

**A treatise on the diseases of children, with directions for the management of infants from the birth; especially such as are brought up by hand / [Michael Underwood].**

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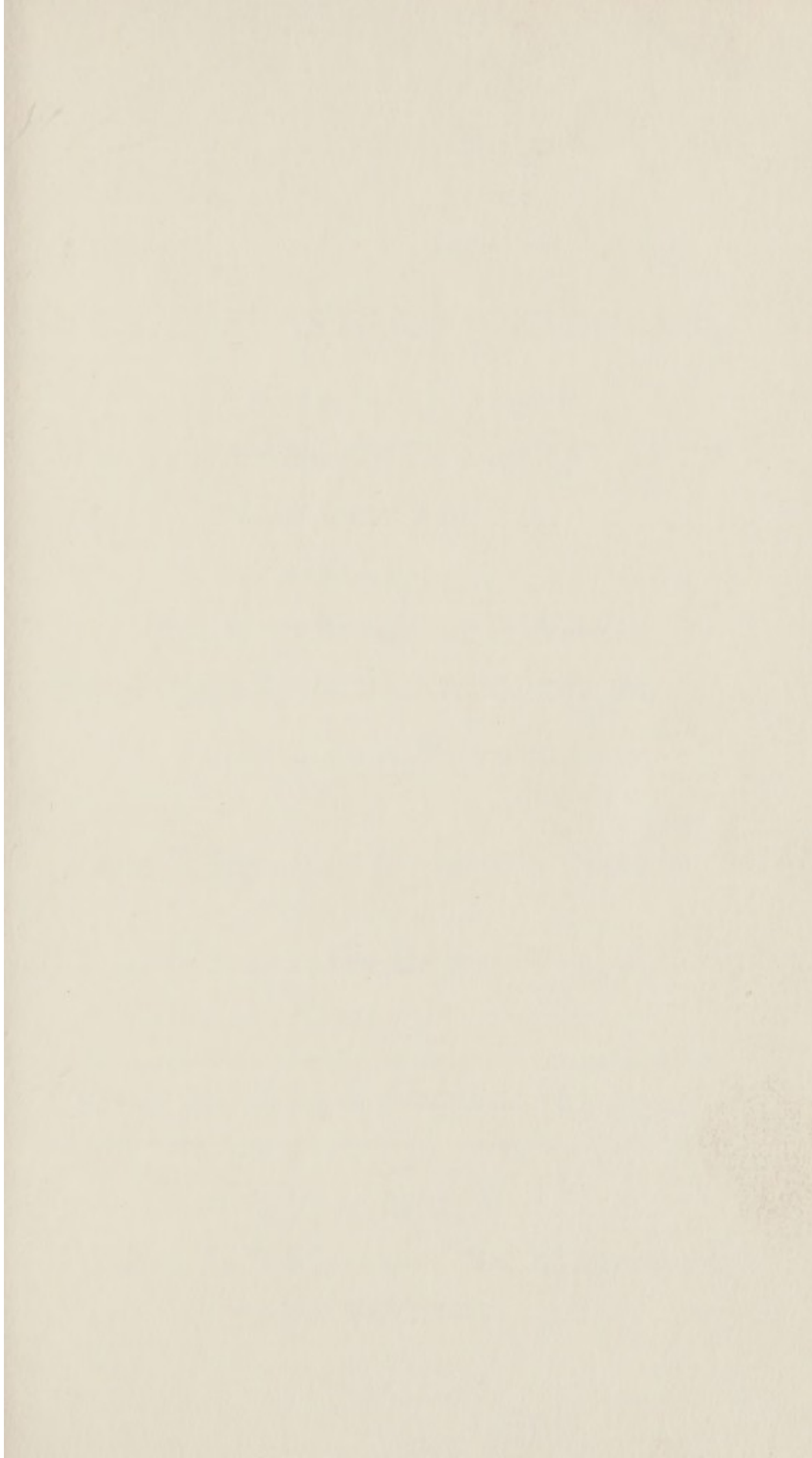




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A  
T R E A T I S E  
O N  
THE DISEASES OF CHILDREN,  
WITH DIRECTIONS  
FOR THE MANAGEMENT OF INFANTS  
FROM THE BIRTH;

ESPECIALLY

Such as are brought up *by Hand*.

By MICHAEL UNDERWOOD, M. D.

LICENTIATE in MIDWIFERY

OF THE

Royal College of PHYSICIANS in LONDON,

AND

PRACTITIONER at the BRITISH LYING-IN  
HOSPITAL.

---

*Ornari Res ipsa negat, contenta doceri.* HOR.

---

L O N D O N,

Printed for J. MATHEWS, No. 18, Strand.

MDCCLXXXIV.



T R E A T I S E

OF

THE DISEASES OF CHILDREN

WITH DISCUSSIONS

ON THE MANAGEMENT OF INFANTS

FROM THE BIRTH

UNTIL THE FIRST

YEAR OF LIFE

BY MICHAEL UNDERWOOD, M.D.

THE SAME CONDENSED

GOODNESS, WHICH HAS

BEEN THE BASIS OF

FORMERLY DIFFERENT

EDITIONS, HAS

BEEN PERMITTED

TO BE REPRINTED

FROM THE ORIGINAL

TEXT, I HAVE ONLY TO

ADD THAT THE PUBLISHER



[ iv ]

TO THE

QUEEN.

MADAM,

THE same condescending  
Goodness, which has uniformly distinguished your MAJESTY upon all Occasions, having permitted me to lay the following Pages at your MAJESTY's feet; I have only to hope that the Public may find them



not unworthy of so high a Patronage. My wish being to relieve and benefit my fellow Creatures, there was no Person to whom they could with so much propriety be addressed.

I have the Honor to be,  
With the most grateful obedience,  
Your MAJESTY'S  
Most devoted,  
And most obliged, Servant;

**The Author.**

Great Marlborough Street,

August 7. 1784.



## C O N T E N T S.

---

	Page
<i>THE design of the work</i>	I
<i>Diseases of Infants too much neglected</i>	3
<i>Causes of this neglect</i> - - -	4
<i>Arguments against such neglect</i> -	4
<i>Their diseases easily understood</i> -	8
<i>Causes of Infants diseases</i> - -	10
<i>Symptoms, or marks, of their diseases</i>	14
<i>Meconium, what?</i> - -	15
<i>Retention of it, an occasion of</i> <i>disease</i> - -	15
<i>Of no use after birth</i>	16
<i>Ought to be carried off early</i>	16
<i>Proper remedies to expel it</i>	18



<i>Meconium, Instance of its retention</i>		
<i>for many days</i>	-	24
<i>Inward fits, what?</i>	- -	26
<i>Treatment</i>	-	28
<i>Costiveness and Wind</i>	-	31
<i>Watching, or want of Sleep</i>		36
<i>Faundice</i>	- - - -	38
<i>Anomalous Inflammation</i>	-	40
<i>Apthæ, or Thrush</i>	- -	43
<i>Appearance of it</i>	-	44
<i>Causes</i>	- -	46
<i>Remedies</i>	-	46
<i>Red-Gum</i>	- -	52
<i>Cutaneous Eruptions</i>	- -	54
<i>Anomalous Rash</i>	- - -	55
<i>Crusta lactea</i>	- - -	56
<i>Sore Ears</i>	- -	58
<i>Vomiting</i>	- -	61
<i>Not a common Disease of Infants</i>		61
<i>Milk returned curdled</i>	-	62
<i>Treatment</i>	- -	63
<i>Gripes</i>	- - -	67
<i>Purging</i>	- - -	67
<i>Cause</i>	- -	68



<i>Purging, Kind of Stools</i>	-	74
<i>(Skin-bound)</i>	- -	76
<i>Watery gripes</i>	-	78
<i>Treatment</i>	- -	78
<i>Dr. ARMSTRONG's ob-</i>		
<i>jections considered</i>	71—73	
<i>Convulsions</i>	- -	82
<i>Of two kinds</i>	-	82
<i>Children oftener said to die of</i>		
<i>them than they really do</i>		82
<i>Causes</i>	- -	83
<i>A remarkable Case</i>	-	85
<i>Treatment</i>	- -	85
<i>Teething</i>	- -	90
<i>An important period in the Infant</i>		
<i>state</i>	- -	91
<i>Process of Dentition</i>	-	93
<i>Symptoms</i>	- -	94
<i>Remedies</i>	- -	95
<i>Great advantage of lancing the</i>		
<i>gums</i>	- -	99
<i>Fever</i>	- -	105
<i>Infants not very subject to common</i>		
<i>fevers</i>	- -	105
		<i>Fever</i>



<i>Fever, Causes of</i>	-	-	106
<i>Treatment</i>	-	-	107
<i>Hectic fever and Marasmus</i>	-		112
<i>Sometimes curable</i>	-		113
<i>Meazles, Small-pox</i>	-		115
<i>Age and circumstances suitable for</i>			
<i>Inoculation</i>	-		116
<i>Rickets</i>	-	-	119
<i>Cause</i>	-	-	120
<i>Symptoms</i>	-	-	120
<i>Treatment</i>	-		121
<i>Hooping-Cough</i>	-	-	123
<i>Symptoms</i>	-		124
<i>Treatment</i>	-		125
<i>Croup</i>	-	-	136
<i>Cause and means of Prevention</i>	137	—	138
<i>Treatment</i>	-	-	139
<i>Morbid Appearances</i>	-		140
<i>Scrofula</i>	-	-	141
<i>Cause</i>	-	-	141
<i>Treatment</i>	-		143
<i>Worms</i>	-	-	146
<i>Not usually dangerous</i>	-		146
			<i>Worms,</i>



<i>Worms, Symptoms</i>	-	147
<i>Cause</i>	- -	148
<i>Treatment</i>	-	149
<i>Hydrocephalus internus</i>	-	153
<i>Cause and Symptoms</i>		154
<i>Treatment</i>	-	155
<i>Tinea, or Scald-head</i>	- -	156
<i>Its nature</i>	- -	156
<i>Remedies</i>	- -	157
<i>Canker</i>	- - -	159
<i>Remedies</i>	- -	161
<i>Cutting of the Tongue</i>	-	162
<i>Opthalmia, or inflammation of the Eyes</i>		164
<i>Hiccough</i>	- -	167
<i>Sneezing</i>	- - -	168
<i>Bleeding of the Nose</i>	- -	169
<i>Hæmorrhage from the Navel</i>	-	171
<i>Herniæ or Ruptures</i>	-	172
<i>Hydrocele or watery Rupture</i>	-	174
<i>Prolapsus Ani</i>	- -	175
<i>Discharges from the Vagina</i>		177
<i>Luxations and Fractures</i>	-	178
<i>Burns</i>	- -	184
		<i>Chilblains</i>



<i>Chilblains</i>	- -	186
<i>Complaints mentioned by Ancient Writers</i>		191
<i>On external Blemishes called Marks</i>		194
<i>Causes commonly assigned</i>	-	194
<i>Experience proves them to be ground-</i> <i>less</i>	- -	195
<i>Blemishes that may be remedied</i>	-	198
<i>Hare-lip — Imperforate Passages —</i> <i>Squinting, &amp;c. Treatment</i>		198—212
<i>DIRECTIONS for the MANAGE-</i> <i>MENT of INFANTS from the</i> <i>BIRTH.</i>	- -	213
<i>Dry-nursing, unnatural</i>	-	214
<i>Arguments in favor of it</i> <i>usually futile</i>	-	215
<i>The Duty of great attention to In-</i> <i>fants</i>	- -	216
<i>On washing of Infants</i>	-	219
<i>On the Cold-bath</i>	- -	221
<i>On Chafings, or Excoriations</i>	-	224
<i>On forcing out the milk from their</i> <i>breasts</i>	- - -	227
<i>Errors in regard to the first cloathing of</i> <i>Infants</i>	- -	228—231
		<i>Obser-</i>



<i>Observations on the NON-NATURALS</i>	232
<i>On AIR</i>	233
<i>Change of Clothes</i>	235
<i>On MEAT and DRINK</i>	237
<i>Children require no food immediately after Birth</i>	238
<i>Milk, the most proper of all food</i>	240
<i>Milk, or Bubby-pot, its excellent con- trivance</i>	245
<i>Resemblance to the Nipple</i>	248
<i>Objections answered</i>	250
<i>Proper times of Feeding</i>	251
<i>Change of food as children grow older</i>	253
<i>Proper diet when ill</i>	257
<i>On the acescent quality of the food of Infants, their disposition to Wind, and their Remedies</i>	260—263
<i>On the choice of wet-nurses</i>	264
<i>On weaning of Children</i>	265
<i>On SLEEP and WATCHING</i>	268
<i>Observations on the Cradle</i>	270
	Caution

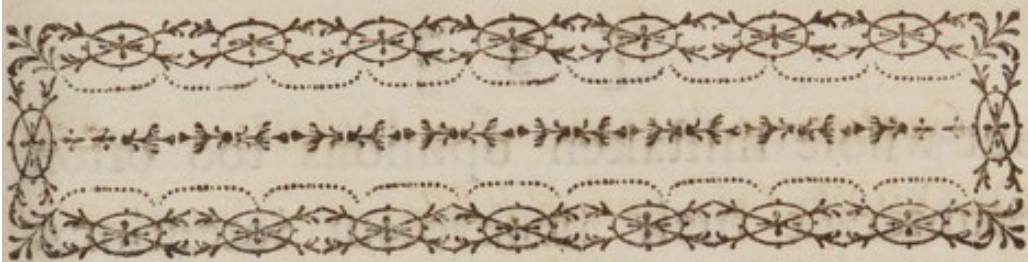


<i>Caution against the use of Opiates</i>	272
<i>On MOTION and REST</i> -	272
<i>Exercise how important to Health</i>	273
<i>Proper time of putting Children on their feet</i> - -	275
<i>On RETENTION and EXCRETION</i>	282
<i>Retention and Incontinence of Urine</i>	282—283
<i>Infants bowels should be always open</i>	284
<i>On the PASSIONS of the MIND</i>	285
<i>Children's Crying</i> -	285
<i>Tempers of Wet-nurses</i> -	287

## E R R A T A.

Page 20. first line of note, for *Duodendum* read *Duodenum*,  
p. 20. last line but three of note, for *violently* read *vio-  
lent*.—P. 36. last l. but one, dele *method*.—P. 49. l. 8.  
for two or three times, read two or three times *a day*.—  
P. 74. l. 13. for *fætid* read *fetid*.—P. 99. l. 10. for  
“pain not very great,” read “pain *very* great.—P.  
114. l. 6. for *lactantium*, read *dententium*.—P. 118. l. 2.  
for *left* read *right*.—P. 122. l. 11. after issues a comma,  
and dele *often*.—P. 122. l. 15. for *purgings* read *purg-  
ing*.—P. 171. l. 17. for *costic* read *caustic*.—P. 192.  
l. 9. for *Serias is* read *Seriasis*.—P. 204. l. 3. for *ex-  
ceeding* read *exceedingly*.—P. 253. l. 4. for *severe* read  
*severer*.





A

## TREATISE, &c.

THE design of this essay is to offer a succinct account of the diseases of children to such practitioners in physic, as may not have had the advantage of great experience in the management of their complaints. The work, however, is by no means intended solely for their use. The writer has long lamented the very improper method in which the disorders of infants are treated by those who design them the greatest kindness;

A

but



but whose mistaken opinions too often counteract their benevolent intentions. The laudable affection of the fondest mother frequently becomes a source of manifold injury to her tender offspring: and this is not only the case among the lower class of people, or in situations where medical assistance is procured with difficulty, but even in the metropolis itself, and in the higher ranks of the community, where many prejudices very hurtful to the ease and health of children still prevail.

It is parents, therefore, as well as the medical world, to whose notice I wish to recommend the following pages; and I hope in the estimation of both, the intention will apologize for taking up this important subject, that has long called for the most able hand.

The necessity of clearly and intelligibly expressing what is to be said, may possibly, in this instance, be pleaded with  
those



those who expect critical accuracy and method; which every writer should aim at. It may therefore be observed, that some consentaneous diseases have been longer dwelt upon, and their remedies oftener hinted, than might be necessary for medical readers. Not that I wish to be thought capable of writing any thing in a finished manner; I only beg the liberty to offer for public use such remarks as a long acquaintance with the subject has furnished. And here it may not be improper, by way of farther apology to observe, that whatever merit former publications may possess, it may, nevertheless, with great propriety be remarked, that they either make a part of some larger work, too voluminous to answer the particular intentions of a tract of this kind, or else they are far too concise, and have omitted many complaints of too much importance to be entirely overlooked.



It has been generally lamented by writers on these diseases, that this branch of medicine has remained too much uncultivated. One principal cause of so strange a neglect has arisen from an idea some people have entertained, that the complaints of infants being imperfectly understood by medical people, from their inability to give account of them themselves, it is safer to entrust them to the care of old women and nurses; who, at least, are not likely to do mischief by violent remedies, though they may sometimes make use of improper and inadequate ones.

How fatal such a mistake must necessarily be, cannot surely require much argument to prove; since the destruction of infants is eventually the destruction of adults, of population, wealth, and every thing that can prove useful to society, or add to the strength and grandeur of a kingdom. It may, moreover, be observed, that where mismanagement at  
this



this period does not actually destroy the life, it often very essentially impairs the health ; the foundation of a future good or bad constitution being frequently laid in a state of infancy.

It is true, indeed, some laudable attempts have been made of later years to rescue this important trust from being indiscriminately committed to such dangerous hands ; but it is still to be lamented, that even in this liberal age, such attempts have not been attended with all the success they have deserved. It is therefore yet to be wished, that something farther were advanced on the subject, and that the weak objections made against procuring the best advice were more powerfully combated. And this is the more necessary, because those who have the greatest interest in the subject, the most authority on the occasion, and the sincerest affection for their offspring, have frequently the greatest



objections to medical assistance, till it is, oftentimes, too late to employ it with effect.—I may, indeed, be very inadequate to the task of obviating such prejudices, but I shall state an argument or two that has always appeared to me of great weight.

One objection already alluded to, taken from the consideration of the incapacity of infants to describe their complaints, has been ably discussed in a treatise written about twenty years since, by Dr. Armstrong. It is aptly remarked by this writer, that the same difficulty occurs in a variety of the most dangerous complaints of adults at every period of life, which confessedly require the greatest assistance; such are attacks of phrenzy, delirium, and some kinds of convulsions; to which may be added, all the complaints of ideots and lunatics. But these have been successfully treated in every age, not excepting even  
the



the latter, and the melancholy subject happily restored to society, his family, and himself.

It has likewise been observed, if infants for this reason are to be excluded the benefit of a physician's advice, it is difficult to say at what age they may safely be intrusted to their care ; since at the age of five or six years, they would frequently mislead the enquirer, who should trust to their own account of their complaints. Their ideas of things are too indistinct to afford us sufficient information, and they accordingly often call sickness at the stomach, pain, and pain, sickness ; they will frequently make no reply to general questions, and when they are asked more particularly whether they have any pain in one or another part of the body, they almost certainly answer in the affirmative ; though it afterwards frequently turns out they were mistaken.

To



To this idea I will venture to add, that although infants can give no account of their complaints in the manner we receive information from adults, their diseases are all plainly and sufficiently marked by the countenance, the age, the manifest symptoms, and the faithful account given by the parent, or an intelligent nurse. This I am so confident of, that I never feel more at my ease, in prescribing for any disorders than those of infants, and never succeed with more uniformity, or more agreeable to the opinion I may have adopted of the seat and nature of the disease. Every distemper may be said, in some sense, to have a language of its own, and it is the business of a physician to be acquainted with it; nor do those of children speak less intelligibly\*.—Limited as is human knowledge

\* In neither of these sentiments do I stand alone; HARRIS, of whose work SYDENHAM is thought



ledge in every department, there are yet certain principles and great outlines in phyfic, with which men of experience are acquainted, that will generally lead them fafely between the dangerous extremes of doing too little, or too much ; and will carry them fuccefsfully, where perfons who want thofe advantages cannot venture to follow them.—Let me ask then ; is it education, is it obfervation and long experience, that can qualify a perfon for the fuperintendance of infants, or the treatment of their complaints ? Surely all thefe fall eminently to the

thought to have fpoken fo highly, has faid the fame things—*Incertæ verò diagnofeos (quæ multum obtinuit) querela non tam a fymptomatum defectu, quàm a præpofterâ ac ineptâ medendi ratione ortum fuum duxiffe videtur.* (page 8.) And at page 3.—*Etenim afferere non verebor morbos illius ætatis generê pauciffimos effe, et gradu tantummodò differre ; imò curationem puerorum multò tutiorem ac faciliorem, quàm virorum ac mulierum.* *De Morb. Infant.*



share of regular practitioners, to the utter exclusion of nurses and empirics.\*

Having briefly stated this matter, as I hope, with impartiality, and given it the attention its importance demands, I shall next observe, that, as the complaints of infants are more obvious than it has been generally imagined, so their number is comparatively small, their cause uniform, and the treatment of most of them, simple and certain†.

For the proof of this, as well as in order to establish a rational practice, I shall first consider the causes and diagnostics, or specific nature of their complaints, before I attempt to enter upon their cure.

\* Neque potest scire quomodo morbos curare conveniat, qui unde hi sint ignoret—Pertinet ad rem omnium proprietates nosse. CELSUS.

† Facillimè inquam in morbos dilabuntur infantes, et nisi aut seriùs aut imperitiùs tractentur, facillime in sanitatem restituuntur. HARRIS *de Morbis acutis Infantum*.

And



And here I shall not attend to the various remote causes, but shall confine myself to a practical consideration of the subject, and briefly point out their obvious occasions and symptoms. And on this account, I shall not take notice of the various changes which nature herself induces during the growth of the infant, as it passes from one stage of life to another; which is, doubtless, a remote cause of some of their complaints.

The most ordinary CAUSES then may arise from the vast glandular secretion of infants; their glands in general being much larger in proportion, than those of adults. I might instance in the thymus gland, and particularly in the pancreas and liver. But besides these, there are innumerable glands situate in the mouth, fauces, the œsophagus, stomach, and intestines, which are continually pouring out their contents into the first passages. This is, doubtless, a wise provision of nature,



ture, and I cannot, therefore, think with Dr. Armstrong, that the gastric juice renders the chyle less fit for absorption; but, as we do not thoroughly follow her dictates in the management of children, as to their food, cloathing, &c. this abundance of slimy matter often overloads the stomach and bowels, the constant seat of the first complaints in the infant state.\* The quality of the milk, or other food with which infants are nourished, may be reckoned a second cause. A third arises from the delicacy of their muscular fibres, and the great irritability of the nervous system. In addition to these may be reckoned the want of exercise, which at a more advanced age, happily for us, we are obliged to make use

\* Non quod ætas per se fit causa ullius morbi, est enim res naturalis et temporis determinatio, sed quia disponit ad morbos quosdam facilius suscipiendos, si causæ eorum accesserint. PRIMÆROS : *de Morb. Infant.*



of, and which art, in general, does not duly supply in regard to children.

Hence arise acidities in the first passages, a constant attendant upon all their early complaints.\* The first of which, is the retention of the meconium, and the last (which may be properly termed a disease at all peculiar to young children), is the cutting of the teeth, in which likewise the state of the bowels is very much concerned.

Upon each of the above heads, it may be necessary to make farther observations as we proceed, in order to take notice of some accidental causes arising from mismanagement, or errors in the non-naturals, as they have been called ; the chief of which will turn upon the quantity of nourishment administered to infants, and an inattention to a costive state of the bowels ; to which might be

\* SYLVIVS DE LE BOE. HARRIS.



added, a neglect of making the child break wind soon after feeding, or coming from the breast.

The SYMPTOMS of these first diseases of infants (by which we also judge of their nature), are chiefly retention and excretion; four belchings; nausea; vomitings; purgings, the nature of the matter thrown off; watching; inquietude; thirst; heat; the manner of breathing and of crying; retraction of the lower extremities; and pustules, or eruptions, external, or internal. The pulse and urine are less certain marks than they are in adults. To these may be added, the openness or firmness of the fontanelles, or moles, and of the futures, and the relaxation or contraction of the skin in general, and of the scrotum in particular.

Having thus briefly adverted to the general causes and symptoms, I shall now proceed to the consideration of the disorders



orders themselves ; and shall begin with the retention of the meconium.

The MECONIUM is that black, viscid, or tenacious matter, which it is well known, every infant parts with by stool, for the two or three first days after it is born, or retains it to its manifest injury.

As the source of children's complaints has already been said to originate from something amiss in the first passages, according to the most ancient opinions\*, I have long suspected, that a foundation is sometimes laid for them, from not duly attending to an early expulsion of the meconium; which will sometimes firmly adhere to their coats, and remain for many days, unaffected even by powerful medicines, as I shall have occasion to remark as I go on. I shall only observe in this place, that though it should not be all retained, yet a part will often remain

\* HIPPOC. CELSUS. ÆGINET.



much longer than has been usually imagined, and will come away perhaps unnoticed at a late period, where no retention of it has been suspected.

The meconium appears to be no longer of use after the child is come into the world, unless it be to keep the intestinal canal from collapsing, till it be replenished with the aliment the child is soon afterwards to receive. Whereas, if it be not soon carried off, it will not only change the quality of the milk, or other food, as it descends into the bowels, but itself also becomes highly acrid, being chiefly a bilious secretion, and cannot fail to produce flatulency, indigestion, and various other evils. And it is, doubtless, on this account, that provident nature has imparted an aperient quality to the first milk of all animals; a certain indication to the rational species, to assist the expulsion of this matter, now no longer required. For though a child should



should even be suckled by its own mother, (in which case, there is doubtless, less occasion for other assistance) yet we know that nature doth not, in every instance, always fully accomplish her own designs: and it is from some striking instances of the truth of these observations, that I have said so much on this subject, which I have also been the more inclined to, because all late writers have passed it over almost in silence.

I am aware that all those who esteem medical people to be officious disturbers of nature, have objected to their assistance in this instance, and conclude that she would do the business much better if left to herself. And there are even some physicians of this opinion, amongst whom I find Dr. BUCHAN, whose abilities and reputation claim particular attention, though he perhaps may not be so much engaged amongst very young infants, as those whose peculiar pro-

B
vince



vince it is to attend them from the birth. But there can be no general rule without exceptions\*, and as doubtless many children would do very well without any such assistance, so am I certain many would not; and I believe none can be essentially injured by constantly assisting in this work. It is the province of art to superintend nature, and not only to guard against her excesses, but so to watch over her, as to ensure the accomplishment of her intentions, whenever we perfectly comprehend, and can effect them without the risque of doing harm.

For this purpose, amongst others, a new remedy has of late years been recommended, as preferable to any purging medicines whatever.† Mankind

\* Vix ulla perpetua præcepta medicinalis ars recipit. CELSUS. Præf. Lib. i. P. 17.

† Dr. ARMSTRONG on the Diseases most fatal to Infants. 1767.



has ever delighted in extremes ;—no sooner has any thing, formerly judged to be hurtful, or even poisonous, been found in certain cases, to be very useful, than it is supposed to be capable of doing every thing, and supersedes all that the wisdom of former ages has proved to be salutary. Hence, some advantages experienced from the use of antimonial wine, in a variety of children's complaints, as far as they arise from one common cause, has induced some people to extol it as an universal remedy. But wherefore give an emetic, calculated to empty the stomach, in order to expel the meconium from the lower bowels ? §

B 2

It

§ On examining the first passages of still-born infants (newly dead) it appears, that the large intestines contain the true meconium ; the small intestines only a thin bilious fluid mixed with a little gastric juice. The stomach contains still less, as no bile can enter it but by regurgitation from  
the



It is universally allowed, and by this writer also, that emetics are not to be administered when the intestines are full, which in this instance is precisely the case. It is true, the antimonial wine does not always vomit children, nor will a little matter oftentimes do this (as I shall have occasion to take notice very soon); it is sometimes indeed found to act as a purgative: but if this be the intention, why not adhere to the old, and more certain method, and direct at once such things whose proper operation may be depended upon? Not the stomach, but the bowels are the natural and safe outlet for most of children's complaints, and a want of due attention

the duodendum, and the gastric juice is in small quantity, not enough to be brought up by an emetic without violently straining; which I should imagine it can answer no good end to excite by a vomit, the first hour a child comes into the world.



to this circumstance has been productive of some evils, many practitioners, I think, are not sufficiently aware of.

It is very evident, that some gentle purgative is indicated on this occasion, and that it should be of a kind that will create as little disturbance as possible, and especially should not be of an offensive or indigestible nature ; tho' such have been very commonly advised. In general, indeed, a very little matter will suffice ; perhaps a little solutive syrup of roses, diluted with some thin gruel, and given occasionally by tea-spoonsful, will mostly answer the end, will also serve to keep the child quiet, and so prevent the nurse from giving it improper food. But if this should fail to procure stools, a few grains of Turkey rhubarb (or a tea-spoonful of its vinous tincture diluted as above) will be found preferable to the indigestible oily mixtures in com-



mon use. † In the country, where the above medicines may not be at hand, a little fresh whey and honey will be an excellent substitute.

The objection now made to oily medicines is very much increased, from nurses scarcely ever giving the quantity that is directed, in the course of the first twenty-four hours, as it is always designed; and administering the rest long after the child has begun to suck, or to feed. At this period, mixing with the nourishment, it has a direct tendency to produce indigestion, wind, and the very complaints, which the oils if administered in proper time, were designed to prevent. Not to add that, some kind of oily medicine being the usual purgative on this occasion, is an inducement to parents and nurses to procure a repetition of it, and to administer it when-

† See HARRIS.



ever an infant happens to be costive during the month; and from whence the above evils may be frequently induced.

But it has been observed, the meconium is not always disposed to come away, even by the assistance of common purgative medicines. Having, therefore, begun with such as the above, if the child has no stool for twelve or fourteen hours after birth, and especially if it should seem to be in pain, a glister ought to be thrown up; which may be repeated if necessary a few hours afterwards. And here I would observe, that in the cases where more powerful means are required, no evacuation at all will be procured by these gentle means; for, as far as I have seen, wherever I could procure one copious stool by a glister, or gentle laxative, the rest of the meconium has come away with little, or no farther assistance. But as it sometimes



happens, that neither glisters nor purgatives have any sufficient effect for several days, very powerful means must then be made use of; there being reason to suspect a suspension of nervous influence. I shall close this subject therefore, with an instance of this kind, not the only one I have met with, as a proof of what powerful remedies may sometimes be required, and how necessary it is to pay some attention to this first complaint of infants.

The child was born of very healthy parents (not at all of constipated habits) after a quick, and comparatively easy labour, on the morning of the twenty-second of February, 1784.—To avoid prolixity, I shall not state the case in the form of a journal, but shall only observe, that the child took a little rhubarb an hour or two after it was born, but having had no stool when I saw it the next day, I ordered a glyster to be thrown  
up.



up. In the evening, the child lay in a kind of comatose state, and when roused it moaned, but seemed unable to cry. It continued pretty much in this state (at times, seemingly in great pain, and evidently convulsed) for six days; and was nourished chiefly by a tea-spoon with a little breast-milk, seldom reviving sufficiently to suck.

It had no stools, save a few spots on the cloths about the size of a shilling, till the twenty-seventh, and those were very small, hard, and lumpy. On the twenty-eighth it had more of this kind, and it had not till the twenty-ninth any thing like a proper stool, which was also mixed with hard lumps; but on the third of March, they were thinner, and on the fifth came very freely. In the course of six and thirty hours I prescribed two ounces of the common infusion of senna, two drams of rochelle salts, four grains of jalap, and a grain of calomel;



calomel ; besides purging glysters, and the use of the warm bath. The child after this took six drams of castor oil, besides several doses of manna ; and at another period, four grains of ipecac. at two doses, and forty drops of antimonial wine, at four times (in the course of an hour) without any effect. Three days after the child got rid of the meconium, the thrush made its appearance ; which was slight, but continued above three weeks.

#### INWARD FITS.

THE retention of the meconium is capable of giving rise to various complaints, that are connected with the state of the first passages ; among which, that of inward fits has lately been taken notice of by some medical people, but I think scarcely deserves the name of a disease. So much, however, has been said about it, as to alarm many a fond mother,

and



and on this account it demands an attention. The chief, and constant symptom of this kind of fit, as it is called, is the infant's little mouth being drawn into a smile; which whoever has noticed, must have beheld it with pleasure.

If the complaint extends no farther than this smiling, which is generally in its sleep, it arises from a little harmless wind; for which an immediate recourse to pukes or purges, is more likely to do harm by straining the stomach, or by relaxing the bowels, than to do any good. Every body is acquainted with the effects of different degrees of action on the nerves, from the sensation produced by tickling with a feather, to that of a hard blow, or a violent stroke. The first may be said to be pleasing, and such, I doubt not, is the stimulus in question on the nervous coat of the stomach of little infants, and therefore produces the most agreeable smile, which I have always  
gazed



gazed at with delight. Indeed, I know of no complaint that ought to be termed inward fits; and I mention this, because nurses are continually talking to us about them, when children are perfectly well, and often give many an unpleasant dose on the occasion. They are at the same time treating the true convulsion, whilst slight, in the same way, being led into the error by the idea of inward fits; a term they are ever using, but have no precise ideas of, nor do any two of them mean the same thing by it. The word, therefore, ought to be abolished; as the child is either evidently convulsed, or has no kind of fit, at least none for which any remedy can be offered \*.—If the child should

\* Infants, as well as adults, do sometimes, indeed, die suddenly without any manifest convulsion. But this more frequently happens after over-feeding, and arises from a spasm of the stomach; or sometimes of the heart or lungs, and  
infants



should sleep too long, and this smile should often return, it may be taken up, gently tapped on the back, and its stomach and belly be well rubbed by the fire; which is all that can be necessary. This gentle exercise † will bring a little wind from its stomach, and the child will go to sleep again quietly. This complaint is largely treated of by Dr. ARM-

infants may then be said to die of inward fits, there being no external convulsion; but this is not the kind of affection usually understood by that term.

† EXERCISE is the grand mean of health.—The irrational species are capable of it almost as soon as born; and though infant children are not, they are passive, and can be *exercised*. Nature and instinct point out the expediency of it, and the fond mother who follows only her own inclination, naturally adopts it, and is continually stroking and playing with the little idol of her heart, whenever it is awake; and as it grows older, she naturally gives it more exercise, as it can bear it, and according to the satisfaction the infant never fails to manifest on the occasion.

STRONG,



STRONG, who wishes to give a few drops of antimonial wine ; but it is very apparent, that when he considers it as worthy of more attention than I have just now advised, it is either a true convulsion, in which the eyes are distorted, and the mouth is discomposed, instead of putting on a smile, or else he is prescribing for another disease under the name of inward fits, which former writers have treated under the head of disorders arising from costiveness and wind. But if this little turn of the features should arise from constant over-feeding, it were endless to administer emetics ; the cause of the complaint is obvious, and upon the removal of it the remedy must rest.

But as costiveness and wind do not always arise from one and the same cause, and are productive of other complaints than those above mentioned, I shall consider them by themselves ; which, it is presumed, will be pursuing a much more  
rational



rational plan, than adhering to a term obscure in itself, and which tends to mislead the generality of readers.

### DISORDERS arising from COSTIVENESS and WIND.

IT has been usual with ancient writers, when conciseness and accuracy were not so much considered as in the present day, to treat of costiveness and wind as distinct heads of complaint; and as this little tract is calculated for general usefulness, and not merely for medical readers, it may not be altogether improper to comply with this custom. Wind is but a mere symptom of some preceding or attending complaint, nor are its troublesome effects either occasioned or increased, by air taken in with the food, as many people have imagined; atmospheric air being essentially different from that produced by indigestion, whether



whether owing to the weakness of the stomach, as it is called, or the improper quality or quantity of the food taken into it. It, however, proves a source of many complaints, and creates watchfulness, startings, hiccoughs, vomitings, and, in the end, purging, watery gripes, and even fatal convulsions, if not timely attended to.

Costiveness is either constitutional, or accidental, which ought always to be distinguished : the latter is usually the effect of heavy and improper food, the former is oftentimes harmless ; and children of such a habit of body are frequently the most thriving. If the mother chances to be very constipated, her children generally are so ; and such a disposition ought not, I believe, to be counteracted, though it will be necessary carefully to watch it. In such instances, a quarter of an ounce of manna, or the like quantity of the solutive syrup of  
roses,



roses, may be put into any liquid, and as much of it given by tea-spoonsful, as shall open the belly. And here it may not be useless to observe, that rhubarb will not be the fittest purgative, though it be joined with magnesia, and I only mention this, because such is the almost constant prescription of nurses on every occasion, whose indiscriminate use of it is generally needless, and sometimes prejudicial; rhubarb alone, in common cases, answering all the purpose intended, whilst the magnesia makes an unnecessary addition to the bulk of the medicine, which should be always avoided for children.

But if the child is otherways in health, it is, in general, inadvisable to do much to counteract it. I have formerly, even during the month, directed manna, even to half an ounce at a time, to very little purpose, unless it was almost daily repeated; and have at other

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times



times given from three to five grains of jalap; till I learned there are some constitutions, even in infants, where the bowels cannot be kept open without a daily exhibition of some purgative medicine, and that many such children are as well left to themselves, and require only to be watched. If a stool should be wanted, however, a suppository made of a little slip of paper, twisted up, and well moistened with oil, may be very easily introduced, and will generally answer the purpose.

But should any bad effects arise from so constipated a habit, and the child be griped, which may be known by the drawing up of the legs, or of the scrotum, and a certain manner of crying; or should the costiveness be accidental, it must speedily be remedied; and if the occasion of it be an improper food, which is very often the case, the food must immediately be changed. If the  
child



child be not usually costive, rhubarb is often the best medicine, as it strengthens the bowels afterwards, children being much more subject to an over-purging than to almost any other complaint. And here I would observe, that purgatives for infants ought generally to be made potentially warm, by the addition of a little ginger, pounded cardamom-seed, carraway-tea, or dill-water, which is of more consequence than is usually apprehended. I have known a careful attention to this circumstance alone, happily suppress complaints in the bowels, which had long continued obstinate, though, in other respects, properly treated.

As there is usually much acidity in the first passages in costive and windy habits, a little magnesia may be given for a few days after the costiveness has been removed. The nurse's diet should likewise be attended to. If any symp-



toms of flatulency still remain, which will not often be the case, if it has arisen merely from constipation, a little dill-water is the most harmless carminative. But should it be an attendant upon a lax state of the bowels, and indigestion, its remedy will consist in the removal of those complaints, which will be noticed in their place.

#### WATCHING, or WANT of SLEEP.

THIS is frequently a symptom of the foregoing complaints, and is to be removed by opening the belly, and afterwards administering some pleasant and carminative pearl julap; which will then frequently act like an opiate \* by restoring rest. Sometimes, indeed, this method succeeded so well, when given in large doses, that I have been suspect-

\* See HARRIS *De Morbis acutis Infantum*.



ed of having given some narcotic medicine ; which would in these cases prove exceedingly hurtful, as the watchfulness is a mere symptom, and not a disease. I cannot, therefore, avoid taking notice in this place, of the destructive custom amongst nurses, of giving syrup of poppies, Venice treacle, and Godfrey's cordial ; which, however useful in their place, act always as a poison, and sometimes not a very slow one, when injudiciously administered, and never can be more so, than in a costive state of the bowels.

Watching in very young infants is always owing to some complaint in the first passages, and frequently to costiveness. I shall only observe farther, if watchfulness be confined only to the night, it is probable, the child sleeps too long in the day time, which may be remedied by keeping it moving, and playing with it throughout the day ;



of which farther notice will be taken on the head of Management of children, at the close of this work.

The preceding complaints would naturally lead me to consider the Thrush, and other eruptive disorders, but it is necessary first to mention a disease or two, which appearing only very soon after birth, would otherwise be much out of place.

#### ICTERITIA OR INFANTILE JAUNDICE.

THE jaundice of infants seems always to have been improperly conceived of. Those who have written only on children's diseases, have usually passed it over in silence, whilst others have considered it as rather a serious disease, and have prescribed as for the jaundice of adults. On the other hand, parents and nurses have usually accounted the common yellowness that appears about  
the



the third day after birth, as the true jaundice. Neither of these opinions seems to me to be just, for the latter of these appearances requires no attention at all, and though infants are not subject to the troublesome jaundice of adults, they nevertheless are liable to icteric affections that claim some attention. These are easily distinguished from the common yellowness mentioned above, by the tunica albuginea, or white of the eyes, being always very yellow, but the nails are never tinged as in the jaundice of adults, though they perhaps would be, if the complaint was long neglected, and the child suffered to be costive. I have however, waited some days to see if the yellowness would go off of itself, as the usual tinge does, but it has increased rather than diminished. It arises, I imagine, from viscid matter obstructing the biliary ducts which open into the duodenum, and



therefore requires a little emetic. Antimonial wine is a very proper one on this occasion, as it may likewise procure two or three stools; but as children in this complaint are not easily made to vomit, if the wine fails, I would advise three or four grains of the powder of ipecacuanha, which is more certain in its operation, and the next day give four or five grains of rhubarb. Should the symptoms continue, the emetic ought to be repeated after two or three days, and rhubarb be given about every other day, till the yellowness disappears; which seldom under this treatment continues more than ten or twelve days.

#### ANOMALOUS INFLAMMATION.

INFANTS are liable to a very dangerous kind of erysipelatous inflammation, not noticed, that I know of, by any writer; and which I have not often met with



with but in lying-in hospitals. It never appears, I think, later than the month, but most frequently shews itself a few days after birth. It attacks the most robust, as well as delicate children, and in an instantaneous manner; the progress is rapid; the skin turns of a purplish hue; and soon becomes exceedingly hard.

The milder species of it appears often on the fingers and hands, or the feet and ancles, and sometimes upon, or near the joints, forming matter in a very short time. The more violent kind is almost always seated about the pubis, and extends upwards on the belly, and down the thighs and legs; though I have two or three times seen it begin in the neck. The swelling is but moderate, but after becoming hard, the parts turn purple, livid, and very often sphacelate; especially in boys, when it falls on the scrotum. The penis swells, and the prepuce puts  
on



on that kind of emphysematous appearance which it has in children, when a stone is sticking in the urethra.

Various means were made use of at the British Lying-in hospital without success; though for a time some benefit was received from saturnine fomentations and poultices, applied on the very first appearance of the inflammation, but it soon spread, and a gangrene presently came on; or where matter had been formed, the tender infant sunk under the discharge. It is now some years since I proposed making trial of the bark, to which sometimes a little *confectio cardiaca* has been added; from which time several have recovered. Dr. GARTHSHORE, one of my colleagues, has lately tried the application of linen compresses wrung out of camphorated spirit of wine, in the place of the vegeto-mineral water, which has proved very successful in several instances; nevertheless, the greatest



est number of infants attacked with this disorder, still sink under its violence, and many of them in a very few days.

### A P T H Æ, or T H R U S H.

I T is amongst the vulgar errors, that the thrush is a very harmless complaint, or is even desirable to a child in the month; for it is said, if it does not then make its appearance, it certainly will at a more advanced age, and will then prove fatal, or will, at least attend the patient in his last illness. On this account it is often neglected at its first appearance, whereby the acidity in the first passages, is suffered to increase, by which the complaint will be aggravated. The thrush, however, is as much a disease, as any other that appears in the month, and is connected with the foregoing complaints; a proper attention to which, may very frequently prevent it.

This



This disorder is so well known, as scarcely to require any description, and generally appears first in the angles of the lips, and then on the tongue and cheeks, in the form of little white specks. These increasng in number and size, run together more or less, according to the degree of malignity, and compose a thin, white crust, which at length lines the whole inside of the mouth, from the lips to the gullet, and is said to extend into the stomach, and through the whole length of the intestines; producing also a redness about the anus. When the crust falls off, it is frequently succeeded by others, which are usually of a darker colour than the former. But this is true only in the worst kind of thrush, for there is a milder sort, that is spread thinly over the lips and tongue, which returns a great many times, and always lasts for several weeks. I have seen this so very often



often the case, that when I observe a child to have the complaint very lightly, and that it does not increase after two or three days, I venture to pronounce it will continue a long time, but will be of no consequence. Care, however, ought to be taken the child be not exposed to cold. The thrush is said to be generally attended with fever, but this is not usually the case, though the mouth is often so much heated, as to excoriate the nipples of the nurse, and becomes so tender, that the child is often observed to suck with reluctance and caution.—It is an old observation amongst nurses, and there is some foundation for it, that very long sleeping, in the course of the first week or two, is often a forerunner of this complaint.

It has long been a received opinion, that the thrush must appear at the anus, and nurses will seldom allow it to be cured if it does not ; but the fact is, that  
its



its appearance there is only a mark of the degree of the disease, and not in the least of its cure, and is not, therefore, generally to be wished for. The redness about this part is occasioned by the sharpness of the secretions in the bowels, and consequently of the stools, which lightly inflame, and sometimes excoriate the parts about the anus, and in a bad thrush will do so long before the complaint is going off; but in the lighter kind, no such effects are produced, or are, at least, very slight.

The remote cause of this disease, seems to be indigestion, whether occasioned by bad milk, or other unwholesome food, or by the weakness of the stomach. The proximate cause, is the thickness, or acrimony of the juices secreted from the glands of the mouth, fauces, stomach, &c. producing heat and soreness in these parts.

Much has been said in favor of emetics,



tics, especially antimonial wine, as being almost a specific for this disease, but I cannot say it has proved so with me ; nor can I see any sufficient cause for departing from the more ancient practice, in the treatment of this very common complaint.

There can be no objection, after having properly opened the bowels, to administering an emetic, and where the thrush is of a dark colour, and the whole fauces are lined with it, I believe it will be useful, by emptying the stomach of the crude juices oozing into it from the glands of this part. But, I think it would be almost as endless, as it would generally be prejudicial, to persevere in the use of emetics, for days, and even weeks together, and is both a severe, and an unnatural method of treating a tender infant, in which the bowels are always the most natural outlet for its complaints ; on which, therefore, nature uniformly  
throws



throws the offending matter on almost every occasion, as appears plainly in dentition, in which the first passages cannot be primarily affected.

I believe therefore, where there is no fever, nor any uncommon symptom, testaceous powders are the best and safest remedy ; which may be joined with a little magnesia, if the body be costive ; or if in the other extreme, and the child be very weakly, a grain or two of the compound powder of contrayerva in its stead. Some such preparation should be administered for three or four days successively, and afterwards something more purgative, to carry down the scales as they fall off from the parts. For this purpose, rhubarb is generally the best, but when the thrush is very violent, is of a dark color, has come on very rapidly, and the child is lusty and strong, a grain or two of the pulvis basilicus may be joined with it, agreeable to the idea of

HEISTER ;



HEISTER ; but this must be given with caution. After the purgative, the testaceous powders should be repeated for two or three days as before, till the disorder begins to give way. Afterwards a tea-spoonful of camomile tea, or a few drops of the tinctura amara well diluted, may be given two or three times with advantage.

The choice of the testaceous powders, on which some writers have said so much, is, I believe, of very little importance ; the purest and softest are preferable. The design of these medicines, being to absorb and correct the predominant acidity, their effect will be discovered from the kind of stools they produce, and the dose may therefore be increased or diminished, or they may be altogether discontinued, as circumstances direct. In the mean time, if the child be suckled, the nurse's diet should be attended to, and in general, her usual quantity of porter



or ale, (which is almost always more than sufficient) should be diminished.

In regard to topical applications, it is necessary to observe, that as they have little to do in curing the kind of thrush to which infants are liable, it will be improper to have recourse to them very early. I know, indeed, it is very common to begin with them, but they serve only to increase the foreness of the parts, (especially in the manner they are generally used) and to give a deceitful appearance of amendment. If the whole fauces and tongue are thickly covered with sloughs, it may sometimes be necessary to clean the mouth once a day ; but it will in general be useless, till the complaint is past the height, the sloughs disposed to fall off, and the parts underneath inclined to heal. Proper applications will then have their use, both by keeping the mouth clean, and constrict-

ing



ing and healing the raw, and open mouths of the excretory vessels.

For this purpose, an hundred different lotions and gargles have been invented, which from the earliest times have all been of an astringent nature.—That of Dr. SHAW is a very good one, consisting of honey of roses, and spirit of vitriol ; but nothing is preferable to borax and common honey, (about two scruples of the former to an ounce of the latter) which hangs about the fauces better than most others. It is also applied with more ease, and requires only to be laid on the child's tongue, as often in the day as shall be necessary to keep the parts clean, which it will effectually do, without putting the infant to pain, by being forcibly rubbed on. I must own, I have frequently been distressed, at seeing a nurse rub the mouth of a little infant, with a rag mop, as they term it, till she has made it bleed ; and this operation they



will often repeat half a dozen times in a day.

It only remains to take notice of the black thrush, as it is called, which is, confessedly, a very uncommon complaint in the infant state. Dr. ARMSTRONG acknowledges he never has met with it. I have seen only one instance of it, which was in a strong healthy child. After the stomach and bowels have been cleansed, I believe, a decoction of the bark, with a little cordial confection, is the most likely medicine to be of service, and is sometimes necessary in the worst kind of common thrush, when the succeeding sloughs are very opaque, thick, and of a dark color ; which is, however, always a dangerous symptom.

### The RED-GUM.

THE red-gum is an efflorescence on the skin, appearing usually in small spots,  
and



and is confined to the face and neck ; but it sometimes extends to the hands and legs, and even the whole body, appearing in very large patches, and sometimes raised above the surface. It will likewise appear in the form of small pustules, filled with a limpid, or sometimes a purulent liquor ; at least, I have never known what name to give to this kind of eruption, but that of a rank red-gum, as it happens only in the month, or soon afterwards, and never gives any trouble. Every species of this eruption is produced by the same cause as the thrush, but can scarcely be termed a complaint, being a kindly effort of nature to throw off some acrimony ; consequently an evidence of the strength of the constitution, as the thrush is, usually, of its weakness. In the former, nature throws off the offending matter on the surface more completely than in the latter, and there-



fore, when the eruption is slight, requires no assistance.

On this account it is, I apprehend, that writers have not usually taken notice of it, which I should not have done, but for the satisfaction of parents, who are sometimes distressed on account of it, especially if it be of the more extensive, and rank species. It is necessary only that the child be kept moderately warm, otherwise the rash striking in, it will fall on the first passages, and be succeeded by sickness, or purging, (till the efflorescence returns on the skin) or not unfrequently by the thrush, or a slight return of it, if the child has lately recovered from it.

### CUTANEOUS ERUPTIONS.

INFANTS are liable to various anomalous kinds of rash, both in the month, and till the period of teething is over.



over. The early ones may be regarded as a sort of red-gum, and children who are most subject to them, generally have their bowels in a better state ; the rash carrying off, as has been said, the acidity\* with which they so much abound.

One species is wont to appear about the time of teething, and sometimes on recovering from a fever, or severe bowel complaint; it very much resembles the itch, and is confined to no particular part of the body, though it appears more frequently about the face and neck. This eruption is certainly salutary, and even critical, requires nothing but to avoid taking cold, and is mentioned only because it is a very common appearance, and parents who are unacquainted with it, are apt to be alarmed at it.

There is another very common rash, to which medical writers have given the

\* See HARRIS, Page 22, 23.



name of *crusta lactea*, which has a very unpleasant appearance, but is notwithstanding equally innocent with the former, and even prevents other complaints. I think I never saw an infant much loaded with it, but it was always healthy, and cut its teeth remarkably well. It appears first on the forehead, often extends half way over the face, in the form of large, loose scabs, and appears not very unlike the small-pox after they turn. Very little I believe is necessary to be done; but in bad cases a perpetual blister may sometimes be of service. It will disappear of itself when the child has cut three or four teeth, though it may sometimes continue for several months. I have known testaceous powders and various alteratives administered to no purpose, as people of rank are very anxious to have it removed if it be possible. I was lately consulted for a child who had taken a grain of calomel for several months



months without any benefit, and fortunately without any injury; which is rarely the case when powerful medicines are administered unnecessarily. This rash will now and then make its appearance very early, and has then been mistaken by those who are not much accustomed to very young children, for the effect of lues venerea. I not long ago saw such a case, and advised only to keep the body open with a little magnesia; the complaint got no worse, and upon cutting some teeth, disappeared as usual.

In all eruptive complaints, taking cold ought to be carefully avoided, and the belly be kept open. If the child be sick at the stomach, a little magnesia, testaceous powders, or the compound powder of contrayerva joined with them, may be given now and then; or should the rash be hastily struck in, a few grains of the cordial confection in simple mint water.

If



If the scabs become very dry and hard, which the *crusta lactea* will sometimes be, especially when they extend to the crown of the head, and seem to give pain, they may be touched with a little cream; but not a large surface at a time. Or, should they be very moist, and cause pain by sticking to the cap, they may be dusted with a little powder, and covered with a singed rag, but I should be very cautious of doing much more; as the suppression of any considerable eruption on the skin may occasion the worst effects.

### SORE EARS.

SLIGHT vesications and ulcerations behind the ears of infants are so very common, that almost every parent is well acquainted with them, and in general require only to be washed with cold water, or covered with a singed rag, to keep



keep the cap from sticking to them, and thereby giving the child pain. They are, moreover, often very useful, especially during bowel complaints, or the irruption of the teeth. But there is in some children of a gross habit of body, and especially about the time of dentition, a species of ulcer that often requires attention, on account of its extending low down in the neck, occasioning great pain, and spreading into large sores. In such cases, the cure should be begun by a blister on the back, in order to draw off the heated serum that flows to the parts. I have usually given an opening powder of testacea and rhubarb, with a little nutmeg, to which is added either calomel, cinnabar or antimony, or æthiops mineral, the latter of which, I think I have found more serviceable in eruptive complaints in young children, than seems to be generally imagined. But above all, some mercurial should be made use of to  
the



the fores, which though they are often apparently inflamed, never offends them. A very clean and elegant preparation of this kind is the following,

R. Calomel. ʒj ad ʒij.

Ung. flor. Sambuc. ʒj m. ft. linimentum.

A little of this liniment spread thin on a piece of doubled linen cloth, and applied twice a day, will do more than all the fomentations, or healing ointments, that I have ever seen used; and indeed has always succeeded with me, when I have been told the fores have spread deeper from day to day under various other applications. From such treatment I have never found the least ill effects, but children have preserved their health as well as if the fores had kept open, which, when benign, are certainly designed by nature as a preservative from some other complaints, of which I now proceed to take notice.

VOMIT-



## VOMITING.

VOMITING is certainly not a common complaint of infants, I mean when considered as a *disease*, unless it be attendant upon some other, of which it is then rather a symptom, or the consequence of such complaint improperly treated. Neither are infants in health disposed to vomit frequently, unless the stomach be overloaded : the milk is then usually ejected as soon as it is taken, and comes up unchanged. Nor is this to be considered as a disease, or as calling for the discipline recommended by some writers. Wherefore should the residue of the aliment be forced off the stomach by an emetic, when it has already parted with all the oppressive abundance ? This kind of puking is not attended with any violence to the stomach : the milk, or other food seems to come up without any sensible



ſenſible action of the ſtomach, or the child being ſick. Nay, it is at once ſo common to ſome of the fineſt children, that it is a ſaying with ſome old nurſes, (though I am not very partial to many of their proverbs) that a puking child is a thriving child ; and when ſuch ejection comes only ſoon after ſucking or feeding, and the aliment is caſt up ſcarcely changed, matter of fact verifies the obſervation.\* But if the food remains ſome time on the ſtomach, it will then be thrown up in a curdled ſtate, which is an indication to attend to it, if it happens frequently. Not that the milk ought not to curdle on the ſtomach, which it always muſt do, in order to a due ſeparation of its component parts, and is the only digeſtion it undergoes in the ſtomach. The whey and the rich oil are there ſeparated from the curd and earthy

\* See PRIMEROS : de Morbis Infant.



particles, the former being taken up by the lacteal, or milky vessels in the intestines, is converted into blood, whilst the latter is carried down and expelled with the other excrementitious parts of the food, and gastric juices. This is the natural course of digestion, though many writers have not been sufficiently attentive to it, and HARRIS has asserted it is owing to a predominant acid. But when the milk comes up in a curdled state, it proves that the stomach having digested what it had received, hath not power to push it forward into the intestines, and therefore throws up a part of it.\* If this be the case, the stomach may perhaps require to be emptied of its whole contents, which may be easily done by giving a little warm water, or camomile

\* I have known a child throw up a piece of curd full as large as the thumb of a grown person, and as firm as a piece of dough ; and be perfectly well the next minute.

tea.



tea. The cause of the indigestion was an accidental repletion; that removed, together with the consequent foulness, or bad juices of the stomach, the effect also will generally cease, and unless the vomiting returns, from any farther injury the repletion may have occasioned, it requires nothing more. To distress the child, on every such occasion, with a sickening emetic, or drench it with rhubarb and magnesia, is as needless as it would be to awake a patient out of a sound sleep to give him an opiate. Only let the child fast a little after having emptied the stomach of its load, and the nurse be careful not to overfill it for the future, and it will rarely want any other assistance.

If the vomiting, on the other hand, has arisen from acrid diet, a little further discipline may be requisite, because some half digested food has got into the bowels, perhaps, for several days



days together. In this case a gentle laxative, and change of food for one of a milder kind, is all that is generally necessary; or if there be a prevailing acidity in the stomach, testaceous powders, or magnesia, may be mixed with the food, or be otherways administered for two or three days, as the occasion may require. Should the vomiting be a symptom attending some other disease, its remedy will turn on the proper treatment of its cause. Should that be the sudden disappearance of some eruption on the skin, the child should be put into a tepid bath, the limbs be well rubbed as soon as it is taken out of the water, and then put to bed: and if the vomiting continues an emetic should be given, and afterwards a blister applied to the pit of the stomach.

Having mentioned emetics, I shall take this occasion to observe, that the choice of them will be always best de-

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terminated by the nature of the complaints for which they are administered. In those of the first passages, ipecacuanha is generally the best, but if a fever should attend, or it be wished to promote a gentle diaphoresis, those of antimony are preferable; or lastly, in disorders of the breast, the oxymel of squills.

But a more troublesome vomiting will sometimes arise in unhealthy children, from too great a sensibility, or too great an irritability of the nerves of the stomach. Such medicines are then indicated as will brace, or strengthen that organ, and abate its sensibility. For the former, a cold infusion of the bark, or chamomile flowers, with orange peel, and sometimes a little rhubarb. For the latter, a saline mixture with a drop or two of laudanum. And the benefit of these may be increased by aromatic and spiritous fomentations to the pit of the stomach,



stomach, or by the stomach plaister, with a little theriaca added to it.

### G R I P E S.

THE gripes is a very common term amongst nurses, and some writers on children's diseases have treated of it under a distinct head; but this serves to perplex matters, instead of explaining them. If a child is not hungry, or hurt by some parts of its dress, there are always symptoms attending, that will account for its crying, and other expressions of pain. The cause is indeed very commonly in its bowels, and manifests itself by purging, which comes next in order to be considered.

### P U R G I N G.

WHEN a vomiting is an attendant upon other complaints, it has been



observed, that it demands a peculiar attention, and is then to be treated agreeably to the nature of such complaints; and there is, perhaps, none which it more frequently accompanies than a diarrhœa.

Vomiting and purging very frequently arise from unwholesome milk or other food, from a moist cold air, or from the sudden disappearance of some eruption on the skin. The purging is not then hastily to be stopped, nor even absorbent powders to be given, till the offensive matter be first carried off; and if a vomiting attend, the cure should begin by administering an emetic. But though the purging ought not to be checked without previous evacuations, nor to be stopped hastily, yet it is not to be treated with a daily exhibition of rhubarb, which, though a common practice with many, serves to keep up a purging after the cause has been removed,



removed, by creating a continual irritation in the bowels. A sufficient dose or two should be administered at the beginning of the complaint, and afterwards absorbents. If the purging should still continue, an emetic will be necessary, as purges do not always lie long enough in the stomach to carry off the offensive matter it contains. After this, the child should be purged again, remembering always, that many complaints of infants, whether seated only in the first passages, or attended with fever, will frequently seem to be giving way upon procuring stools freely, but will soon return if the same means be not repeated, till the whole irritating matter be carried down. If such repetition fails of success, though the diet has been carefully attended to, recourse should again be had to absorbents, and even opiates, without which, many bowel complaints will not admit of a lasting cure, from their great



irritability in infants. Such medicines are not indeed very often required till children are some months old. But when they are found necessary, not only may syrup of poppies, but even laudanum be given with the most perfect safety ; though from the time of GALEN, (who cautions against giving theriaca to children) till of later years, many physicians have been fearful of directing them, and especially HARRIS, who in other respects, has written so well on their diseases. I remember being called to see an infant two days old, who, through a mistake, had taken some hours before four drops of laudanum. The parents were greatly alarmed at the child's lying in a stupid, comatose state, without being able to take the breast or open its eyes. I encouraged the father to believe the laudanum would do no kind of harm, if they would only attempt to get a little breast milk down with a tea-spoon. Accordingly, though the



the child lay sleeping above six and thirty hours, it afterwards awoke perfectly well.

Purging in children it is to be observed, is not always a disease. The bowels are the great natural, and critical outlet in infants, as the pores of the skin, and the kidneys are in adults. Not the mere discharge, therefore, but the cause of it is, in the first instance, to be removed, and the ill effects are to be guarded against by keeping the purging within bounds. For this purpose, the chalk julep, as it is an astringent only by absorbing the acrid, or changing the acid, and irritating matter, is as safe as it is useful, is an excellent anodyne, and after the bowels have been well cleansed, will usually accomplish the cure.

Dr. ARMSTRONG takes occasion to speak against the use of absorbent powders, and prefers antimonial wine, because writers appear to depend so much



on the former, from their known property of correcting acidity, previous to the exhibition of purges; and says, that in cases of extreme danger, a physician who is called in late, would, according to this practice, often find no opportunity for purging at all. But surely this is scarcely an argument to prove the superiority of his method, since no writer that I know of, ever designed it as a rule without exception, and HARRIS, who has said the most in commendation of the absorbent powders, does not deny the expediency of sometimes beginning with purgative medicines. But had it been otherwise, the argument goes no farther than to prove, that in cases of great danger, the antimonial wine, being both an emetic and a purge, ought to precede the use of the testaceous powders. Instead of this, Dr. ARMSTRONG slides into a general conclusion from premises evidently limited; though he has advanced nothing



thing against an established, and successful method of treatment. And I may add, that whilst he is fearful, the absorbent powders, (which nobody prescribes without some purging medicines) should check the looseness, and thereby increase the fever ; he ventures after a repetition of antimonial wine, to administer what he calls a gentle paregoric to appease the pain, consisting of a dram of syrup of white poppies, repeated every three or four hours till that end be obtained. So that if the pain should continue for nine hours, a child will take half an ounce of syrup, and this Dr. ARMSTRONG observes is the only medicine he gives, except the antimonial wine, which (notwithstanding the opiate) he supposes to be the efficient remedy.

It is of some consequence to learn what part of the bowels is particularly affected ; and some indication may be had from undressing the child, and carefully



fully examining the belly, as well as from the different expressions of pain it may manifest, either by a forcible contraction of one or both legs, or of the arms, according as the irritating matter may be higher or lower; or on one, or both sides of the belly. Some regard is also to be paid to the kind of stools that come away, which in a diarrhœa are seldom good, and are usually distinguished into the four and curdled, slimy, green, clayey, and watery, some of which are at times also foetid; and in this case, some powerful purgative, such as senna-tea, is oftentimes necessary, if the child be not very young. Should these purgings return frequently, it will be very useful, (especially in the time of teething, or the striking in of some cutaneous eruption) to procure a little discharge behind the ears, or to apply a burgundy pitch plaister to the back. For the former purpose, some finely pounded Spanish flies may



may be rubbed on the part, till a slight excoriation is produced ; or perhaps a better, though not a common method, is to draw a coarse, doubled thread through a piece of common blistering-plaister, and lay it close behind the ears where they rise from the head, which will produce a discharge exactly from the spot where it is wont naturally to arise.

When the stools appear sour or curdled, or the child is much disposed to hic-cough, the magnesia, and other absorbent powders are calculated to afford peculiar assistance, to which a little grated nutmeg may be added. When they are green or clayey, a drop or two of the lixivium of tartar may be occasionally put into the other medicines, or a little soap be dissolved in the glysters, which are essentially necessary when much griping attends this complaint. The child's belly may likewise be rubbed with a little warm brandy.



It may be proper in this place to take notice of a peculiar tightness and hardness of the skin over almost the whole body, that sometimes attends that kind of purging where the stools are of a waxy, or clayey consistence, and usually takes place in the last stage of the disease, always affording a very unfavorable prognostic. It very rarely appears, I believe, but in disorders of the bowels, on which account I have not assigned it a distinct head, though otherwise of sufficient importance.

This symptom, or perhaps rather disease, somewhat similar to that called *hyde-bound* in quadrupeds, has not been mentioned in this view, by any writer on the diseases of infants. The ancients,\* indeed, described a somewhat similar affection, under the name of Στεγνوصις, and *Cutis adstrictio*, but appear always to speak

\* See GALEN. Lib. iii. and ÆGINETA Lib. i.  
of



of it as a complaint of adults, often occasioned by cold. Dr. DENMAN first took notice of it in children, and has for some years paid great attention to it. It seems to be a spasm depending upon a certain morbid state of the first passages, with which the skin is known to have a peculiar sympathy, which instead of lying loose and pliable on the cellular membrane, is perfectly rigid as if it adhered to the bones. Some children indeed have been born with the complaint, none of whom have been known to live. It is, I believe, not as yet well understood, and is therefore not mentioned here, so much for the sake of any remedy I have to propose, as to induce practitioners to pay a proper attention to it, that a complaint of so fatal a tendency, and hitherto but little noticed, may be fully investigated. The only infant I have known to recover, was under the care of Dr. DENMAN, who in a very dangerous complaint



plaint of the bowels, attended with this symptom, directed a suitable absorbent julap, made very warm with the aromatic volatile spirit.

The true watery gripes, so called, is esteemed the most dangerous of all purgings; not that the having a few very thin stools is an evidence of its existence, for in almost every purging of a few days continuance, the stools are very thin as well as numerous. But in this case, they are thin very early in the disease; the child looks wretchedly, and every thing it takes runs almost immediately through it, with very little change, as in the lientery of adults. The first thing to be done is to give a puke, and afterwards a warm purge with rhubarb, if the disease is not far advanced. Very small doses of ipecacuanha, or a drop or two of antimonial wine, given every six or eight hours, with a few grains of the cordial confection, appear to me amongst the best



best remedies. To these should be added a starch glyster two or three times a day, and even a few drops of laudanum (either in the glysters, or with the last mentioned medicines, or the chalk julep) without which mere absorbents will often effect nothing.

It has already been hinted, that where there is no fever, purging medicines for children ought to be made potentially warm, and in no case is it more necessary, than in long continued complaints of the bowels, which are so apt to give rise to spasmodic affections. I am not very fond of giving prescriptions, but it may not here be altogether amiss for some readers, since the following, considered as a general medicine, has been found so frequently useful, and will keep for a great length of time.

Take of rhubarb from fifteen to twenty grains; two scruples of magnesia alba; sweet fennel, and dill waters,  
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of each one ounce; half an ounce, or six drams of solutive syrup of roses, and fifteen or twenty drops of the aromatic volatile spirit. Of this, one, two, or three, tea-spoonsful may be given two or three times a day, and being very pleasant, children are never averse to it.

It was said that bowel complaints of children frequently were owing to improper food, which on this account, ought to be peculiarly attended to; and when a purging has taken place, ought to be suited to the nature of the stools. At the close of this work, in the few directions that will be given on the management of children, some farther notice will be taken of the article of their food; at present, I shall only observe, that cow's milk is often found to disagree with them, when their bowels are disposed to be too open, at which times, a little lean mutton broth, or beef-tea is abundantly preferable. On  
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the same account, rusks, and biscuit-powder are more suitable than bread, but at other times, I believe, either the common, or the French roll, which is already half digested by a previous fermentation, is more easily dissolved in the stomach, if there be not a predominant acid in the first passages. But where there is an habitual disposition to a purging, I know of no diet so proper for infants who do not suck, or who cannot have enough of the breast, as flour baked a long time in the oven, till it breaks into a soft, greyish coloured powder, and afterwards mixed with boiled cow's milk; which becomes a light and soft food, and sufficiently restraining. I have often known more good from this diet, than from all the absorbent medicines ever devised, and have received more thanks for the prescription, as it proves a permanent remedy. When children who are weaned,



are attacked with repeated purgings, and even broth is found to run through them, I have observed no food so generally useful as a bit of the white of chicken, not over boiled, and afterwards lightly bruised in a mortar with the chicken liquor, and a very little bread, into a kind of light jelly. But this should not be given more than two or three times a day.

### CONVULSIONS.

CONVULSIONS are of two kinds; the symptomatic, depending upon another disease, and the idiopathic, said to be an original complaint, and arises from a morbid affection of the brain, though the distinction be not perhaps perfectly philosophical, or accurate.

It is for want of some such discrimination, however, that writers have had occasion to observe, that children are much oftener supposed to die of convulsions



vulsions than they really do; for though a convulsion frequently closes the scene, it has generally arisen from the great irritability of their nerves, and violence of the disease under which they have laboured. Such original cause may be a rash improperly repelled, but is much oftener seated in the gums in teething, or in the first passages, where some undigested matter, or sometimes pent-up wind, irritates the coats of the intestines, and produces irregular motions throughout the whole nervous system. Such a load, whether from too great a quantity, or bad quality of the food, by occasioning a faulty secretion, must act like a poison; and that the convulsions are owing to this cause may be known by the complaints that have preceded them, such as loathings, costiveness, purging, pale countenance, large belly, and disturbed sleep. If the child be two or three years old, it may be more



readily discovered, that there is a load at the stomach; the tongue will be foul, the skin hot, and the pulse quick and weak. But if it be granted, that the convulsions of children are generally symptomatic, they may nevertheless be said to die of them more frequently than some authors have allowed; for where a disease is disposed to produce convulsions which sometimes prove fatal, the convulsion, though a mere symptom, ought to be carefully attended to; and may sometimes be prevented or removed, by its peculiar remedies, the disease which occasioned it being at the same time properly treated.

Any little matter capable of irritating the nervous system, will induce the symptomatic convulsions in some infants, whilst others will withstand a great deal. For such habits as the former, the cold bath will be found the best preservative. Every young infant  
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is, however, more or less, predisposed to this complaint, especially from any considerable disturbance in the first passages, as was mentioned before, particularly the bad quality, or over thickness of the breast-milk; and from frights of the wet-nurse. Of this I remember a remarkable instance in a patient of my own, in whose house a visiter dropped down suddenly dead. The mother of the child, which was six months old, was exceedingly alarmed, but her attention being for a moment called off by its crying, she incautiously put it to her breast. It was not an hour afterwards that the infant was seized with a fit, and lay either convulsed or comatose, without so much as taking the breast, for the space of six and thirty hours; though it was at length happily recovered.

The cure of every convulsion will consist, principally, in removing the



exciting causes, which must, therefore, be inquired into. If from indigestion and irritation in the bowels, whatever will expel the acid contents will cure them, if administered in time; and we ought generally to begin with a glyster. If the stools appear very foul after common purges, (in which case there will frequently be a dyspnœa) a few grains of the basilic powder may be given with great propriety. But if the disposition to convulsions continues, after the bowels have been pretty well emptied, antispasmodics should be administered,\* such as tincture of foot or of castor, spirits of hartshorn, a drop or two of

\* I speak from my own experience of the efficacy of such remedies, and it may not be amiss to observe that HARRIS, who is extremely cautious of giving heating medicines to infants, speaks favorably of some of these.—“*Ufus horum (says he) haud prorsus improbandus est, vel in tenellis: nempe quia acidum absorbendi facultate excellunt. Verum summâ cautione*” &c.

laudanum,



laudanum, or, what I have found remarkably successful, oil of rue; which though an obsolete medicine, I think I have never administered, when there was any chance of recovery, where it has not been serviceable. Should the convulsions arise from the disappearance of a rash, or of a discharge behind the ears, the warm bath, blisters, gentle purges, or a few drops of the aromatic volatile spirit, bid the fairest for administering relief. But when the cause is unknown, as the approach of small-pox, measles, or other eruptive complaint, bathing the feet in warm water, and throwing up a glyster, are the safest means. If from teething, after gentle evacuations, and other means directed under that head, blisters, oil of rue, laudanum, or HOFFMAN'S anodyne liquor are the grand remedies.

If convulsions come on without any of the preceding symptoms, they may



be concluded to be a primary disease, and to proceed immediately from the brain. Some derivation is therefore to be made, by bleeding, if the child seems able to bear it, or by leeches behind the ears ; by blisters, purging ; bathing the feet in warm water ; frictions of the legs, and rubbing the soles of the feet with the aromatic volatile spirit. If the fits are slight, and return often, issues or setons should be made between the shoulders, or in the neck, and be kept open for a length of time. But it generally happens that this species of convulsion in young children terminates very soon, sometimes in ten minutes, and is indeed often fatal before any means can be used. Indeed, I believe when they are so suddenly fatal to very young infants, they are more frequently symptomatic, and owing to overfeeding ; in which case, a vomit, or if there be not time for that, passing a feather into the throat, might possibly,



possibly, have a happy effect. I have known some of the largest and finest children I have ever seen, die presently after the nurse had boasted of their having eaten three boats-full of victuals.

It is to be noted, that symptomatic convulsions are sometimes the effect of a salutary effort of nature, to produce a crisis in some disease the child labors under ; in which case, great caution should be used not to be over officious : bathing the feet in warm water however, as mentioned before, will be perfectly safe, and perhaps useful.—Having spoken of opiates, I shall just observe, that though they are often very serviceable, when judiciously prescribed, they become very hurtful if improperly administered. They will always be safe, where convulsions continue after the first exciting cause has been removed ; or where they are so violent as to become an obstacle to administering proper remedies ; or when  
the



the original complaint is of a spasmodic nature. When convulsions return frequently, it is of importance to attend to the distance of the paroxysms, or returns; from which a much better indication may be had of their violence and danger, than from the forcible contraction of the muscles during the fit. For where the intervals are short, though the fit itself be not long, nor violent, the disease is more dangerous, than where violent fits are attended with long intervals.—A very common cause of convulsions, not yet mentioned, is worms; the cure of which will depend on the proper treatment of that complaint, and will be noticed in its place.

### TEETHING.

THE complaints arising during dentition seem to come in with propriety after the foregoing, most of which are blended



blended with it, the first passages being always more or less affected. The state of dentition is likewise not unfrequently an occasion of many complaints afterwards to be mentioned, such as cough, fever, the rickets, and even consumption; under each of which heads therefore, occasional references will be made to it.

The time of teething is a most important period of the infant state, and subjects it to manifold complaints and dangers. Some writers indeed, and particularly Dr. CADOGAN\*, and Dr. ARMSTRONG, seem to think otherwise, and that teething is scarcely to be ranked amongst the diseases of infants. They have imagined that children would cut their teeth with no more danger, if otherwise healthy, than adults, who often cut their wise teeth, so called, at an advanced age, without any difficulty, and always

See his Essay on Nursing, &c.

without



without hazard. They likewise observe that many children get their teeth easily. But this argument must suppose the healthiest, and best nurtured children, to be, in all respects, in the same circumstances with adults, which is, by no means the case ; as they are liable to fever, dangerous purgings, and even convulsions, from causes that would, in no wise, affect the latter : nor can they stand under those complaints so long as adults, nor endure the necessary remedies. For the same reason, the meazles and small-pox carry off such numbers of infants, when attacked by them a little more severely than common, whilst young, and healthy people, often struggle through the most dangerous and complicated kinds, when properly treated from the beginning. Not to mention, that very few infants who are unhappily affected with lues venerea, recover under any treatment, whilst adults are cured in the most



most advanced stages of the complaint, notwithstanding some parts may be actually mortified. I have, therefore, no doubt but the time of dentition ought to be ranked amongst the most dangerous to infants, and that the greatest attention ought to be paid to it; though it is probable, Dr. ARBUTHNOT greatly over-rates its fatality, when he says that one child in ten may be supposed to sink under it.

This period usually commences between the fifth and tenth months, and the process of the first teething continues to the eighteenth at the least, and sometimes much longer. The two front teeth in the lower jaw are usually cut the first, and it is commonly a few weeks longer, before the corresponding ones in the upper jaw make their appearance. After which, there is frequently a considerable space, before the next under teeth come out; but sometimes, though not often, six or eight are cut in a hasty succession. Children



dren sometimes cut their teeth irregularly, or crows, as it is called, both by the teeth appearing first in the upper jaw, and also at a distance, instead of being contiguous to each other: this is accounted, and with some reason, an indication of difficult, or painful dentition.

Teething is usually preceded and accompanied with various symptoms; the child drivels, or flavers much, the gums swell, spread, and become hot; there is often a circumscribed redness in the cheeks; a looseness, gripings, green stools, watchings, startings in the sleep; the child shrieks often, and thrusts its fingers into its mouth: and these symptoms are sometimes followed by a cough, difficult breathing, fits, fever, and marasmus, or universal decay.

Strong and healthy children cut their teeth both earlier and more easily than the weak and tender. I have known a weak, and rickety child, without a tooth  
at



at twenty two months old,\* though it lived to grow up ; but at the age of five years became scrofulous. Therefore, air, exercise, wholesome food, and every thing that has a tendency to promote general health, will greatly contribute to the safety of dentition.

Difficult teething is to be treated nearly as other acute diseases with local inflammation. If the body be at all bound, some opening medicine should be administered, and it is to be observed, that even a considerable degree of looseness is useful ; few children cutting their teeth so well as those whose bellies are at this time much more than commonly open. Diluting drinks are also very necessary, especially if the child does not suck ; with a light food, in small quantities, and frequently taken. If much fever attends, the loss of a little blood, in

\* PRIMEROSE speaks of it being as late as the third, or even fourth year.



some way, will be necessary, though children do not endure bleeding so well as they do other evacuations. If the propriety of bleeding with the lancet be doubted, a leech or two, as HARRIS advises, may be applied behind the ears, and is generally serviceable. Glysters are also very useful, and gentle sweats, especially of tartar emetic; which besides opening the belly, often operates in this way: a blister should likewise be applied between the shoulders, particularly if there be any disposition to fits. And, indeed, if stools do not afford some considerable relief, there should generally be some discharge from the skin; since a purging, and cutaneous eruptions, when spontaneous, are the grand means of easy dentition. A little discharge should, therefore, be kept up behind the ears, by rubbing the parts with Spanish flies, applying a thread as before directed, or putting on a small blister; which



which may be kept open. A burgundy pitch plaister laid on the back will sometimes suffice, which should be renewed every ten days, till the symptoms disappear, or the teeth come into sight. Even before this period, light scarifications of the gums are very useful, by taking off the tension; or if the teeth are at all to be felt, lancing them, as it is called; the proper method of doing which will be noticed below.

I shall close what I have to offer on the plan of treatment, by observing that the indications certainly are to assist the irruption of the teeth, and to moderate the inflammatory and other symptoms. It has been observed, that a purging is beneficial, and it is, indeed, surprizing how considerable a diarrhœa children will stand on this occasion, and how very bad the stools will often be for many weeks together, and a child happily struggle through; though at



another time, so much purging, and such bad stools, with a continual fever, would prove infallibly fatal. The diarrhœa is therefore, not only to be cautiously treated according to the directions already given under the article of purging, but is oftentimes rather to be encouraged than suppressed.

For the fever of dentition, besides bleeding, the absorbent powders are eminently useful, and are, in various respects calculated to afford relief. To these, sometimes a grain or two of Dr. JAMES's powder may be added at bedtime, which if there should be any thing amiss in the stomach or bowels will either vomit or purge, but otherwise (it has been said) will promote a kindly sweat, which is always beneficial. Nitre is very often useful, joined with the testaceous powders, or a little of the compound powder of contrayerva.—SYDENHAM directs three or four drops  
of



of the aromatic volatile spirit, in a spoonful of water every four hours, for four or five times, and I have thought it very serviceable after proper evacuations; but this dose may be considerably increased, according to the age of the child. Nor is a drop or two of laudanum to be feared, if the bowels have been previously opened, the pain not very great, and the breathing not difficult.

When it is found necessary to lance the gums (which is ever, at least, a safe operation) it should always be done effectually, with a proper gum lancet, and not with a needle, a fixpence, or such like instrument, which will not sufficiently divide the gum, or the strong membrane that covers the teeth. The lancet should always be carried quite down to them, and even be drawn across the double teeth. This little operation certainly gives little or no pain,



and the relief, is at the same time, often so considerable that the child appears exceedingly pleased with it, and will immediately squeeze the jaws and grind them together forcibly, which proves the gums are not very sensible.

The most painful part of dentition, and that in which children are most exposed to convulsions, is usually from the teeth cutting through the periosteum (or nervous membrane mentioned above) that covers the jaw immediately under the gums. This, I apprehend, in difficult dentition is often not cut through, but is forced up before the teeth, when they are even in sight under the thin gum; hence it is, that cutting through the gum is so very often useful, and takes off fever and convulsions, which severe symptoms could not arise merely from piercing the gum, which it has been said is not a very sensible part. At other times, the pain and fever seem  
to



to arise from almost the very first shooting of the teeth within the jaw, and then they will very often not appear for some weeks after the gums have been properly lanced; and parents are therefore apt to conclude, the lancing has been unnecessarily done. I am, however, convinced from experience, that this little operation, though not in the general esteem it ought to be, is often inexpressibly useful, and appears to have saved very many lives, after the most dangerous symptoms had taken place, and every other means of cure had been made use of.

It may be safely repeated, the scars doing no kind of harm. And indeed it will be frequently necessary to repeat it, on account of the extraordinary difficulty with which some infants cut their teeth, especially the double ones, which are furnished with two or more knobs or points. Fever, purging, and even con-



vulsions will sometimes arise from only one point of a large tooth offending the periosteum that covers it, and being nearer the surface than the other points, the lancet sometimes does not compleatly divide the membrane that covers the rest; and this part not being injured by the tooth, the symptoms subside on having divided that portion of membrane that was inflamed. But in a little time, another point of the same tooth is found to irritate the periosteum, and calls for the like assistance of the lancet, which again removes all the complaints. This, at least, I have conceived to be the process, when I have found lancing a large tooth immediately remove every terrible symptom, though the fever and other complaints have returned, and the tooth not appeared till the operation has been three or four times repeated.

Some writers however, and Dr. MILLAR particularly, have advised, not to  
cut



cut quite down to the teeth, but only to scarify the gums, unless the teeth are very near. He suspects that the instrument often injures them and produces caries, which he thinks will be communicated to the succeeding set of teeth. But this is a needless scruple, and I apprehend arises for want of duly attending to the second teething of children. For though the first set (which are designed by nature to be only of short duration) should actually be injured by the lancet, the succeeding ones are not at all likely to be affected by the carious state of the former. For the first teeth of infants constantly become carious even to the very roots, and are loosened and expelled by that means, when left to nature alone; and though the upper parts of the new teeth are in contact with the carious bottoms of the first set, which are even expelled by the force and growth of the new ones, they



are found to suffer no injury at all from the contact. I have dwelt the longer on this head, because writers are not agreed on this subject, and it is a matter often-times of no small importance.

It is common to touch the gums with oils and mucilages. If any thing of the kind be made use of, a little honey, I believe, is as good as any thing, or lightly acidulated with spirit of vitriol; and the best kind of coral is a crust of bread, or a piece of liquorice root, which will yield a little to the pressure of the gums.

It should be a pretty general rule during the time of teething, to abate a little of the usual quantity of the food, and to increase the quantity of drink; unless the child be very weakly, or every thing be going on perfectly well: or if the child be at the breast, some regard ought to be paid to the diet of the nurse.

Children



Children will sometimes have ulcerated gums in teething, even where they have not been lanced, which are easily cured by keeping the body open, and touching them with astringent applications. As much white vitriol, or roch alum as will give a moderate roughness to a little honey, is usually sufficient for this purpose. But should this fail in any case, it must be treated as directed under the head of canker.

### F E V E R.

THOUGH some writers have supposed infants to be as liable to fevers as adults, and from the same causes, I have by no means found it so, and I wish parents to take comfort from the consideration; having observed for many years, as well in the hospital, as in private practice, that infants do not readily take common fevers, though exposed  
for



for a long time to that contagion which has appeared to affect adults around them. Their fevers are also of a short duration if properly treated, as HIPPOCRATES has judiciously observed\*; unless the few that arise from some more permanent irritating cause.

Those to which young children are the most liable, are from teething, foul bowels, worms, some eruptive and very contagious complaint, or from taking cold. The latter, if severe, will always be attended with a cough, hoarseness, and some difficulty of breathing, and often with running at the nose or eyes, which will distinguish the fever from all others, except it be the measles; which will be attended likewise with violent sneezing, and a peculiar appearance of the eyes not often met with in a common cold.

\* Lib. de Natura Humana.



If a fever from cold be considerable, the cough violent, and the difficulty of breathing very great, a blister will always be safe and expedient, and may be applied at the pit of the stomach instead of the back, as being both less painful under any motion of the body, and more readily got at to be dressed, or for the application of fresh cloths, where the discharge happens to be considerable. But if the fever and difficulty of breathing should not be very considerably abated by the blister, children though within the twelve-month, will bear and even be much benefited by the loss of a little blood,\* at least by the application of  
two

\* In mittendo sanguine, non tam annos medicus numerare, quam vires ægrotantis æstimare debet. CELSUS. Lib. ii. cap. 10. p. 78.

GALEN indeed forbid bleeding till after fourteen years of age, but since the time of CELSUS, that absurd idea has been exploded. RHazes permitted



two or three leeches, as I have frequently seen ; and I mention this again, because it has been thought so highly improper for infants. But I can venture to say, they will be much less reduced by it, than by the continuance of the fever, which the loss of a little blood will, in many cases, shorten by two or three days ; and which is sometimes absolutely necessary.\* Oily medicines, likewise, made into a neat emulsion, are often useful, especially if the child be not at the breast ; but they should be preceded by an emetic of antimonial wine, as there is usually much phlegm on the stomach ; children

permitted cupping after three or four months ; AVICENNA at a year old.—Some allowed of bleeding in the feet or legs, though not in the upper parts ; but this useful operation is now justly unconfined, and extended, occasionally, to every period.

† Multa in præcipiti periculo recte fiunt, aliàs amittenda. Id. Lib. iii. cap. 18. p. 150.

never



never coughing it up. On this account also, the body should be kept perfectly open, and this purpose is usually well answered by smaller doses of antimonial wine, or of Dr. JAMES's powder; but if they should fail to procure stools, as they sometimes will, where there is much fever, they rather do harm than good, unless a little manna, or rhubarb be joined with them.

It is very necessary here to observe, that though preparations of antimony may perhaps be safely administered under the eye of very attentive parents, they are very powerful medicines, and not to be prescribed by nurses and ignorant people, or without great caution. And I hope this may be admitted as an apology for the liberty I have taken in saying so much against the indiscriminate use of antimonial wine, which has induced some people to make free with medicines of this class, who are in no wise competent judges.



judges\*. But where such medicines are found to agree, children frequently stand in need of no other; though if the fever be very considerable, I have given nitre to advantage to infants of only a few months old. I often join it with a little of Dr. JAMES's powder, proportioned to the age, and about two grains of the compound powder of contrayerva.—If the head be much affected, putting the feet into warm water, or applying a milt to them just taken from the animal, are admirable remedies; and I think have sometimes saved a life after all hope had been given up.—If the chief complaint be a cough, attended with very little fever, the breast milk is often as good a balsamic as can be had; but if the child be dry-nursed, a little syrup of balsam is both pleasant and useful.

If the fever be not owing to taking

\* A nurse very lately proposed giving half a grain of tartar emetic to an infant of a few days old.



cold, to worms, teething, or some eruptive complaint, it will generally be found to arise from some foulness in the first passages, in which case, opening the belly, and afterwards giving a puke and the testaceous powders, usually remove it. These absorbent powders are an admirable medicine, as well for the little fevers, as for almost all the complaints of very young children. This, the judicious HARRIS was so sensible of, that he thinks them alone, sufficient to effect almost every thing during the infant state, and has done unspeakable service by abolishing the use of cordials, and other heating medicines in the treatment of their complaints. And though absorbents will not, perhaps, do every thing he has imagined, yet are there very few medicines of such general use. But should the fever withstand these common remedies, or be found to increase, it will be necessary to give some of the above medicines,



medicines, or what is sometimes very useful, little draughts with lemon juice and salt of hartshorn, in which the latter is left a little predominant; or a few drops of the aromatic volatile spirit, in a little water, four or five times a day.

### HECTIC FEVER and MARASMUS.

NOT a few both of the preceding and following complaints are sometimes found to induce hectic fever, and marasmus, or a wasting of the whole body. I have nothing new, indeed, to offer on this head, unless it be by way of encouragement to hope for a better issue in the hectic fever, under certain circumstances, than we are wont to expect.

This fever as it is apt to arise from other complaints, is very often owing to their having been imprudently treated, especially by suppressing some eruption or discharge from the skin, or incauti-  
ously



ously stopping a purging during the time of dentition. In such cases, and indeed whenever the hectic fever is confirmed, the mesenteric glands become affected, are exceedingly enlarged, and often suppurate. In this stage of the complaint there is no hope ; but there is sometimes a threatening appearance of hectic fever, where nevertheless nature effects a salutary and wonderful change, and will restore the emaciated infant as from the very jaws of death. And this, indeed, is very often the work only of nature, art doing no more than superintending her work, and preventing her being counteracted by the use of improper medicines, or diet.

Such salutary turns in this fever are, as far as I have observed, only in that species of it arising from worms, or teething ; and in which I have known recoveries after hope had long been given up, and all attempts been lain aside.



HARRIS recounts some remarkable recoveries in what he calls the *atrophia verminosa*, and attributes the cures to the free use of good *æthiops mineral*; but I have seen none so marvellous as in the *atrophia lactantium*. In this, I have known children after being reduced by purging, and other complaints, lie for three months in the cradle, scarcely fit to be moved, with continual fever, flushed cheeks, emaciated countenance and limbs, a large belly, incessant cough, and almost without taking any nourishment, recover, as it were in a few days, upon unexpectedly cutting half a dozen teeth.

After having said this, it will not be expected I should offer much on the head of medicines; I shall therefore only observe, guarding against costiveness is all that ought to be attempted in this advanced stage of the complaint. Some attention, however, should be paid to the diet, which ought chiefly to be of milk,  
rice,



rice, semolina, and such like, with light puddings; but above all, plenty of fresh air, and as much exercise as the weak state of the child will bear.

### MEAZLES, SMALL-POX, (INOCULATION.)

THE small-pox and meazles, though complaints to which children are very liable, are by no means peculiar to them; nor are young infants even very susceptible of contagion, unless directly exposed to its influence. Whenever they take place, however, they are to be treated as in adults, with but little other difference than what every practitioner is well acquainted with, that of greater caution and tenderness; as they cannot bear the powerful antiphlogistic regimen and evacuations, often proper for the other\*.

\* *Ex toto, non sic pueri, ut viri, curari debent.*  
CÆLIUS, Lib. iii. cap. 7. p. 134.



On these accounts, it will be unnecessary to say much upon these complaints. I shall therefore only observe that, not only ought children's bellies to be kept open through the meazles, but unless they are very young, they will bear and even require one or more bleedings, when the inflammatory symptoms run very high, either before or after the turn.—I shall however take this occasion to drop a word or two on the subject of inoculation, because parents are very apt to fall into great mistakes respecting the age, and circumstances most proper for this operation.

It is too common an opinion that a very young infant, sucking at the breast, is the fittest subject for inoculation, and medical people have some difficulty in persuading parents to the contrary. Children are then said to be clear from humors, their blood mild and balsamic, their food innocent, and they are free  
from



from all violent passions of the mind. But all these advantages may be counterbalanced by the delicacy of their frame, their disposition to spasm, and their inability to struggle with a severe attack of the disease, if it should chance to fall to their share. And such, indeed, are the facts; infants usually have the small-pox very lightly, whether taken naturally, or from inoculation; though in both, they have sometimes expired in a fit at the time of the eruption, and scarcely ever get through the disease, if they are very full, or it proves of the confluent, or malignant kind. And this furnishes a peculiar objection to inoculating infants at the breast, which arises from their necessarily lying so much on the arm of the mother, or the wet-nurse, especially in the night; the heat exposing them to a much more copious eruption, than children who are weaned. This I have seen clearly exemplified in



the instance of a child whose mother could suckle only with the left breast ; the consequence was, that the left side of the child was perfectly loaded with the eruption (though the pock was of the distinct kind) whilst the other had only a very moderate sprinkling. The child however sunk under the secondary fever at the end of five, or six weeks, though turned of two years old ; the only child I have known to die of inoculation at so advanced an age.

From this view of the matter, it is pretty evident, I think, that this operation ought, usually, to be postponed to a later period, which is pointed out by the child having cut all its first teeth. To which may be added the observation just made, that infants are not much disposed to take the small-pox naturally, unless much exposed to the contagion, and that fifty children die under the age of two years, of other complaints,

to



to one that dies of the natural small-pox. Should it however be in the same house, or much in the neighbourhood, and the parents find it difficult to remove the child out of the way, it will run a less risque in being immediately inoculated, as that operation is now so well understood, and successfully conducted, than by taking the chance of escaping the infection, or of recovering from the disease, if it should happen to take place.

### RICKETS.

THIS complaint was so named about the year 1628, § and is said never to have made its appearance in England, till upon the increase of manufactures, people left the villages and husbandry, to settle in large manufacturing towns; where they wanted that exercise, and

§ See PRIMEROSE.



pure air, which they had enjoyed in their former situation, and employments.

It may therefore frequently arise from unhealthy parents, especially from mothers who pass too sedentary a life in a bad air, and feed upon a weak, and watery diet. From children's food being weak, watery, or too viscid to be properly digested. But above all perhaps, from bad nursing, and the child's being left wet, dirty, and without proper exercise, or being carried sufficiently into the fresh air. Or lastly, from the habit of body being reduced by the long continuance of almost any of the fore-mentioned complaints.

The usual symptoms of rickets are soft flesh; bloated, or very florid countenance; weakness; dislike to motion; with enlargement of the belly, head, and joints. The wrists and ancles enlarge first, afterwards the back, and breast-bones; and indeed all the bones  
swell



swell and become soft, especially the more spongy ones. The pulse is quick, and feeble, and the appetite, and digestion usually bad. Dentition is commonly late, though not frequently difficult, but the teeth often rot early, and fall out. Great acuteness of mind has been observed, in this, and some other chronic complaints. This disorder seldom attacks children before they are six months old, or above two years. As it appears to arise from a general weakness and relaxation, the indications of cure are to brace and strengthen the solids, and to promote digestion, and the formation of good chyle. These ends will be promoted by wholesome food, suited to the age; good bread, or biscuit; dry food; and roasted meats, rather than boiled: if the child be too young to eat flesh meats, its diet ought to be chiefly of rice, millet, pearl-barley, salop, and semolina, with a little wine,



wine, and spices, if it is not inclined to be feverish. It must also have good nursing, and especially exercise and air, without being kept too hot or too cold. Medicine frequently does but very little service. However if the child be of a gross habit, a quarter, or half a grain, of ipecacuanha powder, taken once or twice a day; gentle pukes, and purges, especially of pulvis basilicus; and sometimes issues often prove of use. If rather delicate, the cold bath is often of more service than any thing else. But this should not be entered upon in winter, nor without previous purgings. Frictions afterwards with flannel and aromatic powders, especially on the back and belly, will further tend to strengthen the habit. Besides these, may be given the cold infusion of bark, or small doses of the martial flowers; but a good diet, air, and exercise, are of the most consequence, and if duly persevered in, will



will often effect wonders. Sæpe pertinacia Juvantis, malum corporis vincit.  
CELSUS.

### HOOPING-COUGH.

THE whooping-cough is a disease not well understood by the old writers. ASTRUC seems to have been one of the first that discarded the use of oleaginous and pectoral medicines, (which indeed some practitioners have since been weak enough to revive) though he advised bleeding too indiscriminately.\*

This disorder furnishes another proof of the observation made on the impropriety of submitting the complaints of children to improper hands—the care of old women, and frequent change of air, being all that this disorder is thought to require: but perhaps the

\* See his Diseases of Infants.



maxim was never worse applied. There is indeed a milder sort of hooping-cough, as there is of every disease, that calls for very little medicinal assistance; and it is always in such cases, that matrons and nurses acquire their credit. But there is no complaint of children with which I am at all acquainted, in which medicine is at times more evidently serviceable, than a bad hooping-cough.

This disease is certainly highly contagious, and one of those that never appears a second time. It often begins as a common cough, and is attended with the usual symptoms of having taken cold, but in its progress soon becomes more severe; the fits of coughing are attended with a peculiar noise, not ill-expressed by the term *hoop*, and is sufficiently known to every parent who has ever had a child severely attacked by it, and to whose feelings, it proves one of the most distressing complaints their children are liable



liable to. A flux of rheum frequently comes from the mouth, nose and eyes, and the food is thrown up together with a viscid phlegm, (often in great quantities) in the coughing fits ; between which the child generally appears to be perfectly well, and eats its food very heartily. These are the more common symptoms, but when the disease is violent, and has continued for some time, they become greatly aggravated, and the child will seem almost strangled in each fit, the face and neck becoming perfectly livid, till by a violent effort, attended with a hoop, it recovers its breath ; the blood will likewise sometimes rush from the nose, mouth, and throat. When taken in time, and properly treated, it is however rarely fatal, and scarcely ever but to young infants.

Dr. ARMSTRONG recommends antimonial wine as the proper, and only remedy for this, as well as for almost all other complaints



complaints of children, which, however apposite the remedy may be in a general way, is saying no more than that emetics and gentle laxatives are useful, which all modern practitioners are agreed in. But the fact is, that many other means are equally useful, and not unfrequently indispensable necessary, unless we should suffer the patient to be strangled in a fit of coughing, or fall into a decline, from the injury which the lungs must endure by a frequent repetition of such violence.

This must be exceedingly apparent from the above history of the disease, the various symptoms of which, certainly demand a considerable diversity in the treatment. If the breathing therefore be difficult, a blister is indicated, which if the child be not very young, may be kept open for two or three weeks. If the face should be very livid, and swollen, during the fits of coughing, if any vessel gives way, or the patient be plethoric,  
and



and more than two or three years old, or should be hot between the paroxysms, a little blood ought to be taken away, (which is sometimes inexpressibly useful) and a saline draught be administered, every six or eight hours, till the fever disappears. Otherwise, if none of these symptoms attend, bleeding does not seem, in general, to be indicated, but may rather have a tendency to protract the disease, by increasing the spasmodic disposition, and by weakening the patient.

If there be an inclination to vomit, it ought to be encouraged, unless the phlegm be brought up with great ease in almost every fit of coughing, in which case, nature seems able to accomplish the business herself, and it will then oftentimes be sufficient to keep the body open by the mildest laxative medicines. But it very rarely happens, unless in children at the breast, that some kind of emetic is not necessary in the first stage of the complaint.



complaint. The disease indeed very frequently requires no other medicine; for this usually keeps the body open at the same time, which it ought always to be, without weakening the patient. For this purpose, perhaps, the antimonial wine may be as proper as any when it answers the end, but it is less certain than the tartar emetic, and is not always, I think, of the same strength. The latter is also rather more tasteless, and will therefore have an advantage over every other medicine, when we are prescribing for children. Two grains of this in two ounces of water, with the addition of a little sugar is a medicine to which children will never make any objection. From one to two tea-spoonsful of this given to a child of a year old, (varying the dose according to the age) will in general act sufficiently, and should be given upon an empty stomach, every day, or every other morning, according to the strength of the child,



child, and violence of the disease. If the cough should happen to be more violent at any particular time, the emetic may be given a little before the paroxysm is expected. Or perhaps a still better method, at least in some cases, and particularly in very young children, is to give the tartar emetic in smaller doses, together with a few grains of magnesia, or prepared oyster-shell powder, according to the state of the bowels, three or four times a day, so as to keep the stomach in such an irritable state, as shall secure a gentle puking every time the fits of coughing come on. But in whatever way this medicine be directed, it will prove of no service if it does not vomit, and must therefore be given in a dose suitable to the strength of the stomach, which is exceedingly various, not only at different ages, but in children of the same age, and of the same apparent habit of body. If the tartar emetic has



any advantage of the antimonial wine, it has much more over every other emetic I have made use of, the ipecacuanha, and oxymel of squills, being exceedingly unpleasant, and the latter likewise uncertain.

Such a plan is all that will be necessary in the common whooping-cough ; but it has been said, there are many cases which will require other means, and demand all the skill of the experienced physician. The cough, for instance, will sometimes increase not only for days, but for weeks together, and the strangulation be exceedingly alarming. In this case, the lac ammoniaci, but especially affa foetida, frequently proves a sovereign remedy, and though exceedingly nauseous, many children will take it tolerably well for the short time it appears to be absolutely required ; and when they will not, it may be administered by way of glyster, dissolved in two or three spoonful  
of



of penny-royal, or common water. These medicines however will be improper in the very advanced stage of the disease, when attended with hectic heat, hæmorrhage, or other pthysical symptoms; a caution equally necessary in regard to the bark, which in the absence of these symptoms, and after the stomach and bowels have been well cleansed, is frequently very useful at the latter stage of the disease, when the patient has been exhausted by its long continuance. Upon the same plan with the *assa fœtida*, camphor and castor are frequently beneficial, and have the advantage of being less nauseous, but I think are also proportionably less powerful. I take no notice of *cantharides*, though strongly recommended by some writers, because I have had no experience of it myself, and indeed have never found any necessity for trying it.

It will sometimes be of no small service, to rub the hands, and the soles of



the feet, with the aromatic volatile spirit, several times in the day, or the spine of the back, and the pit of the stomach, with oil of mace, (so called) or oil of amber; but as the smell of the latter is very unpleasant, it may be dispensed with, where the spasms are not exceedingly urgent. But when they are so, this oil is sometimes very useful, particularly when administered internally, and children of three or four years old will often take a few drops of it very well, mixed in a spoon with a little brown sugar; from which I have seen as evident advantages, as from any medicine whatever. In a little child of my own, it immediately gave a turn to the complaint in the most violent hooping-cough I ever met with, and after almost every other medicine had been tried to no purpose; so that from the hour she took it, the complaint was no longer alarming, or tedious of cure. But frequently, no antispasmodic is equal



to opium, in this, as well as in other diseases. With this view, two or three drops of laudanum, and to younger children a small tea-spoonful of syrup of poppies, or to grown people from five to ten grains of the pilulae styrae, taken at bedtime, will not only quiet the cough, and remove the strangulation during its operation, and procure the patient some rest, by which the strength will be recruited, but in many cases, seems to have a kindly operation on the disease itself. It is in this way, I doubt not, that the cicuta once seemed to gain some reputation, but I believe it is no otherwise a remedy for it than as an anodyne. From a mistake however in this respect, the strong manner in which this medicine was recommended by Dr. BUTTER, has certainly done harm, as I have known many people depend solely upon it in very bad cases, to the exclusion of other remedies



evidently indicated, and the no small detriment of the patients.

If obstructions in the lungs be suspected, blisters should be applied, and gentle deobstruent medicines made use of; but at this period, the cure is chiefly to be accomplished by a vegetable and milk diet, (especially asses milk) pure air, and gentle exercise.

The cough after having disappeared for a week or more, is sometimes found to return with great violence, especially upon taking cold; but a gentle purge or two, a vomit, and abstaining from heavy food, generally remove it in a very short time. If these cautions be neglected, the cough will often prove extremely tedious.

The only thing that remains to be spoken of, is proper diet, which for children even of five or six years of age, ought to be little more than milk and broths. These are easily digested, and will afford them much more good nourishment than  
any



any kind of meats, and will sit much lighter on the stomach than puddings, or pastry, the latter of which is exceedingly injurious. The objection made by old nurses against milk, that it breeds phlegm, is utterly founded in a mistake, which cannot be too frequently controverted. It has, indeed, been sometimes mentioned by a certain class of medical people, but the objection is so truly unphilosophical, and unlike the objections of thinking men, that it scarcely deserves a reply. Should the milk, however, be found to curdle remarkably soon on the stomach, a little common salt, or testaceous powder, may be added to it occasionally; or where it can be afforded, asses milk may be substituted for cow's. These light nourishments soon pass out of the stomach, or if brought up by coughing fifty times in the day, (as I have known them to be) a child of four, or five years old, will immediately take



more of them with avidity, and will be better supplied in this way, I mean by taking a tea-cupful at a time, than by making set meals, or taking a large quantity at once. If the child should be thirsty, a little apple-water, toast and water, and other thin drinks, will be pleasant and useful. Patients treated in this way, will get through the complaint, if not severe, in a very short time; and where it proves violent, a child will struggle through this long disease without any considerable loss of strength, or will be very soon recruited by gentle exercise, and a little country air, the best restoratives after every kind of disease.

### THE CROUP.

THE croup, or acute asthma, is a complaint somewhat similar to the former, to which children only are liable, called therefore asthma infantum spasmodicum,



modicum, also suffocatio stridula. It rarely attacks those who have arrived to the age of ten or twelve years, and chiefly seizes infants newly weaned; at which period it is the most severe. Dr. MILLAR, to whom I am chiefly indebted for what I have to say upon this subject, observes that it appears most frequently in the spring and autumn, in moist or changeable weather, and when the mercury falls in the barometer.

This disease may perhaps arise from the lax fibre of children, the abundance of moist humors natural to them, and the vast secretion from the bronchial vessels; from the changes taking place in the circulation through the heart and lungs after birth, and the change of food from milk, which is easily assimilated, to one requiring more digestion, by which a great quantity of air is generated in the first passages.

The



The prophylaxis, or means of prevention, is the same as in most other diseases peculiar to children. If this complaint arise from the laxity of their solids, the quality of their food, and the natural weakness of their organs of digestion, the general means of prevention, as well as of cure, will be readily indicated.—Their food should be such as may be easily digested, and may prove nourishing. A due proportion of milk and broth,\* taken separately, whilst children are very young, or light meats when they become older; good air and exercise, and a careful attention to the state of their bowels.

The nature of this complaint appears evidently to be spasmodic, its symptoms very much resemble those of the nervous asthma; but it differs materially

\* A diet of milk only, even in adults, when long persisted in, though otherwise proper, will create flatulencies. BARRY on Digestion.



from the common spasmodic asthma of adults, in the peculiar croaking noise made in respiration, and in the violence of the paroxysms ; which however leave no apparent indisposition, save a certain dullness, and a sense of fear, in children capable of expressing it. The fits frequently terminate by sneezing, coughing, or vomiting, and return without any regularity. It is attended with a quick pulse, laborious breathing, a sharp, and shrill voice, and a flushed countenance which grows livid during the paroxysms.

It is divided into two principal stages; in the latter of which no method of treatment has appeared to be effectual, but medicine is never more efficacious than in the first. As I once saw in a little boy of my own, who was nearly cured in two days.

The sovereign remedy seems to be *assa foetida*, which ought to be administered



ministered both by the mouth and in glysters, according to the exigency of the complaint, which in the first instance, and before any inflammatory affection has taken place, may be administered very freely. At the close of the complaint, and to prevent a relapse, the bark proves highly serviceable, and will also restore the strength of the patient; returning however to the *assa foetida*, if there should be any threatening symptom of the asthmatic affection, which is not uncommon. Should a patient suffer two or more relapses, to which a moist air will peculiarly expose him, some discharge, by a blister, or issue, ought to be procured, and continued at least for some months.

I have examined the trachea after death in only one patient, in which I found the precise appearances described by Dr. MILLAR; the trachea being lined



lined by a tough viscid coat, which nearly closed up the passage.

### SCROFULA, or KING'S-EVIL.

THIS is primarily a glandular disease, though in its progress it attacks the adipose membrane, muscles, tendons, and even the bones themselves, especially the joints. It seldom makes its appearance before two years of age, nor later than ten or twelve, though there are a few exceptions in this last respect, and it then often proves fatal, by falling on the lungs, or other noble part. It is frequently observed to follow other disorders, particularly the small-pox, whether taken naturally or from inoculation, but more especially the former; also the whooping-cough, teething, rickets; and many other disorders already mentioned. Hence, the nature of this disease is better understood,



stood, as it falls upon weak and tender habits, either originally of a lax fibre, or worn out by previous diseases; or is gradually brought on by a heavy, indigestible, and bad diet, or a low, wet, and unhealthy situation. It is, however, sometimes found to be hereditary, but will very frequently lie dormant for two or three generations afterwards, and appear with redoubled violence. It is often attended, or rather preceded, with a peculiar look about the eyes, and a thickness of the upper lip, and sometimes proves a source of ill-health through life, but is not usually fatal in the first instance.

Long before the external glands become affected, especially in young subjects, the belly is observed to be hard and enlarged, and after death, the mesenteric glands, and even the pancreas have been found diseased.

Though



Though this be a very unpleasant complaint, and one that does not often admit of much relief, yet it frequently disappears at the time of puberty (and sometimes sooner) especially in females; but whether this be owing to the increased strength of the solids, or to other changes in the habit, naturally happening at that period, is not an enquiry proper for this place.

Though I thought it necessary to mention this disease amongst others, to which the state of childhood is liable, I have little to recommend for the cure of it. At its first appearance, bitter, or mercurial purges, are sometimes of use, as are also antimonial vomits, and sometimes saponaceous medicines. But when the disease is confirmed, lime-water, and decoctions of the woods, together with crude antimony, bark, and steel, are I believe most to be depended upon as internal remedies.

When



When there are external tumors, I am satisfied, that the opinion I have already given to the public in a former treatise, is both rational and safe, and that they ought to be brought to as speedy a suppuration as is possible, and be treated as I have there recommended. The scrofulous virus when thrown on the surface, so far resembles the cancerous, according to the description of the ingenious Mr. HUNTER, that it is inclined to spread to a considerable extent; but as tumors of the former class will bear rougher treatment than the latter, I am confident that much benefit may arise from the use of catherætics, by stopping the progress of the disorder in the neighbouring parts, as well as by adding powers, and thereby disposing the ulcers to heal.

I have lately had farther reason to be confirmed in this opinion, from some observations communicated to me by  
Mr.



Mr. PARTINGTON, who since the hints I threw out in that work, has made use of electricity with very good effects in these as well as other cold tumors and ulcers, I had mentioned; which have all healed very kindly in consequence of this stimulus to the parts. When scrofulous ulcers have been healed, and only some small tumors remain, I have experienced very good effects from the external use of as strong a solution of camphor in oil of almonds as can be made, which has dispersed them very soon, and I have found it the best remedy, and a very successful one, in the cure of the incipient bronchocele, tho' enlarged to the size of a turkey's egg; and requires only to be very well rubbed into the parts, three times a day. The patient should at the same time take a dram or two of the Rochelle-salts every morning.—I shall only add, on the head of scrofula, what is very well

K known,



known, that sea-bathing alone sometimes effects a perfect cure.

### W O R M S.

**WORMS** are much oftener suspected to be the cause of children's complaints than positively ascertained; nor are all children equally affected by them where they are found to exist. Some continue very healthy though they are seldom free from them, whilst others are very ill who have apparently very few. Worms become hurtful chiefly from their numbers; first, when they obstruct the bowels, or compress the adjacent parts by their bulk. Secondly, by sucking up the chyle designed for the nourishment of the child. Thirdly, by irritation.

They are chiefly of three kinds, the large round worm, the very small maw-worm, or ascarides, resembling bits of thread;



thread ; and the flat, or jointed, called the tape-worm, which is often many yards long. This is the most hurtful of all, and most difficult of cure, because it will remain long in the bowels even after it is dead, and is then seldom brought away but in pieces, and that by very powerful medicines. But as this kind of worm is not common to children, and occasions a variety of symptoms resembling other complaints, for which many different medicines may be required, the bare mention of it here may suffice.

Various are the symptoms of worms, some of which are very equivocal ; I shall name only the more constant, and less uncertain ones. Such as fetid breath, especially in the morning ; bad gums ; itching of the nose and anus ; a very irregular appetite, always in extremes, whether of hunger or of loathing ; a large belly ; pains at the stomach ; sometimes vomiting, oftener costiveness or purging,



with slimy stools; irregular colics; thirst; dulness; peculiar unhealthy and bloated countenance, with a dark, hollow circle round the eyes; startings in the sleep, and grinding of the teeth. To these symptoms are often added, slow fever, with a small and irregular pulse, pale, or whitish urine, a short and dry cough, (which is an almost constant symptom where the complaint is of long standing, and has injured the health,) sometimes even convulsions, and partial palsies of the lower extremities. Children, whose digestion is weak, are most liable to be troubled with these vermin, which are sometimes very easily removed, and at other times very difficult of cure, and subject to return.

The cause of this troublesome complaint is not perhaps certainly known. Since the doctrine of equivocal generation has been justly exploded, it has been generally imagined, that worms are engendered



gendered from the eggs of insects, which float in the air, or are swallowed with some part of our food, such as summer fruits, vegetables, cheese, and some kinds of flesh meats. But perhaps this is not altogether so certain, as it may appear at first sight, unless we are to imagine that these supposed eggs produce very different insects, from being taken into the stomach and bowels, than they would otherwise do ; since we do not meet with insects of this kind, especially the tape-worm, any where else.

But whatever be the cause, the general intention of cure is obvious enough, which is to bring them away in the most easy, and expeditious manner, whether alive, or dead ; the difficulty chiefly consisting in dislodging them from their firm attachment to the sides of the intestines. To this end, a variety of medicines, pretty much of the same kind, has been devised, and has served the cause of



empiricism in every age. Most of them consist either of the bitter purges, or mercurials, to which are sometimes joined steel, and tin.

But if the disease be not of long standing, a little senna-tea taken every other morning, will often effect a cure; but should this prove insufficient, a few grains of the basilic powder should be given the overnight, once or twice a week, according to the age and strength of the child. If purging much should, on any account, be found improper, the following is very safe, and often effectual.

R. Limatur : Stanni ℥ij. Argenti vivi ʒiij  
Misce, fiat amalgama.

About eight or ten grains of this powder, with three or four grains of rhubarb, and as much unwashed calx of antimony, may be taken every morning, in a little honey, for a week together : after which, a glyster of succotorine aloes, dissolved in warm milk, should be thrown  
up



up over night, and a proper dose of rhubarb, or senna-tea betaken the next morning : which course may be repeated, as the obstinacy of the complaint, or the strength of the child shall direct.

Amongst other means, especially for such as may be at a distance from medical assistance, is a mixture of pewter filings and treacle, of which children of four or five years old, may take several tea-spoonsful in a day, almost at pleasure ; which they will also readily do, for the sake of the treacle. Or wormwood seed, mixed up in like manner, taken in the morning fasting, and from five to ten grains of jalap, and as much æthiops mineral, twice every week, to carry the worms down, as they die. To answer the last purpose, equal parts of bullocks gall, and powdered aloes, may be mixed up with butter, and the parts below the navel be anointed with it, two or three times a week ; or succotorine



aloes and powder of dried rue, made into a plaister with Venice treacle, and applied round the navel, first covering that part with a little cotton.—I mention these things with a view to the country poor, whom the benevolence of their neighbours may incline them to assist, and who may, by these easy means, do it at so little expence to themselves. Amongst such likewise, the decoction of quicksilver, in the proportion of about two ounces to a pint of water, may be made trial of, and taken as common drink, of which some people have entertained a very high opinion.

If the complaint, however, has been of long standing, and the child not very young, mercurial purges are chiefly to be depended upon; though æthiops mineral taken for a length of time, and occasionally purging with senna, has sometimes succeeded, where there have been the severest convulsions. For which likewise,



wife, or obstinate contractions of the limbs, the warm bath is often essentially necessary.—To prevent a return of the complaint in older children, or grown people, chalybeate waters may be of use.

### HYDROCEPHALUS INTERNUS, or WATERY-HEAD WITHIN THE VENTRICLES OF THE BRAIN.

I shall not speak of the watery-head that appears in some infants at the birth, as such children are rarely born alive, and seldom live many weeks, (though I have known one living at ten years of age) and no means that I know of can be attempted for the cure. I design here to treat only of that collection of water that is formed in the ventricles of the brain, usually between the age of two, and ten years.

It is, indeed, a melancholy complaint, and not well understood; and as it can scarcely



scarcely be ascertained whether any have recovered from it, (the certainty of its existence scarcely being known but by examination after death,) it is not likely that a very determined, and successful treatment, will shortly be established. It may arise from falls and blows on the head, an original laxity of the brain; schirrous tumors and excrescences within the skull; a watery state of the blood, or a lingering illness. It appears, likewise, to be a family complaint in some instances, for I have known six children die successively of it at the age of two years, five of whom were afterwards opened.

It begins with the appearances of slow fever, the child is sometimes suddenly seized with pain in the fore part of the head, and retches. It becomes heavy and dull, and the pulse irregular, and usually very slow; in the progress of the disease the patient is offended by the  
light,



light, becomes delirious, and sees objects double. As the disease advances, the pulse grows frequent, the pupils of the eyes are dilated, the cheeks flushed, and the patient lies comatose, or is convulsed.

For the reasons above-mentioned, it is difficult to say if medicines are so often successful as hath sometimes been imagined, for when a patient recovers, it may be suspected he has not had the true disease. Practitioners seem chiefly to have depended upon repeated bleedings; purges with jalap, or calomel; blisters to the neck, or head; and diuretic medicines. A large bleeding early in the disease has been thought very beneficial. The use of sternutatories, as powder of asarum, or white hellebore, has likewise been recommended by some experienced practitioners.



## TINEA, or SCALD-HEAD.

THE scald-head is a very troublesome complaint, but as it is chiefly communicated by contact, it is rather incident to children of a greater age, than are the immediate subjects of this little work ; I shall therefore only slightly glance at it, and point out one successful method of cure, the unpleasantness of which has, improperly I think, prevented its being generally adopted.

From some considerable experience, I may venture to say, that being a mere cutaneous complaint, it may be most successfully treated by topical applications. This disease is seated in the little glands at the roots of the hair, producing little ulcers, which being thoroughly cleansed, and made to digest, may be safely healed up, as I have found in many other cutaneous affections.

It



It is not uncommon, I know, to administer a variety of internal remedies, and perhaps they may sometimes be required, though I think I have seldom given any thing more than lime-water, or a decoction of the woods.

If the complaint be taken early, before it has spread far over the head, and whilst the scabby patches are small and distinct, it may be frequently cured by the sulphur ointment, with a small addition of white precipitate. And such a preparation may very safely be made use of, if the patient be kept within doors, and his body be properly open; as it will be necessary to rub in only a small portion, once or twice a day, on the parts immediately affected. But if the disease should spread, or has already extended itself over a great part of the head, the hair must be shaved off, and the head washed twice a day with a strong decoction of tobacco; repeating this process till the scabs disappear,



pear, and the hair grows up from the parts they had occupied.

This complaint indeed, is sometimes of long standing before medical assistance is asked, and is not only extended over all the head, but the scabs are thick, and rise high above the surface, returning as often as they fall off. I have, however, never failed to conquer this troublesome disease by a method perhaps well known, but too seldom complied with in time, on account of its apparent severity. It consists only in well washing the head in a strong lather of soap-suds, after it has been close shaved, and then rubbing in the common tar ointment very forcibly for near an hour at a time, always using it very warm ; and covering the head with a bladder to preserve the ointment on the part, as well as to keep it from sticking to the cap, or other covering made use of. When this has been done three or four times, not only the scabs, but



but the hairs will also loosen, which must be pulled out, however unpleasant, and indeed painful the operation may be ; as it will, indeed, prove a kindness in the end : but must be repeated till all the hair be taken out, after which new hair will rise free from scabs, which is a sufficient indication that the disorder is effectually removed.

#### CANKER.

MANY of the following little complaints, though not usually noticed by preceding writers, I have thought proper to mention ; rather from a desire that nothing on the subject of children's complaints should be omitted, than from their real importance. Some of them indeed have been entirely overlooked, and probably will seldom require much attention, though sometimes it will be of  
 advantage



advantage to know what has been serviceable in similar cases.

I begin with the canker in the mouth, a complaint often talked of by nurses, and usually as trifling as any. It will sometimes make its appearance in the month, or at the time of teething; and frequently at the age of six or seven years, when children are shedding their first teeth, and the second are making their way through the gums.

This complaint seldom requires more attention than was mentioned under the article of dentition, any mild astringent application, and keeping the body open, usually effecting a cure; or if it does not, and the complaint makes its appearance at the time of teething, it will generally go away as soon as the teeth are come through.

The worst species of this complaint that I have happened to see, has been during the second period of dentition, when



when a child has been shedding a number of teeth together, and the rotten stumps have been neglected to be drawn out. The whole gums will then sometimes be spongy, or dissolve into foul, spreading sores, and small apertures will be formed, communicating from one part to another, accompanied with an oozing of a fetid, and sometimes purulent discharge.

If the stumps of the decayed teeth can, in this case, be easily got at, they ought to be extracted; after which, some such application as the following will soon brace the loose gums, and heal up the ulcers.

R. Bol. Armen: Sang. Dracon. Gum.  
Myrrhæ, Cort. Peruv. pulv. subtiliss. Cremor.  
Tartar:  $\bar{a}$   $\frac{3}{4}$ j

Mel. Rosac: q. s. misce, ft. Linctus.

R. Aq. Calcis  $\frac{3}{4}$ vij Tinct. Myrrhæ Mel. Ro-  
sac.  $\bar{a}$   $\frac{3}{4}$ ss. ft. Mixtura.



The gums should be touched several times in the day, especially after meals, and at going to bed, with the above linctus, and the mouth be washed occasionally with the mixture.

If no considerable change for the better should take place, in a week or ten days, a dram of alum may be substituted in the place of one of the drying powders, and instead of the above mixture, one acidulated with as much Spir. Salis marini as the parts will endure, occasionally made stronger, till some amendment be perceived.

### ON CUTTING THE TONGUE.

THIS is too trifling a matter to dwell upon.—It will be sufficient to observe that the little operation, performed in order to lengthen the tongue, is very frequently called for where there is no absolute occasion for it, the confinement  
being



being seldom so considerable as to make it really necessary to divide the frænum, or little bridle, that adheres to the under part of the tongue. The pain unto the child, however, is so very little, that when the operation is carefully done, it will be attended with no inconvenience; and if it can afford the mother any satisfaction, it will be very proper to comply with her request. It seems therefore only necessary to add, that some little care and steadiness are required, or the sublingual veins may be divided, and in consequence an infant may lose its life; which has happened more than once. To avoid this danger, the bridle may be divided by a small curved bistoury, (invented by Dr. BROMFIELD) instead of scissars. The handle and blade, when open, need not exceed two inches in length; and as the point is a little curved, and the back made broad, it is easy to introduce the point through



the frænum in the most troublesome case, whilst the back of the instrument will sufficiently press down the veins, so as to be entirely out of the way of being injured.

### OPHTHALMIA, or INFLAMMATION. OF THE EYES.

THE eyes of new-born infants are very apt to be inflamed during the first three or four days after birth, especially in the winter season. If it be owing to taking cold, it is probable it has been either immediately after it was born, before it was given away to the nurse, or very soon afterwards; and on this account, a flannel cap becomes a very necessary part of its first covering.

This kind of inflammation however, is usually of very little consequence, and generally disappears of itself, upon merely keeping the head warm, or by washing



washing the eyes with a little rose-water; to two ounces of which, in some cases, two or three drops of extract of lead, and a grain or two of white vitriol, may be added. But there is an inflammation to which infants are liable, that sometimes continues a long while, and is of such a nature as to demand a careful discrimination. I do not now speak of that redness on the eye, known by the name of fugillation, or blood-shot, which will often remain a long time, return, and disappear again, without the least injury to the child; nor of the watery-eye, which will sometimes continue for many months, and even for years. But that which I here intend, is accompanied with redness of the eyelids, and the true appearances of ophthalmia, or inflammation of the white of the eye, attended with the same thick discharge as the ophthalmia of adults, and will sometimes get a little better by common



means, but seldom remains so for many days together, and generally increases at the end of the month.

From what I have known of this permanent inflammation, I am much inclined to the opinion of the late Dr. HUNTER and others, who after having tried a variety of means, and assisted in consultation with different physicians, have been induced to think, that most of the very stubborn ophthalmias originated from a venereal taint, and could only be successfully treated by its specific remedy, in one form or other.—Every practitioner will be very careful how he takes up such an opinion in particular instances; however, it is right to observe, that if common means do not produce some favourable change in eight or ten weeks, I believe nothing but that specific species of alteratives will have any lasting effect.

Though



Though it is not my design to treat expressly on this disease, it may not be amiss to observe, that whenever a venereal taint actually exists, it is more safely treated by unction than in any other way; and infants would probably be cured much oftener than they are, if recourse was had to it in better time than it commonly is.

### HICCUGH.

THIS has been ranked among children's diseases, but it is, by no means, a complaint of consequence, as it sometimes is in adults. It occurs pretty commonly indeed in infancy, but seldom requires much attention, as it frequently comes on only after over-feeding, and is one of its most harmless symptoms. But when it depends on an acid state of the juices of the stomach, or occurs in



long bowel complaints, it indicates a recourse to the absorbent powders.

### S N E E Z I N G.

THIS has likewise been mentioned by some writers as a complaint of young children, for which RHazes prescribes refrigerants and anodynes, but it is certainly not a common one, and indeed I have never met with it. It has already been spoken of as a well known symptom of the measles, and of many common colds, but in neither, I believe, requires any particular attention. It is mentioned here, only because I would not pass over a complaint that has been attended to by any writer of reputation, or leave such readers at a loss, who being unacquainted with the distinction between mere symptoms and diseases, might at any time be needlessly alarmed by it. It may however, in conjunction  
with



with other causes, give rise to the following complaint in older children.

### BLEEDING OF THE NOSE.

I meet with this complaint also amongst old writers, and therefore bestow a few words upon it, though it seldom requires much attention at the age to which this treatise is chiefly confined.

If the child be feverish, or otherwise unwell, the hæmorrhage is often a mere symptom arising from the complaint under which it labours, and will disappear upon that being properly treated. But a bleeding at the nose sometimes takes place in the healthiest children, the vessels of this part being weaker than those which are covered by the true skin, and often afford a salutary outlet, in case of plethora, or fulness of blood, and therefore usually contract when the intention



tention of nature is answered; after which, a dose or two of cooling physic should be given. But it may be sometimes necessary to draw a little cold water up the nose, to which some vinegar may be added; to apply something cold to the upper part of the back, or even to immerse the hands in cold water; and if these little remedies fail, to stop up the nostrils with dossils of lint, which must extend to the posterior aperture. These things will almost always succeed; but if otherwise, some blood should be taken from the arm, if the pulse does not forbid; the body should be kept open by manna, and cream of tartar, and the child live for a little time pretty much upon vegetables and milk; at least he should not dine wholly upon animal food.

## HÆMORRHAGE



## HÆMORRHAGE FROM THE NAVEL.

I have two or three times seen a complaint at the navel of new-born infants, which is scarcely worthy of mention, but from its being an uncommon one. This is an oozing of blood from the part, which has sometimes continued for some months, and in some instances, in such quantity as to prove alarming to the friends of the child, lest it should in the end be injurious to its health. The little vein from whence the blood issues, lies always so deep that it cannot be secured by ligature, nor be conveniently cauterized; the latter of which, indeed, would be very disagreeable. I have conveyed the lunar coëtic, however, to the part, but the hæmorrhage has always returned. Nothing farther is necessary, than to adapt a proper compress, and secure it by a sticking plaister and bandage;



dage; which should be continued for two or three weeks.

### HERNIÆ, or RUPTURES.

RUPTURES may take place in different parts, but they usually appear at the navel or the groin. The former is a very common complaint, which if immediately attended to, is easily cured, perhaps merely by the use of the cold bath; but if neglected, may prove troublesome as the child grows up; especially to females. It will be sooner cured however, if treated like the former complaint, by adapting a pyramidical compress, made of round pieces of good sticking-plaister, spread upon thin leather, with pieces of card placed between them. But if the child be a twelve-month old, it will then require a pretty tight bandage round the waste; and such a compression, I have frequently observed  
nurses



nurses afraid of, who often loosen the bandage so much as to render it of very little use. On this account, I have for some time past recommended Mr. SQUIRE's elastic bandage, which fitting quite hollow on the sides, and making no kind of compression but on the part affected, and the opposite point of the back, perfectly answers the end, without the help of a surgeon. The child should be put in the cold bath for some months, after leaving off the bandage or truss.

Ruptures at the groin in very young infants, are better left without a bandage, both from the difficulty of retaining them on the part, as well as from their being continually wetted, and because the use of the cold bath will always cure them, if the child be under two years of age; till about which time they cannot, for the above reasons, be very well applied. After this period however, the use of a truss seems to be absolutely necessary, of which  
those



those made of steel are incomparably the best.

### HYDROCELE, or WATERY-RUPTURE.

THIS is a tumor of the scrotum of a nature similar to the hydrocele of adults, and when it falls to the share of infants, I believe, always appears at the birth. It is frequently mistaken by midwives and nurses for a common rupture, who therefore advise a linen bandage to be applied in the usual manner. It is, however, easily distinguished from a rupture, by the tumor being transparent; without pain; and from not retiring upon pressure, or not being increased by the crying of the infant.

It is a harmless complaint, and would probably disappear of itself in a few months; but may much sooner be dispersed by some astringent lotion. The spirit of Mindererus has succeeded with  
me



me perfectly well, and I have sometimes made use of compresses wetted in vinegar and water, with the addition of a little spirit, as the skin has been able to bear it. But the speediest method is to puncture the lower part of the tumor with the point of a lancet; which, as it may always be done with perfect safety, and with very little pain to the child, is often preferred by the mother, as it instantly removes a blemish which cannot but be unpleasant to her, whenever any other person may chance to be witness to it. In whatever way the water be got rid of, I never knew it return, nor the child suffer any consequent inconvenience.

#### PROLAPSUS ANI, or FALLING DOWN OF THE GUT.

THIS complaint is likewise not an uncommon one, nor usually difficult of cure, being generally a symptom of some other



other, such as worms, or other foulness of the bowels, or has been induced by rough purges, diarrhœa, long costiveness, a stone in the bladder, or some other irritating cause, and is usually preceded by tenesmus ; to each of which the proper remedy must be applied.

But if the complaint should remain, after the probable irritating cause shall have been removed, it will then exist merely from a relaxation of the part, arising from the long habit of descending, every time the child has gone to stool, and is easily cured by an astringent lotion. To this end, a compress of cotton, or soft tow, wrung out of the dregs of red wine, to which also may be added a few drops of the extract of lead, should be often applied, and secured by bandage, so as to make a firm compression on the part ; which may also be sprinkled with fine powder of myrrh, frankincense, and dragon's blood. It may sometimes be  
found



found expedient to have the part supported when the child goes to stool, by a servant placing a finger on each side the gut : but this caution will not be necessary unless the complaint has been of long standing, or the descent is considerable.

#### DISCHARGES from the VAGINA.

THESE are either sanguineous, mucous, or purulent.—As I speak only of appearances before the age of puberty, I have only to remark on the first, that female infants have sometimes such a discharge from the vagina a few days after birth, which appears to be of no consequence. Should it however, on any account, be thought necessary to prescribe something, a little testaceous powder, or magnesia, according to the state of the bowels, will be sufficiently astringent, as

M

the



the discharge always disappears in a few days.

Children of five or six years old, are subject to a mucous discharge, resembling the genuine fluor albus of adults, which will sometimes be in an excessive quantity, so as to run through all their clothes. If it were suffered to continue, it would probably injure the health, but I believe may always be cured, by one or other of the means recommended for the next, which may be called purulent gonorrhœa.

This is no uncommon complaint in children of three or four years old, and is then in general easily removed by a little cooling physic, and keeping the parts perfectly clean. I have sometimes made use of a lotion of the vegeto-mineral water, which I believe is preferable to most others, if had recourse to in the commencement of the complaint.

When



When the purulent discharge makes its appearance later, which it will do at eight, ten, and even twelve years of age, and is much discoloured, and fetid, it gives rise to a suspicion which young practitioners cannot be too guarded against. There are, indeed, instances of little girls, not more than six years old, being injured, and it is of consequence to make a judicious discrimination; but there are on the other hand, instances of a very suspicious appearance, as late as the age of twelve or thirteen, where no injury could be received without the consent of the party, who is generally perfectly innocent, and where therefore the least suspicion would be very distressing to her, and might make a whole family miserable.

Discharges with the worst appearances, are frequently removed in eight or ten days, merely by the treatment above recommended, but I have seen some cases



in the youngest subjects, of a bad habit of body, where mercury, as a deobstruent, has proved useful, though I could not have the least suspicion of a venereal taint. In such cases, I have found WARD's white drop a more convenient medicine than any other of that class, which may be given from half a drop, to two, or three, once or twice a day, for two or three weeks. But if this fail, I have only to add, that I have been always able to succeed by giving a decoction of the bark with balsam. copaibæ, which is also an admirable medicine in the fluor albus of adults.

### LUXATIONS and FRACTURES.

INFANTS are not only liable to these misfortunes by a fall from the lap, but the bones, or joints, may be sometimes unavoidably injured in the birth. There is seldom any luxation, I believe, but of  
the



the humerus, which is very easily reduced, and requires nothing afterwards, but that the limb be kept perfectly quiet. Fractures, indeed, are not quite so easily managed, and perhaps happen more frequently. The bones are yet but little more than gristle, and if strained beyond a certain degree, are easily bent, or even broken. The former is very readily restored, but I shall drop a few words on the latter, which may not be entirely useless.

Fractures in the birth are usually of the clavicle, or the arm, and the treatment of these, will include all that is necessary to be observed of such as may happen in other parts.

The former however requires very little attention, as it will be necessary only to draw the shoulders back, confining them in that posture, by two or three pins in their clothes, and to apply a piece of adhesive, or strengthening plaister,



spread on leather, upon the rising end of the bone, and a larger piece over the first.

A fracture of the os humeri demands a little more attention, but will always end perfectly well. The difficulty consists in keeping the fractured ends of the bones apposed to each other, without rolling up the arm so tight as to occasion pain, or much swelling of the hand, which in a new-born infant, a very small pressure will effect. I have found no method so well adapted as the following, which allowing of a little tumor about the fractured part, without the necessity of loosening the roller, preserves the ends of the bones in due contact, without drawing the roller so tight as to prevent the free return of blood from the inferior parts of the limb.

To this end, three little splints, about half an inch in width, and an inch and half long, may be made of fine linen cloth, five or six times folded together,  
to



to the thickness of common pasteboard; and being soaked in a mixture of flour and white of egg, should be placed in the usual manner, along the fractured ends of the bone. Being applied wet, they will accommodate themselves exactly to the figure of the limb, and when become dry, will be sufficiently strong to support the bones. They should be applied immediately on the skin, without the intervention of a roller, by which means, when the parts swell, which they should always do a little, there will be space enough between them to allow of it, notwithstanding the pressure from the roller, which should be applied over them. This ought to be of very fine flannel, and should not be drawn near so tight as for adults, nor will there be occasion for it, as the chief dependance ought to be, on fastening the arm down close to the side, by strong pins fixed into the little gown, as the surgeon may



best contrive at the time. The gown, therefore, ought not to be changed, nor the arm moved, but in his presence ; and if the hand is not inflamed, nor very much swelled, and the child is easy, the part will not need to be opened under eight or ten days. Till this time, the gown should not be changed, but only be preserved clean, by such coverings as may easily be removed. The speedy union of the bones will depend upon a strict attention to keeping the limb as still as possible ; and if it be so preserved, the accident will afford very little trouble after the first ten or twelve days, and at the month's end, the child will move that arm nearly as well as the other.

#### SCALDS and BURNS.

BURNS are mentioned by some old writers, and though a misfortune by no means confined to little infants, they too  
often



often fall to their lot, through the carelessness of their attendants ; and for want of being properly treated at the instant, children often suffer exceedingly, when a fit application would have rendered the injury trifling.

When such an accident happens, the nearest astringent at hand should be made use of, such as brandy, or other spirit, ink, wine, or even cold water, till something more proper can be procured ; into which the injured part should be plunged, or be covered with pieces of cloth dipped in them ; carefully avoiding the use of oil, or other greasy application, too frequently had recourse to. As soon as it is possible to send to an apothecary, the following should be procured, and used in like manner.

Lime-water, a pint, brandy, two ounces, extract of lead, half an ounce.

If the injury has been too long received to admit of much relief by these means,



means, and sores are actually formed, a very proper dressing may be made of equal parts of TURNER'S cerate, and green ointment of elder; diminishing the proportion of the latter, as the sores become disposed to heal.

### CHILBLAINS.

THIS is a complaint so well known, that it can need no description. It is generally owing to the circulation of the blood in the minute vessels of the extremities being checked, by a child having been long exposed to cold or wet, and afterwards running to the fire instead of recovering the natural heat by exercise. If the injury be exceedingly great, as it sometimes is when a person has lain for several hours in the snow, the circulation cannot always be restored, and the part actually mortifies. But I speak here only of slighter attacks; on the first appearance



ance of which, known by the heat, itching, redness, and swelling of the heels, toes, or fingers, country people apply warm wood-ashes between cloths, or rub the parts with mustard and brandy, which if done in time will often remove the complaint. For the like purpose, soaking the parts in warm water in which a hot poker has been two or three times quenched, and afterwards rubbing them with salt, is a good remedy ; or embrocating them with camphorated spirit of wine, to two ounces of which, a tea-spoonful of extract of lead may be added.

Some children are disposed to have chilblains every winter ; as a preservative against which, if it be the hands that are liable to be affected, warm leather glôves should be worn, avoiding woollen, which in these cases is unfriendly to the skin. But if the feet are usually the affected parts, the heels should be covered every winter by a piece of washing-leather, secured



cured round the insteps, and worn day and night.

When the swellings are broken, it is common to dress the sores only with a little cerate, and to wait for the return of warm weather, when they usually heal of themselves; but by this means, they often remain bad not only all the winter, but when large, are sometimes not well till the summer is very far advanced.

After having attended great numbers in this complaint, I am satisfied that this kind of sore requires applications somewhat more invigorating, being a species of gangrene; and though it will not always endure very warm digestives like many other ulcers, yet when the chilblains are pretty large, a portion of some digestive joined with the cerate, is very friendly to them. And I have known some sores though very small, remain long in a very obstinate and tedious



tedious state after the breaking up of a hard frost, whilst they have been dressed only with cerate, or other mild, or drying applications, as they are called, and begin to heal immediately upon adding a small portion of some warm digestive, and applying a flannel roller, without any other alteration in the plan. But if they are spread to any considerable size, nothing contributes so much to their healing, as touching the sores every day with bracing and invigorating lotions; which in a very few days will produce kindly granulations in these, and other cold sores, though of long standing.

When the parts are much swollen, and the sores been long foul, it will be often necessary in severe weather, to make use of poultices, of which those made of rye-meal and the vegeto-mineral water are more active, and therefore preferable to mere bread and milk. If these are applied over the above dressing of cerate



cerate and digestive, and changed twice a day, the sores will heal in much less time than by any of the common applications I have seen used; especially if the parts surrounding the sore be well rubbed with camphorated spirit. If children are not very young, purging them with a little calomel twice a week, will often expedite the healing of the sores: in the worst cases, a decoction of the bark is required.

Since this work has been in hand, I have been informed by Mr. PARTINGTON of the good effects of electricity in chilblains, and though I have had no opportunity of making trial of it, it agrees so exactly with my own ideas of the nature of such disorders, that I cannot doubt it will be of use in the more obstinate kinds, especially in very old people, to whom they not unfrequently happen.

THERE



THERE are several other diseases attributed to young children, recorded by *Rhazes*, *Paulus*, *Oetius*, *Fabricius ab Aquapendente*, *Celsus*, *Primerose*, and other less ancient writers; of which I know nothing but from their own account of them, or that they are needless distinctions of diseases already mentioned, which the ancients were very fond of making, especially in complaints of the skin, but can never answer any practical end. Amongst which are, *Lentes*, *Hispiditas*, *Achores*, *Favus*, *Pforophthalmia*, *Ranulæ* or *Batrachos*, *Seriasis*, *Paristh-mia*, *Parulis*, *Inflatio*, *Macies*.

The five first are affections of the skin. *Achores* and *Favus* are a sort of *Crusta-lactea*, so called, when of a dark colour, or ulcerated, and extending to the head; but by some, the term *Achores* is applied only to adults. *Pforophthalmia* is confined to the eye-brows, and is so named by *ÆTIUS*, and others after him.

Ranula



Ranula is an inflammatory tumor of the parts under the tongue, especially of the veins, which sometimes ulcerates, but often presents a species of soft, and lax œdema. CELSUS says the tumour is sometimes included in a cyst, which must be taken out; the operation for which is fully described by AQUAPENDENTE. Serias is from σίρος, quia caput quasi excavatum cernitur.—PAULUS (Lib. i.) describes it as an inflammation about the cerebrum, in which the brain is said often to mortify within three days—but if it should not, the child may recover. Paristhmia is an inflammation of the tonsils, but is certainly not common in this country; it is hinted by HIPPOCRATES in his book de Dentitione. Parulis, a complaint described by PAULUS as a painful tumor about the gums; RHAZES calls it a blister in the mouth. Inflatio is a distention of the skin from wind or water after a child has been reduced



duced by long illness. *Macies*, or *atrophia lactantium*, is applied to a decay, said to arise either from worms, (and is then called *atrophia verminosa*\*) or to the unsuitableness of the breast-milk, which though good in its kind, will not prove alike nourishing to all children. The milk is then properly directed to be changed, upon which it is remarked the child will often recover.

I have now gone through all that have been usually ranked amongst the disorders of infants, and have taken sufficient notice, as I apprehend, of every complaint worth mentioning, that I have met with either in my reading or practice; and may flatter myself this little tract will be found to possess the advantage of compleatness over most works of the kind. That nothing may be over-

\* See HARRIS.



looked, there remains only to say a few words upon external blemishes.

On the HARE-LIP, and other EXTERNAL BLEMISHES, or EXCRESCENCES, supposed to be MARKS of the MOTHER.

THOUGH it be somewhat beside my purpose, to treat expressly on surgical operations, I cannot close this part of my subject without taking notice of the hare-lip, and other very common blemishes, if it were only for the sake of adding my testimony to that of a sensible modern writer, § who has in an able manner, though not with equal success, combated the unhappy prejudices of mothers in relation to *marking* their children; which they always imagine to be owing to a violent impression from the

§ Dr. HUGH SMITH.

fight



fight of some disagreeable object, or to a disappointment in something they may have longed for, during their pregnancy.

The repeated experience of every attentive observer, has uniformly militated against this tormenting suspicion ; but still it prevails, though only to the injury of those who ought for their own sakes to be persuaded to the contrary. Every man long in business has known many instances of affectionate mothers, (for this needless distress falls only to the lot of such) who have tormented themselves for six or seven months together, in the painful apprehension of discovering some sad blemish in the child, (and on this account have trembled to look on it when it has come into the world) which has afterwards proved to be as perfect as they could have wished, and as their more intelligent friends have all along ventured to foretel. On the



other hand, where children have come into the world with some real blemish, it has never been suspected by the mother, unless now and then in a most timid person, who has always bred in fear on account of some disagreeable object or other she has seen, or else, the blemish has turned out to be something perfectly irrelative to it. And here it ought to be noticed, that where a child has really been marked, and the mother has insisted on her having seen, and been frightened by an object which the blemish has resembled, it has (to the best of my knowledge, at least) appeared always to be an after-thought, by which the supposed occasion of it has been discovered; and has not been taken notice of before-hand.—It is, however, the farthest from my thoughts to upbraid the sufferer on this painful occasion, or to tax any with a wilful giving way to suspicions, into which, I am persuaded, their



their feelings alone infidiously betray them.—I wish only to obviate the influence of a sentiment that I take to be without all foundation, and to which nothing but length of time, and prescription, could have given the least shadow of sanction.

That there are blemishes which bear a resemblance to various objects around us, daily experience has proved; though the true occasion of them is not perhaps understood. The like deviations from the ordinary course is observed, not only in other animals, but also in the vegetable kingdom, which must arise from the common laws of nature being some-way diverted from their usual course, by some accidental cause equally unknown to us. But however this may be occasioned, there is nothing that we know of in a fright or longing, that can produce such a change in organized matter, nor can operate in the manner



that has been supposed, much less at such different periods ; but there is on the other hand, every thing against such an hypothesis. As matter of fact therefore, as before observed, does not at all countenance, but directly contradict the supposition, there is the strongest reason for married women arguing themselves out of such fears, instead of reasoning themselves into them, and suffering a painful conflict for weeks, and months together. It will give me great pleasure if any thing I have advanced on the subject, should answer so desirable an end ; whilst reason, philosophy, experience, and every thing on which we ought to depend, uniformly support me in such an attempt.

Amongst the various marks resembling some of the objects around us, is that called the hare-lip ; a blemish too well known to require any description. It is sufficient to observe, that it is of

two



two kinds ; the simple, wherein the upper lip only is divided with some loss of substance ; and the complex, in which the fissure of the lip is double, and sometimes the palate of the mouth, and even the uvula is divided. It would be beside my purpose, in this place, to treat of the manner in which this deformity is to be remedied ; I shall confine myself to speaking only of the time in which it ought to be attempted.

A variety of things contribute to make the distressed parents solicitous to have this blemish removed soon after the infant is born, or at farthest before the month be expired. On this account, I am convinced the operation has sometimes been prematurely performed, contrary to the better judgment of the operator, and not a few children have thereby fallen a sacrifice ; whilst others have received much less benefit than they would have done, had the operation been



postponed for a reasonable time. Where the blemish is very trifling, indeed, and the operation simple, it may be done with reasonable safety in the course of the month, or a little after ; and if the child be able to suck, which is not always the case, there are even some advantages in performing it sooner. For as the child will not be able to take the breast for two days at least after the operation, it will with difficulty be kept tolerably quiet by the spoon after it has been once put to the breast ; but as infants need but very little nourishment for the first days after birth, and generally sleep a good deal, if the operation be done twenty-four hours after the child is born, it will be in a condition to suck by the time it requires much nourishment, and the mother's breast is prepared to furnish it. But in the complex hare-lip the case is exceedingly different, and the longer the operation be postponed, the better it is likely



likely to succeed, and should at least be deferred till the child shall be four or five months old; the good effects of which I have lately seen in the lying-in hospital. By this time also, the infant will have got over the period in which it is most liable to some painful and dangerous complaints; will be thoroughly weaned from its hankering after the breast, and have learned to feed contentedly with the spoon; by which children with this kind of hare-lip are obliged to be supported, they being always unable to suck. At this period likewise, the parts will have acquired a degree of firmness necessary to retain the needles, as well as size that will admit of handling them to greater advantage; for the want of which, though the operation may appear to have been favourably performed, the needles will sometimes break out, and the deformity be but little removed, or perhaps sometimes be increased.

I have



I have once seen another kind of blemish of the mouth in a child born at the hospital, which required a similar operation. In this infant, the mouth was much wider on one side than on the other, and appeared as if that side had been divided far into the cheek, which gave it a very awkward appearance ; but as it was capable of being remedied in the same manner as the hare-lip, I shall only observe, that when I withdrew the pins on the third day, the parts adhered very firmly, and the child left the hospital at the usual time.

A different kind of blemish consists in some superfluous part ; on which I have only to say, that if it be a small joint, as a finger or a toe, it is better removed on the first days ; as the vessels will then bleed but little, and the gristle by which such joints are usually connected, are not yet become bony.

Beside



Beside these, there are blemishes of far greater importance, some of which demand an operation as the only chance for preserving the life of the infant. Such are imperforations of the anus and urethra, or the vagina in females, the latter of which requiring an operation to be performed about the age of puberty, I shall do no more than barely mention here, especially as it requires only a simple, or crucial incision.

The imperforate anus is a melancholy case, as it seldom allows of an effectual remedy, the gut often terminating in a cul de sac so high up as not to be reached; it is not, however, always to be despaired of, though no fluctuation of the intestinal contents should be felt for several days after the infant is born.

I remember only one case of this kind in the lying-in hospital, and in that I happened to succeed, contrary indeed to all expectation, and after the child had  
puked



puked up a great quantity of meconium, and not only the belly, but also the face was exceeding tumid, and the eyes had not been opened for some time.

The manner of doing this operation must, in different cases, depend so much on the discretion of the operator, that I shall do no more than describe that which I made use of in the instance alluded to.

The operation was not determined upon till the third day. A longitudinal incision was made, of near an inch, above and below the part where the anus ought to have been, which was marked by a little excrescence; a small bistoury was then thrust up in the usual direction of the intestine, for more than an inch. No meconium following this puncture, I examined carefully with my finger, and feeling something like the fluctuation meconium would make, I introduced a trocar, and withdrawing my finger, carried up the instrument in such a direction



tion as to avoid injuring the bladder, or forcing it against the os coccygis, for near an inch farther, making allowance, however, for the yielding of the parts, which might be somewhat forced up by the trocar. The instrument having now passed forwards, without that resistance it had hitherto met with, gave me the sensation of having entered a cavity, when withdrawing the trocar, we had the satisfaction of finding the meconium run out at the canula. The child was now put into a warm bath, up to the waist, and in a few minutes having voided a considerable quantity of meconium, it opened its eyes, looked cheerfully about it, and soon afterwards fell into a pleasant sleep in the bath.

A piece of bougie was occasionally introduced, and sometimes left in the part, for a few hours, for the first fortnight, and at the usual time the child was taken from the hospital in pretty good health, though



though it had been much reduced by a bad thrush, which unfortunately made its appearance soon after the operation ; but it always voided its stools perfectly well.

The imperforate penis is not quite so common a case, and it is evident, if the urethra be wanting no operation at all can be performed ; but it is more commonly found open a certain way, and often as far as the basis of the glans, and sometimes near to its extremity ; in which last instance, it is necessary only to make a small aperture with a lancet, or a fine trocar, and to keep the part open by the occasional introduction of a bougie. The more common complaint of this part however, is that of the urethra terminating by a small aperture at a little distance below the glans, and sometimes on one side of it. In these cases, the precise circumstances must determine the propriety of any operation, which if not carefully managed, may render the case worse than  
it



it was. I recollect two indeed, in which I was able to do considerable service, one of which was in presence of Sir CÆSAR HAWKINS, and the other of the late Dr. HUNTER; in the latter, the urine was discharged from one side of the penis, and pretty low down, which was very happily remedied.

I have never met with the vagina totally imperforate, but have known the aperture so very small as to require a little operation, which was mighty easily done with the point of a lancet; there being always a raphè, or line, directing the extent nature had originally designed, which being cut through, requires only to be kept apart for a few days, by a bit of fine lint.

I have likewise known the ears to be imperforate, a case that allows of no remedy; but the external appearance may sometimes be assisted, when the helix, or outer circle is turned forwards over the  
tragus,



tragus, covering that part which ought to lead to the internal ear ; but in these cases, I have always found the concha, and meatus auditorius, totally obliterated.

Another, and a very common blemish, is that called squinting, which is sometimes contracted by very young infants, and may then frequently be remedied, especially if confined to one eye ; but if a child be born with this deformity, it is not so likely to be removed. The means I have to recommend are indeed very simple, and consist only in applying a piece of sticking-plaister spread on some bright coloured silk, in such a position, either on the temple, or the nose, agreeable to the side on which the eye is distorted, as may draw it the contrary way. In order to keep up this attraction, the color of the silk ought to be varied from time to time, as well as its situation, placing it a little higher, or lower, both for the sake  
of



of change, as well as to answer any other end, that a due observation on its effects may point out. Besides this, the child ought always to be placed with that side towards the light, in which the distortion is ; and for the like reason, its parents, nurse, play-things, and every other object that can attract its notice, should as constantly as is possible take the same side, that the child may have every inducement its age and circumstances will allow, to draw the eye the right way, and by early habit, counteract a muscular action that is not yet become permanent.

Another method more proper for older children, is covering the eyes with ogles, which are glasses fixed in a little case, such as some people wear when they ride on horseback. They must be so placed, that the child can see no object but by turning the eyes to the sides from which they are distorted. It is scarcely

O

necessary



necessary to add, that the glasses must be worn constantly, till the bad habit is overcome.

Infants are liable to many other blemishes, but as I mean to treat only of such as will admit of some remedy, I shall mention only one more; and with it shall close what I have to say on their complaints.

This is a tumor on some of the vertebræ, usually of the neck, or the first of the back; it is of a sublivid hue, unequal, internally spongy, and very vascular: it is sometimes connected to the vertebræ themselves, and is then of the same species with the spina bifida, and consequently incurable. At others, it only resembles it, and with proper treatment subsides, and the infant will do well. I saw one of this kind some years ago, in consultation with Sir CÆSAR HAWKINS, who advised to preserve the skin unbroken, as long as it should be possible, which



which he feared was all that could be done for it; and to this end, recommended the free use of the vegeto-mineral water. It was then about the size of a crown-piece, and not raised very much above the level of the surrounding parts. The skin, however, not long afterwards gave way, and the child became ill; in consequence of which the late Dr. HUNTER was desired to give his opinion, who advised the tumor to be taken out, as the only chance for preserving the child's life: but as Sir CÆSAR HAWKINS had not been of this opinion, the father would not consent to it. The part soon began to bleed a good deal at times, in order to suppress which, as well as to lessen the tumor, which was now considerably more prominent, I sprinkled it with the following powder, R. Bol. Armen. pulv. Terræ Japon. ā ʒij. Alumin. rup. ʒj. Misce. Over this, compresses wetted as above were applied frequently through



the day. These would sometimes adhere for several days by means of the blood and powder forming a sort of paste, till a fresh ooze from the vessels loosened them ; at which time the bleeding returned, and the applications were repeated : by the continuance of which however, for seven or eight weeks, and compression with a piece of thin lead, the vessels gradually shrunk, and the discharge being dried up, the part was happily skinned over, and the child recovered its health.





## D I R E C T I O N S

F O R   T H E

Proper MANAGEMENT of INFANTS  
from the Birth :

With a particular View to such as are  
brought up *by Hand*.

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**H**AVING already so fully discussed all the principal diseases of infancy and childhood, there will be less occasion to say much on the *management* of children. There are some things, however, that could not with propriety be introduced under the head of their complaints, which ought, by no means, to be passed over unnoticed; and particularly, in regard to the treatment of infants brought up *by hand*.



But it would carry me altogether beyond the limits I have assigned to this little treatise, were I to enter so far into the investigation of the subject, as to set forth all the impropriety of that mode of training up infants from the birth. And I am glad to find by some very recent examples amongst the great, that there is somewhat less occasion for it, than there appeared to be some years ago. It would be unpardonable, however, in a work of this sort, not to insist how inadequate every substitute for the breast has been universally found; and therefore how proper it is, that every child should have it, and even be suckled by its own mother, where her health can safely admit of it.—Reason, instinct, experience, all conspire to support this opinion; and whoever will determine to attend only to matter of fact, may soon be convinced of it. Puerile, indeed, are all the arguments against it; and  
 herein



herein Dr. ARMSTRONG seems to me to have egregiously erred, for though, apparently, an advocate for suckling, he has laboured for arguments to apologize for the spoon and the boat, in too many instances.—It were easy, perhaps, to produce as sound arguments against eating more than once a day, because so many people become diseased from excess. But not only is the breast-milk the only natural, and most proper food for infants, but suckling also conduces to the easy recovery of the mother; though she should not be able wholly to support her child by the breast, or to continue to suckle so long as the infant may require.

Although from much experience I venture to give this opinion, I do, by no means, intend to assert that every mother is able to suckle her child even for the month, or would do well even to attempt it; but I am, nevertheless,



equally fatisfied, that many are very well able who do not, and feveral who have only through fear been discouraged from doing it, in two or three lyings-in, having afterwards been prevailed on to make the attempt, have gone on with it for feveral months, enjoyed better health when they fuckled than at any other part of their lives, and their children have thriven perfectly well.

But notwithstanding this encouragement, continually brought to the ears, and urged upon others, that tyrant, Fashion, prevails over the good fenfe and natural feelings of many, whose maternal affection can be, in no other instance, fufpected. Yet againft fome, alas! another charge may be brought, who not only refuse to give nourishment to their tender and helpless offspring, but whilft they, unneceffarily, commit this charge to a ftranger, give up every other charge with it; and rarely ever  
vifit



visit the nursery, or superintend those they have set over it. It is from hence, that so many errors in point of diet, air, cloathing, &c. &c. have insensibly crept into the houses even of some, whose rank in the world would otherwise have secured to their children every advantage that a due attention to nature, or to art could point out.

I am sorry to have so heavy a charge to produce against any part of the sex I so much honour, and against any of my fair, and sensible countrywomen, in particular. Nevertheless, I cannot help suspecting, that wherever such neglect does exist, whether in regard to suckling, or superintending the management of their children, and does not arise from want of health, or from some equally unfurmoutable objection, it can be charged only on the depravity of the age, which insensibly perverts the taste, and corrupts the judgment of  
many



many who wish to do well. And depravity of manners, when once become general, has ever been considered as the leading symptom of a falling empire, and ought to be pointed out as far as it extends, by every friend to the community, at whatever hazard of giving offence, in every conspicuous instance of it. TACITUS, the Roman historian, complains of the degeneracy of Rome in his days, (though by no means its most degenerate æra,) lamenting that in former times, grave matrons attended to their children, as their first family concern, but now, says he, they are intrusted to the care of some Grecian girl, or other inferior domestic.—It is no small satisfaction to me, however, to declare, that in this country there is no ground for a general complaint on this head; there are examples of the first magnitude of a nobler conduct, and one, at the head of all, which were it copied without



without exception in domestic life, would prove the glory of the present day, and a blessing to the rising generation.—May the time hasten when it shall be universally followed by her subjects, whilst I attempt to point out as far as my observation has extended, the most prudent means of executing this most important branch of female duty.

To this end, let us imagine an infant just born, to which our first notice will be called in regard to washing and dressing it, together with other little offices suited to the occasion.—And this first washing is of more importance than is usually imagined, being amongst the *little* things which are often overlooked by writers and others; though it is not every little thing that may safely be neglected, or ill-done. Some infants are covered much more than others with a thick, viscid matter, which cleaves so fast to the skin,



skin, that it is not easily washed off; but it is of importance, however, in regard to perspiration, which can never be duly performed, where the skin is left foul. On this account, the nurse should be very attentive to this first concern of her infant charge, and whatever wash she may make use of, she should be careful the child be well rubbed, especially under the arms, in the hams, and groins, where this mucus is apt to adhere: and to this end, it would be better she made use of no kind of grease, which tends to stop up the pores, and so prevent perspiration; or that she be, at least, very careful the grease be afterwards well wiped off.

After a while, and sometimes the next day, most nurses wash the child with cold water; a practice highly extolled by Dr. ARMSTRONG, as well as many other practitioners. But though no man can be a greater advocate for every thing that is bracing than I am, I cannot approve of this



this substitute for cold-bathing, as it is called ; at least, as an indiscriminate practice. The cold-bath acts on a quite different principle, and I could wish almost every child, especially those born in London, were bathed at three or four months old, if the season should permit, which I am certain would prevent, as well as remove many of their complaints.\* But to see a little infant of a few

\* From the surprizing good effects that sometimes follow the use of the cold-bath, I do not wonder that priests, in times of ignorance, have been known to account them holy, and dedicate them to some saint ; to whose influence certain cures were attributed.

Its salutary operations, however, are easily accounted for, from its promoting insensible perspiration, and rendering that secretion less readily affected by the impression of the external air.

It may be known to agree with children, when they come out of it warm, lively, and their strength increases on the use of it. On the other hand,



few days old, the offspring perhaps of a delicate mother who has not even strength to

hand, if they come out cold, dispirited, and seem rather to lose strength, it is as often prejudicial.

But I must observe, that these unpleasant effects are frequently owing to an improper use of bathing, and for want of making a very obvious discrimination in the habits of body of different children.—For the tender and delicate, not only should a good quantity of salt be put into the bath, but the water should also at first be a little warmed, and children be brought only by degrees to endure it quite cold ; or if it should even never be perfectly so, the advantages of bathing will nevertheless be considerable. It is not, I apprehend, merely from the coldness of the water that the benefit of bathing arises ; nor will children be disposed to take cold from the water being a little warmed for the first three or four days, as it has been generally imagined. The chief advantages, perhaps, arise from the subject being suddenly immersed into a very different medium, in which the contact of the external air is taken off during the immersion, and is as suddenly restored on his being taken out. By this means, the blood is alternately pushed forward



to suckle it, washed up to the loins and breast in cold water, exposed for several minutes, perhaps in the midst of winter,

ward into the extreme vessels, and as suddenly repelled to the heart, and suffers an advantageous attrition against the sides of the vessels. The small passages are rendered pervious, and the systole of the heart is increased, as well as the muscular fibres proportionally strengthened. The salt added to the water pretty certainly prevents taking cold, whilst it adds to the stimulus on the skin, and opens the pores more effectually.

For the sake of some readers it is necessary to observe, that a child is to be put only once under the water at each time of bathing, and to be taken out as soon as it is possible. It should be received in a blanket, and be wiped dry with a cloth in the most expeditious manner; and as soon as it can be dressed, should partake of such exercise as may be best suited to its age: but by no means be put into bed. There will need no great attention to its being wiped perfectly dry, as a child will be less liable to take cold from a few drops of salt-water being left upon it, than by being long uncovered in some parts of its body, in an over-caution to wiping it dry.

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(when children are more inclined to disease than those born in summer), itself in one continued scream, and the fond mother covering her ears under the bed-clothes that she may not be distressed by its cries ; has struck me as a piece of unnecessary severity, and favors as little of kindness as plunging an infant a second, or third time, into a tub of water, with its mouth open, and gasping for breath, in the old fashioned mode of cold bathing : both of which, often induce cramps and pains in the bowels, and weakness of the lower extremities, but never an increase of strength. It surely cannot be amiss, in winter time at least, to take the cold off the water for the few first days, and whenever cold water is made use of, it will be quite sufficient to wash the child as far as a regard to cleanliness may require, which will always be the parts exposed to the worst kinds of galling and excoriation ; on which account cold water

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ter is certainly useful. With this view, besides the groin, scrotum, and anus; the arm-pits, folds of the neck, and parts behind the ears, being also disposed to excoriations, may be occasionally washed in like manner, and if the discharge be not checked by it, the parts should be sprinkled with a little hair-powder, or compound powder of ceruse, or a little white vitriol may be added to the water; which if the excoriations are not very considerable, will generally heal them very soon. In a very acid state of the stomach, however, during the month, particularly where there is a purging with very green stools, the parts about the anus will be unusually excoriated, and whilst that state continues, will not be healed by any drying applications. I have found nothing so pleasant, and useful, in this case, as covering the parts with the thin skin found upon the veal kidney, which softens, and cools the inflamed parts, till



the cause of the complaint, by the use of proper absorbents, be removed. But one grand means of keeping children from chafing, is to preserve them very dry and clean ; articles of so much importance, that I should have insisted much longer upon them, if I had not already far exceeded the bounds I had intended.\*— Suffice it therefore to say, that it is next to impossible a child should thrive or be

\* I shall take this opportunity of dropping a word against an old fashion still too much in use, that contributes not a little to make children weak, that of wearing a pilch ; which though originally designed only for the few first weeks after birth, is often worn for as many months. It can answer no possible end but that of saving trouble to servants, since instead of keeping children dry and clean, it does directly the contrary ; for if it has received any wet through the usual cloth laid over it, it ought itself to be changed as often as the other, or must certainly be damp and uncleanly ; whilst by heating the loins, and lower limbs, it has a manifest tendency to relax, and dispose infants to become rickety.

healthy,



healthy, if these last articles are not strictly attended to, which together with those of proper food and exercise, are perhaps the only ones in which the children of poor people are at a great disadvantage, and which become the constant source of rickets and distortions among them. Let not these ill effects fall on the children of those whom misconduct alone can expose to them.

I shall just mention here another useless operation practiced by nurses, that of forcing out the milk from the little breasts of new-born infants. Some children a day or two after they are born, will have the breasts exceedingly tumid, hard, and painful, containing something like milk; and nurses imagine they do a great kindness in milking it out, as it is called. But I have often been grieved, to see a nurse rudely rubbing, and even squeezing the breasts, already in a state of inflammation, and continuing it even



for some minutes, though the child's cries might convince her she is putting it to pain. In this case, viz. of inflammation, a bit of bread and milk poultice is the properest application, but if the part be not inflamed, it can want nothing at all; though if it be thought something ought to be done, a little oil with a drop or two of brandy may be gently rubbed in, or small pieces of simple diachylon-plaister may be applied, and lie on the parts till they fall off of themselves.

Having considered these necessary preparations, I proceed to offer a few remarks on the prevailing errors in their dress.

Upon the first sight of a new-born infant, every one is struck with the idea of its weakness and helplessness; and we often take very improper methods of strengthening it. It is *designed* to be weak and tender in this infant state, as is every other object around us.—Take a survey of nature, from the first opening leaves  
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of the vernal flower, or the tender foliage of the sensitive plant, to the young lion, or the elephant ; they are all, in their several orders, equally helpless, and cannot exist without some exterior support. But they stand in need of nothing but what nature has prepared for them. If seed be cast into a proper soil, it wants only the surrounding elements to ensure vigor and maturity. So if the tender infant be born of healthy parents, and at its full time, it is usually sufficiently strong ; proper food and nursing are the elements whose fostering influence it requires :—if it has these, it will need nothing more.

It is true, it is very weak, but is it therefore to be tight rolled, under the idea of supporting it and giving it strength ? It is a bundle of tender vessels, through which a fluid is to pass undisturbed, to be equally distributed through the body, and which are therefore surrounded by a soft medium, capable of



yielding to the resistance of their contents. Hence we cannot but conceive how injurious any great pressure must be to so delicate a frame, which before birth swam in a soft fluid.

I am not ignorant however, that for many years past the very ancient tight mode of dressing infants has been discontinued, for which we are perhaps greatly indebted to Dr. CADOGAN. It is certain also, that for the last twenty years, the fashion recommended by him has been improving; but there is yet room to go forward; and was every tender parent in this country thoroughly sensible of its advantages, it would soon become fashionable to see children as much at their ease on a christening-day, as they are at other times lain at night in their beds. And I may be permitted to add here, what every modern writer has adverted to, that were strings, almost in every instance, substitutes for pins, physicians would



would feldom be at a lofs to account for the fudden cries, and complaints of infants, which are too often produced by this needlefs part of their drefs.†

Nature knows no other ufe of cloathing but to defend from the cold,—all that is neceffary therefore for this purpofe, is to wrap the child up in a foft loofe covering, and not too great a weight of it; to which ornaments enough might be added without doing mischief. And had this matter been always wholly left to the judgement of parents, this is all that would have been done, but the bufinefs of dressing an in-

† A gentlewoman lately informed me, that one of her children, after long and inceffant crying, fell into ftrong convulfions, which her phyfician was at a lofs to account for, nor was the caufe difcovered till after death; when on the cap being taken off (which had not been changed on account of its illnefs) a fmall pin was difcovered, fticking up to the head, in the large fontanelle, or mould.



fant is become a secret, which none but adepts must pretend to understand. The child itself, however, discovers to us the propriety of such cloathing, by the happiness and delight it expresses every time it is undressed, and rubbed with a soft hand. Whereas, *the art of dressing* has lain the foundation of many a bad shape, and what is worse, of very bad health, through the greatest part of life.

The tender infant being dressed, and having undergone such other little discipline as has been mentioned, is usually so far fatigued by it, as soon afterwards to fall into a sound sleep. We shall therefore leave it a while to be refreshed, whilst I endeavour to conduct the fond mother through the various other duties it calls for from day to day, till it happily arrives at an age free from the peculiar dangers of infancy.

In the pursuit of such a plan, we meet with a variety of miscellaneous articles,  
which



which though not of apparent magnitude in themselves, are in their consequences highly worthy of notice; which that they may be thrown into some kind of order, may all be very well classed under the several heads of the *Non-naturals*, as they are called. Such are, air; meat and drink; sleep and watching; motion and rest; retention and secretion; and the passions of the mind; a due attention to which, may prevent many of the evils incident to this tender age.—The first of these was said to be air.

The great importance of this has been set forth when speaking of the Diseases of infants; I shall here in a more particular way observe, that the age, constitution, and circumstances of the child, and the season of the year, ought always to be taken into consideration, *that* being highly proper on one occasion, which would be equally detrimental at another.

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In general it may be said, that warmth is friendly to very young infants, but they should nevertheless be inured gradually to endure the cold air, which is absolutely essential to their health. I cannot therefore agree with Dr. ARMSTRONG who thinks the rich lose fewer children than the poor, because they are kept warmer. On the other hand, it was well said by one, that a warm nursery fills a cold church-yard. Much caution however is necessary on this head, and evinces the necessity of parents superintending those to whose care they intrust infant children, since nurses are often indiscreet in keeping them too long in the air at a time, which is a frequent occasion of their taking cold, and deters many parents from sending them abroad so often as they should. Another, and a worse, as well as common fault, of nurses and servants, is, that of standing still with children in their arms in a  
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current of air, or even sitting down with other servants, and suffering children who can run about, to play at a little distance by themselves, sit down on the grass, and such like; the consequences of which are a long confinement to a warm room, and either a prohibition against going out so much as they ought, or a fresh cold owing to some of the like irregularities. And I may here observe, the lightest symptom of cold (which is also often taken in the lying-in room during the month,) is that called the snuffles, or stoppage of the nose, and in general requires nothing more than a little pomatum, or pomade divine, to be put to the nostrils when the child is lain in the cradle; or if this fail, a little white vitriol may be dissolved in rose-water, and applied in like manner.

It will be adviseable, in order to inure infants to the air, that they be short-coated  
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ed as early as the season of the year will permit; their dress should be loose and easy, and they should continue without stockings even for two or three years, and boys till they are breeched. As to this change, I think, it had always better be made in the beginning of winter, than in summer, as the dress upon the whole is warmer, especially about the chest, which from having been open for three or four years, it seems rather strange to cover, all at once, at the beginning of hot weather.

But though I have said children would be as well without stockings, for a considerable time, I must remark that circumstances are always to be taken into consideration. *Mutatis mutandis* should not only be the motto of physicians, but of common life, and we should be guided by it in regard to all general rules. For want of this caution in the present instance, many tender children have suffered

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ed exceedingly the last winter from the severity of the season, and have been distressed with chilblains merely for want of proper covering to their tender limbs. I have seen a child of four years old, the daughter of a person of fashion, (who I know will pardon my mentioning it) whose legs were covered with chilblains quite up to the knee, and yet the lady could not be prevailed upon in time, to suffer stockings to be put on, because strong and healthy children are thought to be better without them.

The second article under the head of *Non-naturals* relates to Meat and Drink.

I meet with the like improprieties on this article, as on that of dress. And it has indeed been matter of wonder, how the custom of stuffing new-born infants with bread could become so universal, or the idea first enter the mind of a parent, that such heavy food could be fit for its nourishment. But before I  
enter



enter farther into this matter, I shall just observe, that though an infant be suckled by its own mother, it can certainly want no other food, till the time nature will bring milk into her breast, supposing the child be lain to it in proper time; which doubtless ought to be as soon as she shall be sufficiently refreshed; this method, however unusual with some, is the most agreeable to nature, and to observations on the irrational species, who in many things are the very best guides we can follow. By means of putting the child early to the breast, especially the first time of suckling, the nipple will be formed, and the milk be gradually brought on. Hence much pain, and sometimes even an abscess would be prevented, as well as sore nipples, which in a first lying-in, have been wont to occasion no inconsiderable trouble. But should either of these evils take place, they are far less distressing under



under proper management than has been usually imagined\*. However, should the mother be unable to suckle, and a wet-nurse be engaged, there can be no harm in putting the child to the breast, after it has taken a dose or two of the opening medicine; or should it be brought up by hand, and not easily kept quiet, a spoonful or two of water-gruel, with a little Lisbon sugar, may be given for this purpose, which will usually set it asleep; after which it will be ready for whatever food shall be found proper for it.

It were well if the fond mother, and all well inclined nurses had more just ideas of the manner in which we are nourished; and especially, that it is not from the great quantity, nor from the

\* See the above mentioned treatise; in which the milk-abscess, and sore nipples are fully considered, and a successful, and easy method of treatment pointed out.



quality of the food, simply considered. They may surely be led to conceive, that our nourishment arises from the use the stomach makes of the food the body receives, which is to pass through such a change, called digestion, as renders it balsamic, and fit to renew the mass of blood, which is daily wasting and consumed. An improper kind, or too great a quantity taken at a time, or too hastily, before the stomach has duly disposed of its former contents, prevents this work of digestion, and by making bad blood, weakens instead of strengthens the habit; and in the end produces worms, convulsions, rickets, King's-evil, slow fevers, and consumption of the whole body.

Nature, it should be considered, has provided only milk, for every animal adapted to draw it from the breast, and that of women is certainly the thinnest of them all; but at the same time, far more  
 nutritive



nutritive than bread. It is true, bread which requires more digestion will lie longer on the stomach both of infants and adults, and hence probably because it satisfies the present cravings, it has been conceived to afford a greater proportion of nourishment; though mixed up only with water, as it too frequently is, it is far less nutritive than milk. Children ought to be frequently hungry, and as often supplied with light food, of which milk is really the most nutritive that we are acquainted with. This could never be doubted of, but from its passing so quickly out of the stomach; on which account indeed, though not the properest food for adults, employed at hard labour, and many hours from home, it is the fittest of all for the sedentary life of a tender infant, who cannot get that nourishment from bread or other solid food, of which the stomachs of adults are capable. It must have been



for want of attending to this consideration, that Dr. ARMSTRONG has said so much in favor of bread and other thick victuals; which, by the bye, he began to make use of for his own children (from its success in whom he has ventured to recommend it,) only at the age of six or seven months; a matter very different from stuffing an infant with it almost as soon as it is born. For every thing the stomach cannot digest, it has been said, may be justly considered as a poison, which if not puked up, or voided by stool, may occasion sickness, gripes, what are called inward fits, and all the train of bowel complaints, which may terminate in one or other of the evils just mentioned.

Milk itself is produced from food taken in by the mother, and is the richest part of it. It is in her stomach the aliment is dissolved, or digested, which by a combination of powers in the *chylopoëtic* viscera,



viscera, is so far animalized as to be converted into a kind of white blood ; from whence it has been observed, every animal body is daily recruited. Hence it is very apparent, that previous to an infant having acquired strength enough to convert solid food into this wholesome chyle, or white blood, the parent, by this wise substitution in nature, has previously accomplished this work for the infant she is to nourish.\*

I am free then to lay it down as an axiom, that milk ought to be the chief part of the diet of children for a certain time, whether they have the breast or not ; and

\* Whether the parent be able to suckle her own child, or that office be performed by a wet-nurse, is not here particularly considered. The design is only to prove that milk is in general the most proper food for an infant. Whether that be prepared by its own mother, a nurse, or even by animals, as the cow, or the ass, is equally to the purpose ; where the former cannot be had, the best, and most natural substitute, should be provided.



that it will prove sufficiently nourishing for nineteen out of twenty ; I might perhaps say ninety-nine out of a hundred. Exceptions, I believe, there may be, but much fewer children would perish if no exception was to be made, than by rushing absurdly into the contrary extreme. But supposing a very strong child, at the end of the month, really not satisfied with milk only, and always craving the moment it has been thus fed, it doubtless may have a little boiled bread added to it, two or three times in the day ; but I should be very cautious how I extended it farther. Perhaps where this food is allowed, whether at a very early or a latter period, it would be an advantage to boil a piece of roll, together with the upper crust, in a good deal of water, till it be very soft ; by which the bread will part with some of its acescent quality : the water should then be strained off, and the bread mixed up with some milk, which



which ought to be boiled if the child be very young, or inclined to be purged.

It would, I perceive, lead me beyond all bounds to enter farther into this matter ; and I should not indeed have said so much on the subject, had I not had it much at heart to persuade those whose affections would ever lead them right, were their judgments not previously perverted.

If milk be the proper food for infants brought up by hand, the next inquiry will naturally be, what milk is the best ? and what is the fittest instrument for feeding with ? And herein it is with great pleasure I acknowledge my obligations to Dr. HUGH SMITH, for his ingenious contrivance, published some years ago in his judicious treatise on the management of children, in a series of letters addressed to married women. The milk he likewise advises, is cow's milk in preference to all others ; and I wish to refer the in-



quisitive reader to the reasons the Dr. has given, to which I can add nothing but my own experience of their validity. To the milk, either from the birth or a few weeks afterwards, (but I think in general the sooner the better) should be added a small quantity of a light jelly made from harts-horn shavings, boiled in water to the consistence that veal broth acquires when it has stood to be cold. § The design of the jelly is obvious, and rational, at once calculated to render the food more nutritive, as well as to correct, in some measure, the acescency of the milk. The milk of quadrupeds, it is to be observed, is pro-

§ There is sometimes a difficulty in making this jelly, on account of the harts-horn being bad; those who shave it, often mixing with it the shavings of trotters, which may, however, be distinguished by their brittleness. If the shavings are good, two ounces of them boiled very slowly in a quart of water to a pint, will make the jelly of a proper consistence.

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duced from vegetable juices, whilst breast-milk is formed by a mixture of animal and vegetable food. A little Lisbon sugar may be added to this compound of jelly and milk, if the child be not inclined to a purging, or in that case a little loaf-sugar; but the less of either the better. It will be proper to have the milk and jelly warmed separately, and no more at a time than may be wanted, when it should be put into the small pot Dr. SMITH has contrived for the purpose, which must be very carefully cleaned and scalded, at least once every day, and the spout be thoroughly rinsed, lest any sour curds should stick about it. At first the milk ought to be boiled, to render it less purging, but when the child is several months old, or chances to be costive, the milk need only be warmed.

The boat, the spoon, and the horn, are in no wise comparable to the pot,



which is so contrived, not only as to please the child by its resemblance to the nipple, and the milk coming slowly into its mouth, but also to afford the infant some little degree of labour or fatigue, in order to acquire the quantity it needs; which the horn does not do. This is indubitably the case in regard to a child sucking at the breast, and by this means it is that children, especially when very young, are not so apt to oversuck, as they are to be overfed by the boat or the spoon, the food of which being sweet and pleasant, and requiring only the trouble, or rather the pleasure of swallowing, the child is tempted to take too much at a time; whilst the nurse in order to quiet it, often forces down a second or third boat-full, to put a stop to the cries, which indigestion from the first or second may have occasioned.

The pot is formed in the shape of an Argyle, or gravy pot, with a long spout,  
rising



rising from the bottom, and pierced only with a few small holes at the end, which is to be covered with a piece of vellum, or parchment; which being left loose a little way over the spout, is soft and pleasant to the child's mouth, and is nearly as acceptable to many children as the breast, as I have often been a witness.

This manner of feeding is not only pleasant to the child but very convenient to the nurse, and the food equally at hand in the night as the day, being easily kept warm by a lamp, or even in the bed. The only objection I have ever known made to it by those who have made trial of it, is that which I esteem one of its highest recommendations, which is, that children thus fed are frequently hungry; that is, they are what nature designed them to be; this food fitting light on the stomach, and being easily digested, like the breast-milk, children often need a supply of it.

It



It is a common direction in works of this kind, to point out the properest times for feeding an infant brought up by hand, and to direct how often it may safely be fed. I shall just observe therefore, that no man can lay down any certain rules on the occasion, and therefore ought not to attempt it, since none can be sufficiently comprehensive; and I am happy in not being at all at a loss in this instance, wherein writers have differed so widely. For children do not usually take too much at a time in this manner of feeding, on account of the little fatigue, which it was observed they undergo, in acquiring their nourishment, and may therefore be permitted to take of it as often as they might of the breast.\* This is, however, by no means the case, when children are allowed to eat thick

\* Optimum vero medicamentum est, opportunè  
cibus datus. CELSUS de Med.



viſuals, and are fed by the ſpoon, of which it has been ſaid, they are always in danger of taking too much; an evil that can never be too often pointed out.

I ſhall only mention one popular objection to the plan I have recommended, or rather, that has been recommended by Dr. SMITH. This objection is taken from the many fine children we meet with, who have been brought up by hand from the birth, and fed with thick bread viſuals all the day long, whiſt we every now and then ſee ſome of thoſe who have been debarred that ſort of diet, weak and tender till they become a year or two old. Not to ſtop here to obſerve, that this objection militates equally againſt children living on the breaſt, though that is the food nature has deſigned for them; it will be ſufficient to ſay, that it is only ſtrong children who may be bred up almoſt any how, that can at all digeſt ſuch a diet, and that weakly infants,



infants, who are scarcely preserved by the most careful attention to their food, would soon be hurried out of the world if that were neglected. And this reminds me of an observation of a very judicious friend in the north of England, which greatly surprized me at the time, as I had never met with any observation from him before, that did not appear exceedingly obvious and convincing. Upon seeing a number of fine children one day in London, he with some shrewdness observed, that we did not seem to have so many weakly half-starved children as he met with in the country, and that he had often before made the like observation in his journies to town. It appeared to me my friend must have been mistaken, and I accordingly mentioned my surprize at such a remark coming from him; when he removed my astonishment by insisting on the fact, with the following obvious solution



solution of it. There are scarcely any but fine and strong children in London, I apprehend, that live to be two or three year old; the weaker ones, for want of good air, and exercise, sinking under their infirmities; whilst the tenderest children in the country by being turned out to crawl in the wholesome open air, or by sitting at the door almost all the day, escape the fatality of your gross air and warm nurseries, and survive the trying periods of infancy, though some of them remain weak and rickety till they become old enough to endure severe exercise; which is alone able to strengthen them effectually.

When children brought up by hand become four or five months old, especially if strong and healthy, they may doubtless be allowed a thicker kind of victuals, because their digestive powers are by this time become stronger, and are therefore able to extract good nourishment



ment from it; though this is not equally necessary for children brought up at the breast, at least, such do not require it so early; breast-milk being more nourishing than any other. The first addition of this kind however, whenever it becomes necessary, I am persuaded, ought to be broth\*, which with a little bread beat up in it in the form of panada, will be at once an agreeable and wholesome change, and prepare them for farther advances in this way. But as this cannot well be given oftner than once a day, a little bread and milk may also be allowed them every morning and evening, as their strength and circumstances may require. A crust of bread likewise, as soon

\* I cannot help remarking here, that the gravy of beef or mutton, not over roasted, and without fat, properly diluted with water, is the wholesomest and most natural, as well as nourishing broth that can be made. See the abovementioned letters of Dr. HUGH SMITH.



as the child has a couple of teeth, will amuse and nourish it, whilst it will assist the cutting of the rest, as well as carry down a quantity of the saliva; a secretion too precious to be lost, when the digestive powers are to be farther employed. As the child grows older, to broth may be added light puddings, made of bread, semolina, or rice; salop boiled in milk, and such like. But to feed a child with veal, chicken, or other animal food, before nature hath given it teeth enough to chew it, however small it may be minced in the kitchen, is altogether unnatural†, and can prove nourishing only to such children, as from the great strength of their natural constitution, need least of all the assistance of art. It

† Ante dentium eruptionem non conveniunt cibi solidiores. Ideo natura quæ nihil frustra facit, & non deficit in necessariis, dentes ipsis denegavit, sed lac concessit, quod masticatione non eget.  
PRIMEROSE.



is by degrees only, that children ought to be brought to such food, which at a certain period, indeed, is as necessary as a light diet at an earlier age. It is true, the error of some parents runs the contrary way, and their children are kept too long upon a fluid, or too slender diet, whence their bellies and joints become enlarged, and the bones of the lower extremities too weak to support them, at an age when they want more exercise than their nurses can give them. And when they can go alone, not only is a little light meat and certain vegetables to be allowed them once a day, with puddings, or blamange, white-pot, custards, and such like kitchen preparations of milk, but even a little red wine is beneficial to many constitutions. This will not only promote digestion, and obviate in a great measure a disposition to worms, but by strengthening the habit, will also render children less liable to become rickety, at  
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the very period they are very much disposed to it. But so many little infants, on the other hand, fall a sacrifice to the use of indigestible food under the age of six months, being carried off by vomiting, purging, or fits; that whoever would preserve them over the most dangerous period of infancy, cannot too cautiously attend to their diet at this time.\*

Before I close this head of the management of children, perhaps the most important of all, I shall offer some remarks

\* From a note in Dr. SMITH's letters it appears, that the average of births within the bills of mortality for ten successive years, was 16,283; out of which were buried under five years of age 10,145, and from amongst these 7,987, were under two years of age. So that almost two thirds of the children born in London and its environs, become lost to society, and more than three fourths of these die under two years of age.—This proves how hazardous a period that of infancy is; and I am sorry there is so much reason to be persuaded, that the want of air, exercise, and a proper diet, adds unnecessarily to its dangers.



on the diet suited to the particular complaints they are most liable to. And after the hints that have been thrown out through the former part of this work, it may be useful to observe, for the sake of those who are unacquainted with diseases, that as light a diet as is possible is usually called for when a child is unwell, let the disorder be almost whatever it may. If a fever should accompany it, the child will require still less food than in any other complaint, but plenty of drinks; which may also be so calculated as to furnish near as much nourishment as the infant will require, and may in summer-time be given cold. Such are barley-water, water in which a crust of bread has been boiled, or if a purging attends, rice-water, and a drink made of harts-horn shavings, with a little baked flour in it. In this complaint, wherein also much nourishment is required to support the child under it, baked flour mixed up with  
boiled



boiled milk, (as mentioned under the article of purging) is admirably calculated both as a proper diet and medicine. I have therefore only to add to what was there observed, that the flour ought to be put into a small jar, and being properly covered, is to be sent to the oven with directions not only to be well baked, but be taken out of the oven several times, and stirred up from the bottom and sides of the jar, that it may not form into hard lumps, but the whole be equally baked, till it falls into a soft, greyish coloured powder; which if kept in a dry place, may be preserved fit for use for a considerable time. For the like complaint, the food directed by Dr. SMITH is very well adapted, and will afford a little variety. He orders a table-spoonful of ground rice to be boiled with a little cinnamon, in half a pint of water, till the water is nearly consumed; a pint of milk is then to be added to it, and the whole



to simmer for five minutes: it is afterwards to be strained through a lawn sieve, and made palatable with a little sugar. In this way, or joined with baked flour, as mentioned above, milk may generally be made to agree perfectly well even when the bowels are purged; and when it does so, proves exceedingly nourishing. Should it chance to disagree, owing to an acidity in the first passages, broth-panada ought to be tried.

Perhaps much more has been said on the subject of acidity, by some writers, than really ought to have been, or it may at least be suspected, a proper attention has not been paid to the peculiar circumstances of infants, who are always much disposed to it. Acidity is probably rather an effect, than the first cause of the disorders of infants; though there is no doubt that their complaints are afterwards aggravated by an abounding acid. Nature however *designed* the food of infants.



infants to be acescent, and till the body be disordered, and digestion hurt from some cause or other\*, this quality of their food is not likely to be very injurious to them. It is true indeed, that as any simular complaints in adults, who feed on different diets, will, *cæteris paribus*, have their varieties, and each have some relation to the different qualities of their food ; so it is not to be wondered at, that the complaints of infants should be attended with wind and other marks of acidity, which in adults are the least hurtful of all ; and are indeed pretty easily corrected in children. When they are much troubled with wind therefore, it cannot be wrong to mix some carminative feeds, or distilled water, now and then, with their

\* Such cause, it has been observed, is very generally an over quantity of food, or heavy and indigestible diet, which prove a more frequent occasion of acidity, than any thing else.

R 3

food,



food\*, such as sweet fennel, or cardamon seeds, bruised very fine; but dill-water is that I have usually recommended, and being a liquid, is always ready to be added to the food, without loss of time.

Children, however, become less subject to wind and hurtful acidities as they grow older, and the stomach gets stronger, as it is called. But should these complaints notwithstanding continue obstinate, a little fine powder of camomile flowers, mixed in water, and warmed with a very little ginger, will prove exceedingly bracing to the stomach and bowels, and render them less disposed to

\* Though such an occasional addition to their food is often exceedingly useful, I cannot help speaking against its being made a constant practice, by which children not only suffer when by accident, or absence from home, it has been neglected, but it destroys the very design with which it was used, by the stomach becoming accustomed to it.

acidity.



acidity. Exercise also according to the age and strength, is a grand preservative and remedy, and especially making infants break wind after sucking or feeding, before they are lain down to sleep.

I shall only add farther, that when milk is frequently thrown up curdled, a little prepared oyfter-shell powder may be added to it, or a very small quantity of common salt\*, which will not at all injure the flavor, and will prevent this change happening too soon in the stomach.

\* It is a very great mistake, though a common one of parents, to imagine that salt will dispose to the scurvy. This mistake is founded upon the bad effects of the long use of salted meats; but salt taken with fresh meats is quite a different thing. And I shall just remark, that salt and water is one of the best lotions for the mouth, and preservative from the tooth-ach, and also makes an excellent wash for the face; which will remove some kind of pimples without any risque of injury to the constitution.



I shall now close this head, with some observations on the choice of wet-nurses, and on weaning.

The first and essential point in a wet nurse is, doubtless, that her milk be good, to which end it is necessary she be healthy and young, her bowels rather costive than otherwise, and not of weak nerves; nor disposed to menstruate whilst she gives suck. The chief marks of good milk, are its being thin, of a bluish colour, rather sweet, and in great quantity. Her nipple also ought to be small, but not short, and the breast round and prominent. She ought to have good teeth, to be perfectly sober, and rather averse to strong liquors; which young, and healthy people seldom need in order to their having plenty of milk. She should be cleanly in her person, good tempered, careful, fond of children, and watchful in the night, or at least, not liable to suffer in her health from being robbed of her sleep.



sleep. And I cannot help adding here, that she ought not to be disposed to prescribe medicines : otherwise Godfrey's cordial, or some other opiate, will at one time or other be administered, and perhaps to the no small injury of the child.

The proper age for weaning a child is to be gathered from the particular circumstances attending it. The child ought to be in good health, especially in regard to its bowels, and doubtless ought first to have cut, at least, four of its teeth. This seldom takes place till it is about a twelve-month old; and it may be observed that healthy women who suckle their own children, and take proper exercise, do not usually become pregnant again in less time. We shall not be very wide of the matter therefore, if we say children in general ought not to be weaned much earlier than this; making proper allowances, however, for all just exceptions to general rules.

Any



Any preparation for weaning is generally needless, and especially that of feeding children before-hand, though made a common excuse for stuffing them whilst at the breast with indigestible food. I have seen many mothers needlessly torturing themselves with the fear of their children being weaned with difficulty, because they could not get them to feed when eight or ten months old; and having always found such children wean, and feed just as well as others, when once taken wholly from the breast, I never have any fear on their account, and should be happy if any thing I can say from experience, may be the means of lessening the trouble of parents on this occasion. I do not by this mean to say, that a child of eight or ten months old would be injured, or often times not benefited, by a little food once a day of a more solid nature than the breast-milk, as indeed I have intimated before; but

when



when children happen to be weaned much earlier, and are fed from the birth with that view, they may be essentially injured by it.

When this is once entered upon, a great part of their food ought still to be of milk, with puddings, broths, and but little meat; and they should never be fed, or even suffered to drink in the night from the first, supposing them to be weaned at the proper age. The mere giving them drink, even only for a few nights, creates the pain and trouble of two weanings instead of one, and if it be continued much longer, it not only breaks the rest, but the child will acquire a habit of being fond of drinking; the consequence of which may be a large belly, weak bowels, general debility, lax joints, and all the symptoms of rickets. The child need only to be fed the last thing before the nurse goes to bed, which may be generally done without



out waking it; and whilst the child seems to enjoys this sleepy meal, it becomes a most pleasant employment to the nurse, and much more to a mother, from observing how greedily the child takes its food, and how satisfied it will lie for many hours on the strength of this meal;—the mention of which naturally leads me to consider the next article proposed, viz.

#### SLEEP AND WATCHING.

HEALTHY children sleep a great deal for the first two or three days after they are born, probably from having been previously accustomed to it. They ought not, however, to be suffered to continue this habit in the day time, but should be gradually broken of it, and indeed if not indulged, they will not be so much disposed to sleep as is generally imagined, and will therefore take more  
rest



rest in the night, which is mutually beneficial to the child and the mother; who, especially if she suckles, will be much less disturbed, when she herself particularly requires this refreshment.

Therefore, when infants are sleepless in the night, they should be kept awake and have as much exercise as possible in the day time, which when ever so young may be pretty considerable, (as will be mentioned in its place) by playing with them, or dandling on the knee, and otherways amusing them; and when older, by every kind of exercise they can bear. The child will soon contract a habit of being awake while it is light, and by this means, another evil will be very much avoided, that of often laying a child down to sleep in the day time, for hours together, loaded with a thick dress, and covered besides with heavy clothes in a soft bed, or the cradle.

But



But though I am confident these cautions will have their use, I am equally satisfied that many children have much less sleep than they require; but then this deficiency is chiefly in the night, and the consequence of some complaint which the child labours under. Upon this head, however, sufficient has already been said in the former part of this work, to which therefore the reader is referred.

It only remains, under this article, to say something of the cradle, which most writers have spoken against. I believe there is no doubt but the custom of laying children down awake, and rocking them in a cradle in the day time, or at seven or eight o'clock in the evening when they are to go into their night's sleep, as it is called, may be an occasion of making them sometimes more wakeful in the night, or at least may cause them to expect that kind of motion whenever they wake. But yet I cannot help



help thinking, there is something so truly natural, as well as pleasant, in the wavy motion of a cradle, and so like what children have been used to before they are born, being then suspended and accustomed to ride, as it were, or be gently swung in a soft fluid, upon every motion of the mother, and even during her sleep, from the effects of respiration; that, always wishing to follow nature as I do, I cannot, on the whole, but give an opinion rather in favour of the cradle. It is, at least, among the little things in which we may harmlessly err, and in which every mother may therefore safely be guided by her own opinion, or even by her feelings. And if the child in consequence of being rocked to sleep in the cradle in the day time, shall expect it whenever it awakes in the night, it will not be very difficult to find a substitute for it; and indeed parents seem, as it were, by instinct to pat and gently move



move a child, whether lying on the lap or the arm, whenever it seems to awake prematurely.—I shall only add on this head, what cannot be too often urged, that however wakeful a child may be in the night, it cannot receive a greater unkindness than from the exhibition of Godfrey's cordial, syrup of poppies, or any other opiate, to induce it to sleep better; but to which nothing can so safely and effectually contribute, as that exercise we are under the next head to consider.

### MOTION and REST.

IT is only the former of these that will claim much of our attention, as infants ought scarcely ever to be in a quiescent posture, but when they are asleep. Exercise like Air, is of so much importance to them, that they cannot possibly be truly healthy without it; care  
only



only should be taken that it be properly suited to their age. The first kind of exercise consists in dandling, as it is called, patting the back after feeding, and gently raising it up and down in the arms; taking care at first not to toss it too high, for children are very early susceptible of fear, and even capable of being thrown into fits. Another exercise adapted to this tender age, and of the utmost advantage, is rubbing them with the hand. This should be done all over, at least twice a day, when they are dressed and undressed, and ought to be continued for some time, being peculiarly agreeable to the child, as it constantly testifies by stretching out its little limbs, and pushing them against the hand, with a smile expressive of the satisfaction it receives from it. Such gentle exercise may be partially repeated every time the child's cloths are changed,

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ed, by rubbing the lower limbs, and every other part within reach.

When children are older, their exercise should be proportionably increased, and as has been observed, they ought never to be carried in a quiescent posture, but the arm that supports them should be continually in such motion as the nurse is able to continue. And I mention this, because I have seen children flung carelessly over the arm in such a manner, as neither affords a child any exercise, nor allows it to give any motion to itself; which a lively child will always endeavour to do. And, indeed, the manner of carrying an infant, is of more importance than is generally imagined, for from it, the child will contract a habit good or bad, that it will not readily give up, and may be as much disposed to become rickety by improper management in the arms, as if it was  
 lying



lying wet in the cradle; the ill effects of which have been hinted already.

It may be a proper inquiry in this place, at what age children should be put on their feet; a point on which people have differed considerably, but I apprehend nothing more is required than to follow nature, whose progress is always gradual, as our imitations of her should be; and we shall then seldom run very wide of her intentions. If we take notice of a healthy child, it is, as has been said, always in motion, and as soon as it gets strength, it will support itself by the help of its hands and feet, and will crawl about wherever it is permitted. From this exercise, it will soon acquire an increase of strength, and whenever it is upheld by the arms, and disentangled from the weight of its clothes at the time of dressing and undressing, it will naturally walk up the waist of its mother, or



nurse\*, and by its manner of moving its limbs, and its bearing more or less on the arms, will shew what advances it has made. Whenever it is strong enough however, it will have attained sufficient knowledge to walk by itself, and will never attempt it till it is fully equal to the task. It will then be perfectly safe to permit it to follow its inclination, at least

\* I cannot help taking notice here of an imprudence on this occasion, which it is well if it has not been prejudicial oftener than has been suspected; I mean, that of suffering a child to crawl so high up the breast, as renders the mother, or nurse, incapable of raising the arms high enough to support it. - For not only may a child be suffered to slip out of the hands, but the mother may be injured. I have felt much on this occasion, from seeing tender and delicate ladies with their arms on a stretch, suffering a heavy child, perhaps with its shoes on, to crawl over the breasts, distended with milk, and squeezing them so forcibly against the edge of their stays, that they have sometimes cried out from the pain, and yet not been able at the moment to bring the infant down into the lap.



as far as the straitness of its limbs is concerned ; and I think I may defy any one to produce a single instance of a child getting crooked legs, from being suffered to walk as soon as it was disposed to make the attempt. The mischief is, we lead on children prematurely to make the attempt, by leading-strings, back-strings, goe-carts, and other contrivances, calculated only to spare idle nurses\*, or what  
is

\* I cannot avoid once more risking giving offence, that I may do every thing in my power to induce parents to give the utmost attention in regard to exercise, for the want of which I have with much concern beheld the children of people of large fortune turn out as rickety as those of the labouring poor. In some instances, I have been so satisfied this has been owing merely to a want of exercise, that I have informed ladies, that from the appearance and manner of the nursery maid, I was certain their children were not exercised sufficiently, and have pointed out the bad consequences that must ensue. But instead of the maid being dismissed, it has sometimes happened, she has only



is really pitiable, to allow poor people time to attend to other concerns, who are obliged to work for their bread. But where this is not the case, such contrivances are unpardonable, and are the consequence of ignorance, or idleness, which are productive of great evils ; and then by way of excuse it is asked, at what age a child may be put on its feet—A question I apprehend, that ought to be answered only in the manner I have done—Leave every child to itself, and each will answer the question in good time.

It is said however, by a sensible writer\*, that children's legs do not become been questioned about it, and the advice as certainly never been taken ; but I have as constantly been consulted some months afterwards, about the cold bath, for children a year and half, or two years old, who have only been able to waddle across the room with their knees knocking together, and reeling at every step, so as not to be trusted alone.

† Dr. HUGH SMITH's letters to Married-women.

crooked



crooked by putting them too early on their feet, and asks if any other animal has crooked legs, though they stand on them almost as soon as they are born. But the cases, I apprehend, are widely different; quadrupeds and fowls are designed by nature to be early on their legs; and it is necessary they should be so. They are accordingly calculated for it, their bones being strongly ossified from the birth; but this is, by no means, the case with the human species, and therefore no argument can be founded upon it without considerable latitude, and making such allowances for the different circumstances of children as have been pointed out. But if it is meant only to suffer children to feel their way, if I may so speak, for themselves, they will never deceive us, nor do I think their limbs ever become crooked, but by urging them to it by contrivances of our own,



for which poverty is the only apology that can possibly be offered.

A note of Dr. BUCHAN on the subject of giving exercise to children, which some people from their poverty cannot spare time to afford them, charmed me exceedingly. The good sense and philanthropy manifested in it, as well as a desire of extending its useful contents, will I hope be apology sufficient for transcribing it, especially as it is at present so apposite to my purpose. And though I cannot flatter myself that government, however benevolently disposed, will, or perhaps can, at this time, adopt such a plan, either from his recommendation or mine, it is nevertheless in the power of people of large fortunes, both in town and country, to give it very considerable influence, especially if the premium were made double for such children as should be produced in good health. The Doctor's words are,

“ If



“ If it were made the interest of the poor to keep their children alive, we should lose very few of them. A small premium given every year to each poor family, for every child they have alive at the year’s end, would save more infants lives than if the whole revenue of the crown were expended on hospitals for that purpose. This would make the poor esteem fertility a blessing, whereas many of them think it the greatest curse that can befall them ;” and I may add, I have known them very thankful that their children were dead.

If I had not already far exceeded the bounds I had intended, I should be induced to say something on the manner in which exercise becomes so beneficial to children—I shall however just observe, that it tends to push forward the blood through the small vessels, and to unfold them in the manner nature has designed them to be extended, in order to promote  
the



the growth of the infant, whilst it preserves the blood in a proper state of fluidity, and promotes both the secretions and excretions; which are the next things it was proposed to consider.

### RETENTION and EXCRETION.

EVERY medical reader will be sensible how greatly health depends upon a due proportion between the daily supplies and the various discharges of the body; the latter, will vary according to the diet, age, and particular mode of life of each individual. The excretions of infants however, insensible perspiration excepted, are chiefly from the bowels and bladder; but the latter is not very liable to disorders. It will be sufficient therefore to say, that the chief retention of urine appears soon after birth, and is usually removed by applying a bladder of hot water to the belly, and gentle rubbing



rubbing with a little warm brandy, or an onion ; or should this fail, the child may be put up to the breast in a pan of warm water, and take a little marsh-mallow, or parsley-tea, sweetened with honey, and a few drops of sweet spirit of vitriol. This, if there be no mal-formation of parts, will generally produce the desired effect in the course of a few hours ; though cases have occurred in which infants have voided no urine for the space of four days, and have suffered very little inconvenience. Some of the old writers, have spoken also of incontinence of urine, arising from weakness of the sphincter vesicæ, but I have never met with it in infants. They prescribe agrimony, and direct astringent fomentations of red wine to the belly, perinæum, and loins.

Our observations are therefore chiefly confined to the bowels, which would call for a scrupulous attention in this place, if so many things relative to them had  
not



not been discussed in the former part of this treatise. It were needless therefore to say more, than to remind common readers, that infants are rarely healthy long together, who have not two or three stools every day, or should they be more, for the first three months, and the child be brought up at the breast, and the nurse have a sufficiency of milk, it will generally thrive the better. The stools likewise ought to be loose, of a yellow color, free from lumps, or curdly matter, and should come away without griping. On the other hand, if an infant be brought up by hand, the danger generally lies in the other extreme, such children being disposed to be purged, and to have griping and sour stools, from the acrescent, and often indigestible nature of their food, especially if fed by the spoon; and therefore require an early attention when their bowels are disposed



disposed to be open, and their food to be changed in the manner directed under the article of purging.

The PASSIONS OF THE MIND was the last article mentioned as included in the *Non-naturals*, and on which I shall be very brief, as it can relate to infants merely in its effects; of which I shall instance only, in Crying. A variety of considerations induce me to believe that this expression of the passions in infants, is much more harmless in itself than is generally imagined, and is often, in some respect, salutary. The first cries it makes we know to be so, and that it recovers from the paroxysms of some complaints (as was mentioned in regard to the croup) by an effort of this kind. It is evident likewise, how very much health depends on a free circulation of the blood through the lungs, and on their free expansion from the dilatation of the bronchial, or  
air



air-vessels, that run through them\*. But as infants are incapable of giving themselves any exercise, and indeed of receiving that kind which tends to promote such an effect, I have conceived crying to be an effort which nature may have wisely substituted in its stead. Whatever is truly natural I always believe to be right, though every thing is capable of being abused, and the most beneficial dictates of nature may be exceeded. I am satisfied however, that the common method of pacifying children by cramming them with food, when they are not hungry, creates much greater evils in thousands of instances, than ever were produced by the efforts of crying.—But the nurse who can, with calmness, hear an infant cry without attempting to pacify it, by every proper means, is a monster in human shape,

\* *Fletus moderatus pueris non obest—pectus dilatat et calefacit. PRIMEROSE.*



unfit to be trusted with the care of any animal being, much less with a tender, helpless creature, whose only language, by which it can express its wants or its sufferings, is its Tears.

I cannot help trespassing on the reader's time to make an apology for having dwelt so long on this, as well as on several other heads; my motive has been the desire of instructing, even at the risque of displeasing; and for the sake of my fair readers, who may do me the honour to consult this work, I have endeavoured to lessen their fears, as far as they have appeared to be needless, wherever no other remedy could be offered.

I shall conclude by observing, that, though the passions of the mind refer so little to infants, they relate very materially to the wet-nurse; who besides endeavouring to keep her spirits as calm as possible, ought to be exceedingly careful



ful not to put a child to her breast, when under the influence of any violent passion, of whatever kind it may be, the bad effects of which have already been instanced in the former part of this treatise. And I shall think myself well recompensed for the little trouble I have had, if this, or any other hint, may prove a means of lessening the dangers of the infant state, and the consequent sad fatality that attends it; as well as of abating the anxiety of the fond mother, who after having brought her tender charge into the world with sorrow, is pierced with double pangs at its leaving it.

THE END.







