

An enquiry into the history, nature, causes, and different modes of treatment hitherto pursued, in the cure of scrophula and cancer / By William Nisbet.

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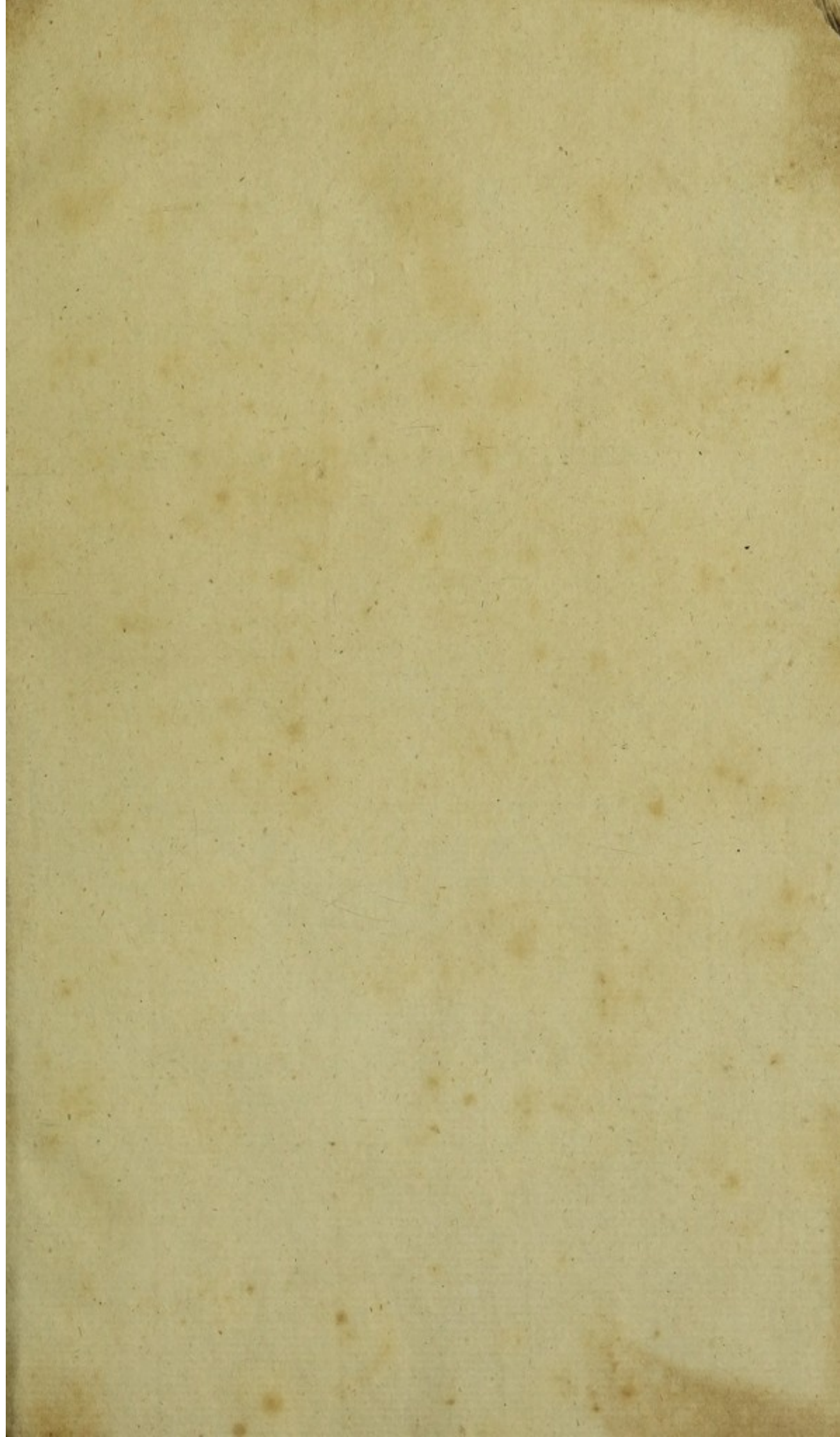
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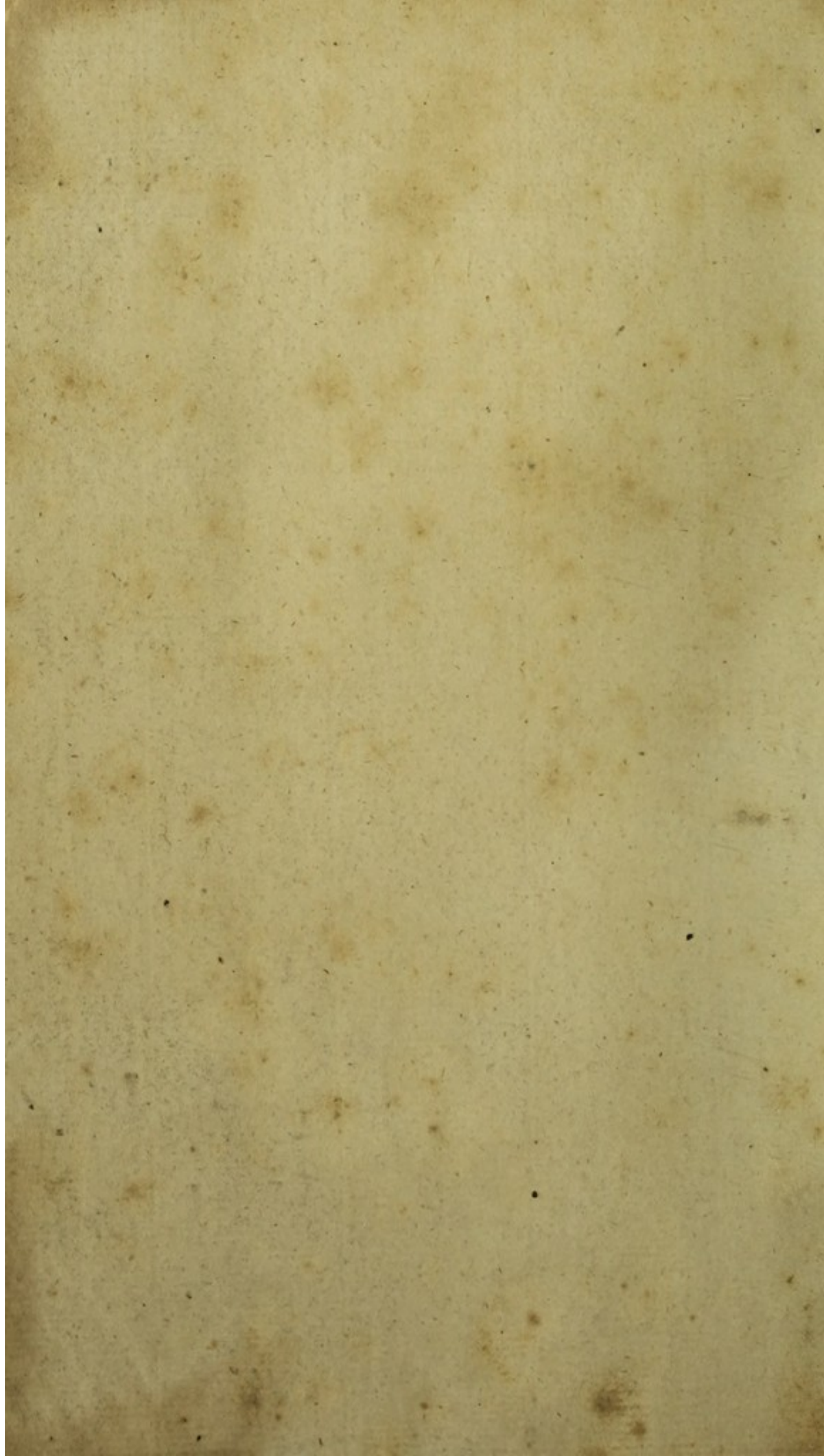


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AN
I N Q U I R Y
INTO
THE HISTORY, NATURE, CAUSES,
AND
DIFFERENT MODES OF TREATMENT
HITHERTO PURSUED,
IN THE CURE
OF
SCROPHULA AND CANCER.

BY WILLIAM NISBET, M. D.
FELLOW OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

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1795.

Dr Duncan

with best thanks

Yours

Wm Lloyd Garrison
& friend

The Author

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INTRODUCTION.

OF all the Chronic Diseases that become the subjects of medical practice, none are more frequent in their occurrence, nor more baneful in their effects, than the two maladies of SCROPHULA and CANCER; and none have hitherto employed the researches of physicians with less success. Both continue still among the reproaches of the profession, and furnish an ample field for the pretensions of the empyric, as well as the speculations of the regular practitioner; perhaps the random experiments of the former, cannot here be called in question by the latter, while he is unable himself to explain their effects, or propose a more successful method of cure.

SCROPHULA, the *first* of these, is, perhaps, more frequent in Britain than any other disease; and it may be said to be daily extending its effects. There are, indeed, few families in which it does not make its appearance in one form or another; but, being apt to give offence, it is too often, by the complacency of practitioners, disguised under less alarming denominations. The early pe-

riod of life, the bloom of infancy, is particularly exposed to the cruelty of its ravages ; and it saps, as it were, the foundations of the constitution, before it arrive at vigour to resist its attacks. Too frequently it carries its career still farther, even to the prime of manhood, and cuts off by the insidious and slow, but always mortal, decay of Pulmonary Consumption. Or, in place of this, if it leaves its wretched victim in the possession of existence, it preys upon some of the larger joints, and shews him, for life, a maimed object to the view of society.

CANCER, the *second*, is, of all the maladies to which human nature is subjected, the most formidable in its appearance, and which triumphs alike over the efforts of the constitution, and the powers of medicine. With a slow, but rooted grasp, it undermines the existence at a more advanced period of age, and under the torments of the most exquisite and lingering pain, as well as a state of the most loathsome putrefaction, it consigns its miserable victims to a late but long wished-for grave, after rendering them, by its ravages, even still more than the former malady, hideous spectacles of deformity.

The object, then, of this Treatise, is to offer a full view of these two diseases, so important in their treatment, and often dreadful in their consequences ; and to examine, at some length, what has hitherto been done by physicians ; to elucidate their nature, and counteract the morbid effects

fects they produce. For this purpose, we shall give a full, and as far as we can, accurate history of their appearance, including the various forms they display in inducing their specific action. We shall next consider the peculiar circumstances which characterise their operation, distinct from other maladies of a similar nature; and last of all, we shall review whatever has been done in respect to their treatment, by the practice of the most eminent physicians; candidly examining the powers of each remedy employed; the principles of its action; and the merit to which it is specially entitled: And having thus, in some degree, exhausted the subject, we shall conclude with offering our own opinion.

INTRODUCTION

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ciples of its action; and the mode in which it is
specifically contraindicated; and finally, some other
uses which are applicable to the subject of this treatise.

OF SCROPHULA.

OF SCROPHULA.

DIVISION I.

OF SCROPHULA.

INTRODUCTION.

BY Scrophula we understand a *peculiar morbid state* of the system *in general*: displayed first by an indolent swelling, and afterwards ulceration of particular external parts, most conspicuous in those who have fine skins and florid complexions, with a remarkable swelling or thickness in the upper lip.

Such is the usual definition of this disease; but from a definition little knowledge can be obtained. We shall, therefore, consider its ordinary progress, and the most common forms of its appearance.

P A R T I.

SECT. I. *General History of the Disease.*

SCROPHULA seldom shews itself for some time after birth; it is chiefly conspicuous in the period from the third or fourth year to the age of puberty. The manner in which it begins is this:

The child is subject to colds, or affections of the mucus membrane, which thickens and inflames. Thus the lips will be often swelled, and chopt with disagreeable deformity, especially the upper one, which is considered as so characteristic of the disease, that wherever it appears, even without any other attendant symptom, it is sufficient evidence of its presence. Sometimes these symptoms are accompanied with eruptions round the mouth, on the back of the head, and different parts of the body. To these appearances succeeds, sooner or latter, an enlargement of some of the lymphatic glands, most commonly of those about the neck, behind the ears, or under the jaws. These swellings appear at first like small knots, smooth and moveable, with some elasticity, and they gradually increase in number and size, till they form one large, hard, fixed tumor. They are attended with little pain,
shew

shew no discolouration for long, sometimes a year or two, or even longer; alternate in their size with the different periods of the season, subsiding in a great degree in the course of summer and autumn, and returning to their former magnitude in winter and spring. On breaking, at last, they discharge a thin watery fluid, mixed with a whitish matter, and often streaked with blood. By degrees the tumor subsides, the lips of the sore open or recede to a greater distance, and spread broader, but at the same time unequally. No disposition to heal appears, the edges become smooth, both externally and internally; and while one part of the sore, at last, slowly heals up in the progress of the disease, another contiguous, and apparently sound, takes on the diseased action, and there the same appearances are renewed. Frequently, also, the part healed up, again breaks out and continues its ulceration.

Like those of the external glands, already described, similar swellings of the lymphatics, about the larger and smaller joints, also arise, and are attended with the same morbid effects, in a progressive swelling, inflammation, and ulceration. But instead of the moveable swelling hitherto described, the swelling here assumes a different form, and consists of a tumor almost uniformly surrounding the joint, and gradually interrupting its motion; while internally its inflammation extends into the structure of the joint, thus being

less circumscribed than where it attacks the lymphatics in other situations.

But the extent of the disease is not limited to these external parts. The internal glands are susceptible of the same morbid disposition. Those of the mesentery assume it at an early period, most commonly from a twelvemonth to 6 or 7 years. Those of the lungs and other organs, are later in becoming affected; this depends much on the particular time of life when changes in the balance of the circulation occur, and the fluids are unequally thrown on certain vital parts.

Such is the general appearance of this malady; and we shall examine it at still greater length, by next considering minutely each of these situations specified above. From the description given, the disease will appear properly divided into two species, of *external* and *internal*: We begin with its first or simplest species, the affections of the external glands.

I. EXTERNAL SPECIES.

SECT. 2. *Of the External Glandular Swellings.*

WHEN the glands of the neck, head, and jaws, are affected, the appearance they exhibit in their progress, is that of a circumscribed swelling; at first loose and moveable without pain, and for a long time without discolouration. In process of time, however, evident symptoms
of

of inflammation ensue. The tumor increases in size, acquires a degree of redness in the middle, and becomes somewhat painful, though never in a degree proportioned to its size, or the appearances of inflammation. As the redness increases, the formation of matter takes place, and a fluctuation, at last, can be felt, but chiefly confined to its middle, with a circumscribed hardness still continuing round its sides; and it never assumes at top that pointed appearance, or form, which real phlegmon exhibits as matter forms. If no artificial opening is made, it continues often a long time in a sort of stationary state, and will sometimes even decrease in size, and the skin turn somewhat shrivelled and flaccid, as if there had been a re-absorption before it break. When it breaks, it is generally by a very small opening, scarcely larger than the size of a pin hole. At times, two or three of these small openings take place in the same tumor, and no tendency to a full evacuation appears. The matter discharged from this opening is first a thin serous liquid, then a mixture of this liquid with a whitish matter, resembling on pressure, curdled milk, or part of a nut kernel, but not so hard, and sometimes the discharge is tinged with blood. In this state of ulceration the disease continues for years, the lips of the sore receding, though never to a very great distance, and a circumscribed hardness being conspicuous all around the base of the affected part. The discharge continues much the same,

same, only a little more purulent at times; and if one opening chance to heal up, which it sometimes does, by forming soft whitish insensible granulations, another part assumes the diseased action. In all cases of healing, an ugly pale eschar and corrugation remains, marking the attack of the disease.

— On examining Scrophulous glands by dissection, they feel somewhat softer to the touch than in their healthy structure. When cut into, they also at times exhibit very much the natural appearance; but much oftener they contain a white soft cheesy matter, mixed with a thick pus, the true characteristic of Scrophula.]

This account may serve as a general example of the appearance and progress of the disease, in all the external lymphatic glands it chances to affect, where it always begins in the form of soft colourless, painless tumors. The glands particularly liable to receive its attack, are those of the neck, of the jaws, and behind the ears; more rarely those of the under part of the back, upper part of the thigh, back of the hand, or fore-arm, below the elbow, and arm pit, and the same also in the lower extremities. Indeed wherever an external glandular structure prevails, such may be occasionally its seat. The glands also being more numerous in children than in age, may be one reason, perhaps, for the attacks in them being more extensive.

When

When confined to the external parts, the disease commonly departs of itself in the course of four or five years, leaving the parts it affected considerably shrivelled and puckered in from the marks of the escars.

SECT. 3. *Of Sore Eyes, (Ophthalmia Scrophulosa.)*

THE eyes in Scrophulous constitutions, and more particularly their appendages when exposed to the very slightest causes of irritation, are apt to have inflammation induced in them; and no form of the disease is so frequent, so tedious to remove, or more painful in its attack. There is none also in which a relapse is more liable to occur.

When affecting the eye-lids, which it most commonly does; it commences with inflammation and swelling of the sebaceous glands, which terminates in ulceration, and this ulceration is generally of the most obstinate and troublesome nature. An acrid discharge constantly takes place from it, which, irritating the eye itself, renders it weak, and unable to bear much impression, either from light or heat. Frequently it is of a more viscid nature, and glues the lids together in the night time, leaving a gorey appearance on the lids through the day. This form of the disease is not often acute, it is more of a chronic species,

species, and gives a disagreeable appearance to the sight. The eye-lids continue always more or less inflamed, thickened, and raw, and the ulcerations are very seldom healed up; or if they are, break out anew on any sudden cause of irritation.

When affecting the eye itself, which often arises from the previous inflammation of the lids communicating to the eye, the symptoms are the same with those that mark Ophthalmia on other occasions, viz. preternatural redness, turgescence of vessels, pain and heat over its whole surface, with a constant effusion of acrid tears, and a sense of something like a mot pervading the eye. To these constant symptoms may be added several occasional ones, depending on the extent of the inflammation. Thus, when there are strong symptoms of fever, and deep shooting pains through the head, we are led to infer that the ball of the eye, in general, is affected; and when these pains are increased, either by the impression of light, or the simple motion of the part itself, this general affection prevails in a high degree. From the very lax state of the Scrophulous constitution, this disease often spreads with uncommon rapidity and violence, and no instances of Ophthalmia are so much to be dreaded as those that attack such habits. The most rigorous and early use of the most powerful antiphlogistic means, are at times insufficient to stop its progress; the inflammation
passing

passing on to one of its secondary terminations viz. of a general suppuration, or adhesion of its membranes, the sight and structure of the eye become entirely lost. The former of these terminations we judge to have taken place, by no remission of the inflammatory symptoms in a reasonable time, by the pain becoming more extended, and the fever more severe, and by some marks of protrusion of the eye itself. In cases where the inflammation remits, without proceeding to any of the terminations mentioned, a speck, or film, is often left on the cornea, which we consider as peculiarly marking a previous Scrophulous inflammation; and according to the particular situation of this speck, and its degree of consistence, is the vision apt to be interrupted by it.

On leaving one eye, the inflammation is liable, in such cases, to attack the other; and wherever one attack has taken place to a degree of violence, the patient is exposed to its recurrence from the slightest causes.

SECT. 4. *White Swellings, (Hydarthrus.)*

NEXT to the glands of the neck, one of the most frequent seats of Scrophula is the larger joints of the knees and arms, producing in them an affection, known by the name of White
C Swelling,

Swelling; of all the forms of the disease, next to Ophthalmia, the most painful, and in its consequences the most to be dreaded. The history, therefore, of its progress should claim the particular study of every practitioner, and we shall begin the description of it as attacking the joint of the knee.

THE KNEE.

THIS disease begins, to appearance, by an affection of the lymphatic glands surrounding the joint; but the swelling at first, and for some time, is hardly perceptible to the feel. There is, simply, an uncommon degree of heat, with little or no sensation of pain in the part, and merely a stiffness in the joint, felt only when bent or fully extended. Soon, however, one or more small tumors about the joint, when carefully examined, may be perceived, and a considerable sense of tension comes to prevail. The pain, at first slight, increases considerably, and is diffused, as it were, over the whole joint. In the progress of the affection, the joint acquires an enormous size. The subcutaneous vessels enlarge, the skin appears clear and shining, and in particular parts it possesses a certain elastic feel, difficult to describe, as containing a very viscid fluid within. In this state the limb gradually wastes, the supply of fluids is cut off, as it were, from the parts below, and the joint, from its increase of size, is rendered
entirely

entirely immoveable. From the stretching of the skin also, it becomes acutely painful on the slightest touch, and sensible to the least impression of cold or heat, particularly the latter, which occasions intolerable pain in bed. In process of time, though it is always tedious, abscesses form in different parts of the swelling, and a matter is poured out, various in its appearance; being sometimes a viscid glairy fluid, at other times more purulent, and sometimes entirely sanious and foetid. This discharge has little influence on the size of the swelling, which continues much the same, or rather to increase; and similar to other Scrophulous sores, the first abscesses frequently heal up, leaving an ugly scar on the part, while others break out and pursue the same progress. If the disease is allowed to proceed from the soft parts of the joints, which it has only as yet affected, it next extends itself, to the bone. Thus the cartilages, take on symptoms of inflammation, and are dissolved: the bone itself is not exempted from undergoing the same change; and the structure of the joint, on dissection, is found melted down, more or less, into one heterogeneous mass, consisting of a white glairy fluid, mixed with matter, similar, in appearance, to other Scrophulous matter, with pieces of carious bone of different sizes.

But, before this last stage, if amputation does not take place, the patient is generally cut off by the acute hectic which prevails; for the hec-

tic is more acute in this than in almost any other form of Scrophula. Sleep is for the most part entirely denied the wretched patient, from excess of pain: The appetite, which is pretty good in other cases of hectic, here entirely fails: The night sweats are profuse and constant, and alternate, with the looseness (or diarrhea), and from the first opening of the abscesses they threaten the life of the patient.

If the disease in this advanced state is got the better of, it ends in a stiff joint; but such a favourable termination seldom takes place in this stage of its progress. Amputation is for the most part necessary; but it is not always a certain relief, even when performed.

Much attention has been paid to dissections in this form of the disease; and from them it appears, that though every part of the joint suffers in process of time, as observed in its history, yet that the ligaments and cellular membrane are the parts which suffer the principal morbid change in the early stages. The ligaments are found thickened, and their interstices filled with a glairy mucus, which becomes effused also into the cellular membrane. Collections of matter run in various directions; and these, at last, all uniting, produce caries of the different parts, which communicates first to the cartilages, and then to the bones themselves; and when the latter turns carious, small pieces of bone come occasionally to be mixed with the dressings, seemingly worm-eaten; and
little

little particles like coarse sand appear in the discharge. This history of White Swelling, we consider to be that of the real Scrophulous kind. It is described by Mr Bell*, and some other authors, under the title of rheumatic; but for this we can see no good reason. It agrees completely with the history of the disease in other parts; and we find no instance of rheumatism, though a frequent affection of joints, terminating in this way. Instead of this species, Mr Bell has given the appellation of purely Scrophulous to a still more fatal affection, somewhat similar in its appearance indeed, but in reality a species of Spina Ventosa. This disease we consider as perfectly unconnected with Scrophula: It is a primary affection of the bones; while Scrophula is always a primary affection of the soft parts. The caries of the Spina Ventosa is always extremely different from the caries of Scrophula. The former is an irregular fleshy growth, ragged and spongy; the latter is a real gangrene or dissolution of the texture of the bone, no way supplied by any growth whatever. If, then, this be a Scrophulous affection, it differs from Scrophula in other situations, in its symptoms, in its appearance, and in its progress; but the other species we have described, corresponds with Scrophula, in a great degree, in all its leading phenomena.

* *Vide* Bell on Ulcers and White Swelling, page 448.

THE ELBOW.

THE appearance this disease exhibits, when attacking the other larger joints, is much the same with that described in the knee. In the elbow its progress is slower, from being less subject to motion; and it becomes, therefore, less formidable. The abscesses when formed, heal up, and break out repeatedly; and in this way it continues, often turning neither better nor worse for a number of years. In some cases the joint, of itself, turns stiff.

THE SMALLER JOINTS.

IN the smaller joints the progress of the disease is still more tedious. The first perception of it is an increase of size in the part; for there is no pain to mark its attack. This increase of size feels hard, and insensible, and gives little or no uneasiness on pressure. As it enlarges, symptoms of inflammation appear, and the use of the joint comes to be lost. With these symptoms of inflammation some pain is felt; and when, after a long continuance of the inflammation, it happens to break, at last, neither the size, nor hardness of the swelling is reduced by it, similar to what occurs in the larger joints. The discharge is of a thin serous fluid, and the termination is the same

same as in the larger joints ; but at times exfoliation of the bone takes place here.

II. INTERNAL SPECIES.

FROM the External, we come now to examine the Internal Species of Scrophula, which differ little, in appearance, from that occupying the surface ; as the same swellings of the glands, and the same ulcerations in consequence appear, on dissection, in the internal parts. It is, however, found by experience to be more dangerous here, from the functions of the parts which form the seat of the attacks, being more important ; and from the symptoms, also, that mark the disease, being frequently more obscure.

WATER OF THE HEAD, (HYDROCEPHALUS INTERNUS.)

THE first affection of this division we shall enumerate is, Water in the Head, (Hydrocephalus Internus), a disease which, from the uncertainty of its symptoms in the first stage, from the period of life that marks its attack, and from the peculiar part it occupies, is in general fatal in its termination.

The most distinguishing symptoms of the presence of this malady, enumerated by authors are,
pain

pain of the head, often across the brow, with a degree of stricture, as it were, betwixt the temples, nausea, sickness, and other disorder of the animal functions, without any evident cause, and sudden in their attack; variable state of pulse, constant flow fever; and, in the advanced stage of the disease, dilatation of the pupil of the eye, with a tendency to a comatose state.

But, in order to understand the disease more fully, it will be proper to consider particularly its different stages.

The *first stage* is marked by loss of appetite, a degree of melancholy, and uneasiness, without the child being able to fix on any particular symptom. Pain in the head is next felt; especially above the eyes, and in a direction betwixt the temples. This tenfive pain gradually extends, and is at last felt more strongly in the arm and leg of one side. The affections of stomach then commence, and alternate with the pain and uneasiness of the head: the febrile symptoms, though pretty constant, are milder in the morning, but suffer always an evening exacerbation: vomiting occasionally occurs; but costiveness is a leading characteristic symptom. The tongue is little affected till towards the end, when it assumes a scarlet colour, and sometimes becomes aphthous, or spotted. As the disease advances, all the symptoms of hectic are conspicuous; and during the whole of the malady, the child shews

a strong propensity to the bed, or a desire to avoid being touched or moved.

In the *second stage* a remarkable alteration is perceived in the pulse, which becomes slow and heavy. The disease is also strongly marked by the state of the eyes, for a dilatation of the pupil is observable, and sometimes even double vision prevails. The child also frequently screams out, without being able to assign a cause; and his sleep is in general disturbed.

In the *third stage* the pulse returns again to the febrile state, becoming uncommonly quick and variable.

From the history of the disease, it is clear, that all the symptoms of its first stage may be mistaken for a paroxysm, or fit of fever. It is only the supervention of the second one that properly characterises it. This will appear more strikingly, if we bring into one point of view, the leading symptoms of each stage already detailed.

In the *first* then, the pulse is quick, the skin hot; there prevails a restlessness, and an incapacity to bear the light; the patient picks his nose, and the belly is irregular.

But, in the *second*, the pulse is slow, often down at 40, and irregular. There generally takes place a considerable degree of squinting, and the patient frequently passes a good many worms, a circumstance deceiving to a practitioner, as well as to the attendants.

In the *last stage* the pulse often becomes remarkably quick, to the length, in some particu-

lar instances, of 186, and even 210. The pupils are dilated; convulsions and paralytic affections supervene; blood, at times, gushes from the ears; and, at length, on the occurrence of laborious breathing, the patient dies.

This disease may be said to be almost peculiar to infancy. Its attacks are seldom known to extend beyond the fourteenth year. It may be said to have been always fatal; for the cases of cures related by authors, are very much doubted by many of the first practitioners, and considered rather as so many mistaken instances of the disease.

In dissections of this malady, four species of appearances have been discovered in the Brain:

1. Simple accumulation of blood in the vessels, which appear, as it were, gorged without any local lesion.

2. A small quantity of fluid effused into its cavity, generally from three to four ounces; and this fluid is found the same as occurs in dropsy elsewhere.

3. Collections of a viscid tenacious matter in cysts found upon its external surface.

4. Tumors formed upon the brain.

As this disease occurs chiefly in children, and in families who shew evident marks of Scrophula, it must be considered as an affection of this class, and as arising from that laxity and loss of tone, conspicuous in every part, which, in this case, particularly affects the vessels of the brain; while the effusion
poured

poured out, is to be regarded, rather as a consequence than a cause of the disease.

A stronger confirmation, also, of the Scrophulous nature of this affection, may be adduced from this fact, that several remarkable instances of Pulmonary Consumption, and a similar affection of the head, in more advanced life, have been known to alternate with each other; thus shewing themselves to be various modifications of the same malady.

MESENTERIC CONSUMPTION, (TABES MESEN-
TERICA.)

THIS form of Scrophula is, perhaps, equally frequent and fatal, if not more so than Pulmonary Consumption; and while the latter is more common in its attack, after the age of puberty, the former always precedes this period, and seems, indeed, to be the primary Scrophulous affection, or most frequent seat of the disease in children, under the age of three. As Pulmonary Consumption is often overlooked in its commencement; so this form of the disease is often entirely mistaken during the whole period of its continuance; and the fatal catastrophe is attributed to other causes than those which have actually produced it.

From the obstruction to nourishment, the symptoms that mark this disease, are a gradual looseness, and flaccidity of flesh. These symptoms are attended with a paleness of countenance, a general languor and debility, so that the child

sensibly falls off, cannot walk, if formerly able to do it; and, from a sense of languor, inclines strongly to remain in one posture. To these general symptoms are joined variable state of appetite, irregularity of belly, and, in the progress of the disease, a sensible increase of its size, accompanied more or less with hardness and pain. There prevails also a constant hectic, denoted by excessive thirst, heat of palms, fetid breath, &c. It is this hectic which renders the disease equivocal, and occasions its being mistaken for teething, or worms. The Diarrhea, or looseness, that attends it, is peculiarly marked by frothy fetid stools, sometimes, though rarely, mixed with matter; and by this symptom, or dropfy, the disease proves fatal at last. In some rare cases, none of those last symptoms have occurred, and the child has been cut off, rather by a gradual emaciation, or wasting, without any strong marked symptom of disease.

This disease, unless taken at its commencement, is almost always mortal; but if not so, it lays, at least, the foundation for a weakly constitution, and bad health, during the remainder of life.

Dissections of it shew an enlargement of the Mesenteric Glands; and their appearances are various, according to the violence of the previous symptoms of the malady, and also the length of time it has continued, before proving fatal: Along with their enlargement, they are generally softer to the touch than in the natural state. When cut into, they sometimes show very much, though

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in no case entirely the natural structure; but more frequently they are changed, in part, into a white soft curdly matter; and this is not uncommonly mixed with pus. In proportion to the general enlargement of the glands, is the swelling of the belly, and the degree of emaciation. In some rare cases, they have been found entirely obstructed, and thus the supply of nourishment to the body is entirely cut off*.

CONSUMPTION OF THE LUNGS, (P^THISIS PUL-
MONALIS.)

PULMONARY CONSUMPTION is a more frequent species of Internal Scrophula, than any other in this country, except the last: We may compute, that in these Islands of Britain and Ireland, considerably above 10,000 fall annually † a sacrifice to this malady, from the age of seventeen, to that of thirty-five; and of all these patients, the victims of consumption, at least ninety out of each hundred,

* It appears by calculation, that one-half of the children born, die before the end of two years old; of this half, we may safely say, that at least a third is cut off by this form of Scrophula.

† To show the annual mortality, from consumption, we have here subjoined a table from the London and Edinburgh Bills of mortality, the two capitals of the Island, of the numbers under the article Consumption, for a series of 53 years, beginning at the 1740.

Year.

hundred, are pure Scrophulous affections. This disease is the more to be dreaded, from the insidious manner in which it makes its attack. No alarming symptom, either of pain or sudden change, accompanies its commencement: under the

Year.	LOND.	EDIN.	Year.	LOND.	EDIN.
1740	4919	278	1767	4383	223
1	4981	349	8	4379	175
2	4353	328	9	4249	155
3	4716	277	70	4594	295
4	3865	271	1	4809	304
5	4015	290	2	5179	304
6	4887	323	3	4825	292
7	4560	248	4	4242	352
8	4487	229	5	4452	329
9	4623	221	6	4508	129
50	4543	186	7	4906	263
1	4182	232	8	4426	195
2	3558	198	9	4479	188
3	3915	198	80	4889	187
4	4241	212	1	4516	184
5	4322	203	2	4851	213
6	4459	228	3	4575	167
7	3973	278	4	4540	229
8	3411	270	5	4569	164
9	3569	231	6	4987	153
60	3776	256	7	4579	535
1	4110	239	8	5086	583
2	5139	188	9	5172	518
3	4892	272	90	4852	563
4	4437	309	1	5090	584
5	4176	216	2	5255	574
6	4685	227	3	5474	606

From this account, it will appear, that there has been a considerable increase of the mortality, from this disease, within these few years. The mortality, from it, in London, may be rated at one-seventh of the whole; in Edinburgh about one-eighth.

the form of a slight cold, it steals on its ravages, and it is commonly beyond the power of art to stop its progress, before the nature of the disease is ascertained. On this account authors have been at much pains to mark its first approaches, and to caution patients from neglecting a due attention to the symptoms of its threatened attack, by regarding them as the common attendants of a temporary cold, or catarrh. This affection, indeed, precedes it; but though properly confined to the throat, or (bronchiæ), in other constitutions, it, in this, is more extensive, and carries the same morbid disposition, with rapidity, to the lungs.

The *first* symptom, then, of the Scrophulous Consumption, is a short noisy cough, with slight occasional hoarseness, which soon becomes habitual, and little attended to. Nothing is spit up, but a trifling frothy mucus, which seems to proceed no farther than from the throat. Along with these symptoms, the breathing is felt some-

In Dr Arbuthnot's time, he rated it, in London, only at one-tenth. In the general bills, we find always the months of April and May the most fatal, which is entirely owing to the mortality from Consumption, these being the two fatal months for its termination. If, betwixt London and Edinburgh alone, nearly 6000 annually perish from this malady, we are certainly much within bounds, when we rate the whole, in Britain and Ireland, at considerably above 10,000. This is making every allowance for the alledged inaccuracy of those who make up the bills, in their reporting every case where extreme emaciation prevails, as an instance of Consumption.

what

what impeded, and easily hurried by the slightest motion, especially on going up any ascent. There prevails also a sort of slight stricture, or fullness, across the breast. During this time, some emaciation of body takes place, and a feebleness and languor is felt by the patient himself, without his being able to assign a proper reason for it. An increased irritability of mind, is likewise observable, and a want of the usual animation. On inspecting the tongue, it appears remarkably red and clean, and continues so till near the end of the disease, when the Aphthous inflammation comes on. The teeth are commonly, here, remarkably sound, and acquire, in the progress of the malady, a more than ordinary whiteness. The same is conspicuous in the eye, which gradually assumes a pearly colour, or blueish cast, as the red vessels of its surface (or Albuginea), disappear. This morbid state, or rather gradual prelude to decay, generally continues for a considerable time. During this interval, the person is more easily affected, than usual, with slight colds; and, during their attack, occasional pains of chest, arise, sometimes consisting of dull, obtuse pains, under the shoulder blade, in the side, or under the breast. At last, after one of these colds, an aggravation of disease ensues; the pectoral symptoms encrease, particularly the cough towards night; a considerable expectoration begins, and the hectic, formerly obscure and fluctuating, becomes now exquisitely formed, manifesting itself by regular

gular exacerbations after eating, and a constant increase at night: It is from this time that the sleep becomes disturbed and oppressed. A morning sweat also takes place, at first partial, or confined to the head and breast, and only occasional; at last becoming general and constant, or alternating with a looseness, (or diarrhoea), so that the wretched patient is reduced to the last stage of emaciation and debility; for under these symptoms, the muscular flesh wastes to the greatest possible degree. The nails assume an adunque or curved form; and a gradual decay appears in every part, attended with some degree of swelling (or œdema), of the lower extremities. In this state, when contemplated, the emaciated figure strikes one with horror; the forehead covered with drops of sweat; the cheeks painted with a livid crimson; the eyes sunk; the little fat that raised them in their orbits, entirely wasted; the pulse quick and tremulous; the nails long, dry, and bending over the ends of the fingers; the palms of the hands dry, and painfully hot to the touch; the breath offensive, quick, and laborious; and the cough so incessant as scarce to allow the wretched sufferer time to tell his complaints: yet, even at this period, and during the whole progress of the disease, the mind acquires an additional confidence and hope, possesses a more lively perception of certain recovery, and feels emotions of the most flattering and consolatory kind, which attend it to the last hour.

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From this general description of Pulmonary Consumption, the chief symptoms that mark its progress, are *cough, expectoration, pain of chest,* and *fever*. Each of these we shall, therefore, consider more at large, and the peculiar circumstances that characterize them in Scrophulous cases.

The *cough* may be mentioned as the *first*, and leading symptom of the disease: it commonly attacks by fits; is hard and dry, and comes on, especially on any increased action of the vessels. By some, it has been compared to a sound issuing from some hollow cavity. It is most severe on first going to bed, and is for the most part worse in the night than in the day-time: a sense of fullness of the chest, or difficulty of breathing, attends it. Indeed, from the first of the disease, the breathing, is commonly two or three times more frequent than that of a person in health, neither can the inspiration, or expectoration, be continued so long at a time.

These fits are apt to recur frequently in the course of the night, and excessively fatigue the patient. They are terminated by the expectoration of a frothy matter, which seems to come only from the throat, (or fauces). Very often there is a continued wheezing on every inspiration; but this is not always so distinct.

The expectoration, the *second* symptom, generally comes on some weeks after the commencement of the cough; it is a symptom very variable in the course of the disease. At first it consists of
nothing

nothing more than this frothy matter, already mentioned; but as soon as the disease advances somewhat, it becomes thick, viscid, and heavy, of an ash colour, and marks then the permanent affection of the lungs. When the disease proceeds still farther, a purulent matter is discharged, of a greenish, or yellow colour, at times fetid, and having an actual putrid taste; but this matter is always mixed with more or less of the viscid substance already described, which may be considered as the true Scrophulous expectoration, the other being rather extraneous, and formed into this purulent state by the progress of the inflammation. When the fits of coughing are severe, such expectoration is frequently mixed or streaked with blood. The quantity spit up, is very various; but is often, when the symptoms of the disease are acute, not less than two or three pints in the twenty-four hours. The patient sometimes feels, distinctly, the expectoration proceed from the side where he feels some pain: this symptom always lessens considerably towards the end of the disease, and is a mark of the approaching termination; its taste varies as well as the other circumstances of its consistence and appearance; sometimes it is sweet, at other times it is saltish, purulent, &c. When critically examined, by submitting it to the test of experiment, the expectoration can hardly be called real pus; it agrees both with pus and mucus in some of its properties, but it differs materially in others; and

it appears to be the same matter as discharged in other Scrophulous cases, only approaching, here, somewhat nearer to pus, from the particular situation from which it proceeds*.

In some cases this disease has been known to proceed to its fatal termination, without any purulent expectoration whatever. This may proceed from two causes, either from a vomica, which bursting suddenly, suffocates the patient before allowing time for expectoration; or it may proceed from the powers of the constitution not being sufficiently strong to produce matter in the tubercles before the fatal event takes place. Such cases, however, are very rare, and form little exception to the general history detailed; as even, in these cases, the other leading symptoms of the disease constantly attend.

Frequently, in this disease, the expectoration begins with a spitting of blood, (Hemoptysis), especially where the fits of coughing are severe, and the difficulty of breathing also considerable.

The presage of this spitting is generally a drowsiness and faintness. This is preceded by a sense of fullness, weight, and heat in the breast, particularly under the breast bone, (or Sternum); it

* Mr Darwin's experiments on the difference betwixt Mucus and Pus, are by no means conclusive. Dr Ryan, in a late publication on this disease, has instituted one, which he deems a certain criterion. A solution of Pus, he tells us, in the concentrated Vitriolic Acid, becomes always turbid on the addition of water. A solution of Mucus does not.

is brought up with a degree of hauking, or effort to expectorate, and makes some noise in its passage through the wind-pipe. The quantity discharged in this way is various, often little at a time, consisting only in a mouthful, or two; but sometimes it is more considerable, and has been known to the extent of upwards of a pint: It is of a florid colour, and feels as if rising warm from the breast. If not at first accompanied with matter, this, for the most part, takes place in the end; and return of blood is commonly two or three times before the fit settles, being apt, also, to recur again in the course of the disease. The appearance of blood, however, is always slighted when the purulent expectoration is considerable.

Pain of chest, the *third* symptom, is equally various in different cases, as the two others we have detailed. In many there is no pain felt during the whole progress of the disease, except, at times, a stitch or two from stress of cough, which is merely temporary, and departs soon after. In other cases there prevails a general soreness of the chest, particularly when the cough has been severe, felt either by shooting pains in the breast, uneasiness on the edge of the hypochondria, upper part of the belly, (or abdomen), and loins. In others there is acute pain of only one side, more rarely of both, increased very much on inspiration, so that the patient can neither bear pressure, nor lie on the part; these pains often precede the cough altogether. The continuance of this symptom is
uncertain,

uncertain, and it returns frequently in the course of the disease.

The fever, the *last* symptom that remains to be examined, requires very particular notice, as pointing out, in some degree, the progress of the malady. It begins with a sense of coldness, or rather what may be termed creeping of the flesh, which comes on every day, or, rather, every other day, being by no means regular at first. This feeling is succeeded, either by a burning heat, continuing all night with intense thirst; or, at other times, a more moderate heat, only a little increased towards evening. For sometime, the exacerbations of this fever, are by no means so distinct as set down by authors. At last, indeed, from the time the purulent expectoration is considerable, both the mid-day and afternoon ones, especially the latter, become strong and regular; they are then easily marked by a circumscribed florid redness, or flushing of the cheeks, which renders the colour of the rest of the face more remarkable, being pale, and looking as if it were not clean washed. To this appearance of the face is joined great heat of the palms of the hands and feet. This heat is succeeded by a sweating stage, rather partial at first, and confined to the head and breast; but in the progress of the disease it becomes more general and profuse; or, instead of it, a colliquative looseness, (or diarrhea), takes place; more rarely a colliquative discharge of urine; from the frequency of which, symptoms of
inflammation

inflammation of the urethra, (or passage), and heat of the discharge arise. In this way the hectic may be said to advance, with all its horrors. But though the mid-day and evening exacerbations would seem, in most cases, the regular periods of the accession of the hectic, yet this does not by any means hold as a stated or constant rule; and we find, in particular instances, very great variations in this respect.

The pulse in this fever varies considerably; in some cases it will not exceed sixty, and continue long at this rate, so as to render the real state of the patient very deceitful. Hence, on first visiting a patient, and unacquainted with the exact progress of the malady, a physician is very apt to be mistaken. In other cases, and most commonly, it is above an hundred, and small. When the expectoration consists of blood, it is often above an hundred and thirty and the other symptoms of the fever equally strong; towards the close of the disease, in particular circumstances, when the breathing is highly obstructed, it rises still higher.

Though no delirium, in general, attends this species of fever, yet towards the end of the disease, in the course of the evening-exacerbation, it sometimes occurs.

The apthous, or potted appearance of the tongue, which marks the advanced stage of this fever, and is considered as the symptom of approaching dissolution, sometimes departs before its termination; the tongue turns clean, assumes
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the same appearance as in the first days of the malady; but it always recurs before the fatal event.

To these leading symptoms of the disease, the state of the principal functions, during its progress, may be also joined. The appetite, we find, till towards the end not much impaired; sometimes even a voracious appetite prevails. The digestion, also, suffers little or no interruption. The senses are clear and unaffected; that of hearing is sometimes increased, and the functions of the brain, seem to lose little, or none of their energy, while the rest of the system shews the strongest marks of decay. Of the animal faculties, it may be observed, the desire for venery is augmented, especially towards the end of the disease; and when indulged, as in the state of matrimony, it hurries on, more rapidly, the fatal termination of the malady.

This disease is, properly, of two species, which we may term the acute and chronic; the former closes its career in the space of three or four months from its commencement, and proves fatal; the other is protracted, for a term of years, with intervals of ease. The patient complains in winter and spring, and gets better during summer and autumn. It generally however, though not always, proves fatal at last; either by the increase of the pectoral symptoms, or, on their remission, an attack of dropsy succeeds. In the former case, the fatal period with most persons, is the end of spring,

spring, or beginning of summer, for they seldom, it has been remarked, out-live the month of May*.

Some remarkable instances of most rapid emaciation, in the first species of this disease, have been taken notice of by authors. Thus, Valli mentions a case where the decay was so rapid, that the very hair fell off in the first days of the complaint. This may be termed a general breaking up of constitution. In other cases, the patients have been known to preserve some degree of corpulence to the last, in spite of all the colliquative symptoms which attend its progress.

Though the disease may be pronounced almost always fatal, as appears from the annual mortality it occasions, yet recoveries from it have taken place; or, at least, its termination has been retarded by one of four circumstances, viz, madness, pregnancy, large wounds, and eruptions.

The dissections of this species serve somewhat to explain the nature of Scrophula in other situations; and much information is afforded, on this head, by the labours of the late ingenious Dr Stark. The seat of the disease is found, clearly, to exist in the cellular substance of the lungs, where round, firm bodies, named tubercles, are formed, similar to the swelling of the lymphatic glands, on the external surface; they are of dif-

* The cause of this rapidity of its progress, in different cases, may be explained by the difference of the two constitutions; the victims of Scrophula, as pointed out in Sect. 3. of Part II.

ferent sizes, from the smallest granule, to half an inch in diameter; and often in clusters: They adhere, pretty closely to the substance of the lungs, and have no particular covering, or capsule. In proportion to the smallness of their size, is their firmness; and when cut into, in this state, they are of a white colour, with a consistence nearly approaching to cartilage; in some part of them there is always a small pit, or hollow, where, as they increase, the formation of matter begins, and, at length, they pass into vomicae. But the formation of matter is not always determined by their size. In some it begins very early. When in small quantity, the consistence of the matter, is thick and curdy; when in greater quantity it is thinner, and more resembling the matter of a common sore.

As matter forms, the substance of the tubercle melts down, leaving in the end only a thin covering; and this melting down, appears to be without any very increased symptoms of inflammation taking place. ✧

All these tubercles have an opening into, or connection with the trachea; so that the matter contained in them, comes to be discharged in this way, unless they are very large before they break; the matter discharged then alters its appearance. They have also openings into each other; but the openings into the trachea are different in shape from those with each other; the former are round


round and smooth, the latter irregular and ragged.

The matter discharged from the vomicae is, in general, much the same with that discharged from Scrophulous ulcers elsewhere. It is purulent in its appearance; but in its properties it resembles mucus more than pus.

The principal situation of tubercles and vomicae, is the upper, and back part of the lungs. Sometimes they occupy the outer part; and wherever they are, adhesions to the pleura, are there formed, which shew them to be the production of inflammation; but of an inflammation similar to that of the lymphatic glands, devoid of pain in its progress, from the particular nature of the disease, as well as the want of irritability in the part. Sometimes the pleura, at that part, is found even destroyed by the matter of the vomicae, when attempting to force its way externally. By these adhesions, the communication betwixt the cavity of the vomicae, and the chest, is cut off.

As a further proof that some state of inflammation originally produces these vomicae, the air vesicles, and even the cellular substance of the lungs, is every where red in their neighbourhood, and no air enters that part of their substance; so that their principal functions, in that part of the lungs, is destroyed. Even the large vessels of the lungs, also, as they approach these parts, become suddenly contracted, and their canals shut up by a fibrous substance. An obliteration of vascular struc-

ture evidently takes place, and no vessel can be traced, either into these vomicae, or the parts very near them. The inflammation, from the diseased portion of the lungs, is even communicated to the trachea, which appears red, wherever the vessels are connected with the vomicae.

The real portion of the lungs, affected by this state of disease, is different in different cases. At times the whole lungs may be said to be diseased, so that not a fourth part of them remains fit for the transmission of air: This is for the most part the case; but, in some rare instances, life has been protracted till not one-twentieth part of them appeared on dissection, fit for carrying on this important function. Where the disease, as most frequently happens, is only partial, affecting, as mentioned, but about a fourth part of the lungs, the upper and posterior parts are, then, always found diseased; the under, and anterior, remain free, though not entirely in the natural state. The left lobe, also, it has been observed, is much oftener affected than the right one; and this is confirmed by all the morbid collections of anatomists. 

From this view of the disease, which dissection affords, tubercles and vomicae constitute the characteristic symptoms of this disorder in every form; and its incurable nature may be, hence, readily accounted for. Tubercles have, indeed, in no case of dissection of this disease, ever been found absent; but vomicae frequently have, and constitute, therefore, a more advanced stage

stage of the morbid alteration. Each of these tubercles is to be considered in the same light, as that of an External Lymphatic Swelling, which, in order to its termination, must necessarily pass into ulceration, and be liable to all the consequences that either attend this, or any rupture of the teguments in other situations; while an additional obstacle to healing is here presented from the constant motion of the lungs, and the access of the external air. The former of these, though, perhaps, not so unfavourable in cases of a healthy fore, will yet have considerable effect in every case of ulceration; and with respect to the latter, the access of the external air to matter of any kind, is known, by experience, to be attended with the most pernicious consequences. There is, perhaps, also something peculiar in the action of the air on the lungs, which may add to the vitiated state of its ulceration.

To this account of the internal dissection of Consumption from Scrophula, may be joined the particular circumstances in the external make, which, in the greater number of such cases, seems to add to the fatality of the disease. Thus, there appears, commonly, in the external conformation of body, a narrow chest, a long neck, and prominent shoulders, rendering, at all times, the transmission of the fluid through the lungs more difficult than in other constitutions. At the same time this faulty form of body does not occur in all Scrophulous cases; but when it does, it may
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be considered as a certain mark, that the disease, if once taking place, is irrecoverable.

In Consumption, life, perhaps, continues longer under a loss of substance, than in most other diseases; for, on dissection, both lobes of the lungs have been found, at times, almost entirely melted down, and nothing remaining but the outer membranes: In such a situation it has been matter of surprise how respiration could have been carried on so long.

Scrophulous affections of some of the other internal organs, have been also enumerated by authors, as, of the liver, spleen, &c.; but these are seldom unconnected with the symptoms we have described; and are to be considered, rather as affections coming on in the progress of the malady, from the prevailing morbid disposition extending itself over the system. In that case they require no separate consideration from those we have already detailed.

PART

PART II.

OF THE PECULIAR CIRCUMSTANCES OF
SCROPHULA.SECT. I. *Of the Inflammation of Scrophula.*

THE Scrophulous Inflammation may be termed properly an imperfect one; it forms, as it were, an intermediate species betwixt Phlegmon, on the one hand, and Erisipelas on the other: Compared with the former, it displays a want of the strong increased action of the vessels, which gives a tendency, either to adhesion or suppuration; neither is there that consent of the system, or proper symptomatic fever, which is necessary to the termination of successful inflammation. The skin also, when assuming marks of it, is more inclined to a purple than clear red colour. During the whole progress of the inflammation, there is little sensation of pain; there is none, at least, of that acute pulsatory pain, (*Dolor Pulsatilis*;) which distinguishes Phlegmon, and is connected with tone in inflamed parts.

Compared

Compared again with Erisipelas, the skin possesses less of the true rosy colour, or vivid red: nor is there present that constant sense of burning heat; nor does it, on pressure, like Erisipeias, turn white, and lose its natural morbid hue. From all these circumstances, then, the leading features of the Scrophulous Inflammation, shortly are, indolence, want of pain, inflammation somewhat diffused and hard, with little or no re-action of the system, as a part of its character.

SECT. 2. *Of the Discharge in Scrophula.*

WE have already taken notice of the Discharge in Scrophula; but some farther observations on it may be still useful. It consists, as then mentioned, of a thin sanies; sometimes it appears to be simple serosity, and to possess little or no degree of acrimony; but, at other times, the acrimony is very considerable, especially when the ulcers spread large. The most frequent appearance, however, of the discharge, when the ulcer first breaks out, is that of a *cheesy, white, curdled, clotty matter*; and this *curdled appearance* is the true characteristic of the disease. In some cases, under the use of remedies, it approaches more nearly to pus; but even then, when examined nicely, it has more the properties of mucus than pus. As the disease proceeds,

ceeds, the appearance of the discharge turns worse, and more ferous; being occasionally, where the ulcers spread fast, or where stimulant applications are used, tinged somewhat with blood. This matter, even in its most virulent state, does not seem capable of communicating any specific infection; for, if another person is inoculated with it, no characteristic local effects of the disease follow, which marks the necessity for the pre-existing disposition, and is also a clear proof, how ill-founded the prejudice against inoculation for the small pox is, from the supposed danger of introducing, along with the specific poison, the other taints of constitution to which the person may be disposed. This opinion should be strenuously enforced by every medical practitioner, in order to over-turn the general popular idea on the subject.

One particular form of the disease, viz. the Pulmonary Consumption, (or Phthisis Pulmonalis), has been inculcated by many of the most respectable authorities in medicine, as really infectious: but the facts adduced in its support, are very exceptionable; and this form of the disease, being, at the same time, so frequent, the marks of predisposition, where obscure, may be overlooked, and its occurrence referred, at once, in several instances, to the head of infection. Yet in the warmer climates, it would seem somewhat of an established opinion, from the many political regulations that have been framed to prevent its sup-

posed dangerous tendency ; but, even there, no distinct and apposite facts have been condescended on to sustain the propriety of these precautions. The acrimony, therefore, of this disease, even in its most virulent state, we may conclude, is of a very circumscribed nature in its action. It has been entirely denied as existing, by some of the first medical writers ; but this is carrying the matter too far. An acrimony does, undoubtedly, exist in the greater number of cases ; but the effects of this acrimony, we may safely say, are never known to act beyond the feat of the ulcer producing it.

SECT. 3. *Of the Theory of Scrophula.*

THIS disease seems to have been known to the most ancient practitioners, and to have then baffled, as at present, the powers of medicine. It is described minutely by the earliest authors ; but, at the same time, it must be confessed, its appearance now is much more frequent than ever it was known to be before. Though not unknown in almost every climate, its attacks are most severe in the most variable ; and the extremes both of heat and cold, if it appears at all there, render it a milder disease than in other situations.

Many

Many animals are subject to it, as well as man; especially when removed to a cold, moist atmosphere, a circumstance which plainly proves it the effect of temperament, acted on in a peculiar manner by external situation.

The investigation of its proximate cause, like that of many other diseases, has often employed the research of physicians; but the inefficacy of their practice, is the surest proof of their having failed in the attempt, however plausible their theories.

One of the first Theories was that of Galen, who, according to his system of temperaments, referred it to a cold pituitous humour. Galen's theory was followed by the opinion of a redundancy of fluids, or unequal balance betwixt the solid and fluid parts; and these theories remained till the time of the Chemical æra: Then arose the celebrated one of Acidity, or that which referred the disease to a super-abundance of this principle in the animal fluids. This was the sentiment of Wiseman, and several of the most eminent French writers, and was somewhat supported by the circumstance of infancy being the chief period of its attack, when such a predominant acid in the stomach and bowels, (or *Primæ Viæ*), is conspicuous. But the existence of this principle, as a cause of disease, was no way confirmed by the operation of the remedies most successful in palliating, if not in effecting a cure of the malady; and we know now by accurate experi-

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ments, that no pure acid is ever present in the animal fluids, at least, so as to prove a cause of disease.

On the apparent fallacy of this theory, was started another, equally repugnant to the experience of practice, and our knowledge of the œconomy. This theory was that of the celebrated Boerhaave, who referred the source of this, and many other diseases, to a spissitude and lentor of the fluids. The discharge, however, from Scrophula, displays a different state, and the remedies which thin the animal fluids, have little or no effect in curing this disease.

Hence, a later, and more generally received theory, on this subject, came to be adopted viz. that of a peculiar acrimony, which is confirmed by the symptoms of the disease ; though its specific nature we have still been unable to explain.

The only difference, among authors, in receiving this opinion, is with respect to the seat of this acrimony, and to what extent it takes place ; whether it arises from the general debility and flaccidity of habit, conspicuous in Scrophula, diffusing its influence through every part, or from a peculiar constitution of the lymphatic system alone, confining its specific effects here.

The former of these opinions is the most probable, when we consider that almost every part of the body, as well as the lymphatic glands, is occasionally the seat of the disease. The latter, though supported by the authority of Dr Cullen, seems

seems to be taking too partial a view of the subject, and not admitting that extent of influence which the morbid symptoms warrant.

These two opinions, therefore, will do best, if united; the disease may be conceived to be the effect of an acrimony, as well as of simple flaccidity and debility in the system in general.

But a more modern theory, than either that of acrimony, or general debility and flaccidity, is that of peculiar tenuity of surface, or fineness of skin. This theory has been started by Mr White, and this state he considers as the cause of susceptibility to the disease, which is confirmed by the effect observed, that changes of weather have on it. Two kinds of constitution, he remarks, are distinguished by this sort of surface. The first is marked by large superficial veins, a paleness of countenance, a languor in the eye, and what is in general termed a want of vivacity, or constitutional torpor. The other is distinguished by a florid complexion, skin easily varying its appearance on the slightest changes, vivacity of eye, sprightliness of manner, and great irritability and acuteness. It is these two constitutions that are acknowledged to be the chief martyrs to Scrophula; and from this view the justice of the observation comes to be called in question, that grey, or blue eyes, fair hair, and fair complexion, are characteristic marks of a Scrophulous predisposition; as without this state of surface, or their being attendants of it, they prove no certain
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mark of the disease. To this it may be added, that the same state of surface may be occasionally produced in any constitution by disease, or morbid causes producing tenuity of surface. Thus it has been often known to follow a mercurial course. The same is at times the effect of small-pox, measles, teething, and any long continued irritation wearing out the system.

The predisposition, then, to this disease, from Mr White's theory, is clearly accounted for; but there remains still, something farther, to explain why, in its attack, it particularly affects the lymphatic glands; and Dr Fordyce has thrown out a hint, in his Lectures, to supply this defect. Scrophula he considers, originally, as an affection of the mucous membrane, where, in consequence of matter forming from inflammation, often, indeed, so slight, as to be little taken notice of, part is absorbed by the next lymphatic glands, and the disease then assumes its real glandular form.

From the above review, then, of the various opinions of authors on this disease, with an examination of the facts which support them, we come, naturally, to conclude, that Scrophula is a disease arising from a peculiar morbid state of surface, most prevalent, therefore, in the early period of life. That this state of surface is, at the same time, connected with general laxity, flaccidity, and often irritability of the system; and that the disease may arise in any constitution where these circumstances exist

exist in a high degree. That, in this state of surface, inflammation attacking any part of the mucous membrane, it passes into ulceration, and the matter of this ulceration being absorbed by the next lymphatic glands, the peculiar form of the disease, or the lymphatic swelling, next takes place; and this matter, then elaborated in the lymphatic gland, acquires the peculiarity which renders the discharge Scrophulous, or constitutes the peculiar acrimony of the disease. This inflammation of the mucus membrane is often so slight, as hardly to be noticed, and the succeeding swelling of the lymphatic is considered as the *first* symptom of the disease, and never thought to arise from the former cause. The affection of the lymphatic gland then, is properly the *second* stage of the malady; and as the matter originally absorbed, is not so acrid as the venereal and others, nor the gland itself endued with much sensation, the progress of the disease, in it, is for a long time slow, till it acquire a certain size, and affect the external teguments: When the disease arrives at its height, and a rupture of the teguments takes place, a peculiar matter seems then to be formed, possessed of various degrees of acrimony, from simple serosity to that of acting as a real solvent of the animal fibre.

The internal surface is found to possess a similar state to that of the external, and the appearances there may be easily explained in the same way. Thus, we find Consumption, or a tuberculous state
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of the lungs succeed the influenza, or inflammation of the trachea, and consequent absorption of matter from its mucous glands; and hence frequent catarrhs, or colds, never fail of laying the foundation of Consumption, or Phthisis, as the practice and experience of all physicians confirm.

On the same reasoning we can readily account for Scrophula being so often a hereditary disease, that is, where similitude of surface betwixt the child and parent, or even his predecessor, prevails; and we can also account for its disappearing in one or more generations, where such similitude of surface is not conspicuous: The disappearance of the disease, in its external form, at the age of puberty, is thus also easily explained, from the former acquiring then a degree of tone or vigour, while in the internal surface no such change prevails.

From the preceding observations, it will clearly appear, that Scrophula has no connection whatever with the venereal disease, as so often alledged by many former writers. That lues is frequent in Scrophulous constitutions, and that it may be attended in them with peculiar violence, there is no doubt; but that the venereal poison can produce the disease itself, is merely impossible; so that we need not adduce, either the difference of their symptoms, or yet the inefficacy of mercury in the cure of the latter as proofs of this. On the preceding theory, also, we can account for the effects of the season on this disease, and the advantages derived in it from a warm and steady atmosphere.

SECT.

SECT. 4. *Of the Causes of Scrophula.*

FROM the theory of Scrophula we have delivered, its causes will appear to be very few. The principal one, indeed, is variable state of atmosphere, chiefly when remarkable for moist cold air. All authors have noticed its powerful effect, and the changes it produces on this disease. The almost total absence of the disorder, in the extremities of heat and cold, and its appearance and disappearance in the same climate, at different periods of the season, afford most ample confirmation of this fact; we may, therefore, set it down as the great exciting cause of the malady. Parents will seize on the most trifling circumstances, as causes, which could never have any influence, without the strong hereditary predisposition; though many circumstances, in many families, may favour the disease breaking out in its most inveterate form. These prejudices of parents have been seconded by physicians; and we find, therefore, many trifling causes enumerated, totally inadequate to excite the disorder.

Next to variable state of atmosphere, may be mentioned diseases particularly affecting the state of the surface, and introducing acrimony into the system, as small-pox, measles, &c.; perhaps, however, these act still more powerfully than as simple

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exciting causes, and go directly to induce the disease by the morbid changes of the surface they occasion.

Improper diet, and want of cleanliness, have been regarded as causes of Scrophula. With respect to the *first*, where it does not furnish sufficient nutriment, or even of a proper kind, and is joined with want of exercise, by encreasing that debility, connected with the predisposition to the disease, it may act as an exciting cause, and especially of one form of it, the Mesenteric Consumption, (or Tabes Mesenterica.) In regard to the *second*, as it immediately affects the state of surface, it may also have an influence, particularly when joined with moisture, which we consider, in all cases, as highly favouring the appearance of the malady.

Many other causes of this disease have been enumerated by authors; and, indeed, whatever deranges the system, in a high degree, will produce it, where a strong predisposition, prevails; but where the mode of action does not seem clearly ascertained, or is purely accidental, we have thought proper to omit the enumeration of such causes, as only introducing confusion into the history and nature of the disease.

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SECT. 5. *Of the Prevention of Scrophula.*

THE prevention of Scrophula has employed the attention of physicians, as an object of the first importance, from their being unable to effect a cure; and, in imitation of nature, since the external forms of the disease are known to depart, on the solids acquiring a certain vigour at the age of puberty, they have chiefly employed *tonics*, with this intention: The principal *tonic*, as a preventative, is *cold-bathing*; and as it acts so strongly on the surface, there can be no doubt, from the theory of Scrophula delivered, of its happy effects, in this view. It is indeed one of the methods pointed out in savage life, to fortify the constitution, and to secure it against the effects of heat and cold: It must, therefore, be powerful in checking a disease connected with vicissitudes of atmosphere.

Next to *cold-bathing*, may be mentioned preserving the patient, as much as possible, in an equal degree of temperature, or guarding against the effects of sudden changes, by warmth of dress, &c.

To these two, which are the most essential, avoiding several of the occasional causes of the disease, by attention to diet, may be added, exercise, and cleanliness. One internal form of the

disease, Pulmonary Consumption, requires a more particular mode of prevention than has been mentioned; for wherever the slightest symptoms of a threatened attack appear, at the critical period of life, since the preservation of an equality of temperature, in this climate, is impossible, the removal to a warmer region, as the only sure means, should be immediately enjoined.

Indeed, wherever cold and wet prevail, the various forms of this disease will always be found to shew themselves in a high degree.

SECT. 6. *Of the Prognostic in Scrophula.*

IN forming our opinion in Scrophula, we are to be determined by three circumstances; its seat, its extent, and its particular species or nature.

With respect to the *first*, when attacking the external glands, there is little or no danger, while all the internal forms of the disease may be regarded as ultimately fatal. Of Water in the Head, we have no instances of cure that can be depended on. Of Pulmonary Consumption, the instances are few; and from these we can draw no general conclusion: At the same time, as formerly mentioned, it has been found both cured and suspended by madness, pregnancy, and even by wounds and eruptions. Of Mesenteric Consumption, a single instance of cure, when we reflect on the seat of the affection, is not to be looked

ed for, except in the very commencement. Even the prognostic, in the external affections of the joints, is unfavourable; for, in the numerous cases of White Swelling, how often is amputation the only resource?

In regard to its extent, even in the external forms of Scrophula, where the ulcerations are numerous, there is always danger, and Hectic is frequently formed. There are, at times, instances of the system being fairly worn out from its external ulcerations.

On the *third*, it may be observed, where the disease is hereditary, it is always to be expected more obstinate, than where it arises simply as a consequence of other diseases, or from apparent accidental causes.

SECT. 7. *Of the Scrophulous Hectic.*

NO conclusion can be drawn from the symptomatic fever in Scrophula, as there is generally none in the external glandular forms of the disease, except in the White Swelling, till the *last* stage; and even in this *last* stage of these external forms, it fluctuates according to circumstances, and is by no means constant; while in the internal, it takes its peculiar form from the different species. Thus, the Hectic of Pulmonary Consumption is different from that of Water in the Head, and of Mesenteric Consumption.

PART

PART III.

OF THE TREATMENT OF SCROPHULA.

HAVING now considered, at some length, 1st, The various modifications of disease which Scrophula assumes; and 2^{dly}, The specific circumstances that mark its action, we proceed to the last and most important part of the subject; the consideration of the different modes of treatment, which have prevailed at different periods of medical history for its cure.

In entering upon this, we shall not offend the common sense of the reader by any detail of the *Royal Touch*, a remedy in vogue in England, from the time, we are told, of Edward the Confessor to that of Charles I. who, from the records of the Chapel Royal, employed this charm, it is said, on no less than 92,107 persons; a proof, at once, of the weakness of the Prince, the frequency of the disease. and still more of the servility, if not ignorance of practitioners, who could seriously sit down to relate such cures*. Neither shall we dwell on the

* A form of divine service was expressly used, at the time of applying the Royal Touch, in the time of Henry VII. as may be seen in the Literary Museum. An extract from it will be found in the 13th Vol. of the New Annual Register for 1792.

more modern deceit of *Morley's Vervain necklace*, a remedy applied, according to his own account, to no less than 5000; but equally ridiculous, if not more so, than the former.

It will be more to our purpose to examine the cure of the disease, as conducted by Medical Practitioners, when we shall find a great deal has been done with very little effect. In conducting it, also, the practice has been often irregular, and proceeded very much on random experiment. We may, perhaps, justly say, that the whole *Materia Medica* has been ransacked for specifics against Scrophula; and every substance possessing any sensible powers, has, occasionally, acquired a reputation for palliating one or other of its symptoms, if not actually removing them. But from the history of the disease given, in the preceding part, it will appear, that the powers of every remedy are suspicious, when applied solely to the cure of its external forms, from their spontaneous departure, under any management at a certain period. To judge, therefore, of the real efficacy of medicine, immediate, and strongly marked obvious effects, should arise under its use.

From the preceding view of Scrophula, the circumstances that seem, in every case, to prevent its cure are,

1. *Want of cohesion of solid.*
2. *Deficient action of vessels, and*
3. *Peculiar Morbid irritation.*

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We shall endeavour then to arrange the treatment of the disease as it has been, either *constitutional, local, or combined*; and, by referring to these morbid circumstances specified, we shall be able to judge how far each of them has been competent to effect its cure.

SECT. I. *Of the General Constitutional Treatment.*

THE general constitutional treatment of this malady, seems, as far as we can judge, to have proceeded on the four following principles, viz. either,

1. *To correct or dislodge the prevailing acrimony.*
2. *To excite peculiar action of vessels,*
3. *To increase the general tone of the system, or*
4. *To remove irritation.*

Of the remedies employed on the first principle, to correct the prevailing acrimony, one of the most celebrated has been the use of *mineral waters*: Different watering places have acquired a reputation in the cure of this disease; and some, such as Bristol, for certain forms of it. On their general operation, it may be observed, with Dr Cullen, that all kinds of them have been had recourse to, and with equally good effects: Their success, therefore, he attributes to their simple elementary part, as washing out the lymphatic system.

system. This opinion, although highly respectable, I am afraid, is purely hypothetical, and the benefit derived from their use, is rather to be ascribed to the period of the season at which they are usually drank; and also the length of time during which they are continued; for, in the course of it, an alleviation of the disease, at least of its external forms, spontaneously occurs by the changes of the constitution itself, without the aid of any medicine whatever.

Where mineral waters are employed, it may be proper to add, that, in recent cases, the *Saline* and *Chalybeate* have been preferred; and in those of long standing, the *Sulphureous**.

* The rules for drinking the different Mineral Waters are best learned at the Fountain-head. It may be useful, however, to enumerate the principal places, in Britain, resorted to for the cure of this disease.

Of the *Saline* Waters, the principal are

Scarborough in Yorkshire,

Epsom in Surry,

Cheltenham in Gloucestershire,

Dog and Duck in the neighbourhood of London.

Of the *Chalybeate*, the chief are

Tunbridge in Kent,

Malton Spa in Yorkshire,

New Tunbridge near Iffington,

Malvern in Worcestershire.

Of the *Sulphureous*,

Harrowgate in Yorkshire,

Moffat in Annandale,

Pitcaithly in Perthshire,

St Bernards in the vicinity of Edinburgh.

The *Calcareous* Minerals fall to be noticed under the cure of Consumption.

To the same principle may be referred the internal use of *sea water* in Scrophula. From all the experience I have ever had of this remedy, I never perceived the smallest benefit derived from its use; on the contrary, by carrying it too far, the system has been weakened, by the discharges it produced, and the disease rather aggravated than relieved: It, therefore, where used, should be given only, so as gently to loosen the belly; and when creating a distressing degree of thirst, which it often does, it should be mixed with fresh water; even Dr Ruffel, the great advocate for this remedy, seldom used the sea-water alone, or trusted to its specific powers; for he employed, along with it, small doses of mercury, or else the bark. Like many remedies, it possessed for a time, an undeserved reputation; and if it ever does service, it must rather be as a preventative, than when the disease is formed.

But leaving those remedies prescribed by practitioners, on the general idea of correcting *acrimony*, without specifying precisely its nature, we come next to examine those adapted to correct a *particular species* of it, viz. that *acidity* on which the disease was for long supposed to depend. A principal one, on this theory, was *lime water*. In the weak state of the stomach and bowels, which attends this disorder, where a superabundant acid may be occasionally present, or a thick viscid slime, retarding digestion may be collected, *lime-water* has certainly often proved useful as a palliative;

tive; but this, I consider as the full extent of its powers. It may be used to the quantity of a pint a day, drank at different times. The same observation may be applied to the different *alkalis* that have been introduced into Scrophulous practice, as the *Sal Sodæ*, &c. ; to the several *soapy medicines*, and to the class of *absorbents*, which have all had repeated trials in the cure of this malady, but without success: As palliatives of particular symptoms they are useful, but no more.

On the opposite theory, also, of *alkalency*; even *acids*, though less common than the former medicines, have been employed. Thus the *Vitriolic Acid*, in a dilute state, though possessed of no virtues over the disease, by acting as a tonic, has been frequently serviceable.

When, by these various medicines enumerated, practitioners had failed to correct the *acrimony* of Scrophula, an attempt was next made to dislodge it from the system; and this they endeavoured to accomplish, by exciting the action of the different excretory organs, more especially those of the *skin* and *kidneys*.

We shall first enumerate the medicines whose action is determined to the skin.

The medicines used with this intention, have been chiefly *the different woods*, viz. the *Guaiac*, *Sarsa*, *Sassafras*, *Serpentaria*, *China*, *Mezereon*, &c. ; though sometimes exhibited in substance, the *Decoction of Woods*, the *Sarsa Decoction*, and what has been termed the *Lisbon Diet-drink*, are

their principal forms : On the last form, indeed, whole volumes have been written ; and it has been supposed a certain specific in one of the most incurable forms of the disease, Pulmonary Consumption : but it is by no means found so in this climate ; and the accounts of the physicians at Lisbon are very much to be doubted, the more so, as we find no two forms of the prescription alike. The *Guaiac*, in *lime-water*, has been much recommended, under the name of the *Aq. Benedicta* by the earlier practitioners, against the external forms of this disease. The *Mexereon* is, perhaps, the most active article of this class : But all these remedies, we may safely say, have failed of curing the disorder, and no dependence is, therefore, to be placed on them, even though distinguished by the pompous appellation of *sweeteners* of the *blood*.

From the skin we proceed next to those remedies which, in dislodging acrimony, determine it by their action to the *kidneys*. They are, chiefly, the different neutral salts ; and they continue still to be very much employed in this disease, as the *Soluble Tartar*, *Cream of Tartar*, the *Vitriolated Tartar*, *Regenerated Tartar*, the *Polycherst Salt*, the *Vegetable Æthiops*, the *Burnt Sponge*, &c. This last article has been much more recommended than any of the rest, in the discussion of Scrophulous Swellings, since the practice of Dr Bate of Coventry was published by Mr Wilmer : but though occasional cures, it cannot be denied, have been made with it, yet,
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in the greater number of cases, it must also be admitted, it has been equally ineffectual with any other medicine exhibited. Some peculiar circumstances must have, therefore, attended these successful cases on which their more fortunate termination depended. This has been ascribed to the form of using the remedy, by some practitioners; and they have preferred it given as a lozenge, which, if the disease is seated near the mouth or throat, by its slow dissolution, has a greater chance, they think, of reaching the contiguous morbid part in an unchanged state. The Neutral Salts are exhibited here in small doses, so as to avoid any laxative effect, and to preserve the determination of their action to the kidneys entirely. On the operation of all such remedies, it may in general be observed, that if they are to correct the state of the fluids, by drawing off certain parts of them tainted by the disease, their success is very uncertain and precarious; *1st*, As it is not easy to ascertain the actual change in the state of the fluids in diseases; and *2^{dly}*, As on their introduction, such remedies will be much affected by the particular disposition of the fluids of the stomach at the time; so that it is doubtful whether their operation, in acting on any disease, can ever extend beyond the first passages.

Such are the principal remedies of the *first* mode of cure, which is likewise the most ancient, and has been the most generally adopted in practice. Though this theory has now greatly declined with physicians, it is still the popular or prevalent

prevalent opinion of the multitude; and correcting or dislodging the *mass of humours*, as they are termed, is the approved language in talking of this malady: But the success of such an attack on the state of the fluids, in the cure, practitioners have found, by experience, has not been great. Viewing, therefore, the morbid disposition in Scrophula, as connected with an obvious want of energy, or excitement in the part; they have been led next to attempt its treatment on a different principle, viz. by inducing a peculiar action of the vessels, so as to effect, either the resolution or suppuration of the indolent swelling.

The first remedy that recommended itself for this purpose, was *mercury*. It is given here in small doses, either in the form of *Calomel*, *Æthiop's Mineral*, or *Plummer's Pill*, more rarely in that of *Corrosive Sublimate*, in a *highly diffused state*, such as it exists in the *Maredant's Drops*, *Ward's White Drop*, and other empirical medicines of the same kind. The chief point, in exhibiting mercury here, is to give it in such small doses, as to produce no evacuation; perhaps hardly any sensible effect; and to continue it long on this plan. It is alledged, much service has been done in resolving the swellings in the external forms of the disease, at its commencement. This practice has been inculcated very much in a late publication by Mr White, surgeon in London, who prefers the *Calomel*, (*Sexies Sublimat.*) a preparation which he considers as having a peculiar quality in removing obstructions

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Calomel, good

obstructions of the lymphatic glands. His dose is very small, given at bed time, and occasionally purged off by some gentle laxative, at the distance of every fourth or fifth day. But, on this practice, we may remark, that if it is serviceable in the early period of the disease, it is entirely confined to it, and it does not extend, either to a more advanced stage, or even to any other than the external forms of the malady. Hence, we find the first medical authorities, with much justice, reprobate the use of mercury at any time whatever.

On the same principle with mercury, *antimony* became equally eligible, as a remedy, in the cure of this disease; and it has been accordingly tried, both in its crude and chemical state. The preparations most confided in here, have been the *Antimonial Wine*, and *Tart. Emetic*; and they have been commonly joined with some alterative decoction, to determine their operation to the surface. Not unfrequently they have been united with the former mineral. Where this mode of practice has been beneficial, it has been in that species of Scrophula, which we find, at times, arise as a consequence of other diseases: But from all the experience with *antimony* I have ever had, I must say, that I have found both it and *mercury* do more harm than good, in every case of genuine Scrophula.

A more modern remedy, referable in its action perhaps to this head, is the *Muriated Barytes*,
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(Barytes Muriata), introduced into Scrophulous practice by Dr Adair Crawford. From his account it promised to be a specific for this malady ; but the experience of other practitioners has not realized Dr Crawford's well founded hopes, from the recital of his own cases. It has totally failed, with them, of displaying those boasted powers, though conducted with every attention to Dr Crawford's rules. The dose exhibited must be small, from five to twenty drops at a time. Indeed few patients can go so far, from its violent effects on the system. Dr Crawford, however, has the merit of having introduced a new medicine, possessed of very active powers, and though these powers may be insufficient for the complete cure of Scrophula, yet they may, perhaps, at times, be highly useful in relieving some of its symptoms.

To these articles of the mineral kingdom, is to be added a vegetable production whose action is somewhat similar. It is the *Meadow Anemone*, (or *Pulsatilla Nigricans*), an acrid substance, said to possess strong discutient powers. It has been most serviceable in removing the specks that succeed the Scrophulous Ophthalmia. Its operation is attended, at first, with increased pain in the diseased part ; and it is used, either in the form of the distilled water, given to the extent of half an ounce a day ; or, in the extract, to the length of four or five grains.

We come now, from this *second* set of remedies, to examine the *third*, or the class of *Tonics*, introduced

duced for the cure of this disease, *first*, on the idea of its arising from simple debility, and that invigorating the system, would prove a certain means of its removal; and next, when failing in this desired effect, continued on another idea, that the patient will out-grow the malady, if the constitution is kept up under its ravages.

The *first* and most powerful of this division, is *cold-bathing*; particularly *sea-bathing*. It has been recommended to continue it here, both in winter and summer. That it will have considerable influence in invigorating the system, cannot be doubted; but it has by no means, alone, proved capable of removing the local effects of the disease, when once formed. It is alledged also, by some practitioners, that, though during its continuance, the disease is somewhat relieved, it returns with increased violence on its being given up. It is, therefore, more suited, perhaps, to act as a preventative, than as a means of cure: At least, in order to be successful, it must be begun very early in the disease, and persevered in with much regularity; even for a course of years: in which case the formation of the Scrophulous Swelling may be counteracted.

After *cold-bathing*, comes properly to be noticed the *Peruvian Bark*. In this disease, it owes its first recommendation to the authority of Dr Fothergill; and from the experience of this intelligent physician, it has shewn considerable effect in checking the progress of the malady, al-

though not in curing it. At the same time, even these good effects are confined solely to the milder external forms of it; for, in all the internal species, as well as the affections of the joints, it evidently does mischief. The best form of prescribing it, in this disorder, is the *lime-water tincture*; and in all the external forms, to be successful, it should be largely employed, and long continued.

After the *bark*, on an authority still more respectable, viz. that of Dr Cullen, we are induced to mention the use of the *Coltsfoot*, (or *Tussilago*); a strong decoction of the leaves, or where it can be had, the real expressed juice, is the form preferred by him. This author's scepticism, as to the action of remedies in general, in the cure of diseases, adds much weight to his recommendation here.

Various astringent vegetables, as well as the last, have, at different periods, had a reputation as *specifics* in this disease; but none of them have stood the test for any length of time, and are justly gone into neglect: Of these may be enumerated the *Vervain*, (Verbena,) *Figwort*, (Scrophularia), &c. From their astringent principle, they are undoubtedly somewhat tonic; and they have been found, on trial, most useful, when joined with some article of the Narcotic tribe.

Of the *Mineral Tonics*, *steel* is the principal one that has been prescribed in Scrophula. We have already taken notice of it, in the form of the *Chalybeate Mineral Water*, in which its powers, as a tonic,

tonic, are certainly weak, and its operation in that form is, therefore, not referable to this class.

When used here, it is chiefly in the form of the *Rubigo*, or Rust; and the morbid acidity, which is generally present in the stomach of Scrophulous patients, renders it an active tonic in this disease. It is often joined with the *bark*, or *Aromatics*, and is then more successful. The *Martial Flowers* is another preparation, well suited, as a tonic, to the circumstances of Scrophula, and has been repeatedly employed, with advantage, in suspending the progress of the Swellings: It should be prescribed largely, in order to act with effect.

From the action of tonics, we come to examine the *last* set of remedies introduced for the constitutional treatment of this disease: Those whose operation is confined solely to the principle of obviating *morbid irritation*.

The *first* here is the *Hemlock*, (or *Cicuta*), which, from the experience of the most intelligent practitioners, has been highly extolled in this, as well as in many other painful chronic affections, attended with ulcerations. From its very active nature, it is rather unfit to be employed in very young cases, being apt to excite disagreeable symptoms. In obstinate instances of Scrophulous sore eyes, it is attended with the happiest consequences where largely prescribed. In incipient Consumption, it has been known also, at times, successful. But after all these proofs of its utility, we can hardly

go so far as to term it a specific for this disease: It may be justly esteemed an useful palliative, and depended on as giving considerable temporary relief. Where combined with the *Coltsfoot*, (or *Tussilago*), it has been most beneficial.

After the *Hemlock*, we may consider under one view, the *different Night Shades*, (or *Solana*), viz. the *Deadly Night Shade*, (*Belladonna*), the *Garden Night Shade*, (*Solanum Officinar.*) and the *Bitter Sweet*, (or *Dulcamara*). They are all highly narcotic, particularly the first. Their action here, must, therefore, differ very little, except in degree, from that of the *Hemlock*, *Henbane*, and other articles of the same tribe: But the operation of the *Hemlock*, in consequence of being more in practice, is better understood; and it should, in general, be preferred where narcotics are employed.

Before closing this division, a remark or two may be also made on the use of *Opium* here. In large doses, it is said to have produced beneficial effects in Scrophula: I have often given it a fair trial; but from its internal exhibition, I never saw the smallest benefit derived, or that it possessed powers over the disease: When externally applied, however, it has frequently healed the ulcerations in that species of Scrophula which arises as a sequel of other maladies. It is even most successful here in the form of the *Laudanum*.

SECT. 2. *Of the Particular Constitutional Treatment of the Internal Species.*

HAVING examined the general constitutional treatment of Scrophula, we now proceed to detail the management of its different internal Species; or to mark those peculiarities in conducting their cure, which could not enter so minutely into the preceding view of the subject. And, *first*,

OF THE TREATMENT OF WATER IN THE HEAD.

FROM what was observed on the incurable nature of this form, more may be done to prevent its attack, than really to effect its cure. For this purpose *Issues* have been much recommended near the seat of the disease, soon after birth, in those families, who either shew a strong predisposition to Scrophula, or who have already lost children from this malady. The success of this measure, is confirmed to us by the experience of several of the first medical authorities in this country; and it is an application to which there can, at least, be offered no material objection. A small drain should, therefore, be opened in the head, immediately after birth, and continued till the danger of an attack is past.

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But when the disease is actually confirmed, and its presence denoted by the symptoms enumerated in its history, two indications for treating it have been commonly formed.

The *first* is to remove the *Plethoric state*, or fullness of the vessels in the head, justly considered as the cause of the effusion that ensues.

The *second* is to *excite absorption*, so as to dislodge the quantity of accumulated fluid already present.

The most powerful means of executing the first of these intentions, is *blood-letting, general and topical*, especially the last; but, at the same time, I must confess, that I have never seen the least advantage from bleeding in this disease. Blisters have also been applied with the same view, and should be frequently repeated: From them, indeed, some temporary relief has been experienced at times.

But the *second* indication, is the one, on the accomplishment of which, practitioners have rested their chief hopes of success for a cure. They have attempted to perform it by the use of some *powerful diuretics*, as the *Cream of Tartar*, the *Squill*, the *Fox-glove*, (or *Digitalis*), &c.; but still more frequently, and with greater confidence, they have employed for this purpose *Mercury*, exhibited, either in small doses of *Calomel*, so as to operate without any strong action, or in slight unction; and it has even been advised to introduce the *Calomel*, in this case, by unction from the inside

side of the mouth, as a more ready way of rendering it active in the system.

We are extremely doubtful, however, if the cases of cures by this mode of practice, or the use of *Mercury*, as related by authors, can be depended on; and we rather believe, since they differ so widely from general experience, that these authors have been mistaken in the disease.

OF THE TREATMENT OF MESENTERIC CONSUMPTION.

THE practice in Mesenteric Consumption is less fixed than in the preceding form of the disease, as the symptoms of it are, for long, from the circumstances narrated in its history, more uncertain. When convinced, however, that this malady really exists, the rules to be laid down are,

1. To resolve, if possible, the enlarged state of the glands; or, if this should prove unsuccessful, and ulceration ensue;
2. To attempt correcting the specific taint, and mitigating the Hectic which attends it.

The former of these indications has been recommended to be executed here, as elsewhere, by the prudent exhibition of *Mercury*, especially *Calomel*, in small doses. It is esteemed by Mr White, one of the latest writers on the subject, as almost a certain specific for this, more than any any other form of Scrophula. Friction of the belly should also be joined with it, frequent and regular,

regular, so as to excite the action of the glands; or the *Mercury* may be even introduced by unction in this way, united with the *Volatile liniment*. The exhibition of a dose or two of some of the *Neutral Salts*, particularly sea-water, should occasionally intervene, with the view of washing out the intestines, and the *Mercury* be again resumed.

When this indication unfortunately fails, and the disease proceeds to ulceration, all that then remains, is to attempt keeping up the strength by the use of *tonics*, suited to the disease, as is enumerated in the general constitutional treatment; and employing, at the same time, the other remedies, considered as specific against ulcerations from Scrophula.

OF THE TREATMENT OF CONSUMPTION OF THE LUNGS.

THE treatment of Pulmonary Consumption, is one of the most important objects of practice. It has more, than any other form of the disease, employed the attention of physicians; and both *medicine* and *regimen*, have been alternately called in, with equal inefficacy, except in a very small proportion of cases, to accomplish a cure.

We shall, however, detail the different modes of practice, had recourse to at different periods; and then point out a few facts as a foundation for our future procedure.

Conceiving

Conceiving the inflammation of the tubercles, the cause of the purulent state, the most general practice has been to prevent its formation by the most active Antiphlogistic means, viz. *evacuations, refrigerants, and a mild regimen*; and, in conformity to this idea, the disease has been divided into two stages, the Inflammatory and Purulent, a guide in this mode of practice.

Of the *first* means, or *evacuations, bleeding* deserves the principal notice. It has been very early, and very liberally employed; but it has never produced any farther effect, than giving, at times, a temporary alleviation to the difficulty of breathing, at the expence of the constitution at large, so as to produce a weakness not easily repaired. It is a remedy seldom proper in Consumption, where the waste always proceeds too rapidly. From dissection, it appeared also, that the tubercle advances commonly to suppuration; or, rather, to form matter without such increased symptoms of inflammation, as can be alleviated by venesection, in the same way as the Scrophulous swelling does elsewhere. In the Scrophulous habit too, there appears rather a defect, both in the quantity and quality of this fluid, as a natural consequence of its flaccid state, and of its want of that energy of the vital powers, conspicuous in other constitutions. Indeed, before any symptom of Hectic appears, evident marks of inanition often betray themselves in the patient's very looks. Hence, in late practice, it is very
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sparingly, if at all used, and only confined to incipient cases, when the distinction betwixt the Consumption and Catarrh, is not so clear; or where there are very urgent and extended symptoms of Topical Inflammation.

Next to *Bleeding* comes the use of *Blisters* and *Issues*.

With respect to the *first*, if they are applied repeatedly, in order to act as a stimulus, and to remove the internal, by exciting external inflammation, they can be attended with little success towards a cure of the disease, from the fact already observed, that the tubercle passes on to the purulent state with such slight marks of inflammation, that its progress can be little arrested by this, or any other antiphlogistic remedy. They may remove pain of side, or chest; but this is the extent of their utility. If considered as an *Issue*, however, they may tend somewhat to give a temporary relief, by producing a determination of fluids from the seat of the disease; but even this relief can only be procured by an increased weakness; while having no radical effect on the disease, they will occasion its proving sooner fatal. This observation we may apply to every *Issue*, whatever its form; and the analogy, of Consumption being cured in consequence of large wounds, will not hold here; for where this has taken place, as in the case of amputation, the effect has been sudden, very considerable, and capable of changing, at once, the morbid disposition of
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the whole system, which can never happen by the trifling discharge of an *Issue*. If, then, they are ever to be employed, they will be better suited to the chronic than the acute species of the malady.

A more general *evacuation*, attempted for the cure of Consumption, has been that by the *skin*; and from the acknowledged connection or sympathy betwixt the skin and lungs, it has promised more success than any other. The method of exciting this discharge, and the degree to which it has been carried, have varied much, according to the particular views of different practitioners.

The first and simplest means of exciting it, has been by *causing* the patient in *flannel*, which should be worn next the skin, night and day; preserving him, at the same time, from much bodily exertion, except such exercise in the way of gestation, as may tend to promote it.

To render the effects of these means still more powerful, the occasional exhibition of *nauseating medicines*, as small doses of *Ipecacuban*, or some mild *Antimonial* has been recommended; and some physicians carrying it still farther, have extolled even *smart vomiting* at this period of the disease. For this purpose, we find Dr Simmons, in particular, recommending the use of the *Blue Vitriol*. By his practice, it is to be given in the morning, after previously drinking a portion of warm water, in the quantity of from two grains to twenty, according to the age and strength of

the patient. This medicine, by acting solely on the stomach, he remarks, gives no trouble after its operation, like the *Ipecacuban* or *Antimony*; and being possessed also of an astringent nature, no weakness of the organ succeeds it. Where employed twice a-week, the best consequences, he informs us, have resulted from its use. To all these remedies, however, one forcible objection is to be offered; that they are simple palliatives; that they merely alleviate somewhat the violence of the symptoms, while its progress is still equally advancing, and the morbid weakness daily increasing. Thus the patient, flattered after them, by a short temporary ease, is spinning out a precarious and uncomfortable existence, without their tending any thing to a radical cure of his complaints; for it is hardly to be supposed, that the stimulus of vomiting can have any power in resolving the tubercles. It is, indeed, too severe to be tonic, and too temporary to be useful if it were so.

Next to *evacuations*, the *second* means we enumerated in this stage, against the inflammation of the tubercles, was the use of *Refrigerants*; and of these, the *Vegetable Acids* have gained the preference. By the late Sir John Elliot, the *Acid of Lemons* was even regarded as a specific in this disease. *Ice Cream* has been lately introduced, we are told, with the happiest effects in checking the irritation of the Cough, and abating the violence of the Hæctic. A diet of certain sub-acid fruits
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has afforded also, at times, instances of cure. Of these, the *Grape* has been particularly mentioned; and, when joined with favourable circumstances of external situation, as a mild atmosphere, and the use of exercise, it may be somewhat confided in. Of the *Mineral Acids*, none but the *Vitriolic*, in a very dilute state, has been employed here: It is recommended by De Haen; yet it has not met with the same encomiums from other practitioners.

Of the *Neutral Salts*, the *Cream of Tartar*, though it has been used here, is dangerous, from the natural tendency of the disease to looseness, (or Diarrhæa). The *Nitre* has been greatly extolled by Dr Simmons, for the cure of a particular symptom, the Spitting of Blood, (or Hemoptysis); as also the *Sea Salt* for the same, by Dr Rush.

But the use of none of these remedies, we can consider as acting, in the greater number of cases, towards a permanent cure of the malady; and where they have been so fortunate in their effects, other circumstances, I am afraid, in the situation of the patient, have been overlooked, to which the cure, perhaps, deserved to be ascribed.

The *third* means, in our enumeration, for preventing the inflammation of the tubercles, was a *mild regimen*, consisting entirely of *Vegetables* and *Milk*. The latter, indeed, has been almost solely trusted to, as a specific remedy for the cure of Consumption, from the time of Hippocrates to the present day: And the opinion, of this diet's being de-
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void of irritation, and conveying to the system, at the same time, much aliment, in an easy assimilated form, established its propriety as consonant to reason and common sense. But late experience, stronger than any theory, has clearly shown that such diet, carried to the lengths it has generally been, has been attended with the worst effects. In Consumption, in the temperate regions, it may not, perhaps, be so immediately hurtful; but, in this country, wherever it has been rigidly adhered to, it has certainly hurried on the progress of the malady. The quick declension of the disease to a stage of extreme debility; the manifest appearance of the habit in which it occurs; and the crude watery secretions which this habit displays, are strong proofs that a weak and impoverishing diet, is not the mode of restoring that energy to the system which it stands in need of. We have, indeed, instances of the cure of this disease, under the use of such a diet; but it has, at the same time, been conjoined with circumstances of a strong tonic nature, as exposure to the open air, and much exercise, which made up by their invigorating effects, for the injury which this extreme of low diet might have occasioned. Besides, as an additional objection, it may be observed, that the victims of Consumption, are found chiefly to be those who live in a state of civilization, and are confined, for the most part, to sedentary occupations: These persons are accustomed, generally, to what is termed *good living*. In pre-
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scribing, then, to such patients a *Milk* and *Vegetable* diet, physicians have not attended to the immediate violence they did their constitutions, by subjecting them, all at once, to a mode of living so different from that to which they had been accustomed, and at a time too when an increasing state of weakness prevailed; for we may here remark, that the wonders of a *Milk diet*, have been chiefly wrought in those habits, in which a strength of original stamina remained; not in the weak flaccid frame of consumptive patients. Even in many chronic, and almost incurable diseases, we know that the *Salt of Milk* has formed a successful prescription. At the same time, in the choice of the diet of consumptive patients, there can be little doubt but that simplicity should be studied; and to this the attention should be paid. One article, or at least one kind of aliment, should, if possible, be regularly and solely persisted in; and, in its choice, *three* circumstances should claim regard: *1st*, That the tone of the stomach be kept up by it; *2d*, That the nutrition of the body do not decline; and *3d*, That it produce, at the same time, little irritation. A *Milk* and *Vegetable* diet, is improper on the *first* account, as many stomachs cannot digest it at all; and if brought, in time, to agree better with it, still the digestion that ensues continues imperfect. *Women's-milk* is certainly less prejudicial than any other. *Cow's-milk* disagrees, in general, more than any sort; and requires, either an addition of *lime water*,

water, or else to be boiled, to lessen its ascendency. *Goat's-milk* can only be used in the form of *whey*, from being so apt to coagulate. The same takes place with *Ewe's-milk*. *Ass-milk* can never be employed in such a quantity, as to form a principal part of diet. It is a cooling ascendent liquor, which may be useful in Hectic, but entitled, as a specific, to no farther praise.

Instead, then, of a *Milk* and *Vegetable diet*, experience has led physicians to adopt a different plan of treatment, by combining it with the use of animal food, such as is nutritious without being highly stimulant. *Shell-fish* has been found, in particular, to answer this purpose best, and has been, therefore, strongly recommended. Thus, something of a middle course betwixt the two extremes, from attending to the nature of Consumption, is pointed out; and if it should not tend to cure the malady, or even arrest its progress, still the feelings of the patient will be more comfortable under it, and the symptoms affecting the stomach and bowels, less violent, even to the last.

But, in spite of this antiphlogistic treatment, however judicious and powerful, from the inevitable progress of the disease in most cases, the purulent stage has unavoidably come to be formed. A change in the mode of practice has accordingly ensued, which we are next to examine, viz. by directing it to correct the *specific taint*, and thus, though too often without success, heal up the ulceration.

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The means employed for this purpose have been various. One of the first that suggested itself, from analogy of their effects externally, was the use of the *Natural* and *Artificial Balsams*; either given by the stomach, or introduced by vapour into the lungs. In the latter form, they have afforded some temporary relief to the difficulty of breathing; but, in the former, from their heating nature, they have always increased the symptoms of fever and inflammation, and proved, universally, a means of irritation, without possessing the smallest power to check the progress of the ulcer. The least exceptionable of them is the *Tar Water*. The *Myrrh*, however praised by some, I have found always to fail.

Some *Mineral Waters*, particularly the Bristol, have been recommended with success in this stage of consumption. From their gentle astringent nature, they cannot fail to be useful, in palliating certain symptoms of the disease; but they are never to be considered as possessing powers capable of completing a radical cure. Where cures have taken place, during their use, they must have depended on a combination of other circumstances, which have been overlooked*.

* The Mineral Waters in Britain, alledged to be useful in Consumption, are

Bristol, in Gloucestershire,

Bath, in Somersetshire,

Matlock, in Derbyshire,

Buxton, in Derbyshire.

In the trial of different medicines, with a specific view against the ulceration, *Mercury* has not been omitted. If, however, it is hurtful in the external forms of the disease, it must be doubly so here. In every case in which it has been applied, I may confidently say, it has hurried on the termination of the malady, by thinning and dissolving the solid, and extending the progress of the ulceration. I cannot, therefore, account for Mr White's prejudice in its favour; when he observes, that the milder preparations may be exhibited with the greatest safety. For, though the apparent irritability of the system is not great, it is here a dangerous medicine; nor will its combination with an *Antimonial*, lessen much its hurtful tendency. If it has succeeded in Consumption with him, I may justly assert, it has failed to answer the expectations of every other practitioner.

From the benefit derived from the *Bark* in External Scrophula, its utility, as well as that of several vegetable astringents, as the *Coltsfoot*, (*Tuffilago*), &c. has been also contended for here. There is, indeed, little doubt, that its exhibition, in considerable quantities, has often checked, for a time, the violence of the Hæctic. But the power it has displayed is by no means permanent; for the disease appears to acquire, soon after, increased strength, and the Tuberculous state of the lungs would seem to be extended by it, as well as by the action of every other astringent; so that,

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over the ulceration, such medicines appear to have no specific effect, but the reverse.

Fixed air is a remedy that has been often employed in this stage of Consumption. By some respectable physicians, it is asserted to have performed actual cures: But, though its powers, I have found always insufficient for this purpose, there cannot be a doubt, but that in the greater number of cases in which it has been inhaled, it has lessened somewhat the symptoms of Hectic, and amended also the factor of the discharge.

In the same way, the vapours of *Æther*, dropt into warm water, have been received into the lungs, with some advantage, as also the *steams* of *warm water itself*. In the *first* stage of the disease, when there prevails a hard dry cough, the relaxing effect of the warm steams on the lungs, may lessen the irritation, and abate its violence: But these are only weak temporary effects, and do little towards a cure of the malady.

An application in this disease, of a somewhat singular nature, employed by the Spanish physicians, must not be omitted. It is the *Earth Bath*, much used, we are told, in the provinces of Grenada and Andalusia. Though originally confined entirely to this disease, of late its use has been extended to several others, particularly the Scurvy. The method of applying it is this: A pit is dug in a piece of ground where no plants grow, sufficiently large to bury the patient to the chin, and the earth is carefully pressed in about him,

on all sides, when interred, that its full effect may take place. The patient is continued in this situation till he shiver, or feel uneasy; and during the time he is shut up, he is supplied with some cordial medicine: On being taken out, he is then laid on a mattrafs, and carefully covered up; soon after which he is strongly rubbed with an ointment, in doing which, the friction, is, no doubt, the chief advantage. This treatment, we are told, has been successfully repeated by some physicians in other quarters, in some few instances. We can hardly suppose its action to depend, as generally explained, on the influence of the effluvia from the soil. From the succeeding application of warmth and friction, which are considered so necessary, it would appear that the benefit arises from the principle of *reaction*, and that a powerful determination to the surface ensues, relieving somewhat the affection of the lungs.

On the same principle, may be instanced a case of the cure of consumption in the West Indies, by means of the *Cold Bath*. It occurred, we are told, in a Negro, whose constitution retaining much innate vigour, was capable of this powerful *reaction*; but it is a dangerous remedy, and never to be employed in weak habits.

Such are the various remedies employed in Consumption; and, from a review of their effects, as detailed in the preceding account, the inefficacy of both *medicine* and *regimen*, in the general run of cases,

cases, comes to be established in its removal. Regarding them, then, in a secondary light, or simple palliatives of the disorder, a more important indication in the treatment, very early presented itself to physicians, founded chiefly on a consideration of the peculiar seat of Consumption, a part so powerfully affected by the state of atmosphere; and also from observation of the known effects of the latter, in the external forms of Scrophula. This indication consists in the choice of a situation for the patient, of a certain high temperature; and to keep it up uniformly to that degree, so as to exclude the effects of variation, if possible; but more particularly still, those of cold. As this can only be properly done by *change of climate*, the latter has been regarded, for long, as an infallible cure for this disease. Hence the removal to a mild atmosphere, forms the fixed prescription for this malady; and certain situations, from their supposed efficacy in this view, have long acquired the distinguishing appellation of *Medical Climates*, in our own country, as well as on the Continent. In Britain the only situation that deserves, perhaps, this name, is the *neighbourhood of Bristol*: But, on the Continent, there is a considerable variety to make choice of. The *south of France*, and *Italy* have been long in repute, as *Lyons*, *Montpelier*, *Naples*, *Rome*, *Hayes*, *Marseilles*, *Toulon*, and *Nice*, which are justly reckoned the best in Europe, and greatly resorted to

to as the winter abode of Consumptive patients *. *Naples* and *Messina* are also excellent summer climates. Besides these, *Lisbon* and *Madeira*, have of late been often preferred, especially the latter, where the variation of weather is not much more than 15 degrees during the whole year.

But even this *change of climate*, to the situations enumerated, has not, unfrequently, like the other remedies in Consumption, failed of success. It seems, indeed, from a candid review of its effects, to deserve being depended on, *only* where the disease is still at an early period, where the Hectic is slight, and the expectoration not arrived at the full purulent state; so that the patient is still capable of conjoining, at the same time, the means of invigorating his constitution by exercise. In every weak state of body, and in none more than that which attends Consumption, *the use of exercise* forms an obvious indication in the cure. Hence, *Riding on Horseback*, was esteemed by Sydenham, without any change of climate, an infallible remedy in this disease, not less than *Bark* in an Intermittent, or *Mercury* in the Venereal disease. Since his time, however, a more enfeebled state of con-

* We may judge how general the resort is to such places, or rather how general the prescription of change of climate, when it is computed that there are seldom less than 20,000 British subjects in France and Italy; one half of whom reside or travel in these countries for their health. In these cases the disorder is almost always Consumption.

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stitution, marks the victims of Consumption ; and *gestation* of *various kinds* has been preferred. Some physicians have even alledged, that the hard exercise of *Horseback* has accelerated the progress of the malady ; particularly when used indiscriminately, or at those times of the day when the symptoms of Hectic are strong. The *motion of a carriage* is, perhaps, too easy for the general run of Consumptive cases, in the way of exercise ; but on this account, it is better adapted to those situations of the disease, combined with *Spitting of Blood* (or Hemoptysis). Hence, we have instances, where this symptom was instantly checked by the motion of a carriage, and only recurred on its being discontinued : But the motion of a carriage, to be at all useful, as a remedy in Consumption, should be carried to the length of a *long journey*, and as little intermission of it, as possible, take place while the symptoms are urgent. *Swinging* is a species of exercise lately introduced, and is much more powerful than the former, and not so violent as *Riding*. It forms, therefore, a happy medium, and if practised in the open air, it will be found highly serviceable.

As combining the effects of *gestation* and *change of climate* at the same time, *Sailing* became very early a remedy against this disorder. Though employed by the ancients, with whom a voyage from Rome to Egypt was a favourite prescription, it had gone a good deal into disuse, till its utility was

was revived, and strongly enforced by the writings of the late Dr Gilchrist. The air, at sea, is allowed to be generally milder, and more steady than on land; and it is observed, as a proof of this, that people at sea never complain of cold till they come into soundings. Besides, the costiveness which commonly occurs at sea, shews that it acts strongly in determining the fluids from the internal parts, a leading indication in Consumption.

Formerly short voyages, as a trip to *Lisbon* or *Madeira*, was deemed sufficient; but such voyages being often unsuccessful in the cure, the defect was commonly attributed to the late period of the disease at which such a remedy was employed; granting this to have been, at times, the case, and that the pitiful and emaciated remains of youth and beauty were often cruelly carried away to breath out their last in a foreign soil, more attentive experience has now shown, that *both* the *climate* and *voyage* were equally in fault. At the period of the season, at which patients are generally ordered for the neighbouring climates of *Lisbon* or *Montpelier* in order to cheat the winter, there prevails, on their arrival, much damp, and rainy weather, though not cold; and, instead of enjoying, on their landing, the means of restoration, they are confined to their apartments, and deprived even of that gestation they enjoyed while on board. The choice of climate, therefore, should be to a much more southern one than what is commonly prescribed. Besides the advantage

vantage of the voyage consists entirely in a constant residence at sea; and the length of time may be, therefore, said to constitute the success. From observation then of these causes of failure in the practice of physicians in this disease, the prescription of a voyage is now extended, at once, to the latitude of the East or West Indies, and considered as the only infallible mode of relief, which, indeed, it frequently proves, for, if recoverable at all, the symptoms are removed before the arrival of the patient; and to ensure it still farther, by increasing the degree of gestation, the patient, during the voyage, should sleep, or lie in a cot or hammock.

We have thus detailed the principal variety of practice in this disease; but whatever treatment we adopt, certain symptoms occur in it, which, independent of such treatment, require a separate attention: These are the Cough; and in the end of the disease, the looseness, (or Diarrhæa). For alleviating the Cough, *Demulcents* have been the remedy most commonly resorted to; but their effect, even as palliatives, has been weak. *Opium*, therefore, forms a more certain medicine; and from the history of the disease formerly delivered, it will appear, that it is chiefly in the night time the indication for its use prevails. The irritation of the cough is most happily removed by it; and after passing the night, if not always in sleep, at least in peace and serenity, the patient spits up in the morning, at once, the

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accummulation of discharge collected in the night, and the effects of the *Opiate* cease, so that the suppression of expectoration is merely temporary.

It is esteemed the best form, to combine the *Opiate* here with a *Demulcent*, as the *Mucilage* of *Gum Arabic*, of *Quince Seeds*, or of *Tragacanth*; and, in order to correct its inflammatory tendency, the addition of an *Acid*, as a few drops of the *Spirit* or *Elixir* of *Vitriol*, has at the same time been joined.

The *second* symptom, the Looseness, (or *Diarrhæa*), is still more troublesome to palliate than the Cough; and it is attempted in various ways. The *first*, and most common practice has been by the use of *astringents*, as the *Japonic Confection*, *Gum Kino*, &c.; but these proving ineffectual to check its progress, their combination with *Opium* has next been resorted to, which has rendered their effects more permanent. Besides this practice, proceeding on the idea of an acrimony connected with the discharge, absorbents and demulcents have been also employed, as the *Cretaceous Potion*, *Hartshorn Decoction*, and the different *Mucilages* specified against the Cough; while some practitioners conceiving the acrimony to be rather of a putrescent nature, have preferred, instead of the above remedies, the use of *mild Antiseptics*, as the *acid* of *ripe fruits*, and some *Neutral Salts*, particularly the *Saline Julap*, in a state of effervescence; with these, not unfrequently, the *Opiate* is also combined as above.

Having

Having thus detailed all the variety of practice in this disease, and shewn its general inefficacy, as confirmed by the practice of all physicians, except in a very few cases, before leaving the subject, we shall bring into one point of view, the more striking facts respecting the nature of the malady, in order to establish more clearly, what should be our future procedure in attempting its cure.

From the most accurate observations on the nature of Pulmonary Consumption, it appears,

1. That it is a malady, both entirely unknown in savage life, and also in that which approaches most nearly to the natural state.

2. That it is less common in the country than in towns.

3. That persons who carry on employments in the open air, are less subjected to its attacks than others.

4. That a sedentary life is most exposed to it. Hence women are oftener its victims than men.

From these facts, we are certainly led to regard it as a general weakened state of constitution, particularly displaying itself in the lungs, being the effect of civilization and confinement combined. To strengthen these facts still more, the constitutions of its victims, we find, in general, marked by strong symptoms of debility, viz. by a lax, delicate solid, a proportional irritability, crude watery secretions, &c.; and if we carry our investigation, still farther, to that particular part of the body which forms the immediate seat of the disease, the very limits of life appear, as it were,

contracted there; the extent of vitality, in so important an organ, is gradually diminished, and it is rendered unfit to convey to the system that supply of vital fluid with which health and vigour are connected.

When such a general, and strongly marked state of weakness prevails, we are certainly not to expect a cure by any other means than such as invigorate the system; neither must the means applied for this purpose be of a temporary nature; their operation must be permanent, capable of changing entirely the existing morbid disposition over the body, before they can remove the affection from the part. It is thus that madness and pregnancy seem to act. The former produces a most rigid and invigorated state of fibre, which communicates itself to every part, even the brain itself, as appears by dissection: Hence, the uncommon exertions of which maniacs are capable: The latter both increases the tone of fibre, and also gives a particular determination of the fluids, from the seat of the disease to a distant part.

In examining the weakness attending Consumption, it is also to be remarked, that it appears of a peculiar kind. It is displayed first in a specific acrimony of the fluids; next in a loss of tone, or flaccid state of the solids; and these states are, in some degree, independent of each other, for the remedies that remove simple weakness, have little or no effect on the fluids; and last of all, it is displayed in a defect of the
invigorating

invigorating principle, introduced by the full and healthy powers of respiration. From this view then, three indications are necessary to be attended to, in every attempt at a cure.

1. The *first* is, correcting this acrid state of the fluids, which we contend is a primary and essential point, in vain hitherto attempted by physicians, or at least by very improper means.

For this purpose, the diet requires a very particular regulation; and without this, no progress will be made in the cure, as well as a regular and powerful application of medicine; for there is a principle of vitality wanting, if I may use the expression, in the fluids of Scrophulous patients, which must be restored.

2. The *second* is invigorating the solid by a permanent and regular stimulus, suited to the particular degree of weakness, predominant in the disease. On this head, the facts of Dr Rush, in his medical enquiries, are highly satisfactory; and they deserve much attention from every practitioner, who aims at a radical cure of this disorder. From the cases adduced by him, it appears clear, that *severe* and *continued exercise*, where the body is not too far reduced, or *such substitutions* for it, as possess a powerful tonic effect, are the only means that have as yet been effectual in the removal of Consumption; and that the great aim should be, to bring back the constitution to the original vigour it possesses in a natural state, before enfeebled by artificial means. To
do

do this, resolution is required on the part of the patient, and much judgement on that of the physician, to proportion the means to the exact degree of weakness that prevails. It is from a want of attention to this circumstance that so many failures in the cure have occurred; and that the prescription of Sydenham, viz. *Riding on Horseback*, has been so often blamed by modern practitioners.

The *third* indication that remains, is supplying the lungs with the proper quantity of salubrious fluid, such as is sufficient to produce the necessary changes in the system, that respiration performs; and as the lungs, from their diseased state, are unfit to receive the quantity they formerly did in health, this fluid should be chosen of a nature more suited for this effect. Hence a dry light air is to be preferred; and where attention is paid to the former indications, the degree of temperature will be less an object of importance, for a number of facts confirm the observation, that cures have been made in cold, as well as in more temperate situations.

On these principles, we are confident, that a mode of practice may be regulated, so that this form of the disease may be less fatal, and only in its ultimate stages prove irrecoverable.

SECT. 3. *Of the Local Treatment of Scrophula.*

FROM the Constitutional, we proceed now to the Local Treatment of Scrophula. It has varied according to the different stages of the disease; or according as it has appeared, either in the form of swelling ulceration, or an affection of the joints. At the same time, we may say, with confidence, that external applications have hardly been of any service in this malady. It is proper, however, to remark, that though Scrophula is always in its commencement, a constitutional disease, yet, frequently in its external forms, it becomes entirely local in its progress. Thus, on the changes of habit taking place at the age of puberty, which remove it, the affection of the part, from the extent of the local lesion, will often continue for years, turning neither better nor worse; and if remedied in the end, it is only by local applications, unconnected entirely with any general action on the system.

I. SWELLINGS.

WE shall first enumerate the principal remedies employed against the stage of Swelling.

One of the most powerful, is the *steams of warm water* received on the part. They have been

been occasionally medicated with a variety of herbs; but this has added nothing to their powers, for they are equally effectual in their simple state. The application should be repeated twice or thrice a day, and the part afterwards covered with a piece of flannel or fur: It is often successful in reducing the size of the swelling, if early employed, though apt, when late, to urge on the suppuration.

Another practice, still more powerful than this, has been the use of *Electricity*, that is, by insulating the patient, and drawing sparks from the tumor till slight inflammation is produced. The application should be made daily, for the space of five or six minutes at a time; and where the swelling is not far advanced, we have many instances of its success.

The use of *Mercurial Ointment* is frequently had recourse to in this stage, and is alleged to prove highly beneficial, particularly when assisted by the action of any of the former remedies.

To these, which are the most successful, a long list of other *discutients* might be added, in the various forms of *Plaster*, *Solution*, *Cataplasm* and *Liniment*.

Of the *first*, is the *Ammoniac and Soap Plaster*; and a still stronger *discutient*, the *mixture of Fresh Gall and Soap Liniment*. On these we may observe, that in the *first* stage, they are sometimes successful; that they are always safest where the disease occurs in a torpid habit; but wherever
any

any degree of inflammation from them takes place in the swelling, all hopes of discussion are then at an end.

Of the *second* form, or the *Solution*, the *Saturine Applications*, *Mindererus' Spirit*, and the *Ammoniated Water* much diluted, are the most preferable. They have the advantage of the former, in giving little or no pain; and by their astringent effect on the skin, they have a greater chance to prevent suppuration. The *Sea-wreck Lotion*, (or *Alga Marina*), must not be omitted, the favourite application of Dr Ruffel: We conceive it to be only useful from the salt it contains.

Of the *Cataplasm*, the chief forms are the *Hemlock Poultice*, with Lead, and the *Sea-water Pul-tice*; though they have been all useful, on particular occasions, from the heat they contain, they are apt to urge on suppuration; and they have, therefore, on the whole, done more harm than benefit in this disease.

Of the *Liniments*, we may enumerate the *Volatile Liniment*, and the *Opodeldock Balsam*. The former, to be successful, should possess a greater proportion of the *Ammoniated Water*; and the latter also, to render it more penetrating, in this case, should have a greater quantity of the *Camphor* dissolved in it. With these alterations, they will be found successful, at times. A *Liniment*, even of *Camphor* itself, and *Oil*, has been recommended.

From the inefficacy of all the above applications, in so many cases, and, from considering the swelling, as arising from a certain morbid matter contained in the gland, practitioners were often led to attempt the discussion of it, in a more expeditious way than the former, viz. by opening a drain in a situation contiguous, so as to draw off the congestion from the gland. This they endeavoured to accomplish by means of *Blisters*, *Issues*, and *Setons*; but these, though, at times, effectual means in suspending the progress of the swelling, and much recommended, have equally seldom, with the other remedies, completed a cure here, and are, now, never confided in by the most experienced practitioners; but we shall have occasion to enter more fully on the action of *Blisters* elsewhere.

From the progress of the swelling, *in spite of the above numerous applications*, continuing still to proceed, and to terminate in the ulcerative process, to avoid the latter as much as possible, many practitioners, on rational grounds, endeavoured to bring on, by the use of *emollient* and *maturating poultices*, a more full and regular suppuration, so that, on the rupture of the teguments, a speedy and complete renovation of the part might be ensured. But in this attempt too, their applications have universally failed; and, on the contrary, have often rendered the ulcerations worse; Hence, in modern practice, it has been laid down as the best general rule, to allow Scrophulous swellings to
break

break of themselves, the healing, in such cases, being always found earlier, and more kindly.

2. ULCERATIONS.

AFTER a Scrophulous swelling has once arrived at a state of ulceration, it has been, next, a question with some practitioners, whether the sore should be healed up at all; proceeding, on the idea, that while the morbid disposition continues in the system, on being healed up, it breaks out elsewhere. This is the opinion of Mr Bell*, and it is the more remarkable, as this author, in the same part of his work, contends, that no acrimony whatever exists in Scrophula, which he endeavours to prove from the indolence of the Scrophulous swelling, and the small effect of medicines correcting acrimony in the cure. If no acrimony exists, where is the danger of any translocation of morbid matter, for it is certainly only on this idea that danger can proceed? Neither, on first breaking out, has the constitution been accustomed to any discharge, the drying up of which would be injurious. Mr Bell's opinion on this head, appears purely hypothetical, and is the relique of a very old theory, which is given up in every other part of his works. At least, we may safely say, the appearance of the disease in other parts, must depend on other causes, no way connected with

* *Vide* Bell on Ulcers, page 425.

the healing of the external sore ; and this appearance, we are persuaded, would equally take place, were the sore kept open : Indeed experience shews it every day.

The same variety of applications has been used in this, as in the former stage of the malady, and too often with the same want of success.

The *first* we shall enumerate, are the *different preparations of lead*, chiefly in the form of ointment, as *Goulard's Cerate*, the *Saturnine Ointment*, *Cerussa Ointment*. Their powers, however, are seldom more than palliative, in preventing somewhat the extension of the sore, and an increase of inflammation ; but as actually healing it, they are seldom to be trusted to.

The application of parts of certain *astringent vegetables*, either in a recent state, or formed into ointment, has been frequent in empirical practice ; and often too, it is alledged, with success, as the *Vervain Ointment*, *Elder Ointment*, *Tussilago Ointment*, &c. This is certainly an imitation, as far as we have accounts, of the savage practice. The powers of such remedies must, no doubt, be weak, but by long continuance of them, the sores come to get better, at any rate, and thus they acquire a reputation they are no way entitled to.

A *Solution of Myrrh in Lime-water*, is recommended as a useful lotion here by Mr White, and to dress the sore afterwards with *Saponaceous Cerate*. By this method, the discharge, at least, will change more from the mucous to the purulent

lent state, and thus a considerable step towards healing will be gained.

The favourite application here, with Dr Cullen, and a very simple one, is *wet cloths* to the part, renewed as often as they appear to dry. They are continued only during the day, and give place to the use of some common emollient liniment at night. *Common-water* he even prefers to *Salt-water*, or any other impregnation for this purpose.

After these applications of a mild nature, we must not omit the use of *certain Escharotics*, recommended here. The *Red Precipitate*, sprinkled gently on the sores, has often been found to produce a laudable suppuration, and to induce them to heal. *Verdegrise* has been also used, but it occasions much pain in the application. The best *Escharotic*, if they are at all admissible, is the *Burnt-alum*, and a portion of it mixed with any mild ointment, has been experienced by Dr Cullen, a very serviceable application.

From the general flaccidity attendant on this disease, *pressure* is a remedy more suited to it than any other species of ulcer; and whatever specific application is used to the sore, it should never be omitted. It should be here pretty considerable, and also constant and regular, to ensure success.

SECT.

SECT 4. *Of the Particular Local Treatment of Scrophula.*

WE have thus detailed the Local Treatment of Scrophula in a general way; but before leaving the subject, it remains to examine it still farther, as specially applied to the cure of Sore Eyes and White Swelling.

OF THE TREATMENT OF SCROPHULOUS SORE EYES.

THE treatment of this affection, is a very troublesome and tedious task.

When attacking the eye itself, as observed at length in its history, the inflammation is highly acute and rapid in its progress, so that the most powerful means are often ineffectual to check its violence. If considerable fever prevail, *general bleeding* should be immediately performed, and is most useful from the adjacent vessels, as the jugular vein, or temporal artery. This is to be succeeded, without delay, by a *considerable evacuation* also, from the inflamed part, either in consequence of the application of *Leeches*; or if these should prove inadequate in their operation, by means of the *Scarificator*. To these active remedies, may be added the *frequent use of Purgatives,*

tives, and a rigorous *antiphlogistic regimen*, especially in an entire exclusion from *light* and *heat*.

To this treatment, in the greater proportion of cases, the violence of the inflammation will yield; but wherever it is necessary, the same means may be even repeated; or, in place of them, if there prevail more pain than violent inflammation, *Blisters* may be next applied to the head behind the ears, to the temples, or even the nape of the neck, and the discharge from them kept open afterwards, in the form of an *Issue*; but where the principal symptom is rather pain, than apparent inflammation, the topical use of *Opium*, injected into the eye, in a few drops of a *strong watery solution*; or even of the *Liquid Laudanum*, has been attended with the best effects. By some authors, a *Decoction of Henbane*, (*Hyosciamus*) in *milk*, has been preferred for this purpose.

By these means, rigorously persevered in, this affection will be, for the most part, successfully removed; but, in some cases, an unfavourable termination ensues, and this termination consists, either in the formation of a film or speck, an ulcer, or a general suppuration of the organ.

The treatment of the first will depend much on its nature, and also its situation, with respect to the interruption of vision. In every case, where it shews a degree of prominence, beyond the surface of the cornea, the use of *gentle Escharotics* may be trusted to for its removal, such as weak preparations of *Red Precipitate*, *Verdegrise*,
or

or *Burnt-alum*, and often of *White Vitriol*, mixed with a proportion of *Sugar*, and any absorbent. Such medicines must be applied to the eye twice, at least, in the twenty-four hours, and they may be used, either in the form of simple powder, made here very fine, or of ointment or lotion. But where, instead of this prominent appearance the film, on examination, is found equally plain with the surface of the cornea, no indication for the use of *Escharotics* is pointed out, and its removal must either be trusted to nature, or the effects of a gradual absorption, which often occurs; or this process may be, perhaps, hastened by such medicines as excite absorption. For this purpose, *Mercury* has been recommended, as well as some discutients, which we enumerated in the general constitutional treatment of Scrophula. The occasional use of *Purgatives* is also reckoned serviceable.

The treatment of a Scrophulous ulcer of the eye, where it unfortunately takes place, consists in the use of the same remedies, employed for the ulcerations of the lids. Much advantage has also been derived, from the constant and long continuance of an *Issue*.

When the last, and most unfortunate termination of the disease appears, viz. in a general supuration of the eye, as much pain is experienced till the discharge ensue, as well as strong and violent fever, accompanied with acute shootings into the head, if the membranes should not discover

cover any tendency to give way ; and evident symptoms of suppuration are conspicuous, an incision should be made into the most depending part of the cornea, so as to evacuate its contents : A *common*, or else a *Saturnine Poullice* is then to be applied, which will promote the discharge, and continued till the size of the eye be gradually diminished.

But the affection of the eye-lids, we mentioned as more frequent in Scrophulous cases ; and here a different treatment is required. The inflammation is seldom very acute, and passes soon into the stage of ulceration. Nothing has been found so useful, in such ulcerations, as the internal use of *Bark* and *Mercury*, as well as *Chalybeates* and *Sea-bathing*. But even where these general remedies have failed, this affection has been, at times, removed by topical applications alone, in the form of *ointment* or *lotion*. The principal of these applications, have been, either preparations of *Copper*, or *Mercury*, as an emollient liniment, with a small proportion of *Verdigrise*, or of *Red Precipitate*, or of *Corrosive Sublimate*, applied to the ulceration by means of a pencil ; or a weak *Solution* of *Verdigrise*, or of *Corrosive*, as a *lotion*.

Simple astringent washes, as with *Lead* and *White Vitriol*, dilute *Solutions* of *Brandy*, a *Decoction* of the *Bark* with *Alum*, applied cold ; or its infusion in *lime-water*, have been also employed. Astringent powders, formed into ointments with *Hogslard*, are likewise used here ; and a proportion

of *Campbor* is a favourite ingredient in all ointments for the eyes; even absorbents are not unfrequent, as the *Tutty Ointment*, and *Sir Hans Sloane's*.

To these different applications, the disease frequently yields for a time, but is liable to recur on the slightest irregularities. In all cases of this form of the disease, the use of a *Seton* has been highly recommended.

OF THE TREATMENT OF WHITE SWELLING.

LIKE the Scrophulous affection of the eyes, White Swelling of the larger joints, equally requires an early application of the most active remedies. Of these, none is so important as *Topical Bleeding*, either by means of the *scarificator*, or the application of a considerable number of *Leeches*. The quantity drawn, at once, should be very copious, not less than ten or twelve ounces; and the patient should, after this operation, have a feeling of a sensible relaxation of the joint. Their repetition should take place, so long as it affords a chance of preventing the formation of matter, or even an effusion into the ligaments. The progress towards a cure acquired by *bleeding*, should next be preserved by a smaller drain from another part of the joint, and a *Blister* applied on the sound skin for this purpose: After its removal, the part is to be continued open by forming an *Issue*.

These

These are the means, along with a general *Anti-phlogistic Regimen*, confided in for the cure of the *first* stage of the malady; but, if within a reasonable time, the disease does not seem to yield to this mode of treatment, such applications are then laid aside, and a different process entirely adopted, with a view to excite the absorbents of the part, to carry off the effused fluid, and also to relax the rigidity of the parts, the consequence of the inflammation.

The general means of doing this, are two, the application of *Friction* and *Warm-steams*.

The former of these, is, perhaps, the most certain means of relief. To be effectual, it must be long continued, not less than an hour at a time, repeated often, not seldomer than four or five times a-day, and extended very considerably beyond the seat of the disease, to all the parts with which the joint is connected.

To preserve the effects of the *Friction*, the *web*, or *omentum* of a new killed animal, should be kept constantly applied round the joint.

This *Friction* recommended, is of two kinds, either simple or combined.

The *first* consists in the use, merely, of such a quantity of unctuous matter along with it, as may facilitate the operation, viz. *Hogslard*, *Olive Oil*, *Neat's Oil*, &c.

By the *second* is understood the introduction of some stimulant remedy, at the same time with the operation. In this way a slight application of

Mercury has been recommended ; but if we are to judge of the effects of *Mercury*, in other cases of Scrophulous swelling, no great dependance is to be placed on it here ; and more is to be attributed in these supposed instances of its success, to the simple *Friction*, than the addition of the *Mineral*. To form a judgment, however, in this form of the disease, the giving it internally will decide.

But in this affection, a more powerful remedy is the *Gum Ammoniac*, introduced by the same operation. It is dissolved for this purpose in *Squill Vinegar*, and rubbed in, twice a day, on the joint ; and to promote its effects still more, a *warm-plaster* of the same materials is afterwards continued on the part. This method is termed the Hungarian method : Simple defluxions it commonly cures in four days, and in eight days the patient is able to walk ; but in this disease it is not always so effectual ; nor even where it is, is it so speedy in its operation.

The *second* general means mentioned for the cure of this stage of the affection, was *Warm-steam*s. This is a remedy much applied in the case of stiff joints in savage life. To be successful, it should be used as warm as the part can bear, and poured also from a considerable height, when it will act somewhat by the former operation of *Friction*. Its utility will be found in proportion to the degree of warmth, and the length of time during which it is employed. It should not be
less

less than thrice a-day, and, at least an hour at a time.

Like the former remedy, it consists, either of the simple steams, or else variously medicated. The simple steams of the warm water, are, perhaps, equally powerful, as when medicated with a variety of herbs, which, we conceive, adds nothing to the relaxing effects of the fluid on which its efficacy depends.

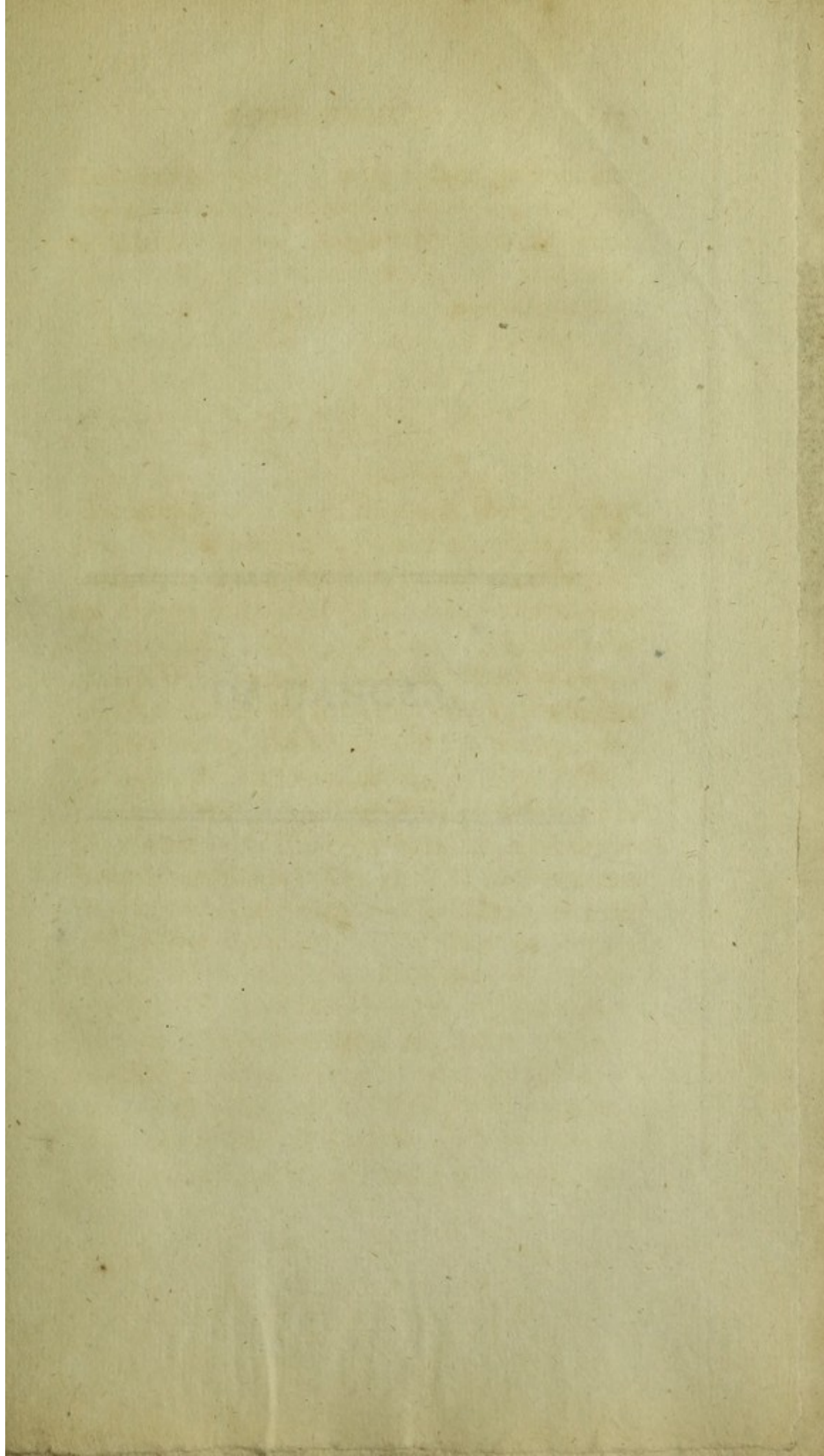
By the use of either of these two methods, when sufficiently persisted in, the disease is often removed. But if the formation of matter has actually ensued, so as to destroy every hope of absorption, provided the state of Hectic admits, an attempt may be still made to save the part, by favouring a discharge of the matter, before the morbid change is communicated to the cavity of the joint. For this purpose the introduction of a *seton* has been recommended.

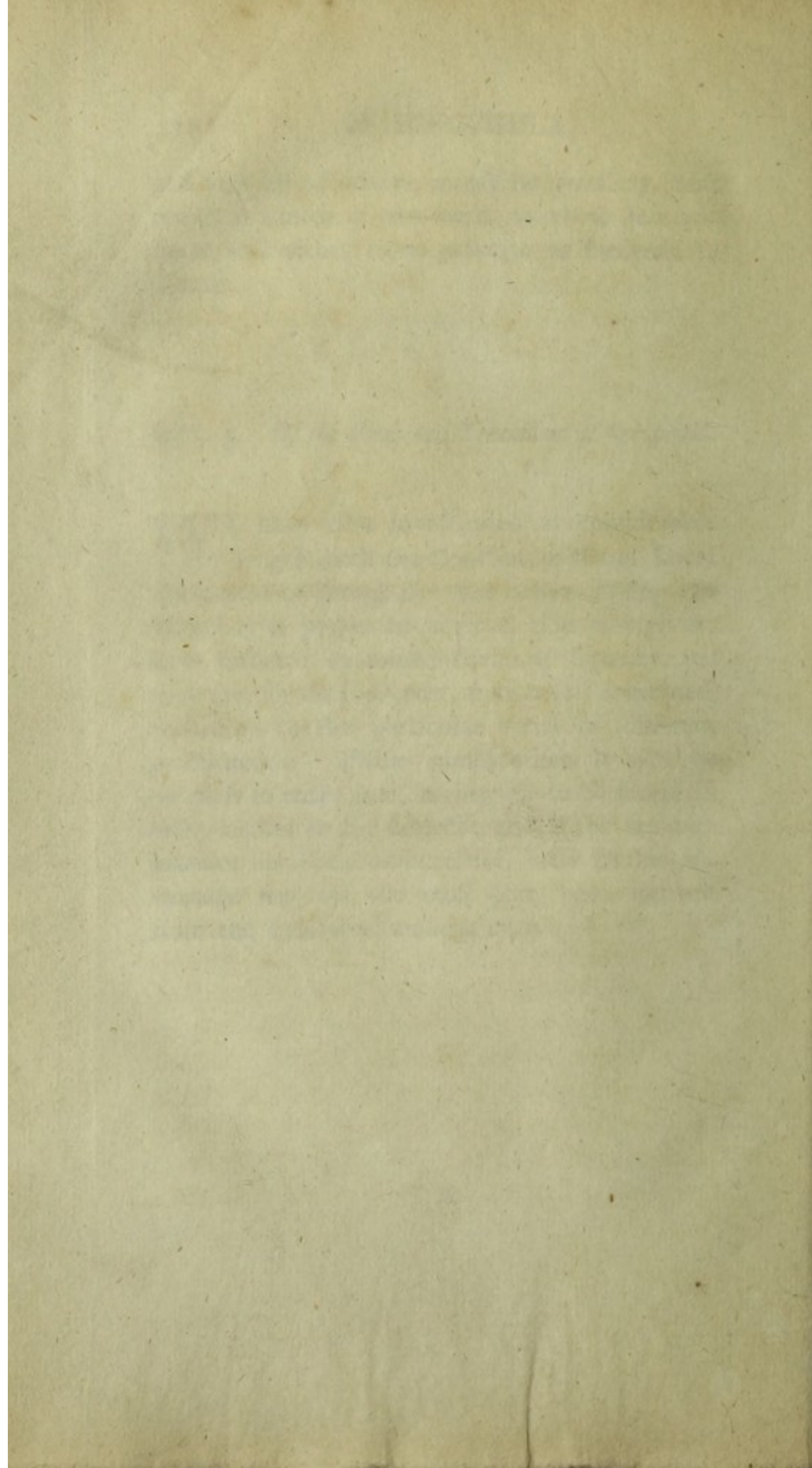
But even where this method fails, and the joint is evidently affected, it has been proposed, before having recourse to such a dreadful step as amputation, to produce an *Anchylosis* of the parts; and thus preserve the member, though in an imperfect state, still serviceable. The method suggested for doing this, has been by the repeated applications of *Blisters*, which, exciting violent external inflammation, may produce an adhesion of the ligaments of the joint. Though this has been, in some instances, successful, yet the extreme agony of pain that arises from such a continued
and

and long use of *Blisters*, as will be necessary, must render it a mode of treatment, to which few patients will either have patience or fortitude to submit.

SECT. 5. *Of the Combined Treatment of Scrophula.*

WE have thus investigated, at considerable length, both the Constitutional and Local Treatment of Scrophula; but before closing the subject, it is proper to observe, that though we have hitherto examined them as separate, yet they are, for the most part, more or less combined, according to the particular views of different practitioners. These combinations it will be needless to enter into, as they are to be found in every author on the subject; and, if the separate practice has been unsuccessful, little farther advantage has, for the most part, been derived from the combined mode of cure.





OF CANCER.

OF CANCER

DIVISION II.

OF CANCER.

INTRODUCTION.

FROM Scrophula, we proceed now to treat of Cancer, which many authors have erroneously considered as much the same disease; only occurring at a different period of life, and in a more inveterate form: But to this opinion we can by no means assent. That an acrimony prevails in the fluids, in both cases, to a certain degree, there is little doubt; but the state of the solid, in Cancer, is essentially different from that in Scrophula, as well as the nature of the acrimony itself. The principal distinctions betwixt the two diseases, will fall to be examined in the Sequel: At present we shall enter upon a general history of this malady.

PART I.

SECT 1. *General History of Cancer.*

THE first appearance of Cancer, is a small hard tumor, for the most part round, sometimes irregular. It generally occupies a *glandular* situation, and is compared, not unaptly, both in its size and figure, to a hazel nut. Its increase is usually slow, unless exposed to irritation; and with its increase, it acquires an additional incompressible hardness, and protuberance in the middle, while its surrounding subcutaneous vessels assume a varicose state, or feel thick and knotty. The enlargement of the tumor is attended with a sense of pain, which is little, if at all, experienced for some time after its commencement. This pain is of a peculiar kind; it consists, either of sharp lancinating throbs, of deep shootings, or, in absence of these, of a constant gnawing, or sense of burning heat diffused over it; or of a pricking, like the thrust of needles. At first the pain prevails most on changes of weather; but, in process of time, it becomes almost constant, independent of any external cause, and is then, as it were, incurvated,

curvated, or spread round the seat of the disease. As the tumor enlarges, it changes its form and figure, becomes more unequal, rugged, and angular, and pushes out roots or limbs, feeling like so many tense cords, which are the neighbouring lymphatics taking on the diseased state: From this symptom, the name of Cancer is properly applied to the disease; being compared to the limbs of the crab, when spread out and grasping any thing.

During the progress of the swelling, the skin begins gradually to change its colour. This change is first red, then purple, or lead colour, and so the shade advances, being marbled, as it were, with varicose livid veins, till it end in black; but before this last, the teguments generally give way, and the contents of the tumor are discharged. On the bursting of the teguments, the open Cancer, or ulcerous state begins, and the following appearances then ensue.

From the opening there is constantly discharged a thin sharp ichor, the appearance and quantity of which vary at times, according to the existing degree of irritation and pain; being, in some cases, of a pale ash colour, in others of a reddish cast; it is frequently, also, of a brown tinge, resembling brick dust, and, more rarely, approaching nearly to black. These changes are often, too, the effect, both of the external and internal remedies employed. The edges of the sore become gradually,

gradually more open, ragged, harder, and unequal, and turn up, or are reversed in various directions, sometimes outwards, at other times inwards. The surface, also, is full of inequalities; in some parts having considerable risings, in others deep excavations, so as to appear, not unlike a piece of mouldering ruins. From the body of the sore, or its edge, a kind of spongy sprouting flesh, or growth, takes place, which soon assumes symptoms of gangrene or decay, and falls off, while the same appearance is successively renewed.

The progress of the disease is various; in some it advances rapidly, and there prevails, along with it, strong inflammation; in others, and for the most part, a more gradual creeping, and almost imperceptible corrosion of parts occurs. The direction of the corrosion is commonly in the course of the lymphatics, and while one gland comes to ulceration, the neighbouring ones successively assume the diseased action.

During the use of remedies, the thin ichor often acquires, in different places, the appearance of pus, at least of a whitish fordes, resembling it, which adheres closely to the surface of the sore; but the sore is equally corroded by it, as before, and it possesses none of the properties of real pus. In the progress of the ulceration, the sore acquires an intolerable stench and smell, of a peculiar nature, so as to be readily distinguished by any practitioner conversant with the disease, and more
offensive

offensive than that from any other species of ulcer; equally loathsome to the patient as to a by-stander. This factor is even increased by the use of greasy applications.

As the loss of substance proceeds, the functions of the body become disturbed, the appetite fails, the strength becomes gradually exhausted. An exquisite Hectic, which appears, in a certain degree from the first of the ulceration, is formed with strong evening exacerbations; but before it prove fatal, the patient is generally cut off by the attack of one of two symptoms; either a hemorrhage, the corrosion of the larger blood vessels being one distinguishing characteristic of the virus of Cancer, over all other malignant discharges, which they, on the contrary resist; or else by a fit of convulsion; and thus terminates a miserable and painful existence.

SECT. 2.

SUCH is the general appearance of this disease, one of the most painful and loathsome that can attack humanity; often protracted to the last stage of torture and emaciation; and receiving little alleviation, hitherto, from any treatment employed. But this uniformity described above, does not always prevail in the history of particular cases; and it is such a want of uniformity,

ty, that renders, for long, the true nature of the malady doubtful, in many instances ; a fact sufficiently known to most surgeons conversant in its practice. In the greater number of examples, however, we are warranted, in the history laid down, and from this detail of symptoms, three stages distinguish its progress, pointed out by the different states of the diseased part. These are, the stage of *simple obstruction* ; of *actual induration*, or *schirrus* ; and of *ulceration*. Each of these stages requires a separate consideration. But, instead of this division, authors, attentive only, in this disease, to external appearance, have considered Cancer as always in one of two states, which they have termed the *Occult*, and *Ulcerated* ; a division not sufficiently extended for practice, or to convey an accurate knowledge of the real nature of the malady. In practice, the chief difficulty lies in being able to distinguish the two first stages of the disease ; or when the state of simple obstruction ends, and real schirrus, or induration has begun. This, most practitioners conceive to be an easy matter ; but experience daily shews, that all the external marks trusted to, are indecisive. Many cases of apparent schirrus occur, where, to the feel, the stage of induration has fully commenced ; and yet, on the application of remedies, resolution is easily accomplished ; a circumstance not to be expected, were it really so, and that the altered organization, connected with schirrus,

ſchirrus, actually prevailed. In others, again, though the tumor is ſmall, and every appearance favourable in marking, but a commencement of the diſeaſe, we find, on the uſe of medicines, that no impreſſion can be made, and that an obſtinate ſchirrus is rooted in the part. To theſe may be added a third ſtate, where part of the ſwelling is in the ſtage of ſimple obſtruction, and the reſt actually ſchirrous. This we know by the effect of remedies, viz. by the obſtructed part giving way ſoon after their application, while the real ſchirrus continues to increaſe. In order then to form a proper judgment on the progreſs of the diſeaſe, at this period, we muſt join the peculiar and leſs obvious circumſtances of each caſe, to the external phenomena; and, from the combination of theſe alone, form an opinion. Thus, in all ſchirri, ariſing from an external cauſe, particularly from poiſons introduced from without, as the venereal, &c. the ſtage of ſimple obſtruction remains long, and there is always a chance of a cure. In a Scrophulous habit, too, where inflammation of the part has preceded, the ſame prognosſtic may be made; but where, again, the diſeaſe ſeems connected with internal and leſs obvious cauſes, where it is known to be a hereditary affection, and attended, of courſe, with a ſtrong conſtitutional prediſpoſition, an oppoſite and leſs favourable judgment muſt be entertained.

The time when the laſt ſtage, or period of ulceration commences, is various, and depends

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solely on the irritation, and consequent inflammation of the schirrus; either from its own size proving a stimulus to the adjacent vessels, or from external causes producing the same effect. Many cases of schirri have been known to remain in the same state for the space of fifty years. Others, again, possess, from their very first appearance, a strong disposition to change to the ulcerous state, and terminate their career, by the death of the patient, in a few months. It is the former circumstance, and a consideration of the incurable nature of the malady in its last stage, that has led to the practice of endeavouring to retain the disease, as much as possible, in this middle point, or schirrous state; and for this purpose *topical bleeding* is employed, to be repeated frequently, as symptoms indicate; a practice, which no doubt, gives a temporary relief, but no more.

The approach of the ulcerous, or last stage, is marked by the hitherto colourless indolent swelling beginning to be painful, and to extend its seat, by the teguments assuming symptoms of inflammation; and beginning, in that part, to shew a livid brown, or blackish colour, and seeming to adhere to the under part of the swelling, by being puckered or drawn in, in folds, while the vessels under the skin are considerably enlarged. From this period, the system, in general, appears to sympathize with the action of the part; but the pulse, though occasionally quickened, remains

mains always small and weak, one of the leading diagnostics of this disease.

From the age of thirty-six to forty-eight, in both sexes, is the most frequent time of its appearance. Every glandular part of the body may be occasionally its seat; but there are certain situations which it would seem to occupy, in preference to others, and which it has, therefore, been supposed by authors, specifically to affect, by a certain unknown attraction.

These situations are parts of certain secreting glands, which separate fluids that are to be employed in the œconomy, as the breasts and womb in women; the lips, testicles, and penis, in men; while the face, tongue, and nose, are equally subject, though less frequently than the former, to its attack in both sexes.

We shall examine the particular appearances it assumes in each of these situations, beginning with it in women, who are oftener its victims than the other sex.

SECT. 3.

1. *Breast, (Mamma).*

AS the small glands of the breast are so often liable to obstruction, this part is, more than any other, the seat of Cancer. Its vessels are a series by themselves, whose action is

no way assisted by their intermixture with others, and of those unfortunate women who suffer from Cancer of the breast, the greater proportion is of such as are either barren, or refuse to nurse their own children, a circumstance evidently pointing out its cause.

The disease shews itself here under two different forms.

The *first*, and most usual, is that of a small round swelling, varying to the feel, in its apparent depth from the surface, and evidently situated in the glandular substance. At first it has little or no pain, on which account it is too often, for some time, entirely neglected; but the pain begins to ensue, in proportion as it increases in size and hardness. In its progress the swelling feels gradually more unequal, and becomes more immovable: The skin also assumes the appearance of discolouration; and acquires, in time, a lividness: The nipple is often drawn in, and part of the adjacent skin puckered, while round about appear protuberances, hard and unequal. The whole swelling retains also the same hardness, without the smallest appearance of imposthumation till the external teguments break. On their rupture appears the cancerous mass or growth: From its substance, the ulcer begins to pour out a bloody ichor, or sanies: The edges of the wound thicken and turn up: The sore itself is full of inequalities, and gradually acquires a foetid smell.

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This form of the disease is usually slow in its progress, and a period of years intervenes before arriving at the ulcerated state. The progress of the latter is marked by considerable increase of pain and burning heat: As it advances, a gradual extension of the swelling is communicated to other parts of the surrounding substance not affected. The patient also is commonly seized with considerable fever, previous to the bursting of each diseased gland; but it abates as the discharge takes place, and is successively renewed on a new ulceration. Considerable bleedings occasionally arise from the mouths of the corroded vessels, difficult to stem; and the patient is at last cut off, either by one of these hemorrhages, or by absorption taking place into the lungs, and other vital parts; though not, in this latter case, till he is reduced to the last stage of emaciation, weakness, and pain. This fatal event happens, for the most part, within the twelvemonth from the commencement of the ulceration.

The *second* form*, in which the Mammary Cancer appears, is, instead of its commencement in

* This form of the disease is considered by Mr Pearson, surgeon in London, by far the best writer on the subject, as rather a Scrophulous than a Cancerous affection; but we can perceive no just grounds for this opinion, for it is equally obstinate, as in cases where the disease begins in a different form. This gentleman likewise describes a Chronic inflammation of

in a small round tumor, as we described in that of a large, irregular, angular swelling, occupying, from the first, the greater part of the substance of the breast, and passing also rapidly through its stages, which observe, however, the same appearances with the former species. This form has been remarked as more rooted and obstinate than the former.

SECT. 4.

2. *Womb, (Uterus).*

AFTER the breast, in the female, Cancer most frequently occupies the womb. It commences generally at the time of the cessa-

of the breast having all the symptoms of schirrus, but which yields to Bleeding, External Discutients, and the use of Mercury in small doses. A *third* affection he also takes notice of, under the character of a pure Scrophulous affection, consisting of a swelling of the breast, confining itself solely to the teguments, and not affecting the glandular part. This last is certainly a proper distinction; but I am doubtful whether the two former cases can be properly separated from real schirrus; if they can, it is making incurability of the disease the sole diagnostic of real schirrus. Some cases similar to Mr Pearson's, are to be found also in Professor Richter's observations, excellently translated by Dr T. Spence of Edinburgh; but the Professor has added two diagnostics in his cases, which are, *Some degree of fluctuation in the tumor, however obscure; and some fever and inflammation along with the pain*; wherever these prevail, he has hopes of a favourable termination.

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tion of the menstrual discharge, and is preceded by uterine pain, *fluor albus*, (or Whites), and other morbid symptoms, marking irregular uterine health, long before the period of actual attack. In some rare cases, it even occurs, without the smallest previous intimation, except, perhaps, occasional transient pain, little attended to, or referred to some different cause. But, in the greater number of cases, its presence is sufficiently known by the following symptoms, viz.

1. A sense of weight and heavy pain in the uterine region, or about the *pubes*.

2. Irregular and long continued floodings, seldom drying up, or soon returning without any evident cause. And

3. A morbid state of some of the contiguous parts, indicated by strangury tenesmus &c. for there prevails, either a pain and difficulty in the voiding of urine, or else a constant desire. The urine itself, also, is usually turbid, and deposits a slimy sediment.

This disease is either general or partial. In the former case it affects the greater part of the organ; in the latter it is very small, and consists of a hardened tubercle, affecting solely some portion of the upper part, (or *fundus*.) It seldom gives much pain till its advanced state, when its bulk is considerably increased, and when it begins to assume the proper ulcerated form. Hence many women, we find, on dissection, possess a schirrous state of the womb,
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the presence of which, as formerly observed, was marked by no particular symptom when alive, that could lead a practitioner to suspect such a disease. In its advanced stage, however, besides the symptoms enumerated, others occur, which render its existence, if formerly doubtful*, unquestionable. These are, the organ feeling bulky, when raised on the finger, and shewing a tendency

* We are indebted to Mr Pearson, in his work already noticed, for the description of a venereal affection of the womb, very apt to be mistaken for the present disease. Though the Venereal infection appears generally first, he observes, on the external parts, yet this is attended with some exceptions, and the womb may be the first and only part affected by it. **L**The symptoms of this form of the disease, are a sense of great heat and darting pungent pains about the womb; but these are not always accompanied with a puriform discharge, nor is the fluor albus, (or Whites), necessarily increased by this affection. Though no external symptoms appear, the patients communicate the infection, which gives the most certain evidence of the disease; and with this may be joined a sense of acute pain that they feel, at the upper part of the vagina, (or passage); especially in coition, and not unfrequently attended with a sanguineous discharge. On examination, in this state, the womb feels enlarged, gives a sense of preternatural heat, and suffers pain from the slightest pressure, while small ulcers may be felt about the os uteri, (or mouth). The disease continues long in this state, without displaying any more general venereal symptoms; but the patient's health gradually declines, and she sometimes becomes hectic. **I**

Where this disease, as often happens, is mistaken for Cancer, and Mercury employed, which proves the cure, it gives a reputation to the medicine, which it is not justly entitled to.

to gravitate downwards. The *os tincæ*, (or mouth), seems painful on the slightest pressure, is hard and indurated, and surrounded, more or less, with a fungous substance, which protrudes into the *vagina* (or passage). When these symptoms occur, the progress to ulceration is far advanced; and as soon as this last stage is formed, the sharp lancinating pains become stronger and more frequent in the seat of it; while a thin ichory discharge, forming a species of *fluor albus*, (or Whites), proceeds from the *vagina*, (or passage). The quantity of this discharge, towards the end of the disease, is very considerable; and is, at times, somewhat slimy, occasionally tinged with blood; sometimes foetid, and sometimes not. On examination, at this period, the edges of the *os tincæ*, (or mouth), feel hard, ragged, and unequal, with a colliflower appearance.

From the inflammation also, induced by the discharge, the surface of the passage it pervades, becomes smooth and hard like cartilage, losing its elastic and rugose appearance; and this change of structure, especially prevails at the upper part. In time it becomes ulcerated, foetid, and raw.

In this form of Cancer, the pains are more violent than in any other, and often of the most dreadful and excruciating nature. The patient has no intermission from them, but by the constant and excessive use of *Opium*; and they extend to the back, sides, and *pubes*, and in every direction. A strong Hectic is also formed every

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evening;

evening; and the stomach sympathises, in a remarkable degree with the disease. Digestion becomes, at last, almost totally suspended; and thus with pain, fever, and retching, the miserable patient is tortured, in the extreme, and tired of a too long protracted, and wretched existence. The progress of the disease, however, is very various, similar to that in other situations. It will often continue for many years in the simple indurated state, and give little or no uneasiness to the patient: At other times, it spreads amazingly in a few months, with all the symptoms of acute inflammation. It seems to depend somewhat on the original extent of surface occupied by the disease*.

SECT. 5.

3. *Lips, Mouth, and Tongue, (Labia Os, &c.)*

CANCERS of the mouth display a different appearance, according to the particular parts of it which they attack.

In the lips, or inside of the cheeks, they begin, like a wart, or small hard tumor, more or less

* So frequent is this form of the disease in the city of Lima, that we are told by Dr Moseley, women are afraid to sit on the same chair with one affected by it, from the supposed danger of infection.

painful,

painful, and commonly situated at the extremity of an excretory vessel. As the hardness increases, the skin around it becomes more vascular and inflamed, and at last gives way. On giving way, a hard callous substance appears within, which ulcerates, and then the corrosion proceeds, as in other cases; for, by the attack of the neighbouring surface, these appearances are successively extended in every direction, till the whole is at last consumed, and laid bare to the bone, which does not even escape the effects of the poison, if the patient survive so long, and is not cut off by hemorrhage before that period.

The beginning of Cancer, in the form of a wart, is most conspicuous in the lips and tongue; and the under lip is observed to be more subject to it than the upper one*. The character of this species of wart, is always an uncommonly hard base,

* Cancer seldom attacks the upper lip, and where it has been alledged so, Mr Pearson supposes the disease has been mistaken; for that part is particularly liable to a species of Elephantiasis resembling it. It is slow in its progress, is attended with little fœtor, but gradually destroys the substance of the part. A venereal affection may also arise here; but then it must be conjoined with other symptoms. Fissures of the lip, also, frequently put on a Cancerous appearance, though really Scrophulous. In all such cases, it is only by the effect of remedies that we are to judge of the nature of the disease. The Elephantiasis will yield to alteratives, as the Decoction of Guaiac; of the Woods, and the Plummer's Pill, &c.; the venereal affection, to the known specific for that disease.

painful to the touch, and liable to bleed on the slightest irritation. It continues, however, often stationary, for long; but always takes on inflammation at last, when its size augments in every direction. The consequence of this is the rupture of the external teguments, and then the disease proceeds, as in other situations. In its progress on the tongue, the substance of it splits into chinks, which become surrounded with a thick hard margin; and thus the functions of the part come to be destroyed. Sometimes the tongue becomes entirely divided into two.

But Cancer of the inside of the cheek and tongue, frequently appears, first in the form of an open sore, without any previous formation of wart: In this case it proceeds, from an abrasion of surface, in consequence of the irritation from a pointed tooth; and this being continued where a predisposition to the disease prevails, the sore assumes a Cancerous appearance; and in this case it is even more rapid in its progress than in the former. The chief symptoms that attend a Cancerous affection of the lips, mouth, or tongue, particularly of the latter, is the enlargement of the different contiguous glands; and thus difficulty of swallowing, tension of jaws, and pain of throat, arise in its advanced stage. But a more troublesome symptom than even these, is the constant salivary discharge, or ptyalism, to which they give rise; and it corresponds, in quantity, to the progress of the disease. It will amount, at times,

times, to several pounds a day, and suffers no intermission; so that it produces the greatest emaciation and debility, and thus hurrys on the fatal termination of the disease. It is attended with a sense of constant burning heat in the mouth and throat, which regularly increases as the evening Hectic comes on. Where the disease is situated pretty far back, and the salivary glands not so much affected as the parts of the throat, instead of the ptyalism, a constant spitting of tough phlegm ensues, attended with the same symptoms of irritation.

SECT. 6.

4. *Nose, Face, and Skin, (Nasus, Facies, et Tegumenta.)*

CANCERS of the nose, are either external or internal. In the former case, they affect the common skin; in the latter they occupy the fine internal membrane which lines it. The former are generally very circumscribed and flow in their progress: They begin, as on the lip, like a small inflamed wart, with the same hardness of base, and tendency to bleed on the slightest touch or else they discharge a mixed serosity, which, on drying, forms a scab that falls off, and is successively replaced by another for some considerable time. These scabs become, at last, equal
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with the skin, and falling off, give place to an ulcerous appearance below, from which is emitted a ferous discharge, tinged with blood, sometimes purulent; and as this ulcer extends, small tendinous filaments can be perceived spreading from it, into the neighbouring flesh; frequently too little pimples appear on the adjacent skin, the top of which coming to open, they assume an ulcerous appearance, and display the same disposition as in the original seat of the disease. This is the usual progress of Cancer, in every part of the common teguments, and may serve as a general example of its history when affecting the skin*.

In the latter species, or inside of the nose, Cancers begin with a simple thickening of the mem-

* A particular species of Cancer is described by Mr Pott, as affecting the skin of the Scrotum, (or covering of the Testicles) in Chimney Sweeps, and all manufacturers that work in soot. It commences like a wart, as in other parts, and is termed, by the tradesmen themselves, the *Soot Wart*. It occupies the inferior part of the Scrotum, and degenerates soon into a superficial, painful, ragged, ill-looking sore, with hard and rising edges. It never appears till after the age of puberty; being supposed venereal, it becomes exasperated under the use of Mercury, so as to spread over the whole Scrotum, Testicle, &c. and to make its way upwards into the abdomen, when it proves fatal. This species of Cancer is remarkably rapid in its progress; and Mr Pott considers immediate excision of the affected part, as the only certain cure, it being entirely local, and occasioned by the acrimony of the soot retained in the Rugosities of the Scrotum.

brane;

brane ; sometimes also in the form of wart ; but more rarely, this thickening extends and enlarges, so as to fill up, more or less, the cavity of the nose, when ending in ulceration, the soft parts of the nose, and even the bones themselves, become consumed, attended with a most foetid discharge, and ugly appearance of the fore.

Other diseases of the part, especially Polypus, change also into Cancer ; and the tendency to this change, may be judged of in proportion to the firmness of texture and hardness, correspondent to the feel of schirrus in other situations.

SECT. 7.

5. Testicles, (*Testes*).

CANCER of the testicles, is subject to more variety in its appearance than any other form of the disease, both in its original attack, and also in its subsequent progress *. At first its most usual

* Mr Pearson, whom we have had occasion frequently to mention, has been at much pains in pointing out certain Scrophulous affections of the Testicles, resembling real schirrus ; at least he proceeds on the supposition of their being Scrophulous, from their having yielded to the Hemlock Poullice, with small doses of Calomel, Sal Sodæ, and the use of the Bark. Practitioners are certainly much indebted to Mr Pearson, for his observations, and his very laudable
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usual form, is that of a small enlargement, and induration of the body of the testicle, in one point. This enlargement gradually increases, but little or no pain, or marks of inflammation, for a long time attend it, except what arise simply from its weight; but in process of time, and with many patients very early, these first symptoms give place to the same changes as mark its progress in other parts. With an increase of swelling, and incompressible hardness, its surface becomes gradually more ragged, craggy, and unequal, feeling sore upon, or soon after being handled. Severe pains are felt also through its substance, shooting up to the groin, and from the back, darting as it were, in sharp stings, in consequence of its weight. Matter at last forms in different parts of the swelling, and an extravasation of fluid, also, frequently takes place betwixt it and the teguments, forming a mixture of disease, (or *Hydrofarcocoele*.) When matter forms, the spermatic cord, becomes more or less affected; in some other cases, however, it takes place previous to this period. In certain rare instances also, the spermatic cord has been known first affected; but this is not the general progress of the disease. At any rate, from the time matter forms, it gradually enlarges and be-

desire to circumscribe, as much as possible, the extent of this formidable disease. In all cases, therefore, where the affection is stationary, and shews the appearances he describes, his practice is certainly deserving of a fair trial.

comes

comes painful, often to such a degree, as not to bear the slightest touch, and assumes the same unequal feel with the testicle itself. In consequence of these changes, in the appearance of the swelling, discolouration of the teguments ensues, and, at last, giving way, the ulcerous state appears here, with the same characteristic symptoms, as in other parts, viz. a foul foetid fore, with hardened edges, and frequently thrusting out from the substance of the testicles, a painful gleetng fungus, subject to hemorrhage. From the dependent situation of the part, the swelling here is commonly greater than in any other case of the disease, and less easily reduced when the ulcerous state ensues: Indeed, it is generally more enlarged by this circumstance taking place. The discharge is also, for the same reason, more copious, and the constitution and health of the patient, in consequence sooner destroyed*.

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* A very peculiar species of Sarcocoele, (or Cancerous Testicle), is described in the transactions of the Royal Society, being a communication by Sir Joseph Banks. This species of the disease, is peculiar to a certain nation, named the Bambara nation in Africa, lying to the east of Senegal, and more common among the chiefs, than the lower ranks. It begins with a gradual swelling of the testicles, without pain or inflammation. This increase is generally slow, but arrives to an enormous size at last; so that, in the case seen by the writer of the communication, it would have measured from the *os pubis* to the under part of the *scrotum*, at least, two feet and a half long, and its diameter, across from
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SECT. 8.

6. *Penis.*

THOUGH a wart, or tubercle, on some part of the penis, is most frequently the first symptom of Cancer; yet spreading fores of that part, which succeed a venereal affection, or the imprudent use of *Mercury*, are to be considered also, as we shall afterwards observe, as of this class, since they often require excision of the part.

In the *first* form, or that of wart, the disease often remains long in a quiescent state; but when either irritation is applied, or inflammation induced in it, it then becomes painful, acquires an increasing magnitude, and ends, at last, in ulceration,

thigh to thigh, not less than eighteen inches. Being a solid mass, it could not weigh less than fifty pounds. The patient had been under it, no less than twenty five years. It begins commonly about the age of twenty-five or thirty, and though probably connected with a hereditary disposition; yet the immoderate use of Cayenne Pepper, which produces a powerful irritation of these parts, may hasten its excessive increase. Even in the West Indies, and other warm climates, the teguments of the Scrotum are apt to be affected with a uniform firm swelling, without any discolouration, which, in its progress, communicates to the testicles; and this is, perhaps, of the same species with the former, though never gaining such an enormous size. It is also incurable.

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with the same appearance of foetid discharge as attends Cancers in other situations. In the progress of its corrosion, it penetrates into the urethra, and produces fistulous openings, which, from the irritation of the urine, aggravate the disease. If allowed to proceed, it spreads, in time, to the groin, affecting the lymphatic glands, and from thence to those of the abdomen. The original of this disease, in the form of wart, is distinguished by its broad base, exceeding that of its superficies; and by the deep hold its root seems to take of the part within, being less an excrescence from it, than a real continuation of its substance.

When appearing here, first as an ulcerous sore, the progress of Cancer is more rapid. The whole substance of the penis, becomes soon altered to a diseased state. The teguments, over all, acquire a dark red hue, and the substance of the member becomes morbidly hard and solid, so as to be inelastic. The sore has a sloughy appearance, is surrounded with livid unequal edges, liable to bleed, and is exquisitely painful. As it spreads rapidly, internally, the whole projecting part of the penis comes to be destroyed by its ravages; after which, carrying its progress to the abdomen, it proves fatal.

SECT. 9.

7, *Prostate Gland.*

AS well as the testicles and penis, the prostate gland is occasionally the subject of schirrus; and it becomes enlarged, from this cause, beyond its natural walnut size, sometimes to that of the fist. It is entirely a disease of advanced life, and as the part which forms the seat of it, lies deep, it is often mistaken for stone of the bladder. The difference can only be known by examination *per anum*, as recommended by Mr Hunter. The effect of the enlargement of the prostate, is its obstructing the sides of the urinary canal; its acting like a valve to the mouth of the urethra, (or passage), and its projecting also into the bladder, often some inches, so as to form an irritation to that organ. The principal symptom that denotes this affection, is strangury, and next, the difficulty of passing an instrument, or *bougie*, to relieve it. If the obstruction is felt more particularly about the neck of the bladder, there can be little doubt it arises from this cause.

This disease often occasions fistulous openings to be formed for the discharge of the urine, in consequence of the strong action of the bladder, to relieve the obstruction; and by this means a commu-

communication has been known to be opened betwixt the *prostate* and *rectum*.

SECT. 10.

SUCH are the most frequent seats of Cancer which we have now described; but there are also several internal parts, more particularly the stomach and liver, that become occasionally subjected to this malady. Its symptoms, however, when internal, are somewhat obscure, and its progress generally too far advanced for relief, before being detected; we shall here give some history of these forms of the malady, chiefly to point out their similarity with the appearance of the disease in other situations.

8. *Stomach, (Gastritis.)*

THIS affection is more common in the male than in the female; one great cause of it being intemperance, especially in the use of ardent spirits. In both sexes it is a disease of advanced life, and varies in different cases, both in its seat and extent. Sometimes it affects the whole of the organ; but, more frequently it is confined to one part, the *pylorus*, in consequence of its glandular structure favouring more strongly the action of

of the morbid cause. It is marked, at first, with the usual symptoms of *Dyspepsia*, (or stomach complaints); but the sickness and vomiting become, in time, much more constant and severe, every thing whatever being rejected, as soon as taken. The pain also becomes more characteristic, consisting of sharp lancinating throbs, or of a pricking, darting nature; or else of a sense of burning heat. Blood is sometimes thrown up, and often an acrid matter of a very offensive smell. As the disease advances, it can be felt by external examination; and distension of the abdomen, towards its termination, ensues. The pulse here is small and frequent, and the hectic is marked by strong rigors, stronger than in most other cases*.

9. *Liver, (Hepar.)*

THE LIVER is still more subject than the former organ to this disease: It arises frequently, as it were, spontaneously; and from middle age to advanced life, is the period of its attack. Hard drinkers are its more usual victims, and men oftener than women. The symptoms of this affection are often strongly marked in the coun-

* A remarkable case of Cancer in the stomach, is mentioned by Dr Stark where the patient during life, neither felt sickness, nor was troubled with retchings. This circumstance he attributes to the weakness of the organ, being incapable of any exertion.

tenance,

tenance, but at other times they are more obscure; or it is entirely mistaken for *Dyspeptic*, (or stomach complaints), till its last stage. The patient feels slight pain, generally transient, in the right *hypochondrium* extending to the *clavicle*, (or top of the shoulder), and this pain he refers improperly to the region of the stomach: It is somewhat alleviated by eructation, which confirms him in his belief: But as the disease advances, (and it is generally of some years continuance), the occurrence of fever, towards evening, shews it different from *dyspeptic*, (or stomach complaints.) This fever is, at first, somewhat obscure: The heat of the body is increased, but the pulse is little affected. There prevail alternate heats and colds: The breathing is somewhat impeded on motion. The patient lies with difficulty on the left side, and feels a sense of weight and pain from pressure, on the right, under the false ribs. Great uneasiness of stomach seems to take place, attended with obstinate costiveness. A gradual diminution of strength, and emaciation, ensue; and, with these symptoms, there is remarked a pale fallow complexion, and dull white colour, or yellow tinge of the eye. Thus, the disease proceeds, and it generally terminates in an attack of jaundice and dropsy; but, in some cases, the enlargement, or morbid state of the liver, is conspicuous before this period.

This affection is not always fatal, and many have recovered from it, even in cases of long standing.

PART

PART II.

PECULIARITIES OF CANCER.

SECT. I. *Species of Cancer.*

HAVING, in the preceding part, examined the general appearances and most frequent seats of Cancer, and found it display itself always under one of four forms, viz. either as a morbid induration, a fleshy excrescence, a wart, or an ulcer, we shall next offer a division of the disease, with a practical view; and such as we conceive to be sanctioned by experience in its treatment.

Many divisions have been formed by authors, and they have proceeded on different principles, either with a view to point out its nature, as *1st*, into the universal and local; *2dly*, the difference, in its external appearance; or, *lastly*, they have grounded their distinctions on mere theoretical ideas, founded on fanciful hypotheses, and involving no real practical utility. These are too numerous to deserve any quotation.

The different forms of the disease, we conceive, may be all arranged into three species, which
PART
may

may be distinguished by the names of the Predisposed Cancer, the Accidental, and the Cancerous Ulcer; the last being a distinction first taken notice of, with much propriety, by Mr Peryhle.

By the *first* species, we understand every schirous swelling, which arises, at first, without any evident or external cause; and which, though removed, displays still the same disposition in the part, and afterwards in the system at large.

By the *second*, we mean every swelling of the same kind, but which, brought on by accident, or other external circumstances, shews, on its removal, no tendency to return; and the patient continues unaffected by any other form of the disease, or by any succeeding appearance of it in the same place.

Under the *last*, is comprehended every appearance of sore, which, not beginning originally as a Cancer, assumes, in the end, this disposition, and arises as a consequence of other diseases. Not till its last stage, therefore, when acquiring the *Phagadenic* character, is it properly referable to this class.

The first species is by far the most frequent form of the disease. Out of ten Cancerous cases, nine we may set down as of this description, which both accounts for the incurable nature of the malady, and for the small success which is to be expected from extirpation. It is this predisposition then, which we consider as demanding the chief attention of practitioners, without which,

every attempt at a cure will prove ineffectual. Even all the other species of the disease, terminate in this, as is evident from several parts of the body coming then to be attacked, and from the general deranged state which the whole system displays. It has been remarked by some authors, that the predisposition to this species of the disease, is strongest in those of a remarkably healthy constitution, but who have, at the same time, an irritable nervous system; that its presence is particularly distinguished by a shining yellow red colour of countenance; and that while all the rest of the system is tremblingly alive, it is remarkable that the stomach and bowels appear to possess a torpor, which may be considered as characteristic of a tendency to the disease. From experience, we are convinced that this observation is well founded*.

Of the *second* species, or Accidental Cancer, there is little doubt but many cases occur; but it requires much judgment and observation of the disease, to decide, whether they are really of this nature. The comparative number, we are afraid, is not equal to what practitioners, from their prejudice in favour of extirpation, would lead us

* A remarkable case of Universal Cancer is to be found in the 11th volume of the Medical Commentaries, by Dr Kentish, where every part of the system seemed to have taken on a manifest Cancerous disposition. Many other cases of the same kind are to be found in different periodical works.

to believe. Most patients also, by their own history of their cases, would wish to refer every form of the disease to this species; and the idea of a taint in their habit, or a malady of a hereditary nature, they are reluctant to persuade themselves of, as a sort of reflection on themselves or their families. It is this likewise that often misleads a practitioner, and induces him to yield, at times, to the prejudices of his patient, against his own better judgment.

To this division belongs the *Bay Sore*, so frequent, as to be almost endemic at the Bay of Honduras, and supposed to arise from the poison of a fly, as related by Dr Moseley.

Of the Cancerous ulcer, or *third* species, there can be no doubt, since it arises, for the most part, as a consequence of other diseases; often the too free use of debilitating medicines in particular constitutions, and it is always connected with a state of the system at large. Thus, it frequently succeeds the action of the venereal poison, or its antidote, forming Cancerous Bubo, Chancre, &c.

A remarkable species of it is known in the West Indies, under the name of the *Crab Yaw*. Its external marks, as in other cases of Ulcerated Cancer, are its irregular figure, and unequal surface; the acrid fœtid fordid sanies of the discharge; the callous lips of the sore, thick, indurated and painful; and the fungous excrescence from its substance. It is in this species of the disease, that cures of Cancer have chiefly succeed-

ed. Hence some practitioners, as Professor Richter of Gottingen, carrying their ideas of the incurable nature of Cancer too far, have alledged that there are no certain diagnostics of it; that such cures have arisen from practitioners rather mistaking the nature of the disease; for that the term Cancer itself, like that of malignant fever, is often made use of as a veil to ignorance, when the physician is unacquainted with the method of cure. In this way he alleges the Cancerous and Carious Ulcer are often mistaken for each other. But, in spite of this opinion, we may justly contend, that wherever the above diagnostics are present in any case of sore, and where it resists the usual remedies to which other sores yield, whatever may have been its origin, whether venereal, scorbutic, &c. it then properly belongs to this class of disease, and possesses a real Cancerous tendency. This scepticism on the diagnostic symptoms of Cancer, is carried still farther, in a publication on the subject, which we have already made several observations on, by Mr Pearson, surgeon in London: Of all the characteristic symptoms of the disease, he does not allow one as unexceptionable. From such publications, one advantage, we hope, will result, that if they detract from our knowledge of the history of the disease, they will, in the same degree, renders us cautious of proceeding to excision, while uncertain of its true nature, and, in many cases,

cases, prolong the life of a patient, sacrificed to the keenness of the operator.

SECT. 2. *Of the Feelings from Cancer.*

THE feelings from this disease are, at times, very various. They consist, as we formerly observed, of sharp lancinating pains darting through the diseased part; of a sense of burning heat; or of a sort of shooting and pricking, resembling the thrust of needles. The first of these pains prevails chiefly in those cases where the disease affects the more internal structure of the part; and also in the cases of internal Cancer, or of the *viscera*. It is often merely temporary and will remain absent for the space of weeks, and again return without any apparent cause. It sometimes gives place to a dull heavy pain, and when this is the case, it often marks the disease having spread into the cellular membrane, and the vessels having given way, by which the impaction is taken off. These lancinating pains rise to the most exquisite height in Cancer of the stomach and womb. The miserable victim is tortured with them day and night, extending in every direction, and receives no ease, but from the most incredible quantities of *Opium*, which, at times, even fails to give relief.

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The *second* kind of pain taken notice of, is more common in the ulcerated state of the disease, attended often with a smarting soreness, always most painful in the night time, and these uneasy feelings, from this malady, arise sometimes to that height, as to throw the patient into faintings and convulsions, from which he awakes to experience the same renewed scene of torture.

Another feeling, which often arises in this disease, especially when the acuteness of pain is lulled by *Opiates*, is excessive itchiness, not less tormenting than real pain: It proceeds to that degree, as to deprive the patient entirely of sleep; and indeed, in the *last* stage of the malady, sleep is a comfort with which the unhappy sufferer is seldom blest.

From the acuteness of the pain, the virulence of the ensuing Cancer, it has been supposed, may be known; but in no disease are the changes of feeling, or transitions so quick as in Cancer. From the most extreme pain and agony, the patient will often receive an almost instantaneous intermission, without any apparent cause to account for it. The same may be observed in the hectic which attends. From the most violent paroxysm, the patient will be suddenly relieved, and an almost entire *Apyrexia*, (or freedom from fever), often prevail in the course of a few minutes; and these intermissions are not a little deceitful to the attendants, who are led, from them,
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to cherish hopes of amendment, and are also very unaccountable to the practitioner.

SECT. 3. *Of the Progress of Cancer.*

FROM considering the progress of Cancer in different cases, one would hardly believe them to be the same affections. In some the disease advances so rapidly, that it finishes its career in the course of a few months, with all the symptoms of most violent inflammation and acute fever. In others, again, its progress is so slow, as to require a number of years to pass through its different stages. No symptom of fever attends, except for a day or two, previous to the bursting of a gland, and the whole of the acute symptoms immediately depart, on this process being finished. In these Chronic cases, the disease is generally completely peaceable during summer, and the chief attacks of it are confined to the winter months. It is perhaps, in the first species, that the remedies of the *Narcotic tribe* have been found often successful, if not in curing the disease, at least in suspending the morbid action; and the *Saline* and *Mineral class*, if ever useful, seems chiefly suited to the latter. The progress of the disease, also, is much influenced by the part of the body it attacks. On the external surface of the lips, face, or nose, it seems much circumscribed,

ed, and continues long stationary. In the internal parts, especially where the circulation to them is strong, the progress is generally rapid.

SECT. 4. *Of the Dissections of Cancer.*

MUCH has been learned by the investigation of the seats and causes of disease by dissection; but, in Cancer, little can be drawn from this source, to elucidate the nature of the malady.

In every dissection of a Cancerous tumor we find,

I. A hard indurated mass, often arriving at a cartilaginous consistence, and intersected, more or less, by membranous septa, running through it, which are formed by the capsules of the glands having acquired this state; and since, in other places, attacked with Cancer, where no such glandular structure prevails, somewhat of a similar hardness is conspicuous, there can be no doubt but that this state, characteristic of the disease, is originally induced in part by the coagulable lymph, deprived of its thinner parts by absorption, and thickened by inflammation. Thus, Mr Gooch observes, that in cutting out scirrhus tumors, he has found their interior substance, like a hard unripe apple, thin slices of which being boiled in water, had a horny appearance when cold and dry,

dry, and the water they were boiled in became glutinous.

2. Besides this hard part, small *cyfts*, or cells, are likewise found occasionally, containing either a yellow gelatinous matter, a sanious fluid, or a curdled matter tinged with blood. In some cases these cyfts are very large, and, on opening them, they are surrounded with a diseased pulpy mass. Such cyfts are certainly formed by a number of the indurated glands melting down into this matter.

3. On attempting to examine farther the structure of these diseased parts, we find a confused jumble prevail, with a real obliteration of vessels, and the channels of circulation through the part destroyed. The vessels that remain are considerably enlarged, and impacted with a thick black grumous blood, so that, if capable of secreting, it must, in this altered and vitiated state, be a fluid of an unusual or morbid nature.

The obliteration of vessels in schirrus, has been often shewn by the injections of different anatomists.

4. But besides the real indurated part which forms the disease, there appears, in every case of Cancer when it arrives at the ulcerated state, a growth of fungus, various in its appearance, often of so considerable size, as to have been marked by some authors for a distinct species of the disease. This may be considered as an accidental part; but, at the same time, such as denotes the strength of the

Cancerous disposition. This fungus rises irregularly, preserves a clean healthy appearance for a certain time, and gains also a certain height, after which it becomes white at top, gangrene takes place, and it ends in a hollow, or inequality, while the neighbouring parts assume the same appearance, and fall down in the same way.

5. To these constant appearances in every Cancerous mass, may be added, *lastly*, that of long small white filaments, which seem to form a connection between the tumor and the adjacent parts, and have been termed by the earlier writers, the roots of the Cancer; being evidently lymphatic vessels, whose sides have been obliterated, by taking on the morbid disposition.

The above particulars, observed in the dissection of Cancers in general, will be farther illustrated by detailing that of the womb and testicle, as peculiar glandular organs; and afterwards of the stomach and liver.

1. WOMB, (UTERUS.)

DISSECTIONS of scirrhus wombs shew an increase of bulk. Their substance, when cut into, consists of a whitish firm matter, intersected, as elsewhere, with strong membranous septa. The internal surface of the womb, discovers ulceration in different parts, from which long ragged processes are sent out. This ulceration is different in its progress and extent, and is occasionally communicated

nicated to the different parts connected with the womb. The organ is frequently found, in great part, dissolved into this ulcerated mass, with irregular growth, except part of the fundus; for the *cervix*, (or neck), suffers most in this disease. There is seldom ulceration where tubercles only exist, but they are found of various size and shape.

2. TESTICLE, (TESTIS.)

DISSECTIONS of the testicle in this disease, shew, like the former organ, an increase of size, often very considerable; a loss of the natural structure, converted into a hard mass of a brownish colour; which is more or less intersected by membrane, and has often cells formed in it, containing a sanious fluid. When farther advanced, external ulceration appears, assuming either the form of a foul deep ulcer, or throwing out an irregular gleety fungus.

3. STOMACH, (GASTRITIS.)

THE appearances exhibited by the stomach, when exposed by dissection in this disease, are an increased thickness and hardness of its substance; sometimes retaining still, when cut into, the natural appearance, at other times, very much altered. Thus, its outer coat is found hard and gristly; its muscular part intersected by strong

and frequent membranous septa, and its inner coat thick, and, at times, tuberculated. This diseased mass is often ulcerated in some part, or has passed into the Cancerous state; frequently, instead of ulceration, a fungus or growth is thrown out.

Where the disease, again, is more partial, it shews itself in the same manner, as a hard mass, of a whitish or brownish colour; but, in the neighbourhood of it, there appear swelled lymphatic glands. At times, the schirrus tumor has been known to consist of a single enlarged gland, with a small depression near the middle of its surface, and radiated a little in its structure. In this case the functions of the stomach are little or no way affected.

4. LIVER, (HEPAR.)

THE whole mass of the liver, in this disease, is generally found tuberculated, and the tubercles are placed near each other. They are of a rounded shape, of various size, from that of a pin's head to a hazel nut. The organ, in this state, feels hard to the touch; its surface appears irregular, and, not uncommonly, its lower edge is bent a little forwards. When cut into, it consists of a brownish, or yellowish white solid matter. Nor is the size of the organ increased in this disease; the reverse takes place, along with a diminished diameter of its vessels; thus explaining what occurs
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in the state of the circulation in other cases of schirrus. The colour of the organ is often, here, yellow, while that of the gall-bladder is white and empty: The skin, in general, is jaundiced, and there is also water in the abdomen.

Instead of this general tuberculous state, often large white masses are formed in different parts of the organ, particularly near its edges, and between them the portion of the liver retains its healthy state; but this appearance is not so frequent as the former.

J. M.
SECT. 5. *Of the General State of the Blood.*

IN the real Cancerous predisposition, wherever the fluids are subjected to experiment, it has been found by authors, that the *Crassamentum* is extremely loose, and that a superabundant ferocity prevails. This ferocity is also impregnated with a strong saline principle, which would seem, wherever deposited, and allowed to undergo the changes induced by inflammation, to act as a solvent. It is this principle we are to consider, as in some measure the basis of that deleterious matter which is afterwards produced, and corrodes every part that comes within its action. This loose state of *Crassamentum* is confirmed by the great tendency to hemorrhage in all Cancerous cases, by the difficulty of stemming the blood which
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points out its very fluid state; and still farther, by the small quantity of coagulable lymph which appears in it, when allowed to stagnate.

On this subject, however, of the general state of the fluids, a sufficient number of accurate experiments have not, as yet, been made. It is clear the fault is not often in the solid alone, for we find the disease in those of the most tense and vigorous fibre. On this point we hope to be able, in time, to offer a most satisfactory train of experiments, which will serve, in the most complete manner to establish, in the greater number of cases, the constitutional nature of this disease.

SECT. 6. *Of the Discharge from Cancer.*

AS the vitiated discharge in Cancer is a chief symptom, and marked in its advanced state by a *peculiar factor*, more offensive than that from any other species of ulcer, it is proper to enquire into the cause of this peculiarity, and chemistry has been called in to detect it, with advantage.

Dr Adair Crawford is the principal author who has had the merit of subjecting this poison to accurate experiment, as detailed at length in the transactions of the Royal Society, and from these experiments it appears,

i. That

1. That the presence of a powerful *volatile alkali* is detected in the discharge, which changes the colour of vegetable tinctures.

2. That with this *alkali*, there is united an *aerial fluid*, possessing the chief properties of *hepatic air*. And

3. That by the combination of these principles, a sort of *Hepatised Ammonia* is formed, on which the *deleterious* nature of the matter depends*.

The marks of this matter, or real Cancerous poison, are,

1. *A peculiar fætor, highly offensive.*

2. *The swelling of contiguous lymphatic glands.*

And

3. *The corrosion of vessels.*

By the action of these principles, present in the matter discharged, the animal fibre is reduced to the same state as takes place in the *last stage of putrefaction*, acquiring first the appearance of a *white scordes*, and then melting down into this *deleterious fluid*. This fluid acts upon *metals*, and also decomposes *metallic salts*; and hence may be explained the various appearances and effects it displays under different healing applications, in the progress of the disease, particularly the *dark colour* communicated to preparations of *lead*. Such has been, at times, its power of corrosion, that Van Sweiten has seen the linen applied to

* Dogs are the only species of brutes subject to Cancer, and being carnivorous, this ammoniated state of fluid must prevail in them, and is perhaps also a proof of the nature of it.

the fore, as much corroded by it as if touched with *Aqua fortis*.

On the matter of Cancer, similar experiments were made with those of Dr Crawford, by several of the French writers; but they proceeded no farther, than simply to detect in it, the presence of a *strong caustic alkali*, which they chiefly proved by its effervescence with *acids*. Dr Crawford has the merit of having extended his experiments farther, and proved that the *extreme fætor* which attends the last stage of the disease, is entirely owing to this *aerial fluid*, or *gas*: That it is readily disengaged by *acids*, particularly the *Oxygenated Muriatic* (or *dephlogisticated marine*) *acid*, and that all the properties by which the *Cancerous virus* differs from *real pus*, and especially in its deleterious effects, are to be ascribed to this *septic compound*, or *Hepatised ammonia*, which is particularly proved by its corrosive nature, and its irritation of contiguous glands; effects entirely unconnected with the action of the diseased solid.

Proceeding on these principles, Dr Crawford has next enquired how far a medicine that would *decompose* the *Ammonia*, would not alter the nature of the discharge. With this view he has tried the powers of *different acids*: Some of these, as the *nitrous*, even if effectual, must be objected to, as requiring concentration, in order to its action, and, therefore, injuring the animal fibre; but it is to be regretted, that from none of them has he found any tendency to a cure of the disease:

ease: His hopes were chiefly founded on the *oxygenated muriatic acid*, diluted with thrice its weight of water, which, by this dilution, gives little pain to cases that are not highly irritable. In some instances he found that it corrected the fœtor and amended the discharge; but its good effects were by no means uniform, for it failed entirely in many others. Its operation, therefore, is still a matter of equal uncertainty, with most other applications in this disease. How far this acid is to be ventured on internally is doubtful; and also, if used internally, whether it would produce any stronger effect than that of any other simple acid. The *vegetable acid* I have frequently applied externally, and found it remove the fœtor; but the irritation attending its use, always hurt the sore, and occasioned even an increase of the disease, and a disposition of the poison to be more quickly absorbed.

When it is considered, that to these *two principles* now investigated, the poison of Cancer owes its activity, we must naturally infer, that *pus*, while it possesses less tendency to putrefaction than any other animal fluid, must, in the same proportion, be deprived of *those principles* on which putrefaction depends. Thus, on examining it, according to the experiments of Mr Home, it shews no signs of any saline nature; there is neither *acid* nor *alkali* present in it when poured out; and, on subjecting equal quantities of *blood*, *serum*, and *pus*, to the action of heat, it is the

latest of undergoing the different changes, and turning fœtid. From these facts, then, the conclusion to be drawn is, that *pus* is a fluid destitute of the *saline* or *ammoniated* principle, and that to this circumstance it owes its mildness. Since, from the experiments also of Sir John Pringle and Mr Gaber, it appears that *pus* is entirely formed from the *serum*; a farther inference may be made from the preceding observations on the Cancerous poison, viz. that *the serum*, before being formed into *pus*, must differ from *that serum* which passes into the matter of Cancer, even independent of the different state of the vessels, or its being mixed with any extraneous fluid, as blood, &c. the characteristic of vitiated *pus*. If this, then, which is consonant both to reason and experiment, be true, a predisposition depending on the state of the fluids at large, as well as an impaired action of the solid, must give rise to this last disease. Indeed we can hardly suppose, that this change can depend entirely on a simple action of the solid, without the *constituent principles* of the change being originally present in a high degree. In many cases we see Cancer accompanied with an *obvious cachectic state*; and where the marks of this state, in other cases, are not so distinct, still we have reason to conclude, that the same disposition is present, though more obscure, and necessary to the production of the disease. In every case also, this *cachectic state* insisted on, is conspicuous before the fatal termination of the malady.

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To explain it still farther, we may observe, that in health, the animal fluids, as proved by experiment, are found to contain a certain portion, both of *acid* and *alkali*, suspended in their composition. As they pass into a state of disease, the evolution of the alkaline principle gradually increases, while that of the acid diminishes in the same proportion. So long, however, as the functions of the system remain unimpaired, this alteration is not conspicuous; for any tendency to this superabundant alkaline state, is removed by the different excretions, but more particularly by that of the kidneys. Hence, the urine, in health, contains a peculiar salt, and possesses also a strong alkaline smell; and hence it may be considered as *the chief depurator* of the constitution; but whenever the powers of the system become impaired, and the vigour of solid decays, the separation of this alkaline principle, from the general mass, does not take place as before, and its retention proves a *solvent* to the general mass, and by its superabundance, destroys also the texture of solid, so that in this way, if not actually inducing, it at least lays the foundation for various forms of disease, of a cachectic nature.

It is not a little surprizing, after the very accurate experiments of Dr Crawford, which we have already investigated, that nothing more should be detected, either in the Cancerous solid, or matter, than what may be obtained by the chemical examination of dead animal matter, or that which has ac-

quired a putrid taint. In spite of this, the peculiar fœtor of the Cancerous ulcer, gives strong reason to suspect, that there is a something more contained in it, which chemistry has not been able to detect, and which flies off before the matter stagnates on the sore. In the same way, pus, when first poured out from the extremities of the vessels, according to the experiments of Mr Home, is very different from pus allowed to stagnate on the sore; and the slight power of *antiseptics* to cure this disease, further confirms it; so that if a defect of vital air occurs in any disease, according to the latest opinion broached on the subject, it is in Cancer, and this idea deserves to be more fully prosecuted.

It has been also doubted, by some eminent surgeons, whether the matter of Cancer is really contagious, that is, whether it can produce the same form of disease in another person, or produce, simply, the effects of common acrimony.

On this point it is difficult to form any conclusion. Experiments made to settle it would be regarded as cruel; we can only, therefore, catch a few random facts as they occur in authors. From these facts, as criticised at large by Mr Pearson, nothing satisfactory can be drawn. Indeed, there being so few in number in favour of the contagious power, while so many opportunities daily occur of infection being received, especially in the promiscuous intercourse betwixt the sexes,

a strong presumption is afforded against the infectious quality of the matter.

To this argument I can add much confirmation from my own experience, for I have freely handled sores in every stage of the malady, without the least attention to cleanliness; yet no tendency to infection ever appeared. Pimples have even occasionally arisen on those parts of my hands that had touched the sores; but they displayed nothing more malignant than those which arise from simple acrimony, and departed as readily. On one occasion, suppuration of one of my fingers took place, yet no specific symptoms attended it, different from common inflammation. On another, along with suppuration, a swelling of the *axillary glands* likewise occurred. So, that on this point, I can certainly speak with a good deal of decision. Nay, by accident, I was once so unfortunate as to taste the matter from a Cancerous sore: It possessed a peculiar mackish taste, but no bad consequences arose in that part of the tongue which had received it. In stating these facts, however, I would by no means advise, that persons should rashly expose themselves to the action of this poison. Circumstances, may occur, in some constitutions, to give it an activity, which, from experience, we may say, it does not in general possess.

Thus it appears, in Cancer, that the constitution has a power of generating a poison, destructive

tive *only* of itself*. The venereal poison being introduced from without, is circumscribed in its action and requires also a long time before it can draw the fluids into consent, as the solids are generally in a healthy state; but, in Cancer and Scrophula, from the existing predisposition in the fluids, the poison may be considered as somewhat diffused, and they partake, in general, of the state connected with that in the diseased parts. Indeed the Cancerous poison would seem to exert a peculiar influence in the system, greater than even appears by the degree of Hectic present, and in a manner we cannot altogether account for.

SECT. 7. *Of the Cancerous Hectic.*

THOUGH Cancer is attended, like every other ulcerated state, with the formation of Hectic, it differs, in some circumstances, from Hectic in other cases. Even long after matter is formed, and evidently absorbed, the hectic does not appear; a strong argument against the absorption of matter being always a cause of it. The pulse

* As an additional confirmation of the fact asserted, that the poison of Cancer is destructive only of the constitution in which it is generated, it has been given to dogs without any specific effects being produced, though this animal, we remarked is, at times, liable to the disease. This experiment has been made by Febure.

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here is almost always small and weak, however quickened, even where the strength of the system is otherwise pretty considerable; a proof how much the poison of this disease depresses the vital energy, in which it resembles, in a certain degree, some of the effects of scurvy. At first, when occurring, the Hectic is irregular; towards the end, however, it becomes constant and severe, and the patient acquires a fallow leaden appearance, highly characteristic of the disease. The sweating stage also is not very constant, till towards the last, even though the hot stage is acute, and long; and it is, perhaps, on this account, that the colliquation advances so slowly; for unless the patient is cut off by hemorrhage, he lives in this disease to the very last extremity of emaciation and pain. Considerable intermissions also, as was formerly remarked, take place here, especially where the disease is seated on some part of the external surface. Towards the end, in most cases, the irritability of the stomach, which is not usual in Hectic, is increased to a very high degree, nothing, at times, being retained on it.

Where cough occurs in this Hectic, a matter of a pretty viscid nature is spit up, possessing much of the glutinous principle; and it never changes to the purulent state, as in other cases of Hectic. The pulse, in the close of the disease, is sometimes so high as 190.

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SECT. 8. *Of Cancer as a Transitive Disease.*

EVERY practitioner accustomed to attendance on this disease, must recollect facts which tend to shew that it possesses, at times, something of a transitive nature. Thus, in a Cancerous breast, I have frequently known the pain entirely depart, and affect some of the larger joints; frequently the womb, or some of the other organs, and leaving them, again return to the breast. This fact has not escaped the earlier writers, as taken notice of by Mr Pearson. Dr Fothergill was the first modern author, who, in his paper on obstinate pains of the face, has pointed out this connection. Bertrandi has next brought forward some observations on the same subject. These facts we would adduce, if true, as a strong proof of the *constitutional nature* of this malady; and as an additional argument to those which will be found urged in the third part of this work against *extirpation*, and the prevalent opinion of the *local nature* of the disease. Many authors, on the other hand, have wished to consider schirrus as of a *critical nature*, and the symptoms which precede it in many constitutions, give strong grounds for this opinion. Though we would by no means wish to go this length, yet we are perfectly clear that it is not to be removed by *simple applications*
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to the part, or even at an *early period*, before these *constitutional changes*, with which it is, for the most part connected, *are established*.

This is the opinion of the first medical writers, and whoever advises an *indiscriminate early extirpation in all cases*, must be entirely misled by a fondness for operating, against the conviction of facts, which, if much conversant in the disease, could not fail, unless his judgment had been biased, to have impressed on him a different opinion; but we shall resume this subject in the sequel.

SECT. 9. *Of the Theory of Cancer.*

ON no subject of disease has a greater number of theories prevailed, than on that of Cancer; and the incurable nature of the malady, is perhaps, a sufficient apology for every opinion, however absurd, that has been thrown out.

The theory of the ancients, which made it depend on an *atrabilious humour* retained in the habit, and deposited on the diseased part, it is needless to expatiate upon. It was *Chemistry* that afforded the most ready solution for the deleterious nature of the poison; and to the chemical æra of medicine, are we indebted for the principal theories of this disease.

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The *first* that was brought forward by Paracelsus, and after him by Van Helmont, was the supposition of its arising from the existence of a *corrosive, or concentrated acid*; to which they were, no doubt, led by analogy of the similar effects of *concentrated acids* in dissolving the *animal fibre*, with that of the Cancerous virus. But the objections to this opinion, when submitted to the test of experiment, the only sure guide, are strong: for

1. It is found, that beyond the *primæ viæ*, or stomach and bowels, no *pure acid* ever exists in the animal body, in such a quantity as to prove a cause of disease.

2. The Cancerous virus, when submitted to experiments, shews no appearance of *this principle*.

3. *Alkalis*, instead of having any influence in counteracting the effects of the poison, rather aggravate the disease, while *acids* themselves, applied as remedies, evidently check its progress somewhat, and resist, for a while, the putrefactive tendency. Hence, they are recommended by the first practitioners, as the best correctors of the ulcerative stage.

On deserting this *theory of acidity*, the existence of a *caustic alkali* came next to be contended for by practitioners. The facts that support this opinion, are much more probable; for, subjected to experiment, as we have already shewn, the matter is possessed of a *strong alkaline principle*; but, if it is alledged, that this principle, in a *caustic state*,

state, forms the disease, we shall find that it is insufficient, and that there is another property, as we learn by Dr Crawford's experiments, which must be added to it, in order to account for its deleterious nature. Even when added, we shall still find, that the *state of the fluid alone*, is not sufficient for explaining the phenomena of the disease.

From a consideration of these imperfections in the *alkaline theory*, one author has endeavoured to adopt a new idea founded on the supposed existence of *animalcules generating putridity*. This doctrine comes from the pen of Mr Justamond, late surgeon in London, a doctrine first introduced into medicine by the discoveries of Lewenhock, and applied to the explanation of a number of diseases, but which was, long ago, found insufficient for the purpose. Mr Justamond supports his opinion by the good effects derived, in this disease, from *remedies destructive of animalcules*; and also from his having seen, and demonstrated, *such insects* actually present. The former of these proofs, we consider, as highly ambiguous; and the latter we would entirely deny, for inspissated lymph, drawn from a lymphatic vessel, will easily deceive one prejudiced in favour of such a conjecture.

The *only theory*, and the *most rational*, that remains for us to adopt, founded on dissection, and the phenomena of the disease, is, that Cancer consists partly in a *destruction of glandular organi-*

zation, and partly in a *vitiated action of vessels*. The former evidently appears from dissection, in which nothing but a *confused jumble* of parts is to be traced; while the deleterious nature of *the discharge*, abundantly confirms the latter. This *deranged organization* may be considered as the true previous characteristic of Cancer, being the consequence of an obscure, or what may be termed the *carcinomatous inflammation*, exerting itself in the part, and solely confined to its vessels. This deranged organization becomes, in time, formed into a *hard indissoluble substance*, not far distant from the nature of bone, and compared, by many authors, to the nails, and even horns of animals. This substance, taking on acute inflammation, can neither be resolved, nor does it suppurate, the latter process requiring a certain softness of texture. From these circumstances, on its bursting at last, and the exposure of its internal surface to the atmosphere, a *gangrene* of a *slow or chronic nature*, must necessarily ensue; and as *compactness of structure* prevents *exfoliation* of a tooth, when carious, so here *obliteration of arrangement*, particularly of vessels, and *hardness of substance*, prevents a union of parts, and natural growth to stop its progress. From this view, schirrus, however formed, may be considered properly as *an extraneous body*, which cannot unite with the sound parts by any means whatever, and which nature intends, by exciting acute inflammation, and bursting the teguments, to throw off. This, in
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some rare cases, has actually happened; but as its connections, for the most part, cannot be loosened, the atmosphere then acts upon it, and, instead of the intention of nature being completed, a deleterious matter is formed from its substance by a *process similar to gangrene*, not ulceration, for in ulceration there is no obliteration of vascular structure; and this process brings the *neighbouring glandular parts* into the same state, and thus perpetuates the disease. Hence Cancer may be defined, "*A poison produced by a partial vascular obliteration, generated in a certain state of acrimony, for the most part of the fluids of the system at large, and under a vitiated action of the remaining vessels of the part.*"

Such is the theory to be collected from *dissections* of this disease, and a review of the *inefficacy of practice*; and it will apply, in general, to the ultimate stage of hardness, and the consequent ulcerations which ensue. In all their theories of the disease, authors have hitherto taken too contracted a view of it, and by referring it to the state of the fluids alone, they have overlooked the respective share that both solids and fluids have in its production.

SECT. 10. *Of the Causes of Cancer.*

IN investigating the *causes* of Cancer, the first, and most important in order to understand its real nature, is the consideration of those which induce the state of predisposition; both the *period of life* at which it most commonly arises, and the *circumstances of its progress* clearly prove that these causes, whatever they are, must be of a *sedative, or debilitating nature*, and that they are such as are capable of giving rise to, and actually do give rise to a *general cachectic state*. It is this state on which we contend that the obstinacy of the disease depends; and its appearance in the form of Cancer is particularly favoured by the *minuteness and peculiarity of the glandular organization*, whose circulation, at all times, depends much on the irritability of its *own vessels*. Any diminution of the general tone of the animal fibre, must, on that account, display itself by a stronger tendency to obstruction here. Since the two diseases of Scrophula and Cancer are now so frequent, compared with their appearance in former times, there must certainly be *some general and prevailing cause* to account for this frequency, and in order to find it out, the best method will be to make a comparison of the state of constitution
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then, as far as we can collect from medical history, compared with what we find it at present; and this change, whatever, it is, and the causes inducing it, we must then consider as the *chief source of predisposition* to the present disease. If we look into the writings of Sydenham, and of the most eminent physicians who flourished a century ago, we shall find that *bleeding*, a remedy the most debilitating to the human body, was absolutely necessary in a high degree, in most of the acute diseases that then raged. Since we know that the same diseases, at present, will by no means admit of such a plan of cure, or at least never to the same extent; and also that diseases which were always considered as purely phlogistic, (or inflammatory), appear now with new forms, and with evident putrescent symptoms, we must from this naturally conclude, that the constitution was formerly more vigorous; that the solids possessed more tone, and the fluids had nothing of an acrimonious state. If these facts hold true, to what causes are we to ascribe this new or *acrimonious principle*, now so generally diffused. It cannot, it is clear, depend on external causes, for they can only accelerate, or retard, not produce a chronic disease; and they must also have been the same at that period, as at present. We must look for them then in the body itself; and we shall discover their origin, by comparing the mode of life which then prevailed, with what takes place at present. This comparison will lead into a pretty extensive

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five field, which we shall reserve for future discussion; suffice it now to observe, that the difference in the mode of life, betwixt *that* period and the *present*, will, on examination, be found referable to two general heads. *Increase of luxury* in the higher ranks of society; and *immoderate use of spirits*, and *other sedative liquors*, joined to a neglect of the due *quantity of nourishment*, in proportion to the labour undergone, in the lower orders of society. Some difficulty may, perhaps, attend the precise application of these general causes, to any particular modification of disease; but still the fact admits of no doubt, and the more the subject is studied, the greater influence will these causes seem to possess, in accounting for this, and many other forms of disease now so prevalent.

All the other causes of predisposition that have been enumerated by authors, are included in these two general heads. We shall omit, therefore, particularizing them, and proceed to examine next, those which produce the *immediate attack* of the disease, or the *occasional causes*.

The *occasional causes* of Cancer, may be referred, either to *accidental impressions*, producing injury of the part; or to *changes* altering the course of the regular circulation, and determining it to the seat of the disease; or to *both combined*.

Of the *former* are all *external accidents*, as *blows*, *contusions*, *preceding inflammation*, &c. Hence, in almost every instance of Cancer of the breast, we find

find it accounted for by the patient on this cause of *accidental injury alone*. Even the practice of *wearing stays*, in the manner commonly practised by females, must greatly expose to obstructions of this part, and resist the passage of the fluids, through the minute vessels.

Of the *latter*, are *all suppressed discharges, affections of the mind, &c.* Some authors have endeavoured to explain the action of the first of these causes in a different way; and, instead of considering the *suppressed evacuation*, as thrown on the diseased part, they have referred the appearance of the disease, solely, to the general debility of the system, occasioning the suppression, as one of its consequences, but unconnected with the appearance of the future schirrus. As we find, however, that the disease is, at times, removed by the return of the suppressed discharge, and that even with an increase of debility in the system, it must be admitted, that there is more in this opinion, so long entertained, than these authors would induce us to believe. Those women, also, who are seized with Cancer at an earlier period of life, are, for the most part, we find, such as are irregular in this respect. Hence we must still consider the *departure of the regular menstrual discharge*, as the cause of Cancer in the female in advanced life, as well as the *suppression of the hemorrhoids* in the male, where long accustomed to them. Indeed, out of twenty women seized with

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Cancer,

Cancer, fifteen of them will be at this *critical age*.

On affections of mind, we may observe, that in delicate irritable habits, *the long pressure of grief*, being a powerful debilitating cause, has been taken notice of by many writers, as a chief promoter of this disease; and *sudden and violent emotions* are, at times, attended with the same effect, which shows the share the state of the solid has in the production of Cancer.

SECT. II. *Of the Prognostic in Cancer.*

IN forming our opinion in Cancer, it is *in general unfavourable*; but still we are often agreeably disappointed in some successful terminations of the malady. In directing our judgment, we are to be determined chiefly by the *situation* of the disease, and the particular species of it, as affecting, more or less, the *constitution*, or general health of the patient.

With respect to the *first*, it may be observed, that Cancers on the *face, lips, and nose*, are oftener cured than in the *breast* and *testicles*, where the structure is more complex, and the circulation so minute, as to be easily obstructed, and induce that obliteration of parts which forms the disease.

In regard to the *second*, we are to judge from the *marks of predisposition* that appear in the habit; and from the *progress* of the disease,
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and the *extent* to which it has already proceeded, or to which it has advanced in a given time. Thus, if Cancer arise as a consequence of other diseases, in which an *evident taint* of the *general mass* appears, or in a *constitution worn out and exhausted*, an unfavourable prognostic is inevitably to be formed. The same conclusion is to be drawn, where the disease appears to be making *rapid progress*; where the *contiguous parts* are quickly taking on the diseased state, and *especially* if the *absorption* into the system is evident from *lymphatic swellings* in that direction. The degree of pain also, may be considered as a leading mark of its extent and progress; for we never find the *healing process*, or even the *discussion of the swelling* attended with much pain.

It is very seldom that we have an opportunity of seeing a Cancer in its very first stage. It is only when the disease has proceeded some length, and the patient begins to be alarmed, that medical assistance is called in. In the case of women also, a mistaken delicacy prevails for some time, and those precious moments are thus lost, when simple obstruction being only present, resolution might be effected. Before a practitioner is consulted, the advice of the female friends is first taken, and applications often made on their recommendation, of a very exceptionable, not to say injurious nature. Hence *scirri* of the *breast*, more than any other part, claim an unfavourable prognostic; and of cases of *Mammary Cancer*, the

proportion of cures is, perhaps, much less than of any other part of the body, which is, in part, to be explained from the above observation. It is on this account, that some authors have arranged Cancer of the breast, as a *particular malignant species*, noted for its virulence.

SECT. 12. *Of the Comparison betwixt Schirrus and Phlegmon.*

AS it is of much importance to mark strongly the *character* of *schirrus*, so that no mistakes in its incipient state may arise, or lead to improper practice, we shall draw a comparison betwixt it and *phlegmon*, in their principal symptoms, and this will make them more readily distinguishable from each other.

1. The first external appearance to be remarked, is in the *different state of the skin*. Thus the skin that covers *schirrus*, though *inflamed* and *red*, remains *still flaccid and wrinkled*, while the skin covering *phlegmon*, or a *benign glandular swelling*, is always *shining, full, clear and tense*.

2. The *second* difference to be remarked, is in the *feelings* of the part.

The *pain* of *schirrus* occurs at *intervals*, *arises suddenly*, and as *suddenly departs*; is *rare at first*, becomes by *degrees* more *frequent*, and is pretty *constant*

constant at last, with a sense of *burning* or *stinging*. In *phlegmon* the *pain* is constant from the beginning, more or less acute, at times, and attended with a sense of *throbbing*, or *pulsation*.

3. The *third* difference to be remarked, is in the *feel* of the tumor towards its termination. In *schirrus*, as it increases, there is a *general increasing hardness and thickness of teguments*, to the feel, without the *smallest tendency to imposthuration*, in any particular part. In *phlegmon* the teguments appear to *thin*, especially in *some particular part*, which becomes somewhat *pointed*; and where a *fluctuation of matter*, or *imposthuration* can be readily felt.

4. The *last* difference to be remarked, respects the *state of fever*. In *schirrus*, no *proper fever* attends; for though the pulse may be occasionally quickened, it remains always *depressed, weak, and small*; but, in *phlegmon*, *fever* is a *proper attendant* of the disease, and the *pulse* marking it, is always *quick, strong, tense, and full*.

SECT. 13. *Of the Distinctions betwixt Cancer and Scrophula.*

IN looking into many authors who treat of Cancer, we find it, and the former disease of Scrophula, often confounded, and referred to one common

common cause. This more readily takes place where Scrophula occurs, as it sometimes does in advanced life. We shall, therefore, endeavour here, to point out the most material distinctions betwixt the two diseases.

1. The *first distinction* to be observed, is in *their seat*.

There are *two sets* of glands in the body, the one *secretory*, the other *lymphatic*. The former, we find, always the *seat of scirrus*; and any gland of this description, may become affected with a *Cancerous disposition*; but the *lymphatic*, or *absorbent glands*, are never the *primary seat* of this affection, though they become tainted by *absorption* from a *neighbouring part*, in the same way, *only*, as every part is liable, from its connection with another, to the attack of the same disease in its progress. Hence, practitioners of the greatest experience declare, that they have never met with one *unequivocal instance* of a *primary scirrus* of an *absorbent gland*. On the other hand, the lymphatic glands are the *peculiar seat of Scrophula*; and it is on this account, that many authors have considered Scrophula as entirely a disease of the lymphatic system. Dr Cullen expressly views it, as owing to a *peculiar constitution* of this system, and wherever any part of this system appears *indurated*, at *any period of life*, we should be a little doubtful of its nature.

2. The *second distinction* to be remarked, is, in the *state of the solid*, characterising the two diseases.

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In Scrophula, there is always observable a *flaccidity* and *debility of solid* at the period at which the disease first appears, and this being removed at a certain time of life, the disease often departs.

In Cancer, there is generally no *apparent fault of solid*, in the system in general, *except in the diseased part*, where, in the end, a *want of cohesion*, the effect of the morbid poison, evidently appears, and *there only*.

In Scrophula, then, the defect seems to be in the *tone* or *vigour*. In Cancer, perhaps, more in the *constituent principles* of which the solid is composed, and chiefly in that part where the disease is seated,

3. The *third*, and most important distinction betwixt the two diseases, lies in *the nature of the discharge*.

In Cancer we have seen there is always present a *deleterious hepatised ammonia*, proving a *solvent* of the *animal fibre*, and shewing the fluid possessed of a highly *saline state*. In Scrophula there seems, simply, a *superabundance of serosity*, and *want of union* betwixt the parts of the fluid. Any acrimony acquired, is merely the effect of stagnation; hence no infection can be communicated by it.

4. The *fourth* distinction is in the *feelings of the part*, communicated by the two diseases. In Scrophula there is generally *little or no pain*. The *swellings* are of an *indolent nature*, and the changes are *so slow*, that till the *external teguments* become
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affected, there is *little uneasiness* from the disease. In Cancer again, the *sensations of pain are acute*, either of a *sharp lancinating nature, darting, as it were, deep through the part*; or there prevails a *sense of burning heat, or disagreeable itchiness*; and these feelings, though *occasionally suspended*, are *yet frequent* in their recurrence.

5. The *fifth* distinction that may be noticed betwixt the two diseases, is in the *different periods* of life at which their attacks are most liable to take place. Thus Scrophula is almost *entirely a disease of youth*, and is most frequent from the *age of four to puberty*, at which period the external species, except deep rooted, generally disappear. Cancer, again, is, for the most part, a *disease of age*, at least it is never known *till long after the age of puberty*; and its most frequent victims are *after the age of forty*, in both sexes, a period of life when most of the forms of Scrophula disappear.

PART

PART III.

TREATMENT OF CANCER.

A view of the treatment of Cancer is one of those circumstances which shews the inefficacy of every boasted theory that has been formed of the disease. In entering upon it, it is proper we should recall, to the attention of practitioners, what has already been taken notice of in the preceding part, viz. *first*, the morbid circumstances, that, from observation, seem, in almost every case, to precede the disease; and, *2dly*, those which oppose the action of remedies upon it, when formed.

The former consist of,

1. The obstruction, or impaired state, of some principal discharge. And

2. The acrimony, or faulty composition of the system of fluids.

These two I consider as in some measure connected, and in a greater or less degree, almost the constant forerunners of this malady.

The circumstances, again, that oppose the action of remedies upon the disease, are

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1. The period of life at which Cancer takes place, when the powers of the system, particularly of the glandular, or secreting part, are beginning to be, or are already too languid ; and,

2. The effects of the long continued and obscure *carcinomatous inflammation* of the part, which generally lays the foundation of the malady, before being perceived ; and thus induces the altered organization, counteracting any favourable efforts that might be made by means of general remedies, to complete a cure.

The treatment of Cancer has been conducted on three several plans ; by attacking it, either *constitutionally, locally, or both* ; and we shall observe, in each of these, how far a regard has been paid to the preceding morbid circumstances enumerated.

SECT. I. *Of the Constitutional Treatment.*

THE *constitutional treatment* of Cancer, is properly divided into the *radical* and *palliative*. The former has been chiefly aimed at ; but its want of success has induced most practitioners, of late, rather to content themselves with the latter.

I. RADICAL.

THE *radical* treatment has consisted in the use of remedies of three different kinds.

The *first* are certain substances of a supposed *alterative nature*, proceeding on the principle of an existing predisposition.

The *second* are *direct stimulants*, either of the *saline* or *mineral class*, employed to affect the powers of the living solid. And,

The *third* are the *narcotic tribe*, which act, by repressing the prevailing morbid irritation, and thus allow the natural powers of the system to operate for the removal of the disease.

The *first* set of remedies has received the common appellation of *sweetening medicines*, from their supposed action in correcting the vitiated fluids. They consist of the different woods, as the *Sarsa*, *Guaiac*, *Sassafras*, *China*, *Serpentaria*, &c.: They are generally used in decoction; but from their sensible qualities, their powers seem too weak to deserve being employed in this disease. Their usual forms are, the *Decoction of Woods*, and *Lisbon Diet Drink*; more rarely they have been preferred in substance.

The *second* set of remedies are the most powerful, and depend, for their action, on a *strong stimulus*, differently modified, according to their nature, and the different alterations they have undergone by *pharmaceutical*, and *chemical* treatment.

We shall examine the articles of this class separately.

IRON, (FERRUM.)

OF *Iron*, the chief preparation used in this disease, has been the *Flores Martiales*, highly extolled by Mr Justamond. This medicine he carried gradually to the length of two drams in the course of the day; but its virtue was confined only to a temporary appearance of cure, which yielded soon to the inevitable progression of the disease. At the same time, it was observed, that the general health was amended somewhat under its use. In the schirrous state of the affection, the author goes the length of regarding this medicine, as highly specific, and that the progress of the disease, if carried sufficiently far, may be retarded by it; at all times a desirable, and, in particular situations, a most fortunate circumstance. If, however, I offer an opinion of its real merits, I would say that it can be viewed in no other light, than as a powerful tonic; and like all medicines of this class, it may, for a little time, suspend the morbid action, though, in doing this, it is no way entitled to any specific praise; nay, the progress of the disease, will be even more rapid after this suspension, than if it had not been exhibited.

The *Blue Vitriol* has been also introduced, as possessed of active powers over this disease, and tried by a practitioner at Paris. His success
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with it, however, was not equal to his exaggerated praises; and, out of seven patients entrusted to his care, at the Hotel Dieu, only one, we are informed, was really cured. In its operation it proved violently emetic; a circumstance which must render its exhibition so unsafe, that the remedy is, perhaps, worse than the disease.

MERCURY, (ARGENTUM VIVUM.)

IN this disease, practitioners have been fonder of having recourse to *Mercury*, than the former mineral, and reasoning, from analogy, of its powerful effects over the venereal poison, their hopes were certainly well founded. There are, no doubt, on record, a number of cures (of what was supposed this malady,) having been accomplished through means of it; but they are few, when compared with the cases of its failure, and the instances of its noxious effects. We have, therefore, some reason to doubt, whether those instances related of its success, were real cases of Cancer; general opinion, the best criterion of success, has now decided against its exhibition at all in this disease. The particular circumstances of the few cases in which its efficacy becomes appealed to, have not been accurately noted; and if it is to be employed here, I should conceive that advantage is only to be expected in the first stage of the affection, when simple obstruction, not altered organization, forms the disease; in the latter

latter case, by hastening ulceration, a natural consequence of its action, it must do harm.

There is indeed one form of the disease, schirrus of the liver, in which *Mercury* is found and acknowledged to be specific. We have reason therefore to conclude, as it is by no means infallible even here, that the disease, in this organ, is longer of passing into the actual schirrous state, than elsewhere; and that it is successful, under the same circumstances I have mentioned above. The different forms in which *Mercury* has been used in Cancer, are either in that of the *Blue Pill*, in small doses of *Calomel*, according to the practice of Drs Buckner and Gmelin, who have expressly written dissertations on the specific powers of this particular preparation; or it has been more frequently employed in the form of *Corrosive Sublimate*, largely diffused, first recommended by the celebrated Dr Sanchez of Lisbon, whose practice is detailed at length in Haller's collection.

But, still latter than either of these modes of practice, the combination of *Mercury* with *Antimony*, has been strongly contended for, as rendering it a safe remedy by Dr Rowley; and he has even advanced cases of its success on this plan. His general opinion, however, seems to be, that it is chiefly to be depended on in the first stage of the malady. When joined with a strict regimen, and given in small doses, continued long, it promises

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to be often successful; though this practice requires farther confirmation.

ARSENIC, (ARSENICUM ALBUM.)

THUS disappointed in their exhibition of *Mercury*, practitioners next turned their views to a more powerful article of the same class, *Arsenic*; and it of late has been more universally employed against this malady, than any other mineral whatever; but I must add, with a confidence in its powers, which neither reason, experience, nor even humanity seem to sanction. Though prescribed by a number of practitioners, in the cure of intermittents, particularly of the quartan form, previous to his time, in this disease, it was first recommended on the authority of Mr Febure. He gave it in solution, in the same manner as the *Corrosive Sublimate*, beginning with a table-spoonfull of a solution, containing four grains of the mineral to a pint of distilled water, taken every morning, fasting, in milk, and increasing it every eight days, till the patient was brought to the length of six table-spoonfuls a day. Though it has been employed by the generality of practitioners with a sparing and timed hand, on account of its well known deleterious qualities, yet, by a few since Mr Febure's time, especially by Mr Justamond, for the sake of trying its real effect, it has been pushed to considerable length; but, I am sorry to add, with success in none but one case.

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He gave it, he informs us, to the extent of two grains a day, and was only deterred from continuing it in this dose, by the manifest injury which the general health seemed to sustain from it. From an unlucky prejudice, however, in its favour, though no way confirmed by the detail of his own cases, he goes so far as to consider this remedy, if used in sufficient quantity, as the real antidote against the Cancerous poison; but surely, if he used it in a quantity greater than he found the constitution could bear, and still it did not cure, if carried to a greater length, even were it successful, the remedy would certainly be worse than the disease. This opinion, however, of Mr Justamond, is strongly supported by the practice of a French surgeon, Mr Ronnou. In a course of fifty years, we are told by this gentleman, he cured no less than twenty patients with this medicine, which he used both externally and internally. A similar practice to this of Mr Ronnou, I am informed by Dr William Wright of Edinburgh, formerly of Jamaica, (a gentleman well known in the medical world for his many valuable communications, and distinguished, still more, in private life, for his integrity and worth,) prevails in the West Indies, in that species of the Cancerous ulcer which succeeds *lues*, and that cures are completed by it. To these facts, I shall add the report of another practitioner of this place, who contends, that in a long course of practice, he has cured

cured no less than thirty cases of Cancer, employing it in the same manner as mentioned by Dr Wright.

Yet, in spite of these very strong recommendations, from all that I have had occasion myself to observe, I cannot perceive that the action of *Arsenic*, is any way different from that of *Mercury*, except in the degree of its stimulus. In a variety of cases in which I have tried it, both simply, and with different combinations, and after having pushed it to considerable length, I have found it totally inadequate to effect a cure. It may be remarked also, of the above successful cases, how small the number was when compared with the whole that must have fallen under the care of these practitioners, during a term of so many years. These successful cases, then, are to be considered, rather as exceptions to a general rule, and must have been connected with circumstances of a peculiar nature, different from genuine Cancer, which have been overlooked. On these circumstances the success must have depended. Indeed, to reason merely on the operation of *Arsenic*, I would aver, that its effect, and that of the whole tribe of minerals, can only be to stimulate the system, and, by this, unavoidably to increase the inflammation of the diseased part, thin the solid, and thus favour its passing into ulceration: Hence a manifest aggravation of symptoms must ensue. If, to this consideration, we add the highly deleterious effects of this mineral on the constitution, it be-

comes then more exceptionable than any other; and even, if useful as a palliative, that circumstance must always prevent its being long persisted in, as diseases, more fatal, must be expected to succeed its exhibition, than even that against which it is employed.

But to obviate, as far as possible, these deleterious qualities of the mineral, supposing them to arise, chiefly, from its mode of introduction into the system, and its action on the first passages, a proposal has been made to administer this remedy *externally*, by absorption through the teguments. For this purpose, a method is suggested by a Mr Sherwin, of increasing the solubility of the *Arsenic*, by joining it with equal parts of *Crystals of Tartar*; and, in this saline state, it is readily taken up when rubbed on the hands, or other parts of the external surface; perhaps, indeed, the safest method is, to reduce the mineral always to a saline state, and use it only in this form. In this way it has, of late, been introduced into practice by several physicians, against other diseases, particularly Intermittents, Epilepsy, &c. but I have not heard of its being much tried in this form in the present malady.

ANTIMONY, (ANTIMONIUM.)

IN dismissing the subject of *Arsenic*, we are next led to mention the use of *Antimony* against this disease. From its possessing an arsenical principle,

ciple, the same effect may be expected to follow its exhibition, as the former article, except in a less powerful degree. The form in which it has been prescribed here, is that of the *Antimonial Pills*, it seems a favourite ingredient in the prescriptions of Dr Rowley.

TIN, (STANNUM.)

THE same may be said of *Tin*, which owes its activity entirely to the same deleterious or arsenical principle; one-eighth part of this mineral being generally found mixed in powdered tin.

MURIATED BARYTES, (BARYTES MURIATA).

A more modern remedy than any of the above, lately brought into notice, is the *Muriated Barytes*. It was first recommended by Dr Adair Crawford, and, from its sensible qualities, seems to possess active powers; but, except in two cases related by Dr Crawford himself, it has failed in the hands of every other practitioner. It was given by him in the quantity of from four to twenty drops, twice a day, being entirely regulated by the state of the stomach, though, when carried even to this length, it seems to have produced disagreeable symptoms: When successful, he relates, it increased the flow of urine, and shewed

an amendment of the appetite and general health. As this medicine is, by Dr Crawford's own account, so often contaminated with different *Metallic Salts*, it is, perhaps, as much to this contamination, as to any thing else, that it owes its medical powers. At any rate, late experience has confirmed its inefficacy in this disease.

BORAX.

FROM the peculiar nature of *Borax*, a substance whose virtues are, as yet, little understood, I was induced to make some experiments with it in this disease. The result of these was in its favour, as a palliative remedy against the stage of ulceration; for it evidently shewed an effect on the discharge, both in lessening its quantity, and meliorating its appearance; but, while it produced these beneficial effects, it increased, in some degree, the schirrous state.

ELECTRICITY, (AURA ELECTRICA.)

IN enumerating the different remedies in this disease, the use of *Electricity* must not be omitted. It can only act, however, in the stage of swelling; and many cases of the resolution of schirrus, are related by writers on the subject of *Electricity*. Its first introduction into practice, in this disease, arose from the accidental cure of a lady in Ireland,

land, by a stroke of lightning, as related by Dr Eafon, in the Medical Commentaries. But, from this application not being often used, we are afraid, it is, either a remedy not so successful, when applied by the hands of *man*; or that its other bad effects on the system in general, when long continued, prevent its being employed.

LIZARD, (LACERTA.)

As somewhat connected with the class of remedies we are at present enumerating, in its mode of action, (which has been compared to that of *Mercury*,) may be mentioned a medicine of the animal kingdom, employed as a specific against this disease. We have the account of it in the Transactions of the Royal Society of Medicine at Paris, being the translation of a Spanish Memoir on the subject. In the province of Guatimala in New Spain, we are informed that the use of the small *Green Lizard* is common in the cure of Cancer, and attended with the greatest success in the ulcerated stage. Two or three of these animals are directed to be swallowed daily, on an empty stomach, being first prepared by skinning them, and cutting off their heads and tails. Their operation is attended with strong symptoms of fever, viz. *great heat, sweating, and salivation*; but the success is very sudden, generally in the course of three or four days a cure is effected. This practice is said to have been very common among the Indians in
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South America. It was attempted by the Spanish physicians with the *Lizard* of their own country; the circumstance of its being exhibited newly killed, preventing any being procured from America: But experience has shewn the same inefficacy of it in Europe, as that of many other boasted Indian specifics; and this remedy has the farther objection to it, in being highly disagreeable to the patient, though this last circumstance might be somewhat removed, by forming it into pills.

From the class of *direct stimulants*, the principal of which employed in this disease we have now enumerated, we proceed, in the *last* place, to examine the *tribe of Narcotics*.

HEMLOCK, (CONIUM MACULAT.)

OF the narcotic tribe, *Hemlock* stands here at the head of the list. It was the substance used by the ancients for poisoning criminals, and became, first, regularly introduced into medicine, for internal use, on the authority of Baron Storck, after having ascertained the safety of its exhibition in his own person. Like most new medicines, it has been both over-rated and undervalued in an improper degree. Truth, however, never lies in extremes: That cures in this disease have been made by *Hemlock*, is vouched by the most respectable authorities; that it has oftener failed, is equally true; and it becomes, therefore, of some
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consequence, to determine in what cases it may be depended on, and in what not. From a consideration of the history of Cancer, formerly delivered, it will evidently appear, that it is only in the first stage of the disease, that a cure by *Hemlock*, or indeed by any other article of the *Narcotic tribe*, can be effectual. For if the destruction of organization, or actual schirrus, has commenced, it is clear, that no resolution can take place; the tumor can only be lessened by the process of suppuration, which requires the bursting of the teguments. I formerly endeavoured to prove, however, that no accurate judgement can be always formed, when the *first stage* of the disease is *terminated*, and the *actual schirrus* begun. In many cases, the solids being lax, the state of simple obstruction will remain, even though the swelling is pretty considerable in size; while in others, where the solids are more tense, a destruction of organization will take place, even though the tumor is small, and we might suppose, from appearance, simple obstruction alone prevailed. As this remedy then, it would appear, was more successful with Baron Storck in the stage of swelling, than of ulceration, I can account for it only in this way. His veracity I would by no means think of impeaching; and especially when a number of his cases were sanctioned by the venerable authority of Van Sweiten, and others. At the same time I doubt, if, in his cases, the Baron adhered always strictly to schirrus; for many of them
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appear to have been swellings from Scrophula, or at least of a doubtful nature. Yet even though this may have been the case, still there is no room for that scepticism, so illiberally betrayed by many authors on this subject, and by none more than the late Mr Hill, surgeon at Dumfries, who, from his prepossession in favour of extirpation, has decried the *Hemlock* with the most unjustifiable prejudice, and has gone even the length of affirming, "that were it his misfortune to have a Cancer, even of the slightest kind, he would not delay a single hour in expectation of a cure from the use of the *Hemlock*;" an assertion which, I am afraid, will, in most cases, apply as well to *extirpation* as to the *Hemlock*.

From the general use of this remedy, it has been exhibited in almost every form of *powder*, *pill*, *mixture*, *bolus*, &c. When used, it should not be too young, but gathered when its flowers decline, for, at this time, its powers are strongest; and as it is sensibly weakened by the action of fire, its *recent powder* is, perhaps, its best form. It may be begun with six grains in the day, and gradually increased to the length of seventy, or even upwards; but as it is a medicine very apt to vary in its strength, from the different circumstances of its age, growth, &c. the best rule, that no danger may attend its use, is to begin with a small dose, and carry it to such length, as to shew sensible effects, by *touching* the *head* and *stomach*; and in this way it has been brought to 120 grains

a day: Nay, one case is mentioned in the 37th volume of the Journal of Medicine, of 360 grains of the extract being *daily used*. The symptoms that mark its action in an over-dose, are a *giddiness*, affecting the *head*, and *motions of the eyes*, as if something pushed them outwards; a *slight sickness*, and *trembling agitation* of the body. When these occur, it should be pushed no farther. It is proper also, at times, to interrupt its use. Its operation is always slow, and a year, or longer, is often required before being successful. A new form, in which it has been, of late applied, is that of a *bath*, first introduced with success, according to report, into Germany; but this recommendation has had little influence in this country, it being highly inconvenient in its application. Even Mr Justamond, the author who first made this practice known in Britain, could almost never prevail on his patients to employ it. It was always, when employed, attended with symptoms of a strong symptomatic fever, and a large discharge of matter from the sores, with no tendency to granulation. One remarkable case, however, of its success in this form, occurred in the practice of Dr R. Hamilton. Its effects were so speedy, and so conclusive, as to render it entitled to a farther application. In this case, it was observed, that no granulation of the ulcer took place, but the sides contracted every day, till they became contiguous, after which they united from the bottom upwards.

I have been the more particular on the *Hemlock*, as the same observations on its action apply to the whole of the *Narcotic tribe*, and they will not, therefore, need to be repeated. It is the circumstances alone in which they differ from each other, that will deserve to be pointed out.

DEADLY NIGHTSHADE, (BELLADONNA.)

NEXT to the *Hemlock*, for its powers over this disease, stands the *Deadly Nightshade*. That cures have been made with it, under the same circumstances of the disease as by the *Hemlock*, there is little doubt; but that it has as frequently failed, must be also admitted. It was first introduced into practice against this disease by Dr Alberti, in his dissertation at Hall. It was afterwards farther recommended by Professor Lambergen of Groningen, who, like Storck with the *Hemlock*, first tried the safety of its exhibition on his own person; and also by Dr Munck. On the authority of these authors, it has been frequently employed since by a number of practitioners, with various success. At the same time it must be observed, that the silence now held respecting its virtues, is the best proof it has not deserved all the reputation its first recommenders bestowed upon it. One of the most convincing proofs, however, of its good effects, is related by Dr Cullen, where, though it did not complete a cure, still it showed strong powers over the disease; for
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being used for a time, and then laid aside for an equal length of time, the progress of the malady corresponded entirely to these periods of its use and suspension. When successful, it is generally attended with evacuations, particularly by sweat or urine. It is the leaves of the plant that are preferred, and they are employed in every form. The *infusion* has been known to bring on a disagreeable dryness, or stricture of the throat, which has often prevented its being pushed to proper lengths. It is begun with a grain dose, and gradually increased, the *powder* of the *dried leaves* is now preferred to the infusion.

WOLFESBANE, (ACONITUM.)

WOLFESBANE is another remedy of this class, which, from some experiments of Dr Storck, is said to have been successful in the cure of this malady, where the *Hemlock* failed. Its effects I have never had experience of, and, therefore, I can offer no farther opinion of its nature, than as possessing the same general principle of action with the former article, and being highly deleterious, which a number of fatal instances have unfortunately proved; the same success may, therefore, be expected from its exhibition. It is given, either in the *form of extract*, or *tincture*; in the former, two grains of the inspissated juice are rubbed with two drams of *sugar*; and of this ten grains are given night and morning. In the latter, one

part of the leaves is used to sixteen of the spirit, and forty drops make a dose.

HENBANE, (HYOSCIAMUS.)

HENBANE is another powerful remedy of the same class, first introduced, like the former, into modern practice by Dr Storck, against this malady ; but it has been employed as an anodyne from the earliest periods of medical history, by the first physicians. For use, it is preferred in the *form of extract* from the *leaves*, and being begun with the quantity of half a grain, it has been gradually extended to the length of half a dram.

LAUREL WATER, (AQUA LAUROCERASI.)

THE *Laurel Water* has been tried by Professor Richter of Gotingen in various ways, in the extent, of from forty to sixty drops. No success over the disease, as far as we are informed by him, attended its use ; and as it produced dysenteric, and other morbid symptoms, it seemed an application unsafe to be persisted in.

VOMIC NUT, (NUX VOMICA.)

ALONG with these Narcotics, I have frequently joined the use of the *Vomic Nut*, an article possessing both strong Tonic, as well as Narcotic powers.

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But from all the trials I have been able to make, any advantage derived from its use was confined to the ulcerated state, and while it gave a more cleanly appearance to the fore, it evidently increased the schirrus, and occasioned its augmentation.

These are the principal articles of the *Narcotic tribe*, employed against the present malady: Many others may, perhaps, be added to them, and I am informed, that among the Turks, several Narcotics are used very successfully, unknown to the practitioners of this country; but whatever their powers may be in this respect, still the general principle of these remedies is the same; and whatever other combination of quality they unite with their Narcotic virtue, the same may be supplied by our junction of the Narcotics known, with other remedies.

2. PALLIATIVE.

This finishes our examination of the *first* part of the *Constitutional treatment* of Cancer, or that employed with a *Radical view*; but physicians failing, for the most part, as was formerly observed, of success, with these various remedies enumerated, and despairing of getting acquainted with any *specifics* capable of effecting a cure, have, for some time past, from seeing their attempts frequently

frequently increase the violence of the malady, contented themselves *solely* with a *palliative* mode of relief.

This has differed in its principles, according to the different stages of the disease.

In the *first*, or scirrhus state, it has been applied to check the progress of the tumor by *obviating inflammation*, and *relieving pain*.

In the *second*, or ulcerous stage, the same end is attempted, by *counteracting debility*, and *restraining the power of the Hæctic*.

First Stage.

THE indications of the former are executed by a *strict antiphlogistic course*, particularly in the use of *small bleedings* from the diseased part, repeated on any increase of pain, or signs of increasing inflammation, so as to retain the swelling in an indolent state. With this, is joined the *occasional exhibition of saline purgatives*, of a refrigerant nature; and also, though more rarely, *mild diaphoretics*, to preserve the excretion of surface. This is the practice strongly recommended by Dr Rowley, and is said to have been even specific in a number of instances. In cases of pain, an *occasional anodyne* is likewise had recourse to.

Connected with these principles, and which might form even part of this course, though, as yet little adopted, we have the account from Mr Pouteau, of a curious practice employed by a
Capuchin

Capuchin of Malta, named the *Cold Water Doctor*. This practice consisted in a *very rigid abstinence*, with the use of almost nothing but *Ice Water*, and this regimen, or *Water Diet*, was to be continued, according to a certain plan, for the space of two months. In one person, he informs us, a complete cure of the disease was by this means effected; and in several who had not perseverance to follow it out, the disease was, however, much mitigated. The facts of Pouteau, he being rather a whimsical theorist, are somewhat suspicious; but this practice has been repeated by Mr Pearson of London, in several cases of *uterine affection*, of which he gives a detail, and in every case where this rigid abstinence was persevered in, a manifest alleviation of symptoms occurred. To render this plan less objectionable, he also adds, that the patients did not fall off much under its use. This would certainly point out the diet best suited to the nature of the disease.

The advantage of that part of the antiphlogistic practice, which consists in the use of both *topical* and *general bleeding*, has been strongly enforced by Mr Fearon, surgeon in London, who indeed considers it as having effected in a number of cases, a complete cure, and as being really a specific for this malady. That the disease, in its first stage, may be not only suspended by this treatment; but even, perhaps, removed, may be readily admitted; but in the subsequent period I am convinced, that a good deal more than
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simple bleeding is required to produce a cure; as a proof of which, we often find it equally obstinate in those women, that labour under hemorrhagia, (or flooding), as others, even where the quantity discharged is much more considerable than what is taken away by venesection. Its only effect, at a late period, can be to reduce the *swelling of the contiguous parts* about the schirrus, and in this way it may do service. But even this shews that the *topical bleeding* will be more effectual than the *general one*, and this last indeed should never be had recourse to for that purpose.

Second Stage.

THE indications of the ulcerated stage are fulfilled by the use of *tonics*, particularly the *bark*, a *plentiful exhibition of Acids and Neutral Salts*, as the *Saline Julap*, *Spiritus Mindereri*, &c; and where the irritation is strong, the same recourse must be had to *Opiates*, as in the former stage; and it is astonishing to what length it is often necessary, in this case, to carry them. Indeed, in the end of the disease, especially where it attacks a principal part, they become the only solace of the miserable patient, though often a very ineffectual one.

SECT.

SECT. 2. *Of the Local Treatment of Cancer.*

FROM the Constitutional, I proceed now to the Local Treatment of Cancer ; which, like the former, has been conducted, either with a *Radical*, or *Palliative view*. The *Local* treatment must have been the most ancient ; for it would require experience, and reasoning, before men could trace the connection of the disease with the constitution at large.

I. RADICAL.

THE *Radical* treatment of this disease we find often successful. In accomplishing it, two methods have been generally employed, the use of *Caustics* and *Extirpation*.

CAUSTICS.

THE *first* Caustics have been applied under a vast variety of forms, and many of them have acquired great celebrity to their inventors, from the time of Hippocrates to the present day. Under certain limitations, they have received some degree of approbation from many first-rate practitioners ;

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titioners; but, at best, they will be found very limited and uncertain expedients.

I shall enumerate a few of the most famous of these applications.

Fuschius, an Italian, we are informed, performed many cures of this disease, with a powder of this kind, which he termed the *Poudre Benite*, or *Blessed Powder*. Its composition was of *Arsenic*, *Snake-root*, and *Soot*.

The same we are told by Van Helmont, of another practitioner, who employed *Arsenic*, mixed with *Balsam of Sulphur*.

Fallopious used, in particular cases, *Arsenic* and *Nitre*, which he termed *Causticum ad Cancros*.

In modern times these remedies have been equally frequent.

Many cures have been made with the *Arundel Powder*, a composition of *Arsenic* and *Sal Ammoniac*, as given by the late Mr Justamond.

Mackaile, a Scots practitioner, successfully employed the *Lapis Infernalis*.

Gendron assures us of the same success from his *Caustic*.

Plunket's Powder, is known to have been a composition of *Arsenic* and *Flowers of Sulphur*, along with the powder of the *Water Crowfoot*, (*Ranunculus flammæus*), made up into a paste with yolk of egg, and its reputation has been established, beyond a doubt, in many instances.

Still more lately, the success of Mr Guy of London, from a composition of the same kind, has been witnessed by the most respectable practitioners.

ers. This gentleman indeed, published a select collection of cases cured by this remedy; and though he leaves us in the dark with respect to its real composition, yet, from the description of his cures, as well as the opinion of his contemporaries, there cannot remain a doubt of his employing a *Caustic* application in one form or other; an application which he was by no means willing to admit. Indeed the facts related by Mr Guy himself, of his practice, sufficiently establish the nature of his remedy. The circumstances, he relates, as attending its action in every case are:

1. A *separation* and *eradication* of the diseased part, by which the glands were often turned out entire.

2. A *degree* of *pain* attending its application, often very considerable. And

3. The *production* of a *good digestion*, as a consequence of the separation of the diseased parts.

These facts then, viz. a *separation* of the diseased parts, and *of the glands, often entire*, which, he tells us, the patients used to preserve in spirits, and retain, could be effected, especially in so short a time as he mentions, by no other means than a *Caustic* remedy; and his wish of an early application from his patients, while the disease was yet in its schirrous state, and not too extensive, is an additional proof of the same fact. From the well known effects of *Arsenic* in doing this with little pain, and very completely, there is no doubt that it formed a

principal ingredient in his composition. In the cases of Mr Guy, two facts occur deserving attention, viz. that he succeeded more frequently in the ocult than ulcerated Cancer; and also in the accidental than in the predisposed. This will be easily explained from the history of the disease, and the division of it formerly made.

Bernbard's Mixture, a remedy much used on the continent, must not be omitted here. It is composed chiefly of *Arsenic*, and *artificial Cinnabar*, and by none has it been applied more successfully than by Professor Richter of Gottingen. It is made into a sort of paste, and laid on the part pretty thick. Its gives little pain, and forms a crust very soon; on the separation of which, if the sore is not clean, it is applied afresh; this, the Professor informs us, he has done to the length of *six times*, even with success at last.

The last remedy of this kind that remains to be taken notice of, is *Dr Martyn's Cancer Powder*, of which an account is detailed in the American transactions by Dr Rush. From the credit this medicine had acquired, Dr Rush was induced to pay considerable attention to it, with a view to gain information of its real nature, which the author gave out to be entirely vegetable, and originally an Indian remedy. It was successful in the same cases from Dr Rush's report, as Mr Guy's, where the disease was evidently of the *accidental* species, or strictly *local*, and not extensive. In its application, it occasioned some pain,
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inflammation, and discharge. By the death of the inventor, a quantity of it was procured by Dr Rush, and submitted to experiment, when its composition appeared to be clearly *Arsenic*, mixed with a *vegetable substance*, the *Powder of the Deadly Night Shade*, (Belladonna), in the proportion of a fortieth part of the mineral to one of the vegetable powder.

I have been the more particular on these three last applications, both as they are the latest, and as they have given rise to imitations of the same plan. Thus, as *Arsenic* appears clearly the *principal* and *active ingredient* in them, as well as in most of the other *Caustics* employed by *Empyrics*, regular practitioners, of late, imitating the practice, have attempted to employ it in the same way, and that in the form of an *impalpable powder*, *plaster*, or *ointment*, either simply, or joined with *Antimony*, *Sulphur*, or even *Mercury*, in the form of *Corrosive Sublimate*. In all these cases it has never acted otherwise than as a *simple Caustic*, without any *specific* operation; producing first an *eschar*, and, on the separation of this, an apparent cleanness of the sore, with no tendency to granulate or cicatrize. The mildest form of it is the *ointment*, which should be spread very thin, and should contain but a small portion of *Arsenic*. In the form of *plaster* it seems to have been used by Mr Guy; and from the experiments of Mr Justamond, it would appear, even in this form, to have been very quickly

quickly absorbed, so as to produce often deleterious effects on the system.

Another imitation of the same empirical practice, has been a *Cautic*, formed of a solution of *Iron* and *Sal Ammoniac*, with the addition of *Oil of Vitriol*, and *Oil of Tartar*. This was first published in the *German Transactions*, and was tried by Mr Justamond, in Britain, both in the scirrous and ulcerated state of the disease. In the latter, the edges of the sore were gently touched by it, and the application made as often as the feelings of the patient could bear. Its effect on the disease was no way different from the *Arsenic*, or other *Cautics*, producing an eschar; on the removal of which, the sore, in some cases, took on a more favourable appearance.

In the same way, there is related in the *Medical Commentaries*, a mode of practice with the *Corrosive Sublimate*, employed by Dr Willifon of Dundee. It is applied in the form of a fine powder, sprinkled from a pencil on the edges of the sore, which are previously bathed with warm water. The whole is covered with a pedgit of Basilicon, and allowed to remain on twenty-four hours, when, if the eschar is not loose round all the edges, it is again covered up, and next day the same operation is renewed with the corrosive, wherever the slough adheres. When all removed, it is then to be treated as a common sore.

A similar practice to that of Dr Willifon, is related by Dr Moseley, as a certain cure of all the

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external forms of this disease in the West Indies. Instead of sprinkling the *Sublimate*, from a pencil, on the edges of the sore, a *plaster* of *Diachylon*, with *Gum*, is cut to the extent of the Cancerous ulcer or tumor. If the sore or swelling is the size of a crown piece, on this plaster is sprinkled to the quantity of a dram of *Corrosive Sublimate*, and in this state it is applied to the diseased part; being allowed to remain on forty-eight hours, and at the end of that time, if the diseased parts do not seem fully separated, it is allowed to remain still longer. On being taken off, a *Poultice* is applied, with a little *Olive Oil*, and frequently renewed till the whole Cancerous mass comes away. The preference given to the *Corrosive*, over the *Arsenic*, is from the former acting solely on diseased, not sound flesh; and being likewise a stimulus to the adjacent parts, to throw off the disease. I cannot see, however, that the *Corrosive* can act in any other way than as a simple *Caustic*, and its application must be allowed to be attended with much greater pain than even the *Arsenic*.

A peculiar *Caustic*, used by some practitioners in the ulcerated stage, I must not omit taking notice of here. It is the application of a *burning glass*, or *lens* to the part. The pain excited by this practice, we are told, is much easier to support than that from any other *Caustic*. After the *daily cauterisation* of the sore by this means, (and it requires a period of some weeks to effect a cure), a *compress*, dipt in *spirits*, is applied over it, and the

the *eschar* is generally thrown off in the space of twenty-four hours, the surface below displaying a vermilion colour, and the cure is effected without any loss of substance.

This perhaps may be considered as a refinement on the old barbarous application of the actual cautery, a mode of practice, which I am sorry to find recommended still in particular cases, by a man of so much authority and respect as Professor Richter.

From the history, then, of these different applications which I have now enumerated, it stands an *undoubted fact*, vouched by the most respectable authorities at different periods of medical history, that *Caustics* have been often successful in the cure of this disease, both in its *occult* and *ulcerated stage*. It remains, therefore, before leaving the subject, that I should endeavour to establish what *particular circumstances* are essential to their success, when practitioners shall determine on their use.

It is clear that no *Caustic* can act in any other way than by the *destruction* of the part to which it is applied; and, in order to be successful, it must reach *beyond* the seat of the disease. It must *act deep*, and not *simply irritate*, but *actually destroy*. The chief difficulty, therefore, will be in determining the *extent* of the disease. In *accidental* Cancer it is true, this extent may be generally determined by the *state* of the *lymphatics* leading to the part; but in the *predisposed*, which
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is the most frequent, this criterion will not apply. In many schirrous swellings, also, from an accidental cause, often the whole tumor is not in a schirrous state ; the application then will be successful, and has been so, even if applied to that part which has not taken on the diseased or *specific* action.

But in applying a Caustic to a real Cancerous swelling or sore, by not taking in the whole part affected, its action often proves but an *added irritation* for extending the malady ; and hence we find the *neighbouring lymphatics swelled* after it. To insure, therefore, with certainty, the success of a Caustic, its application should be always extended *beyond* the seat of the disease, so as to *separate* it *entirely*, to its *very bottom*, from the sound part ; and this part only should receive the action of the remedy. It is from an attention to this circumstance, I am convinced, that the practice of the late Mr Guy, as well as of many others, acquired celebrity. In the use of *Caustics*, the nicety seems to be, to determine that their *strength* be not so great as to occasion *much* pain and inflammation, and yet sufficient to remove the diseased part ; a point which is only to be gained by experience, from the frequent application of such remedies, so as to give the practitioner a *decision* in their use ; we find some of the first Caustic practitioners, in some cases, err in this respect, where particular irritability of constitution occurred : And so very attentive seem both Mr Guy and Dr

Martyn to have been to this, that their applications, when made to a sound part, did not even break the skin.

The practice of Mr Guy seems to have been somewhat different from the common mode of applying Caustics; and he extended their operation farther than what most Caustic practitioners have ventured to attempt. His method, in glandular parts, where, with most others, they have failed, was by enucleation of the tumor, or *drawing it out*, as he termed it. This was applying the Caustic solely to the contiguous parts, so as to separate their adhesions, and not extending its action to the tumor at all. This was tried in one case by Mr Justamond, but not with the ready effect displayed by Mr Guy.

On the same plan with him, we find a French practitioner, in the use of the *Arsenic*, Chapius, direct the swelling to be *surrounded* with a sort of *Arsenical Ligature*, so as to turn it out entirely.

During the time, also, that their Caustics were employed, the most successful of these practitioners confined their patients very much to a *particular regimen*; and the use of *mucilaginous liquids*, as the *Lint-seed Tea*, &c. was recommended in considerable quantity.

Such is my opinion of *Caustics*, the *first* species of *Local treatment* of this disease, a remedy, at times successful, but always precarious, and requiring more judgment and experience for its use, than falls to the share of most practitioners; always mischievous

chievous in its effects, where injudiciously employed, as I have too often witnessed, by extending the progress of the malady; and it is never to be trusted, wherever a predisposition prevails in the habit, the case which most frequently occurs.

EXTIRPATION.

LEAVING it then as an ineffectual mode of treatment, I proceed to examine the *next*, which has been preferred by most surgeons, viz. *extirpation*.

If *extirpation*, however, was so frequently successful, as is alledged, there could not a doubt remain of the preference it would deserve; but experience, I am afraid, shews us too much the reverse of this; and since the certainty of its success by no means counter-balances the *pain* and *danger* which must unavoidably result from it, it becomes proper to consider, before we have recourse to such a measure, in what particular circumstances we may trust to its success. This question has been often treated by practitioners; and the first authorities, in physic, are found on both sides. The chief evidence adduced in favour of *extirpation*, is the cases of the late Mr Hill, surgeon at Dumfries, which, though to be regarded as so many *solitary* facts, in opposition to many of the first names in medicine, have been cherished by most modern operators, with an avidity, that only prejudice, and the incurable nature of the malady can account for.

Out of eighty-eight cases on which the operation was performed by this gentleman, no less than sixty-three, he informs us, received a complete cure, and died at last, without any return of the disorder, most of them at an advanced age. The proportion of success here, so *far* exceeds what has usually fallen to the share of other practitioners, even the most dextrous, that though I do not mean to call in question the veracity of the account, I may with some confidence affirm, that this success is not to be depended on as a *constant* or *general* rule; and that the practitioner who expects a similarly happy termination, will, for the most part, be *woefully* disappointed; although every allowance be made, both for the *superior dexterity* of modern surgeons, and *their nice management* of the after-treatment. That schirrus is frequently in its incipient state a local disease, I have already shewn in the division of the different species of Cancer, but that it is *always*, or even for the most part so, I can by no means admit. Hence Mr Hill's opinion proceeds evidently on a false idea. Were, indeed, the poison introduced from without, there could not remain a doubt of the justice of his sentiments, but when the reverse of this is apparent, is it not natural to suppose, that the *same state* of the *general habit*, which gave rise to the *local affection*, will continue its effects on the contiguous parts after it is removed; and do we not find it every day the case? It has, unluckily, been the wish of most surgeons

surgeons to support Mr Hill's opinion, and we find, in one of the latest and most popular publications, this doctrine strongly inculcated by one to whose judgment I would wish to pay respect, did experience in this instance authorise it. Mr Bell* placing the account of Mr Hill in opposition to that of the late Dr Monro, and many of the first writers, endeavours to invalidate the testimony of the latter, by many probable arguments: These cannot, I should imagine, have their weight with any one who has carefully inspected the records of any hospital where the operation for this disease is frequent; for there we meet with cases in *all* stages of its progress, as well as in its *last* and *deplorable* state, the circumstance upon which Mr Bell lays the great stress of his reasoning, Mr Hill's cases, when critically examined, are highly inconclusive. The greater number of them, from his own detail, are instances of the Cancerous ulcer, or a Phagadenic sore, which we know is frequently healed, independent of any operation, often by nature alone; so that the same argument used against Storck, in his account of the success of the *Hemlock*, will apply to Mr Hill's cases. A fondness for operating, perhaps led him to employ the knife in many instances where it was unnecessary. The true kind of Cancer, which should be the test of any mode of practice, is its having affected a *glandular part*, or a

* *Vide* Bell on Ulcers, page 303; and System of Surgery, vol. 2d, page 434, &c.

part of a *complex structure*, as the female breast, and male testicle; and it is alone from its success here, that the superiority of extirpation, or any other mode of cure, is to be judged of. Laying aside, then, the hospital-practice entirely, we are informed, by a practitioner of some eminence in London, in one of the latest publications on the subject, that having attended particularly to all the cases of extirpation for the last thirty years in that metropolis, under the most eminent surgeons, the result of his observations has been, that in genuine Cancer of the breast, it has *very generally* failed; even the most favourable cases being only a *temporary alleviation*. In order to be successful, however, in such cases, it is contended, that extirpation must be performed at an *early period* of the disease, before two circumstances occur, viz. either the *affection of neighbouring lymphatics*, or the *adhesion* of the diseased part to *contiguous muscles*.

From the history of the disease, however, already delivered in the first part of this work, it will appear,

1. That there is the greatest difficulty in ascertaining, at an *early period*, whether the disease consists in *simple obstruction*, or *real scirrus*; that remedies, therefore, to have effect, should be persisted in; and that we should by no means be rash in having recourse to an operation, when there may be a chance of its being unnecessary.

2. Wherever the disease is making rapid progress, the great reason urged for an operation, there

there is always the highest danger of its being unsuccessful, that is, of the disease being constitutional ; and then its extent, must be either unknown to the operator, or cannot be traced by him. Hence Mr Pearson's reasoning on this point, laying aside the constitutional taint altogether, is perfectly just, when he contends, that " when the breast, for example, is affected by Cancer, distant parts of that gland may become the seat of the morbid alteration about the same period. These several diseased portions may not advance with equal celerity ; but while one portion has acquired a considerable bulk, the other altered parts may be scarcely objects of attention. Under such circumstances, the more obviously morbid parts may be removed, but the disease being only in progression, no man can be certain, without removing the whole breast, that he has not left some fibres. If, however, the disease shall continue, without increasing during several years, one may, in general, conclude, that its boundaries are more accurately defined." If this reasoning then is just, which experience every day sanctions, the doctrine of Mr Bell must be highly exceptionable in wishing to have recourse to the operation in the earliest stage of the malady. It is only, I conceive, when it shews evident marks of being stationary, that there is even a probable security by the operation.

This reasoning will also be particularly applicable where the disease occurs at a somewhat earlier period of life, before the constitutional changes, as

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we formerly observed, which ensue on the cessation of the menstrual discharge in women, are fully established for any precipitation; to have recourse then, to an operation, must argue an extreme ignorance, not to say worse, in any practitioner.

Even the utility to mankind, of considering Cancer as a local affection, may be also very much called in question. It gives a prejudice in favour of operating, and thus withdraws the attention of practitioners from the investigation of the subject, and blunts the ardour for finding out a remedy, which should be their great object; for, as Dr Rush well observes, to pronounce a disease, in its nature incurable, is too often to render it so.

But, in addition to the real inefficacy of the operation against a return of the disease, another argument has been employed by many practitioners, viz. that its recurrence, in such cases of relapse, is attended with an increased agony and pain. Whether this is really the case, will, perhaps, be difficult to establish; but it is clear, as the disease is essentially connected with a debilitated state of the system, the operation, and its consequences, must certainly considerably increase this already predominant state of weakness.

I have thus offered my opinion at some length against extirpation. But, in spite of whatever may be advanced against it, since with most surgeons it will still remain a preferable mode of procedure, I shall examine, next, the particular cases

cases to which it is applicable, and the most approved method of performing it ; which will even tend to point out its very circumscribed operation as a general remedy against this disease.

I. OPERATION FOR THE BREAST.

It is agreed by all surgeons, that a proper extirpable Mammary Cancer, must be loose, not too extensive in its seat, and not having spread its influence very much to neighbouring glands ; yet, even the swelling of a gland or two in the armpit, (or axilla,) it is observed, should not absolutely deter from the operation, as such a swelling has been known to subside after the removal of the diseased breast. To ascertain what connections the disease may have formed with contiguous muscles, we make trial of the different motions which these muscles are accustomed to perform. In its adhesion to the pectoral muscle solely, the connection is slight ; but where it is connected to the intercostal muscles, or pleura, the union is much stronger. In the adhesion to the pectoral muscle, the motion of the breast is little affected, and this adhesion is only to be ascertained by moving it backwards and forwards, in a direction parallel to the fibres of this muscle, or from the top of the shoulder towards the under and middle part of the sternum. The writer, whose opinion deserves most attention on this subject, is the celebrated M. Le Cat, and he has certainly carried his ideas

of the extirpable nature of Mammary Cancer, farther than will be admitted by most operators, however sanguine in its favour. Even the strong adhesion of the disease to a neighbouring part is, with him, no objection, as he gives us instances of his having removed part of the pectoral muscle, and of the cure having been successful.

Having determined on the propriety of the operation, and fixed upon the time of performing it, which, in a young patient, should be at a period as remote as possible from the expected return of the menstrual discharge, the removal of the disease is to be conducted in the following manner.

The patient may be either laid on a table, or seated in a chair. The former of these positions, though, perhaps, more convenient, both for the patient and operator, has the disadvantage of being rather formidable in its appearance, and will on that account, be generally objected to. The chair then being adopted, an assistant stands behind, with one arm over each shoulder of the patient, to stretch the skin, and observe the situation of the vessels in the operation. The surgeon places himself on a seat before, and begins his incision with a common scalpel, from the top to the bottom of the swelling, if the breast only is affected, but, in bringing it down, he avoids the situation of the nipple, by passing, at least, an inch to one side. The teguments are then to be carefully dissected back from the swelling, and when finished, to be held aside by the assistant. The glandular

glandular part, or seat of the disease, is next to be separated from its connections, and while it is executing, the arm of that side should be somewhat raised, so as to avoid interfering with the pectoral muscle, provided there is no adhesion; but if there is, then the pectoral muscle must not be spared.

On the removal of the breast, a minute inspection of the extent of the disease is to be made, that no remains of it may be left; and on this account the operation should detach the whole glandular part, and no partial extirpation ever be permitted.

A partial extirpation, however, is an argument often urged by surgeons with their patients, to bring them to consent to an *early* operation; but from the best practice it appears not to be founded on expediency. This being the case, the strongest reason for an *early* removal of the part, so strenuously urged by Mr Bell, falls to the ground.

The extirpation being thus finished, the blood vessels require to be secured; for this end, the surface of the wound should be attentively wiped with a sponge to discover them, and even the smallest that present, should be tied; for if not completely done, nothing is more common than to be alarmed with a bleeding, some hours after the operation, or as soon as any motion of the ribs takes place: This occasions removing the dressings, which, if not hazardous, is always inconvenient and troublesome. Even a hemorrhage has been known to take place without any external appearance, and has

proved nearly fatal, which renders this extreme precaution, with regard to the vessels, the more necessary.

The remaining step is to bring the divided teguments into contact, and secure them. For this purpose, two or three ligatures should be passed at convenient distances, observing only that the ends of the threads on the vessels be allowed to hang out externally. To promote adhesion still more, a moderate pressure is to be made with the bandage, viz. the napkin and scapulary, first dressing the wound with some emollient liniment, and applying a compress to moderate the pressure of the bandage.

Though directed in this manner, in the generality of cases, yet this operation, like most others, must vary somewhat in the mode of performing it, according to the morbid circumstances. Thus, instead of the external incision recommended, where part of the skin of the breast is diseased, the form of it must be made so as to include the diseased portion, and may be circular, oblong, &c. as the judgment of the operator shall direct.

But in all cases, the saving as much skin as possible, should be laid down as an indispensable rule, both as tending to facilitate the process of healing; and also as preventing that exposure to the effects of external irritation, which a tender new skin is more subjected to; and which may occasion a return of the disease.

When the glands of the arm-pit, or clavicle, are also diseased, as well as those of the breast, be-
sides

sides the incision in the latter, another incision must be directed from it into them, so as to detach them completely from their place, if it can be effected with safety, of which the practitioner must judge.

The treatment of the fore should be as nearly as possible that of a simple wound, and the ligatures on the vessels generally fall off in four or five days. The great point is to heal by the first intention, and prevent the formation of matter.

2. OPERATION FOR THE TESTICLE.

AFTER the breast, I am next to consider the mode of performing the operation of Cancer in the Testicle. The symptom which determines the propriety of it here, is the spermatic cord appearing free from disease; but this is somewhat difficult to be distinguished where a fluid is interposed, or when hydrocele takes place, and extends to the cord. It will, therefore, be proper in every case where a doubt appears, that our opinion, on the propriety of operating, be deferred till the fluid is discharged, and the state of the testicle, as well as the cord, can be accurately examined. Whoever consults Mr Pott's cases on this subject, will see the necessity for this; and the usual marks of the progress of Cancer in other parts will equally determine our opinion here.

On having ascertained, then, the state of the cord, by a previous evacuation of the fluid, and
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found it free from disease, the operation is then to be performed. The patient is laid on a table, or bed, on his back, with his legs hanging down, and held aside by two assistants; having steadied the tumor with his hand, an incision is then to be carried by the operator through the teguments and cellular substance, for its whole extent; when the testicle and cord come into view, and the incision is to be made from a little above where it is intended, the cord should be divided. Round the latter, a ligature is then to be put and drawn as tight as possible, so as both to prevent the danger of hemorrhage, and to destroy quickly the vitality of the part; and, in order to pass the ligature easily, the cord should be raised up by the surgeon from the parts beneath, before attempting it. When the ligature is fixed, the cord may be then divided about two inches below it, and by pushing the finger behind the cord and testicle, the latter may be turned out of its seat, being easily separated from the thin sheath with a scalpel.

Any vessels of the scrotum that present, which are often pretty numerous in this disease, and much enlarged, may then be taken up, and this finishes the operation. The same attention is to be paid here to the saving of the skin, as in the operation for Mammary Cancer. But if part of it is diseased and indurated, or forms strong adhesions to the testicle, it may be removed with less disadvantage to the after healing, than in the breast, from its looseness and flaccidity; and

and it may be either removed by itself, or, instead of this, an incision may be brought down on each side of it during the operation, so as to leave it adhering to the testicle when the latter is dissected. The sides of the teguments are then to be brought into contact, either by slips of adhesive plaister, or else by ligatures, as in the former operation, if there is much retraction; and the same dressings, and attention to moderate pressure are enjoined, to facilitate adhesion.

3. AMPUTATION OF PENIS.

OF all the operations, this is the most direful one that can be proposed to a patient, and which should never be attempted without the most inevitable necessity. The symptoms by which we judge of its success, are the disease not having spread within the Symphysis pubis, and there being no affection of the inguinal glands. It is performed by making an incision in the sound part of the member, beyond the discoloured hard circle, marking the extent of the disease. Before beginning it, an assistant should grasp the penis below the scrotum, and push it forward as much as possible, retaining it in that position, while the surgeon draws forward the skin as far as he can, and secures it from slipping, by passing a ligature three or four times round it. The incision is then to be made, and may be completed at one or two strokes, as the operator pleases: If at one, which is preferable,

able, he first divides the Corpora Cavernosa, and then stops, till the blood vessels, which are often in an enlarged state, are secured by ligatures, employing the tenaculum, as best suited for this purpose. The number of the vessels requiring ligature, will seldom exceed three, and one or two in the teguments. On securing the vessels, he then divides the urethra, and finishes the operation. It will seldom be necessary to introduce a canula into the urethra, if the operation is performed with proper attention to the excision of the external skin; and even if the orifice, which is seldom the case, should tend to close, the use of a bougie, can easily restore it. The wound is to be dressed in the usual manner, requiring no particular management, and the testicles should be suspended all the time of the cure.

4. EXTIRPATION OF THE LIP.

THE lip, the last situation on which an operation is performed, does not, if small, require that nice discrimination before attempting the operation, which is necessary in the others I have described, as we have nothing to fear here but a slight deformity originating from it.

If the disease occupy only a part of the lip, the operation for the harelip is to be employed, and the steps, in conducting it, are simply as follow:

The patient is to be placed on a low chair, or seat, before which the surgeon takes his stand.

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He then grasps the lip on one side of the diseased portion, betwixt the thumb and fore-finger of his left hand, while an assistant does the same a little farther on, which enables him to make his incision with a common scalpel the whole extent of the disease; he carries it downwards, in order that, if possible, on a similar incision being made on the other side, for the same extent, the two may form an inverted V. Having removed the diseased part, the vessels are to be allowed for some time to bleed freely; and the divided edges must be examined, so that they may be made to correspond exactly when brought into contact. This last part of the operation is effected by means of the *twisted suture*. To facilitate this part, the cheeks should be pushed forward as much as possible, and retained in this state by the assistant. In passing the pins, the under one is to be first introduced, at about an inch from the edge of the sore, and carried nearly to the bottom; another is to be inserted about the middle, and a third at its superior edge: But though three are generally sufficient, the number must be determined by the extent of the division. In passing the ligature, it is to be begun with the pin first applied, and made to pass three or four turns over it, so as to describe a figure of 8, and then continued to the next in the same manner; and so on successively. Over the whole, a thick plaister of mucilage is to be applied, and no removal of the suture is to take place till a firm adhesion of the sides appears, which is commonly

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formed

formed in six or eight days, when the pins are to be cautiously withdrawn.

The success of this operation will depend on two circumstances; *1st*, the neatness with which the divided edges are brought into contact; and *2^{dly}*, their degree of closeness, which should never be carried so far as to endanger inflammation.

For this operation, it is to be observed, the scissars are equally proper as the scalpel.

But when, instead of a part, the disease occupies the whole lip, this operation cannot be employed, and still less so when it extends to the cheek. In such cases, all that can be done, is to remove the diseased parts, if practicable, and treat the part afterwards as a recent wound, first restraining the hemorrhage, if necessary, by ligatures.

Before closing this part of the subject, it remains to take notice, that a common practice has prevailed after such operations, of forming an *Issue*, either in the seat of the disease, or some contiguous part. From considering the history of Cancer, as a disease connected with the obstruction of some discharge, this attempt was certainly natural. But experience leads us, at the same time, to assert, *1st*, that after the disease is once formed, the restoring any local discharge whatever, has little effect on the morbid state; and *2^{dly}*, the irritation from the disease will always be superior to that which can be produced by an issue. Hence its good effects will be confined to those cases

cases of the disease which are strictly local, and which affect other parts than a glandular structure. In the case of predisposed Cancer, it must only do harm by weakening the system, which has already suffered under the ravages of the malady.

2. PALLIATIVE.

I have thus examined, at some length, the *Local treatment* of Cancer, with a *Radical* intention; but it remains still to take notice of the steps that have been pursued, either where this *Radical* treatment has not been attempted, or else has proved abortive, which is too often the case in conducting its management, *simply* on the principle of *Palliation*.

For this purpose the means have been equally numerous, as the remedies for its real cure; and *Pharmacy* has been exhausted, to find out applications that would either *stop the progress of the malady*, or *correct the fætor* attending its last stage.

In the first period of the disease, that is, against the progress of the *induration*, the chief applications had recourse to, have been *Discutient Plaisters* and *Solutions*, as the *simple Gum Plaister*, *Mercurial Plaister*, *Gum Ammoniac Plaister*, *Hemlock Plaister*, *Deadly Night Shade Plaister*, *Henbane Plaister*, &c.; or the *Solution of Lead*, of *Sal Ammoniac*, of *Mindererus Spirit*, &c. The former

seem to act, by preserving the teguments in a state of relaxation; the latter by hardening them somewhat, or rendering them insensible to the progress of the diseased action; and both have been occasionally found *useful palliatives* in different cases.

But the stage of *ulceration*, as being the most troublesome, has demanded a greater share of attention, and the same, as well as different other remedies, have been applied in it, chiefly in the form of *Cataplasm Ointment* or *Solution*.

To the *first* of these forms, or the *Cataplasm*, it may be objected, that from its heat it increases the fœtor, softens the parts, and encourages the spreading of ulceration.

On the *second*, or the *ointment*, I may remark, that it is a common observation of all practical writers on this disease, that unctuous dressings of every kind are to be strictly avoided, however mild and inoffensive in their nature; for the inflammation here being evidently of the *Erisipelatous* kind, they both disagree with the surrounding skin, and prove also irritating to the surface of the sore. This was a fact well known, even to the ancients, though they explained it in a different way.

The *Solution*, or *Watery Dressing*, is the least exceptionable form; but, from its frequent renewal, it is inconvenient in its application. Hence, the best form is, perhaps, that of a *dry powder*, provided it can be rendered mild, and without irritation.

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With these preliminary remarks, I shall now examine the most useful applications to the ulcerated Cancer, of a *Palliative* nature, without any regard to their form, or attention to methodical arrangement.

The first that claim our notice, are *simple emollient cataplasms*, as of *Lint-seed*, *roots of Briony*, *Wild Cucumber*, &c. Next, those of the *Narcotic* tribe, as the *Hemlock* and *Deadly Night Shade*; The *Cataplasma* is made from their *leaves* or *roots* boiled in milk, and to this a little of the *Salt of Lead* has been occasionally added, with evident good effects in assuaging the pain, and correcting the discharge. The external use of these *Narcotic* remedies, is even older than their internal exhibition.

Opium also, in various forms, has been topically applied, and it is alledged, at times, with even more effect than as a simple palliative remedy.

Another application, with a view chiefly to the correcting the discharge, has been the *Carrot Poullice*. This application was first introduced, or rather revived by Mr Gibson, surgeon at Newcastle, and it certainly tends much to correct the fœtor attending the last stage of the disease. Since that time it has been very generally used; but this may be considered as the full extent of its powers, which have often also but a temporary effect, and may be ascribed entirely to the vegetable acid present in it. The same may be said of the *Potatoe-poullice*.

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With a similar view has been introduced here, the use of *Carbonic Acid*, (or fixed air); and we shall enter into a short history of its application. Its introduction into medicine, as a cure for several diseases, was suggested by Dr Dobson, and afterwards by Dr Percival; by them it was applied to certain bad ulcers, some of which it cured. Proceeding on the idea of Cancer having a putrid tendency, it was, before that period, strongly recommended by Dr Perhyle, a French writer, who did not confine his views to its external application alone. In Cancer, besides the trials of Drs Dobson and Percival, it was particularly applied, in the stage of ulceration, by Mr Justamond, who endeavoured to form a just opinion of its powers. In all the cases of this author, as well as several others which it is needless to particularize, its only effect was to produce a cleanness of surface, which was by no means permanent. Of late, it has been attempted to improve on the trials of preceding authors, by using it in a more permanent manner, and solely in the elastic form, divested of its admixture with other matter, as in the fermenting cataplasm, &c. Dr Ewart of Bath has the merit of this alteration, which suggested itself to him from Dr Bedoes' plan of pneumatic medicine: In two cases in which he applied it, one, he informs us, was cured, the other much relieved: If any service is to be derived from this remedy, I have no hesitation in saying that this is certainly

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ly the form in which it promises most advantage.

But I would by no means confine these good effects to the Carbonic acid alone. The same may be expected from all the milder acids used in the same form. But, on this plan, I have, at the same time to remark, that whoever repeats Dr Ewart's experiment, will find it highly inconvenient in its application in private practice; and next, every practitioner knows, that the ulceration of Cancer may be occasionally healed without the removal of the schirrous state. From Dr Ewart's own account of the thickening of parts remaining, I should be doubtful of the permanence of the cure; and we may, perhaps, apply to it Mr Justamond's remark on his cure of the ulceration of a Cancer by *Arsenic*, without removing the schirrus, that he had cured every thing but the disease. But Dr Ewart has much merit in pointing out this new form of applying a useful remedy, and I hope future experience will confirm its farther efficacy.

The *preparations of Lead* have been reckoned also highly useful as sedatives in this disease. Goulard praises his *Extract* equally in it, as in most other external maladies. *Norford's ointment*, though rather a Caustic application, contains, at the same time, a proportion of this mineral. The *Cerufs Ointment* is considered by Marchetti, as specific in Cancer of the nose. The *Ungentum Nutritum* is recommended here by Van Swieten;

ten; and a *liniment of Turpentine and Litharge of Vinegar*, by Gefner.

A *Solution of Caustic alkali*, has, by some authors, been brought into practice in the ulcerated stage of this malady, if not too strong; that it may produce an apparent cleanness of sore, I have no doubt, but I am equally clear it can possess no permanent effect over the poison. Indeed, the natural effect of this, and all such remedies, if attended with any strong stimulant action, must be to bring the solid sooner into the state of ulceration, and of course extend the progress of the malady.

The same observation will apply to the *Solution of the Marine Acid*, used by Van Sweiten; and likewise to that of the *Oxygenated Muriatic Acid*, employed by Dr Adair Crawford, and formerly taken notice of.

Against this disease, even the *Gastric juice* of animals has been had recourse to as a topical remedy, at first, under the flattering idea of a specific, but found, on experiment, to possess only palliative powers. It is evidently a fluid of a peculiar nature, and being one of the most active in the animal œconomy, it was naturally supposed that it would possess uncommon efficacy here. But its influence appeared, on trial, merely palliative. It checked the fœtor of the discharge, and gave a cleanness and apparent granulation to the sore; but the latter shewed no disposition to cicatrize. Hence, it may be said to have done every

every thing but cure the disease. The *Gastric juice* of the *Carnivorous animals*, was found most efficacious even with this view. On the first application it gives considerable pain, which departs in the course of a day or two.

A powerful stimulant application, reckoned in some cases specific here, is the ointment prepared from the inspissated *juice* of the *Pock-weed*, (or *Ptytolacca*.) It is reported to have cured some cases in America; but as it gives considerable pain from its application, which continues no less than twenty-four hours, unless there was a greater certainty of success in its use than what experience has yet authorised, it is surely not to be thought of, and this objection will hold equally against its internal exhibition.

The use of the *Tar Ointment* has been much praised, for producing good effects in the correcting of the foetor and cleaning the sore, with the additional advantage of also diminishing pain. It is, on this account, much extolled by Professor Richter; but I have seldom experienced from it these powers in so high a degree as he reports.

Cataplasms of warm animal dungs, have been favourite applications with some practitioners; but of these I can say nothing from experience.

As the *discharge*, in the ulcerated stage, is the most formidable, and, at the same time, troublesome symptom, many practitioners paying their *sole* attention to it, and laying aside other reme-

dies, have had recourse to the use of *various absorbents*; and where these have failed of producing the desired effect, they have next endeavoured to obtain the same end, by more frequent dressing of the sore, often to the length of four times a day, so as to prevent the matter accumulating on the sore, or acquiring its usual acrimony.

With regard to the *first* of these practices, or the use of *absorbents*, it may be remarked that the *Testacea*, though they absorb the moisture, they very quickly extend the ulceration, by increasing that *ammoniated state* of the fluid with which the disease is connected. They have been tried very extensively by a very ingenious gentleman of this place, Mr David Cleghorn, who, though not bred to the profession, has, from a spirit of humanity, been led to attempt alleviating the miseries of his fellow creatures in a number of hopeless cases. In this disease, though not successful, he has, however, frequently cured several other species of bad sores. The particulars of his practice are detailed, at large, in a letter to the late Mr John Hunter, and inserted by him in a volume of the medical communications.

The same observations made on the *Testacea*, will apply to the *Powder of Zinc*, though, at the same time, it must be allowed, it corrects amazingly the fœtor of the discharge; and also to the common *Flowers of Sulphur*, and *Powder of Calamus Aromaticus*, as recommended by Mr Justamond.

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The *Powder of Myrrh* has been also used in the same way, and by some reckoned specific.

But the *best absorbent* is the *dry lint dressing*, over which it has been recommended, by some practitioners, to apply a common poultice, in order to preserve the part relaxed. All such modes of practice, however, are to be considered as very feeble and ineffectual, and but a poor relief to the miseries of the unhappy patient sinking under this deplorable disease.

SECT. 3. *Of the Combined Treatment of Cancer,*
(i. e. *Constitutional and Local.*)

TO conclude our view of the treatment of Cancer, it remains to observe, that the *Constitutional* and *Local* plan, detailed in the preceding pages, though not always, are very often united, and this must depend, for its propriety, on the particular ideas of each practitioner, and his judgment of the peculiar nature of the different cases that fall under his care. Thus, in the use of the *Arsenic*, as we formerly observed, it is both employed as an internal remedy, and also applied to the part in the form of plaister, ointment, or solution, and often mixed with *Laudanum*. The same prevails in the case of *Mercury*. The *Martial Flowers*, and *Caustic Solution of Ammoniac Salt*, is

another instance of the same mode of practice. The internal use of *Hemlock*, and *Bernhard's Caustic*, form a similar example. The *Sassa powder* internally, and the *Arsenical Lotion* or *Cataplasm*, to the part, is a practice of Mr Cruikshank. The internal use of the *Barytes Muriata*, with a dilute solution of the *Oxygenated Muriatic Acid*, is the prescription of Dr Crawford. These combinations have been still more general in the practice with the articles of the *Narcotic* tribe, particularly with the *Hemlock*, *Deadly Night Shade*, and *Henbane*.

Besides these combinations, it is to be also remarked, that even an union of the powers of the different classes of internal medicines has been likewise formed. Thus, the *Hemlock* and *Mercury* have been exhibited together. The *Hemlock* and *Arsenic*. The *Aconite* and *Mercury*, &c. And by these modes of prescription, the too powerful action of the stimulant remedy is restrained, and, at the same time, the irritation from the disease counteracted, while the remaining operation of the medicine must necessarily have more effect on the diseased part.

General

*General Conclusions on the Preceding Modes of
Treatment of Cancer.*

AFTER this full enumeration of the different modes of practice in Cancer, it may be expected, that before concluding, I should shortly state, to what *extent* of success their operation has been found to amount, as a recapitulation of what has been delivered ; and in doing this I observe :

1. That in the stage of *simple obstruction*, there cannot be a doubt but that cures have been made by the *Hemlock* and other *Narcotics*, as well as by the *Saline* and *Mineral* remedies ; but these cases, it must be acknowledged, are neither frequent, nor can we, *a priori*, judge of their certainty.

2. In the *second*, the stage of *induration*, or *real schirrus*, cures have been also made, both by *Extirpation* and *Caustics*, and, more rarely, even by *nature* itself, separating the diseased part ; but, in these cases, the disease has been of the *accidental* species, for when of the *predisposed*, even this treatment will be always found ineffectual.

3. In the *third*, or stage of *ulceration*, there are few instances of cure of *real Cancer*, or that *species* beginning in a glandular part, and going through its different stages, unless the *predisposed state* has been counteracted, and then, indeed, it may be curable, either by *Caustics* or *Extirpation*, as well as the *accidental* kind. Of the *Cancerous* ulcer however,

ever, or fore, not originally phagadenic, there are frequent instances of cure, and that by several of the remedies formerly detailed.

In order to account still more satisfactorily for the general failure of remedies in this disease, before dismissing the subject, I shall add some farther remarks on their mode of operation.

With respect to the *Narcotic tribe*, it may be observed, that their chief operation is on the *vital power*, and that it is also temporary. In consequence of the former, the vital energy of the part becoming exhausted from their use, a weakness of solid ensues, which is even increased during their repetition, by the necessity for augmented doses.

Against the greater part of the *Saline* and *Mineral* class, the same, if not stronger objections, may be urged; for they not only destroy the power of the solid, which is generally in this disease in an impaired state; but many of them prove even *solvents* of the animal fibre.

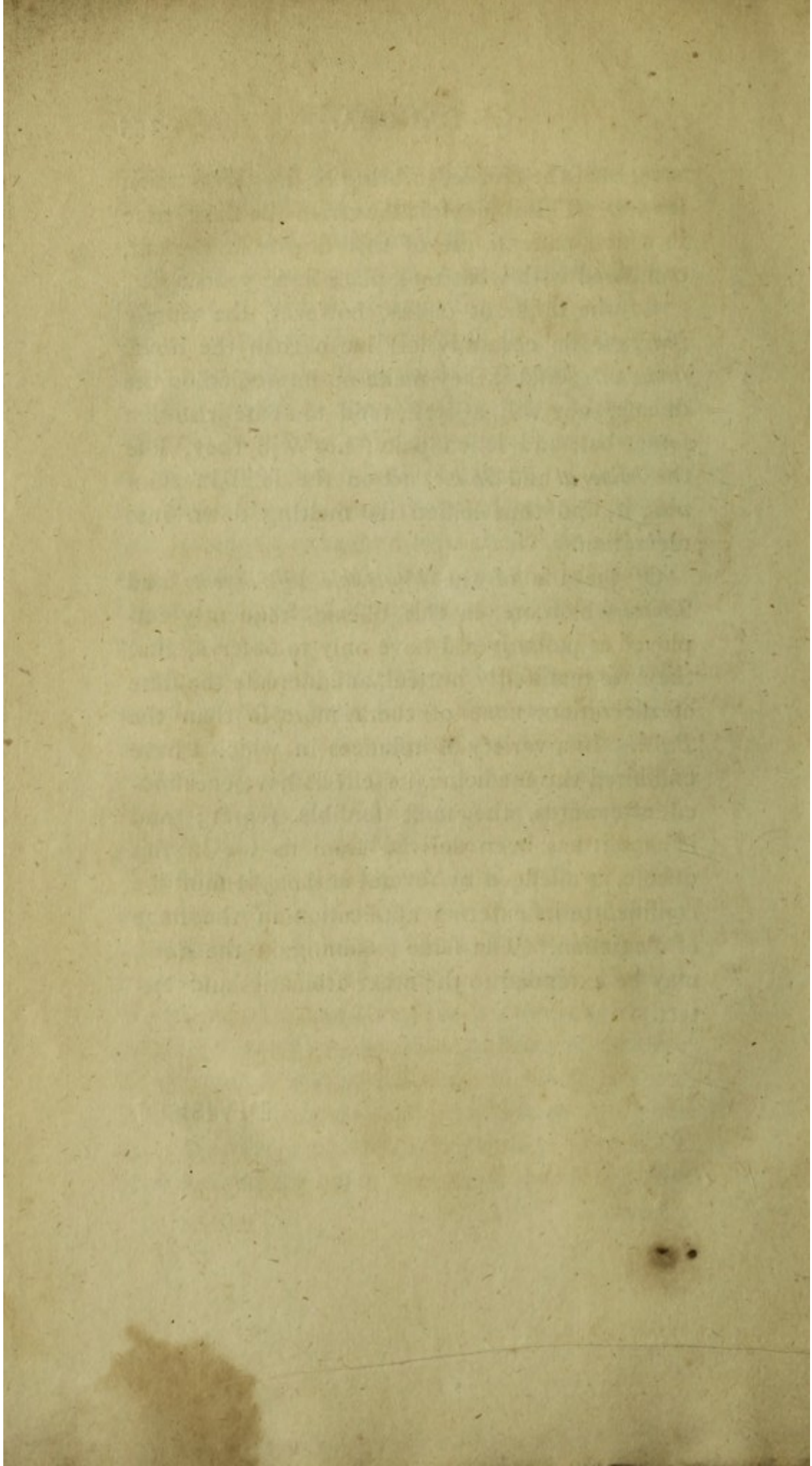
In Cancer, it is to be remarked, that it is not *mere weakness*, that constitutes the disease of the part, there is a *superadded* state, which is to be attended to. Hence it is neither the simple removal of irritation by *Narcotics*, nor yet the exerting a *peculiar stimulus* by one *Saline* or *Mineral* remedy, or by another that is sufficient to effect a cure. Amid the various attempts, the disease still goes on. If it has past its first stage, their only effect is to weaken the habit, and, from the more hasty ravages

ravages of the disease, to bring on its termination sooner. This is conspicuous from the short time in which patients die of this disease at present, compared with what took place some years ago.

Of the different classes, however, the purely *Narcotic* do certainly less harm than the *direct stimulants*; and if they make no impression on the disease, they will, at least, tend to abate irritation somewhat, and lessen pain; nor will they, like the *Mineral* and *Saline*, act on the solid in thinning it, and thus hasten its melting down into ulceration.

Of the use of the *Vegetable Astringents* and *Tonics* which are, in this disease, frequently employed as palliatives, I have only to observe, that they are manifestly hurtful, and increase the state of ulceration, none of them more so than the *Bark*. In a variety of instances in which I have exhibited this medicine, its effects have occasioned afterwards, the most sensible regret; and if benefit has been derived from its use in this disease, as alledged by several authors, it must be confined to its external application in the stage of ulceration. The same reasoning on the *Bark*, may be extended to the other aromatics and bitters.

DIVISION



DIVISION III.

*General Conclusion on the Two Diseases of
Scrophula and Cancer.*

HAVING now traced the history of SCROPHULA and CANCER, and the different methods that have been practised in their cure, from the earliest periods of medical history to the present time, I must again return to the preliminary observation upon them with which I set out, that they have been hitherto, for the most part, *incurable diseases*, and justly considered as the *reproach of the profession*.

In the former, or Scrophula, age often gives that relief which medicine denies, and in most of the external forms this is trusted to; but in its internal species, no such relief can be depended on. Even, in its external forms, before this relief can be obtained, the parts attacked suffer such lesion as to bear the marks of it through life.

In Cancer, again, even this small consolation which attends the former disease, is denied the unhappy patient. Hope, the only solace of the wretched, is banished from the cup of the sufferer

under this formidable malady ; for any cures that have been made of it, may be considered only as random successes, on which no foundation can be laid, and seem to have taken place chiefly in its incipient state, or when in its accidental or mildest form ; every patient, therefore, under this disease, may be viewed as consigned to a slow, painful, and lingering death, without the hope of alleviation. The use of the knife is never to be trusted as a certain resource. It frequently hastens on the ravages of the malady. Hence, it was the maxim of Hippocrates, formerly noticed, that it was better not to treat a Cancer at all, for the attempt only hastened the destruction of the patient. This maxim has been too often confirmed by fatal experience, and, though not to be taken in its literal extent, very fruitless, as we have already seen, if not hurtful, have been the various attempts at a cure. It may be, indeed, laid down as an infallible principle, that most stimulants are hurtful to the parts under this disease, however modified in the extent of their action.

In these dismal circumstances, then, before closing the present work, it remains that I should deliver my opinion, and offer any peculiar sentiments I entertain on these subjects.

I. ON SCROPHULA.

In the first disease, or Scrophula, I can say with confidence, that all the external forms of the malady,

malady, either of swelling or ulceration, affecting the soft parts, may be removed with ease and certainty; and of the internal forms, that Pulmonary Consumption, taken before an advanced period of Hectic, may, in the greater number of instances, be cured. In order to accomplish these desirable ends, a different opinion on the nature of Scrophula must be formed, from what has been generally held out. I conceive that this disease is particularly marked by a *defect of animalization*, and to remove this, the application of medicine will be useless without the aid of regimen. The general debility and flaccidity of the system, so often taken notice of; the crude watery secretions; and the indolent torpid inflammation, are all strong proofs of what I alledge. The solids want their due vigour to give the fluids their proper constituent principles, and the latter seem to have a defect of that vitality, on which their action on the vascular system, or their effect on the solid parts, appears to depend; for it is clear, they are to be considered as something more than inert fluids; and if a reciprocal co-operation betwixt the solids and fluids is necessary to health, the latter are certainly, in this disease, defective in their powers.

In the treatment of Scrophula, we have seen that authors have attended, either simply to the state of the solid, conceiving, that by invigorating it alone, a cure was to be effected, and an alteration of the state of the fluids to ensue; or they

have attended solely to the state of the fluids, on the idea of throwing out, or correcting, a noxious matter contained in them, that formed the principle of the disease; but, in treating Scrophula, I maintain, that though the state, both of solids and fluids, claims an equal share of attention, and though we cannot disjoin them, in a certain degree, from each other, yet it will be proper to consider them as unconnected, and to direct a separate plan of treatment for each in conducting the cure. With these observations, then, on its nature, the first step in the removal of Scrophula will be, to direct a regimen capable of giving that vigour to the solid which it wants; and also to convey to the fluids that share of vitality which they are naturally intended to possess.

2. CANCER.

IF a particular regimen, as I contend, is so useful in Scrophula, it is still more so in Cancer, being the first and great foundation towards a cure, without which all the other means employed will prove ineffectual. This has been little attended to by authors, except in a general way; and in such a way it has seldom been much regarded by their patients. If a defect of animalization prevails in Scrophula, I conceive that a state very opposite takes place in Cancer. The crude watery secretions of the former constitution
yield

yield here to a highly *saline* and *ammoniated principle* pervading every part, and producing in the seat of the disease, an obscure, or carcinomatous inflammation, having a tendency to unite the too rigid fibres; and the situations of the disease, are generally such, as are not influenced by the action of the heart, so as to counteract it. To obviate this state, regimen, not medicine, must act. Pouteau is the first author who pointed out this. All acrimony, it is an established fact, is relieved by liquids; hence, the reputation of different watering places, in many of the most incurable diseases. Medicine must be combined with it, to exert its powers in all those maladies, which are intimately interwoven with the constituent principles of the constitution.

Next to regimen, the removal of local congestion is an important step. Mr Fearon, finding beneficial effects from it, has carried his ideas too far, conceiving it capable of accomplishing a complete removal of the disease. In dissection of Cancer we have seen, that every mark of inflammation prevails, of an inflammation, indeed, of a peculiar nature, whose symptoms are not acute, but whose effects are equally strong in inducing an altered organization of the part; or producing the same morbid changes, as acute inflammation, viz. adhesion, thickening of membrane, and apposition of new substance. The removal of the congestion, then, will lessen the strength of this
in-

inflammation; the altered organization will proceed more slowly; the contiguous parts will not be so liable to assume the morbid irritation; and thus joined with the regimen recommended, one farther step will be gained to the cure. The benefit of this practice in Cancer, I would compare to the use of evacuants in intermittents, previous to the exhibition of the *Bark*. If this medicine is given without them, we find, from the testimony of the first physicians, that obstructions of the liver, and other viscera, arise; as a prelude to the action of specific remedies, the removal of local congestion must then be attempted, which lessening the force of the disease, will render the application of medicine more speedy, safe, and effectual.

I have thus laid down some general principles, by which it will be understood how I proceed in the treatment of Scrophula and Cancer. I shall enter into no farther detail at present. The result of this practice, whether good or bad, I pledge myself to lay before the public, at no distant period, in the form of an appendix to the present work. From it they will be able to form an opinion, which, I flatter myself, will not be unsatisfactory. Cases of every disease will occur, it is well known, to baffle the power of any treatment whatever; but if, by the plan of cure suggested, in a disease so deplorable as Cancer, while yet in its occult state, nine out of every ten cases shall be saved from the present cruel mode of procedure,
my

my labour, I shall consider, amply rewarded. In the ulcerated stage, the proportion will not be so considerable; but still much may be done to mitigate, if not always to cure.

F I N I S.



GENERAL COLLECTION

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