe or drench the part with cold water, beer, or vinegar, and continue the application with freſh cold liquor, until the part no longer ſuffers pain on omitting it. A linen bag filled with fragments of ice, applied to parts inflamed by burns or ſcalds, and frequently renewed, is often efficacious. The ſtimulating plan of treatment is, however, purſued in theſe caſes by many perſons, who hold the part to the fire for a competent time, or rub it with ſalt, or with onions; or lay compreſſes upon it dipped in ſpirit of wine, brandy, or oil of turpentine. A lady, in the act of making an application of this ſort in the night, ſet fire to her linen, and was deſtroyed. When the burn has penetrated ſo deep as to bliſter or break the ſkin, it muſt be dreſſed with ſome of the liniment for burns mentioned in the Appendix, or with the emollient and gently drying

ointment, commonly called *cerate of calamine*. This may be mixed with an equal quantity of freſh olive oil, and ſpread upon a ſoft rag, and applied to the part affected. When this ointment cannot be had, an egg may be beat up with about an equal quantity of the ſweeteſt ſalad oil. This will ſerve very well till a proper ointment can be prepared. When the burning is very deep, after the firſt two or three days, it ſhould be dreſſed with equal parts of the *ointment of yellow reſin* and *cerate of calamine*.

When the burn is violent, or has occaſioned a high degree of inflammation, and there is reaſon to fear a gangrene or mortification, the ſame means muſt be uſed to prevent it as are recommended in other violent inflammations. The patient, in this caſe, muſt live low, and drink freely of weak diluting liquors. He muſt likewiſe be bled, and have his body kept open by cooling purges. Pain may be aſſuaged by the exhibition of opiates. But if the burnt parts ſhould become livid or black, with other ſymptoms of mortification, it will be neceſſary to bathe them frequently with warm camphorated ſpirits of wine, tincture of myrrh, or other antiſeptics, mixed with a decoction of the Peruvian bark. In this caſe the bark muſt likewiſe be taken internally, and the patient's diet muſt be more generous, with wine, &c.

As example teaches better than precept, I ſhall relate the treatment of the moſt dreadful caſe of this kind that has occurred in my practice. A middle-aged man, of a good conſtitution, fell into a large veſſel full of boiling water, and miſerably ſcalded about one half of his body. As his clothes were on, the burning in ſome parts was very deep before they could be got off. For the firſt two days the ſcalded parts had been frequently anointed with a mixture of lime-water and oil, which is a very proper application for recent burnings. On the third day, when I firſt ſaw him, his fever was high, and his body coſtive, for which he was bled, and had an emollient clyſter adminiſtered. Poultices of bread and milk, ſoftened with freſh butter, were likewiſe applied to the affected parts, to abate the heat and inflammation. His fever ſtill continuing high, he was bled a ſecond time, was kept ſtrictly on the cooling regimen, took the ſaline mixture with ſmall doſes of nitre, and had an emollient clyſter adminiſtered once a-day. When the inflammation began to abate, the parts were dreſſed with a digeſtive compoſed of ſoap cerate and the *ointment of yellow reſin*. Where any black ſpots appeared, they were ſlightly ſcarified, and touched with the tincture of myrrh; and, to prevent their ſpreading, the Peruvian bark was adminiſtered. By this courſe, the man was ſo well in three weeks as to be able to attend his buſineſs.

OF BRUISES.

Bruises are generally productive of worſe conſequences than wounds. The danger from them does not appear immediately, by which means it often happens that they are neglected. It is needleſs to give any definition of a diſeaſe ſo univerſally known; we ſhall therefore proceed to point out the method of treating it.

In ſlight bruiſes it will be ſufficient to bathe the part with the *compound ſoap liniment*, or with warm vinegar, to which a little brandy or rum may occaſionally be added, and to keep cloths wet with this mixture conſtantly applied to it. This is more proper than rubbing it with brandy, ſpirits of wine, or other ardent ſpirits, which are commonly uſed in ſuch caſes.

In ſome parts of the country the peaſants apply to a recent bruiſe a cataplaſm of freſh cow-dung. I have often ſeen this cataplaſm applied to violent contuſions occaſioned by blows, falls, bruiſes, and ſuch like, and never knew it fail to have a good effect.

When a bruiſe is very violent, the patient ought immediately to be bled, and put upon a proper regimen. His food ſhould be light and cool, and his drink weak, and of an opening nature; as whey ſweetened with honey, decoctions of tamarinds, barley, cream-tartar whey, and ſuch like. The bruiſed part muſt be bathed with vinegar and water, as directed above; and a poultice made by boiling crumb of bread, elder flowers, and camomile flowers, in equal quantities of vinegar and water, applied to it. This poultice is peculiarly proper when a wound is joined to the bruiſe. It may be renewed two or three times a-day.

As the ſtructure of the veſſels is totally deſtroyed by a violent bruiſe, there often enſues a great loſs of ſubſtance, which produces an ulcerous ſore very difficult to cure. If the bone be affected, the ſore will not heal before an exfoliation takes place; that is, before the diſeaſed part of the bone ſeparates, and comes out through the wound. This is often a very ſlow operation, and may even require ſeveral years to be completed. Hence it happens that theſe ſores are frequently miſtaken for the king's evil, and treated as ſuch, though in fact they proceed ſolely from the injury which the ſolid parts received from the blow.

Patients in this ſituation are peſtered with different advices. Every one who ſees them propoſes a new remedy, till the ſore is ſo much irritated with various and oppoſite applications, that it is often at length rendered abſolutely incurable. The beſt method of managing ſuch ſores is, to take care that the patient's conſtitution does not ſuffer by confinement or improper medicine, and to apply nothing to them beſides ſimple ointment ſpread upon ſoft lint, over which a poultice of bread and milk, with boiled camomile flowers, or the like, may be put, to nouriſh the part, and keep it ſoft and warm. Nature, thus aſſiſted, will generally in time operate a cure, by throwing off the diſeaſed parts of the bone, after which the ſore ſoon heals.

OF ULCERS.

Ulcers may be the conſequence of wounds, bruiſes, or impoſthumes, improperly treated; they may likewiſe proceed from an ill ſtate of the humours, or what may be called a bad habit of body.

In the latter caſe, they ought not to be haſtily dried up, otherwiſe it may prove fatal to the patient. Ulcers happen moſt commonly in the decline of life; and perſons who neglect exerciſe, and live groſsly, are moſt liable to them. They might often be prevented by

retrenching ſome part of the ſolid food, or by opening artificial drains, as iſſues, ſetons, or the like.

An ulcer may be diſtinguiſhed from a wound by its diſcharging a thin watery humour, which is often ſo acrid as to inflame and corrode the ſkin; by the hardneſs and perpendicular ſituation of its ſides or edges; by the time of its duration, &c.

It requires conſiderable ſkill to be able to judge whether or not an ulcer ought to be dried up. In general, all ulcers which proceed from a bad habit of body ſhould be ſuffered to continue open, at leaſt till the conſtitution has been ſo far changed by proper regimen, or the uſe of medicine, that they ſeem diſpoſed to heal of their own accord. Ulcers which are the effect of malignant fevers, or other acute diſeaſes, may generally be healed with ſafety after the health has been reſtored for ſome time. The cure ought not however to be attempted too ſoon, nor at any time without the uſe of purging medicines and a proper regimen. When wounds or bruiſes have, by wrong treatment, degenerated into ulcers, if the conſtitution be good, they may generally be healed with ſafety. When ulcers either accompany chronical diſeaſes, or come in their ſtead, they muſt be cautiouſly healed. If an ulcer conduces to the patient's health, from whatever cauſe it proceeds, it ought not to be healed; but if, on the contrary, it waſtes the ſtrength, and conſumes the patient by a ſlow fever, it ſhould be healed as ſoon as poſſible.

We would earneſtly recommend a ſtrict attention to theſe particulars to all who have the misfortune to labour under this diſorder, particularly perſons in the decline of life; as we have frequently known people throw away their lives by the want of it, while they were extolling and generouſly rewarding thoſe whom they ought to have looked upon as their executioners.

The moſt proper regimen for promoting the cure of ulcers is to avoid all ſpices, ſalted and high ſeaſoned food, all ſtrong liquors, and to leſſen the uſual quantity of fleſh meat. The body ought to be kept gently open by a diet conſiſting chiefly of cooling laxative vegetables, and by drinking butter-milk, whey ſweetened with honey, or the like. The patient ought to be kept cheerful, and ſhould take as much exerciſe as he can eaſily bear.

When the bottom and ſides of an ulcer ſeem hard and callous, they may be ſprinkled twice a-day with a little red precipitate of mercury, and afterwards dreſſed with the *ointment of yellow reſin*. Sometimes it will be neceſſary to have the edges of the ulcer ſcarified with the lancet.

Lime-water has frequently been known to have very happy effects in the cure of obſtinate ulcers. It may be uſed in the ſame manner as directed for the ſtone and gravel. It may alſo be employed externally as a lotion; and if there is reaſon to ſuſpect that the ulcer ariſes from a *ſyphilitic* cauſe, add one drachm of calomel to half a pint of lime-water, with which waſh the ſore twice a-day.

Dr. Whytt ſtrongly recommends the uſe of the ſolution of *muriated quickſilver* in brandy, for the cure of obſtinate ill-conditioned ulcers. I have frequently found this medicine, when given according to the

Doctor's directions, prove very ſucceſsful. The doſe is a table-ſpoonful night and morning; at the ſame time waſhing the ſore twice or thrice a-day with it. He informed me, "That he obſerved waſhing the ſore thrice a-day with the ſolution of a triple ſtrength was very beneficial." In ulcers of the lower limbs great benefit is often received from tight rollers, or wearing a laced ſtocking; this prevents the flux of humours to the ſores, and diſpoſes them to heal.

A fiſtulous ulcer can ſeldom be cured without an operation. It muſt either be laid open ſo as to have its callous parts deſtroyed by ſome corroſive application, or they muſt be entirely cut away by the knife: but as this operation requires the hand of an expert ſurgeon, there is no occaſion to deſcribe it. Ulcers about the *anus* are moſt apt to become fiſtulous, and are very difficult to cure. Some indeed, it is ſaid, have found Ward's fiſtula paſte very ſucceſsful in this complaint. But as theſe ulcers generally proceed from an ill habit of body, they will ſeldom yield to any thing except a long courſe of regimen, aſſiſted by medicines which are calculated to correct that particular habit, and to induce an almoſt total change in the conſtitution.

CHAP. LI.

OF DISLOCATIONS.

WHEN a bone is moved out of its place or articulation ſo as to impede its proper functions, it is ſaid to be *luxated* or *diſlocated*. As this often happens to perſons in ſituations where no medical aſſiſtance can be obtained, by which means limbs, and even lives, are frequently loſt, we ſhall endeavour to point out the method of reducing the moſt common luxations, and thoſe which require immediate aſſiſtance. Any perſon of common ſenſe and reſolution, who is preſent when a diſlocation happens, may often be of more ſervice to the patient than the moſt expert ſurgeon can after the ſwelling and inflammation have come on. When theſe are preſent, it is difficult to know the ſtate of the joint, and dangerous to attempt a reduction; and by waiting till they are gone off, the muſcles become ſo relaxed, and the cavity filled up, that the bone can never afterwards be retained in its place.

A recent diſlocation may generally be reduced by extenſion alone, which muſt always be greater or leſs according to the ſtrength of the muſcles which move the joint, the age, robuſtneſs, and other circumſtances of the patient. When the bone has been out of its place for any conſiderable time, and a ſwelling or inflammation has come on, it will be neceſſary to bleed the patient, and, after fomenting the part, to apply ſoft poultices with vinegar to it for ſome time before the reduction is attempted.

All that is neceſſary after reduction, is to apply cloths dipt in vinegar or camphorated ſpirits of wine to the part, and to keep it

perfectly eaſy; and, if any degree of inflammation remain, the application of leeches is the beſt remedy. Many bad conſequences proceed from the neglect of this rule. A diſlocation ſeldom happens without the tendons and ligaments of the joint being ſtretched and ſometimes torn. When theſe are kept eaſy till they recover their ſtrength and tone, all goes on very well; but if the injury be increaſed by too frequent an exertion of the parts, no wonder if they be found weak and diſeaſed ever after.

DISLOCATION OF THE JAW.

The lower jaw may be luxated by yawning, blows, falls, chewing hard ſubſtances, or the like. It is eaſily known from the patient's being unable to ſhut his mouth, or to eat any thing, as the teeth of the under jaw do not correſpond with thoſe of the upper; beſides, the chin either hangs down or is thrown toward one ſide, and the patient is neither able to ſpeak diſtinctly, nor to ſwallow without conſiderable difficulty.

The uſual method of reducing a diſlocated jaw, is to ſet the patient upon a low ſtool, ſo as an aſſiſtant may hold the head firm by preſſing it againſt his breaſt. The operator is then to thruſt his two thumbs, being firſt wrapt up with linen cloths that they may not ſlip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to preſs it ſtrongly downwards and backwards, by which means the elapſed heads of the jaw may be eaſily puſhed into their former cavities.

DISLOCATION OF THE NECK.

The neck may be diſlocated by falls, violent blows, or the like. In this caſe, if the patient receives no aſſiſtance, he ſoon dies, which makes peeple imagine the neck was broken; it is, however, for the moſt part only partially diſlocated, and may be reduced by almoſt any perſon who has reſolution enough to attempt it. A complete diſlocation of the neck is inſtantaneous death.

When the neck is diſlocated, the patient is immediately deprived of all ſenſe and motion; his neck ſwells, his countenance appears bloated; his chin lies upon his breaſt, and his face is generally turned towards one ſide.

To reduce this diſlocation, the unhappy perſon ſhould immediately be laid upon his back on the ground, and the operator muſt place himſelf behind him ſo as to be able to lay hold of his head with both hands, while he makes a reſiſtance by placing his knees againſt the patient's ſhoulders. In this poſture he muſt pull the head with conſiderable force, gently twiſting it at the ſame time, if the face be turned to one ſide, till he perceives that the joint is replaced, which may be known from the noiſe which the bones generally make when going in, the patient's beginning to breathe, and the head continuing in its natural poſture.

This is one of thoſe operations which it is more eaſy to perform than deſcribe. I have known inſtances of its being happily perform-

ed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and ſhould be ſuffered to reſt for ſome days, till the parts recover their proper tone.

DISLOCATION OF THE RIBS.

As the articulation of the ribs with the back-bone is very ſtrong, they are not often diſlocated. It does however ſometimes happen, which is a ſufficient reaſon for our taking notice of it. When a rib is diſlocated either upwards or downwards, in order to replace it the patient ſhould be laid upon his belly on a table, and the operator muſt endeavour to puſh the head of the bone into its proper place. Should this method not ſucceed, the arm of the diſordered ſide may be ſuſpended over a gate or ladder, and, while the ribs are thus ſtretched aſunder, the heads of ſuch as are out of place may be thruſt into their former ſituation.

Thoſe diſlocations wherein the heads of the ribs are forced inwards are both more dangerous and the moſt difficult to reduce, as neither the hand nor any inſtrument can be applied internally to direct the luxated heads of the ribs. Almoſt the only thing that can be done is, to lay the patient upon his belly over a caſk, or ſome gibbous body, and to move the fore-part of the rib inward towards the back, ſometimes ſhaking it; by this means the heads of the luxated ribs may ſlip into their former place.

DISLOCATION OF THE SHOULDER.

The humerus or upper bone of the arm may be diſlocated in various directions: it happens however moſt frequently downwards, but very ſeldom directly upwards. From the nature of its articulation, as well as from its expoſure to external injuries, this bone is the moſt ſubject to diſlocation of any in the body. A diſlocation of the humerus may be known by a depreſſion or cavity on the top of the ſhoulder, and an inability to move the arm. When the diſlocation is downward or forward, the arm is elongated, and a ball or lump is perceived under the arm-pit; but when it is backward, there appears a protuberance behind the ſhoulder, and the arm is thrown forwards towards the breaſt.

The uſual method of reducing diſlocations of the ſhoulder is to ſeat the patient upon a low ſtool, and to cauſe an aſſiſtant to hold his body ſo that it may not give way to the extenſion, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and cauſes it to be tied behind his own neck: by this, while a ſufficient extenſion is made, he lifts up the head of the bone, and with his hands directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert ſurgeon is always more ſafe. In young and delicate patients, I have generally found it a very eaſy matter to reduce the ſhoulder, by extending the arm with one hand, and thruſting in the head of the

bone with the other. In making the extenſion, the arm ought always to be a little bent.

DISLOCATION OF THE ELBOW.

THE bones of the fore-arm may be diſlocated in any direction. When this is the caſe, a protuberance may be obſerved on that ſide of the arm towards which the bone is puſhed, from which, and the patient's inability to bend his arm, a diſlocation of this joint may be eaſily known.

Two aſſiſtants are generally neceſſary for reducing a diſlocation of the elbow; one of them muſt lay hold of the arm above and the other below the joint, and make a pretty ſtrong extenſion, while the operator returns the bones into their proper place. Afterwards the arm muſt be bent, and ſuſpended for ſome time with a ſling about the neck.

Luxations of the wriſt and fingers are to be reduced in the ſame manner as thoſe of the elbow, viz. by making an extenſion in different directions, and thruſting the head of the bone into its place.

DISLOCATION OF THE THIGH.

WHEN the thigh-bone is diſlocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is diſplaced backward, it is uſually puſhed upward at the ſame time, by which means the limb is ſhortened, and the foot is turned inwards.

When the thigh-bone is diſplaced forward and downward, the patient, in order to have it reduced, muſt be laid upon his back, and made faſt by bandages, or held by aſſiſtants, while by others an extenſion is made by means of ſlings fixed about the bottom of the thigh a little above the knee. While the extenſion is made, the operator muſt puſh the head of the bone outward, till it gets into the ſocket. If the diſlocation be outward, the patient muſt be laid upon his face, and, during the extenſion, the head of the bone muſt be puſhed inward.

Diſlocations of the *knees*, *ankles*, and *toes*, are reduced much in the ſame manner as thoſe of the upper extremities, viz. by making an extenſion in oppoſite directions, while the operator replaces the bones. In many caſes, however, the extenſion alone is ſufficient, and the bone will ſlip into its place merely by pulling the limb with ſufficient force. It is not hereby meant, that force alone is ſufficient for the reduction of diſlocations. Skill and addreſs will often ſucceed better than force. I have known a diſlocation of the thigh reduced by one man, after all the force that could be uſed by ſix had proved ineffectual.

CHAP. LII.

OF BROKEN BONES, &c.

THERE is, in moſt country villages, ſome perſon who pretends to the art of reducing fractures. Though in general ſuch perſons are very ignorant, yet ſome of them are very ſucceſsful; which evidently

proves that a ſmall degree of learning, with a ſufficient ſhare of common ſenſe and a mechanical head, will enable a man to be uſeful in this way. We would, however, adviſe people never to employ ſuch operators when an expert and ſkilful ſurgeon, can be had; but when that is impracticable, they muſt be employed: we ſhall therefore recommend the following hints to their conſideration.

When a large bone is broken, the patient's diet ought in all reſpects to be the ſame as in an inflammatory fever. He ſhould likewiſe be kept quiet and cool, and his body open by emollient clyſters; or, if theſe cannot be conveniently adminiſtered, by food that is of an opening quality; as ſtewed prunes, apples boiled in milk, boiled ſpinage, and the like. It ought however to be here remarked, that perſons who have been accuſtomed to live high, are not all of a ſudden to be reduced to a very low diet. This might have fatal effects. There is often a neceſſity for indulging even bad habits, in ſome meaſure, where the nature of the diſeaſe might require a different treatment.

It will generally be neceſſary to bleed the patient immediately after a fracture, eſpecially if he be young, of a full habit, or has at the ſame time received any bruiſe or contuſion. This operation ſhould not only be performed ſoon after the accident happens, but, if the patient be very feveriſh, it may be repeated next day. When ſeveral of the ribs are broken, bleeding is peculiarly neceſſary.

If any of the large bones which ſupport the body are broken, the patient muſt keep his bed for ſeveral weeks. It is by no means neceſſary, however, that he ſhould lie all that time, as is cuſtomary, upon his back. This ſituation ſinks the ſpirits, galls and frets the patient's ſkin, and renders him very uneaſy. After the ſecond week he may be gently raiſed up, and may ſit ſeveral hours, ſupported by a bed-chair, or the like, which will greatly relieve him. Great care, however, muſt be taken in raiſing him up and laying him down, that he make no exertions himſelf, otherwiſe the action of the muſcles may pull the bone out of its place.

It is of great importance to keep the patient dry and clean while in this ſituation. By neglecting this, he is often ſo galled and excoriated, that he is forced to keep ſhifting-places for eaſe. I have known a fractured thigh-bone, after it had been kept ſtraight for above a fortnight, diſplaced by this means, and continue bent for life, in ſpite of all that could be done.

It has been cuſtomary, when a bone was broken, to keep the limb for five or ſix weeks continually upon the ſtretch. But this is a bad poſture. It is both uneaſy to the patient, and unfavourable to the cure. The beſt ſituation is to keep the limb a little bent. This is the poſture into which every animal puts its limbs when it goes to reſt, and in which feweſt muſcles are upon the ſtretch. It is eaſily effected, by either laying the patient upon his ſide, or making the bed ſo as to favour this poſition of the limb.

Bone-ſetters ought carefully to examine whether the bone be not ſhattered or broken into ſeveral pieces. In this caſe it will ſometimes be neceſſary to have the limb immediately taken off, otherwiſe a gangrene or mortification may enſue. The horror which attends the

very idea of an amputation often occaſions its being delayed in ſuch caſes till too late. I have known this principle operate ſo ſtrongly, that a limb, where the bones were ſhattered into more than twenty pieces, was not amputated before the third day after the accident, when the gangrene had proceeded ſo far as to render the operation uſeleſs.

When a fracture is accompanied with a wound, it muſt be dreſſed in all reſpects as a common wound.

All that art can do towards the cure of a broken bone, is to lay it perfectly ſtraight, and to keep it quite eaſy. All tight bandages do hurt. They had much better be wanting altogether. A great many of the bad conſequences which ſucceed to fractured bones are owing to tight bandages. This is one of the ways in which the exceſs of art, or rather the abuſe of it, does more miſchief than would be occaſioned by the want of it. Some of the moſt ſudden cures of broken bones which were ever known happened where no bandages were applied at all. Some method however muſt be taken to keep the member ſteady; but this may be done many ways without bracing it with a tight bandage.

The beſt method of retention is by two or more ſplints made of leather or paſteboard. Theſe, if moiſtened before they be applied, ſoon aſſume the ſhape of the included member, and are ſufficient, by the aſſiſtance of a very ſlight bandage, for all the purpoſes of retention. The bandage which we would recommend is that made with twelve or eighteen tails. It is much eaſier applied and taken off than rollers, and anſwers all the purpoſes of retention equally well. The ſplints ſhould always be as long as the limb, with holes cut for the ankles when the fracture is in the leg.

In fractures of the ribs, where a bandage cannot be properly uſed, an adheſive plaſter may be applied over the part. The patient in this caſe ought to keep himſelf quite eaſy, avoiding every thing that may occaſion ſneezing, laughing, coughing, or the like. He ought to keep his body in a ſtraight poſture, and ſhould take care that his ſtomach be conſtantly diſtended, by taking frequently ſome light food, and drinking freely of weak watery liquors.

The moſt proper external application for a fracture is *oxycrate*, or a mixture of vinegar and water. The bandages ſhould be wet with this at every dreſſing.

OF STRAINS.

Strains are often attended with worſe conſequences than broken bones. The reaſon is obvious; they are generally neglected. When a bone is broken, the patient is obliged to keep the member eaſy, becauſe he cannot make uſe of it; but when a joint is only ſtrained, the perſon, finding he can ſtill make a ſhift to move it, is ſorry to loſe his time for ſo trifling an ailment. In this way he deceives himſelf, and converts into an incurable malady what might have been removed by only keeping the part eaſy for a few days.

Country people generally immerſe a ſtrained limb in cold water. This is very proper, provided it be done immediately, and not kept in

too long. But the cuſtom of keeping the part immerſed in cold water for a long time is certainly dangerous. It relaxes inſtead of bracing the part, and is more likely to produce a diſeaſe than remove one.

Wrapping a garter, or ſome other bandage, pretty tight about the ſtrained part, is likewiſe of uſe. It helps to reſtore the proper tone of the veſſels, and prevents the action of the parts from increaſing the diſeaſe. If there be inflammation, fomenting and bleeding near the affected part and ſaline cathartics are beneficial; but we alſo recommend *eaſe*.

Many external applications are recommended for ſtrains. The following are ſuch as may be uſed with the greateſt ſafety, viz. poultices made of ſtale beer or vinegar and oatmeal, camphorated ſpirits of wine, *water of acetated ammonia*, *liniment of ammonia*, *compound ſpirit of ammonia* diluted with a double quantity of water; and the common fomentation, with the addition of brandy or ſpirit of wine.

CHAP. LIII.

OF CASUALTIES.

IT is certain that life, when to all appearance loſt, may often, by due care, be reſtored. Accidents frequently prove fatal, merely becauſe proper means are not uſed to counteract their effects. No perſon ought to be looked upon as killed by any accident, unleſs where the ſtructure of the heart, brain, or ſome organ neceſſary to life, is evidently deſtroyed. The action of theſe organs may be ſo far impaired as even to be for ſome time imperceptible, when life is by no means gone. In this caſe, however, if the fluids be ſuffered to grow cold, it will be impoſſible to put them again in motion, even though the ſolids ſhould recover their power of acting. Thus, when the motion of the lungs has been ſtopt by unwholeſome vapour, the action of the heart by a ſtroke on the breaſt, or the functions of the brain by a blow on the head, if the perſon be ſuffered to grow cold, he will in all probability continue ſo; but, if the body be kept warm, as ſoon as the injured part has recovered its power of acting, the fluids will again begin to move, and all the vital functions will be reſtored.

The unhappy perſon, inſtead of being carried into a warm houſe, and laid by the fire, or put to a warm bed, is generally hurried away to church, or a barn, or ſome other cold damp houſe, where, after a fruitleſs attempt has been made to bleed him, perhaps by one who knew nothing of the matter, he is given over for dead, and no further notice taken of him.

When a perſon ſeems to be ſuddenly deprived of life, our firſt buſineſs is to inquire into the cauſe. We ought carefully to obſerve whether any ſubſtance be lodged in the windpipe or gullet; and, if that is the caſe, attempts muſt be made to remove it. When unwholeſome air is the cauſe, the patient ought immediately to be removed out of it. If the circulation be ſuddenly ſtopped, from any cauſe whatever, except mere weakneſs, the patient ſhould be bled.

If the blood does not flow, he may be immerſed in warm water, or rubbed with warm cloths, &c. to promote the circulation. When the cauſe cannot be ſuddenly removed, our great aim muſt be to keep up the vital warmth, by rubbing the patient with hot cloths, and covering his body with warm ſand, aſhes, or the like.

I ſhould now proceed to treat more fully of thoſe accidents which, without immediate aſſiſtance, would often prove fatal, and to point out the moſt likely means for relieving the unhappy ſufferers.

OF SUBSTANCES STOPT BETWEEN THE MOUTH AND STOMACH.

Though accidents of this kind are very common, and extremely dangerous, yet they are generally the effect of careleſſneſs. Children ſhould be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to ſwallow. But children are not the only perſons guilty of this piece of imprudence. I know many adults who put pins, nails, and other ſharp-pointed ſubſtances, in their mouths upon every occaſion, and ſome who even ſleep with the former there all night. This conduct is exceedingly injudicious, as a fit of coughing, or twenty other accidents, may force over the ſubſtance before the perſon is aware.

When any ſubſtance is detained in the gullet, there are two ways of removing it, viz. either by extracting it, or puſhing it down. The ſafeſt and moſt certain way is to extract it; but this is not always the eaſieſt; it may therefore be more eligible ſometimes to thruſt it down, eſpecially when the obſtructing body is of ſuch a nature, that there is no danger from its reception into the ſtomach. The ſubſtances which may be puſhed down without danger are, all common nouriſhing ones, as bread, fleſh, fruits, and the like. All indigeſtible bodies, as cork, wood, bones, pieces of metal, and ſuch like, ought if poſſible to be extracted, eſpecially if theſe bodies be ſharp-pointed, as pins, needles, fiſh-bones, bits of glaſs, &c.

When ſuch ſubſtances have not paſſed in too deep, we ſhould endeavour to extract them with our fingers, which method often ſucceeds. When they are lower, we muſt make uſe of nippers, or a ſmall pair of forceps, ſuch as ſurgeons uſe. But this attempt to extract rarely ſucceeds, if the ſubſtance be of a flexible nature, and has deſcended far into the gullet.

I have often known pins and other ſharp bodies, which had ſtuck in the throat, brought up by cauſing the perſon to ſwallow a bit of tough meat tied to a thread, and drawing it quickly up again. This is ſafer than ſwallowing ſponge, and will often anſwer the purpoſe equally well.

When all theſe methods prove unſucceſsful, there remains one more, which is, to make the patient vomit; but this can ſcarcely be of any ſervice, unleſs when ſuch obſtructing bodies are ſimply engaged in, and not hooked or ſtuck into the ſides of the gullet, as in this caſe vomiting might ſometimes occaſion further miſchief. If the patient can ſwallow, vomiting may be excited by taking half a drachm or two ſcruples of ipecacuanha in powder made into a draught. If

he is not able to ſwallow, an attempt may be made to excite vomiting, by tickling his throat with a feather; and, if that ſhould not ſucceed, a clyſter of tobacco may be adminiſtered. It is made by boiling an ounce of tobacco in a ſufficient quantity of water: this has often been found to ſucceed, when other attempts to excite vomiting had failed

When the obſtructing body is of ſuch a nature that it may with ſafety be puſhed downwards, this may be attempted by means of a wax-candle oiled, and a little heated, ſo as to make it flexible; or a piece of whalebone, wire, or flexible wood, with a ſponge faſtened to one end.

Should it be impoſſible to extract even thoſe bodies which it is dangerous to admit into the ſtomach, we muſt then prefer the leaſt of two evils, and rather run the hazard of puſhing them down than ſuffer the patient to periſh in a few minutes; and we ought to ſcruple this reſolution the leſs, as a great many inſtances have happened where the ſwallowing of ſuch hurtful and indigeſtible ſubſtances has been followed by no diſorder.

Whenever it is manifeſt that all endeavours either to extract or puſh down the ſubſtance muſt prove ineffectual, they ſhould be diſcontinued, becauſe the inflammation occaſioned by perſiſting in them might be as dangerous as the obſtruction itſelf. Some have died in conſequence of the inflammation, even after the body which cauſed the obſtruction had been entirely removed.

While the means recommended above are making uſe of, the patient ſhould often ſwallow, or, if he cannot, he ſhould frequently receive by injection, through a crooked tube or pipe that may reach down to the gullet, ſome emollient liquor, as warm milk and water, barley-water, or a decoction of mallows. Injections of this kind not only ſoften and ſoothe the irritated parts, but, when thrown in with force, are often more ſucceſsful in looſening the obſtruction than all attempts with inſtruments.

When, after all our endeavours, we are obliged to leave the obſtructing body in the part, the patient muſt be treated as if he had an inflammatory diſeaſe. He ſhould be bled, kept upon a low diet, and have his whole neck ſurrounded with emollient poultices. The like treatment muſt alſo be uſed, if there be any reaſon to ſuſpect an inflammation of the paſſages, though the obſtructing body be removed.

A proper degree of agitation has ſometimes looſened the inhering body more effectually than inſtruments. Thus a blow on the back has often forced up a ſubſtance which ſtuck in the gullet; but this is ſtill more proper and efficacious when the ſubſtance gets into the wind-pipe. In this caſe vomiting and ſneezing are likewiſe to be excited. Pins, which ſtuck in the gullet, have been frequently diſcharged by riding on horſeback, or in a carriage.

When any indigeſtible ſubſtance has been forced down into the ſtomach, the patient ſhould uſe a very mild and ſmooth diet, conſiſting chiefly of fruits and farinaceous ſubſtances, as puddings, pottage, and ſoups. He ſhould avoid all heating and irritating things,

as wine, punch, pepper, and ſuch like; and his drink ſhould be milk and water, barley-water, or whey.

When the gullet is ſo ſtrongly and fully cloſed, that the patient can receive no food by the mouth, he muſt be nouriſhed by clyſters of ſoup, jelly, and the like.

OF DROWNED PERSONS.

When a perſon has remained above a quarter of an hour under water, there can be no conſiderable hopes of his recovery. But as ſeveral circumſtances may happen to have continued life, in ſuch an unfortunate ſituation, beyond the ordinary term, we ſhould never too ſoon reſign the unhappy object to his fate, but try every method for his relief.

The firſt thing to be done, after the body is taken out of the water, is to convey it as ſoon as poſſible to ſome convenient place where the neceſſary operations for its recovery may be performed. In doing this, care muſt be taken not to bruiſe or injure the body by carrying it in any unnatural poſture with the head downwards, or the like. If an adult body, it ought to be laid on a bed, or on ſtraw, with the head a little raiſed, and carried on a cart or on men's ſhoulders, and kept in as natural and eaſy a poſition as poſſible. A ſmall body may be carried in the arms.

In attempting to recover perſons apparently drowned, the principal intention to be purſued is, *to reſtore the natural warmth*, upon which all the vital functions depend; and to excite theſe functions by the application of ſtimulants, not only to the ſkin, but likewiſe to the lungs, inteſtines, &c.

Though cold was by no means the cauſe of the perſon's death, yet it will prove an effectual obſtacle to his recovery. For this reaſon, after ſtripping him of his wet clothes, his body muſt be ſtrongly rubbed for a conſiderable time with coarſe linen cloths, as warm as they can be made; and, as ſoon as a well heated bed can be got ready, he may be laid in it, and the rubbing ſhould be continued. Warm cloths ought likewiſe to be frequently applied to the ſtomach and bowels, and hot bricks, or bottles of warm water, to the ſoles of his feet and the palms of his hands.

Strong volatile ſpirits ſhould be frequently applied to the noſe; and the ſpine of the back and pit of the ſtomach may be rubbed with warm brandy or ſpirit of wine. The temples ought alſo to be chafed with volatile ſpirits; and ſtimulating powders, as that of tobacco or marjoram, may be blown up the noſtrils.

To renew the breathing, a ſtrong perſon may blow his own breath into the patient's mouth with all the force he can, holding his noſtrils at the ſame time. When it can be perceived by the riſing of the cheſt or belly that the lungs are filled with air, the perſon ought to deſiſt from blowing, and ſhould preſs the breaſt and belly ſo as to expel the air again; and this operation may be repeated for ſome time, alternately inflating and depreſſing the lungs ſo as to imitate natural reſpiration.

If the lungs cannot be inflated in this manner, it may be attempt-

ed by blowing through one of the noſtrils, and at the ſame time keeping the other cloſe. Dr. Monro for this purpoſe recommends a wooden pipe fitted at one end for filling the noſtril, and at the other for being blown into by a perſon's mouth, or for receiving the pipe of a pair of bellows, to be employed for the ſame purpoſe, if neceſſary.

When air cannot be forced into the cheſt by the mouth or noſe, it may be neceſſary to make an opening into the wind-pipe for this purpoſe. It is needleſs, however, to ſpend time in deſcribing this operation, as it ſhould not be attempted unleſs by perſons ſkilled in ſurgery.

To ſtimulate the inteſtines, the fume of tobacco may be thrown up in form of a clyſter. There are various pieces of apparatus contrived for this purpoſe which may be uſed when at hand; but where theſe cannot be obtained, the buſineſs may be done by a common tobacco-pipe. The bowl of the pipe muſt be filled with tobacco well kindled, and after the ſmall tube has been introduced into the fundament, the ſmoke may be forced up by blowing through a piece of paper full of holes wrapped round the mouth of the pipe, or by blowing through an empty pipe, the mouth of which is applied cloſe to that of the other. This may alſo be done in the following manner: A common clyſter-pipe with a bag mounted upon it may be introduced into the fundament, and the mouth of the bag may be applied round the ſmall end of a tobacco-pipe, in the bowl of which tobacco is to be kindled, and the ſmoke blown up as directed above. Should it be found impracticable to throw up the ſmoke of tobacco, clyſters of warm water, with the addition of a little ſalt and ſome wine or ſpirits, may be frequently adminiſtered. This may be done by a common clyſter-bag, and pipe; but, as it ought to be thrown well up, a pretty large ſyringe will anſwer the purpoſe better.

While theſe things are doing, ſome of the attendants ought to be preparing a warm bath, into which the perſon ſhould be put, if the above endeavours prove ineffectual. Where there are no conveniences for uſing the warm bath, the body may be covered with warm ſand, aſhes, grains, or ſuch like. Tiſſot mentions an inſtance of a girl who was reſtored to life, after ſhe had been taken out of the water, ſwelled, bloated, and to all appearance dead, by laying her naked body upon hot aſhes, covering her with others equally hot, putting a bonnet round her head, and a ſtocking round her neck ſtuffed with the ſame, and heaping coverings over all. After ſhe had remained half an hour in this ſituation, her pulſe returned, ſhe recovered ſpeech, and cried out, *I freeze, I freeze.* A little cherry brandy was given her, and ſhe remained buried as it were under the aſhes for eight hours; afterwards ſhe was taken out, without any other complaint except that of laſſitude or wearineſs, which went off in a few days.

Till the patient ſhews ſome ſigns of life, and is able to ſwallow, it would be uſeleſs and even dangerous to pour liquors into his mouth. His lips, however, and tongue, may be frequently wet with a feather dipt in warm brandy or other ſtrong ſpirits; and, as ſoon as he has

recovered the power of ſwallowing, a little warm wine, or ſome other cordial, ought every now and then to be adminiſtered.

Some recommend a vomit after the patient is a little re-animated; but if he can be made to puke without the ſickening draught, it will be more ſafe: this may generally be done by tickling the throat and fauces with an oiled feather, or ſome other ſoft ſubſtance, which will not injure the parts. Tiſſot in this caſe recommends the oxymel of ſquills, a table-ſpoonful of which, diluted with water, may be given every quarter of an hour, till the patient has taken five or ſix doſes. Where that medicine is not at hand, a ſtrong infuſion of ſage, camomile flowers, or *carduus benedictus*, ſweetened with honey, or ſome warm water, with the addition of a little ſalt, may, he ſays, ſupply its place. The Doctor does not intend that any of theſe things ſhould be given in ſuch quantity as to occaſion vomiting. He thinks emetics in this ſituation are not expedient.

We are by no means to diſcontinue our aſſiſtance as ſoon as the patients diſcover ſome tokens of life, ſince they ſometimes expire after theſe firſt appearances of recovering. The warm and ſtimulating applications are ſtill to be continued, and ſmall quantities of ſome cordial liquor ought frequently to be adminiſtered. Laſtly, though the perſon ſhould be manifeſtly re-animated, there ſometimes remain an oppreſſion, a cough and feveriſhneſs, which effectually conſtitute a diſeaſe. In this caſe it will be neceſſary to bleed the patient in the arm, and to cauſe him to drink plentifully of barley-water, elder-flower tea, or any other ſoft pectoral infuſions.

Such perſons as have the misfortune to be deprived of the appearances of life by a fall, a blow, ſuffocation, or the like, muſt be treated nearly in the ſame manner as thoſe who have been for ſome time under water.

OF NOXIOUS VAPOURS.

Air may be many ways rendered noxious or even deſtructive to animals. This may either happen from its vivifying principle being deſtroyed, or from ſubtle exhalations with which it is impregnated. Thus air that has paſſed through burning fuel is neither capable of ſupporting fire nor the life of animals. Hence the danger of ſleeping in cloſe chambers with coal fires. Some indeed ſuppoſe the danger here proceeds from the ſulphureous oil contained in the coal, which is ſet at liberty and diffuſed all over the chamber; while others imagine it is owing to the air of the room being charged with phlogiſton. Be this as it may, it is a ſituation carefully to be avoided. Indeed, it is dangerous to ſleep in a ſmall apartment with a fire of any kind. I lately ſaw four perſons who had been ſuffocated by ſleeping in an apartment where a ſmall fire of coal had been left burning.

The vapour which exhales from wine, cyder, beer, or other liquors, in the ſtate of fermentation, contains ſomething poiſonous, which kills in the ſame manner as the vapour of coal. Hence there is always danger in going into cellars where a large quantity of theſe liquors is in a ſtate of fermentation, eſpecially if they have been cloſe ſhut up for ſome time. There have been many inſtances of perſons ſtruck

dead on entering ſuch places, and of others who have with difficulty eſcaped.

When ſubterraneous caves, that have been very long ſhut, are opened, or when deep wells are cleaned which have not been emptied for ſeveral years, the vapours ariſing from them produce the ſame effects as thoſe mentioned above. For this reaſon, no perſon ought to venture into a well, pit, cellar, or any place that is damp, and has been long ſhut up, till the air has been ſufficiently purified, by burning gunpowder in it. It is eaſy to know, as has been obſerved in a former part of this work, when the air of ſuch places is unwholeſome, by letting down a lighted candle, throwing in burning fuel, or the like. If theſe continue to burn, people may ſafely venture in; but where they are ſuddenly extinguiſhed, no one ought to enter till the air has been firſt purified by fire.

The offenſive ſmell of lamps and of candles, eſpecially when their flames are extinguiſhed, operates like other vapours, though with leſs violence and leſs ſuddenly.

Such as are ſenſible of their danger in theſe ſituations, and retreat ſeaſonably from it, are generally relieved as ſoon as they get into the open air, or, if they have any remaining uneaſineſs, a little water and vinegar, or lemonade, drank hot, affords them relief. But when they are ſo far poiſoned as to have loſt their feeling and underſtanding, the following means muſt be uſed for their recovery.

The patient ſhould be expoſed to a very pure, freſh, and open air; and volatile ſalts, or other ſtimulating ſubſtances, held to his noſe. He ſhould next be bled in the arm, or, if that does not ſucceed, in the neck. His legs ought to be put into warm water, and well rubbed. As ſoon as he can ſwallow, ſome lemonade, or water and vinegar, with the addition of a little nitre, may be given him.

Nor are ſharp clyſters by any means to be neglected; theſe may be made, by adding to the common clyſter, ſyrup of buckthorn and tincture of ſenna, of each two ounces; or, in their ſtead, half an ounce of Venice turpentine diſſolved in the yolk of an egg. Should theſe things not be at hand, two or three large ſpoonfuls of common ſalt may be put into the clyſter. The ſame means, if neceſſary, which were recommended in the former part of this chapter, may be uſed to reſtore the circulation, warmth, &c.

Mr. Toſſach, ſurgeon at Alloa, relates the caſe of a man ſuffocated by the ſteam of burning coal, whom he recovered by blowing his breath into the patient's mouth, bleeding him in the arm, and cauſing him to be well rubbed and toſſed about. And Dr. Frewen, of Suſſex, mentions the caſe of a young man who was ſtupified by the ſmoke of ſea-coal, but was recovered by being plunged into cold water, and afterwards laid in a warm bed.

EFFECTS OF EXTREME COLD.

When cold is extremely ſevere, and a perſon is expoſed to it for a long time, it proves mortal, in conſequence of its ſtopping the circulation in the extremities, and forcing too great a proportion of

blood towards the brain; ſo that the patient dies of a kind of apoplexy, preceded by great ſleepineſs. The traveller, in this ſituation, who finds himſelf begin to grow drowſy, ſhould redouble his efforts to extricate himſelf from the imminent danger he is expoſed to. This ſleep, which he might conſider as ſome alleviation of his ſufferings, would, if indulged, prove his laſt.

Such violent effects of cold are happily not very common in this country: it frequently happens, however, that the hands or feet of travellers are ſo benumbed or frozen, as to be in danger of a mortification, if proper means are not uſed to prevent it. The chief danger in this ſituation ariſes from the ſudden application of heat. It is very common, when the hands or feet are pinched with cold, to hold them to the fire; yet reaſon and obſervation ſhew that this is the moſt dangerous and imprudent practice.

Every peaſant knows, if frozen meat, fruits, or roots of any kind, be brought near the fire, or put into warm water, they will be deſtroyed by rottenneſs, or a kind of mortification; and that the only way to recover them is to immerſe them for ſome time in very cold water. The ſame obſervation holds with regard to animals in this condition.

When the hands or feet are greatly benumbed with cold, they ought either to be immerſed in cold water, or rubbed with ſnow, till they recover their natural warmth and ſenſibility; after which the perſon may be removed into an apartment a little warmer, and may drink ſome cups of tea, or an infuſion of elder-flowers ſweetened with honey. Every perſon muſt have obſerved, when his hands were even but ſlightly affected with cold, that the beſt way to warm them was by waſhing them in cold water, and continuing to rub them well for ſome time.

When a perſon has been ſo long expoſed to the cold, that all appearances of life are gone, it will be neceſſary to rub him all over with ſnow or cold water; or, what will anſwer better, if it can be obtained, to immerſe him in a bath of the very coldeſt water. There is the greateſt encouragement to perſiſt in the uſe of theſe means, as we are aſſured that perſons who had remained in the ſnow or had been expoſed to the freezing air during five or ſix ſucceſſive days, and who had diſcovered no marks of life for ſeveral hours, have nevertheleſs been revived: then continued friction with warm flannel, warm cloths, and hot wines, may be ſerviceable.

The whitloes, kibes, chilblains, and other inflammations of the extremities, which are ſo common among the peaſants in the cold ſeaſon, are chiefly occaſioned by their ſudden tranſitions from cold to heat. After they have been expoſed to an extreme degree of cold, they immediately apply their hands and feet to the fire, or, if they have occaſion, plunge them into warm water, by which means, if a mortification does not happen, an inflammation ſeldom fails to enſue. Moſt of the ill conſequences from this quarter might be eaſily avoided by only obſerving the precautions mentioned above.

CHAP. LIV.

OF FAINTING FITS, AND OTHER CASES WHICH REQUIRE IMMEDIATE ASSISTANCE.

STRONG and healthy perſons, who abound with blood, are often ſeized with ſudden fainting fits, after violent exerciſe, drinking freely of warm or ſtrong liquors, expoſure to great heat, intenſe application to ſtudy, or the like.

In ſuch caſes the patient ſhould be made to ſmell to ſome vinegar. His temples, forehead, and wriſts, ought at the ſame time to be bathed with vinegar mixed with an equal quantity of warm water; and two or three ſpoonfuls of vinegar, with four or five times as much water, may, if he can ſwallow, be poured into his mouth.

If the fainting proves obſtinate, or degenerates into a *ſyncope*, that is, an abolition of feeling and underſtanding, the patient muſt be bled. After the bleeding, a clyſter will be proper, and then he ſhould be kept eaſy and quiet, only giving him every half hour a cup or two of an infuſion of any mild vegetable, with the addition of a little ſugar and vinegar.

When ſwoonings, which ariſe from this cauſe, occur frequently in the ſame perſon, he ſhould, in order to eſcape them, confine himſelf to a light diet, conſiſting chiefly of bread, fruits, and other vegetables. His drink ought to be water or ſmall beer, and he ſhould ſleep but moderately, and take much exerciſe.

But fainting fits proceed much oftener from a defect than an exceſs of blood. Hence they are very ready to happen after great evacuations of any kind, obſtinate watching, want of appetite, or ſuch like. In theſe an almoſt directly oppoſite courſe to that mentioned above muſt be purſued.

The patient ſhould be laid in bed, with his head low, and, being covered, ſhould have his legs, thighs, arms, and his whole body, rubbed ſtrongly with hot flannels. *Spirit of roſemary*, volatile ſalts, or ſtrong ſmelling herbs, as rue, mint, or roſemary, may be held to his noſe. His mouth may be wet with a little rum or brandy; and, if he can ſwallow, ſome warm wine, mixed with ſugar and cinnamon, which is an excellent cordial, may be poured into his mouth. A compreſs of flannel dipt in hot wine or brandy muſt be applied to the pit of his ſtomach, and warm bricks, or bottles filled with hot water, laid to his feet.

As ſoon as the patient is recovered a little, he ſhould take ſome ſtrong ſoup or broth, or a little bread or biſcuit ſoaked in hot-ſpiced wine. To prevent the return of the fits, he ought to take often, but in ſmall quantities, ſome light yet ſtrengthening nouriſhment, as panado made with ſoup inſtead of water, new-laid eggs lightly poached, chocolate, arrow-root, light roaſt meats, jellies, and ſuch like.

Thoſe fainting fits which are the effect of bleeding, or of the violent operation of purges, belong to this claſs. Such as happen after artificial bleeding are ſeldom dangerous, generally terminating as ſoon as the patient is laid upon the bed; indeed perſons ſubject to this

kind ſhould always be bled lying, in order to prevent it. Should the fainting however continue longer than uſual, volatile ſpirits, as *volatile liquor of hartſhorn, water of ammonia*, ſuccinated *ſpirit of ammonia* (i. e. *Eau de Luce*), and *ſpirit of roſemary* (i. e. *Hungary water*), may be held to the noſe, and rubbed on the temples, &c.

When fainting is the effect of too ſtrong or acrid purges or vomits, the patient muſt be treated in all reſpects as if he had taken poiſon. He ſhould be made to drink plentifully of milk, warm water, and oil, barley-water, or ſuch like; emollient clyſters will likewiſe be proper, and the patient's ſtrength ſhould afterwards be recruited by giving him generous cordials and anodyne medicines.

Faintings are often occaſioned by indigeſtion. This may either proceed from the quantity or quality of the food. When the former of theſe is the cauſe, the cure will be beſt performed by vomiting, which may be promoted by cauſing the patient to drink a weak infuſion of camomile flowers, *carduus benedictus*, or the like. When the diſorder proceeds from the nature of the food, the patient, as in the caſe of weakneſs, muſt be revived by ſtrong ſmells, &c. after which he ſhould be made to ſwallow a large quantity of light warm fluid, which may ſerve to drown, as it were, the offending matter, to ſoften its acrimony, and either to effect a diſcharge of it by vomiting, or force it down into the inteſtines.

Even diſagreeable ſmells will ſometimes occaſion ſwoonings, eſpecially in people of weak nerves. When this happens, the patient ſhould be carried into the open air, have ſtimulating things held to his noſe, and thoſe ſubſtances which are diſagreeable to him ought immediately to be removed. But we have already taken notice of ſwoonings which ariſe from nervous diſorders, and ſhall therefore ſay no more upon that head.

Fainting fits often happen in the progreſs of diſeaſes. In the beginning of putrid diſeaſes they generally denote an oppreſſion at the ſtomach, or a maſs of corrupted humours, and they ceaſe after evacuations either by vomit or ſtool. When they occur at the beginning of malignant fevers, they indicate great danger. In each of theſe caſes, vinegar uſed both externally and internally is the beſt remedy during the paroxyſm, and plenty of lemon juice and water after it. Swoonings which happen in diſeaſes accompanied with great evacuations muſt be treated like thoſe which are owing to weakneſs, and the evacuations ought to be reſtrained. When they happen towards the end of a violent fit of an intermitting fever, or at that of each exacerbation of a continual fever, the patient muſt be ſupported by ſmall draughts of wine and water.

Delicate and hyſteric women are very liable to ſwooning or fainting fits after delivery. Theſe might be often prevented by generous cordials, and the admiſſion of freſh air. When they are occaſioned by exceſſive flooding, it ought by all means to be reſtrained.

From whatever cauſe fainting fits proceed, expoſing the patient to a current of freſh air, and the application of vinegar to the wriſts, the palm of the hands, and the noſtrils, will generally recover her; and this mode of relief is in general to be preferred to the common prac-

tice of pouring down ſome ſpirituous tincture or volatile drops. No more perſons ought ever to be admitted into the room where a patient lies in a ſwoon than are abſolutely neceſſary for his aſſiſtance, and the windows of the apartment ſhould always be opened, at leaſt as far as to admit a ſtream of freſh air.

Perſons ſubject to frequent ſwoonings or fainting fits ſhould neglect no means to remove the cauſe of them, as their conſequences are always injurious to the conſtitution. Every fainting fit leaves the perſon in dejection and weakneſs; the ſecretions are thereby ſuſpended, the humours diſpoſed to ſtagnation, coagulations and obſtructions are formed, and, if the motion of the blood be totally intercepted, or very conſiderably checked, *polypuſes* are ſometimes formed in the heart or larger veſſels. The only kind of ſwoonings not to be dreaded are thoſe which ſometimes mark the *criſis* in fevers; yet even theſe ought, as ſoon as poſſible, to be removed.

OF INTOXICATION.

The effects of intoxication are often fatal. No kind of poiſon kills more certainly than an over-doſe of ardent ſpirits. Sometimes, by deſtroying the nervous energy, they put an end to life at once; but in general their effects are more ſlow, and in many reſpects ſimilar to thoſe of opium. Other kinds of intoxicating liquors may prove fatal when taken to exceſs, as well as ardent ſpirits; but they may generally be diſcharged by vomiting, which ought always to be excited when the ſtomach is overcharged with liquor.

More of thoſe unhappy perſons, who die intoxicated, loſe their lives from inability to conduct themſelves, than from the deſtructive quality of the liquor. Unable to walk, they tumble down, and lie in ſome awkward poſture which obſtructs the circulation or breathing, and often continue in this ſituation till they die. No drunken perſon ſhould be left by himſelf, till his clothes have been looſened, and his body laid in ſuch a poſture as is moſt favourable for continuing the vital motions, diſcharging the contents of the ſtomach, &c. The beſt poſture for diſcharging the contents of the ſtomach is to lay the perſon upon his belly; when aſleep he may be laid on his ſide, with his head a little raiſed, and particular care muſt be taken that his neck be no way bent, twiſted, or have any thing too tight about it.

The exceſſive degree of thirſt occaſioned by drinking ſtrong liquors often induces people to quench it by taking what is hurtful. I have known fatal conſequences even from drinking freely of milk after a debauch of wine or four punch; theſe acid liquors, together with the heat of the ſtomach, having coagulated the milk in ſuch a manner that it could never be digeſted. The ſafeſt drink after a debauch is water with a toaſt, tea, infuſions of balm, ſage, barley-water, and ſuch like. If the perſon wants to vomit, he may drink a weak infuſion of camomile flowers, or lukewarm water and oil; but in this condition vomiting may generally be excited by only tickling the throat with the finger or a feather.

A young man had, for a hire, drank ten glaſſes of ſtrong brandy. He ſoon after fell faſt aſleep, and continued in that ſituation for ſe-

veral hours, till at length his uneaſy manner of breathing, the coldneſs of the extremities, and other threatening ſymptoms, alarmed his friends, and made them ſend for me. I found him ſtill ſleeping, his countenance ghaſtly, and his ſkin covered with a cold clammy ſweat. Almoſt the only ſigns of life remaining were, a deep laborious breathing, and a convulſive motion or agitation of his bowels.

I tried to rouſe him, but in vain, by pinching, ſhaking, applying volatile ſpirits and other ſtimulating things to his noſe, &c. A few ounces of blood were taken from his arm, and a mixture of vinegar and water was poured into his mouth; but, as he could not ſwallow, very little of this got into the ſtomach. None of theſe things having the leaſt effect, and the danger ſeeming to increaſe, I ordered his legs to be put into warm water, and a ſharp clyſter to be immediately adminiſtered. This gave him a ſtool, and was the firſt thing that relieved him. It was afterwards repeated with the ſame happy effect, and ſeemed to be the chief cauſe of his recovery. He then began to ſhew ſome ſigns of life, took drink when it was offered him, and came gradually to his ſenſes. He continued, however, for ſeveral days weak and feveriſh, and complained much of a ſoreneſs in his bowels, which gradually went off, by means of a ſlender diet and cool mucilaginous liquors.

OF SUFFOCATION AND STRANGLING.

These may ſometimes proceed from an infarction of the lungs, produced by viſcid clammy humours, or a ſpaſmodic affection of the nerves of that organ. Perſons who feed groſsly, and abound in rich blood, are very liable to ſuffocating fits from the former of theſe cauſes. Such ought, as ſoon as they are attacked, to be bled, to receive an emollient clyſter, and to take frequently a cup of diluting liquor with a little nitre in it. They ſhould likewiſe receive the ſteams of hot vinegar into their lungs by breathing.

Nervous and aſthmatic perſons are moſt ſubject to ſpaſmodic affections of the lungs. In this caſe the patient's legs ſhould be immerſed in warm water, and the ſteams of vinegar applied as above. Warm diluting liquors ſhould likewiſe be drank; to a cupful of which a tea-ſpoonful of the *camphorated tincture of opium* may occaſionally be added. Burnt paper, feathers, or leather, may be held to the patient's noſe, and freſh air ſhould be freely admitted to him.

Infants are often ſuffocated by the careleſſneſs or inattention of their nurſes, and ſometimes by the mother being ſeized with hyſteric fits in the night. An infant when in bed ſhould always be laid ſo, that it cannot tumble down with its head under the bed-clothes; and when in a cradle, its face ought never to be covered. A ſmall degree of attention to theſe two ſimple rules would ſave the lives of many infants, and prevent others from being rendered weak and ſickly all their days by the injuries done to their lungs.

The late Mr. Glover, ſurgeon in London, related the caſe of a perſon who was reſtored to life after twenty-nine minutes hanging, and continued in good health for many years after.

The principal means uſed to reſtore this man to life were, opening

the temporal artery and the external jugular; rubbing the back, mouth, and neck, with a quantity of volatile ſpirits and oil; adminiſtering the tobacco clyſter by means of lighted pipes, and ſtrong frictions of the legs and arms. This courſe had been continued for about four hours, when an inciſion was made into the windpipe, and air blown ſtrongly through a canula into the lungs. About twenty minutes after this, the blood at the artery began to run down the face, and a ſlow pulſe was juſt perceptible at the wriſt. The frictions were continued for ſome time longer; his pulſe became more frequent, and his mouth and noſe being irritated with *water of ammonia*, he opened his eyes. Warm cordials were then adminiſtered to him, and in two days he was ſo well as to be able to walk eight miles.

This caſe is ſufficient to ſhew what may be done for the recovery of thoſe unhappy perſons who ſtrangle themſelves in a fit of deſpair, or otherwiſe, with guilty daring, attempt by barbarous hands to "*put off this muddy veſture*" of mortality.

OF PERSONS WHO EXPIRE IN CONVULSION FITS.

Convulsion fits often conſtitute the laſt ſcene of acute or chronic diſorders. When this is the caſe, there can remain but ſmall hopes of the patient's recovery after expiring in a fit. But when a perſon who appears to be in perfect health is ſuddenly ſeized with a convulſion fit, and ſeems to expire, ſome attempts ought always to be made to reſtore him to life. Infants are moſt liable to convulſions, and are often carried off very ſuddenly by one or more fits about the time of teething. There are many well authenticated accounts of infants having been reſtored to life after they had to all appearance expired in convulſions.

When children are dead born, or expire ſoon after the birth, the ſame means ought to be uſed for their recovery as if they had expired in circumſtances ſimiliar to thoſe mentioned above.

Theſe directions may likewiſe be extended to adults, attention being always paid to the age and other circumſtances of the patient.

The means uſed with ſo much efficacy in recovering drowned perſons are, with equal ſucceſs, applicable to a number of caſes where the powers of life ſeem in reality to be only ſuſpended, and to remain capable of renewing all their functions, on being put into motion again. It is ſhocking to reflect, that for want of this conſideration many perſons have been committed to the grave in whom the principles of life might have been revived.

The caſes wherein ſuch endeavours are moſt likely to be attended with ſucceſs, are all thoſe called ſudden deaths from an inviſible cauſe, as apoplexies, hyſterics, faintings, and many other diſorders wherein perſons in a moment ſink down and expire. The various caſualties in which they may be tried are, ſuffocations, from the ſulphureous damps of mines, coal-pits, &c. the unwholeſome air of long unopened wells or caverns; the noxious vapours ariſing from fermenting liquors; the ſteams of burning charcoal; ſulphureous mineral acids; arſenical effluvia, &c.

The various accidents of drowning, ſtrangling, and apparent deaths,

by blows, falls, hunger, cold, &c. likewiſe furniſh opportunities of trying ſuch endeavours. Thoſe perhaps who to appearance are killed by lightning, or by any violent agitation of the paſſions, as fear, joy, ſurpriſe, and ſuch like, might alſo be frequently recovered by the uſe of proper means, as blowing ſtrongly into their lungs, immerſing the perſon in warm water, &c.

The means to be uſed for the recovery of perſons ſuddenly deprived of life are nearly the ſame in all caſes; they are practicable by every one who happens to be preſent at the accident, and require no great expence, and leſs ſkill. The great aim is to reſtore the warmth and vital motions. This may in general be attempted by means of heat, frictions, bleeding, blowing air into the lungs, adminiſtering clyſters and generous cordials. Theſe muſt be varied according to circumſtances. Common ſenſe, and the ſituation of the patient, will ſuggeſt the proper manner of conducting them. Above all, we would recommend *perſeverance*. People ought never to deſpair on account of diſcouraging circumſtances, or to leave off their endeavours as long as there is the leaſt hope of ſucceſs.

We ſhall conclude theſe obſervations on the ſuſpenſion of the vital functions, by inſerting the Reſuſcitative Proceſs, directed by that patriotic inſtitution, the

ROYAL HUMANE SOCIETY.

CAUTIONS.——1, The perſon is never to be held up by the heels. 2, Not to be rolled on caſks, or other rough uſage. 3, Avoid the uſe of ſalt: in all caſes of apparent death, warm flannel lightly ſprinkled with ſpirits may be uſeful.

THE DROWNED.——1, Convey carefully the body, with the head raiſed, to the neareſt convenient houſe. 2, Strip and dry the body; clean the mouth and noſtrils. 3, Young children between two perſons in a warm bed. 4, An adult: Lay the body on a blanket or bed, in a warm chamber, in winter: To be expoſed to the ſun in ſummer. 5, It is to be gently rubbed with flannel ſprinkled with ſpirits; a heated warming pan, covered, lightly moved over the back and ſpine. 6, To reſtore breathing, introduce the pipe of a pair of bellows (when no apparatus) into one noſtril, the other with the mouth cloſed; inflate the lungs till the breaſt be a little raiſed; the mouth and noſtrils muſt then be let free: repeat the proceſs till life appears. 7, Tobacco ſmoke is to be thrown gently into the fundament with a proper inſtrument, or the bowl of a pipe covered, ſo as to defend the mouth of the aſſiſtant. 8, The breaſt to be fomented with hot ſpirits: if no ſigns of life appear, the warm bath: or hot bricks, &c. applied to the palms of the hands and ſoles of the feet. 9, Electricity early employed by a medical aſſiſtant.

INTENSE COLD.——Rub the body with ſnow, ice, or cold water. Reſtore warmth, &c. by ſlow degrees, and after ſome time, if neceſſary, the plans to be employed for the reſuſcitation of drowned perſons.

SUSPENSION BY THE CORD.——1, A few ounces of blood may be taken from the jugular vein, and cupping-glaſſes may be applied to the head and neck; leeches alſo to the temples. 2, The

ther methods of treatment, the ſame as recommended for the apparently drowned.

Suffocation by noxious Vapours or Lightning.——Cold water to be repeatedly thrown upon the face, &c. drying the body at intervals. If the body feels cold, employ gradual warmth, and the plans of the drowned.

Intoxication.——The body is to be laid on a bed, &c. with the head a little raiſed: the neckcloth, &c. removed. Obtain immediately medical aſſiſtance, as the modes of treatment muſt be varied according to the ſtate of the patient. The late Dr. Hawes earneſtly recommended the peruſal of Dr. Trotter's "Eſſay on Drunkenneſs," which clearly points out its fatal conſequences.

General Observations.——1, On ſigns of returning life, a tea-ſpoonful of warm water may be given; and, if ſwallowing be returned, warm wine or diluted brandy. To be put into a warm bed, and if diſpoſed to ſleep, will generally awake reſtored to health. 2, The plans above recommended are to be uſed for three or four hours. It is an abſurd and vulgar opinion to ſuppoſe perſons as irrecoverable becauſe life does not ſoon make its appearance. 3, Electricity and bleeding never to be employed, unleſs by the direction of the medical aſſiſtants.

Dr. Armſtrong is deſcriptive and illuſtrative on the return of life.

——————"While the vital fire
"Burns feebly, heap not the green fuel on;
"But prudently foment the wandering ſpark
"With what the ſooneſt feels its kindred touch.
"Be frugal ev'n of that: a little give
"At firſt; that kindled, add a little more,
"Till by deliberate nouriſhing, the flame
"Revived, with all its wonted vigour glows."

OF RUPTURES.

HERNIÆ, or Ruptures, are not, as the term that has long been adopted would lead us to ſuppoſe, a rupture of ſome of the parts which form the contents of the cavity of the abdomen or belly, or of both of them: this diſeaſe is, in general, the protruſion of a ſoft part, which yet remains covered by the common integuments, forming a preternatural tumor in the abdomen; and they are differently named according to the places where they are ſituated. The ſituations of this protruſion are, the groin, *ſcrotum*, and *labia pudenda*; the upper and fore-part of the thigh; the *umbilicus*, or navel; and different points between the interſtices of the abdominal muſcles.

Children and old people are moſt liable to this diſeaſe. In the former it is generally occaſioned by exceſſive crying, coughing, vomiting, or the like. In the latter, it is commonly the effect of blows or violent exertions of the ſtrength, as leaping, carrying

great weights, &c. In both a relaxed habit, indolence, and an oily or very moiſt diet, diſpoſe the body to this diſeaſe.

A rupture ſometimes proves fatal before it is diſcovered. Whenever ſickneſs, vomiting, and obſtinate coſtiveneſs, give reaſon to ſuſpect an obſtruction of the bowels, all thoſe places where ruptures uſually happen ought carefully to be examined. The protruſion of a very ſmall part of the gut will occaſion all theſe ſymptoms, and, if not returned in due time, will prove fatal.

On the firſt appearance of a rupture in an infant, it ought to be laid upon its back, with its head very low. While in this poſture, if the gut does not return of itſelf, it may eaſily be put up by gentle preſſure. After it is returned, a piece of ſticking-plaſter may be applied over the part, and a proper truſs or bandage muſt be conſtantly worn for a conſiderable time. The method of making and applying theſe rupture-bandages for children is pretty well known. The child muſt, as far as poſſible, be kept from crying, and from all violent exertions, till the rupture is quite healed.

The moſt frequent ſpecies of the affection of which we are now treating, is the bubonocele, or inguinal hernia, which may be defined, a ſoft ſwelling, ſomewhat elaſtic and tenſe, beginning in the groin, and deſcending into the *ſcrotum* of men, and into the *labia pudenda* of women. The tumor is moſt commonly formed by a part of the inteſtinal canal, or of the omentum, commonly called the *caul*; or of both.

When the inteſtine or gut of an adult has been forced down with great violence, or happens from any cauſe to be inflamed, there is often great difficulty in returning it, and ſometimes the attempt is impracticable without an operation, a deſcription of which is foreign to our purpoſe. We ſhall briefly mention the method which it is generally proper to purſue.

After the patient has been bled, he muſt be laid upon his back, with his head very low, and his breech raiſed high with pillows. In this ſituation flannel-cloths wrung out of a decoction of mallows and camomile-flowers, or, if theſe are not at hand, of warm water, muſt be applied for a conſiderable time. A clyſter made of this decoction, with a large ſpoonful of butter and an ounce or two of ſalt, may be afterwards thrown up. If theſe ſhould not prove ſucceſsful, recourſe muſt be had to preſſure. If the tumor be very hard, conſiderable force will be neceſſary; but it is not force alone which ſucceeds here. The operator, at the ſame time that he makes a preſſure with the palms of his hands, muſt with his fingers artfully conduct the gut in by the ſame aperture through which it came out. The manner of doing this can be much eaſier conceived than deſcribed. Should theſe endeavours prove ineffectual, clyſters of the ſmoke of tobacco may be tried. Theſe have been often known to ſucceed where every other method failed.

There is reaſon to believe that, by perſiſting in the uſe of theſe, and ſuch other means as the circumſtances of the caſe may ſuggeſt, moſt *hernias* might be reduced without an operation. Cutting for the *hernia* is a nice and difficult matter; I would therefore adviſe

ſurgeons to try every method of returning the gut before they have recourſe to the knife. I have once and again ſucceeded by perſevering in my endeavours, after eminent ſurgeons had declared the reduction of the gut impracticable without an operation.

An adult, after the gut has been returned, muſt wear a ſteel truſs, or a ſuitable bandage. Such bandages or ſupports are generally uneaſy to the wearer for ſome time, but by cuſtom they become quite eaſy. No perſon who has had a rupture after he has attained the years of manhood, ſhould ever be without a proper bandage.

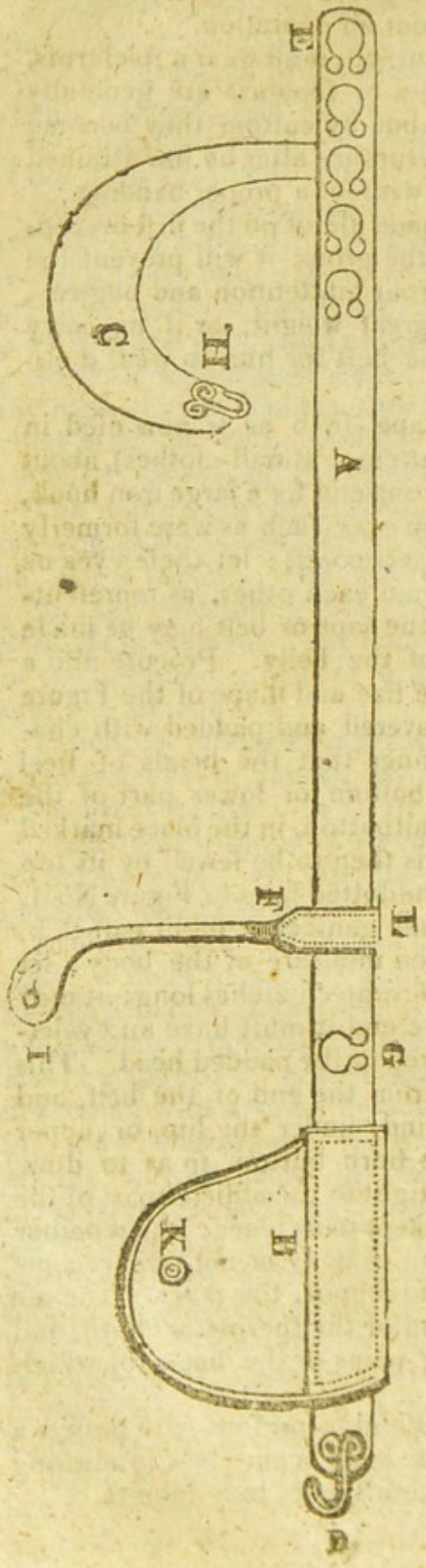
If the following ſimple method is made uſe of on the firſt perception of a protuberance or rupture in the groin, it will prevent the bad conſequences that often reſult from inattention and neglect; but if the patient frequently lifts a great weight, or if he carry heavy burthens, in that caſe it will be beſt for him to wear a circular ſteel ſpring truſs.

Procure a piece of ſtrong broad tape (ſuch as is now uſed in making the braces or ſupporters of gentlemen's ſmall-clothes), about two feet nine inches in length; and at one end fix a large iron hook, and at the other end ſew five or ſix iron eyes (ſuch as were formerly uſed univerſally by women for their petticoats): let theſe eyes be placed about half an inch diſtant from each other, as repreſented in the Figure (ſee No. 1), ſo that the tape or belt may be made tight around the body or lower part of the belly. Procure alſo a piece of ſtrong ſhoe-ſole leather of the ſize and ſhape of the Figure (ſee No. 2), which leather muſt be covered and padded with chamois or doe-ſkin leather, in the manner that the heads of ſteel ſpring truſſes are covered. At the bottom or lower part of the padded leather, fix a horn, or other ſmall button, in the place marked in the drawing. This padded head is then to be ſewed by its top part to the tape belt, as is marked by the dotted lines in Figure No. 1.

Make alſo a back ſtrap of ſoft and genteel or ſlight calf-ſkin, that will not be liable to ſtretch by the moiſture of the body; let this be about half an inch broad, and ſeventeen inches long; it may be a little broader at the ends: at one end it muſt have an eyelet-hole to hitch on the horn button annexed to the padded head. This ſtrap is to be fixed about ten inches from the end of the belt, and of ſuch a length as to paſs from behind, under the hip, or upper part of the thigh, and to hitch on the horn button, ſo as to draw and keep the padded head cloſe and tight to the afflicted part of the body. By this means the gut will be kept in its place; and whether the patient be of a lax or weakly habit of body or not, we recommend him to wear a ſuſpenſory bag to ſupport the *teſtes*. The uſe of a ſuſpenſory prevents the diſtention of the ſpermatic chord, and likewiſe thoſe diſagreeable dragging pains of the back, of which weakly perſons often complain.

Theſe hints, we preſume, will be uſeful to perſons who poſſeſs a mechanical inventive mind, and can aſſiſt themſelves in altering and amending their bandages as circumſtances may require.

FIG. 1.



A, The ſtrong tape belt.

B, The ſtrong ſhoe-ſole leather head.

C, A ſuſpenſory bag.

D, The large hook to faſten to the eyes.

E, The eyes to receive the hook D.

F, The back ſtrap, the end of which muſt go over the belt, and be ſewed to it.

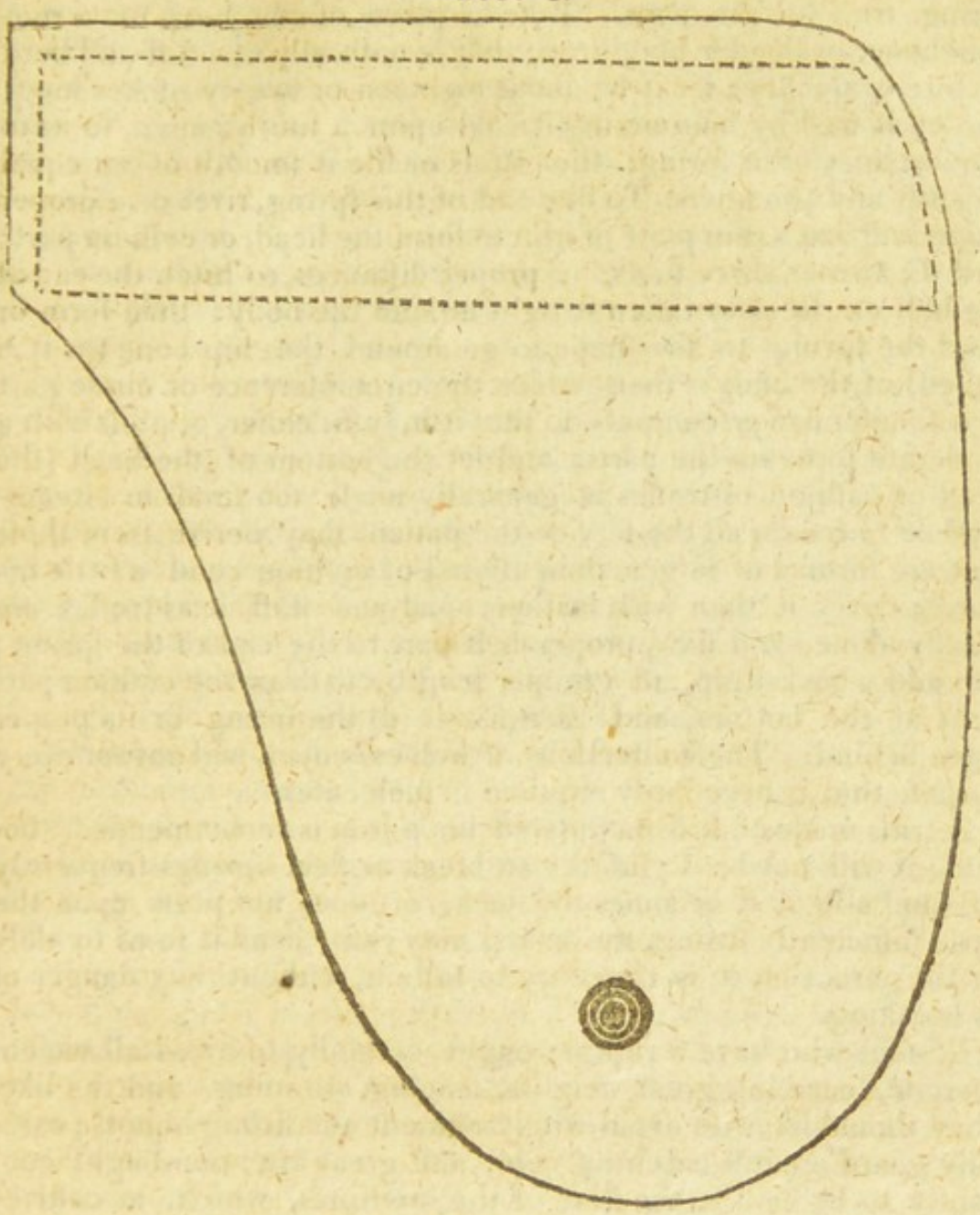
G, An iron eye to receive the hook H, at the end of the ſuſpenſory bag.

The eyelet-hole I, at the end of the back ſtrap, to hitch on the horn button K upon the leather head.

Note. You muſt find the proper length of the back ſtrap before you ſew or faſten the end at F to the belt, which may ſoon be done, by faſtening the belt around the body in its proper place; then hitch the eyelet-hole marked I on the horn button K, and paſs the ſtrap under the thigh and up the fold of the hip, and ſo over the belt at L; and then draw the ſtrap to a proper tightneſs, and there faſten it.

This apparatus may be made for 2s 6d, and will anſwer the purpoſe of a uſeful bandage, where a double *Hernia* has taken place.

FIG. 2.



The ſhape and ſize of a ſtrong leather head to be padded and then ſewed to a ſtrong tape belt, which muſt have a back ſtrap fixed about 10 inches from the end of the belt, and ſo paſſing in the folds of the hip, and with a eyelet-hole at the end to hitch over the horn button, as repreſented by the circles in the Figure.

Let this leather be pretty well beaten upon a ſhoe maker's lap-ſtone before you cut it into a proper ſhape.

The following is a cheap and eaſy method to make an iron ſpring truſs for the poor. Take a piece of the hoop of a rum puncheon, or ſlender hoop-iron, that is naturally of a ſtiff and hard texture or quality; let it be about eighteen or twenty inches long; harden it well by hammering it cold upon a ſmith's anvil, ſo as to acquire an elaſtic ſpring; then dreſs or file it ſmooth of an equal breadth and thickneſs. To one end of this ſpring, rivet of a proper ſhape and ſize a thin plate of iron to form the head, or cuſhion part; and fix two or three ſtuds, at proper diſtances, to hitch the end of the belt on, ſo as to faſten it tight around the body: then form or bend the ſpring to the ſhape to go around the hip-bone (as it is called) of the body: then reduce the circumference or circle part to a ſmaller ſize or compaſs, ſo that it may ſit cloſer, or preſs with a moderate force on the parts; and let the bottom of the head [the head or cuſhion of truſſes is generally made too ſmall in circumference to render all the ſervice the patient may derive from thoſe that are formed of larger dimenſions] or cuſhion bend a little inwards; cover it then with leather; pad and ſtuff it as truſſes are uſually done, and fix a proper belt part to the end of the ſpring; alſo add a back ſtrap, of a proper length, to draw the cuſhion part tight at the bottom, and then fix it to the ſpring in its proper place behind. Theſe directions, if well executed, will anſwer every purpoſe that is neceſſarily required in ſuch caſes.

A truſs made of ſtiff hammered hoop iron is recommended, becauſe it will not be ſo ſubject to break as ſteel ſprings frequently do; and alſo if it becomes too ſlack, or does not preſs upon the parts ſufficiently ſtrong, the wearer may eaſily bend it ſo as to cloſe on the parts that it is neceſſary to ſuſtain, without any danger of its breaking.

Perſons who have a rupture ought carefully to avoid all violent exerciſe, carrying great weights, leaping, running, and the like. They ſhould likewiſe avoid windy aliment and ſtrong liquors; carefully guard againſt catching cold, and great attention ought conſtantly to be paid to the ſtate of the inteſtines, which, as coſtiveneſs always aggravates the diſeaſe, ſhould be kept in a ſoluble ſtate by the oil of almonds, caſtor oil, or the electuary of ſenna; or by magneſia, manna, ſtewed prunes, or ſuch mild eccoprotics as the ſtate of the body may require.

OF COLD AND WARM BATHING.

NEXT to bodily exerciſe and the enjoyment of the open air, nothing, perhaps, is more conducive to health than cleanlineſs, which is not only a moral virtue, but has an extenſive influence on the preſervation of health and the cure of diſeaſes.

The neceſſity of immerſion in cold water for the purpoſe of cleanlineſs, and the pleaſurable feelings ariſing from its application to the body in hot countries, lead us to ſuppoſe the practice muſt have

been coeval with man himſelf. We learn from the ſacred Scriptures that its adoption under the form of ablution was enjoined on the Jewiſh people, as an indiſpenſible duty. The Greeks, according to their own hiſtorians, learnt their practice of bathing from the Egyptians, and the Romans from the Greeks. With thoſe celebrated nations, public and private baths formed an important branch of uſeful and ornamental architecture: many opulent individuals courted the favour of the people, by laviſhing their treaſures in the eſtabliſhment and decoration of public baths; and to this day we frequently hear that diſcoveries are made of the valuable remains of theſe national edifices, raiſed for the purpoſes of elegant and healthful recreation. Yet although, in the moſt remote times, cold bathing was reſorted to with obvious advantage by nervous and debilitated perſons, yet cold baths were long baniſhed from the practice of medicine by the uſurpations of a monkiſh philoſophy; for during the dark, or middle ages, this genuine ſource of health, this important medicinal remedy, preſented by the hand, and as it were ſupplied by the very boſom of Nature, was totally neglected; until, a little more than a century ago, the good ſenſe of Europeans, inſtigated by the late Sir John Floyer, Dr. Baynard, and others, brought cold bathing again into general notice.

Since an indiſcriminate and promiſcuous uſe of active and important medicines is more likely to do harm than good, it is our duty to warn people who imagine that the ſimple element of water can do no hurt, and that they may plunge into it at any time, that cold bathing muſt not be attempted by perſons in a ſtate of plethora, or full habit of body; nor by thoſe who are ſubject to hæmorrhages, or fluxes of the blood, whether external or internal; nor by patients labouring under morbid affections of the breaſt and lungs, ſuch as difficult reſpiration, ſhort and dry coughs, &c. It is alſo dangerous for perſons to uſe cold bathing who are troubled with obſtructions of the inteſtines, or habitual coſtiveneſs, until they are prepared by ſuitable evacuations. Perſons labouring under ſcorbutic and an acrimonious ſtate of the fluids; under cutaneous diſeaſes; in gouty and rheumatic paroxyſms; in a ſtate of pregnancy; and thoſe who have a deformed or diſtorted ſtate of the body; all theſe are to ſhun cold or ſea bathing, except in ſome particular caſes to be determined by a phyſician.

Cold water, from its gravity as well as its tonic power, tends both to obviate and remove the debility incident to the inhabitants of populous cities, who breathe an impure atmoſphere, give way to luxurious indulgencies, or lead ſedentary lives. By accelerating the motion of the blood, and promoting the different ſecretions, it braces and gives permanent vigour to the ſyſtem. Theſe important purpoſes are conceived to be moſt effectually anſwered by the application of ſea-water, not only on account of its greater ſpecific gravity, but alſo becauſe it is a more powerful ſtimulant, promoting the cutaneous diſcharge, and rendering the patient leſs liable to catarrhal affections, or what is uſually termed "*catching cold.*"

In chlorofis; an aptitude to abortion; profufe menftrual and other weakening uterine difcharges; ophthalmia, or chronic inflammation of the eyes; atrophy, convulfions and rickets of children; in preventing the recurrence of the paroxyfms of intermittent fevers; in removing the debility occafioned by febrile difeafes, and the long continued ufe of the preparations of quickfilver; in a great number of thofe chronic affections termed nervous complaints; in epilepfy, St. Vitus's dance, and phrenfy; cold or falt-water bathing may often conduce to the cure, efpecially when its falutary effects are affifted by the moderate ufe of wine, or fuch other medicines as are fuitable to the age, fex, temperament, and ailments of the patient. Scrophulous affections, and the enlargement of the bones, or tendons, commonly called *white fwellings* of the joints, are relieved by fea-bathing, by taking fea-water internally, and by the partial application either of pumping; or the ufe of the vapour bath; or by wrapping the part affected in linen cloths moiftened in fea-water, wetting them as often as they dry. Expofing the furface of the fore (if any) to the action of the air, as feldom as may be confiftent with a due regard to cleanlinefs, acts powerfully as a difcutient, and affifts the healing procefs; while much benefit may be obtained by pumping falt-water on the part enlarged two or three times every day.

Perfons who cannot refort to the fea, may make an artificial falt-water bath, by diffolving a pound of falt in every gallon of water required.

The internal ufe of fea-water is not only ufeful in fome cutaneous and fcrophulous complaints, but it removes worms from the inteftines of children, and prevents their reproduction; it is alfo ufeful in gravel, jaundice, fiftula in ano, and a good purgative in paralytic complaints. To perfons labouring under pulmonary confumption, hectic fever, and hæmoptoe or fpitting of blood, the air and water of the fea are injurious.

It is improper to plunge into cold water while the ftomach is loaded with food, and it may not always be proper to bathe immediately after rifing from bed in the morning. Perfons who are much enfeebled ought not to bathe till towards noon, or at leaft till the digeftion of their firft meal may be fuppofed to be nearly completed. The bathing drefs may be made of porous flannel, open before like a wrapper with fhort fleeves, that the water may come in contact with every part of the body as much and as fpeedily as poffible: take one plunge or dip, and drefs as expeditioufly as may be. Should chilline fs enfue on coming out of the water, a little of the compound fpirit of lavender, a tea-fpoonful or two of the compound tincture of cinchona, a peppermint-lozenge or two, a toaft dipped in warm fpiced wine, or ginger tea, with moderate exercife if they can bear it, may reftore the body to its due degree of warmth. Should thefe prove infufficient, the individual ought to be put into a warm bed; and bladders of hot water, applied to the pit of the ftomach and the extremities, will reftore the excitability of the fyftem. As a preparatory meafure for the future ufe of the cold bath, which fhould not be ufed oftener than every other morning, let him ufe the tepid

or warm bath a few times; but if, after theſe precautions, a pleaſing ſenſation of glowing warmth is not perceived to diffuſe itſelf over the ſurface of the body, it is a proof that cold bathing ought not to be perſiſted in, and that the aid of a phyſician of ſkill and integrity is neceſſary for the ſafety of the patient.

The beſt place for cold bathing is in a clear river, or in the invigorating water of the ſea, which we think preferable, as the heat is more uniform: where neither of theſe can be conveniently reſorted to, we recommend the SHOWER BATH, an apparatus of which may be procured from the tin-man. This is a modern invention, in which the water falls through numerous apertures on the body. Its effects are, doubtleſs, more powerful than thoſe of the common bath; and though the latter covers the ſurface of the body more uniformly, yet this circumſtance by no means detracts from the excellence of the former; becauſe thoſe intermediate parts which the water has not touched receive an electric and ſympathetic impreſſion in a degree ſimilar to thoſe brought into actual contact. As every drop of water from the ſhower bath operates as a partial cold bath, its vivifying ſhock to *robuſt* individuals is more extenſive and beneficial than any other method of bathing.

The external uſe of cold water is of ſingular uſe, as we have already noticed in the treatment of Scarlet Fever; it is alſo beneficial when applied to particular parts of the body, where its uſe may be continued much longer than the cold bath without danger.

Of all the parts of the body, the head receives the moſt benefit from the affuſion of cold water: its application to the head was recommended and juſtly extolled by Celſus, eighteen centuries ago: and daily experience proves that cold water is a ſimple and effectual remedy for the painful affections of the head which ariſe from intoxication, and againſt too great an impetus of blood towards the head, where perſons are menaced by an apoplexy, or ſudden death, by the rupture of a bloodveſſel of the brain.

WARM BATHING. People who return to Britain from hot climates frequently hope to repair the injury done to their relaxed conſtitutions by the uſe of the cold bath. It is proper that they ſhould firſt have recourſe to a bath of the temperature of 90° or 93°: this ought to be uſed for ſome time. Its warmth may be gradually diminiſhed; he may then reſort to the cold bath with ſafety and advantage. The heat of a warm bath ſhould never exceed that of the body, or ninety-ſix degrees. By the moderate application of the ſtimulant power of the warm bath, vigour and activity are communicated to the ſyſtem, and an equability of temperature is acquired by thoſe who occaſionally uſe it: even where heat and fever have been preſent, it reduces the pulſe to its due equilibrium.

In fine, warm bathing promotes perſonal cleanlineſs; is excellent for children afflicted with convulſions; and retards the progreſs of old age. It is proper for patients attacked by tetanus, or locked jaw; it abates the violence of ſpaſmodic coughs; is uſeful in cutaneous diſeaſes; it reſtores ſuppreſſed perſpiration; relieves gouty, rheumatic, nephritic, and hectic complaints; removes the œdematous ſwellings

of the legs, and obſtructions peculiar to females; and it obviates, in the moſt agreeable manner, the aching pain that is occaſioned by exceſſive fatigue.

Perſons of a full habit, however, and thoſe who labour under inflammatory affections of the lungs, ſhould have recourſe to warm-bathing with a due degree of caution. The application of its temperature ſhould be gradual, and it ought not to be very often employed till habit and cuſtom have reconciled the ſyſtem to its full effect.

Valetudinarians, and others, who are deſirous of farther information on "Sea-bathing and the Uſe of the Warm Bath," we refer to the peruſal of the ingenious "Practical Obſervations," by A. P. BUCHAN, M.D.

MINERAL WATERS.

IT is a circumſtance of importance towards ſucceſs in the cure of many diſorders, to be acquainted with the qualities of the water which is generally uſed by the patients. The change of air has often received the credit of a cure, which was the ſole effect of a change of water. This obſervation is more particularly worthy the notice of *mineral waters;* the antiquity of their uſe we learn from Galen, Pliny, and others, who ſpeak largely of their virtues. The illuſtrious Hoffman, and many authors, extol them; whilſt others obſerve that a pure water, on account of its ſimplicity, ſuch as from Malvern ſprings, is to be preferred, both for drinking and for bathing; and that, in want of theſe, they may be as well ſupplied by diſtilled rain, or any other water that is ſoft and pure. Objectors ſay, that the medicinal qualities in theſe waters only quicken their operation as water, but contribute nothing farther, and that ſolutions of the like materials are of equal efficacy; to which it has been replied, that the mineral contents are often volatile, and of parts more ſubtile than thoſe which are the product of art; and that, when the powers of nature are expiring, experience proves their efficacy as a laſt reſource.

The effects of mineral waters are, in general, according to the qualities of their contents; theſe known, their uſe is eaſily determined. Their chief contents are, 1. Acid; but none pure except fixed air. 2. Alkalies; but none pure, except the foſſil. 3. Neutral ſalts; of theſe none but the common and Glauber's ſalt. 4. Inflammable foſſil oil. 5. Sulphur; only in the ſtate of hepar. 6. Metals; none but iron and copper. 7. Earths; of theſe there are the calcareous, thoſe of alum and magneſia; and theſe only as united with fixed air, the vitriolic acid, and the marine acid. Their briſk ſparkling property is owing to the quantity of fixed air which they poſſeſs; and, indeed, to this is owing their chief uſe as a medicine. To increaſe this property when defective, or to communicate it where it is totally wanting, we muſt refer the reader to the directions given for impreg-

nating water with fixed air, communicated to the public by that illuſtrious benefactor to ſcience, the late Dr. *Joſeph Prieſtley*.

The chief medicinal waters in foreign countries, which our limits will allow us to notice, are thoſe of AIX-LA-CHAPELLE in Germany. The hot ſulphureous waters and baths of this place have been long celebrated: they ariſe from ſeveral ſprings, from whence eight baths are ſupplied in ſo many different parts of the town. At the ſprings theſe waters are perfectly tranſparent, and have a ſtrong ſmell of ſulphur, reſembling the exploſion of gunpowder; but this ſmell goes off on their being expoſed to the air: they are ſalt and bitter to the taſte, and do not appear to be chalybeate. The heat of all theſe waters is upwards of 100 degrees of Fahrenheit's thermometer, and ſome of them very conſiderably more. When they are firſt uſed, they are diſagreeably harſh to the palate; but after the taſte is familiarized to them, they become pleaſing. When they are firſt taken internally, they frequently affect the head with giddineſs, which alſo wears off by degrees. They are aperient, diuretic, and ſudorific, and recommended in diſeaſes that proceed from indigeſtion, in rheumatiſms, in ſcorbutic and ſcrophulous caſes, and in diſorders of the ſkin; they are alſo directed in hyſteric and hypochondriac diſorders; in the gravel and ſtone; in the palſy; in thoſe numerous ills which attend the injudicious uſe of mercury, and in a vaſt variety of other caſes. They are, however, to be avoided in hectic caſes accompanied with fever, in all putrid diſorders, and in every inſtance where the blood appears to be diſſolved, or the conſtitution much broken down.

The mineral water of CLEVES, in Germany, is a lively, ſparkling chalybeate; acts chiefly by urine, and reſembles the Pyrmont water.

Of the Waters of PYRMONT *in Germany.* Theſe wells are in the country of Pyrmont: this water is very ſtrongly chalybeate, tranſparent as cryſtal, and ſparkles like champagne when it is firſt taken from the fountain. It is pungent, ſharp, refreſhing, and pleaſant to the palate; but the ſmell is ſomewhat ſulphureous, and a ſubtile vapour of the ſame kind ariſes from the wells, and affects thoſe who ſerve as well as thoſe who drink the water with giddineſs like intoxication, which may be attributed to the great quantity of fixed air with which this water is impregnated. It generally acts as a purgative if taken in large quantities; taken in ſmaller doſes, its ordinary operation is diuretic and ſudorific, though in ſome conſtitutions it is ſaid to raiſe a ſpitting, diſcharging the foul humours by the ſalival glands. The waters are recommended in chloroſis, heart-burn, and againſt female obſtructions; they are even ſaid to relieve barrenneſs; in ſcorbutic diſeaſes and thoſe of the ſkin; in relaxed and broken conſtitutions, mixed with milk: and it is alſo preſcribed in apoplexies, epilepſies, and other diſorders of the head, and in thoſe of the breaſt and lungs, in which latter caſe it is adviſed to be taken lukewarm; in nervous, hyſteric, hypochondriac, and paralytic complaints; in the gravel and urinary obſtructions of the more minute veſſels. It is ſaid to correct the texture of the blood when it is in a lax ſtate; and to exhilarate the ſpirits, without producing the diſagreeable inflam-

matory effects which follow the use of a sufficient quantity of wine to answer this purpose.

Little preparation is necessary to the drinking these waters; if, however, the stomach and bowels appear to be so loaded that their operation is retarded, gentle laxatives may be proper; especially if the Pyrmont water occasion a retention of urine, or produce drowsiness, giddiness, restless nights, cramps, or other disagreeable symptoms of the like kind. If a purge or two should prove ineffectual to remove the complaints just mentioned, it will not be prudent to persevere in the use of these waters.

Of the Water of SELTZER, *in Germany.* This spring rises near the town of Neider, or Lower Seltzer, about three leagues from Frankfort on the Maine, in an open, pleasant, and fertile country. The water bursts from the earth with great violence, is perfectly bright and colourless, and throws up a considerable number of air-bubbles when it is poured from one vessel to another. The taste of Seltzer water is an agreeable pungent acid; but it leaves an acrid one on the tongue after it is swallowed. Exposed to the air for any considerable time, it assumes the taste of a vapid alkaline ley, but drops no sediment, and is fœtid and highly offensive to the smell.

It effervesces with acids, and especially with Rhenish wine, or sugar, whilst it is fresh; but ceases to produce that effect after it has stood some time. It is impregnated with an alkaline salt, a portion of sea-salt, and a quantity of fixed air. It does not purge, but operates chiefly by urine in correcting acidities in the stomach, and relieving the heart-burn; it promotes the circulation of the blood by rendering the juices more fluid, and is therefore prescribed in glandular obstructions, and to carry off gross and viscid humours. In the gravel and stone, and other disorders of the kidnies and bladder, it is said to be peculiarly efficacious; and to have been administered with success, mixed with milk, in gouty and rheumatic complaints; and alone in the scurvy, eruptions on the skin, and in what is called the king's evil, as well as in those disorders that are supposed to be occasioned by a dissolved or broken state of the blood.

As a diuretic, it is given in dropsies; and, with equal quantities of asses-milk, in consumptive cases and other disorders of the organs of respiration. In nervous disorders it may be given either with or without milk, as may be most suitable to the constitution, as well as in hypochondriac and hysteric disorders, and in female obstructions; in the latter case, exercise is necessary.

Dysenteric and other violent discharges, occasioned by acidities in the bowels, are also checked by this water: it corrects the milk of nurses, renders it more wholesome and nourishing, and prevents it from turning sour on the infants' stomachs.

If the water disagrees with the stomach, a small portion of some generous wine, or a still smaller of some good rum, may be added to it, in cases where these mixtures will not be prejudicial.

Of the Waters of SPA, *in Germany.* The town of Spa is situated in the district of Leige, six leagues east of that capital. In this town and in the neighbourhood are several springs of excellent chalybeate

waters, which have been imported in greater quantities into Great Britain than of any foreign mineral waters. If Spa-water is well corked, it bears carriage and keeping better than any mineral water; but it ſhould not be left expoſed to the air, as the fixed air it contains in more abundance than any other waters of the like kind will ſoon evaporate: it is this abundance of fixed air which gives this water its briſkneſs and agreeable vinous taſte; and it is from the ſame cauſe that it boils from a very inconſiderable heat, and diſſolves additional iron immerſed in it. Acids mingled with Spa-water diſengage the fixed air, and occaſion efferveſcence; but, hot or cold, it mixes with milk without curdling.

The operation of the Spa-waters is moſt commonly by urine, though they ſometimes act as purgatives, and in that caſe produce the effect of changing the colour of the ſtools in the ſame manner as other chalybeate waters; and, like them, have alſo a ſurpriſing effect on the ſpirits, procuring a conſtant and equal flow: they act principally on the fibres, which they brace and ſtrengthen; and they are alſo cooling, refreſhing, and invigorating.

They are recommended in an infinite variety of chronic diſorders, and particularly in all caſes where the ſtomach and fibres being relaxed, or the conſtitution being broken down by exceſſes or diſeaſes, a general weakneſs, languor, dejection, or tendency to waſting, has been the conſequence.

Theſe waters have alſo proved highly ſerviceable in all kinds of nervous diſorders, eſpecially where they affect groſs and phlegmatic habits; in ſuch obſtinate coughs and aſthmatic complaints as are occaſioned by relaxation of the pulmonary veſſels; in hyſteric and hypochondriac complaints; in obſtructions of the inteſtines, ſuch as the liver, ſpleen, or other viſcera; in all caſes where the blood is in a diſſolved or putreſcent ſtate from irregular living, from ſcorbutic eruptions imprudently repelled, or from diſorders of a putrid tendency.

They are preſcribed in all caſes where the fibres are either too much relaxed, and inclining to introduce a general debility, or ſo irritable as to threaten inflammation; in palſies and epilepſies; in all fluxes and preternatural diſcharges, and particularly the *fluor albus* or whites and gleets in both ſexes; in the gravel, ſtone, obſtruction of urine, and in ſuch other caſes as require ſtimulating and active medicines, and they are ſaid to aſſiſt in relieving barrenneſs.

But the uſe of the Spa-waters is forbidden without proper previous evacuations; in all caſes of flushing of the face, or ſtrong determination of blood to the head; or of feveriſh heat; and in hot and ſanguine conſtitutions, and ſuch as are affected with a redundancy of bile; in all ulcerations of the inteſtinal parts, and in particular of the lungs, or wherever the matter cannot be diſcharged; and in all ſuch obſtructions as are accompanied with any conſiderable degree of fever: but if the febrile ſymptoms are very ſlight, the Spa-waters, uſed cautiouſly and moderately, may prove beneficial. They quench thirſt more than common water; and they have been frequently known to afford relief in ulcerated ſore throats.

As the quantity muſt in all caſes depend on circumſtances, all directions on this ſubject are uſeleſs: but the patient himſelf will be the beſt judge; and the more he can get down without feeling the inconveniencies of ſickneſs, or weight at the ſtomach, the better chance he will have of ſpeedy relief.

It is adviſable to begin with a ſmall doſe, as a wine-glaſs or two, twice or thrice in the forenoon, and to augment it by degrees to as much as will paſs off with eaſe, without producing any of the diſagreeable ſymptoms already mentioned. When this point is attained, the courſe ſhould be perſiſted in till relief is obtained, or the hope of deriving benefit from it is vaniſhed: and in the former caſe the water ſhould be diſcontinued in the ſame gradual way. In whatever quantities the patient's ſtomach will admit the water to be taken, moderate exerciſe ſhould accompany the courſe; and if it ſhould, in the firſt inſtance, prove cold to the ſtomach, it may be warmed, by placing the glaſs a minute or two in hot water; or by adding as much hot common water as will take off the chillineſs of the Spa-water; or a few warm or aromatic ſeeds may be taken after it, till the ſtomach is reconciled to the uſe of it.

During the courſe, a cooling regimen is recommended; all exceſſes, whether in eating, drinking, exerciſe, or indulgence of the paſſions, is to be avoided: the food ſhould be plain, and the animal fleſh ſuch as is eaſy of digeſtion. Whenever the human body is diſordered, and whatever be the diſeaſe, abſtemiouſneſs, in a certain degree, will generally contribute to its reſtoration.

As a preparation for the active properties and ſtimulant powers of the Spa-waters, gentle purgatives are preſcribed; and if a plethora attend, we recommend bleeding to the degree that may be required by the conſtitution of the patient and the ſeaſon of the year. If the ſtomach appears loaded with phlegm, a ſmall doſe or two of ipecacuanha may be uſeful as an emetic. If the water ſhould produce coſtiveneſs, the body ſhould be kept open by ſmall doſes of vitriolated magneſia or rhubarb taken now and then in the firſt morning draught of it.

Where theſe waters are directed to be uſed in caſes of too great rigidity of the ſolids, warm bathing is recommended as a previous meaſure; and the ſprings of Aix-la-Chapelle, being in the neighbourhood of Spa, are reſorted to by thoſe who drink the waters upon the ſpot. When the complaint, on the contrary, is apprehended to proceed from too great a laxity of the fibres, the cold bath is adviſed.

The waters of the ſprings at Spa are alſo applied externally in many different caſes; they have been uſed with ſucceſs as an injection in female weakneſſes, ſuch diſorders as produce ulcers in the womb, and even in recent venereal diſeaſes; as a lotion for old and offenſive ulcers, and as a gargle for venereal eruptions in the mouth; for relaxations in the tonſils of the throat, and to faſten looſe teeth. Taken internally, and uſed as a bath at the ſame time, they are ſaid to cure the itch and other eruptions on the ſkin.

There are five principal ſprings at Spa. 1. The Pohoun, or Pouxon. 2. The Geronſterre. 3. Sauvenierre. 4. Wartroz. 5. Tonnelet. In

the application of theſe waters, regard ſhould be had to the different degrees of ſtrength, as they have been already deſcribed; and they may by this means be ſuited to the various diſeaſes for which they are preſcribed. Some little variation of the qualities of theſe waters will point out which of them are to be preferred in one caſe, and which in another.

The powerful efforts of the human mind have, during the laſt fifty years, been productive of many chemical diſcoveries and improvements extenſively uſeful to the arts, and equally important to the preſervation of health and the relief of diſeaſe. Meſſrs. Nicholas Paul and Co., of London, now ſo happily imitate the proceſſes of Nature, as to produce the following artificial mineral waters, in the ſeveral claſſes of acidulous, alkaline, bitter-ſaline, ſimple and acidulous chalybeate waters, and likewiſe ſulphureous waters, that, after having undergone the moſt ſcrupulous examination, have been approved and recommended by the moſt celebrated proficients in chemical ſcience. The good effects of theſe factitious waters the learned Profeſſor Bergman often found even ſuperior to natural ones, in hæmorrhoidal affections, in arthritic pains, and in obſtinate intermitting fevers.

The Seltzer waters prepared by Meſſrs. Paul and Co. have been uſed with advantage in catarrhs, rheumatiſm, aſthma, and in bilious and putrid diſorders; they prove diuretic and antiſeptic even when externally employed. They are ſerviceable in ſpaſmodic affections of the ſtomach; and they promote digeſtion They may be mixed with milk, with wine, or with ſyrup of capillaire. He likewiſe manufactures Seltzer water, either ſtrong or weak, which to the properties of the Seltzer water, formerly imported in great abundance, unite the tonic and ſtomachic qualities which the preparations of iron are known to poſſeſs.

Our deſire to point out the means of relief to the afflicted will not permit us to omit the mention of the *gaſeous alkaline water* (water impregnated, according to the diſcoveries of Dr. Prieſtley, with fixed air), or, as it is now termed, *carbonic acid*. This is highly commended in caſes of gravel and ſtone, affords very great relief to the pain which accompanies theſe complaints, and is alſo an excellent antiſeptic drink; is a proper vehicle for taking the powder of cinchona bark in putrid diſeaſes; and, being mixed with port-wine, imparts to it the exhilarating effects of that of champagne. Theſe and other excellent medicated waters that we have not room to mention, may be had of Meſſrs. Allen and Co., Plough-court, Lombard-ſtreet, and of the chemiſts already mentioned in page 105 of this work.

We muſt now briefly notice ſome of the medicinal waters which Nature has bountifully beſtowed on this favoured iſland. The city of Bath, in Somerſetſhire, has long been celebrated for its hot ſprings, which are of a higher temperature than any other in this empire, and, indeed, are the only natural waters which we poſſeſs that are all hot to the touch, all the other thermal waters being of a heat below the animal temperature, and only exceeding the general average of the heat of common ſprings. There are three principal

ſources of theſe waters; namely, the King's Bath, the Croſs Bath, and the Hot Bath, which all ariſe within a ſhort diſtance of each other. The ſupply of water is ſo copious, that all the large reſervoirs uſed for bathing are filled every evening with water, freſh from their reſpective fountains.

This water, when drank freſh from the ſpring, has in moſt perſons, eſpecially in invalids, a tendency to raiſe and rather accelerate the pulſe, increaſing the heat of the body, and promoting its ſecretions. It operates by urine and inſenſible perſpiration: on firſt uſing it, a patient is apt to complain of drowſineſs and weight of the head; but theſe effects ſoon diſappear. Taken in ſmall quantities, it induces coſtiveneſs; but this may be corrected by increaſing the doſe, when it will rather act as a purgative.

A courſe of theſe waters is recommended to be preceded by a regimen as to diet, and, in caſe of full and ſanguine habits, bleeding may be proper. The ſeaſons for drinking them are the months of April, May, June, Auguſt, September, and October; and a courſe ſhould continue ſix weeks. They may be taken in quantities of from one pint to two quarts in a day, beginning with ſmall doſes, and increaſing as they ſit on the ſtomach and agree with the conſtitution: in whatever quantities, however, they are adminiſtered, the doſe for the day ſhould be divided into three unequal parts; the largeſt to be ſwallowed before breakfaſt, the next in quantity before dinner, and the ſmalleſt before ſupper: the doſes ſhould be taken an hour before each meal. Immediately after taking the water, the patient ſhould uſe moderate exerciſe; and during the whole courſe, regard muſt be had to regimen in diet, and hours; and the mind ſhould be kept in as tranquil a ſtate as poſſible. Uſed internally, theſe waters appear chiefly to exert their ſtimulating properties on the ſtomach. When they are likely to prove beneficial, they excite, on being firſt taken, a pleaſing glow in this organ; which is ſoon ſucceeded by an increaſe of appetite and ſpirits, and a quick determination to the kidneys. On the other hand, when they ſit heavy on the ſtomach and produce ſickneſs; when they occaſion head-ach, thirſt, and dryneſs of the tongue, and do not paſs off by urine or perſpiration, their operation is unfavourable, and the farther uſe of them is not to be recommended. To the young and plethoric they are frequently injurious, and, unleſs ſome evacuations are premiſed, often at firſt diſagree; occaſioning head-ach, heat in the hands, drowſineſs, and giddineſs. Phyſicians have concurred to forbid the uſe of the Bath waters in caſes of inflammatory rheumatiſms, inflammations on the lungs, and particularly if they tend to ſuppuration.

The Bath waters are ſaid to electrize the nerves and fibres, to correct acrimonious putridity, to ſtrengthen the tone of the bowels and ſtomach, and to invigorate the whole human ſyſtem. Great relief has been obtained from Bath waters in caſes of painful menſtruation, in ſpaſms occaſioned by the poiſon of lead, in St. Vitus's dance, and in theſe biliary concretions commonly called gall-ſtones; but in theſe caſes the uſe of them muſt be accompanied with the Caſtile ſoap,

and ſometimes a detergent purge of rhubarb with *tartarized kali*, or the like.

The virtues and effects of theſe waters have been applied externally, with great advantage, in many paralytic complaints, rigidity, ſprains, relaxation of the joints, and in other diſorders of the limbs occaſioned by obſtructions; in old ſores, in diſeaſes of the ſkin, and in reſtoring ſtrength and pliability to the joints and limbs after long and weakening fits of the gout and rheumatiſm. When particular parts of the body are affected, pumping on the diſeaſed limb is to be preferred to general bathing. The mud and ſcum of theſe waters have been ſucceſsfully employed with good effect by way of poultice in hard ſwellings, in weak joints, in contractions of the limbs, in ſcald heads, running ulcers, and in many cutaneous and leprous eruptions; herbs are ſometimes boiled with them in the Bath water to a proper conſiſtence for theſe and the like indiſpoſitions.

It is in moſt caſes proper to join the internal to the external uſe of theſe waters, if the former ſhould occaſion a roughneſs and eryſipelatous redneſs on the ſkin, eſpecially of thoſe who are ſcorbutic, after taking them: no danger need be apprehended, as it will diſappear after the courſe has been ſome time continued.

With regard to the medicinal effect of the Bath waters, a phyſician (*not* one of the phyſicians reſident at Bath) hath lately ſaid, that much of their ſalubrious influence is owing to the natural degree of warmth peculiar to theſe ſprings, which for ages have preſerved an admirable uniformity of temperature; that one of their moſt important uſes is their *external* application; and that in this reſpect they do not appear to differ from common water, when heated to the ſame temperature and applied under ſimilar circumſtances. The learned Dr. Falconer, however, is of opinion that the Bath waters poſſeſs farther powers, or ſpecific qualities more ſtimulating to the nervous ſyſtem, than a common warm bath.—The four principal waters in England that poſſeſs any remarkable heat, are thoſe of Bath, Buxton, Briſtol, and Matlock; the firſt of which raiſes Fahrenheit's thermometer from one hundred and eight to one hundred and nineteen degrees; the ſecond to about eighty; the third to ſeventy-ſix; and the laſt to ſixty-ſix or ſixty-eight.

Bagnigge Wells, near *London*, is much frequented in the ſpring. It is a ſalt purging water, containing in the gallon two hundred and fifty-ſeven grains of ſea-ſalt and vitriolated magneſia mixed: it is therefore a uſeful purgative water, and is alſo diuretic. The doſe is from a pint to a quart; but it is uſual to quicken its operation with vitriolated natron, or ſome other cathartic ſalt. In ſmall doſes, it is alterative, antiſcorbutic, antacid; relieving heart-burn, vertigo, and pains of the head. It is preſcribed as a remedy for pimples, heats, and other eruptions of the face; and as a cure for worms, by ſcowering away the ſlimy viſcid humours which lodge and nouriſh theſe troubleſome gueſts in the inteſtines. If the cold water diſagrees with the ſtomach, it may be warmed without leſſening its purgative qualities; or thoſe who have weak ſtomachs may add to each doſe of the water a tea-ſpoonful of the tincture of cardamoms; or they may

chew and ſwallow cardamoms, caraways, or other warm ſeeds. It is always adviſable to uſe gentle exerciſe, and to take a liquid diluting breakfaſt of tea, water-gruel, or whey, during a courſe of this water.

The chalybeate well is about forty yards from the purging well. The catalogue of diſeaſes for which theſe waters have been preſcribed will hardly come within the compaſs of our preſent undertaking; ſuffice it to ſay, that in glandular obſtructions, bilious habits, beginning conſumptions, atrophy, and in nervous debilities, we have reaſon to believe they have been of ſervice.

Barrowdale. This ſpring is about three miles from Keſwick, in Cumberland. It is a ſalt water, and much of the nature of that of the ſea. A gallon of this water affords ſeven ounces and two drachms of ſea-ſalt mixed with a little vitriolated magneſia. It is a briſk and rough cathartic even to ſtrong conſtitutions, occaſioning great thirſt, and heating the body. A pint is uſually ſufficient for a doſe. Taken in half or a quarter of a pint, it is a uſeful alterative, and operates by urine. It is of excellent uſe in ſcorbutic complaints, in ſcrophula, and the leproſy. It is alſo powerful in removing chronic obſtructions; in clearing the blood of acrimonious humours; in diſeaſes of the ſkin; and in all thoſe complaints in which ſea-water is ſerviceable. Like that, alſo, it may be uſed externally by way of fomentation; or as a bath in glandular ſwellings, and in diſorders of the ſkin.

Bristol Hotwells. This ſpring iſſues from a lime-ſtone rock, on the bank of the river Avon, about a mile below Briſtol, between high and low water-mark. Its medicinal virtues are ſaid to have been originally diſcovered by ſome ſeamen, who, frequenting this place, found the water ſerviceable in curing the itch and healing old ſores. It was not noticed till the beginning of the ſeventeenth century, nor did it arrive to any degree of reputation till the end of it, when the magiſtrates of Briſtol thought it worth their care, and ſecured it from the tide by a high wall erected round the ſpring: various improvements have been ſince made to this ſecurity. The Briſtol water appears to the naked eye tranſparent, colourleſs, and manifeſtly impregnated with air, ſparkling and bounding through its ſubſtance in the form of little bubbles, ſo that the whole ſeems to be in a ferment: to this cauſe we may attribute the property of this water to keep untainted any length of time in hot climates; it therefore forms a moſt valuable proviſion for long voyages, and is accordingly exported in great quantities to diſtant parts.

This water is without ſmell, peculiarly ſoft, pleaſant, and agreeable to the taſte, and to the touch barely lukewarm. For common drink at meals, it ſhould ſtand uncorked a few hours after it is brought from the well, or the bottle uncorked may be ſet in a veſſel of warm water: it is uſually mingled with wine, but is much better unmixed.

Little preparation is neceſſary for the drinking of theſe waters; yet the following directions may be of uſe: To the ſanguine, the florid, and thoſe of groſſer habits, ſome preparatory evacuations may

be ſerviceable; the thin, pale, enervated, and phlegmatic patient will be rather injured by any. Where the ſtomach or inteſtines are clogged with a groſs glutinous phlegm, gentle purgatives are neceſſary; and in ſuch caſes, no medicine can be uſed with better effect than *magneſia alba*, which may be adminiſtered with ſafety at all times and ſeaſons.

Emetics ſhould only be admitted as preparations for the Briſtol waters, when there is not any apprehenſion of an inflammatory diatheſis affecting the inteſtines: ſhould any of the internal viſcera be affected, the adminiſtration of vomits may be attended with danger.

In inflammatory fixed pains, or in caſes of giddineſs brought on by the uſe of the waters, bleeding may be proper; but it is ſeldom or ever neceſſary as a preparative.

The method commonly recommended to invalids for taking theſe waters, is to begin with a ſingle glaſs containing a quarter to half a pint before breakfaſt, as early as the patient chooſes to riſe, and another in the middle of the afternoon between dinner and ſupper, adding another glaſs in each interval at the diſtance of a quarter of an hour the ſecond day, and another glaſs may be added in like manner on the third day; and this, allowing for variation of conſtitution and circumſtances, may continue to be the courſe. Some patients take two glaſſes in a morning, interpoſing between them half an hour ſpent in gentle exerciſe; and taking two more glaſſes in like manner about the middle period between breakfaſt and dinner, and then ſeldom take more of the water in the courſe of the day.

This water is regarded as beneficial in ſeveral diſorders of the alimentary canal; in the ſymptoms of indigeſtion and loſs of appetite which often afflict Europeans who have reſided many years in hot climates. In bilious diarrhœas; in diabetes; in all diſorders of the lungs proceeding from neglected colds, fevers, and inflammations, the Briſtol waters are held to be highly efficacious. In internal hæmorrhages of all kinds, whether the blood paſſes by urine or ſtool; in the piles, or by immoderate diſcharge of the menſes, theſe waters afford relief; for as the Bath waters are proper where the ſecretions are defective, ſo the Briſtol water is of ſervice when they are in exceſs. The Bath water *warms*; the Briſtol *cools*. The hotter months are beſt for uſing it: regardleſs of the rules of drinking above mentioned, ſome take a pint to two quarts a-day, in repeated doſes of one-fourth of a pint, or double that quantity. In obſtinate gleets, in caſes of perternatural thirſt, and in diabetes particularly, it is permitted to be drank as freely as the thirſt requires.

The diſeaſes for which theſe waters have been drank are of very oppoſite natures; therefore the ſame benefit cannot be expected in all. In conſumption, there are ſome authenticated caſes of cure where the diſeaſe was at its commencement and the conſtitution was not broken down; but where it has made progreſs, and hectic ſymptoms are far advanced, little is to be expected from this mineral production, or any other remedy.

Briſtol-well waters are adviſed to be uſed externally in waſhing old

fores and ulcers, whether of a ſcrophulous or a cancerous nature; as a collyrium in caſe of inflamed eyes, and in particular where the eyelids are tender or excoriated.

Buxton, *in Derbyſhire*. This water, which is of moderate warmth, and has long enjoyed a conſiderable degree of reputation, is clear and tranſparent, and perfectly inoffenſive to the taſte, containing neither ſteel, ſulphur, or any kind of acidity in its compoſition; but having a ſmall quantity of ſea-ſalt and a ſtill ſmaller quantity of purging-ſalt. As an internal medicine, Buxton water poſſeſſes great activity; it increaſes the vital heat, and is of courſe ſerviceable in the cure of many diſeaſes. In deranged ſymptoms of the ſtomach and alimentary canal, where theſe have been the effect of intemperance; in hard tumors of the joints; in contraction of the veſſels and limbs, eſpecially from age; in habitual vomitings; in cramps, convulſions, gout, rheumatiſm, and paralytic diſorders; in the dry or convulſive aſthma unattended with fever, and alſo in defective menſtrual diſcharges, theſe waters are beneficial. The painful complaints incident to perſons afflicted with the ſtone and gravel are much aſſuaged by them; but they are prohibited in caſes of active inflammation, or where a ſtrong determination to the lungs prevails.

Of theſe waters, which are alterative and not evacuant, about a pint is taken in the courſe of the forenoon, and the quantity is gradually increaſed. The ſeaſon for drinking the Buxton water is uſually from the beginning of May till the end of October.

The uſe of the baths at Buxton is ſerviceable in the maladies already mentioned; alſo in nodes and chalky ſwellings. The chronic rheumatiſm ſucceeding the acute, and where the inflammation has been ſeated in particular limbs, is often wonderfully relieved by them.

There is in the neighbourhood a chalybeate water, which may be uſed by thoſe for whom it may ſeem proper.

Cheltenham, *in Glouceſterſhire*, ſix miles from Glouceſter. The medicinal ſpring that has its ſource at this town has been found of eſſential ſervice in bilious diſorders, and in the cure of glandular obſtructions, eſpecially thoſe that affect the liver, and the other organs connected with the functions of the alimentary canal. It has alſo a good effect in creating an appetite, and in ſome cutaneous complaints uſually termed ſcorbutic eruptions.

The ſeaſon of drinking the Cheltenham waters is during the whole of the ſummer months. This, like the Briſtol water, ſhould always be drank at the fountain head, and never long expoſed to the air. Half a pint of this purging chalybeate water is ſufficient for a ſingle doſe; and this quantity, repeated at different intervals during the day, is generally enough to produce the deſired effect on the bowels, without griping or other uneaſy ſenſations, ſtrengthening the organs of digeſtion, and invigorating the whole conſtitution.

Hampstead. The chalybeate water of this place is of the nature of that of *Iſlington*, but ſomewhat ſtronger. The doſe is from half a pint to two or three pints: its virtues and efficacy have been celebrated in ſeveral elaborate treatiſes. It is of a perfectly tranſparent colour. Its taſte is ſtrongly mineral, though not unpleaſant;

and, after it has been ſome time in bottles, it ſparkles like the Pyrmont water. It is recommended as ſerviceable in glandular obſtructions; in the ſcurvy, gout, ſtone, and rheumatiſm; in eruptions of the ſkin; in piles; in nervous and hyſteric diſorders; and in weakneſſes, whether acquired or conſtitutional.

This water ſits eaſy on the ſtomach, operates moſtly by urine, and deſerves more to be attended to than it is at preſent.

HARROGATE, *Yorkſhire*. The waters of this place, though they riſe from different ſprings, are alike in quality. They are tranſparent, throw up a great number of tranſparent air bubbles at the ſurface, and have a fœtid ſulphureous ſmell. When theſe waters are taken as a purgative, the doſe required will be from two to four pints: in this way it is efficacious in deſtroying worms. In ſmaller quantities, it is a good alterative in ſcrophula and diſeaſes of the ſkin. It may be uſed at the ſame time outwardly by way of bath, or fomentation as a remedy for thoſe diſorders in which waters ſtrongly impregnated with ſalt and ſulphur are beneficial.

ISLINGTON. The ſpring of this water riſes on the ſouth weſt ſide of Iſlington, which now, in a manner, joins the city of London. This is a pleaſant, clear, light chalybeate water, which has been long in repute. It is ſaid to be ſerviceable to reſtore the appetite, brace relaxed habits, and to raiſe the ſpirits; hence it may be of uſe in hypochondriac, paralytic, and other nervous diſorders. It is alſo recommended in female weakneſſes, whether occaſioned by frequent miſcarriages or the *fluor albus*; in the gravel, palſy, and diſeaſes of the ſkin.

This water operates chiefly by urine, and may be drank to the quantity of ſeveral half pints. It may be rendered more ſtrongly chalybeate by adding to each pint of the water a grain or two of *vitriolated iron*; and it deſerves much more of the public regard than it has lately obtained.

MALVERN, in *Glouceſterſhire*. There are two noted ſprings at this place; one of them is called the *Holy Well*. They riſe at ſome diſtance from each other: are nearly of the ſame deſcription, being both chalybeate, light, agreeable to the taſte; and are remarkable for being almoſt entirely free from any earthy matter. They are recommended in glandular complaints; in ſcorbutic, ſcrophulous, and cancerous diſorders; in diſeaſes of the ſkin, ſores, and ulcers; in obſtructions of the female diſcharges; in palſy, gout, gravel, and ſtone; and in external applications, particularly of the eyes.

Contrary to all other baths, it is uſual here to bathe in the body linen, and to leave it wet about the body, and ſuffer it to dry there; it being remarkable that the waters of theſe ſprings, though free from ſalt, are no more apt to give cold than ſea-water. Linen cloths kept conſtantly wet muſt be applied to the diſeaſed parts.

Previouſly to the external uſe of theſe waters, they ſhould be taken internally for ſome days in ſuch quantities as the ſtomach will bear; as in ſome caſes they excite ſickneſs and purge, though they more commonly act as a diuretic.

MATLOCK, *Derbyſhire*. The waters of the ſeveral ſprings at this

place are very ſlightly chalybeate, and occaſion petriſaction; in other reſpects they reſemble thoſe of Briſtol, being, like them, of a moderate warmth: they are recommended in moſt caſes where the Briſtol waters are uſed.

Nevilholt or Nevil-Holt, *Leiceſterſhire.* This water is recommended as a powerful antiſeptic in putreſcent diſorders: it is perfectly tranſparent and void of ſmell when it is freſh from the fountain, but it loſes its tranſparency, and becomes fœtid, when it is expoſed to the air for any conſiderable time. It is ſomewhat rough and bitter to the taſte. It acts by ſtool, urine, and perſpiration, but requires a pretty large doſe to produce the former effect. It is recommended in all caſes of weakneſs and relaxation; in diſcharges of blood and other old fluxes; as a good remedy in old diarrhœas; againſt gleets in both ſexes; atrophy, dropſy, gravel, arthritic diſeaſes, and other chronic complaints: in acute and inflammatory diſeaſes it is ſaid to be rather hurtful.

Pancras, *Middleſex.* The water of this well acts as a cathartic and diuretic; it contains a purging ſalt and a ſmall quantity of ſea-ſalt, yet it is almoſt taſteleſs. It is ſaid to be uſeful in the gravel and ſcurvy, to help digeſtion, and reſtore the appetite.

Scarborough, *Yorkſhire.* Near this town are two ſprings, diſtinguiſhed by the ſeveral names of the *purging* and the *chalybeate* wells; but they ſeem to differ more in degree of ſtrength than in the properties of the waters. They are both briſk, active, and pungent to the taſte, throwing up bubbles of air when they are poured out of a bottle into a glaſs, and both apparently abounding with fixed air. Neither of theſe waters will bear expoſure to the air. They have been recommended in general relaxations; as a tonic to reſtore the ſyſtem after too copious or exceſſive evacuations of any kind; in all diſorders of the ſtomach ariſing from flatulence, indigeſtion, or acidity; in hypochondriac and hyſteric complaints; in aſthma, ſcurvy, obſtructions, and rheumatic pains; and they are ſaid to be excellent in allaying the heat of hectic fevers.

The purging waters may be drank in half-pint glaſſes at ſmall intervals, till ſtools are procured, for which purpoſe from one quart to three pints is generally ſufficient. The chalybeate water is leſs purgative, operating principally as a diuretic: both waters contribute to give the patient unuſual gaiety of ſpirits, and the patient has here an opportunity of breathing pure air, and of bathing in the ſea.

Such of our readers as wiſh to be informed of the amuſements, accommodation, &c. at this and other watering places, as Brighton, Margate, Weymouth, &c. we refer to the "Guide to the Watering Places," publiſhed by R. Phillips, Bridge-ſtreet, Blackfriars.

Somersham in *Huntingdonſhire.* This water riſes on the ſide of a ſmall hill, about three miles from St. Ives.

It is a chalybeate ſtrongly impregnated with the vitriol of iron and alum; is much ſtronger in dry than in wet ſeaſons; and may be drank at the ſpring head from the beginning of May to the beginning of October, though it will bear carriage to any diſtance: nor will its virtues be impaired by keeping, provided it is bottled at a proper time,

and well corked; but it ſhould be carefully decanted or ſtrained after keeping, as it will drop a ſediment. It may be taken before breakfaſt in the quantity of three large wine glaſſes, at half an hour's diſtance from each other: each doſe ſhould be warmed with a ſmall quantity of common ſpring water heated, or with powdered caraway or cardamom ſeeds, the patient in the intervals keeping in gentle motion either on foot or on horſeback, otherwiſe this water is apt to occaſion a giddineſs or ſickneſs at the ſtomach; and he may eat a little preſerved ginger, if it can conveniently be had, to obviate the nauſea that this medicine may excite.

This water is alſo ſometimes directed to be taken mixed with an equal quantity of new and warm cow or aſs's milk; or a whey made from it, by boiling equal portions of the water and milk till the curd ſeparates, which ſhould then be carefully taken away. This method of adminiſtering it is adviſable in conſumptive caſes. But in whatever way it is given, it will be neceſſary to give the patient a cathartic before the courſe is begun: this may be done with ſuch medicines as are moſt ſuitable to the diſorder and conſtitution. In ordinary caſes, a ſolution of half an ounce or an ounce of vitriolated magneſia in a glaſs of the chalybeate water, warmed as before directed, will be a proper detergent doſe; a ſmaller quantity of the cathartic ſalt may afterwards be added, as occaſion requires. It may alſo be expedient to obſerve that this water, as well as all other ferruginous medicines, is apt to change the colour of the ſtools, which generally become black.

It has been much recommended to remove putrid crudities of the ſtomach; in debilities of the ſtomach and bowels; in jaundice; in obſtructions of the liver and ſpleen; in ſcurvy and conſumptions from ſcorbutic habits; in diabetes, worms, and ſchirrous tumors; in dyſenteries, in profuſe hæmorrhages, and in many other diſorders. It may alſo be applied externally to foul ulcers and cancers. But it is not adviſable for perſons who are troubled with acidities in the ſtomach, which it rather tends to increaſe than correct: nor ſhould it be preſcribed to thoſe who are affected with aſthma, dropſy, or ſwelled legs; or to thoſe who are affected with vertigo, or giddineſs of the head: in obſtruction of the female diſcharges, and in full habits, it is hurtful; nor ſhould it be taken in any caſe without proper previous evacuation by purging. A regimen as to diet is abſolutely neceſſary during a courſe of theſe waters: the food ſhould be light, plain, and eaſy of digeſtion.

Tilbury, in *Eſſex*, near *Tilbury Fort*. This water is not quite limpid at the well, but ſomewhat ſtraw-coloured. It operates chiefly by urine, though it is alſo ſomewhat purgative, and increaſes perſpiration. It excites an appetite, and helps digeſtion; is efficacious in dropſical ſwellings, in ſcorbutic and ſcrophulous diſorders, and in thoſe diſeaſes of the ſkin which are occaſioned by glandular obſtructions. It is remarkable that this water produces a ſenſation like that of a benumbed limb when it approaches the fire, though in a leſs degree. From a pint to a quart of Tilbury water, according to circumſtances, may be taken in a-day.

TUNBRIDGE WELLS, *Kent.* The two medicinal ſprings which are known by the name of Tunbridge Wells, riſe contiguous to each other, about five miles to the ſouthward of Tunbridge. There is no perceptible difference in the quality of the water of theſe ſprings, which are chalybeate; taſte ſtrongly, though not diſagreeably, of iron, and contain alſo a ſmall portion of ſea-ſalt. This water, expoſed to the air, ſoon loſes its virtues, as it does alſo by keeping a few days; it muſt therefore be drank at the wells, the exerciſe of going for that purpoſe, and returning, adding in no ſmall degree to the virtues of the water, which has long been celebrated as a tonic in the diſeaſes peculiar to women, whether ariſing from *chloroſis, fluor albus,* or from a profuſe flow of the periodical diſcharge; diſorders that are at once debilitating and painful, and that are frequently the cauſes of abortion, and ſometimes of ſterility. The ſtimulant and diuretic properties of the Tunbridge well water recommend it as efficacious for increaſing the appetite, accelerating the circulation, and in the removal of obſtructions of the liver, jaundice, and dropſy; for this mineral not only promotes the ſecretions by ſtool and perſpiration, but it is particularly uſeful, by promoting a regular determination to the kidneys, and in removing obſtructions of the urinary paſſages: it has alſo the reputation of being deſtructive of worms, and of curing chronic diſorders ariſing from laxity and weakneſs of the ſolids. It is, however, improper in all inflammatory caſes, except, indeed, in thoſe feveriſh exacerbations occaſioned by the green-ſickneſs, and which in that diſeaſe generally give way to the perſevering uſe of this, and often to other chalybeate medicines. Externally applied, it is ſaid to aſſiſt weak and ſore eyes, and to remove pimples and other eruptions of the ſkin.

The ſeaſon for drinking this water is from the beginning of June till Michaelmas. A little preparation is adviſable: in moſt caſes gentle purging is ſufficient; but in groſs and ſanguine habits, other evacuations are required.

In entering upon a courſe of the Tunbridge waters, a regimen is alſo neceſſary: the food ſhould be light; and that part of it which conſiſts of animal fleſh ſhould be mutton, fowls, and game, rather than beef or pork: veal and lamb are alſo to be allowed. The bread ſhould be pure, and well baked; and the leſs wine is taken, the better.

The quantity of the waters required can only be aſcertained by circumſtances: the age, conſtitution, and complaints of the patient muſt be conſidered, and more or leſs of this mineral adminiſtered as may be found neceſſary. It is beſt to begin with a ſmall doſe, not exceeding a quarter of a pint, about half an hour before breakfaſt, to be repeated at regular intervals, once or twice before noon. The quantity may be ſoon augmented to half a pint at each doſe; and if, as is often the caſe on entering on a courſe of mineral waters, giddineſs, a diſpoſition to ſleep, naufea or vomiting, ſhould happen, theſe ſymptoms will diſappear after a little uſe: but when, after due trial, this does not happen, the patient may conclude that the waters are unſuitable to his complaint or conſtitution.

It is common for thoſe who drink the waters at Tunbridge Wells to mix occaſionally a tea-ſpoonful or more of common ſalt, or of vitriolated magneſia, with the firſt glaſs of the water, in order to make it operate by ſtool; others, in caſe of an extreme irritability of the ſtomach, take caraway or cardamom-ſeeds, or ſome warm confection, after each glaſs, as this water is apt to occaſion ſickneſs, eſpecially where the ſtomach is loaded with impurities. It is alſo cuſtomary to pour the water into a bottle, and after cloſing it carefully with a cork, that the chillineſs of the medicine may be diminiſhed with the eſcape of as little of the fixed air as poſſible, immerſe the veſſel in hot water: by this means the mineral water will be accommodated to the temperature of the ſtomach.

WITHAM, *Eſſex*. This chalybeate ſpring riſes about three quarters of a mile from the town of Witham into a ſmall reſervoir, from whence it is brought up by a pump. This water operates chiefly as a diuretic, and is recommended in nervous, hypochondriac, and hyſteric diſorders; to promote digeſtion, and to reſtore the appetite; to check vomiting, and allay hectic heats; to relieve chronic-colicky pains; to reſtore the conſtitution when it has been debilitated by exceſſes; and it is ſaid to have afforded relief in the firſt ſtages of dropſy; in ſcurvy, aſthma, and gravel.

It muſt be drank at the ſpring, in ſuch quantities as the ſtomach will receive without nauſea. Temperance, light ſuppers, early riſing; moderate exerciſe in the open air, as riding, ſailing, ſwinging; agreeable company, and rational amuſements; all concur in promoting the ſalutary operation of theſe medicinal treaſures;—treaſures prepared in the laboratories of Nature, from her "*congregated ſtores*,"

> Whence guſh the ſtreams, the ceaſeleſs fountains play,
> And their unfailing wealth the rivers draw.
>
> THOMPSON.

Appendix.

CONTAINING

A BRITISH FAMILY HERBAL.

—

A LIST OF SIMPLES,

AND OF SUCH

Medicinal Preparations,

AS OUGHT TO BE KEPT IN READINESS FOR PRIVATE PRACTICE OR FAMILY USE.

—

THE METHOD

OF

PREPARING AND COMPOUNDING SUCH MEDICINES

As are recommended in the former Part of the Book,

WITH THE ADDITION OF SEVERAL OTHERS OF A SIMILAR NATURE.

—

REMARKS

ON THE

DOSES, USES, AND MANNER OF APPLYING

THE

DIFFERENT PREPARATIONS.

Medicamentorum varietas ignorantiæ filia est.

BACON.

INTRODUCTION.

IGNORANCE and ſuperſtition have attributed extraordinary medical virtues to almoſt every production of nature. That ſuch virtues were often imaginary, time and experience have ſufficiently ſhewn. Phyſicians, however, from a veneration for antiquity, ſtill retain in their liſts of medicine many things which owe their reputation entirely to the ſuperſtition and credulity of our anceſtors.

The inſtruments of medicine will always be multiplied, in proportion to men's ignorance of the nature and cauſe of diſeaſes: when theſe are ſufficiently underſtood, the method of cure will be ſimple and obvious.

Ignorance of the real nature and permanent properties of thoſe ſubſtances employed in the cure of diſeaſes is another reaſon why they have been ſo greatly multiplied. Phyſicians thought they could effect by a number of ingredients, what could not be done by any one of them: hence aroſe thoſe amazing farragos which have ſo long diſgraced the medical art, and which were eſteemed powerful in proportion to the number of ſimples that entered their compoſition.

The great variety of forms into which almoſt every article of medicine has been manufactured affords another proof of the imperfection of the medical art. A drug which is, perhaps, moſt efficacious in the ſimpleſt form in which it can be adminiſtered, has been nevertheleſs ſerved up in ſo many different ſhapes, that one would be induced to think the whole art of phyſic lay in exhibiting medicine under as many different modes as poſſible.

Different forms of medicine no doubt have their uſe; but they ought never to be wantonly increaſed: they are by no means ſo neceſſary as is generally imagined. A few grains of powdered rhubarb, jalap, or ipecacuanha, will actually perform all that can be done by the different preparations of theſe roots, and may alſo be exhibited in as ſafe and agreeable a manner. The ſame obſervation holds with regard to the *cinchona* (Peruvian bark) and many other ſimples of which the preparations are very numerous.

Multiplying the ingredients of a medicine not only renders it more expenſive, but alſo leſs certain, both in its doſe and operation. Nor is this all. The compound, when kept, is apt to ſpoil, or acquire qualities of a different nature. When a medicine is rendered more ſafe, efficacious, or agreeable, by the addition of another, they ought, no doubt, to be joined; in all other caſes, they are better kept aſunder. The combination of medicines embarraſſes the phyſician, and retards the progreſs of medical know-

ledge. It is impoſſible to aſcertain the preciſe effect of any one medicine, as long as it is combined with others, either of a ſimilar or diſſimilar nature.

In the exhibition of medicine, regard ſhould not only be had to ſimplicity, but likewiſe to elegance. Patients ſeldom reap much benefit from things that are highly diſagreeable to their ſenſes. To taſte or ſmell like a drug is become a proverb; and to ſay truth, there is too much ground for it. Indeed no art can take away the diſagreeable taſte and flavour of ſome drugs, without entirely deſtroying their efficacy: it is poſſible, however, to render many medicines leſs diſguſtful, and others even agreeable; an object highly deſerving the attention of all who adminiſter medicine.

The deſign of the following pages is, to exhibit ſuch a liſt of drugs and medicines as may be neceſſary for private practice. They are conſiderably more numerous indeed than thoſe recommended in the former part of the Book, but are ſtill greatly within the number contained in the moſt reformed diſpenſatories. The ſame medicine is ſeldom exhibited under different forms; and where different medicines anſwer nearly the ſame intention, there is commonly no more than one of them retained. Multiplying forms of medicine for the ſame intention tends rather to bewilder than aſſiſt the young practitioner, and the experienced phyſician can never be at a loſs to vary his preſcriptions as occaſion requires.

The chemical and other difficult preparations are for the moſt part omitted. All of them that are uſed by any private practitioner are not worth preparing. He will buy them much cheaper than he can make them. Great care however is neceſſary to obtain them genuine. They are often adulterated, and ought never to be purchaſed unleſs from perſons of known veracity. Such of them as are in common uſe are inſerted in the liſt of drugs and medicines. Their proper doſes and manner of application are mentioned in the practical part of the Book, wherever they are preſcribed.

Such articles of medicine as are to be found in the houſe or garden of almoſt every peaſant, as barley, eggs, onions, &c. are likewiſe for the moſt part omitted. It is needleſs to ſwell a liſt of medicines with ſuch things as can be obtained whenever they are wanted, and which ſpoil by being kept.

The preparations made and ſold by diſtillers and confectioners are alſo generally left out. Theſe people, by operating upon a larger plan, generally make things better, while it is in their power to afford them much cheaper than they can be prepared by any private hand.

The quantity ordered of every medicine is as ſmall as could well be prepared, both to prevent unneceſſary expence, and that the medicine might not ſpoil by keeping. Almoſt every medicine ſuffers by being kept, and ſhould be uſed as ſoon after it has been prepared as poſſible. Even ſimple drugs are apt to ſpoil, and ſhould therefore be laid in in ſmall quan-

tities; they either rot, are conſumed by inſects, or evaporate ſo as to loſe their peculiar taſte or flavour, and often become quite inſignificant.

In the preparation of medicines, we have generally followed the moſt improved diſpenſatories; but have taken the liberty to differ from them wherever our own obſervations, or thoſe of other practical writers on whoſe judgment we could depend, ſuggeſted an improvement.

In ſeveral compoſitions, the ingredient on which the efficacy of the medicine principally depends is increaſed, while the auxiliaries, which are generally ordered in ſuch trifling quantities as to be of no importance, are left out, or only ſuch of them retained as are neceſſary to give the medicine a proper conſiſtence, or the like.

The colouring ingredients are likewiſe for the moſt part omitted; they increaſe the bulk and price of the medicine, without adding any thing to its value. It would be well if they were never uſed at all. Medicines are often adulterated for the ſake of a colour. Acrid and even poiſonous ſubſtances are, for this purpoſe, ſometimes introduced into thoſe medicines which ought to be moſt bland and emollient. Ointment of elder, for example, is often mixed with verdigriſe to give it a fine green colour, which entirely fruſtrates the intention of that mild ointment. Thoſe who wiſh to obtain genuine medicines ſhould pay no regard to their colour.

Some regard is likewiſe paid to expence. Such ingredients as greatly increaſe the price of any compoſition, without adding conſiderably to its virtue, are generally either omitted, or ſomewhat leſs expenſive ones ſubſtituted in their place. Medicines are by no means powerful in proportion to their price. The cheapeſt are often the beſt; beſides, they are the leaſt apt to be adulterated, and are always moſt readily obtained.

With regard to the method of compounding medicines, we have generally followed that which ſeemed to be the moſt ſimple and natural, mentioning the different ſteps of the proceſs in the ſame order in which they ought to be taken, without paying an implicit regard to the method of other diſpenſatories.

We have followed the alphabetical order, both with regard to the ſimples and preparations. A more ſcientific method would have been agreeable to ſome perſons, but leſs uſeful to the generality of readers. The different claſſes of medicine have no great dependance upon one another, and, where they have, it is hard to ſay which ſhould ſtand firſt or laſt: no doubt the ſimple preparations ought to precede the more compound. But all the advantages ariſing from this method of arrangement do not appear equal to that ſingle one, of being able, on the firſt opening of the book, to find out any article, which, by the alphabetical order, is rendered quite eaſy.

The doſe of every medicine is mentioned whenever it appeared neceſſary. When this is omitted, it is to be underſtood that the medicine may be uſed at diſcretion. The doſe mentioned is always for an adult, unleſs when the contrary is expreſſed. It is not an eaſy matter to proportion

the doſes of medicine exactly to the different ages, conſtitutions, &c. of patients; but, happily for mankind, mathematical exactneſs is not in *every caſe* abſolutely neceſſary; we have, however, inſerted in the beginning of this Work, A LIST of the MEDICINES commonly uſed in Practice, with their proper DOSES.

Several attempts have been made to aſcertain the proportional doſes for the different ages and conſtitutions of patients; but, after all that can be ſaid upon this ſubject, a great deal muſt be left to the judgment and ſkill of the perſon who adminiſters the medicine. The following general proportions may be obſerved; but they are by no means intended for exact rules. A patient between twenty and fourteen may take two-thirds of the doſe ordered for an adult; from fourteen to nine, one-half; from nine to ſix, one-third; from ſix to four, one-fourth; from four to two, one-ſixth; from two to one, a tenth; and below one, a twelfth.

N. B. The Apothecary's weights, and the Engliſh wine meaſures, are uſed throughout the whole book, the different denominations of which will appear from the following Table:

A pound contains twelve ounces.
An ounce - - eight drachms.
A drachm - - three ſcruples.
A ſcruple - - twenty grains.
A gallon contains eight pints.
A pint - - - ſixteen ounces.
An ounce - - eight drachms.
A table-ſpoonful is the meaſure of half an ounce.
A tea-ſpoonful is about one drachm.

FAMILY HERBAL.

A BRIEF ACCOUNT OF THE *PRODUCTIONS of the VEGETABLE KINGDOM, &c.* DIRECTED BY THE ROYAL COLLEGE OF PHYSICIANS IN LONDON:

Shewing, in alphabetical Order, 1ſt, the Part uſed; 2dly, its Senſible Properties; 3dly, its Medicinal Virtues; and, laſtly, the Mode of Exhibition.

ALMONDS, ſweet and bitter——*Part uſed,* The kernels of the fruit ——*Senſible Properties:* The ſweet, oily, bland; the bitter, oily, with a peculiar flavour and bitterneſs——*Medical Virtues:* The ſweet obtunding; the bitter, ſedative and diuretic——*Mode of Exhibition:* In ſubſtance, the oil being expreſſed from either kind indifferently. Sweet almonds are employed by trituration in making emulſions, or the milk of almonds.

ALOES SUCCOTRINE: From the iſland Socotora.

ALOES HEPATIC, or common aloes, from the iſland of Barbadoes ——*ſenſ. prop.* Smell ungrateful; taſte extremely bitter. The Succotrine have ſomething of an aromatic flavour, which renders them the leaſt diſagreeable—*med. virt.* Purgative, ſtimulant—*mode of exhib.* Pill; powder; ſolution; tincture.

AMBER: A ſolid bituminous ſubſtance, dug out of the earth or found on the ſea-ſhore, principally in Poliſh Pruſſia and Pomerania—*ſenſ. prop.* Fragrant when rubbed or heated; nearly inſipid—*med. virt.* Tonic—*mode of exhib.* Oil; powder; ſalt; tincture.

ANGELICA GARDEN: *Part uſed,* The leaves, ſtalks, ſeeds—*ſenſ. prop.* Aromatic—*mode of exhib.* Chiefly as ingredients in ſome diſtilled waters and aromatic tinctures.

ANISE: An umbelliferous plant, cultivated in the ſouth of Europe —*part uſed,* The ſeeds—*ſenſ. prop.* Smell, diffuſive and aromatic. Taſte, ſweet and warm—*med. virt.* Stimulant—*mode of exhib.* Powder; infuſion; oil alſo in compound ſpirit of.

ARABIC GUM: A concrete juice exuding from a tree growing in Egypt—*ſenſ. prop.* Mucilaginous—*med. virt.* Obtunding—*mode of exhib.* In mucilage, or ſtrong ſolution in water ſtrained; alſo in troches, formed with ſtarch, ſugar, &c.

ARTICHOKE. *Part uſed,* The leaves—*ſenſ. prop.* Bitter—*med. virt.* Diuretic—*mode of exhib.* Expreſſed juice; alſo in infuſion.

ARUM. See CUCKOW PINT.

ASAFŒTIDA: The gummy reſinous juice of a plant growing in Perſia—*ſenſ. prop.* Smell, extremely fetid; taſte, acrid and nauſeous —*med. virt.* Stimulant, antiſpaſmodic, anthelmintic—*mode of exhib.* Pill; emulſion or milk; tincture.

ASARABACCA: A low perennial plant grown in gardens—*part uſed,* The leaves—*ſenſ. prop.* Smell, ſtrong, but not ungrateful; taſte bitteriſh, acrid—*med. virt.* Stimulant, emetic, purgative—*mode of exhib.* In powder, as ſnuff.

BALUSTINES: The product of the pomegranate, a low tree, or rather ſhrub, growing wild in Italy and other countries in the ſouth of Europe—*part uſed,* The flowers and rind—*ſenſ. prop.* Aſtringent.

Fruit, tart and roughiſh—*med. virt.* Tonic, cooling—*mode of exhib.* Juice of the fruit; infuſion and decoction of the flowers and rind.

Balm: A plant with labiated flowers, cultivated in gardens—*part uſed*, The leaves—*ſenſ. prop.* Smell, very ungrateful. Taſte, lightly aromatic and roughiſh—*med. virt.* Tonic—*mode of exhib.* Infuſion or tea, acidulated with lemon juice, is an excellent diluent drink in febrile complaints.

Balsam Canada: A liquid exudation from a ſpecies of pine tree growing in North America—*ſenſ. prop.* Smell, fragrant; taſte, moderately pungent and bitteriſh—*med. virt.* Tonic, ſtimulant—*mode of exhib.* In pills, or in a ſtate of ſolution united to watery liquids by yolk of egg, or mucilage of gum-arabic, honey, or ſugar.

Balsam of Capivi: A liquid exudation from a tree growing in Brazil—*ſenſ. prop.* Smell, ſtrong and diffuſive; taſte, acrid and bitteriſh—*med. virt.* Tonic, ſtimulant, diuretic—*mode of exhib.* In pills; dropped on ſugar; united to watery liquors by egg or mucilage.

Balsam of Peru: A liquid exudation from a tree growing in Peru—*ſenſ. prop.* Smell, fragrant; taſte, very hot and pungent—*med. virt.* Stimulant, antiſpaſmodic—*mode of exhib.* By itſelf in pills; mixed with watery liquors by means of egg or mucilage; alſo in tincture.

Balsam of Tolu: A thick reſinous exudation from a tree growing in South America—*ſenſ. prop.* Smell, extremely fragrant; taſte, mild and grateful—*med. virt.* Lightly ſtimulant, in cold debilitated habits; alſo corroborant in gleets and weakneſſes—*mode of exhib.* In decoction, pills, tincture, and ſyrup.

Bark Peruvian. See Cinchona.

Barley: A ſpecies of corn commonly cultivated: when decorticated, it is uſually called *French* or *Pearl Barley*—*med. prop.* Mucilaginous, nutritious, obtunding—*mode of exhib.* In decoction; being firſt decorticated, it is boiled in water: ſometimes, blended with figs, liquorice, and raiſins, it is taken as a pectoral drink. Barley, when boiled, forms an excellent article of nouriſhment; a decoction of it properly acidulated is one of the beſt beverages in acute diſeaſes.

Bay: An evergreen tree or ſhrub, cultivated in gardens—*part uſed*, The leaves and berries—*ſenſ. prop.* Leaves, weakly aromatic, and roughiſh; berries, more aromatic and unctuous: the former are tonic. Two ſcruples to a drachm of the dried leaves have been taken as tea, to reſolve viſcid humours, ſtrengthen the ſtomach, and cure the flatulent colic. Externally, the berries are employed in the decoction for fomentation.

Bears-Foot, is a perennial plant, a native of England, growing wild in meadows and ſhady places—*part uſed*, The leaves—*ſenſ. prop.* Smell, diſagreeable; taſte, bitteriſh, and very acrid—*med. virt.* Anthelmintic—*mode of exhib.* From five to fifteen grains of the dried leaves may be given; or a drachm may be taken in the form of decoction; or one to three tea-ſpoonfuls of the expreſſed juice of the freſh leaves, made into a ſyrup with coarſe ſugar, are given every morning and evening to children five or ſix years old; or two drachms to half an ounce of the dried leaves being infuſed

in a pint of boiling water, a cupful or two is frequently given as a domeſtic medicine to deſtroy worms. It ought to be given very ſparingly at firſt, theſe leaves being ſo violent in their operation when incautiouſly taken, as to have produced fatal effects.

Benzoine, or Benjamin: A concrete reſin, exuding from an Eaſt Indian tree—*ſenſ. prop.* Very fragrant, with little taſte. The flowers of Benjamin produced by ſublimation are very pungent and ſaline—*med. virt.* Stimulant; vulnerary—*mode of exhib.* Diſſolved in rectified ſpirit for external purpoſes. It may alſo be employed in vapour. The flowers are taken internally in ſubſtance, in doſes of five to ten grains, mixed up with ſimple ſyrup, in aſthmatic and other pectoral diſeaſes.

Bistort-Root, or Snake Weed: A perennial plant growing wild in moiſt ſituations—*part uſed*, The root—*ſenſ. prop.* A ſtrong ſimple aſtringent—*med. virt.* Tonic—*mode of exhib.* Powder; decoction; infuſion. This is one of the ſtrongeſt of our vegetable aſtringents. Dr. Cullen frequently employed it by itſelf and with gentian in agues. He gave it to the quantity of three drachms in one day.

Bole French: An earth of the argillaceous kind impregnated with iron—*ſenſ. prop.* Abſorbent, aſtringent—*med. virt.* Deſiccative—*mode of exhib.* Powder; electuary; liniment.

Brook-Lime: A low plant growing in wet ditches—*part uſed*, The herb—*ſenſ. prop.* Roughiſh, bitteriſh, ſlightly pungent—*med. virt.* Antiſeptic—*mode of exhib.* Eaten crude. The expreſſed juice may alſo be taken as an antiſeptic.

Broom: A ſhrubby papilionaceous plant, growing wild—*part uſed*, The green twigs and ſeeds—*ſenſ. prop.* Bitter and nauſeous—*med. virt.* Aperient and diuretic—*mode of exhib.* The twigs in infuſion, from which an extract is alſo prepared. The ſeeds in ſubſtance. A decoction of green broom drank freely with the occaſional addition of ſpirit of nitrous æther is uſeful in anaſarcous caſes.

Buckbean: A perennial plant, growing in marſhy ſituations. *Part uſed*, The leaves—*ſenſ. prop.* Simply bitter—*med. virt.* Tonic, aperient, ſtomachic—*mode of exhib.* Infuſion.

Buckthorn: A prickly buſh growing in hedges—*part uſed*, The root—*ſenſ. prop.* Smell ungrateful; taſte bitter, acrid, nauſeous—*med. virt.* Strongly purgative—*mode of exhib.* The expreſſed juice, with the addition of cinnamon, ginger, nutmeg, and ſugar, is formed into a ſyrup, that is often added to purgative lavements.

Burdock: A plant with compound flowers contained in prickly heads, growing wild—*part uſed*, The root—*ſenſ. prop.* Sweetiſh, with a ſlight bitterneſs and roughneſs—*med. virt.* Diuretic and ſudoriſic—*mode of exhib.* Decoction; two ounces of the freſh root boiled in three pints of water till reduced to two pints: the ſtrained liquor may be drank in the courſe of twenty-four hours, in ſcurvy, rheumatiſm, and dropſy.

Calamus Aromaticus, or Sweet-ſcented Flag: A perennial plant growing in marſhy ſituations—*part uſed*, The root—*ſenſ. prop.* Smell, aromatic; taſte, warm and bitter—*med. virt.* Tonic—*mode of exhib.* Infuſion; tincture; alſo in decoction.

CAMOMILE: a trailing plant, with compound flowers, cultivated in gardens—*part uſed*, The leaves and flowers—*ſenſ. prop.* Smell, ſtrong; moſt agreeable in the flowers. Taſte, nauſeous and bitter—*med. virt.* Tonic, aperient, antiſeptic—*mode of exhib.* Powder; infuſion; extract of formed into pills. *Externally:* in decoction for fomentations; alſo for clyſter with mallow flowers and fennel ſeeds.—The Roman or double-flowering camomile are the ſtrongeſt, and yield moſt eſſential oil. Theſe flowers have been long celebrated as a ſtomachic; and anſwer, ſays Dr. Cullen, the purpoſe of any other bitter. Previouſly to the introduction of the Peruvian bark, they were much employed in the cure of intermittent fevers. Dr. Pitcairn thought them in that reſpect equal to cinchona.

CAMPHOR: a ſolid concrete obtained from a tree growing in Japan and Sumatra—*ſenſ. prop.* Smell, fragrant and penetrating; taſte, pungent, with a ſenſe of coolneſs—*med. virt.* Stimulant, antiſpaſmodic, diuretic—*mode of exhib.* In pill or bolus; in watery emulſion with ſugar or mucilage. *Externally:* diſſolved in oil or rectified ſpirit; alſo in ointments and liniments.

CANELLA: the bark of a tree growing in the Weſt Indies—*ſenſ. prop.* Smell, aromatic; taſte, warm and pungent—*med. virt.* Aromatic, ſtimulant, ſtomachic—*mode of exhib.* Powder; alſo in the compound tincture of gentian.

CANTHARIDES: Spaniſh flies; inſects of the beetle kind, found in the South of Europe—*ſenſ. prop.* Smell, diſagreeable; taſte, highly acrid; cauſtic—*med. virt.* Stimulant, veſicating, diuretic—*mode of exhib.* Internally, in tincture; externally, in powder and extract formed into an ointment and plaſter.

CARAWAY: an umbelliferous plant cultivated in gardens—*part uſed*, The ſeeds; they contain a large proportion of eſſential oil—*ſenſ. prop.* Moderately warm and aromatic—*med. virt.* Carminative, ſtimulant—*mode of exhib.* Powder, and ſaid to be particularly corrective of the odour, taſte, and griping quality of ſenna. From theſe ſeeds a ſpirituous water is diſtilled.

CARDAMOMS LESSER: the ſeeds of a perennial plant growing in the Eaſt Indies—*ſenſ. prop.* Smell, very grateful; taſte, warm and pungent—*med. virt.* Carminative, ſtimulant, ſtomachic—*mode of exhib.* Powder; tincture; which are frequently employed as correctors of medicines of the cold aperient claſs.

CARROT: an umbelliferous plant growing wild—*part uſed*, The ſeeds—*ſenſ. prop.* Lightly aromatic and pungent—*med. virt.* Stimulant, diuretic—*mode of exhib.* Powder, infuſion, in ſcorbutic diſorders and dropſy, and in diuretic drinks.

CASCARILLA: the bark of a ſhrub growing in the Weſt Indies—*ſenſ. prop.* Aromatic and bitter—*med. virt.* Tonic, ſtomachic—*mode of exhib.* Powder; infuſion; decoction; tincture; and extract. A uſeful medicine in bilious, remittent, malignant, and intermittent fevers.

CASSIA FISTULA: the pod of a tree growing in Egypt and the Eaſt and Weſt Indies—*part uſed*, The pulp lining the pod and its valves—*ſenſ. prop.* Sweet, and lightly acrid—*med. virt.* Mildly purgative—*mode of exhib.* In electuaries.

CASTOR: the inguinal glands of the Caſtor or Beaver—*part uſed*, The internal friable matter—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, acrid and nauſeous—*med. virt.* Stimulant, antiſpaſmodic—*mode of exhib.* Powder; pill; bolus; tincture.

CATECHU has erroneouſly been called Japan earth. It is an extract obtained by infuſing the wood of a tree growing in the Eaſt Indies—*ſenſ. prop.* Aſtringent, with a degree of ſweetneſs—*med. virt.* Tonic—*mode of exhib.* Decoction; infuſion; powder; tincture; in obſtinate diarrhœas, dyſenteries, and other preternatural diſcharges.

CENTAURY LESSER: a ſmall annual plant, growing in dry ſituations—*part uſed*, The leaves and flowering tops—*ſenſ. prop.* Simply bitter—*med. virt.* Tonic. In caſes of atony, dyſpepſy, jaundice—*mode of exhib.* Infuſed after the manner of tea; a tea-cupful two or three times a-day.

CINCHONA: the bark of a tree growing in Peru. About the year 1640, the lady of the Spaniſh Viceroy, the *Comitiſſa del Cinchona*, was cured of an obſtinate intermittent by this bark; and from the intereſt which *Cardinal de Lugo* and the Jeſuit brotherhood took in its ſale and diſtribution, it has been called Cardinal de Lugo's powder, Jeſuits' bark, &c.; from the place of its growth, Peruvian bark; or ſimply, from its pre-eminent virtues, the BARK. In many foreign countries it is nevertheleſs better known by the name of *Quinquina*, or *Cinchona*—*ſenſ. prop.* Smell, peculiar, not agreeable; taſte, ſtrongly bitter and aſtringent—*med. virt.* Tonic, antiſeptic—*mode of exhib.* In powder; electuary; infuſion; decoction; or the extract may be given in the form of pills, either alone or with other medicines. The extract is well calculated for weak ſtomachs that cannot bear much bark in ſubſtance. Cinchona finely powdered and quilted in the folds of a linen waiſtcoat, or repeatedly exhibited in the form of a clyſter, has frequently proved efficacious in obſtinate agues, when every other method has failed; particularly with children, and in relaxed habits.

CINNAMON: the bark of a tree growing in the iſland of Ceylon, and which has been tranſplanted lately to various other places—*ſenſ. prop.* A warm and extremely grateful aromatic and aſtringent—*med. virt.* Tonic, ſtimulant—*mode of exhib.* Powder; infuſion; decoction; tincture; alſo employed in ſimple and in a ſpirituous diſtilled water, as a vehicle, or ſometimes as an adjunct, to various other medicines.

CINQUEFOIL: a trailing plant growing wild—*part uſed*, The root—*ſenſ. prop.* Mildly aſtringent—*med. virt.* Tonic, in diarrhœas and relaxed gums—*mode of exhib.* In ſubſtance, half a drachm to a drachm; alſo in decoction, infuſion, and gargles.

CLOVES: the immature flowers and flower-cups of a tree growing in the Eaſt Indies—*ſenſ. prop.* Smell, very fragrant; taſte, extremely hot and acrid—*med. virt.* Stimulant, carminative—*mode of exhib.* Powder; oil. The former may be employed by infuſion, two drachms of cloves to half a pint of boiling water, in doſes of three or four ſpoonfuls, againſt flatulency, in dyſpepſy, and as a vehicle to other medicines.

CLOVE JULY FLOWER: a plant of the cruciform claſs, cultivated in gardens—*part uſed*, The flowers—*ſenſ. prop.* Aromatic, roughiſh—*med. virt.* Tonic—*mode of exhib.* The ſyrup formed by an infuſion of the flowers, with ſugar.

COCHINEAL: a ſmall inſect of the *ſcarabeus* kind, brought chiefly from the Spaniſh Weſt Indies. Employed for the fine crimſon colour which it imparts to various ingredients.

COLOCYNTH, *or* BITTER APPLE: the fruit of a ſpecies of gourd growing in the Eaſt—*part uſed*, The fungous medullary pulp—*ſenſ. prop.* Intenſely bitter, acrid, and nauſeous—*med. virt.* An extremely irritating cathartic—*mode of exhib.* Infuſion; powder; pill; extract.

COLT'S FOOT: a perennial plant with compound flowers, growing wild—*part uſed*, The leaves and flowers—*ſenſ. prop.* Mucilaginous, bitteriſh, and roughiſh—*med. virt.* Obtunding, tonic—*mode of exhib.* Infuſion; decoction: in hectic and pectoral complaints in the form of tea.

COLUMBA: a root brought from the iſland of Ceylon—*ſenſ. prop.* Smell, ſlightly aromatic; taſte, intenſely bitter—*med. virt.* Tonic, antiſeptic, ſtomachic; a corrector of putrid bile—*mode of exhib.* Powder; infuſion; tincture. Employed in many inſtances of dyſpepſia with great advantage, and to ſtop vomiting. The powder, in doſes of ten grains to thirty, joined with equal parts of *vitriolated kali*, is given with ſucceſs in acute bilious caſes.

CONTRAYERVA: the root of a ſmall plant growing in South America—*ſenſ. prop.* Smell, lightly aromatic; taſte, roughiſh, bitteriſh, and penetrating—*med. virt.* Tonic, ſtimulant, diaphoretic—*mode of exhib.* Powder; infuſion; decoction; employed in fevers attended with debility and putreſcency.

CORAL RED: a marine earthly ſubſtance, the habitation of inſects—*ſenſ. prop.* Calcareous—*med. virt.* Antacid—*mode of exhib.* Powder.

CORIANDER: an umbelliferous plant cultivated in gardens—*part uſed*, The ſeeds—*ſenſ. prop.* Smell, aromatic; taſte, moderately warm—*med. virt.* Carminative, ſtomachic—*mode of exhib.* Infuſion; powder; tincture. Theſe have the common qualities of other carminative ſeeds, and, when dried, are generally very agreeable. Infuſed along with ſenna, they are more powerful in correcting the odour and taſte of this than any other aromatic, and are equally powerful in obviating the griping that ſenna is very ready to produce: hence coriander ſeeds are an ingredient in various purgative compoſitions.

COW-ITCH *or* COWHAGE: a papilionaceous plant growing in both Indies—*part uſed*, The hairs covering the pods—*ſenſ. prop.* Mechanically irritating—*med. virt.* Anthelmintic—*mode of exhib.* A tea-ſpoonful to a table-ſpoonful of the medicine mixed with ſyrup or molaſſes, and taken in a morning faſting, occaſions no uneaſineſs in the *primæ viæ*, which are defended by mucus. The worms are ſaid to appear with the ſecond or third doſe, and, by

means of a purgative dose of the solution of *vitriolated magnesia*, the stools have consisted chiefly of worms.

Crab's Claws: the black tips of the claws of the common crab ---*sens. prop.* Absorbent, calcareous---*med. virt.* Antacid---*mode of exhib.* Powder.

Crab's Eyes (so called): stony concretions found in the head or stomach of the river craw-fish---*sens. prop.* Absorbent, not calcareous---*med. virt.* Antacid---*mode of exhib.* Powder.

Cuckow-pint, Arum, *or* Wake-Robin: a perennial plant growing wild---*part used*, The root---*sens. prop.* Extremely hot, pungent, and acrid, especially when fresh---*med. virt.* Stimulant---*mode of exhib.* Dose, grains ten to twenty; also in conserve half a drachm to a drachm, is stimulant and attenuant, and is well suited to phlegmatic habits. This root is knotty, roundish, and white. When it is collected in the spring before the leaves shoot, or in autumn after flowering, it contains a milky juice of very great acrimony. Applied to the tongue, it causes a burning heat, which lasts for many hours, and excites considerable thirst. These painful symptoms may be relieved by butter-milk or oily fluids. Rubbed between the fingers, it blisters and excoriates them; yet, notwithstanding it is a corrosive vegetable poison, its acrimony is easily destructible: by drying, it loses the greatest part of its acrimony, and by repeated washings it is also rendered perfectly mild. A tailor had lately a paralytic stroke, by which he was bereaved of the use of his right hand: he was advised to rub it frequently with the root of arum (cuckow-pint, or wake-robin), and also to apply a poultice of it to his hand. He is now a great deal better, and can make use of his hand, though not, however, so well as formerly; the Editor, therefore, has directed him to wash his hand and arm, two or three times a-day, with a tepid infusion of this root mixed with flower of mustard-seed; and then to apply the following anti-paralytic embrocation: Take a pint of bruised mustard-seed, moisten it well with equal parts of spirit of rosemary and simple spirit of lavender; after the mixture has stood twenty-four hours in a very gentle heat, squeeze it by a hand press: the liquid thus obtained is an uniform mixture of the oil with the pungent part of the seed and the aromatic spirits, and is, indeed, worthy of being called---the *essence of mustard.*

Cucumber, Wild: a plant of the cucurbitaceous kind growing in gardens---*part used*, The fruit---*sens. prop.* Smell, ungrateful; taste, nauseous and bitter---*med. virt.* Stimulant, emetic, and strongly cathartic---*mode of exhib.* Expressed juice, which being inspissated is called *elaterium.* In a dose of half a grain to two or three grains, it has proved efficacious in reducing dropsical swellings, and preparing the patient for the exhibition of tonics and corroborants; but great caution is requisite in using this medicine.

Cumin: an umbelliferous plant, cultivated in the South of Europe ---*part used*, The seeds---*sens. prop.* Smell, strong and ungrateful; taste, warm and bitterish---*med. virt.* Stimulant, antiseptic---*mode*

of exhib. Powder; infuſion: externally, as a warm poultice, or a diſcutient plaſter.

CURRANT, BLACK: the fruit of a native ſhrub that grows wild in England, and is cultivated for the ſake of its acid, cooling, antiſeptic juice, of which a ſyrup and a rob are prepared which is employed in recent catarrhs, attended with ſore throat or fever.

CURRANT, RED: this, like the former, is cultivated for the ſake of its pleaſant ſub-acid fruit; of this a jelly is formed, by boiling the juice with a ſufficient quantity of ſugar, which is often uſed as an antiſeptic demulcent in ſore throats, and, diſſolved in water, forms a pleaſant cooling drink in bilious and feveriſh complaints. Mr. F. S. Stuart, of Billericay in Eſſex, has informed the public, that he was brought to the verge of the grave by a conſumption of the lungs, and reſtored to perfect health by eating three or four pints per day of ripe currants, white and red; and he mentions other perſons who have been recovered from the ſame diſeaſe by the ſame means.

DANDELION: a plant with compound flowers growing common---*part uſed*, The herb and root---*ſens. prop.* Abounding in a milky, bitteriſh, ſub-acrid juice---*med. virt.* Aperient, diuretic, reſolvent ---*mode of exhib.* Expreſſed juice of the herb; decoction and infuſion of the root. The root with ſorrel leaves, in broths taken daily for ſome months, interpoſing now and then a laxative doſe of cream of tartar, has removed hardneſs of the liver, aſcites, and gall ſtones.

DILL: an umbelliferous plant growing in warm climates---*part uſed*, The ſeeds---*ſens. prop.* Mildly aromatic---*med. virt.* Stimulant---*mode of exhib.* A ſimple diſtilled water, and an eſſential oil.

DRAGON'S BLOOD: a reſin obtained from a large palm-like tree in the Eaſt Indies---*ſens. prop.* In ſubſtance inodorous and inſipid; in ſoluſion, ſomewhat warm and pungent---*med. virt.* Tonic---*mode of exhib.* Powder. It now gives place to a more efficacious gum-reſin, called *kino*.

EGG, HEN'S:- -*part uſed*, The yolk, white, and ſhell---*ſens. prop.* Yolk, ſapid and mucilaginous; white, inſipid and mucilaginous. They are both wholeſome and delicate articles of food---*med. virt.* The yolk is often uſed in pharmacy, for ſuſpending oily and reſinous ſubſtances in water; the white is uſed to clarify liquids; the ſhells, freed from the membrane lining them, and finely levigated, are an abſorbent. Two raw new-laid eggs beaten up in a glaſs of water, taken in the morning faſting, and repeatedly given every four hours throughout the day, have proved very beneficial in obſtinate jaundices occaſioned by viſcid bile, or gluten obſtructing the biliary ducts.---The yolk of two new-laid eggs beaten up with an ounce and a half (i. e. three table-ſpoonfuls) of roſe water, ſeaſoned by three or four grains of nutmeg, and mixed with half a pint of milk freſh from the cow, ſweetened with powdered ſugar-candy or ſyrup of capillaire, if taken early (i. e. before riſing) in a morning, is a ſafe palliative medi-

cine in pulmonary conſumption. The uſe of it ſhould be perſiſted in ſome weeks; malt and ſpirituous liquors ſhould be avoided, and, to reſtrain the profuſe perſpirations to which hectic patients are liable, one to three or four tea-ſpoonfuls of the following electuary may be taken in the morning, when the heats come on; at noon, and alſo at bed-time: Conſerve of roſes two ounces, diluted vitriolic acid three drachms; mix.

ELDER: a ſmall tree growing in hedges--*part used*, The flowers, berries, and bark---*sens. prop.* Flowers, fragrant; berries, ſweetiſh; bark, ſweetiſh and ſub-acrid---*med. virt.* Flowers and berries laxative---*mode of exhib.* Infuſion of the flowers laxative, and, boiled in oil and ſuet, forms a cooling emollient ointment; decoction of the bark emetic and purgative in dropſical caſes. The rob or inſpiſſated juice of the berries is cooling and aperient. It is recommended in dyſpepſy and debility of the urinary paſſages, in doſes of a drachm to half an ounce or more.

ELECAMPANE: a large plant with compound flowers, growing wild---*part used*, The root---*sens. prop.* Aromatic, nauſeous, bitter, pungent---*med. virt.* Stimulant, aromatic---*mode of exhib.* Powder; infuſion; decoction.

ELEMI (gum): a concrete reſinous juice, obtained from a large tree growing in both Indies---*sens. prop.* Smell, ſtrong and grateful; taſte, ſlightly bitter---*med. virt.* Stimulant---*mode of exhib.* In ointments.

ELM: a tall timber tree, of common growth---*part used*, The inner bark---*sens. prop.* Mucilaginous, ſub-aſtringent---*med. virt.* Tonic, aperient---*mode of exhib.* Decoction; the quantity of a pint to a quart a-day, prepared by boiling four ounces of the inner bark, bruiſed, in four pints of water to two pints, to relieve leprous and other cutaneous diſorders.

ERRINGO ROOT, or Sea Holly: a prickly plant with flowers in a head, growing on the ſea ſhore---*part used*, The roots---*sens. prop.* Slightly aromatic and bitteriſh---*med. virt.* Stimulant and diuretic---*mode of exhib.* Decoction. It is often employed as a conſerve or ſweetmeat.

FENNEL SWEET: an umbelliferous plant, growing in the warmer climates---*part used*, The ſeeds---*sens. prop.* Smell, aromatic; taſte, warm and ſweetiſh---*med. virt.* Stimulant, diuretic---*mode of exhib.* Powder; infuſion; and ſimple diſtilled water.

FENUGREEK: the ſeeds are obtunding and emollient. They are employed in cataplaſms, clyſters, and fomentations.

FERN, powder of the Root: lightly ſtyptic and ſub-acrid; given in doſes of two drachms to three to an adult, to a child about a drachm, in a morning faſting, againſt the tape-worm; taking two hours afterwards one to three grains or more of calomel, according to the age and conſtitution of the patient, and, if neceſſary, a doſe of *vitriolated magneſia* at proper intervals.

FIGS: the preſerved fruit of the fig tree. Aperient, obtunding, in emollient decoctions. Externally heated as warm as they can eaſily be borne, to promote the ſuppuration of a phlegmon when ſo ſituated that other cataplaſms cannot be eaſily applied.

FOX GLOVE: a plant with beautiful gaping flowers, growing wild—*part uſed*, The leaves—*ſenſ. prop.* Poiſonous, bitteriſh, very nauſeous—*med. virt.* Strongly cathartic, diuretic, emetic, and ſedative—*mode of exhib.* Infuſion; decoction; powder; tincture. In aſthmatic and dropſical caſes, the powder (which is the leaſt uncertain way of exhibiting this herculean remedy) may be given in doſes of a quarter or half a grain, very gradually and cautiouſly increaſed to two grains, mixed with one to two grains of aromatic powder once in eight or twelve hours, according to the effect.

FRANKINCENSE: ſtimulant, tonic. Chiefly uſed in plaſters.

GALLS: excreſcences formed on the oak tree by inſects in the warmer climates—*ſenſ. prop.* Strongly aſtringent—*med. virt.* Tonic—*mode of exhib.* Powder; infuſion; decoction. Externally applied to parts affected with hæmorrhoids, or piles, in the proportion of a drachm of powdered galls mixed with one ounce of hog's lard.

GALBANUM: a gummy-reſinous concrete, obtained from an umbelliferous plant growing in Ethiopia—*ſenſ. prop.* Smell, fetid; taſte, bitteriſh, warm, and pungent—*med. virt.* Diſcutient, ſtimulant, antiſpaſmodic—*mode of exhib.* Pill; emulſion; tincture; plaſter.

GAMBOGE: a gummy-reſinous concrete, obtained from certain Eaſt India trees—*ſenſ. prop.* Taſte, acrid; colour, deep yellow—*med. virt.* Emetic, and ſtrongly cathartic—*mode of exhib.* Pill; emulſion; tincture.

GARLIC: a bulbous-rooted plant, cultivated in gardens—*part uſed*, The roots—*ſenſ. prop.* Smell, very ſtrong, diffuſive and ungrateful; taſte, extremely acrimonious and penetrating—*med. virt.* Internally, ſtimulant, expectorant, diuretic, laxative, and ſudorific; improper for perſons of an inflammatory or ſanguine temperament, but an excellent medicine for the aged and phlegmatic. The Editor is ſorry that the limits preſcribed to him will not permit him to add more in recommendation of this uſeful "*Domeſtic Medicine*", than that the juice of garlic dropped on cotton, and applied to the meatus or orifice of the ear, for deafneſs, till it excite moderate pain and heat, will increaſe the ſecretion of mucus in the organ of hearing: that garlic is eaten crude; taken in the form of pill or bolus, and in whey. It is often applied, with ſucceſs, in the form of cataplaſms to the ſoles of the feet; to relieve diſorders of the head or breaſt, and *pains of the teeth.*

GENTIAN: a perennial plant, growing in the mountainous parts of Germany—*part uſed*, The root—*ſenſ. prop.* Intenſely bitter—*med. virt.* Tonic, ſtomachic—*mode of exhib.* Infuſion; tincture. The extract may be joined with the preparations of iron and with other medicines, and taken in the form of pills. A medicine has been long famous and much employed in this country, under the title of *Elixir ſtomachicum*, or *Stoughton's elixir*, in reſemblance and medical effect coinciding with the *compound tincture of gentian.*

GINGER: the root is often taken as a carminative and ſtomachic prepared as a ſweetmeat. This uſeful root is often directed in

powder, being aromatic, cordial, and carminative. It is likewiſe an uſeful ingredient in infuſions.

GINSENG: the root of a ſmall plant growing in China, Tartary, and North America. It is mucilaginous with ſweetneſs, and bitteriſh with ſome aromatic warmth---*med. virt.* Tonic, antiſpaſmodic, obtunding---*mode of exhib.* Powder, half a drachm or more; or in infuſion. In caſes of paralyſis of the tongue, &c. it may be chewed.

GUAIACUM: a large tree growing in the Weſt Indies---*part uſed,* The wood, bark, and reſin or gum---*ſenſ. prop.* Smell, lightly aromatic; taſte, ſub-acrid---*med. virt.* Alterative, ſtimulant, ſudorific---*mode of exhib.* The wood and bark in decoction; the gum in pill, bolus, tincture. Before the preparations of quick-ſilver were diſcovered to have a ſpecific virtue in curing the venereal diſeaſe, guaiacum ſold at an immenſely high price.

HARTSHORN: the horns of the male red deer. Raſped and boiled in water, they yield an inſipid, obtunding, nutritive jelly. An aſtringent decoction is prepared by boiling calcined hartſhorn with gum arabic, as directed in the Appendix.

HELLEBORE BLACK: a perennial plant growing in Germany. The root is uſed in medicine. It is bitter, pungent, alterative, attenuant, and deobſtruent; ſtrongly purgative, and ſtimulant. This root was much employed by the antients in infuſion and decoction. It continues to be adminiſtered in powder, tincture, and extract. The latter is employed with other ingredients (myrrh, &c.) againſt dropſical diſeaſes.

HELLEBORE WHITE: a perennial plant growing in Switzerland and other mountainous parts of Europe---*part uſed,* The root---*ſenſ. prop.* Smell, diſagreeable; taſte, nauſeous, bitteriſh, and very acrid---*med. virt.* Violently emetic and cathartic; ſternutatory---*mode of exhib.* Externally, in powder and decoction.

HEMLOCK: an umbelliferous plant growing wild in moiſt ſhady places---*part uſed,* The leaves---*ſenſ. prop.* Smell, fœtid; taſte, herbaceous---*med. virt.* Narcotic, in large doſes; alterative, ſedative, diuretic, anodyne, in ſmaller ones---*mode of exhib.* Powder of the leaves; alſo the inſpiſſated juice of the leaves, commonly called the extract of hemlock. This, as well as all other medicines capable of acting ſo powerfully on the nervous ſyſtem, ought, if poſſible, to be given under the direction of gentlemen of the medical profeſſion. It is ſafe to begin with two grains for an adult three times a-day, which has in many inſtances been extended to upwards of thirty grains three times in twenty-four hours. It is given alone, and often conjoined with other articles of the *Materia Medica* in the hooping cough; againſt hectic occaſioned by incipient tubercles of the lungs; and in ſcrophulous and ſchirrous diſorders.

HERB MASTICH, SYRIAN: a plant with labiated flowers---*part uſed,* The leaves; they are aromatic, pungent, ſtimulant, and are uſed as an ingredient in the compound powder of aſarabacca, a ſternutatory or ſneezing powder, commonly called *Cephalic Snuff.*

HIP: the fruit employed to form a conſerve that is uſed as a vehicle for various medicines.

HONEY: a vegetable juice collected from flowers by the bee. It is the baſis of various medicinal compoſitions, and its domeſtic uſes are too well known to need recapitulation in the narrow limits to which we are now neceſſarily preſcribed.

HORSERADISH: a plant with cruciform flowers, uſually cultivated in gardens---*part uſed*, The root---*ſenſ. prop.* Acrid, penetrating, with very pungent effluvia---*med. virt.* Stimulant, diuretic---*mode of exhib.* Infuſion with muſtard ſeed, againſt dropſical and paralytic complaints; alſo in the compound ſpirit of horſeradiſh. According to the late Dr. Withering, an infuſion of ſcraped horſeradiſh in milk makes one of the ſafeſt and beſt coſmetics.

HYSSOP, HEDGE: A low plant with irregular flowers, grown in gardens---*part uſed*, The herb---*ſenſ. prop.* Bitter, nauſeous---*med. virt.* Diuretic, violently emetic, and cathartic---*mode of exhib.* Two to ſix or eight grains of the powdered root, beginning with a very ſmall doſe, which may be gradually increaſed, againſt dropſy and worms. It is ſaid to have been ſerviceable in thoſe caſes, given as an infuſion made by adding one drachm of the powdered root to a pint of boiling water, milk, or beer. Doſe, a table-ſpoonful three times a-day.

JALAP: The root of a plant growing in the Weſt Indies---*ſenſ. prop.* Reſinous, ſlightly pungent---*med. virt.* Strongly purgative---*mode of exhib.* Powder; pill; extract; tincture. A cathartic better ſuited to cold phlegmatic than hot bilious conſtitutions.

IPECACUANHA: The root of a plant growing in South America. *ſenſ. prop.* Bitteriſh and ſub-acrid---*med. virt.* Emetic, ſedative, ſudorific---*mode of exhib.* Pill; powder; bolus; alſo infuſed in wine.

ISINGLASS: a glutinous ſubſtance brought from Ruſſia, prepared from the membranous parts of fiſhes---*ſenſ. prop.* Reſtorative, agglutinating---*mode of exhib.* Boiled into a jelly with milk, to abate fluor albus, diarrhœas, and other weakneſſes. It is an ingredient in the *court ſticking plaſter*.

JUNIPER BERRY: *med. virt.* Carminative, diuretic, ſtomachic---*mode of exhib.* Infuſion; compound ſpirit; and an eſſential oil.

KINO: a gum reſin, from the vicinity of the river Gambia---*ſenſ. prop.* Aſtringent, mucilaginous---*med. virt.* Tonic, obtunding---*mode of exhib.* Powder; electuary; tincture. In chronic diarrhœas and dyſenteries, in hæmorrhages from the uterus, and in diſeaſes ariſing from laxity of the ſolids.

LADIES SMOCK, or *Cuckoo Flower*:---*part uſed*, The flowers---*ſenſ. prop.* Slightly acrid---*med. virt.* Antiſpaſmodic---*mode of exhib.* Powder, in doſes of a ſcruple to a drachm, thrice a-day, in convulſions, ſpaſmodic aſthma, and St. Vitus's dance.

LAVENDER: a buſhy plant cultivated in gardens---*part uſed*, The flowering ſpikes---*ſenſ. prop.* Smell, fragrant; taſte, warm and bitteriſh---*med. virt.* Stimulant, tonic, aromatic---*mode of exhib.* Infuſion, ſimple ſpirit, compound ſpirit, eſſential oil.

LAUDANUM: a reſin of a perennial ſhrub that grows in Syria and in the Grecian iſlands---*med. virt.* Tonic, ſtimulant---*mode of exhib.* In plaſters.

LEMON: the fruit of a tree growing in warm climates---*part uſed,* The juice and rind---*ſenſ. prop.* Juice, a grateful acid. Rind, a very fragrant aromatic---*med. virt.* Juice, cooling and antiſeptic; rind ſtimulant---*mode of exhib.* Juice, in drinks, with water and ſugar; and combined with alkaline ſalts. Rind in infuſions and tincture. The ſyrup mixed with many medicinal preparations for bilious and inflammatory diſorders.

LEOPARDS-BANE GERMAN: *part uſed,* The herb, flowers, and root ---*ſenſ. prop.* Unpleaſant ſmell and acrid taſte---*med. virt.* Emetic, diuretic, diaphoretic---*mode of exhib.* In infuſion or decoction; one drachm to three drachms, in a pint of water or ale every day, is recommended by German phyſicians in paralyſis; alſo for intermittent and putrid fevers.

LINSEED: the ſeed of the common flax---*ſenſ. prop.* Unctuous, mucilaginous---*med. virt.* Obtunding, emollient---*mode of exhib.* Infuſion; powder for cataplaſms. A bland oil is expreſſed from them of a diſagreeable flavour.

LIQUORICE ROOT: a rich durable ſweet—*med. virt.* Obtunding, and uſeful in abating thirſt—*mode of exhib.* Powder, infuſion, decoction. Extract, either in infuſion or ſlowly diſſolved in the mouth.

LOGWOOD: the wood of a tree growing in the bay of Honduras—*ſenſ. prop.* Sweetiſh, aſtringent—*med. virt.* Tonic—*mode of exhib.* Decoction, infuſion, extract; employed againſt diarrhœas and dyſenteries.

MACE: a membrane covering the ſhell of that fruit, the kernel of which is the nutmeg—*med. virt.* Tonic—*mode of exhib.* Expreſſed oil; an ingredient in the laudanum or ſtomach plaſter.

MADDER ROOT—*ſenſ. prop.* Smell, ungrateful; taſte, bitteriſh and aſtringent—*med. virt.* Aperient, attenuant, diuretic, emmenagogue—*mode of exhib.* Powder, decoction; in jaundice, obſtructed menſes, &c.

MALLOW, *leaves, flowers, and root:* a perennial plant growing wild ---*ſenſ. prop.* Mucilaginous. The roots, ſweetiſh---*med. virt.* Obtunding, emollient---*mode of exhib.* Decoction, cataplaſm.

MANNA: a concrete juice exuding from a kind of aſh, chiefly in Calabria and Sicily---*ſenſ. prop.* Sweet, unctuous---*med. virt.* Aperient, obtunding---*mode of exhib.* Solution in watery liquors; electuary; ſyrup.

MARJORAM, *ſweet and wild:* this herb is an ingredient in the compound powder of aſarabacca, a powder that is equally efficacious with the beſt herb ſnuff.

MARSH-MALLOW: a perennial plant, growing in marſhes---*part uſed,* The leaves and root---*med. virt.* Obtunding---*mode of exhib.* Powder, infuſion, and in decoction of barley with a little liquorice root, againſt catarrhs and nephritic complaints. The root an ingredient in the compound powder of tragacanth, in an elegant ſyrup, and a uſeful ointment.

MASTICH: a concrete reſin obtained from the Lentiſk-tree in the iſle of Chio—*ſenſ. prop.* Smell, reſinous and agreeable; taſte, bitteriſh and lightly warm—*med. virt.* Tonic, antiſeptic: chewed, it diſguiſes a fetid breath, and ſtrengthens the gums; it is alſo occaſionally uſed with fragrant ſubſtances by way of fumigation.

MEADOW-SAFFRON: a bulbous-rooted plant growing in wet meadows—*part uſed,* The root—*ſenſ. prop.* Smell, pungent; taſte, acrid—*med. virt.* Strongly cathartic and diuretic—*mode of exhib.* An active *oxymel* is prepared by infuſing this root in vinegar with honey. The doſe of this oxymel is a tea-ſpoonful or two in a cup of tea, or of diſtilled water, as a remedy for the dropſy. If given in a greater doſe at firſt, or if it is too rapidly repeated, it will occaſion bloody ſtools and other morbid ſymptoms.

MEZEREON: a ſmall ſhrub cultivated in gardens—*part uſed,* The root—*ſenſ. prop.* Very durably hot and acrimonious—*med. virt.* Stimulant, and reſolvent of venereal nodes—*mode of exhib.* Decoction.

MILLEPEDES, or *Wood-lice:* a ſpecies of winged inſects, found chiefly among decayed wood—*ſenſ. prop.* Smell, diſagreeable; taſte, ſaltiſh and unpleaſant—*med. virt.* Aperient and diuretic—*mode of exhib.* Swallowed whole; powder; expreſſed juice. They are preſcribed, both freſh and dry, in powder from a ſcruple to a drachm, in obſtructions of the liver and ſuppreſſion of urine. We have a mean opinion of their virtues.

MINT, *Pepper,* or *Peppermint:* a plant cultivated in gardens—*part uſed,* The leaves—*ſenſ. prop.* Smell, ſtrong and diffuſive; taſte, very penetrating, with a ſenſe of coolneſs—*med. virt.* Stimulant, carminative, antiſpaſmodic—*mode of exhib.* Infuſion, diſtilled water, ſpirit and eſſential oil. Theſe are principally uſed as a domeſtic remedy for flatulent colic. The eſſential oil is often given in doſes of a few drops on ſugar, in cramps of the ſtomach; but if that organ be in a ſtate of inflammation, it may do much miſchief. What is called the *Eſſence of Peppermint* is the rectified oil diſſolved in ſpirit of wine.

MINT, or *Spear-Mint:* a plant cultivated in gardens—*part uſed,* The leaves—*ſenſ. prop.* Smell, aromatic; taſte, bitteriſh, roughiſh, moderately warm and aromatic—*med. virt.* Tonic, ſtomachic—*mode of exhib.* Infuſion and a diſtilled water; alſo a ſpirit, and an eſſential oil.

MULBERRY: of this well known cooling antiſeptic fruit a ſyrup is prepared to ſweeten diluting liquids in bilious and inflammatory diſorders.

MUSK: a grumous ſubſtance found in a bag ſituated under the belly of an animal of the deer kind, in Thibet and Tartary—*ſenſ. prop.* Smell, fragrant, extremely powerful, and diffuſive. Taſte, bitteriſh, rather acrid—*med. virt.* Stimulant, antiſpaſmodic—*mode of exhib.* Bolus, watery mixture.

MUSTARD: the ſeeds are ſtimulant and very pungent—*mode of exhib.* In ſubſtance; a table-ſpoonful, with a cupful of an infuſion of broom tops, is laxative and diuretic. Infuſed in wine or water

with freſh ſhaved horſe-radiſh root, it is uſeful in ſcorbutic and paralytic diſorders. Infuſed in water, and taken in large doſes, it proves emetic. The powder is frequently made into a paſte or ſoft poultice with vinegar and bread crumb, and applied to benumbed limbs; to pained parts in chronic rheumatiſm; or to the ſoles of the feet in the low ſtate of fevers.

MYRRH: a gummy-reſinous concrete, brought from the Eaſt Indies —*ſenſ. prop.* Smell, ſtrong, and not ungrateful; taſte, very bitter and pungent—*med. virt.* Tonic, heating, ſtimulant, antiſeptic—*mode of exhib.* Powder, pill, watery emulſion, ſpirituous tincture.

NETTLE, *common ſtinging*: the herb of this well known plant is herbaceous, ſub-ſaline—*med. virt.* Aperient, diuretic, and cooling—*mode of exhib.* Decoction or infuſion. The expreſſed juice, in doſes from two to three ounces, is uſeful in inward bleedings and nephritic complaints. Externally, they are employed to whip palſied limbs, which they have ſometimes reſtored to ſenſibility and motion.

NUTMEGS: the kernel of the root of an Eaſt Indian tree—*ſenſ. prop.* Smell, aromatic; taſte, moderately warm, and unctuous—*med. virt.* Stimulant—*mode of exhib.* Powder, ſpirituous diſtilled water, and an eſſential oil.

OAK, *the bark*: aſtringent—*med. virt.* Tonic—*mode of exhib.* Decoction, chiefly for external application: ſlight intermittents, however, have been cured by giving the powder of this bark in doſes of 20 to 30 grains every three hours, with a cupful of the infuſion of camomile flowers. It may be given in jelly, port wine, or marmalade.

OLIBANUM: a gummy reſin obtained from a tree growing in Arabia —*ſenſ. prop.* Smell ſtrong, not agreeable; taſte, bitteriſh, rather acrid—*mode of exhib.* Powder, pill, electuary, tincture, emulſion.

OLIVE OIL, is procured by expreſſion from the fruit of a tree growing in the warmer climates—*ſenſ. prop.* Inodorous, inſipid, unctuous —*med. virt.* Obtunding, emollient—*mode of exhib.* Internally by itſelf, or united to watery liquids by mucilaginous matters or volatile alkalies. Externally, in liniments, ointments, and plaſters.

OPIUM: the concrete gummy-reſinous juice of the white poppy, collected in the warm countries of the Eaſt—*ſenſ. prop.* Smell, diſagreeable; taſte, bitter, ſomewhat acrid—*med. virt.* Narcotic in large doſes, ſedative in ſmaller—*mode of exhib.* Pill, tincture, ſolution.

OPOPONAX, is a concrete gum-reſinous juice of an umbelliferous plant which grows in the Levant and the Eaſt Indies. It is attenuant and deobſtruent.

ORANGE SEVILLE: a well-known fruit growing in Spain and Portugal—*part uſed*, The rind and pulp—*ſenſ. prop.* Rind, bitter and aromatic; pulp, acid—*med. virt.* Rind, tonic; pulp, cooling and antiſeptic—*mode of exhib.* Infuſion of the rind; juice of the pulp in febrifuge drinks. An elegant ſtomachic conſerve, tincture, and ſyrup, are formed of the rind, uſeful to cold phlegmatic habits.

ORRIS ROOT: an agreeable perfume, of little uſe in medicine.

PAREIRA BRAVA: the root of an American convolvulus, brought from the Brazils—*ſenſ. prop.* It has no ſmell; the taſte is a little

bitterish, blended with a sweetness like that of liquorice—*med. virt.* Useful in suppressions of urine, in ulcers of the kidneys and bladder, in humoral asthma, some species of jaundice, and in nephritic disorders—*mode of exhib.* Half an ounce of the root boiled in three pints of water to one, sweetened with honey; a cupful to be taken every three or four hours: in substance, powdered, fifteen to thirty grains twice or thrice a-day.

PARSLEY: an umbelliferous plant, cultivated in gardens—*part used*, The seeds and roots—*sens. prop.* Roots, sweet, and lightly warm; seeds, aromatic and bitter—*med. virt.* Stimulant, mildly diuretic—*mode of exhib.* The roots in decoction, against jaundice gravel, and suppression of urine.

PELLITORY OF SPAIN: the root is used as a masticatory (i. e. chewed) to promote the evacuation of viscid humours from the head and neighbouring parts; to relieve the tooth-ach, some kinds of pain of the head, and lethargic complaints. An infusion of five to ten grains of this root in wine may be employed as a gargle in debility, or paralysis of the tongue.

PELLITORY OF THE WALL: this is a small plant growing upon old walls, of an herbaceous sub-saline taste, without any smell—*med. virt.* The herb diuretic, emollient; externally, discutient—*mode of exhib.* In infusion, decoction, and the expressed juice against gravel and stone.

PENNYROYAL: a plant cultivated in gardens. The leaves smell strong, not agreeable; taste, warm and pungent—*med. virt.* Stimulant, aromatic—*mode of exhib.* In infusion, as tea, against uterine obstructions. A water is distilled from it, and an essential oil.

PEPPER, *black*: the fruit of a trailing shrub growing in the East Indies, of a heating and stimulating quality.

PIMENTO: the dry berry of a tree growing in Jamaica—*sens. prop.* Smell, grateful and aromatic; taste, moderately warm—*med. virt.* Stimulant—*mode of exhib.* A water distilled from it, and an essential oil: the latter sinks in water; the former serves most of the purposes of waters drawn from more costly spices.

PINK-CAROLINA: this root is celebrated for the expulsion of worms from the alimentary canal; it sometimes acts unpleasantly on the nervous system. Some order it in doses of ten or fifteen grains, while others advise it in doses of a drachm, alleging that bad effects more readily happen from small doses, as the large dose generally purges or pukes; hence we do not recommend this medicine in domestic practice.

PITCH BURGUNDY: the resin exuding from the common fir-tree, softened in warm water, and strained—*med. virt.* Stimulant—*mode of exhib.* In plasters and ointments.

POMEGRANATE TREE: a prickly tree or shrub growing in the south of Europe—*part used*, The flowers and rind of the fruit—*sens. prop.* Flowers and rind, astringent; fruit, tart and roughish—*med. virt.* Tonic, cooling—*mode of exhib.* Juice of the fruit; infusion and decoction of the flowers and rind. Against prolapsed *rectum* and *uterus*, Sydenham directs the application of a fomentation

to be made of an ounce of the rind of pomegranate bruiſed, with two pints of decoction of oak-bark and half a pint of red wine. In colliquative diarrhœas, accompanying hectic fever, Dr. Mead directed the following aſtringent and nutritive decoction: Take of dried red roſe leaves, baluſtines, pomegranate rind, and cinnamon, of each one drachm; boil in a pint of cow's milk, adding little by little, during the boiling, a pint of water: keep it on the fire till the whole is reduced to one pint; then ſtrain off, and ſweeten with a little ſugar. To be taken in repeated draughts in the courſe of a day.

POPPY RED, or *Corn Roſe:* the *flowers* are very common in cornfields; they are weakly ſedative; a ſyrup is prepared from them: its virtues are inconſiderable.

POPPY WHITE: a plant cultivated in gardens. The heads or ſeed veſſels afford a bitter milky juice, which, in a concrete form, is opium—*med. virt.* Anodyne, ſedative. Of the expreſſed decoction, by the addition of ſugar an uſeful ſyrup is formed. Of the decoction, ſtrongly expreſſed and evaporated, an extract is formed, more pure than the opium that is imported.

PRUNES, *Common* or *French Prunes:* the fruit of a kind of garden plum-tree growing in France—*med. virt.* Laxative, cooling, eaten crude or ſtewed.

QUASSIA-ROOT: the woody root of a tree growing in Surinam—*ſenſ. prop.* Intenſely bitter—*med. virt.* Tonic, ſtomachic, a corrector of putrid bile—*mode of exhib.* Infuſion; extract. It is much uſed in this country as a ſuccedaneum for hops, to give bitterneſs to malt liquor, though it deſervedly ſubjects thoſe brewers who employ it to a very heavy penalty. Strong bitters are very properly exhibited as medicines in intermittent and bilious fevers, in ſome ſtomachic complaints, in cachexy, dropſy, and gout; but there is ſufficient evidence to prove, that the long-continued or habitual uſe of this claſs of remedies has been productive of incalculable miſchief.

QUINCE: the fruit of a tree cultivated in gardens. The *apple* of the quince yields an auſtere acid juice: a pleaſant aſtringent *marmalade* is prepared from it, which is deemed a preſervative againſt ſea-ſcurvy, and covers well the bitter taſte of the *cinchona bark,* which is diſagreeable to delicate patients.

RAISINS: grapes dried by the heat of the ſun; they are imported from Spain and the Levant. This fruit is ſweet, aperient, and obtunding: it is eaten crude, and is an ingredient in pectoral decoctions.

RASPBERRY: the fruit, acid and ſweet: cooling, antiſeptic.

RATTLESNAKE-ROOT, or *Seneka,* is a perennial plant which grows wild in Virginia and Pennſylvania—*ſenſ. prop.* Acrid, hot, pungent. It has no ſmell—*med. virt.* Diuretic, expectorant, ſtimulant. The Senegaro Indians are ſaid to prevent the fatal effects of the bite of the rattleſnake by giving it internally, and by applying it externally to the wound. The uſual doſe of ſeneka root is from one to two ſcruples of the powder; or two or three table-ſpoonfuls of a decoction prepared by boiling one ounce of the root in a pint and a

half of water till it is reduced to a pint. This is preſcribed in pleuritic, rheumatic, and dropſical affections.

Rhubarb: the root of this large dock-like plant taſtes bitteriſh, ſomewhat acrid, and aſtringent—*med. virt.* Tonic, mildly cathartic—*mode of exhib.* Powder; infuſion; tincture.

Rose, Damask: the flowers of a ſhrub cultivated in gardens—*ſenſ. prop.* Very fragrant, bitteriſh—*med. virt.* Laxative, odoriferous. The ſhops keep a ſyrup, a honey, and a ſimple diſtilled water of roſes.

Rose, Red: the flowers of a ſhrub cultivated in gardens—*med. virt.* Tonic. From theſe a honey, ſyrup, and conſerve, are prepared.

Rose, Dog: the dog roſe is a ſhrub growing in hedges. The fruit is cooling, ſweet-acid, and the baſis of what is called the conſerve of hips.

Rosemary: a ſhrubby plant with labiated flowers, growing in gardens—*part uſed*, The flowering tops—*ſenſ. prop.* Smell grateful; taſte warm and pungent—*med. virt.* Stimulant—*mode of exhib.* Infuſion as tea againſt violent head-achs and other nervous complaints. An eſſential oil and the ſpirit of roſemary are diſtilled from the tops, which are the principal ingredient in what has generally been called *Hungary water*.

Rosin Yellow: baked turpentine. It is uſed in forming various ointments and plaſters.

Rue: a ſhrubby plant cultivated in gardens—*part uſed*, The leaves—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, penetrating and bitteriſh—*med. virt.* Antiſpaſmodic, ſtimulant, anthelmintic—*mode of exhib.* Powder; infuſion as tea, attenuant, deobſtruent, for the impeded diſcharges of hyſterical females. The extract may be given in doſes of five to twenty grains in the form of pills. The juice or infuſion may be exhibited in a lavement againſt worms.

Saffron: the filaments of the piſtil of a bulbous-rooted plant cultivated in the fields—*ſenſ. prop.* Smell, aromatic, very diffuſive; taſte, warm and bitteriſh; colour, high orange—*med. virt.* Heating, cordial, ſtimulant. An elegant ſyrup is prepared from ſaffron; and it is an ingredient in ſeveral medicinal preparations, not ſo much on account of any ſingular virtues it is now ſuppoſed to poſſeſs, as for the elegant colour it imparts. Externally, ſaffron is often mixed with emollient and reſolvent cataplaſms.

Sagapenum: a gummy-reſinous juice of uncertain origin, the product of Egypt—*ſenſ. prop.* Smell, ſtrong and fœtid—*med. virt.* It is a ſtimulant aperient—*mode of exhib.* Pill; emulſion; rarely employed.

Sage: the leaves of a perennial plant growing in our gardens. It is aromatic and bitteriſh—*med. virt.* Tonic, ſudorific. Watery infuſions of the leaves mingled with a little lemon or orange juice, proves an uſeful diluent drink in febrile diſorders.

Saint John's-Wort: the flowers are the product of a perennial plant that was formerly famous in medical practice, and which

grows wild in woods and uncultivated places in Britain. Its taſte is rough and bitteriſh, and its ſmell diſagreeable. It is ſlightly tonic, and ſometimes the infuſion is employed in hyſterical caſes.

SARSAPARILLA: a climbing plant growing in the Spaniſh Weſt Indies. *Part uſed,* The root and its bark—*ſenſ. prop.* Smell, fragrant; taſte, ſub-aſtringent and lightly warm—*med. virt.* Tonic, obtunding—*mode of exhib.* Powder; decoction.

SASSAFRAS: a large tree growing in the warmer parts of America. The ſmell of this wood is fragrant; taſte, lightly warm. It is employed in ſtimulating and ſudorific decoctions for ſcorbutic and venereal impurities.

SAVIN: the leaves of an ever-green prickly ſhrub, growing in gardens —*ſenſ. prop.* Smell, ſtrong and diſagreeable; taſte, hot, acrid, bitteriſh— *med virt.* Stimulant, diuretic. A ſcruple to half a drachm of the powdered leaves has been given twice a-day with ſucceſs to athletic women in caſes of obſtructed menſtruation. The freſh leaves of ſavin may be given in the form of a conſerve, or infuſed as tea, againſt worms and gouty affections, or the extract in the form of pills may be given in doſes from ten to thirty grains, or twenty to thirty drops of the compound tincture in a cupful of pennyroyal-tea. In plethoric habits, veneſection ſhould precede the uſe of ſavin. Externally, the leaves are applied in the form of powder, or ſtrong infuſion, to warts, carious bones, old ulcers, &c.

SCAMMONY: the gummy-reſinous juice of a plant growing in Syria. —*ſenſ. prop.* Smell, weak and unpleaſant; taſte, bitteriſh and ſub-acrid—*med. virt.* Strongly cathartic—*mode of exhib.* Powder; electuary. It is not proper for infants, pregnant women, or perſons of a weakly frame, nor in hot diſeaſes and conſtitutions.

SCORDIUM was formerly much preſcribed as a detergent, &c., but is at preſent ſeldom uſed.

SCURVY-GRASS: *garden ſcurvy-graſs* is a plant of the cruciform ſiliquous claſs, growing in maritime ſituations, and cultivated in gardens: *part uſed,* The herb—*ſenſ. prop.* Acrid and ſaline—*med. virt.* Aperient, ſtimulant, antiſcorbutic. It is eaten crude, and the juice, which may be taken in doſes of an ounce or two, is uſed with good effect, joined with the juices (a table-ſpoonful or two of each) of brook lime, water creſſes, and Seville oranges. The freſh leaves of ſcurvy-graſs, beaten into a conſerve with thrice their weight of fine ſugar, may be kept in a cloſe veſſel, without any diminution of their virtue, for years: it may be taken in doſes of two drachms to half an ounce twice or thrice a-day.

SENNA: a pod-bearing papilionaceous plant, growing in Egypt and the Eaſt. *Part uſed,* The leaves—*ſenſ prop.* Smell, ungrateful; taſte, nauſeous and bitteriſh—*med. virt.* Purgative—*mode of exhib.* Extract; powder; infuſion; tincture. To cover the taſte of ſenna, coriander ſeeds are employed; but to prevent its griping, the warmer aromatics, ſuch as cardamom ſeeds, or ginger, are more effectual. The doſe of the extract is from half a drachm to two drachms; it may be given in the form of pills, but the extract is a weak cathartic, and occaſions more griping pain in the bowels, unleſs joined

with an aromatic, than the tincture drawn from the leaves, probably becauſe that is mingled with carminatives.

SIMAROUBA: a tree growing in Guinea. The bark, which is ſimply bitter, is the part uſed. It is a tonic that has been much celebrated in obſtinate diarrhœa, dyſentery, indigeſtion, and intermittent fevers. It is given in infuſion or decoction. Two drachms of the bark boiled in two pints of water to one pint, may be drank in cupfuls in the courſe of a day. When this bark cannot be had, an infuſion of camomile flowers, with or without four or five drops of the tincture of opium in each doſe, may be employed for the ſame intentions.

SLOES: the fruit of the common black thorn which grows in hedges, have a rough, auſtere, aſtringent taſte. A conſerve of ſloes is kept in the ſhops; it is a cooling aſtringent in doſes of a drachm or two: diſſolved in the decoction of *cinchona bark*, it makes an efficacious gargle for relaxed tonſils. The powdered bark of this buſh cures agues; and a handful of the flowers infuſed in whey is a pleaſant laxative.

SNAKE-ROOT, VIRGINIA: a plant growing in North America—*part uſed*, The root—*ſenſ. prop.* Smell, aromatic; taſte, warm and bitteriſh—*med. virt.* Stimulant, tonic, antiſeptic, diaphoretic—*mode of exhib.* Powder; infuſion; tincture. Snake-root was at firſt recommended as a medicine of extraordinary power in counteracting the poiſonous effects of the bites of ſerpents. Both this and contrayerva are found very uſeful medicines in typhus fever and in putrid diſeaſes, alſo in eruptive fevers, to determine the diſeaſe to the ſkin and promote the eruptive proceſs. In caſes of gangrene, and in obſtinate intermittent fevers, the ſnake-root is an excellent auxiliary to the *cinchona bark*. Externally, it is uſed as a gargle in the putrid ſore throat.

SORREL, COMMON: an herbaceous plant growing wild, and cultivated in gardens. The acidulous herb is cooling, aperient, antiſcorbutic. It is eaten crude, and a decoction of it in whey is refrigerant in febrile heats, and in caſes of bilious and ſcorbutic acrimony.

SORREL WOOD: wood-ſorrel is a ſmall perennial plant, growing wild. The leaves are gratefully acid, cooling, and antiſeptic; they are eaten crude: ſometimes the expreſſed juice is taken as a tonic and antiſcorbutic. The London College of Phyſicians order a conſerve of wood-ſorrel to be kept in the apothecaries ſhops, which is given to quench thirſt, and to cool the mouth, fauces, and *primæ viæ*, in bilious remitting fevers.

SOUTHERNWOOD: a ſhrubby compound flowered plant, cultivated in gardens—*part uſed*, The leaves—*ſenſ. prop.* Smell, fragrant; taſte, warm and bitteriſh—*med. virt.* Tonic, antiſeptic, aromatic, volatile. It is now rarely uſed, unleſs in the way of decoction for diſcutient and antiſeptic fomentations, in which intention it appears to be of no inconſiderable efficacy, eſpecially when joined with camomile flowers, wormwood, &c. as in the Appendix.

SPERMACETI: is an unctuous flaky ſubſtance of a white colour and

a butyraceous taſte, without any remarkable ſmell: it is prepared from the fat of the brain of a ſpecies of whale—*ſenſ. prop.* Bland, inſipid—*med. virt.* Obtunding, emollient—*mode of exhib.* In ſubſtance; combined with watery liquors, by means of almonds, gum, or yolk of egg; in pectoral mixtures, or emulſions. Externally, as it readily diſſolves in oils and unctuous ſubſtances, an elegant cerate and an ointment are formed, which are often uſed for healing bliſters, burns, excoriations of the ſkin, &c.

SPONGE: a ſubſtance adhering to rocks in the ſea; the habitation of certain marine inſects—*ſenſ. prop.* Soft, light, porous, elaſtic; affording a marine ſoda-like ſalt, when boiled, or calcined—*med. virt.* Internally, ſtimulant and reſolvent; externally, proper for dilating ſinuſes by its ſwelling, and for ſtopping hæmorrhages by its adheſion. Burned in a cloſe veſſel till it becomes black and friable. This is uſed in powder, made with ſome ſuitable ſyrup or conſerve into an electuary; or it may be formed into troches. Burnt ſponge may be given in doſes of a ſcruple or upwards againſt ſcrophulous indurations and cutaneous foulneſſes.

SQUILL, or *Sea-onion:* a bulbous-rooted plant growing on the ſandy ſhores of Spain, Portugal, and Syria—*part uſed,* The root—*ſenſ. prop.* Nearly inodorous. Taſte, nauſeous, bitter, and acrid—*med. virt.* Stimulant, emetic, and diuretic—*mode of exhib.* The dry root powdered, or in the form of pills, may be given as an alterative; and to promote expectoration, from one, three, to ſix grains. From ten grains to a ſcruple as an emetic, in pituitous aſthma. The London College of Phyſicians direct the apothecaries under their juriſdiction to keep a *conſerve of ſquills,* which may be taken in doſes of half a drachm to a drachm.—*Honey of ſquills:* doſe half a drachm to two drachms.—*Squill pills:* doſe ten grains to thirty.—*Oxymel of ſquills:* doſe half a drachm to two drachms.—*Tincture of ſquills:* doſe fifteen, thirty, to ſixty drops. In doſes of one drachm and a half to three or four drachms, it proves emetic.—*Vinegar of ſquills:* in doſes of twelve drops to thirty or ſixty; alterative, cooling, expectorant. Sometimes two drachms, but more frequently half an ounce to an ounce, of that preparation acts as an emetic.

STARCH is prepared from wheat, in which it forms an important alimentary ſubſtance. Its demulcent property occaſions it to be formed into an officinal lozenge, which may be taken at diſcretion for allaying the tickling in the throat which provokes coughing; and a mucilage is prepared from ſtarch that often produces excellent effects both taken by the mouth, and injected as an enema, in diarrhœa and dyſenteries induced by irritation of the inteſtines.

STAVES-ACRE: the *ſeed* is imported from Virginia and the ſouthern parts of Europe. Smell, fœtid. Taſte, acrid and nauſeous. They are poiſonous and eſcharotic. They are uſed in ointments, or aqueous infuſion for external uſe againſt the itch, fungous ulcers, &c.

STORAX: a reſinous ſubſtance, mixed with much woody matter, procured from a tree growing in Syria and other eaſtern countries—

ſenſ. prop. Smell, fragrant; taſte, mildly pungent—*med. virt.* Tonic, and nearly ſimilar to that of Benjamin.

TAMARIND: The pod of a large tree growing in the Eaſt and Weſt Indies—*part uſed,* The pulp about the pods—*ſenſ. prop.* Mildly acid—*med. virt.* Cooling, laxative—*mode of exhib.* Eaten preſerved with ſugar, decoction, infuſion, to quench thirſt, and allay immoderate heat in burning fevers, bilious diarrhœas, and inflammations of the ſtomach, liver, and inteſtines. When the pulp of the tamarind is exhibited merely as a laxative, it may be of uſe to join it with manna. Three drachms of the former and two of the latter are uſually ſufficient to open the body; but to operate moderately as a cathartic, twice or three times as much of both articles are required.

TANSY: This plant grows wild by road-ſides and the borders of fields. It is frequently cultivated in gardens both for culinary and medicinal uſes—*part uſed,* The leaves and flowers—*ſenſ. prop.* Smell, ſtrong and aromatic; taſte, bitter—*med. virt.* Tonic, ſtomachic, anthelmintic, and emmenagogue—*mode of exhib.* Powder, half a drachm to a drachm for a doſe againſt flatulency and worms. From two pugils to a handful of the leaves infuſed in wine, promotes the menſes; but they are more commonly taken in infuſion, and drank as tea: adminiſtered in this way, it is ſaid to be a preventive of the return of the gout.

TAR: A thick reſinous fluid, melted out of old fir and pine trees—*ſenſ. prop.* Empyreumatic, bitter, pungent—*med. virt.* Stimulant, diuretic—*mode of exhib.* In pills, alſo an infuſion called *Tar Water,* inſerted in the Appendix. Externally, tar is employed as an ointment in ſcald-heads, and ſome cutaneous diſeaſes.

TAR FOSSIL, or *Barbadoes Tar:* A kind of fluid bitumen found in the Weſt Indies—*ſenſ. prop.* Smell, diſagreeable; taſte, pungent—*med. virt.* Stimulant, ſudorific, pectoral—*mode of exhib.* Chiefly externally, in liniments, as a diſcutient, and for preventing paralytic diſorders.

THISTLE, BLESSED: A compound flowered plant, cultivated in gardens—*part uſed,* The leaves—*ſenſ. prop.* Simply bitter—*med. virt.* Tonic—*mode of exhib.* A ſlight infuſion of the leaves is taken with good effect in loſs of appetite, where the ſtomach was injured by irregularities. A ſtronger infuſion if drank freely, and the patient kept warm, occaſions a plentiful ſweat, and promotes the ſecretions in general. The decoction is nauſeous, and ſometimes uſed to provoke vomiting. The ſeeds of this plant are alſo conſiderably bitter; in powder from a ſcruple to a drachm: they are ſometimes formed into an emulſion, and uſed with the ſame intention as the leaves.

TOBACCO: An annual plant, cultivated in various of the warmer climates—*part uſed,* The leaves—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, very acrid and nauſeous—*med. virt.* Emetic, purgative, ſternutatory, narcotic—*mode of exhib.* Infuſion, and fume, chiefly injected by way of clyſter. Tobacco, when it is either chewed or ſmoked, cauſes an increaſed flow of ſaliva, and

ſometimes relieves the tooth-ach: reduced into powder, it proves an excellent errhine, when ſnuffed up the noſtrils. If an ounce of the dried leaves of tobacco be infuſed for ſeven days in a pint of Liſbon wine, twenty to ſixty drops of the ſtrained liquor may be given in a cupful of broom-tea, as a diuretic in caſes of dropſy and dyſuria. A watery infuſion is applied externally for the cure of itchy and other cutaneous diſeaſes. The decoction is effectual in curing the mange in dogs; care, however, muſt be taken that it be not too ſtrong; nor ſhould it then be applied too profuſely to glandular parts, eſpecially to the belly, or it may cauſe the death of the animal by vomiting. The ſmoke is injected into the anus by means of bellows formed for that purpoſe. By acting as a ſtimulus to the rectum, it ſometimes revives the vital powers in caſes of apparent death by drowning or ſuffocation, and in evacuating the inteſtines in caſes of obſtinate conſtipation. One drachm of tobacco infuſed in a pint of water, and adminiſtered by table-ſpoonfuls, is ſtrongly diuretic.

TORMENTIL, or *Septfoil*: A ſmall perennial plant growing wild—*part used*, The root—*ſens. prop.* Simply aſtringent—*med. virt.* Tonic—*mode of exhib.* Powder, decoction. The doſe of the former is ten grains to a drachm, in looſeneſſes, dyſenteric hæmorrhages, &c. but theſe fluxes are not to be ſtopped too haſtily. A decoction may be prepared by boiling one ounce and a half of the root in three pints of water to two; add, towards the end of the boiling, a drachm of cinnamon: of the ſtrained liquor, ſweetened with refined ſugar or conſerve of roſes, three or four table-ſpoonfuls may be taken three to five times a-day.

TRAGACANTH GUM, is the produce of a very thorny ſhrub which grows in the iſland of Candia, and other places in the Levant. It is without taſte or ſmell, and much more glutinous than gum arabic. On account of its mucilaginous quality, gum tragacanth is employed as an ingredient in forming pectoral troches; and the compound powder of tragacanth is of ſervice in catarrhal defluxions and diarrhœas, by ſheathing the throat, ſtomach, and inteſtines, againſt acrimonious humours. The doſe is a ſcruple to two drachms.

TURMERIC: A perennial plant cultivated in gardens in the Eaſt Indies—*part used*, The root—*ſens. prop.* Smell, lightly aromatic; taſte, moderately warm and bitter; colour, of a deep yellow—*med. virt.* Aperient, diuretic—*mode of exhib.* Powder, decoction, infuſion. It has been celebrated in diſeaſes of the liver, jaundice, and dropſy. It is a valuable dye-ſtuff, but is now little regarded in medical practice.

TURPENTINE COMMON, is the native reſinous juice of various trees, particularly of the pine and fir kind. CHIO, or CYPRUS TURPENTINE, is procured from a berry-bearing tree or ſhrub growing in the Levant—*ſens. prop.* Smell diſagreeable in the common, fragrant in the Chio. Taſte of both is hot, pungent, and bitter—*med. virt.* Stimulant, tonic, diuretic—*mode of exhib.* In pills, or bolus, from a ſcruple to a drachm and a half. The common is rarely given internally. Chio turpentine may be given in a

fluid ſtate blended with watery liquors by yolk of egg or mucilage. The rectified oil is extremely powerful, ſtimulating, detergent, diuretic, and ſudorific, requiring the utmoſt caution in its exhibition: blended with honey, it may be given, to adults, in doſes of ſix and gradually increaſed to twelve drops. Externally, oil of turpentine is with ſome practitioners a favourite application in caſes of burns and ſcalds. Turpentine is an ingredient in ointments and plaſters.

Valerian, Wild: A perennial plant with aggregated flowers, growing both in dry and moiſt ſituations; in the former it is the moſt powerful as a medicine—*part uſed*, The root—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, warm, bitteriſh, and ſub-acrid—*med. virt.* Tonic, anthelmintic, antiſpaſmodic—*mode of exhib.* Powder, infuſion, tincture. The powder (which has been highly recommended alſo for dimneſs of ſight) may be given in doſes of a ſcruple to two drachms: an infuſion, as tea, with one or two drachms, may be taken, with the addition of a little mace, which conceals the unpleaſant flavour of valerian.

Uva Urſi, or *Bear-Berries*: An ever-green trailing plant, growing on high mountains—*part uſed*, The leaves—*ſenſ. prop.* Bitteriſh, and ſub-aſtringent—*med. virt.* Tonic, anti-nephritic—*mode of exhib.* Powder. In calculus, and moſt diſorders of the urinary paſſages. We have already noticed (p. 105) its ſucceſsful exhibition in ſome caſes of incipient conſumption.

Walnut: The unripe fruit of this well known tree is acrid, bitteriſh, and ſtyptic to the taſte. Smell, not diſagreeable—*med. virt.* Opening and vermifuge. To expel worms, two drachms of the inſpiſſated juice of walnuts may be diſſolved in half an ounce of cinnamon water; of this ſolution, twenty, thirty, forty to fifty drops may be exhibited, two or three times a-day for a week, or more, giving every fourth morning a purging doſe of vitriolated magneſia.

Water Creſs: The leaves of this plant of the cruciform claſs, growing common in wet ſituations, have a pungent taſte and penetrating ſmell: they are ſtimulant and antiſeptic when eaten crude, or the expreſſed juice may be taken in doſes of half an ounce to two ounces.

Wolf's Bane Blue; *Monk's-hood*, or *Aconite*: It is a perennial plant found in the Alpine foreſts and other mountainous countries in Germany, and cultivated in our gardens—*part uſed*, The leaves—*ſenſ. prop.* Acrid, ungrateful—*med. virt.* Narcotic, and violently evacuant in a large doſe; ſedative, diuretic, ſtimulant, ſudorific. One to two grains of the dried leaves in powder are given in glandular ſwellings, venereal nodes, gouty and rheumatic pains, intermittent fevers, convulſive diſorders, &c. Under the direction of a ſkilful phyſician, the doſe may be very gradually increaſed to ſix grains. The deleterious effects of this plant, when improperly exhibited, act violently on the nervous ſyſtem. It occaſions giddineſs, convulſions, violent purging both upwards and downwards, fainting, cold ſweats, and even death itſelf. The antients conſidered the aconitum (i. e. Wolf's Bane) as the moſt deſtructive

of vegetable productions; therefore we truſt that no modern DOMESTIC PRACTITIONER will preſume to exhibit this powerful and virulent medicine.

WORMSEED: Small light ſeeds, the produce of a ſpecies of wormwood. They are brought from the Levant—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, very bitter and ſub-acrid—*med. virt.* Anthelmintic—*mode of exhib.* In ſubſtance. To adults the doſe is from a drachm to a drachm and a half twice a-day: young patients may have five grains to a ſcruple.

WORMWOOD, COMMON: A compound flowered plant growing wild and cultivated in gardens—*part uſed,* The leaves and flowering tops—*ſenſ. prop.* Smell, ſtrong and ungrateful; taſte, extremely bitter, nauſeous—*med. virt.* Tonic, ſtimulant, antiſpaſmodic, antiſeptic, anthelmintic—*mode of exhib.* Infuſion as a ſtrengthening bitter, to cure agues and in worm caſes. Wormwood was formerly much uſed as a bitter againſt weakneſs of the ſtomach and dyſpeptic complaints in medicated wines and ales. A tincture of the flowers of this plant is inſerted in the Appendix. The juice may be exhibited in doſes of one to four table-ſpoonfuls; i. e. half an ounce to two ounces. Externally, wormwood is employed in warm, diſcutient, and antiſeptic fomentations.

WORMWOOD, SEA: A ſpecies of wormwood growing in ſalt marſhes and maritime ſituations—*part uſed,* The leaves and flowering tops—*ſenſ. prop.* Smell and taſte more agreeable, but weaker than the preceding—*med. virt.* Tonic, antiſeptic---*mode of exhib.* Infuſion. Warm water extracts a ſtronger impregnation of theſe bitters than cold; but the latter, if it ſtand but a few hours, is moſt agreeable to the palate and ſtomach. The conſerve of ſea-wormwood, as a mild bitter and ſtrengthener of the ſtomach, is given in doſes of two drachms to half an ounce.

ZEDOARY: A root imported from the Eaſt Indies---*ſenſ. prop.* Smell, aromatic; taſte, warm and bitteriſh---*med. virt.* Tonic, carminative, ſtimulant, ſtomachic---*mode of exhib.* Powder, from ten grains to half a drachm; or an aqueous infuſion, as tea, in caſes of want of appetite unattended with loathing of food, and ſpaſmodic colic.

A LIST OF SIMPLES,

AND OF

SUCH MEDICINAL PREPARATIONS,

AS OUGHT TO BE KEPT IN READINESS FOR PRIVATE PRACTICE OR FAMILY USE.

ACID, muriatic
——— nitrous
——— vitriolic
——— vinegar
——— of ſquills
Æther, vitriolic
Agaric
Antimony, crude
——— cinnabar of
——— precipitated ſulphur of
——— tartarized
Arrow-root
Balſam, Capivi
——— of Peru
——— of Tolu
Bark, caſcarilla
—— cinnamon
—— cinchona
—— canella alba
—— mezereon
Borax
Calamine ſtone, levigated
Caſtor, Ruſſian
Cauſtic, common
——— lunar, or *nitrated* quick-ſilver
Earth, Fuller's
——— Armenian bole
——— French ditto
Extract of camomile
——— of catechu
——— of cinchona
——— of coloquintida, compound
——— of gentian
——— of liquorice
——— of opium
——— of white poppy
Flowers of camomile
——— of colt's foot
——— of elder
——— of roſemary
——— of damaſk roſes
——— of red roſes
Fruits, almonds
——— caſſia fiſtula
——— lemons
——— Curaçoa oranges
——— figs, dried
——— French prunes
——— Jamaica pepper
——— Juniper berries
——— nutmegs
——— tamarinds
Gum, aloes
—— ammoniac, in tears
—— arabic
—— aſafœtida
—— camphor
—— galbanum
—— gamboge
—— guaiacum
—— kino
—— myrrh
—— opium
Hartſhorn, calcined
——— ſhavings of
Herbs, leſſer centaury
——— peppermint
——— ſpearmint
——— pennyroyal
——— ſavin
——— trefoil
——— uva urſi
——— wormwood
Iceland liver-wort
Iron filings
—— ruſt of, prepared
Juice, inſpiſſated of hemlock
——— of black currants
——— of elder
——— of lemon
Kali, prepared
—— acetated
—— ſulphurated
—— tartarized
—— vitriolated

Lead, acetated ceruſe
—— water of acetated litharge, formerly called extract of lead
—— compound water of acetated litharge
Lemon-peel
Mace
Magneſia alba
Manna
Mercury, ſee Quickſilver
Miſtletoe of the oak
Muſk
Oil, eſſential of amber
—— of aniſe
—— of cinnamon
—— of juniper
—— of lemon-peel
—— of peppermint
—— expreſſed of almonds
—— of linſeed
—— of olives, or Florence oil
—— of palm
—— of turpentine
Orange-peel
Oyſter ſhells, prepared
Poppy-heads
Quickſilver, crude
—— calcinated
—— with ſulphur (commonly called Ethiop's mineral)
—— calomel
—— muriated (commonly called corroſive ſublimate)
—— red nitrated (commonly called red precipitate)
—— white calx (commonly called white precipitate)
Reſins, benzoin
—— flowers of
—— Burgundy pitch
—— dragon's blood
—— frankincenſe
—— liquid ſtorax
—— white or roſin
—— ſcammony
Roots, biſtort
—— calamus aromaticus
—— contrayerva
—— garlic
—— gentian
—— ginger
—— hellebore, black and white
Roots, jalap
—— ipecacuanha
—— lily, white
—— liquorice
—— marſh-mallows
—— mezereon
—— rhubarb
—— ſarſaparilla
—— ſeneka
—— ſquills
—— tormentil
—— turmeric
—— Virginia ſnake-root
—— wild valerian
—— zedoary
Saffron
Sal ammoniac, crude
—— volatile
Salt of hartſhorn
—— of natron prepared
—— of natron vitriolated
—— of nitre purified
—— of magneſia vitriolated
—— of polychreſt
—— of tartar
Seeds, aniſe
—— barley (pearl)
—— caraway
—— cardamom
—— coriander
—— cumin
—— linſeed
—— muſtard
—— ſweet fennel
—— wild carrot
Senna
Spaniſh flies
Spermaceti
Spirits of ammonia compound
—— of lavender compound
—— of æther nitrous
—— of æther vitriolic
—— of hartſhorn, more properly called volatile liquor of hartſhorn
—— of wine rectified
Sulphur vivum
—— flowers of
Syrup of balſam Tolu
—— black currants
—— buckthorn
—— ginger
—— lemon juice
—— manna

Syrup of marſh-mallows
——— mulberries
——— poppies white
——— roſes
——— ſimple
Tar
—— Barbadoes
Tartar, cream of
Tin, prepared
Tincture of aloes
——— of aſafœtida
——— of benzoin, compound
——— of cardamom, compound
——— of caſcarilla
——— of cinchona, compound
——— of columba
——— of ginger
——— of gentian, compound
——— of guaiacum, volatile
——— of hellebore, black
——— of henbane
——— of hop
——— of jalap
——— of iron ammoniated
——— of myrrh
——— of opium camphorated
——— of rhubarb
——— of ſenna
——— of ſnake-root
Tincture of ſquills
——— of valerian ammoniated
Turpentine, Venice
Tutty, levigated
Verdigriſe
Vitriol, blue
——— green
——— white
Water of ammonia
——— of acetated ammonia
——— of aniſeed
——— of cinnamon
——— of peppermint
——— of ſpearmint
——— of pennyroyal
——— of pimento
Wax, white
—— yellow
Wine of antimony
——————— tartarized
—— of ipecacuan
—— of iron
Woods, guaiacum
——— logwood
——— ſaſſafras
——— ſaunders red
——— quaſſia
Zinc, flowers of.

MEDICINAL PREPARATIONS.

ACID.

DILUTED or weak vitriolic Acid.—Take of vitriolic acid one ounce; diſtilled water ſeven ounces: mix them by degrees. In making this dilution, a conſiderable degree of heat is excited, which is apt to crack glaſs veſſels, unleſs the combination be very cautiouſly made; and for the ſame reaſon, the acid muſt be poured into the water, not the water into the acid. The dilution, by means of diſtilled water, is preferable to ſpring water, which even in its pureſt ſtate is rarely free from impregnations affecting the acid. In this and moſt other caſes where diſtilled water cannot eaſily be had, river water ſlightly boiled, and, after ſtanding to cool, the impurities having ſubſided, will anſwer the general purpoſes of diſtilled water.—This ſolution of the *vitriolic* (or, as it is now more properly called, the *ſulphuric)* acid is a medicine that may be given in a glaſs of pure water, in doſes of ten to forty drops, or more, two or three times in a-day, for creating an appetite, allaying inordinate actions of

the ſtomach, ſickneſs and vomiting. It is not unfrequently mixed with the decoction of cinchona and other medicinal preparations, to give the liquor an agreeable acidity, and to render them cooling, antiſeptic, reſtringent, tonic, and ſtomachic.

BALSAMS.

The ſubject of this ſection is not the natural balſams, but certain compoſitions, which, from their being ſuppoſed to poſſeſs balſamic qualities, generally go by that name. This claſs of medicines was formerly very numerous, and held in great eſteem: modern practice, however, has juſtly reduced it to a very narrow compaſs.

Anodyne Balſam.—Take of white Spaniſh ſoap, one ounce; opium, unprepared, two drachms; rectified ſpirit of wine, nine ounces. Digeſt them together in a gentle heat for three days; then ſtrain off the liquor, and add to it three drachms of camphor.—This balſam, as its title expreſſes, is intended to eaſe pain. It is of ſervice in violent ſtrains and rheumatic complaints, when not attended with inflammation. It muſt be rubbed with a warm hand on the part affected; or a linen rag moiſtened with it may be applied to the part, and renewed every third or fourth hour, till the pain abates. If the opium is left out, this will reſemble the *Soap Liniment*, or what is called *Opodeldoc*.

Locatelli's Balſam.—Take of olive oil, one pint; Straſburg turpentine, and yellow wax, of each half a pound; red ſaunders, ſix drachms. Melt the wax with ſome part of the oil over a gentle fire; then add the remaining part of the oil and the turpentine: afterwards mix in the ſaunders, previouſly reduced to a powder, and keep them ſtirring together till the balſam is cold.---This balſam is recommended in eroſions of the inteſtines, the dyſentery, hæmorrhages, internal bruiſes, and in ſome complaints of the breaſt. Outwardly it is uſed for healing and cleanſing wounds and ulcers. The doſe, when taken internally, is from two ſcruples to two drachms.

The compound Tincture of Benjamin, or the Vulnerary Balſam.---Take of benzoin, powdered, three ounces; balſam of Peru, two ounces; hepatic aloes, in powder, half an ounce; rectified ſpirit of wine, two pints. Digeſt them in a gentle heat for three days, and then ſtrain the balſam.---This balſam, or rather tincture, is applied externally to heal recent wounds and bruiſes. It is likewiſe employed internally to remove coughs, aſthmas, and other complaints of the breaſt. It is ſaid to eaſe the colic, cleanſe the kidneys, and to heal internal ulcers, &c.---The doſe is from twenty to ſixty drops.---This, though a medicine of ſome value, does not deſerve the extravagant encomiums which have been beſtowed on it. It has been celebrated under the different names of *The Commander's Balſam, Perſian Balſam, Balſam of Berne, Wade's Balſam, Friar's Balſam, Jeſuit's Drops, Turlington's Drops*, &c.

BOLUSES.

As boluſes are intended for immediate uſe, volatile ſalts and other ingredients improper for being kept are admitted into their compo-

ſition. They are generally compoſed of powders, with a proper quantity of ſyrup, conſerve, or mucilage. The lighter powders are commonly made up with ſyrup, and the more ponderous, as mercury, &c. with conſerve; but thoſe of the lighter kind would be more conveniently made up with mucilage, as it increaſes their bulk leſs than the other additions, and likewiſe occaſions the medicine to paſs down more eaſily.

Aſtringent Bolus.—Take of alum, in powder, fifteen grains; gum kino, five grains: ſyrup, a ſufficient quantity to make a bolus.—In an exceſſive flow of the *menſes*, and other violent diſcharges of blood, proceeding from relaxation, this bolus may be given every four or five hours, till the diſcharge abates.

Diaphoretic Bolus.—Take of gum guaiacum, in powder, ten grains; flowers of ſulphur and cream of tartar, of each one ſcruple; ſimple ſyrup, a ſufficient quantity.—In rheumatic complaints, and diſorders of the ſkin, this bolus may be taken twice a-day. It will alſo be of ſervice in the inflammatory quinſey.

Mercurial Bolus.—Take of calomel, ſix grains; conſerve of roſes, half a drachm. Make a bolus.---Where mercury is neceſſary, this bolus may be taken twice or thrice a week. It may be taken over night; and if it does not operate, a few grains of jalap will be proper next day to carry it off.

Bolus of Rhubarb and Calomel.—Take of the beſt rhubarb, in powder, from a ſcruple to half a drachm; of calomel, from four to ſix grains; ſimple ſyrup, a ſufficient quantity to make a bolus.---This is a proper purge in hypochondriac conſtitutions; but its principal intention is to expel worms. Where a ſtronger purge is neceſſary, jalap may be uſed inſtead of rhubarb.

Pectoral Bolus.---Take of ſpermaceti, a ſcruple; gum ammoniac, ten grains; ſalt of hartſhorn, ſix grains; ſimple ſyrup, as much as will make them into a bolus.---This bolus is given in colds and coughs of long ſtanding, aſthmas, and beginning conſumptions of the lungs. It is generally proper to bleed the patient before he begins to uſe it.

Purging Bolus.—Take of jalap, in powder, a ſcruple; cream of tartar, two ſcruples. Let them be rubbed together, and formed into a bolus, with ſimple ſyrup.---Where a mild purge is wanted, this will anſwer the purpoſe very well. If a ſtronger doſe is neceſſary, the jalap may be increaſed to half a drachm or upwards.

CATAPLASMS AND SINAPISMS.

Cataplasms poſſeſs few or no virtues ſuperior to a poultice, which may be ſo made, as, in moſt caſes, to ſupply their place. They are chiefly intended either to act as diſcutients, or to promote ſuppuration; and as they may be of ſervice in ſome caſes, we ſhall give a ſpecimen of each kind.

Diſcutient Cataplaſm.---Take of barley-meal, ſix ounces; freſh hemlock leaves, bruiſed, two ounces; vinegar, a ſufficient quantity. Boil the meal and hemlock in the vinegar for a little, and then add two drachms of *acetated ceruſe*.

Ripening Cataplaſm.—Take of white lily root, four ounces; fat figs and raw onions, bruiſed, of each one ounce; *ointment of yellow reſin*, two ounces; gum galbanum, half an ounce; linſeed meal, as much as neceſſary. Boil the roots along with the figs in a ſufficient quantity of water; then bruiſe and add to them the other ingredients, ſo as to form the whole into a ſoft cataplaſm. The galbanum muſt be previouſly diſſolved with the yolk of an egg.---Where it is neceſſary to promote ſuppuration, this cataplaſm may be uſed by thoſe who chuſe to be at the trouble and expence of making it. For my part, I have never found any application more proper for this purpoſe than a poultice of bread and milk, with a ſufficient quantity of either boiled or raw onion in it, and ſoftened with oil or freſh butter.

Sinapiſms.—Sinapiſms are employed to recal the blood and ſpirits to a weak part, as in the palſy and atrophy. They are alſo of ſervice in deep-ſeated pains, as the ſciatica, &c. When the gout ſeizes the head or the ſtomach, they are applied to the feet to bring the diſorder to theſe parts. They are likewiſe applied to the patient's ſoles in the low ſtate of fevers. They ſhould not be ſuffered to lie on, however, till they have raiſed bliſters, but till the parts become red, and will continue ſo when preſſed with the finger.---The ſinapiſm is only a poultice made with vinegar inſtead of milk, and rendered warm and ſtimulating by the addition of muſtard, horſe-radiſh, or garlic.---The common ſinapiſm is made by taking crumb of bread and muſtard-ſeed in powder, of each equal quantities; ſtrong vinegar, as much as is ſufficient, and mixing them ſo as to make a poultice.---When ſinapiſms of a more ſtimulating nature are wanted, a little bruiſed garlic may be added to the above.

CERATES.

Cerates are ſubſtances intended for external application, formed of nearly the ſame materials which conſtitute ointments and plaſters. And they differ principally from theſe in being merely of an intermediate conſiſtence between the two.

Cerate of Calomel.---Take of calomel prepared one drachm, calamine cerate half an ounce. Mix.---This is a good occaſional application to ulcers, and is more particularly ſerviceable in thoſe of a venereal kind, when previouſly cleanſed by cauſtic or irritating remedies.

Cerate of Calamine.—Take of olive oil one pint, calamine prepared, and yellow wax, of each half a pound. Melt the wax with the oil, and as ſoon as the mixture begins to thicken, mix with it the calamine, and ſtir the cerate until it be cold.---This compoſition is formed upon the plan of that which is commonly known by the name of *Turner's Cerate*, and which is an exceedingly good application in burns, and in cutaneous ulcerations and excoriations from whatever cauſe.

CLYSTERS.

This claſs of medicines is of more importance than is generally imagined. Clyſters ſerve not only to evacuate the contents of the belly, but alſo to convey very active medicines into the ſyſtem.

Opium, for example, may be adminiſtered in this way when it will not ſit upon the ſtomach, and alſo in larger doſes than at any time it can be taken by the mouth. The Peruvian bark may likewiſe be, with good effect, adminiſtered in form of clyſter to perſons who cannot take it by the mouth.—A ſimple clyſter can ſeldom do hurt, and there are many caſes where it may do much good. A clyſter even of warm water, by ſerving as a fomentation to the parts, may be of conſiderable ſervice in inflammations of the bladder and the lower inteſtines, &c. Some ſubſtances, as the ſmoke of tobacco, may be thrown into the bowels in this way, which cannot by any other means whatever. This may be eaſily effected by means of a pair of hand-bellows, with an apparatus fitted to them for that purpoſe. Nor is the uſe of clyſters confined to medicines. Aliment may alſo be conveyed in this way. Perſons unable to ſwallow have been, for a conſiderable time, ſupported by clyſters.

Emollient Clyſter.-- Take of linſeed tea and new milk, each ſix ounces. Mix them.---If fifty or ſixty drops of laudanum be added to this, it will ſupply the place of the *Anodyne Clyſter.*

Laxative Clyſter.---Take of milk and water, each ſix ounces; ſweet oil or freſh butter, and brown ſugar, of each two ounces. Mix them ---If an ounce of Glauber's ſalt, or two table-ſpoonfuls of common ſalt, be added to this, it will be the *Purging Clyſter.*

Carminative Clyſter.---Take of camomile flowers, an ounce; aniſe-ſeeds, half an ounce. Boil in a pint and a half of water to one pint.---In hyſteric and hypochondriac complaints this may be adminiſtered inſtead of the *Fœtid Clyſter,* the ſmell of which is ſo diſagreeable to moſt patients.

Oily Clyſter.---To four ounces of the infuſion of camomile flowers, add an equal quantity of Florence oil.---This clyſter is beneficial in bringing off the ſmall worms lodged in the lower parts of the alimentary canal. When given to children, the quantity muſt be proportionably leſſened.

Starch Clyſter.---Take jelly of ſtarch, four ounces; linſeed oil, half an ounce. Liquefy the jelly over a gentle fire, and then mix in the oil.---In the dyſentery or bloody flux, this clyſter may be adminiſtered after every looſe ſtool, to heal the ulcerated inteſtines and blunt the ſharpneſs of corroding humours. Forty or fifty drops of laudanum may be occaſionally added; in which caſe, it will generally ſupply the place of the *Aſtringent Clyſter.*

Turpentine Clyſter.---Take of common decoction, ten ounces; Venice turpentine, diſſolved with the yolk of an egg, half an ounce; Florence oil, one ounce. Mix them.---This diuretic clyſter is proper in obſtructions of the urinary paſſages, and in colicky complaints, proceeding from gravel.

Vinegar Clyſter.---This clyſter is made by mixing three ounces of vinegar with five of water-gruel.---It anſwers all the purpoſes of a common clyſter, with the peculiar advantage of being proper either in inflammatory or putrid diſorders, eſpecially in the latter. ---We think it unneceſſary to give more examples of this claſs of medicines, as ingredients adapted to any particular intention may be occaſionally added to one or other of the above forms.

COLLYRIA, or EYE-WATERS.

EYE-WATERS have been multiplied without number, almoſt every perſon pretending to be poſſeſſed of ſome ſecret preparation for the cure of ſore eyes. I have examined many of them, and find that they are pretty much alike, the baſis of moſt of them being either alum, vitriol, or lead. Their effects evidently are, to brace and reſtore the tone of the parts: hence they are principally of ſervice in ſlight inflammations, and in that relaxed ſtate of the parts which is induced by obſtinate ones. Camphor is commonly added to theſe compoſitions; but as it ſeldom incorporates properly with the water, it can be of little uſe. Boles and other earthy ſubſtances, as they do not diſſolve in water, are likewiſe unfit for this purpoſe.

Collyrium of Alum.---Take of alum, half a drachm; agitate it well together with the white of one egg.---This is the Collyrium of Riverius. It is uſed in inflammation of the eyes, to allay heat, and reſtrain the flux of humours. It muſt be ſpread upon linen, and applied to the eyes; but ſhould not be kept on above three or four hours at a time.

Vitriolic Collyrium.---Take of white vitriol, half a drachm; roſe-water, ſix ounces. Diſſolve the vitriol in the water, and filter the liquor.---This, though ſimple, is perhaps equal in virtue to moſt of the celebrated collyria. It is an uſeful application in weak, watery, and inflamed eyes. Though the ſlighter inflammations will generally yield to it, yet in thoſe of a more obſtinate nature the aſſiſtance of bleeding and bliſtering will often be neceſſary.---When a ſtrong aſtringent is judged proper, a double or triple quantity of the vitriol may be uſed. I have ſeen a ſolution of four times the ſtrength of the above uſed with manifeſt advantage.

Collyrium of Lead.---Take *acetated ceruſe* and crude ſal ammoniac, of each four grains. Diſſolve them in eight ounces of common water.---Forty or fifty drops of laudanum may be occaſionally added to this collyrium.---Thoſe who chuſe may ſubſtitute inſtead of this the collyrium of lead recommended by Goulard; which is made by putting twenty-five drops of his *Extract of Lead* (i. e. *water of acetated litharge*) to eight ounces of water, and adding a tea-ſpoonful of brandy.---Indeed, common water and brandy, without any other addition, will in many caſes anſwer very well as a collyrium. An ounce of the latter may be added to five or ſix ounces of the former, and the eyes, if weak, bathed with it night and morning.

CONFECTIONS.

CONFECTIONS containing above thirty ingredients are ſtill to be found in ſome of the moſt reformed diſpenſatories. As moſt of their intentions, however, may be more certainly and as effectually anſwered by a few glaſſes of wine or grains of opium, we ſhall paſs over this claſs of medicines very ſlightly.

Electuary of Catechu, commonly called Japonic Confection.---Take of catechu, three ounces; tormentil root, nutmeg, olibanum, of each two ounces; opium, diſſolved in a ſufficient quantity of Liſbon wine, a drachm and a half; ſimple ſyrup and conſerve of roſes, of each fourteen ounces. Mix and make them into an

electuary.---This ſupplies the place of the diaſcordium.---The doſe of this electuary is from a ſcruple to a drachm.

CONSERVES AND PRESERVES.

Every apothecary's ſhop was formerly ſo full of theſe preparations, that it might have paſſed for a confectioner's warehouſe. They poſſeſs very few medicinal properties, and may rather be claſſed among ſweetmeats than medicines. They are ſometimes, however, of uſe for reducing into boluſes or pills ſome of the more ponderous powders, as the preparations of iron, quickſilver, and tin. Conſerves are compoſitions of freſh vegetables and ſugar beaten together into an uniform maſs. In making theſe preparations, the leaves of vegetables muſt be freed from their ſtalks, the flowers from their cups, and the yellow part of orange-peel taken off with a raſp. They are then to be pounded in a marble mortar, with a wooden peſtle, into a ſmooth maſs; after which, thrice their weight of fine ſugar is commonly added by degrees, and the beating continued till they are uniformly mixed; but the conſerve will be better if only twice its weight of ſugar be added. Thoſe who prepare large quantities of conſerve generally reduce the vegetables to a pulp by the means of a mill, and afterwards beat them up with the ſugar.

Conſerve of Red Roſes.—Take a pound of red roſe buds, cleared of their heels; beat them well in a mortar, and, adding by degrees two pounds of double-refined ſugar, in powder, make a conſerve.—After the ſame manner are prepared the conſerves of orange-peel, roſemary flowers, ſea-wormwood, of the leaves of wood-ſorrel, &c. —The conſerve of roſes is one of the moſt agreeable and uſeful preparations belonging to this claſs. A drachm or two of it, diſſolved in warm milk, is ordered to be given as a gentle reſtringent in weakneſs of the ſtomach, and likewiſe in phthiſical coughs, and ſpitting of blood. To have any conſiderable effects, however, it muſt be taken in larger quantities.

Conſerve of Sloes.—This may be made by boiling the ſloes gently in water, being careful to take them out before they burſt; afterwards expreſſing the juice, and beating it up with three times its weight of fine ſugar.—In relaxations of the *uvula* and glands of the throat, this makes an excellent gargle, and may be uſed at diſcretion.

Preſerves are made by ſteeping or boiling freſh vegetables firſt in water, and afterwards in ſyrup, or a ſolution of ſugar. The ſubject is either preſerved moiſt in the ſyrup, or taken out and dried, that the ſugar may candy upon it. The laſt is the moſt uſeful method.

Candied Orange Peel.—Soak Seville orange-peel in ſeveral waters, till it loſes its bitterneſs; then boil it in a ſolution of double refined ſugar in water, till it becomes tender and tranſparent.—Candied lemon-peel is prepared in the ſame manner.—It is needleſs to add more of theſe preparations, as they belong rather to the art of the confectioner than that of the apothecary.

DECOCTIONS.

Water readily extracts the gummy and ſaline parts of vegetables; and though its action is chiefly confined to theſe, yet the reſinous and oily being intimately blended with the gummy and ſaline, are in great part taken up along with them. Hence watery decoctions and infuſions of vegetables conſtitute a large, and not unuſeful, claſs of me-

dicines. Although moſt vegetables yield their virtues to water, as well by infuſion as decoction, yet the latter is often neceſſary, as it ſaves time, and does in a few minutes what the other would require hours, and ſometimes days, to effect. The medicines of this claſs are all intended for immediate uſe.

Compound Decoction of Althæa, or Marshmallows.---Take of the roots of marſhmallows, moderately dried, two or three ounces; raiſins of the ſun, one ounce; water, three pints. Boil the ingredients in the water till one third of it is conſumed; afterwards ſtrain the decoction, and let it ſtand for ſome time to ſettle. If the roots be thoroughly dried, they muſt be boiled till one half of the water be conſumed.---In coughs, and ſharp defluxions upon the lungs, this decoction may be uſed for ordinary drink.

Decoction of the Cinchona.---Boil an ounce of Peruvian bark, groſsly powdered, in a pint and a half of water to one pint; then ſtrain the decoction. If a tea-ſpoonful of the *diluted acid of vitriol* be added to this medicine, it will render it both more agreeable and efficacious.

Compound Decoction of Peruvian Bark, or Cinchona.---Take of cinchona and Virginian ſnake-root, groſsly powdered, each three drachms. Boil them in a pint of water to one half. To the ſtrained liquor add an ounce and a half of aromatic water.---Sir John Pringle recommends this as a proper medicine towards the decline of malignant fevers, when the pulſe is low, the voice weak, and the head affected with a ſtupor but with little delirium.---The doſe is four ſpoonfuls every fourth or ſixth hour.

The Decoction for a Clyſter.---Take of camomile flowers, one ounce; elder flowers, and ſweet fennel ſeeds, of each half an ounce; water, two quarts. Boil them for a little, and then ſtrain the decoction.---A medicine equally good may be prepared by infuſing the ingredients for ſome hours in boiling water.--This decoction is chiefly intended as the baſis of clyſters, to which other ingredients may be occaſionally added. It will likewiſe ſerve as a common fomentation, ſpirit of wine or other things being added in ſuch quantity as the caſe may require.

Decoction of Barley.—Take of pearl-barley, two ounces; diſtilled water, four pints. Firſt waſh the barley with cold water from the adhering impurities, pour upon it about half a pint of water, and boil the barley a little time. This water being thrown away, add the diſtilled water, boiling, to the barley; boil it to two pints, and ſtrain.—This method of preparing barley-water produces a more elegant beverage for the ſick than the methods uſually employed by nurſes. This liquor is to be drank as a diluter in fevers and other diſorders. *Hippocrates*, the immortal Father of Phyſic, recommended it; and the practitioners of medicine in every ſucceeding age have found it to be an excellent nutrimental diluent. It has been well obſerved, that, "however trivial medicines of this claſs may appear to be, they are" often "of greater importance in the cure of diſeaſes than more elaborate preparations."

Decoction of Logwood.—Boil three ounces of the ſhavings or chips of logwood in four pints of water, till one half the liquor is

waſted. Two or three ounces of ſimple cinnamon-water may be added to this decoction.---In fluxes of the belly, where the ſtronger aſtringents are improper, a tea-cupful of this decoction may be taken with advantage three or four times a-day.

Decoction of Pomegranate-root.—Take of the freſh rind of the pomegranate-root, half an ounce; boil it in two cupfuls of water to one half. Half this quantity muſt be taken gradually, and the remainder at once. This occaſions ſickneſs and vomiting, but it is effectual in bringing away the *tænia*, or tape-worm.—This recipe has recently been communicated by Dr. Buchanan, one of the ſurgeons on the Bengal eſtabliſhment. We underſtand "two cupfuls" to be from ſix to eight ounces. Dr. B. ſays, he has ſeen this medicine exhibited in ſeveral caſes; and in none has it failed.—The preſence of this worm is attended by a ſenſe of great weight and uneaſineſs in the abdomen, an unuſual appetite, and conſtant craving for food.

Decoction of Sarſaparilla.---Take of freſh ſarſaparilla root, ſliced and bruiſed, two ounces; ſhavings of guaiacum wood, one ounce. Boil over a ſlow fire, in three quarts of water, to one; adding towards the end half an ounce of ſaſſafras wood, and three drachms of liquorice. Strain the decoction.—This may either be employed as an aſſiſtant to a courſe of mercurial alteratives, or taken after the mercury has been uſed for ſome time. It ſtrengthens the ſtomach, and reſtores fleſh and vigour to habits emaciated by the venereal diſeaſe. It may alſo be taken in the rheumatiſm, and cutaneous diſorders proceeding from foulneſs of the blood and juices. For all theſe intentions it is greatly preferable to the *Decoction of Woods.*—This decoction may be taken, from a pint and a half to two quarts in the day.—The following decoction is ſaid to be ſimilar to that uſed by *Kennedy*, in the cure of the venereal diſeaſe, and may ſupply the place of Liſbon diet drink: Take of ſarſaparilla, three ounces; liquorice and mezereon root, of each half an ounce; ſhavings of guaiacum and ſaſſafras wood, of each one ounce; crude antimony, powdered, an ounce and a half. Infuſe theſe ingredients in eight pints of boiling water for twenty-four hours, then boil them till one half of the water is conſumed; afterwards ſtrain the decoction.---This decoction may be uſed in the ſame manner as the preceding.

Decoction of Seneka.---Take of ſeneka rattleſnake root, one ounce; water, a pint and a half. Boil to one pint, and ſtrain.---This decoction is recommended in the croup, pleuriſy, dropſy, rheumatiſm, and ſome obſtinate diſorders of the ſkin. The doſe is two ounces three or four times a-day, or oftener, if the ſtomach will bear it.

Compound Decoction of Chalk, or White Decoction.---Take of the pureſt chalk, in powder, two ounces; gum arabic, half an ounce; water, three pints. Boil to one quart, and ſtrain the decoction.---This is a proper drink in acute diſeaſes, attended with or inclining to a looſeneſs, and where acidities abound in the ſtomach or bowels. It is peculiarly proper for children when afflicted with ſourneſs of the ſtomach, and for perſons who are ſubject to the heartburn. It may be ſweetened with ſugar, as it is uſed, and two or three ounces of ſimple cinnamon-water added to it.---An ounce of

powdered chalk, mixed with two pints of water, will occaſionally ſupply the place of this decoction, and alſo of the chalk mixture of the London Pharmacopœia.

DRAUGHTS.

THIS is a proper form for exhibiting ſuch medicines as are intended to operate immediately, and which do not need to be frequently repeated, as purges, vomits, and a few others, which are to be taken at one doſe. Where a medicine requires to be uſed for any length of time, it is better to make up a larger quantity of it at once, which ſaves both trouble and expence.

Anodyne Draught.---Take of tincture of opium, twenty-five drops; ſimple cinnamon-water, an ounce; common ſyrup, two drachms. Mix them.---In exceſſive pain, where bleeding is not neceſſary, and in great reſtleſſneſs, this compoſing draught may be taken and repeated occaſionally.

Diuretic Draught.---Take of the acetated kali, two ſcruples; ſyrup of poppies, two drachms; ſimple cinnamon-water, and common water, of each one ounce.---This draught is of ſervice in an obſtruction or deficiency of urine.

Purging Draughts.---Take of manna, an ounce; tartarized kali, or Rochelle ſalt, from three to four drachms. Diſſolve in three ounces of boiling water; to which add Jamaica pepper-water, half an ounce.---As manna ſometimes will not ſit upon the ſtomach, an ounce or ten drachms of the vitriolated magneſia, diſſolved in four ounces of water, may be taken inſtead of the above.---Thoſe who cannot take ſalts, may uſe the following draught: Take of jalap in powder, a ſcruple; common water, an ounce; aromatic tincture, ſix drachms. Rub the jalap with twice its weight of ſugar, and add to it the other ingredients.

Sweating Draughts.---Take water of acetated ammonia, two ounces; ſalt of hartſhorn, five grains; ſimple cinnamon-water, and ſyrup of poppies, of each half an ounce. Make them into a draught. ---In recent colds and rheumatic complaints, this draught is of ſervice. To promote its effects, however, the patient ought to drink freely of warm water-gruel, or of ſome other weak diluting liquor, in bed.

Vomiting Draughts.---Take of ipecacuanha, in powder, a ſcruple; water, an ounce; ſimple ſyrup, a drachm. Mix them.---Perſons who require a ſtronger vomit may add to the above half a grain, or a grain, of tartarized antimony.---Thoſe who do not chuſe the powder, may take ten drachms of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the ſyrup of ſquills.

ELECTUARIES.

ELECTUARIES are generally compoſed of the lighter powders, mixed with ſyrup, honey, conſerve, or mucilage, into ſuch a conſiſtence, that the powders may neither ſeparate by keeping, nor the maſs prove too ſtiff for ſwallowing. They receive chiefly the milder alterative medicines, and ſuch as are not ungrateful to the palate. Aſtringent electuaries, and ſuch as have pulps of fruit in them, ſhould be prepared only in ſmall quantities; as aſtringent medicines

loſe their virtues by being kept in this form, and the pulps of fruits are apt to ferment.

For the extraction of pulps it will be neceſſary to boil unripe fruits, and ripe ones, if they are dried, in a ſmall quantity of water till they become ſoft. The pulp is then to be preſſed out through a ſtrong hair ſieve, or thin cloth, and afterwards boiled to a due conſiſtence, in an earthen veſſel, over a gentle fire, taking care to prevent the matter from burning by continually ſtirring it. The pulps of fruit that are both ripe and freſh may be preſſed out without any previous boiling.

Electuary of Senna, or Lenitive Electuary.—Take of ſenna, in fine powder, eight ounces; coriander ſeed, alſo in powder, four ounces; pulp of tamarinds and of French prunes, each a pound. Mix the pulps and powders together, and with a ſufficient quantity of ſimple ſyrup reduce the whole into an electuary.---A tea-ſpoonful of this electuary, taken two or three times a-day, generally proves an agreeable laxative. It likewiſe ſerves as a convenient vehicle for exhibiting more active medicines, as jalaps, ſcammony, and ſuch like. ---This may ſupply the place of the electuary of *caſſia*.

Electuary for the Dyſentery.---Take of the confection of catechu, two ounces; Locatelli's balſam, one ounce; rhubarb in powder, half an ounce; ſyrup of marſhmallows, enough to make an electuary.---It is often dangerous in dyſenteries to give opiates and aſtringents, without interpoſing purgatives. The purgative is here joined with theſe ingredients, which renders this a very ſafe and uſeful medicine for the purpoſes expreſſed in the title.---About the bulk of a nutmeg ſhould be taken twice or thrice a-day, as the ſymptoms and conſtitution may require.

Electuary for the Epilepſy.---Take of Peruvian bark, in powder, an ounce; of powdered tin, and wild valerian root, each half an ounce; ſimple ſyrup, enough to make an electuary.---Dr. Mead directs a drachm of an electuary ſimilar to this to be taken evening and morning, in the epilepſy, for the ſpace of three months. It will be proper, however, to diſcontinue the uſe of it for a few days every now and then. I have added the powdered tin, becauſe the epilepſy often proceeds from worms.

Electuary for the Gonorrhœa.---Take of the electuary of ſenna, three ounces; jalap and rhubarb, in powder, of each two drachms; nitre, half an ounce; ſimple ſyrup, enough to make an electuary.---During the inflammation and tenſion of the urinary paſſages which accompany a virulent gonorrhœa, this cooling laxative may be uſed with advantage.---The doſe is a drachm, or about the bulk of a nutmeg, two or three times a-day; more or leſs, as may be neceſſary to keep the body gently open.---An electuary made of cream of tartar and ſimple ſyrup will occaſionally ſupply the place of this.---After the inflammation is gone off, the following electuary may be uſed: Take of lenitive electuary (electuary of ſenna), two ounces; balſam of capivi, one ounce; gum guaiacum and rhubarb, in powder, of each two drachms; ſimple ſyrup, enough to make an electuary. The doſe is the ſame as of the preceding.

Electuary of Cinchona Bark.---Take of cinchona bark, in powder, three ounces; caſcarilla, half an ounce; ſyrup of ginger, enough to make an electuary. The ſize of a nutmeg to be taken three or four times a-day.---In the cure of obſtinate intermitting fevers, the bark is aſſiſted by the caſcarilla. In hectic habits, however, it will be better to leave out the caſcarilla, and put three drachms of crude ſal ammoniac in its ſtead.

Electuary for the Piles.---Take flowers of ſulphur one ounce; cream of tartar, half an ounce; treacle a ſufficient quantity to form an electuary.---A tea-ſpoonful of this may be taken three or four times a-day.

Electuary for the Palſy.---Take of powdered muſtard-ſeed, and conſerve of roſes, each an ounce; ſyrup of ginger, enough to make an electuary.---A tea-ſpoonful of this may be taken three or four times a-day.

Electuary for the Rheumatiſm.---Take of conſerve of roſes, two ounces; cinnabar of antimony, levigated, an ounce and a half; gum guaiacum, in powder, an ounce; ſyrup of ginger, a ſufficient quantity to make an electuary.---In obſtinate rheumatiſms, which are not accompanied with a fever, a tea-ſpoonful of this electuary may be taken twice a-day with conſiderable advantage.

EMULSIONS.

Emulsions, beſide their uſe as medicines, are alſo proper vehicles for certain ſubſtances which could not otherwiſe be conveniently taken in a liquid form. Thus camphor, triturated with almonds, readily unites with water into an emulſion. Pure oils, balſams, reſins, and other ſimilar ſubſtances, are likewiſe rendered miſcible with water by the intervention of mucilages.

Milk of Almonds, or Common Emulſion.---Take of ſweet almonds, an ounce and a half; refined ſugar, half an ounce; water, two pints.---Let the almonds be blanched, and beat up in a marble mortar with the ſugar, adding the water by little and little, ſo as to make an emulſion; afterwards let it be ſtrained.

Arabic Emulſion.---This is made in the ſame manner as the above, adding to the almonds, while beating, two ounces and a half of the mucilage of gum arabic.---Where ſoft cooling liquors are neceſſary, theſe emulſions may be uſed as ordinary drink.

Camphorated Emulſion.---Take of camphor, half a drachm; ſweet almonds, half a dozen; white ſugar, half an ounce; mint water, eight ounces. Grind the camphor and almonds well together in a ſtone mortar, and add by degrees the mint water; then ſtrain the liquor, and diſſolve it in the ſugar.---In fevers, and other diſorders which require the uſe of camphor, a table-ſpoonful of this emulſion may be taken every two or three hours.

Oily Emulſion.---Take of ſoft water, ſix ounces; compound ſpirit of ammonia, two drachms; Florence oil, an ounce: ſhake them well together, and add, of ſimple ſyrup, half an ounce.---In recent colds and coughs, this emulſion is generally of ſervice; but if the cough proves obſtinate, it will ſucceed better when made with the tincture of opium ammoniated of the Edinburgh Diſpenſatory, inſtead of the volatile aromatic ſpirit. A table-ſpoonful of it may be taken every two or three hours.

EXTRACTS.

EXTRACTS are prepared by boiling the ſubject in water, and evaporating the ſtrained decoction to a due conſiſtence. By this proceſs ſome of the more active parts of plants are freed from the uſeleſs, indiſſoluble earthy matter which makes the larger ſhare of their bulk. Water, however, is not the only menſtruum uſed in the preparation of extracts: ſometimes it is joined with ſpirits, and at other times rectified ſpirit alone is employed for that purpoſe. Extracts are prepared from a variety of different drugs, as the bark, gentian, jalap, &c.; but as they require a troubleſome and tedious operation, it will be more convenient for a private practitioner to purchaſe what he needs of them from a profeſſed druggiſt, than to prepare them himſelf. Such of them as are generally uſed are inſerted in our liſt of ſuch drugs and medicines as are to be kept for private practice.

FOMENTATIONS.

FOMENTATIONS are generally intended either to eaſe pain, by taking off tenſion and ſpaſm; or to brace and reſtore the tone and vigour of thoſe parts to which they are applied. The firſt of theſe intentions may generally be anſwered by warm water, and the ſecond by cold. Certain ſubſtances, however, are uſually added to water with a view to heighten its effects, as anodynes, aromatics, aſtringents, &c. We ſhall, therefore, ſubjoin a few of the moſt uſeful fomentations, that people may have it in their power to make uſe of them if they chuſe.

Anodyne Fomentation.--Take of white poppy-heads, two ounces; elder flowers, half an ounce; water, three pints. Boil till one pint is evaporated, and ſtrain out the liquor.---This fomentation, as its title expreſſes, is uſed for relieving acute pain.

Aromatic Fomentation.---Take of Jamaica pepper, half an ounce; red wine, a pint. Boil them for a little, and then ſtrain the liquor. ---This is intended, not only as a topical application for external complaints, but alſo for relieving the internal parts. Pains of the bowels, which accompany dyſenteries and diarrhœas, flatulent colics, uneaſineſs of the ſtomach, and retchings to vomit, are frequently abated by fomenting the abdomen and region of the ſtomach with the warm liquor.

Decoction for Fomentation.---Take tops of wormwood and camomile flowers, dried, of each two ounces; water, two quarts. After a ſlight boiling, pour off the liquor.---Brandy or ſpirit of wine may be added to this fomentation, in ſuch quantity as the particular circumſtances of the caſe ſhall require; but theſe are not always neceſſary.

Emollient Fomentation.--This is the ſame as the common decoction.

Strengthening Fomentation.---Take of oak bark, one ounce; granate peel, half an ounce; alum, two drachms; ſmith's forge water, three pints. Boil the water with the bark and peel to the conſumption of one-third; then ſtrain the remaining decoction, and diſſolve in it the alum.---This aſtringent liquor is employed as an external fomentation to weak parts: it may alſo be uſed internally.

GARGLES.

HOWEVER trifling this claſs of medicines may appear, they are by

no means without their uſe. They ſeldom indeed cure diſeaſes, but they often alleviate very diſagreeable ſymptoms; as parchedneſs of the mouth, foulneſs of the tongue and fauces, &c. They are peculiarly uſeful in fevers and ſore throats. In the latter, a gargle will ſometimes remove the diſorder; and in the former few things are more refreſhing or agreeable to the patient, than to have his mouth frequently waſhed with ſome ſoft detergent gargle. One advantage of theſe medicines is, that they are eaſily prepared. A little barley-water and honey may be had any where; and if to theſe be added as much vinegar as will give them an agreeable ſharpneſs, they will make a very uſeful gargle for ſoftening and cleanſing the mouth.---Gargles have the beſt effect when injected with a ſyringe.

Attenuating Gargle.---Take of water, ſix ounces; honey, one ounce; nitre, a drachm and a half. Mix them.---This cooling gargle may be uſed either in the inflammatory quinſey, or in fevers, for cleaning the tongue and fauces.

Common Gargle.---Take of roſe-water, ſix ounces; ſyrup of clove July-flowers, half an ounce; ſpirit of vitriol, a ſufficient quantity to give it an agreeable ſharpneſs. Mix them.---This gargle, beſides cleanſing the tongue and fauces, acts as a gentle repellent, and will ſometimes remove a ſlight quinſey.

Detergent Gargle.---Take of the emollient gargle, a pint; tincture of myrrh, an ounce; honey, two ounces. Mix them.---When exulcerations require to be cleanſed, or the excretion of tough viſcid ſaliva promoted, this gargle will be of ſervice.

Emollient Gargle.---Take an ounce of marſhmallow roots, and two or three figs: boil them in a quart of water till near one half of it be conſumed; then ſtrain out the liquor.---If an ounce of honey, and half an ounce of *water of ammonia,* be added to the above, it will then be an exceeding good *attenuating gargle.*---This gargle is beneficial in fevers, where the tongue and fauces are rough and parched, to ſoften theſe parts, and promote the diſcharge of ſaliva.---The learned and accurate Sir John Pringle obſerves, that in the inflammatory quinſey, or ſtrangulation of the fauces, little benefit ariſes from the common gargles; that ſuch as are of an acid nature do more harm than good, by contracting the emunctories of the ſaliva and mucus, and thickening thoſe humours; that a decoction of figs in milk and water has a contrary effect, eſpecially if ſome ſal-ammoniac be added, by which the ſaliva is made thinner, and the glands brought to ſecrete more freely; a circumſtance always conducive to the cure.

INFUSIONS.

VEGETABLES yield nearly the ſame properties to water by infuſion as by decoction; and though they may require a longer time to give out their virtues in this way, yet it has ſeveral advantages over the other; ſince boiling is found to diſſipate the finer parts of many bitter and aromatic ſubſtances, without more fully extracting their medicinal principles.---The author of the New Diſpenſatory obſerves, that even from thoſe vegetables which are weak in virtue rich infuſions may be obtained, by returning the liquor upon freſh quantities of the ſubject, the water loading itſelf more and more with the

active parts; and that these loaded infusions are applicable to valuable purposes in medicine, as they contain in a small compass the finer, more subtile, and active principles of vegetables, in a form readily miscible with the fluids of the human body.

Bitter Infusion.---Take tops of the lesser centaury and camomile flowers, of each half an ounce; yellow rind of lemon and orange peel, carefully freed from the inner white part, of each two drachms. Cut them in small pieces, and infuse them in a quart of boiling water.---For indigestion, weakness of the stomach, or want of appetite, a tea-cupful of this infusion may be taken twice or thrice a-day.

Infusion of Cinchona.—To an ounce of the Peruvian bark, in powder, add four or five table-spoonfuls of brandy, and a pint of boiling water. Let them infuse for two or three days.---This is one of the best preparations of the bark for weak stomachs. In disorders where the corroborating virtues of that medicine are required, a tea-cupful of it may be taken two or three times a-day.

Infusion of Carduus.—Infuse an ounce of the dried leaves of carduus benedictus, or blessed thistle, in a pint of common water, for six hours, without heat; then filter the liquor through paper.—This light infusion may be given, with great benefit, in weakness of the stomach, where the common bitters do not agree. It may be flavoured at pleasure with cinnamon, or other aromatic materials.

Infusion of Linseed.—Take of linseed, two spoonfuls; liquorice root, sliced, half an ounce; boiling water, three pints. Let them stand to infuse by the fire for some hours, and then strain off the liquor.—If an ounce of the leaves of colt's foot be added to these ingredients, it will then be the *Pectoral Infusion.* Both these are emollient mucilaginous liquors, and may be taken with advantage as ordinary drink in difficulty of making water, and in coughs and other complaints of the breast.

Infusion of Roses.---Take of red roses, dried, half an ounce; boiling water, a quart; vitriolic acid, commonly called oil of vitriol, half a drachm; loaf sugar, an ounce. Infuse the roses in the water for four hours, in an unglazed earthen vessel; afterwards pour in the acid, and having strained the liquor, add to it the sugar.---In an excessive flow of the *menses,* vomiting of blood, and other hæmorrhages, a tea-cupful of this gently astringent infusion may be taken every three or four hours. It likewise makes an exceeding good gargle.---As the quantity of roses used here can have little or no effect, an equally valuable medicine may be prepared by mixing the acid and water without infusion.

Infusion of Tamarinds and Senna.—Take of tamarinds, one ounce; senna, and crystals of tartar, each two drachms. Let these ingredients be infused four or five hours in a pint of boiling water; afterwards let the liquor be strained, and an ounce or two of the aromatic tincture added to it. Persons who are easily purged may leave out either the tamarinds or the crystals of tartar.---This is an agreeable cooling purge. A tea-cupful may be given every half hour till it operates.---This supplies the place of the *Decoction of Tamarinds and Senna.*

Spanish Infusion.---Take of Spanish juice, cut into small pieces,

an ounce; ſalt of tartar, three drachms. Infuſe in a quart of boiling water for a night. To the ſtrained liquor add an ounce and an half of the ſyrup of poppies.—In recent colds, coughs, and obſtructions of the breaſt, a tea-cupful of this infuſion may be taken with advantage three or four times a-day.

Infuſion for the Palſy.—Take of horſe-radiſh root ſhaved, muſtard-ſeed bruiſed, each four ounces; outer rind of orange peel, one ounce. Infuſe them in two quarts of boiling water, in a cloſe veſſel, for twenty-four hours.---In paralytic complaints, a tea-cupful of this ſtimulating medicine may be taken three or four times a-day. It excites the action of the ſolids, proves diuretic, and, if the patient be kept warm, promotes perſpiration.---If two or three ounces of the dried leaves of marſh-trefoil be uſed inſtead of the muſtard, it will make the *Antiſcorbutic Infuſion.*

JULEPS *(now generally termed* Mixtures).

The baſis of Juleps is generally common water, or ſome ſimple diſtilled water, with one-third or one-fourth its quantity of diſtilled ſpirituous water, and as much ſugar or ſyrup as is ſufficient to render the mixture agreeable. This is ſharpened with vegetable or mineral acids, or impregnated with other medicines ſuitable to the intention.

Camphorated Julep.—Take of camphor, one drachm; rectified ſpirit of wine, ten drops; double refined ſugar, half an ounce; boiling diſtilled water, one pint. Rub the camphor firſt with the ſpirit of wine, then with the ſugar; laſtly, add the water by degrees, and ſtrain the liquor.---In hyſterical and other complaints where camphor is proper, this julep may be taken in the doſe of a ſpoonful or two as often as the ſtomach will bear it.

Cordial Julep.—Take of ſimple cinnamon-water, four ounces; Jamaica pepper-water, two ounces; volatile aromatic ſpirit, and compound ſpirit of lavender, of each two drachms; ſyrup of orange-peel, an ounce. Mix them.---This is given in the doſe of two ſpoonfuls three or four times a-day, in diſorders accompanied with great weakneſs and depreſſion of ſpirits.

Expectorating Julep.—Take of the milk of gum ammoniac, ſix ounces; ſyrup of ſquills, two ounces. Mix them.---In coughs, aſthmas, and obſtructions of the breaſt, two table-ſpoonfuls of this julep may be taken every three or four hours.

Muſk Julep.—Rub half a drachm of muſk well together with half an ounce of ſugar, and add to it, gradually, of ſimple cinnamon and peppermint-water, each two ounces; of the volatile aromatic ſpirit, two drachms.---In the low ſtate of nervous fevers, hiccuping, convulſions, and other ſpaſmodic affections, two table-ſpoonfuls of this julep may be taken every two or three hours.

Saline Julep.---Diſſolve two drachms of ſalt of tartar in three ounces of freſh lemon-juice, ſtrained: when the effervеſcence is over, add, of mint-water, and common water, each two ounces; of ſimple ſyrup, one ounce.---This removes ſickneſs at the ſtomach, relieves vomiting, promotes perſpiration, and may be of ſome ſervice in fevers, eſpecially of the inflammatory kind.

Vomiting Julep.---Diſſolve four grains ofttartarized antimony in eight ounces of water, and add to it half an ounce of the ſyrup of clove July-flowers.---In the beginning of fevers, where there is no topical inflammation, this julep may be given in the doſe of one table-ſpoonful every quarter of an hour till it operates. Antimonial vomits ſerve not only to evacuate the contents of the ſtomach, but likewiſe to promote the different excretions. Hence they are found in fevers to have nearly the ſame effects as Dr. *James's Powder.*

MILK.

Milk of Gum Ammoniac.—Take of gum ammoniac two drachms, of diſtilled water half a pint. Rub the gum reſin in a mortar with the water, gradually poured on, till it be diſſolved and become an emulſion; then ſtrain the liquor.

Ammoniacum Milk (or, as it was formerly called, Emulſion of Gum Ammoniac) is uſed for attenuating tough viſcid phlegm, and promoting expectoration. In obſtinate coughs, two ounces of the ſyrup of poppies may be added to it. The doſe is two table-ſpoonfuls three or four times a-day.

Goat's Milk is ſometimes uſed with the moſt happy ſucceſs in hyſteric caſes. Goat's whey and aſs's milk are chiefly uſed in pulmonary conſumptions; and where aſs's milk cannot be got, that of mares may be uſed as a ſubſtitute. There are ſeveral formula for preparing *artificial aſſes milk*; perhaps the following is one of the beſt, and not much inferior in its properties to the natural: Take of erringo-root or ſea holly, and pearl barley, each half an ounce; liquorice root, three ounces; water, two pounds, or one quart: boil it down over a gentle fire to one pint; then ſtrain it, and add an equal quantity of new cow's milk. This, if poſſible, as being the beſt, ſhould be obtained from the cow at three or four years of age, about three months after producing the calf.

Almonds, Milk of. See *Emulſions.*

MIXTURES.

A MIXTURE differs from a julep in this reſpect, that it receives into its compoſition not only ſalts, extracts, and other ſubſtances diſſoluble in water, but alſo earths, powders, and ſuch ſubſtances as cannot be diſſolved. A mixture is ſeldom either an elegant or agreeable medicine. It is nevertheleſs neceſſary. Many perſons can take a mixture, who are not able to ſwallow a bolus or an electuary: beſides, there are medicines which act better in this than in any other form.

Aſtringent Mixture.---Take ſimple cinnamon-water, and common water, of each three ounces; ſpirituous cinnamon-water, an ounce and a half; confection of catechu, half an ounce. Mix them.---In dyſenteries which are not of long ſtanding, after the neceſſary evacuations, a ſpoonful or two of this mixture may be taken every four hours, interpoſing every ſecond or third day a doſe of rhubarb.

Diuretic Mixture.---Take of mint-water, five ounces; vinegar of ſquills, ſix drachms; ſpirit of nitrous ether, half an ounce; ſyrup of ginger, an ounce and a half. Mix them.---In obſtructions of the

urinary paſſages, two ſpoonfuls of this mixture may be taken twice or thrice a-day.

Laxative Abſorbent Mixture.---Rub one drachm of magneſia alba in a mortar with ten or twelve grains of the beſt Turkey rhubarb, and add to them three ounces of common water; ſimple cinnamon-water, and ſyrup of ſugar, of each one ounce.---As moſt diſeaſes of infants are accompanied with acidities, this mixture may either be given with a view to correct theſe, or to open the body. A table-ſpoonful may be taken for a doſe, and repeated three times a-day. To a very young child half a ſpoonful will be ſufficient.---When the mixture is intended to purge, the doſe may either be increaſed, or the quantity of rhubarb doubled.---This is one of the moſt generally uſeful medicines for children with which we are acquainted.

Saline Mixture.---Diſſolve a drachm of the ſalt of tartar in four ounces of boiling water, and, when cold, drop into it vitriolic acid till the effervеſcence ceaſes; then add, of peppermint-water, two ounces; ſimple ſyrup, one ounce.---Where freſh lemons cannot be had, this mixture may occaſionally ſupply the place of the ſaline julep.

Squill Mixture.---Take of ſimple cinnamon-water, five ounces; vinegar of ſquills, one ounce; ſyrup of marſhmallows, an ounce and a half. Mix them.---This mixture, by promoting expectoration and the ſecretion of urine, proves ſerviceable in aſthmatic and dropſical habits. A table-ſpoonful of it may be taken frequently.

Mucilage of Gum Arabic.---Take of gum arabic, four ounces; boiling diſtilled water, eight ounces, or half a pint. Rub the gum with the water, and frequently ſtir them until the gum be diſſolved. Place a bit of linen in a funnel, and ſtrain the mucilage to diveſt it of impurities.---The mucilage of gum arabic is very uſeful in many operations of pharmacy; it is alſo much uſed for properties peculiar to ſubſtances of its own claſs, as of all the gums it ſeems to be the pureſt.

OINTMENTS, LINIMENTS, and CERATES.

NOTWITHSTANDING the extravagant encomiums which have been beſtowed on different preparations of this kind, with regard to their efficacy in the cure of wounds, ſores, &c. it is beyond a doubt that the moſt proper application to a green wound is dry lint. But though ointments do not heal wounds and ſores, yet they ſerve to defend them from the external air, and to retain ſuch ſubſtances as may be neceſſary for drying, deterging, deſtroying proud fleſh, and ſuch like. For theſe purpoſes, however, it will be ſufficient to inſert only a few of the moſt ſimple forms, as ingredients of a more active nature can occaſionally be added to them.

Ointment of Yellow Reſin, or Yellow Baſilicum Ointment.---Take of yellow-wax, white reſin, and frankincenſe, each a quarter of a pound; melt them together over a gentle fire; then add, of hogs' lard prepared, one pound. Strain the ointment while warm.---This ointment is employed for cleanſing and healing wounds and ulcers.

Emollient Ointment.---Take of palm oil, two pounds; olive oil, a pint and a half; yellow wax, half a pound; Venice turpentine, a

quarter of a pound. Melt the wax in the oils over a gentle fire; then mix in the turpentine, and ſtrain the ointment.---This ſupplies the place of ointment of marſhmallows. It may be uſed for anointing inflamed parts, &c.

Ointment for the Eyes.---Take of hogs' lard prepared, four ounces; white wax, two drachms; tutty prepared, one ounce: melt the wax with the lard over a gentle fire, and then ſprinkle in the tutty, continually ſtirring them till the ointment is cold. This ointment will be more efficacious, and of a better conſiſtence, if two or three drachms of camphor be rubbed up with a little oil, and intimately mixed with it.

Another.---Take of camphor, and calamine ſtone levigated, each ſix drachms; verdigriſe well prepared, two drachms; hogs' lard and mutton ſuet, prepared, of each two ounces. Rub the camphor well with the powder; afterwards mix in the lard and ſuet, continuing the triture till they be perfectly united. This ointment has been long in eſteem for diſeaſes of the eyes: it ought, however, to be uſed with caution, when the eyes are much inflamed or very tender.

Iſſue Ointment.---Mix half an ounce of Spaniſh flies, finely powdered, in ſix ounces of ointment of yellow wax.---This ointment is chiefly intended for dreſſing bliſters, in order to keep them open during pleaſure.

Ointment of Acetated Ceruſe.---Take of olive oil, half a pint; white wax, two ounces; acetated ceruſe, three drachms. Let the acetated ceruſe, reduced into a fine powder, be rubbed up with ſome part of the oil, and afterwards added to the other ingredients, previouſly melted together, continually ſtirring them till quite cold.---This cooling and gently aſtringent ointment may be uſed in all caſes where the intention is to dry and ſkin over the part, as in ſcalding, &c.

Ointment of Quickſilver.---Take of quickſilver, two ounces; hogs' lard, three ounces; mutton ſuet, one ounce. Rub the quickſilver with an ounce of hogs' lard in a warm mortar, till the globules be perfectly extinguiſhed; then rub it up with the reſt of the lard and ſuet, previouſly melted together.---The principal intention of this ointment is to convey mercury into the body by being rubbed upon the ſkin.

Ointment of Sulphur.---Take of hogs' lard prepared, four ounces; flowers of ſulphur, an ounce and a half; crude ſal ammoniac, two drachms; eſſence of lemon, ten or twelve drops. Make them into an ointment.---This ointment, rubbed upon the parts affected, will generally cure the itch. It is both the ſafeſt and beſt application for that purpoſe, and, when made in this way, has no diſagreeable ſmell.

Ointment of Spermaceti.---Take of olive oil, one pint; white wax and ſpermaceti, of each three ounces. Melt them with a gentle heat, and keep them conſtantly and briſkly ſtirring together, till quite cold.---If two drachms of camphor, previouſly rubbed with a ſmall quantity of oil, be added to the above, it will make the *White Camphorated Ointment*.

Liniment for Burns.---Take equal parts of Florence oil, or of

freſh drawn linſeed oil, and lime-water; ſhake them well together in a wide mouthed bottle, ſo as to form a liniment.---This is found to be an exceeding proper application for recent ſcalds or burns. It may either be ſpread upon a cloth, or the parts affected may be anointed with it twice or thrice a-day.

White Liniment.---This is made in the ſame manner as the ointment of ſpermaceti, two thirds of the wax being left out.---This liniment may be applied in caſes of excoriation, where, on account of the largeneſs of the ſurface, the ointments with lead or calamine might be improper.

Liniment for the Piles.---Take of emollient ointment, two ounces; liquid laudanum, or tincture of opium, half an ounce. Mix theſe ingredients with the yolk of an egg; and work them well together.

Liniment of Ammonia, or, Volatile Liniment.—Take of Florence oil, an ounce; volatile liquor of hartſhorn, half an ounce. Shake them together.---This liniment, made with equal parts of the ſpirit and oil, will be more efficacious, where the patient's ſkin is able to bear it.---Sir John Pringle obſerves, that, in the inflammatory quinſey, a piece of flannel moiſtened with this liniment, and applied to the throat, to be renewed every four or five hours, is one of the moſt efficacious remedies; and that it ſeldom fails, after bleeding, either to leſſen or carry off the complaint. The truth of this obſervation I have often experienced.

Camphorated Oil.---Rub an ounce of camphor, with two ounces of Florence oil, in a mortar, till the camphor be entirely diſſolved.---This antiſpaſmodic liniment may be uſed in obſtinate rheumatiſms, and in ſome other caſes accompanied with extreme pain and tenſion of the parts.

PILLS.

MEDICINES which operate in a ſmall doſe, and whoſe diſagreeable taſte or ſmell makes it neceſſary that they ſhould be concealed from the palate, are moſt commodiouſly exhibited in this form. No medicine, however, that is intended to operate quickly ought to be made into pills, as they often lie for a conſiderable time on the ſtomach before they are diſſolved, ſo as to produce any effect. As the ingredients which enter the compoſition of pills are generally ſo contrived, that one pill of an ordinary ſize may contain about five grains of the compound, in mentioning the doſe we ſhall only ſpecify the number of pills to be taken; as one, two, three, &c.

Anodyne Pill.---Take of purified opium, ten grains; Caſtile ſoap, half a drachm. Beat them together, and form the whole into twenty pills.---When a quieting draught will not ſit upon the ſtomach, one, two, or three, of theſe pills may be taken, as occaſion requires.

Aſafœtida Pill.---Take of aſafœtida, half an ounce; ſimple ſyrup, as much as is neceſſary to form it into pills.---In hyſteric complaints, four or five pills, of an ordinary ſize, may be taken twice or thrice a-day. They may likewiſe be of ſervice to perſons afflicted with the aſthma.---When it is neceſſary to keep the body open, a proper quantity of rhubarb, aloes, or jalap, may occaſionally be added to the above maſs.

Hemlock Pill.---Take any quantity of the inſpiſſated juice of hemlock, and adding to it about a fifth part its weight of the powder of the dried leaves, form it into pills of the ordinary ſize.---The extract of hemlock may be taken from one grain to ſeveral drachms in the day. The beſt method, however, of uſing theſe pills, is to begin with one or two, and to increaſe the doſe gradually, as far as the patient can bear them, without any remarkable degree of ſtupor or giddineſs.

Quickſilver or Mercurial Pill.---Take of purified quickſilver and honey, each half an ounce. Rub them together in a mortar, till the globules of mercury are perfectly extinguiſhed; then add, of Caſtile ſoap, two drachms; powdered liquorice, or crumb of bread, a ſufficient quantity to give the maſs a proper conſiſtence for pills.---When ſtronger mercurial pills are wanted, the quantity of quickſilver may be doubled.---The doſe of theſe pills is different, according to the intention with which they are given. As an alterant, two or three may be taken daily. To raiſe a ſalivation, four or five will be neceſſary. ---Equal parts of the above pill and powdered rhubarb made into a maſs, with a ſufficient quantity of ſimple ſyrup, will make a *Mercurial purging Pill.*

Pill of Muriated Quickſilver.---Diſſolve fifteen grains of the corroſive ſublimate of mercury in two drachms of the ſaturated ſolution of crude ſal ammoniac, and make it into a paſte, in a glaſs mortar, with a ſufficient quantity of the crumb of bread. This maſs muſt be formed into one hundred and twenty pills.---This pill, which is the moſt agreeable form of exhibiting the ſublimate, has been found efficacious, not only in curing the venereal diſeaſe, but alſo in killing and expelling *worms*, after other powerful medicines had failed.---For the venereal diſeaſe, four of theſe pills may be taken twice a-day, as an alterant three, and for worms two.

Alterative, or Plummer's Pill.---Take of calomel, and precipitated ſulphur of antimony, each three drachms; extract of liquorice, two drachms. Rub the ſulphur and mercury well together: afterwards add the extract, and, with a ſufficient quantity of the mucilage of gum arabic, make them into pills.---This pill has been found a ſafe alterative in obſtinate cutaneous diſorders, and has completed a cure after ſalivation had failed. In venereal caſes it has likewiſe produced excellent effects. Two or three pills of an ordinary ſize may be taken night and morning, the patient keeping moderately warm, and drinking after each doſe a draught of decoction of the woods, or of ſarſaparilla.

Purging Pills.---Take of ſuccotrine aloes, and Caſtile ſoap, each two drachms; of ſimple ſyrup, a ſufficient quantity to make them into pills.---Four or five of theſe pills will generally prove a ſufficient purge. For keeping the body gently open, one may be taken night and morning. They are reckoned both deobſtruent and ſtomachic, and will be found to anſwer all the purpoſes of Dr. Anderſon's pills, the principal ingredient of which is aloes.---Where aloetic purges are improper, the following pills may be uſed: Take extract of jalap, and vitriolated kali, of each two drachms; ſyrup of ginger, as much as will make them of a proper conſiſtence for pills.---Theſe pills may be taken in the ſame quantity as the above.

Pill for the Jaundice.---Take of Caſtile ſoap, ſuccotrine aloes, and rhubarb, of each one drachm. Make them into pills with a ſufficient quantity of ſyrup or mucilage.---Theſe pills, as their title expreſſes, are chiefly intended for the jaundice, which, with the aſſiſtance of proper diet, they will often cure. Five or ſix of them may be taken twice a-day, more or leſs, as is neceſſary to keep the body open. It will be proper, however, during their uſe, to interpoſe now and then a vomit of ipecacuanha or tartarized antimony.

Stomachic Pill.---Take of extract of gentian, two drachms; powdered rhubarb and vitriolated kali, of each one drachm; oil of mint, thirty drops; ſimple ſyrup, a ſufficient quantity.---Three or four of theſe pills may be taken twice a day, for invigorating the ſtomach, and keeping the body gently open.

Squill Pill.---Take powder of dried ſquills, a drachm and a half; gum ammoniac, and cardamom ſeeds, in powder, of each three drachms; ſimple ſyrup, a ſufficient quantity.---In dropſical and aſthmatic complaints, two or three of theſe pills may be taken twice a-day, or oftener, if the ſtomach will bear them.

Strengthening Pill.---Take ſoft extract of the cinchona bark, and vitriolated iron, each a drachm. Make into pills.---In diſorders ariſing from exceſſive debility, or relaxation of the ſolids, as the *chloroſis*, or green ſickneſs, two of theſe pills may be taken three times a-day.

PLASTERS.

Plasters ought to be of a different conſiſtence, according to the purpoſes for which they are intended. Such as are to be applied to the breaſts or ſtomach ought to be ſoft and yielding, while thoſe deſigned for the limbs ſhould be firm and adheſive. It has been ſuppoſed that plaſters might be impregnated with the virtues of different vegetables, by boiling the recent vegetable with the oil employed for the compoſition of the plaſter; but this treatment does not communicate to the oils any valuable qualities. The *calces* of lead boiled with oils, unite with them into a plaſter of a proper conſiſtence, which make the baſis of ſeveral other plaſters. In boiling theſe compoſitions, a quantity of hot water muſt be added from time to time, to prevent the plaſter from burning or growing black. This, however, ſhould be done with care, leſt it cauſe the matter to explode.

Litharge Plaſter, formerly called Diachylon or Common Plaſter.—Take of common olive oil, ſix pints; litharge, reduced to a fine powder, two pounds and a half. Boil the litharge and oil together over a gentle fire, continually ſtirring them, and keeping always about half a gallon of water in the veſſel: after they have boiled about three hours, a little of the plaſter may be taken out and put into cold water, to try if it be of a proper conſiſtence: when that is the caſe, the whole may be ſuffered to cool, and the water well preſſed out of it with the hands.—This plaſter is generally applied in ſlight wounds and excoriations of the ſkin. It keeps the part ſoft and warm, and defends it from the air, which is all that is neceſſary in ſuch caſes. Its principal uſe, however, is to ſerve as a baſis for other plaſters.

Adheſive Plaſter.—Take of common plaſter, half a pound; of Bur-

gundy pitch, a quarter of a pound. Melt them together.---This plaſter is principally uſed for keeping on other dreſſings.

Anodyne Plaſter.---Melt an ounce of adheſive plaſter, and, when it is cooling, mix with it a drachm of powdered opium, and the ſame quantity of camphor, previouſly rubbed up with a little oil.---This plaſter generally gives eaſe in acute pains, eſpecially of the nervous kind.

Bliſtering Plaſter.---Take of Venice turpentine, ſix ounces; yellow wax, two ounces; Spaniſh flies in fine powder, three ounces; powdered muſtard, one ounce. Melt the wax, and while it is warm, add to it the turpentine, taking care not to evaporate it by too much heat. After the turpentine and wax are ſufficiently incorporated, ſprinkle in the powders, continually ſtirring the maſs till it be cold. ---Though this plaſter is made in a variety of ways, one ſeldom meets with it of a proper conſiſtence. When compounded with oils and other greaſy ſubſtances, its effects are blunted, and it is apt to run; while pitch and reſin render it too hard and very inconvenient.--- When the bliſtering plaſter is not at hand, its place may be ſupplied by mixing with any ſoft ointment a ſufficient quantity of powdered flies; or by forming them into a paſte with flour and vinegar.

Gum Plaſter.---Take of the common plaſter, four pounds; gum ammoniac and galbanum, ſtrained, of each half a pound. Melt them together, and add, of Venice turpentine, ſix ounces.---This plaſter is uſed as a digeſtive, and likewiſe for diſcuſſing indolent tumors.

Mercurial Plaſter.---Take of common plaſter, one pound; of gum ammoniac, ſtrained, half a pound. Melt them together, and, when cooling, add eight ounces of quickſilver, previouſly extinguiſhed by triture, with three ounces of hogs' lard.---This plaſter is recommended in pains of the limbs ariſing from a venereal cauſe. Indurations of the glands, and other violent tumors, are likewiſe found ſometimes to yield to it.

Stomach Plaſter.---Take of gum plaſter, half a pound; camphorated oil, an ounce and a half; black pepper, or capſicum where it can be had, one ounce. Melt the plaſter, and mix with it the oil; then ſprinkle in the pepper, previouſly reduced to a fine powder.---An ounce or two of this plaſter, ſpread upon ſoft leather, and applied to the region of the ſtomach, will be of ſervice in flatulencies ariſing from hyſteric and hypochondriac affections. A little of the expreſſed oil of mace, or a few drops of the eſſential oil of mint, may be rubbed upon it before it is applied.---This may ſupply the place of the *Antihyſteric Plaſter.*

Warm Plaſter.---Take of gum plaſter, one ounce; bliſtering plaſter, two drachms. Melt them together over a gentle fire.--- This plaſter is uſeful in the ſciatica and other fixed pains of the rheumatic kind: it ought, however, to be worn for ſome time, and to be renewed at leaſt once a-week. If this is found to bliſter the part, which is ſometimes the caſe, it muſt be made with a ſmaller proportion of the bliſtering plaſter.

Wax Plaſter.---Take of yellow wax, one pound; white reſin, half

a pound; mutton ſuet, three quarters of a pound. Melt them together.—This is generally uſed inſtead of the *Melilot Plaſter*. It is a proper application after bliſters, and in other caſes where a gentle digeſtive is neceſſary.

POWDERS.

THIS is one of the moſt ſimple forms in which medicine can be adminiſtered. Many medicinal ſubſtances, however, cannot be reduced into powder, and others are too diſagreeable to be taken in this form. The lighter powders may be mixed in any agreeable thin liquor, as tea or water-gruel. The more ponderous will require a more conſiſtent vehicle, as ſyrup, conſerve, jelly, or honey.—Gums, and other ſubſtances, which are difficult to powder, ſhould be pounded along with the drier ones; but thoſe which are too dry, eſpecially aromatics, ought to be ſprinkled during their pulverization with a few drops of any proper water ---Aromatic powders are to be prepared only in ſmall quantities at a time, and kept in glaſs veſſels cloſely ſtopped. Indeed no powders ought to be expoſed to the air or kept too long, otherwiſe their virtues will be in a great meaſure deſtroyed.

Aſtringent Powder.---Take of alum and catechu, each two drachms. Pound them together, and divide the whole into ten or twelve doſes.---In an immoderate flow of the *menſes*, and other hæmorrhages, one of theſe powders may be taken every hour, or every half hour, if the diſcharge be violent.

Powder of Bole.---Take of bole armeniac, or French bole, two ounces; cinnamon, one ounce; tormentil root and gum arabic, of each ſix drachms; long pepper, one drachm. Let all theſe ingredients be reduced into a powder.---This warm, glutinous aſtringent powder is given in fluxes, and other diſorders where medicines of that claſs are neceſſary, in the doſe of a ſcruple, or half a drachm. If a drachm of opium be added, it will make the *Powder of Bole with Opium*, which is a medicine of conſiderable efficacy. It may be taken in the ſame quantity as the former, but not above twice or thrice a-day.

Carminative Powder.---Take of coriander-ſeed, half an ounce; ginger, one drachm; nutmegs, half a drachm; fine ſugar, a drachm and a half. Reduce them into powder for twelve doſes.---This powder is employed for expelling flatulencies ariſing from indigeſtion, particularly thoſe to which hyſteric and hypochondriac perſons are ſo liable. It may likewiſe be given in ſmall quantities to children in their food, when troubled with gripes.

Diuretic Powder.---Take of gum arabic, four ounces; purified nitre, one ounce. Pound them together, and divide the whole into twenty-four doſes.---During the firſt ſtage of the venereal diſeaſe, one of theſe cooling powders may be taken three times a-day, with conſiderable advantage.

Laxative Aromatic Powder.---Take of the beſt Turkey rhubarb, cinnamon, and fine ſugar, each two drachms. Let the ingredients be pounded, and afterwards mixed well together.---When flatulency is accompanied with coſtiveneſs, a tea-ſpoonful of this powder may be taken once or twice a-day, according to circumſtances.

Saline Laxative Powder.—Take of tartarized kali, and cream of tartar, each one drachm; purified nitre, half a drachm. Make them into a powder.—In fevers, and other inflammatory diſorders, where it is neceſſary to keep the body gently open, one of theſe cooling laxative powders may be taken in a little gruel, and repeated occaſionally.

Chalybeate Powder.—Take filings of iron, and loaf-ſugar, of each two ounces; ginger, two drachms. Pound them together.—In obſtructions of the *menſes*, and other caſes where ſteel is proper, a tea-ſpoonful of this powder may be taken twice a-day, and waſhed down with a little wine or water.

Sudorific Powder, or Compound Powder of Ipecacuanha.---Take purified nitre and vitriolated kali, of each half an ounce; opium and ipecacuanha, of each one drachm. Mix the ingredients, and reduce them to a fine powder.---This is generally known by the name of *Dover's Powder.* It is a powerful ſudorific. In obſtinate rheumatiſms, and other caſes where it is neceſſary to excite a copious ſweat, this powder may be adminiſtered in the doſe of a ſcruple or half a drachm. Some patients will require two ſcruples. It ought to be accompanied with the plentiful uſe of ſome warm diluting liquor.

Worm-powders.--Take of tin reduced into a fine powder, an ounce; quickſilver with ſulphur, two drachms. Mix them well together, and divide the whole into ſix doſes.---One of theſe powders may be taken in a little ſyrup, honey, or treacle, twice a-day. After they have been all uſed, the following anthelmintic purge may be proper.

Purging Worm powder.---Take of powdered rhubarb, a ſcruple; ſcammony and calomel, of each five grains. Rub them together in a mortar for one doſe. This is enough for an adult.---For children the above doſes muſt be leſſened according to their age, in the proportions mentioned in the introduction to the Appendix.---If the powder of tin be given alone, its doſe may be conſiderably increaſed. The late Dr. Alſton gave it to the amount of two ounces in three days, and ſays, when thus adminiſtered, that it proved an egregious anthelmintic. He purged his patients both before they took the powder and afterwards.

Powder of the Root of the Male-fern, for the Tape-worm.---Early in the morning the patient is to take any liquid two or three drachms, according to his age and conſtitution, of the root of the male-fern reduced into a fine powder. About two hours afterwards, he is to take of calomel and reſin of ſcammony, each ten grains; gum gamboge, ſix grains. Theſe ingredients muſt be finely powdered, and given in a little ſyrup, honey, treacle, or any thing that is moſt agreeable to the patient. He is then to walk gently about, now and then drinking a diſh of weak green tea, till the worm is paſſed. If the powder of the fern produces nauſea, or ſickneſs, it may be removed by ſucking the juice of an orange or lemon. This medicine, which had been long kept a ſecret abroad for the cure of the tape-worm, was ſome time ago purchaſed by the French King, and made public for the benefit of mankind. Not having had an opportunity of trying it, I can ſay nothing from experience concerning its efficacy. It ſeems, however, from its ingredients, to be an active medicine, and ought to be taken with care. The doſe here

preſcribed is ſufficient for the ſtrongeſt patient; it muſt, therefore, be reduced according to the age and conſtitution.---N. B. The Editor has ſeldom known any perſon who could bear to take more than half the quantity of calomel, ſcammony, &c. above mentioned, for one doſe.

SYRUPS.

Syrups were ſome time ago looked upon as medicines of conſiderable value. They are at preſent, however, regarded chiefly as vehicles for medicines of greater efficacy, and are uſed for ſweetening draughts, juleps, or mixtures; and for reducing the lighter powders into boluſes, pills, and electuaries. As all theſe purpoſes may be anſwered by the ſimple ſyrup alone, there is little occaſion for any other; eſpecially as they are ſeldom found but in a ſtate of fermentation, and as the doſe of any medicine given in this form is very uncertain. Perſons who ſerve the public muſt keep whatever their cuſtomers call for; but to the private practitioner nine-tenths of the ſyrups uſually kept in the ſhops are unneceſſary.

Syrup of Manna.---Take of manna (the beſt), and double refined ſugar, each one pound; ſenna, half an ounce; boiling water, a pound (i. e. a pint). Macerate the ſenna in the water, in a covered veſſel, for twelve hours; then with the ſtrained liquor mix the manna and the ſugar, ſo that they may be diſſolved.—This ſyrup is a mild laxative, and may be given to infants in doſes of a tea-ſpoonful or two from time to time according to its effects: children of larger growth, and perſons of a delicate conſtitution, for whom this ſyrup is well adapted, may take it in larger doſes.

Simple Syrup, is made by diſſolving in water, either with or without heat, about double its weight of fine ſugar.—If twenty-five drops of tincture of opium be added to an ounce of the ſimple ſyrup, it will ſupply the place of diacodium, or the ſyrup of white poppies, and will be found a more ſafe and certain medicine.—The lubricating virtues of the ſyrup of marſhmallows may likewiſe be ſupplied, by adding to the common ſyrup a ſufficient quantity of mucilage of gum arabic.—Thoſe who chooſe to preſerve the juice of lemons in form of ſyrup, may diſſolve in it, by the heat of a warm bath, nearly double its weight of fine ſugar. The juice ought to be previouſly ſtrained, and ſuffered to ſtand till it ſettles. --The ſyrup of ginger is ſometimes of uſe as a warm vehicle for giving medicine to perſons afflicted with flatulency. It may be made by infuſing two ounces of bruiſed ginger in two pints of boiling water for twenty-four hours. After the liquor has been ſtrained, and has ſtood to ſettle for ſome time, it may be poured off, and a little more than double its weight of fine powdered ſugar diſſolved in it.

TINCTURES, ELIXIRS, &c.

Rectified ſpirit is the direct menſtruum of the reſins and eſſential oils of vegetables, and totally extracts theſe active principles from ſundry ſubſtances, which yields them to water, either not at all, or only in part. It diſſolves likewiſe thoſe parts of animal ſubſtances in which their peculiar ſmells and taſtes reſide. Hence the tinctures prepared with rectified ſpirits form an uſeful and elegant claſs of medicines, poſſeſſing many of the moſt eſſential virtues of ſimples, without being clogged with their inert or uſeleſs parts. Water, however,

being the proper menſtruum of the gummy, ſaline, and ſaccharine parts of medicinal ſubſtances, it will be neceſſary, in the preparation of ſeveral tinctures, to make uſe of a weak ſpirit, or a compoſition of rectified ſpirit and water.

Aromatic Tincture.---Infuſe two ounces of Jamaica pepper in two pints of brandy, without heat, for a few days; then ſtrain off the tincture.---This ſimple tincture will ſufficiently anſwer all the intentions of the more coſtly preparations of this kind. It is rather too hot to be taken by itſelf; but is very proper for mixing with ſuch medicines as might otherwiſe prove too cold for the ſtomach.

Compound Tincture of the Cinchona.---Take of Peruvian bark, two ounces; Seville orange-peel and cinnamon, of each half an ounce. Let the bark be powdered, and the other ingredients bruiſed; then infuſe the whole in a pint and a half of brandy, for five or ſix days, in a cloſe veſſel; afterwards ſtrain off the tincture.---This tincture is not only beneficial in intermitting fevers, but alſo in the ſlow, nervous, and putrid kinds, eſpecially towards their decline.---The doſe is from one drachm to three or four, every fifth or ſixth hour. It may be given in any ſuitable liquor, and occaſionally ſharpened with a few drops of the vitriolic acid.

Volatile Tincture of Aſafœtida.---Infuſe two ounces of afafœtida in one pint of compound ſpirit of ammonia, for eight days, in a cloſe bottle, frequently ſhaking it; then ſtrain the tincture.---This medicine is beneficial in hyſteric diſorders, eſpecially when attended with lowneſs of ſpirits and faintings. A tea-ſpoonful of it may be taken in a glaſs of wine, or a cup of pennyroyal tea.

Tincture of Fox-Glove.---Take of the dried leaves of fox-glove, one ounce; ſpirit of wine, eight ounces. Digeſt for ſeven days, and ſtrain through paper.---This tincture is a very powerful medicine, and contains the virtues of the fox-glove, eaſily manageable, under the direction of perſons poſſeſſing medical ſkill and experience.---It has been ſaid by ſome, that it is almoſt a ſpecific in ſcarlet fever; but it has been chiefly uſed as a ſedative, to diminiſh the force of the circulation of the blood in *hæmoptyſis*, and often with remarkable ſucceſs. It has been alſo ſaid to cure *phthiſis pulmonalis*. It has, doubtleſs, been of much ſervice in ſome caſes of that nature; but ſubſequent experience has not confirmed the hopes that were excited by its firſt trials in conſumptive diſorders. Like every other form in which the fox-glove is given, it ought to be exhibited in very ſmall doſes at firſt, ſuch as ten to twenty drops to adults, and very cautiouſly increaſed, in ſome caſes, to nearly double that number. If, previous to the uſe of the fox-glove, there is any pain in the cheſt, or an hæmoptyſis; if the pulſe is hard, the reſpiration difficult, and the patient not advanced in life, veneſection will be neceſſary. A bliſter ſhould be applied to the ſide, between the ſhoulders or over the ſternum, in the courſe of the *mediaſtinum*, and the bowels gently evacuated by ſome of the neutral ſalts; for they retard the circulation, and diminiſh the irritability of the heart, by their action on the ſtmoach. Theſe being premiſed, Dr. Rand recommends the tincture of fox-glove to be adminiſtered to conſumptive patients in doſes of

twelve drops three or four times in a day, increaſing each doſe one drop, till the number of pulſations of the artery is diminiſhed to fifty or ſixty, and continued at that number till the diſeaſe is removed. Should the medicine have a very ſudden effect in depreſſing the circulation, and inducing an intermiſſion of the pulſe, ſickneſs at ſtomach, with languor and faintneſs, its uſe muſt be immediately ſuſpended, leſt ſudden death enſue. The judicious phyſician above mentioned very properly inſiſts that the patient ſhould be ſeen by his medical attendant at leaſt every day, as few perſons are ſo converſant with the ſtate of the pulſe and reſpiration as to enable them to judge of the propriety of continuing or ſuſpending the uſe of this herculean medicine.

Tincture of Hops.--Take of good freſh hops, half an ounce; ſpirit of wine, ten ounces: digeſt for ſeven days, and ſtrain. The doſe from forty to a hundred drops, to adults; to younger perſons it muſt be given in diminiſhed doſes, according to the proportions directed in p. 418-419.---Hops are one of the moſt agreeable of the ſtrong bitters; but they have been rarely till of late employed for any medicinal purpoſes: yet it has been known for many years, that a pillow ſtuffed with hops, or the odour of hops hung in a bed, induced ſleep after opium had failed; but although hops are a narcotic like opium, unlike the latter it ſeems to have rather a laxative effect. The hop has recently been recommended by men of great medical experience, and is ſaid to have ſucceeded in ſuch caſes as required a light, agreeable bitter, combined with an anodyne quality. In loſs of appetite and reſtleſs nights; in various caſes of dyſpepſia attended with pain and flatulency of the ſtomach and bowels; in painful caſes of gout, gravel, ſtone, or biliary concretions; in ſevere pains of child-bed women, and other caſes where opium could not be exhibited in the uſual forms without producing violent head-ach or other very troubleſome ſymptoms; here, ſays Dr. A. Fothergill, a ſtrong infuſion of the hop, purſued freely both internally and externally, has ſeldom failed to procure a calm, tranquil ſleep.---The beſt preparation is ſaid to be the tincture. The ingenious Mr. Freake has alſo prepared an extract of hops, which he has exhibited in pills twice a-day along with draughts containing the tincture, with conſiderable ſucceſs, in gouty affections.

Volatile Tincture of Gum Guaiacum.---Take of gum guaiacum, four ounces; volatile aromatic ſpirit, a pint. Infuſe without heat, in a veſſel well ſtopped, for a few days; then ſtrain off the tincture.---In rheumatic complaints, a tea-ſpoonful of this tincture may be taken in a cup of the infuſion of water trefoil, twice or thrice a-day. ---A very good tincture of guaiacum, for domeſtic uſe, may be made by infuſing two or three ounces of the gum in a bottle of rum or brandy.

Tincture of Black Hellebore.---Infuſe two ounces of the roots of black hellebore, bruiſed, in a pint of proof ſpirit, for ſeven or eight days; then filter the tincture through paper. A ſcruple of cochineal may be infuſed along with the roots, to give the tincture a colour.---In obſtructions of the *menſes*, a tea-ſpoonful of this tincture may be taken in a cup of camomile or pennyroyal tea twice a-day.

Tincture of Gum Kino.—Digeſt two ounces of gum kino in a pint and a half of brandy, for eight days; afterwards ſtrain it for uſe.—This tincture, though not generally known, is a good aſtringent medicine. With this view, an ounce, or more, of it may be taken three or four times a-day.

Tincture of Myrrh and Aloes.—Take of gum myrrh an ounce and a half; hepatic aloes, one ounce. Let them be reduced to a powder, and infuſed in two pints of rectified ſpirits, for ſix days, in a gentle heat; then ſtrain the tincture.—This is principally uſed by ſurgeons for cleanſing foul ulcers, and reſtraining the progreſs of gangrenes. It is alſo, by ſome, recommended as a proper application to green wounds.

Tincture of Opium, or Liquid Laudanum.—Take of crude opium, two ounces; ſpirituous aromatic water and mountain wine, of each ten ounces. Diſſolve the opium, ſliced, in the wine, with a gentle heat, frequently ſtirring it; afterwards add the ſpirit, and ſtrain off the tincture.—As twenty-five drops of this tincture contain about a grain of opium, the common doſe may be from twenty to thirty drops.

Tincture of Hiera Picra.—Take of ſuccotrine aloes in powder, one ounce; Virginian ſnake-root and ginger, of each two drachms. Infuſe in a pint of mountain wine, and half a pint of brandy, for a week, frequently ſhaking the bottle, then ſtrain off the tincture.—This is a ſafe and uſeful purge for perſons of a languid and phlegmatic habit; but is thought to have better effects, taken in ſmall doſes as a laxative.—The doſe, as a purge, is from one to two ounces.

Compound Tincture of Senna.—Take of ſenna, one ounce; jalap, coriander ſeeds, and cream of tartar, of each half an ounce. Infuſe them in a pint and a half of French brandy for a week; then ſtrain the tincture, and add to it four ounces of fine ſugar.—This is an agreeable purge, and anſwers all the purpoſes of the *Elixir Salutis*, and of *Daffy's Elixir*.—The doſe is from one to two or three ounces.

Tincture of Spaniſh Flies.—Take of Spaniſh flies, reduced to a fine powder, two ounces; ſpirit of wine, one pint. Infuſe for two or three days; then ſtrain off the tincture.—This is intended as an acrid ſtimulant for external uſe. Parts affected with the palſy or chronic rheumatiſm may be frequently rubbed with it.

Tincture of the Balſam of Tolu.—Take of the balſam of Tolu, an ounce and a half; rectified ſpirit of wine, a pint. Infuſe in a gentle heat until the balſam is diſſolved; then ſtrain the tincture.—This tincture poſſeſſes all the virtues of the balſam. In coughs, and other complaints of the breaſt, a tea-ſpoonful or two of it may be taken in a bit of loaf ſugar. But the beſt way of uſing it is in ſyrup. An ounce of the tincture, properly mixed with two pounds of ſimple ſyrup, will make what is commonly called the *Balſamic Syrup*.

Tincture of Rhubarb.—Take of rhubarb, two ounces and a half; leſſer cardamom ſeeds, half an ounce; brandy, two pints. Digeſt for a week, and ſtrain the tincture.—Thoſe who chooſe to have a vinous tincture of rhubarb may infuſe the above ingredients in a bottle of Liſbon wine, adding to it about two ounces of proof ſpirits.—If half an ounce of gentian root and a drachm of Virginian ſnake-

root be added to the above ingredients, it will make the bitter tincture of rhubarb.—All theſe tinctures are deſigned as ſtomachics and corroborants as well as purgatives. In weakneſs of the ſtomach, indigeſtion, laxity of the inteſtines, fluxes, cholicky and ſuch like complaints, they are frequently of great ſervice. The doſe is from half a ſpoonful to three or four ſpoonfuls or more, according to the circumſtances of the patient, and the purpoſes it is intended to anſwer.

Tincture of Opium Camphorated, or Paregoric Elixir.—Take of flowers of benzoin, half an ounce; opium, two drachms. Infuſe in one pound of the volatile aromatic ſpirit for four or five days, frequently ſhaking the bottle; afterwards ſtrain the elixir.—This is an agreeable and ſafe way of adminiſtering opium.—It eaſes pain, allays tickling coughs, relieves difficult breathing, and is uſeful in many diſorders of children, particularly the hooping cough.—The doſe to an adult is from fifty to a hundred drops.

Elixir of Aloes and Rhubarb.—Take of rhubarb cut ſmall, ten drachms; ſuccotrine aloes, in powder, ſix drachms; leſſer cardamom ſeeds, half an ounce; French brandy, two pints. Infuſe for two or three days, then ſtrain the elixir.—This uſeful ſtomachic purge may be taken from one ounce to an ounce and a half.

Stomachic Elixir.—Take of gentian root, two ounces; Curaçoa oranges, one ounce; Virginian ſnake-root, half an ounce. Let the ingredients be bruiſed, and infuſed for three or four days in two pints of French brandy; afterwards ſtrain out the elixir.—This is an excellent ſtomachic bitter. In flatulencies, indigeſtion, want of appetite, and ſuch like complaints, a ſmall glaſs of it may be taken twice a-day. It likewiſe relieves the gout in the ſtomach, when taken in a large doſe.

Acid Elixir of Vitriol.—Take of the aromatic tincture, one pint; vitriolic acid, three ounces Mix them gradually, and after the faces have ſubſided, filter the elixir through paper in a glaſs funnel.—This is one of the beſt medicines which I know for hyſteric and hypochondriac patients, afflicted with flatulencies ariſing from relaxation or debility of the ſtomach and inteſtines. It will ſucceed where the moſt celebrated ſtomachic bitters have no effect. The doſe is from ten to forty drops, in a glaſs of wine or water or a cup of any bitter infuſion, twice or thrice a-day. It ſhould be taken when the ſtomach is moſt empty.

Camphorated Spirit of Wine.—Diſſolve an ounce of camphor in a pint of rectified ſpirits.—This ſolution is chiefly employed as an embrocation in bruiſes, palſies, the chronic rheumatiſm, the rickets, and for preventing gangrenes.—The above quantity of camphor, diſſolved in half a pound of the volatile aromatic ſpirit, makes *Ward's Eſſence.*

Water of Acetated Ammonia, or Spirit of Mindererus.—Take of prepared ammonia, any quantity. Pour on it gradually diſtilled vinegar, till the effervescence ceaſes.—This medicine is uſeful in promoting a diſcharge both by the ſkin and urinary paſſage. It is alſo a good external application in ſtrains and bruiſes.—When intended to raiſe a ſweat, half an ounce of it in a cup of warm gruel may be given to the patient in bed every hour till it has the deſired effect.

Tincture of Wormwood.—Take of the flowering tops of wormwood

properly dried, four ounces; rectified ſpirit of wine, two pounds: macerate for two days; then preſs out the ſpirit, and pour it upon two ounces of wormwood. Macerate again for four days; then preſs the tincture through a cloth, and afterwards ſtrain it through paper. This preparation may be conſidered as containing the whole virtues of a plant that was highly extolled by the illuſtrious Boerhaave.---In the tincture of wormwood we have one of the ſtrongeſt vegetable bitters. It is ſometimes uſed as an anthelmintic, and ſtill more frequently in ſtomach aliments; but to moſt people it is a very diſagreeable medicine.

VINEGARS.

VINEGAR is an acid produced from vinous liquors by a ſecond fermentation. It is an uſeful medicine both in inflammatory and putrid diſorders. Its effects are, to cool the blood, quench thirſt, counteract a tendency to putrefaction, and allay inordinate motions of the ſyſtem. It likewiſe promotes the natural ſecretions, and in ſome caſes excites a copious ſweat, where the warm medicines, called alexipharmic, tend rather to prevent that ſalutary evacuation. Weakneſs, faintings, vomitings, and other hyſteric affections, are often relieved by vinegar applied to the mouth and noſe, or received into the ſtomach. It is of excellent uſe, alſo, in correcting many poiſonous ſubſtances when taken into the ſtomach; and in promoting their expulſion, by the different emunctories, when received into the blood. Vinegar is not only an uſeful medicine, but ſerves likewiſe to extract, in tolerable perfection, the virtues of ſeveral other medicinal ſubſtances. Moſt of the odoriferous flowers impart to it their fragrance, together with a beautiful purpliſh or red colour. It alſo aſſiſts or coincides with the intention of ſquills, garlic, gum ammoniac, and ſeveral other valuable medicines. Theſe effects, however, are not to be expected from every thing that is ſold under the name of vinegar, but from ſuch as is found and well prepared. The beſt vinegars are thoſe prepared from French wines. It is neceſſary for ſome purpoſes that the vinegar be diſtilled; but as this operation requires a particular chemical apparatus, we ſhall not inſert it.

Vinegar of Litharge.---Take of litharge, half a pound; ſtrong vinegar, two pints. Infuſe them together in a moderate heat for three days, frequently ſhaking the veſſel; then filter the liquor for uſe.---This medicine is little uſed, from a general notion of its being dangerous. There is reaſon, however, to believe that the preparations of lead with vinegar are poſſeſſed of ſome valuable properties, and that they may be uſed in many caſes with ſafety and ſucceſs. ---A preparation of a ſimilar nature with the above has of late been extolled by Goulard, a French ſurgeon, as a ſafe and extenſively uſeful medicine, which he calls the *Extract of Saturn*, and orders to be made in the following manner: Take of litharge, one pound; vinegar made of French wine, two pints. Put them together in a glazed earthen pipkin, and let them boil, or rather ſimmer, for an hour, or an hour and a quarter, taking care to ſtir them all the while with a wooden ſpatula. After the whole has ſtood to ſettle, pour off the liquor which is upon the top into bottles for uſe. With this extract Goulard makes his *vegeto-mineral water* [ſee *Collyrium of*

Lead], which he recommends in a great variety of external diſorders, as inflammations, burns, bruiſes, ſprains, ulcers, &c. He likewiſe prepares with it a number of other forms of medicine, as poultices, plaſters, ointments, powders, &c.

Vinegar of Roſes---Take of red roſes, half a pound; ſtrong vinegar, half a gallon. Infuſe in a cloſe veſſel for ſeveral weeks, in a gentle heat; and then ſtrain off the liquor. This is principally uſed as an embrocation for head-achs, &c.

Vinegar of Squills.---Take of dried ſquills, two ounces; diſtilled vinegar, two pints. Infuſe for ten days or a fortnight in a gentle degree of heat, afterwards ſtrain off the liquor, and add to it about a twelfth part its quantity of proof ſpirits.---This medicine has good effects in diſorders of the breaſt occaſioned by a load of viſcid phlegm. It is alſo of uſe in hydropic caſes for promoting a diſcharge of urine.—The doſe is from two drachms to two ounces, according to the intention for which it is given. When intended to act as a vomit, the doſe ought to be large. In other caſes, it muſt not only be exhibited in ſmall doſes, but alſo mixed with cinnamon water, or ſome other agreeable aromatic liquor, to prevent the naufea it might otherwiſe occaſion.

WATERS BY INFUSION, &c.

Lime Water.---Pour two gallons of water gradually upon a pound of freſh burnt quicklime, and, when the ebullition ceaſes, ſtir them well together; then ſuffer the whole to ſtand at reſt, that the lime may ſettle, and afterwards filter the liquor through paper, which is to be kept in veſſels cloſely ſtopt. The lime-water from calcined oyſter-ſhells is prepared in the ſame manner. Lime-water is principally uſed for the gravel; in which caſe from a pint or two or more of it may be drank daily. Externally it is uſed for waſhing foul ulcers, and removing the itch, and other diſeaſes of the ſkin.

Compound Lime Water.---Take ſhavings of guaiacum wood, half a pound; liquorice root, one ounce; ſaſſafras bark, half an ounce; coriander ſeeds, three drachms; ſimple lime-water, ſix pints. Infuſe without heat for two days, and then ſtrain off the liquor.---In the ſame manner may lime-water be impregnated with the virtues of other vegetable ſubſtances. Such impregnation not only renders the water more agreeable to the palate, but alſo a more efficacious medicine, eſpecially in cutaneous diſorders and foulneſs of the blood and juices.---It may be taken in the ſame quantity as the ſimple water.

Watery Solution of muriated Quickſilver.---Diſſolve eight grains of the muriated quickſilver in a pint of cinnamon water---If a ſtronger ſolution be wanted, a double or triple quantity of ſublimate may be uſed.---The principal intention of this is to cleanſe foul ulcers and conſume proud fleſh.

Styptic Water.---Take of blue vitriol and alum, each an ounce and a half; water, one pint. Boil them until the ſalts are diſſolved; then filter the liquor, and add to it a drachm of the oil of vitriol.---This water is uſed for ſtopping a bleeding at the noſe, and other hæmorrhages; for which purpoſe cloths or doſſils dipt in it muſt be applied to the part.

Tar Water.--Pour a gallon of water on two pounds of Norway tar,

and ſtir them ſtrongly together with a wooden rod: after they have ſtood to ſettle for two days, pour off the water for uſe.—Though tar-water falls greatly ſhort of the character which has been given of it, yet it poſſeſſes ſome medicinal virtues. It ſenſibly raiſes the pulſe, increaſes the ſecretions, and ſometimes opens the body, or occaſions vomiting. --A pint of it may be drank daily, or more, if the ſtomach can bear it. It is generally ordered to be taken on an empty ſtomach, viz. four ounces morning and evening, and the ſame quantity about two hours after breakfaſt and dinner.

SIMPLE DISTILLED WATERS.

A GREAT number of diſtilled waters were formerly kept in the ſhops, and are ſtill retained in ſome Diſpenſatories. But we conſider them chiefly in the light of grateful diluents, ſuitable vehicles for medicines of greater efficacy, or for rendering diſguſtful ones more agreeable to the palate and ſtomach. We ſhall therefore inſert only a few of thoſe which are beſt adapted to theſe intentions. The management of a ſtill being now generally underſtood, it is needleſs to ſpend time in giving directions for that purpoſe.

Cinnamon Water.---Steep one pound of cinnamon bark, bruiſed, in a gallon and a half of water, and one pint of brandy, for two days; and then diſtil off one gallon.---This is an agreeable aromatic water, poſſeſſing in a high degree the fragrance and cordial virtues of the ſpice.

Pennyroyal Water.---Take of pennyroyal leaves, dried, a pound and a half; water, from a gallon and a half to two gallons. Draw off by diſtillation one gallon.---This water poſſeſſes, in a conſiderable degree, the ſmell, taſte, and virtues of the plant. It is given in mixtures and juleps to hyſteric patients.---An infuſion of the herb in boiling water anſwers nearly the ſame purpoſes.

Peppermint Water.---This is made in the ſame manner as the preceding.

Spearmint Water.---This may alſo be prepared in the ſame way as the pennyroyal water.---Both theſe are uſeful ſtomachic waters, and will ſometimes relieve vomiting, eſpecially when it proceeds from indigeſtion, or cold viſcid phlegm. They are likewiſe uſeful in ſome colicky complaints, the gout in the ſtomach, &c. particularly the peppermint water.---An infuſion of the freſh plant is frequently found to have the ſame effects as the diſtilled water.

Roſe Water.---Take of roſes freſh gathered, ſix pounds; water, two gallons. Diſtil off one gallon.--This water is principally valued on account of its fine flavour.

Jamaica Pepper Water.---Take of Jamaica pepper, half a pound; water, a gallon and a half. Diſtil off one gallon.---This is a very elegant diſtilled water, and may in moſt caſes ſupply the place of the more coſtly ſpice waters.

SPIRITUOUS DISTILLED WATERS.

Spirituous Cinnamon Water.---Take of cinnamon bark, one pound; proof ſpirit, and common water, of each one gallon. Steep the cinnamon in the liquor for two days; then diſtil off one gallon.

Spirituous Jamaica Pepper Water.---Take of Jamaica pepper, half a pound; proof ſpirit, three gallons; water, two gallons. Diſtil

off three gallons.---This is a ſufficiently agreeable cordial, and may ſupply the place of the *Aromatic Water*.

WHEYS.

Alum Whey.---Boil two drachms of powdered alum in a pint of milk till it is curdled; then ſtrain out the whey.---This whey is beneficial in an immoderate flow of the *menſes*, and in a *diabetes* or exceſſive diſcharge of urine.---The doſe is two, three, or four ounces, according as the ſtomach will bear it, three times a-day. If it ſhould occaſion vomiting, it may be diluted.

Muſtard Whey.---Take milk and water, of each a pint; bruiſed muſtard-ſeed, an ounce and a half. Boil them together till the curd is perfectly ſeparated; afterwards ſtrain the whey through a cloth.---This is the moſt elegant and by no means the leaſt efficacious method of exhibiting muſtard. It warms and invigorates the habit, and promotes the different ſecretions. Hence, in the low ſtate of nervous fevers, it will often ſupply the place of wine. It is alſo of uſe in the chronic rheumatiſm, palſy, dropſy, &c. The addition of a little ſugar will render it more agreeable.---The doſe is an ordinary tea-cupful four or five times a-day.

Anti-Scorbutic Whey.—This whey is made by boiling half a pint of the ſcorbutic juices in a quart of cow's milk. More benefit, however, is to be expected from eating the plants than from their expreſſed juices.---The anti-ſcorbutic plants are, bitter oranges, brooklime, garden ſcurvy-graſs, and water creſſes.---A number of other wheys may be prepared nearly in the ſame manner, as orange whey, cream of tartar whey, &c. Theſe are cooling pleaſant drinks in fevers, and may be rendered cordial, when neceſſary, by the addition of wine.

WINES.

The effects of wine are, to raiſe the pulſe, promote perſpiration, warm the habit, and exhilarate the ſpirits. The red wines, beſides theſe effects, have an aſtringent quality, by which they ſtrengthen the tone of the ſtomach and inteſtines, and by this means prove ſerviceable in reſtraining immoderate ſecretions. The thin ſharp wines have a different tendency: they paſs off freely by the different emunctories, and gently open the body. The effects of the full-bodied wines are, however, much more durable than thoſe of the thinner. All ſweet wines contain a glutinous ſubſtance, and do not paſs off freely. Hence they will heat the body more than an equal quantity of any other wine, though it ſhould contain full as much ſpirit. From the obvious qualities of wine, it muſt appear to be an excellent cordial medicine. Indeed, to ſay the truth, it is worth all the reſt put together. But to anſwer this character, it muſt be ſound and good. No benefit is to be expected from the common traſh that is often ſold by the name of wine, without poſſeſſing one drop of the juice of the grape. Perhaps no medicine is more rarely obtained genuine than wine. Wine is not only uſed as a medicine, but is alſo employed as a *menſtruum* for extracting the virtues of other medicinal ſubſtances; for which it is not ill adapted, being a compound of water, inflammable ſpirit, and acid; by which means it is enabled to act upon vegetable and animal ſubſtances, and alſo to diſſolve

ſome bodies of the metallic kind, ſo as to impregnate itſelf with their virtues, as ſteel, antimony, &c.

Anthelmintic Wine.—Take of rhubarb, half an ounce; worm-ſeed, an ounce. Bruiſe them, and infuſe without heat in two pints of red port-wine for a few days, then ſtrain off the wine.—As the ſtomachs of perſons affiicted with worms are always debilitated, red wine alone will often prove ſerviceable: it muſt, however, have ſtill better effects when joined with bitter and purgative ingredients, as in the above form.—A glaſs of this wine may be taken twice or thrice a-day.

Antimonial Wine.—Take glaſs of antimony, reduced to a fine powder, half an ounce; Liſbon wine, twelve ounces. Digeſt, without heat, for twelve days, now and then ſhaking the bottle; afterwards filter the wine through paper.—The doſe of this wine varies according to the intention. As an alterative and diaphoretic, it may be taken from ten to fifty or ſixty drops. In a large doſe it generally proves cathartic, or excites vomiting. Five to ten drops prove an emetic to children in the firſt month; and from ten to twenty-five, to children from three months to two years of age.

Bitter Wine.—Take of gentian root, yellow rind of lemon peel, freſh, each one ounce; long pepper, two drachms; mountain wine, two pints. Infuſe without heat for a week, and ſtrain out the wine for uſe.—In complaints ariſing from weakneſs of the ſtomach, or indigeſtion, a glaſs of this wine may be taken an hour before dinner and ſupper.

Ipecacuanha Wine.—Take of ipecacuanha, in powder, one ounce; mountain wine, a pint. Infuſe for three or four days; then filter the tincture.—This is a ſafe vomit, and anſwers extremely well for ſuch perſons as cannot ſwallow the powder, or whoſe ſtomachs are too irritable to bear it.—The doſe is from one ounce to an ounce and a half. The doſe for children, one, two, or three tea-ſpoonfuls, according to the age.

Chalybeate, or Wine of Iron.—Take filings of iron, two ounces; cinnamon and mace, of each two drachms; Rheniſh wine, two pints. Infuſe for three or four weeks, frequently ſhaking the bottle; then paſs the wine through a filter.—In obſtructions of the *menſes*, this preparation of iron may be taken, in the doſe of half a wine-glaſs twice or thrice a-day.—The medicine would probably be as good if made with Liſbon wine, ſharpened with half an ounce of the cream of tartar, or a ſmall quantity of the diluted vitriolic acid.

Stomach Wine.—Take of cinchona bark, groſsly powdered, an ounce; cardamom ſeeds, and orange peel, bruiſed, of each two drachms. Infuſe in a bottle of white port or Liſbon wine for five or ſix days; then ſtrain off the wine.—This wine is not only of ſervice in debility of the ſtomach and inteſtines, but may alſo be taken as a preventive by perſons liable to the intermittent fever, or who reſide in places where this diſeaſe prevails. It will be of uſe likewiſe to thoſe who recover ſlowly after fevers of any kind, as it aſſiſts digeſtion, and helps to reſtore the tone and vigour of the ſyſtem.—A glaſs of it may be taken two or three times a-day.

A GLOSSARY.

ALTHOUGH terms of art have been ſedulouſly avoided in the compoſition of this work, and in the various additions that we have ſubjoined, it is impoſſible entirely to baniſh technical phraſes when writing on medicine; and as ſeveral perſons expreſſed their opinion that a Gloſſary would render the book more generally intelligible, the following conciſe explanation of the few terms of art that occur are added, in compliance with their ſentiments, and to fulfil the original intention of this treatiſe, by rendering it intelligible and uſeful to all ranks and claſſes of the community.

Abdomen. The belly.

Abſceſs. A tumor or ſwelling in the body, in which collected matter degenerates into pus.

Abſorbents. Glands, or veſſels, that convey the nouriſhment from the inteſtines and the ſecreted fluids from the various cavities into the maſs of blood.

Abſorbents. Medicines that eaſe the aſperity of pungent humours, or dry away ſuperfluous moiſture in the body.

Aceſcent. Sour; ſharp; tending to ſourneſs.

Acrimony. Corroſive ſharpneſs.

Acute. A diſeaſe, the ſymptoms of which are violent and tend to a ſpeedy termination, is called acute.

Adult. Of mature age.

Aduſt. Dry, warm.

Alvine, or *Alvus.* Of or relating to the lower cavity of the belly.

Anaſarca. A ſpecies of dropſy from a ſerous humour ſpread between the ſkin and fleſh, or rather a general accumulation of lymph in the cellular ſyſtem.

Anodyne. A medicine that relieves pain.

Anorexia. That diſorder in the ſtomach which creates a loathing and want of appetite.

Anthelmintic. A medicine to deſtroy worms.

Antiſeptic. Preventive of putrefaction.

Antiſpaſmodic. Whatever tends to prevent or remove ſpaſm.

Antiemetics. Medicines which ſtop vomiting.

Aperient. Opening; gently purgative.

Aphthæ. Small whitiſh ulcers or inflammatory exudations appearing in the mouth.

Arthritic. Gouty; painful affections of the joints.

Aſcites. Dropſy of the belly.

Aſtriction. A tightening or leſſening.

Atrabiliary, or *Atrabilarian.* An epithet commonly applied to people of a certain temperament, marked by a dark complexion, black hair, ſpare habit, &c. which the ancients ſuppoſed to ariſe from *atra-bilis*, or the black bile.

Atrophy. A ſpecies of conſumption, when the body or ſome member of it is not nouriſhed, but decays and waſtes away gradually.

Attenuant. Such medicines as open the pores of the body, and render more fluid thick and glutinous humours.

Bile, or *Gall.* A fluid which is ſecreted by the liver into the gall-bladder, and from thence paſſes into the inteſtines, in order to promote digeſtion.

Bronchotomy. That operation which opens the wind-pipe by incision, to prevent suffocation.

Bronchia. The branches of the wind-pipe dispersed through the lungs.

Bubo. A tumor with inflammation in the groin.

Cacochymy. An unhealthy state of the body.

Capillary Vessels. The smallest branches of the veins and arteries.

Caries. A rottenness of the bone.

Cathartics. Purges.

Chronic. A disease whose progress is slow, in opposition to acute.

Chyle. A milky fluid separated from the aliment in the intestines, and conveyed by the absorbents into the blood, to supply the waste of the animal body.

Circulation. The motion of the blood, which is driven by the heart through the arteries, and returns by the veins.

Colliquative Evacuations. Dangerous fluxes with profuse clammy sweats.

Comatose. Sleepy.

Constipation. A constriction, or binding together.

Conglobate Gland. A simple gland.

Conglomerate. A compound gland.

Contagion. Infectious matter.

Crisis. A certain period in the progress of a disease, from whence a decided alteration either for the better or the worse takes place.

Critical. Decisive, or important.

Critical Days. The fourth, fifth, seventh, ninth, eleventh, thirteenth, fourteenth, seventeenth, and twenty-first, are by some authors denominated critical days, because febrile complaints have been observed to take a decisive change in these periods.

Cruciform. In botany, a plant having a flower consisting of four petals, disposed in the form of a cross.

Cucurbitaceous. In botany, a species of gourd.

Cutis, or *Cuticle.* The skin.

Cutaneous. Of or belonging to the skin.

Debility. Weakness; feebleness; decay of strength.

Delirium. A temporary derangement of the mental faculties.

Deleterious. Deadly; destructive.

Deficcative. Drying; tending to dry.

Diaphragm. A membrane separating the cavity of the chest from that of the belly.

Diaphoretic. Heating; exciting perspiration.

Diarrhœa. A flux, or looseness of the belly.

Diuretic. A medicine that promotes the secretion of urine.

Drastic. Is applied to such purgative medicines as are violent or harsh in their operation.

Dyspepsia. A difficulty of digestion, or rather a depraved one; as when what is digested becomes acid, or possessed of other morbid qualities.

Dyspnœa. A difficulty in breathing.

Dysuria, or *Dysury.* A difficulty or heat in voiding urine.

Eccoprotics. Such medicines as gently purge the body.

Efflorescence. A spot, or eruptive appearance.

Emmenagogue. Medicines which excite the menstrual discharge.

Emollient. Softening.

Empyreumatic. A smell resembling that of burnt substances.

Endemic. A disease peculiar to a certain district of country.

Enema, *Clyſter*, or *Lavement*, are equivalent with each other, and ſignify any liquid medicine injected into the anus.

Epidemic. A diſeaſe generally infectious.

Errhine. Medicines to ſnuff up the noſe, and that, by cauſing ſneezing, purge the head.

Exacerbation. The increaſe of any diſeaſe.

Exanthemata. Certain wheals or breakings out on the body; efflorescences, or puſtules

Fæces. Excrements.

Flatulent. Producing wind.

Fætid. Emitting an offenſive ſmell.

Fætus. The child before birth, or when born before the proper period, is thus termed.

Formula. A preſcription.

Fungus. Proud fleſh.

Gangrene. Mortification in its firſt beginning; cauſed by a ſtoppage of the circulation, followed by putrefaction.

Geſtation. The time of a woman's going with child.

Glottis. Is that chink of the larynx that lies at the root of the tongue.

Gonorrhœa. A morbid running of venereal virus from the privities.

Gummata, *Ganglia.* Venereal excreſcences.

Gymnaſtic. Exerciſe taken with a view to preſerve or reſtore health. The ancient phyſicians reckoned this an important branch of medicine.

Hæmoptoe, *Hæmoptyſis.* A ſpitting of blood from the lungs.

Hæmorrhoids. The piles.

Hæmorrhage. Diſcharge of blood.

Hectic Fever. A ſlow conſuming fever, generally attending a bad habit of body, or ſome incurable and deep-rooted diſeaſe.

Herculean. Powerful; of the greateſt force.

Hypochondriaciſm. Low ſpirits.

Hypochondriac Viſcera. The liver, ſpleen, &c.; ſo termed from their ſituation in the hypochondriac, or upper and lateral parts of the belly.

Ichor. Thin bad matter.

Impoſthume. A collection of purulent matter.

Inflammation. A ſurcharge of blood, and an increaſed action of the veſſels, in any particular part of the body.

Inguinal. Has reference to what is commonly called the groin.

Lavement. *See* Enema.

Ligature. Bandage.

Lixivium. Ley.

Lohoch, or *Linctus.* A medicine to be licked by the tongue, or ſwallowed ſlowly.

Mamma. The nipple.

Mammæ. The breaſts.

Mediaſtinum. A double membrane that divides the thorax or breaſt into two parts.

Miliary Eruption. Eruption of ſmall puſtules, reſembling the ſeeds of millet.

Morbid, *Morbific.* Cauſing diſeaſe, or diſeaſed.

Mucus. The matter diſcharged from the noſe, lungs, &c.

Myſentery. A double membrane which connects the inteſtines to the back bone, and about which they are involved.

Narcotic. A ſtupifying opiate.
Nauſea. An inclination to vomit.
Nephritic. A diſeaſe belonging to the kidneys or bladder.
Nephritics. Are thoſe medicines that have a tendency to break or diſſolve ſtony concretions.
Nervous. Irritable.
Nodes. An enlargement of the bones produced by the venereal diſeaſe.
Papilionaceous. Having emulgent veſſels like a nipple.
Paroxyſm. A fit, or the periodical return of a fit, of a diſeaſe.
Pectoral. Medicines adapted to cure diſeaſes of the breaſt.
Perennial. Durable, perpetual.
Perſpiration. The matter diſcharged from the pores of the ſkin in the form of vapour, or ſweat.
Peritonæum. A membrane lining the cavity of the belly, and covering the inteſtines.
Pericardium. A membranous bag containing the heart.
Petechial. Small ſpots on the ſkin, like flea-bites, which come out in ſome fevers.
Phlebotomy. The art or operation of letting blood.
Phlegmon. An inflamed tumor, accompanied with heat, redneſs, and throbbing pain.
Phlegmatic. Watery; relaxed.
Phlogiſton. Is here uſed to ſignify ſomewhat rendering the air unfit for reſpiration.
Phthiſis Pulmonalis. Conſumption of the lungs.
Plethoric. Replete with blood.
Polypus. A diſeaſed excreſcence, or a ſubſtance formed of coagulable lymph, frequently found in the large blood-veſſels.
Præcordia. The parts about the heart.
Prolapſus Ani. The falling down of the fundament.
Prolapſus Uterus. The falling down of the womb.
Pus. Matter contained in a boil.
Rectum. The ſtraight gut, in which the fæces are contained.
Refrigerant. Cooling; refreſhing.
Regimen. Regulation of diet.
Reſpiration. The act of breathing.
Reſtringent. Binding.
Saliva. The fluid ſecreted by the glands of the mouth.
Sanies. A thin bad matter, diſcharged from an ill-conditioned ulcer.
Schirrous. A ſtate of diſeaſed hardneſs.
Sedative. Compoſing, eaſing, antiſpaſmodic.
Slough. A part ſeparated and thrown off by ſuppuration.
Sordes. Filth; dregs.
Spine. The back-bone.
Sternutatory. Cauſing to ſneeze.
Sternum. The breaſt bone which is ſituated in the middle of the breaſt.
Styptic. A medicine for ſtopping the diſcharge of blood.
Sub-acid. Rather acid; ſomewhat ſour or tart.
Succedaneum. A ſubſtitute for another article.
Syncope. A fainting fit attended with a complete abolition of ſenſe and motion.
Syphilitic. Venereal.
Tabes. A ſpecies of conſumption.
Temperament. A peculiar habit of body, of which there are generally reckoned

four; viz. the ſanguine; the bilious; the melancholic; and the phlegmatic.

Teneſmus. A continual deſire of going to ſtool, attended with an inability of voiding any thing except bloody ſlimy matter.

Vaccine. Of or belonging to a cow.

Variolous. Of or reſembling the ſmall-pox, a diſtemper that is ſo variouſly diverſified, that it requires various methods of management.

Veneſection. *See* Phlebotomy.

Vermifuge. A medicine to expel worms.

Vertigo. Giddineſs.

Veſicatory. A bliſtering application.

Viſcera. The bowels, entrails. The heart, liver, lungs, &c. are ſo called.

Ulcer. An ill-conditioned ſore.

Umbelliferous. Having umbilical veſſels; in reference to the navel. There are four ligamentary veſſels called by that name.

Ureters. Two long and ſmall canals which convey the urine from the kidneys to the bladder.

Urethra. The canal which conveys the urine from the bladder.

INDEX.

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THE END.

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