A critical inquiry into the pathology of scrofula, in which the origin of that disease is accounted for on new principles; and a new and much improved method is recommended and explained for the treatment.

A

Critical Inquiry

INTO

THE PATHOLOGY

OF

SCROFULA.

PART THE FIRST.

CHAPTER I.

Of the Etymology and Import of the Terms Χοιραδες, *Scrofula, Struma, and the Evil.*

THE disease which is the subject of this work, has obtained four different appellations, namely, χοιραδες in the Greek language; in the Latin, scrofula and struma; and evil, or the king's evil in our own.

It may however be doubted, whether Alexander of Tralles, an ancient and very eminent writer on diseases in general, except those which are peculiar to the female sex, has not discoursed

of the same malady, under the title "De Parotibus" (Glandulis.)[1] For, at the same time that he treats of the struma in no other part of his works, and indeed but just mentions the term, and that in a very cursory manner, although it was quite familiar to the age in which he flourished, was fairly comprehended in his plan, and certainly was of no inferior importance; the account which he gives of the tumefaction of the parotids, is much more descriptive of affections strictly called scrofulous, than of the ordinary diseases of the parotid glands; which rarely, if ever, swell idiopathically, without possessing a strong disposition to suppurate: and, when their tumefaction is symptomatic of some other disorder, subside as the original complaint subsides; except in some very rare instances, where from neglect, or unskilful management, they continue chronically enlarged and indurated. It is on this account, that Celsus pronounces parotidal swellings to be a species of abscess, which requires no particular treatment.[2]

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1 "Aliæ vero ex copia cruda contingunt, quæ naturam gravant, simul et nonnihil irritant: quare etiam ægri procedente tempore periclitantur, et parotides medicis multa tentantibus, vix ad suppurationem aut concoctionem perveniunt. . . . . Quæ rursus a magis melancholico et crasso provenerunt, gravant quidem, sed neque ruborem habent, neque dolorem adeo ipsæ inferunt: tumorem autem scirrhosum repræsentant, quemadmodum illæ, quæ a pituita traxerunt originem, laxum tumorem, qui οἴδημα Græcis dicitur."—ALEXANDER TRALIANUS, De Arte Medica, Lib. III. Caput vii. J. G. Andern. Interprete.

2 Vide Celsi Opera, Lib. VI. cap. vi.

It is however not at all difficult to account for Alexander's misapplication of this term, for in the disease of which he treats under the title de Parotidibus, and which by the moderns is called Cynanche Parotidæa, not only do the parotid glands enlarge, but often the jugular and submaxillary also; and, what is very singular, when the swelling of the glands of the neck subsides, the mammary glands in females, and the testes in males, occasionally take on the same actions, and go through the same processes. But what much more strengthens the conjecture, that he employed this term to denote those affections, which by other writers were called strumous, is, that in another part of his works, he extols an epithem, as proper for the parotids of the *joints*; than which if we refer to the signification of the word parotid, there cannot be a more gross misnomer.[3]

This appellation I shall therefore pass by, and proceed to the investigation of those by which the disease has been most commonly known.

Χοιραδες is the term, which the Greek writers constantly apply to it; a word which according to Scapula, Hederic, Schrevelius, and other Greek

3 "Hoc medicamentum, scil. epithema malacticum, molliendi facultate præditum est, commune jecinori, lieni, abscessibus, strumis, parotidibus articulis &c."—Alex. L. viii. c. xiii.

lexicographers, is derived from χοιρος, porcus. It is strictly synonymous with scrofula, or, to speak more correctly, the word scrofulæ in the plural number is the literal translation of χοιραδες.

By what real or fancied analogies, or by what association of thoughts, this name was first applied to the disease which is the subject of this work, it is at this distance of time very difficult to discover; for, supposing that Hippocrates was the first who employed it, it cannot well be less than two and twenty hundred years old. It may therefore admit of some doubt, whether the proper signification of it is at present known. For the explanations which have been given of the terms χοιραδες and scrofula, even by respectable and judicious writers, are so entirely unsupported, if they be not even directly contradicted by the facts on which they rely, that instead of elucidating, they do but embarrass and perplex the subject. Erroneous however, as these explanations are, they have neither been rejected nor even doubted, but have been implicitly copied from one writer to another; for as no suspicion was entertained, no inquiry was instituted.

Yet nothing so powerfully tended to maintain the delusion, as the constant and confident appeal to ancient authorities, which far from countenancing it, were entirely gratuitous and imaginary.

Turner, for example, a medical writer of some celebrity early in the last century, explains the word scrofula in the following manner:—"Scrophula, vel scrofula, Gr. χοιράδες idem quod struma, *according to Celsus* a suibus sic dict. qui peculiaritèr hoc morbo infestantur; ut porcellus a porcis, sic scrofula a scrofa.—Whether so or not, it is certain that the word scrofula stands in our common lexicon for a little pig, but with us is meant a disease of the glands going under the name of the King's Evil."[4]

Now in this explanation of these terms, this writer goes on a very confident supposition, that the disease in question obtained the name of scrofula, because pigs are infested with it in a peculiar manner, and that this interpretation is sanctioned by Celsus; a writer of such acknowledged eminence on every subject connected with medicine, that his authority enforces our attention, even when his doctrine is disputable, and fails to convince.

Being desirous to see the original passage thus referred to, I was led to examine the works of Celsus with some care; but, to my great surprize, found not only no such explanation of the term as

4. See the Tabula Ætiologica subjoined to Turner's art of Surgery.

that delivered by Dr. Turner, but, which is still more striking, that the very word itself is no where to be met with in his writings; the disease, whenever he speaks of it, which is but seldom, being invariably denominated struma.

This discovery made it a subject of curious inquiry, by what mistaken authorities Turner had been led into this notion; and as he had alluded to the common lexicon, I was induced to turn to those of the Greek language by Scapula, Hederic, and Schrevelius; and to the Latin dictionaries of Spigelius, and Ainsworth; in the first and last of which works, I found the same reference to Celsus, as the patron of the opinion which Turner had attributed to him.

As these references are totally erroneous, and require some comments, I shall transcribe the articles in which they are included, and first that of Scapula:

"Χοιρας, αδος, η, porcula, scrofula. ¶. Item rupes è mari aliquantum eminens, ita ut porco natanti similis sit, quæ undis marinis circumluitur, et cavum antrum habet. Eurip. in Andromed. Theocr. Idyll. 13. ¶. Item, morbus struma, tumor glandulosus, sic dictus, vel a petris, quæ χοιραδες dicuntur, vel a porcis, in quorum gutture frequenter ejusmodi reperiuntur. Cels.

L. 5. cap. 28. Scrofula, struma scrofularia, indurati adenes.

"Scrofula, æ, f. dim. (1.) a little pig. (2.) The king's evil; a wen in the throat. (1.) Lit. ex Plin. (2.) Cels. 5. 38. dict. quod sues præcipuè hoc morbo vexantur." Ainsworth.

As Turner's reference was general, its fallacy could only have been detected, by purposely reading every line in the writings of Celsus. This I do not pretend to have done. But as no such passage occurs in the chapter on struma, in which he delivers the doctrine of the disease, and the practice in it: nor is mentioned in the index to the Princeps edition, or to that of Almeloveen, I must suppose that none exists.

The references of Ainsworth and of Scapula were readily falsified; for the former cites the 5th book and 38th chapter, which has no existence in the works of Celsus; and the latter, although right enough with respect to the book and chapter, which treat of the struma, is quite in an error with regard to the text, which is not there to be found. Nor does it appear, that he adverts to the subject in any other part of his writings, except in the 18th chapter of the same book; in the 13th, 14th, 15th, 16th, 17th, and 31st sections of which, he merely delivers the formulæ of emollient, or

suppurative poultices proper for strumæ; or as he terms them, "malagmata ad strumas." In this chapter however, he adds nothing to what he had before said of the disease.

It may be remarked moreover, that if the passages in question, had been really quoted from Celsus, they would, in all probability, and certainly should have been exhibited in the same words. Instead of which, although the sense is not dissimilar, at least in two of these compilations, yet is the expression widely different in them all. For while Ainsworth says, "quod sues præcipuè hoc morbo vexantur," Turner's words are, "a suibus sic dicta, qui peculiaritèr hoc morbo infestantur," and those of Scapula, "sic dictus a porcis, in quorum gutture frequenter ejusmodi tumores reperiuntur." It seems therefore a just conclusion, that neither of them had consulted the original which they professed to cite, but that they were all mere transcribers from copies. Their example may therefore be produced, to shew how hazardous it is, to rely on the fidelity of quotations, without verifying them.

But this erroneous notion, that Celsus had authorised this signification of the term scrofula, although perhaps it did not originate with them, so neither was it confined to them nor to their times. That its influence is still felt, is more

than probable, as we find writers even of the present day, still asserting as a received truth, that the disease first obtained the name of scrofula, because pigs were observed to be afflicted with it, in common with mankind.

One respectable writer indeed says, "that the disease took its name from the glands in the necks of swine being subject to it," but adds, as I suspect, upon the authority of the following passage, "that some of the Greek writers refer it to the multiplicity of their increase, like the offspring of a sow." 5.

"χοιραδες εγγενονται αυται χειρες αι νεσοι τραχηλε." Etsi videtur locus corruptus et asterisco notatus in codice Asulano. Posteriora enim verba sic quidam legunt: αυται χοιρων αι νεσοι τραχηλε. ut struma colli porcorum morbus sit, unde et scrophulæ dictæ sunt, et χοιραδες, quod id morbi genus porcis sit familiare, aut quod numerosæ sit sobolis et prolificum velut scrofa. Ab unico enim tumore etiam alii quandoque enascuntur. Quam nominis notationem attingit Paulus lib, 6. et Actuarius lib. 2. Περι διαγνωσεως Παθων. cap. 37." 6

5. An Inquiry into the present state of medical Surgery, by T. Kirkland, M. D. vol. 2. p. 447.

6. This passage, which is a Commentary on the words of Hippocrates that are prefixed to it, affords a very striking proof of the inconvenience that has resulted from this fanciful

Another writer, in a dictionary of surgery, published about the beginning of the present century, says, " that the disease is called struma and scrofula, from scrofa, a hog, or sow, because this disorder is observed in swine." [7]

Now if it were true, that the disease first obtained the name of *scrofula,* from some real or supposed analogy, between the symptoms of it, and those of an affection to which swine are subject; yet is there no pretence for alleging, that the term *struma* was thus conferred; these words, notwithstanding that they are synonymous, and have both been long employed to denote the same morbid affection, being dissimilar in etymology as well as in import.

Having then proved, that this interpretation of the term scrofula, is not sanctioned by the only

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interpretation of the word χοιραδες; in order to establish which it is even proposed to change the text, and to substitute for the word, which is accurately employed to express a well-known fact, another that destroys that meaning, and gives quite a different one. Now the construction of the passage is very clearly this, that from the causes before spoken of, strumæ arise, which are the severest diseases of the neck. But the proposed emendation would have the effect of stating, that, from the before-mentioned causes, strumæ arise, *which is a disease of the necks of pigs.* But, to shew how little confidence is placed in this explanation, an effort is made to give another reason for this derivation of the word, which is that the struma, like the pig, is very prolific, and that from one, many are produced!— This however is too absurd.

7. Dictionary of Surgery by Benjamin Lara.

writer of antiquity, who is appealed to as the author of it; the next question is whether the pig is in reality susceptible of the cause of scrofula, and does actually exhibit the peculiar symptoms of that disease?

As far as I can depend upon the information which I have obtained upon this head, scrofula does not attack this animal. But there is a disorder to which it is very prone, and which, from some slight points of resemblance, may have been mistaken by careless observation, for genuine scrofula. It is however, in every essential point, different.

It belongs, I apprehend, to the class Pyrexia, and to the order Exanthema, and is therefore an acute disease. It consists of very numerous, but small whitish masses, which are imbedded in the skin, and in the substance of the muscles over the whole body. It is vulgarly called measles, makes its attack in the hot season of the year, and generally terminates without either the suppuration, or induration of these masses; which, for the most part, soon subside, leaving the animal in a state of debility, from which however it readily recovers. It is very obvious, that even if some of these masses should continue in a state of enlargement, which I only mention as a possible case, they would not constitute genuine scrofula.

What then is the real import of the terms χοιραδες and Scrofula? That they derive themselves into χοιρος and scrofa is without doubt.—But was their first application in medicine made from a real or fancied analogy; and are they to be taken, in medical acceptation, literally or metaphorically? To determine these questions it is requisite to ascertain the sense, in which the first of these words, for the other depends on it, has been used by other writers of antiquity.

Scapula, as we have seen, among other explanations of the word χοιρας, gives this: "a rock somewhat raised above the surface of the sea, so that it resembles a pig swimming in it; that it is surrounded by waves which wash it, and that within it is a cavern." And he refers us to the 13th Idyllium of Theocritus, and to the Andromeda of Euripides, as his authorities for this explanation. [8]

8. The word in Theocritus has a very remarkable application to two rocks, or rather very small islands, named Symplegades, or Cyaneæ, which are situated in the sea, at the entrance of the Bosphorus or Streights of Constantinople. They were so near each other, that, when seen in some points of view, and at a distance, but especially from a vessel sailing along, they actually seemed to be in motion. Hence the poets of that inventive age, feigned, that they clashed against each other, and jostled whatever ships chanced to be between them; and therefore Theocritus applies to them the epithet of συνδρομαδων, and Juvenal ironically that of concurrentia. But their very name Symplegades implied the same, "quod quasi concurrere videantur." Now it is not at all difficult to conceive, that these objects seen at a distance and seeming to be in motion might have

He seems also disposed to think, that the same term, which was originally applied to these rocks in particular, from their supposed resemblance to pigs, was afterwards transferred to scrofulous swellings in the neck, from their similitude, not to pigs themselves, but to the rocks which were called χοιραδες; "a petris, quæ χοιραδες dicuntur."— Nor is it improbable, that the firmness, and insensibility of scrofulous swellings, of any duration, might have assisted in forming the comparison.

A differrent conjecture of the meaning of the term χοιραδες, was hit on by Mons. Dionis, formerly an eminent French Surgeon; which was that it was applied to this disease, solely from the resemblance that was observed, or was supposed to exist, between the human neck when enlarged with scrofulous tumefaction, and the clumsy, and shapeless neck of the pig, in its natural and healthy state. For the neck of this animal is filled up in a remarkable, perhaps in a peculiar manner, with glandular substance, and cellular membrane.

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a sufficient resemblance to an awkward and unwieldy animal, to warrant a *poet* in naming them from such a resemblance.— And accordingly it is only to rocks at sea that the name χοιραδες is applied. To other rocks the term Πετρα is given. One instance of which occurs in the iv. v. of the first epigram of the same author. Vid. ΘΕΟΚ ΕΙΔ. ΙΥ. v. 25.

As employed by Euripides the word only illustrates the latter part of Scapula's explanation . . χοιραδος κοιλον μυχον Σηπιαδος ιζου. . . . . ΕΥΡ. ΑΝΔ. v. 1265. 6.

An ingenious, perhaps an original opinion; not altogether wanting in probability, nor by any means confuted by the appearance, which the human neck assumes, when, in addition to the swelling of the glands, there is much thickening, and enlargement of the cellular membrane, which contains them. Still however, there is one material thing wanting, to make this explanation satisfactory; which is, that in a great proportion of cases, the tumefaction is too inconsiderable, and the thickening of the cellular membrane too much circumscribed in its extent, as well as of too short duration, to make the comparison general.

As to all other interpretations of this term which I have met with, they have been so forced, and far-fetched, as well as so improbable, that I pass them by, as unworthy of any notice. And as there is still ample room for further investigation, I shall just venture to suggest what appears to me, to give a clearer solution of the difficulty.

I am disposed to think, that a somewhat more probable and just account of the meaning of this term, may be obtained, by supposing that the text of Hippocrates, has been corrupted in this instance, as it certainly has in very many others; and that the true reading is not χοιραδες, scrofulæ, but χοιραδώδες, scopulosus.

And I entertain this opinion with the more confidence, because the neck, when it is much studded with indurated glands, enlarged, and elevated above the surface, really has a rocky or craggy appearance. At the same time, the term derives an additional justness and propriety from the insensibility, and often incompressible hardness of these glands, which characters assimilate them so much the more to rocks, that not the eye only, but also the touch, is struck with the resemblance.

If however, which is altogether probable, the reader be too sceptical to be convinced by this kind of illustration, let him call to mind, that the ancients, much as they excelled in their observance of the operations of nature, were not conversant with the minutiæ of anatomy; and that, as they had not then learned how to discriminate tumors from their internal structure, they were obliged to invent and apply names, from external appearances.

Hence it is, that so many of the appellations, which they gave to diseases, sound so ridiculously to modern ears. Of this many examples might be produced, but a familiar one offers itself in the term cancer, which was applied to a particular kind of tumor, from a supposed resemblance of it to the crab-fish, and its retrogradation; καρκινος,

ἐχ καρκινοω, cancro adsimilo. The tumor itself was the body of the fish, and the obstructed and varicose veins its claws.

Still however it must be acknowledged, that although the imperfection of their terms was gradually detected, yet was it not rectified. Their errors were permitted to continue, and their deficiencies were not supplied. Even in our own times, notwithstanding the light shed upon us by the discoveries in anatomy and physiology, the doctrine and discrimination of tumors, are so far from being freed from difficulties, that I know no subject, of more promise to compensate the trouble of any person, who has opportunities for investigating it by dissection, than this.

At the same time, the benefit received by the public will be great; for when once a more exact knowledge of the internal structure of tumors shall be acquired, as well as of the external signs, by which they may be absolutely distinguished from each other; we shall not only be better enabled to discover their causes, and to devise preventive, and curative means; but a juster language must arise,

Verbaque, provisam rem, non invita sequentur.

This I take to be a great desideratum; for in the nomenclature of diseases, the utmost accuracy is essentially necessary. Just and well-defined

terms, were in themselves brief definitions, and guide the mind of the practitioner directly to a comprehensive view of the subject. But if they be in any respect inaccurate, they cannot fail to convey corresponding notions of the character of disorders, and to perplex, and mislead us into erroneous practice.

The term next to be considered is struma, which Celsus, as well as most of the classical writers, subsequent to him, use in treating of this disease. In most of the translations also, from the Greek writers, the word χοιράδες is rendered by struma.

Struma is a Greek word latinized, and if the term χοιράδες, or rather χοιραδώδες, bear the interpretation, which I have ventured to give of it, struma corresponds with it in sense very exactly, and signifies, swellings scattered on the neck, or as the learned Freind has it, "serophula colli." It is a derivative from στρωννυμι, (ab inus. στρωω) sterno, *i. e.* according to Hederic, "dejectum humi expando, aut in alio loco plano;" but Ainsworth explains it thus, "quod gutturi substrata sit."

This last however, would too closely restrict the application of the term to the immediate neighbourhood at least of the thyroidal gland;

the various chronical affections of which, have the general name of bronchocele; a disease, for reasons which will be hereafter given, not to be considered as of a scrofulous nature.

But the chapter of Celsus on the struma, will shew that while he extended the term to many affections situated in different parts of the body, and which he judged to be scrofulous; he treated of the bronchocele in a chapter by itself. A proof that he considered this last disease, in all its varieties, as of a different character and nature.

Still however, the word has been variously applied, to denote not only affections properly called scrofulous, but wens, and even defædations of the skin. Spigelius says, that it is understood to mean "gibbus in pectore;" and Columella, in his book de Re Rustica, employs it, adjectively, to the measles in pigs: "strumosis suibus sub lingua sanguis mittendus." A disease, as I have already shewn, erroneously, although very commonly confounded with scrofula.

Were it not for these circumstances, the term struma would be much more eligible than scrofula; as being sufficiently expressive of the disease, while it is void of any allusion, like the word scrofula, that tends to give rise to erroneous

notions. But as long-continued custom, has given it an application to other, and very different affections, it seems necessary to continue to employ the term scrofula, by which it is so generally known; or if struma be preferred as an appellation of this disease, to fix the meaning of it by an adjunct, as scapula has done, who calls it, "struma scrophularia."

The term evil corresponds, I believe, very exactly with ill and ail, the last of which words Johnson derives from the Saxon eȝlan, to be troublesome. Evil appears to be the vernacular name of this disease, and it is not improbable that it was applied to it to express in the most emphatical manner, the severity of its nature, the misfortune of those who were the subjects of it, and the dread that was entertained of it; because it was always a vulgar error, that when once a person was attacked by it, he could never be freed from it.

Whether the name of evil singly was conferred on this disease, before it was called king's evil, is uncertain. The epithet however, is obviously intended to denote, that the imposition of the royal hand, is curative of the malady.

When this singular and superstitious practice was first employed in this country is undetermined; some contending that it is as ancient as the

reign of Edward the Confessor, that is A.D. 1041, while others think it of a much more modern date. There is, however, no reason to doubt of its being as ancient as that reign, and the circumstance of Edward's being much inclined to piety, and in much repute for it, makes it extremely probable that it did originate with him. It tends to confirm this conjecture, that the French historians can trace this practice in that country as high as Philip, who was contemporary with Edward, but not higher than that reign; although some of them pretend to derive it from the time of Clovis, who died 530 years before.

That the practice of curing diseases, by the imposition of hands, accompanied with prayers, is of very remote antiquity, is proved in the 2d book of kings, ch. v. v. xi. where Naaman, speaking of the prophet Elisha, says, "he will surely come out to me, and call on the name of the Lord his God, and strike (or move up and down) his hand over the place, and recover the leper;" and also in various parts of the N. T. particularly in the 7th, 8th, and 9th, chapters of St. Mark. It is also unquestionable that those who were delegated by our Saviour, and his Apostles, possessed this supernatural power of curing diseases themselves, and of imparting to other believers the same gift. It may therefore be supposed to have been very much diffused wherever christianity

reached, and it probably was a mean of obtaining for the gospel of Christ, the belief of those who were witnesses of the miracles which were done in his name: when the gift of healing was taken away from men, does not appear; but various instances of the successful application of it, are recorded in the ecclesiastical histories of Eusebius Pamphilus, and his continuator Socrates of Constantinople.[9] Other documents may bring it down to later times, but this serves to bring it to the time of Clovis; who ascended the throne A. D. 481.

I have been the more particular in deducing this practice from the time of our Saviour, because it is interesting to determine when the divine employment of these means as instituted by him, and as used by his Apostles and their followers ended; and when the superstitious use of them, as employed by the kings of England and of France began; because the lower we can bring down the one, and the higher we can carry back the other, the greater is the probability that the one grew out of the other. Of this there would not be any doubt, if there were not some very striking differences, between the former and the latter practice, and their effects. Thus by the former, diseases of all kinds were cured:

9. Eusebius d. A.D. 331. Socrates fl. A.D. 439.

by the latter, this alone was attempted.[10] In the former the cure was certain, and instantaneous: in the latter, doubtful and requiring the aid of time; so that it never could certainly be said that the cure, when it took place, might not have been effected by other means. In the former the imposition of hands alone, accompanied by prayers, sufficed: in the latter a charm or amulet was judged to be so necessary, that those who had been cured relapsed, it was said, if the amulet chanced to be lost.

And I think there is this further difference, that in the instances referred to in the Old and N. T. and in all others where the diseases were local, the *part affected was* always *touched*; whereas the practice of our court was for the sovereign to lay his hands on the sick person, but not on the diseased places, although in the evil the affections are always local and accessible.

A singular instance of the effect of the touch occurs in the Philos. Trans. where strumæ are said to have been cured by the application of the hand of a *dead man* to the affected parts. And even to this day it is a very prevalent custom among

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10. It seems that during and prior to the reign of Henry the IVth. epileptic and other fits were submitted to the royal touch.

the ignorant and vulgar, for persons having scrofulous complaints, to have them touched by a *seventh* son.

A French writer therefore, rightly calls it "the cure of this distemper by *faith*;" and says, that the kings of France were accustomed to touch five times annually, and only on devotional days. That seldom fewer than 700 or 800 offered themselves, and that a great number among them would say they were cured. For this reason he advises all those afflicted with this distemper, to try this gentle spiritual means of obtaining a cure, before they throw themselves into the hands of the chirurgeons. This recommendation is the more remarkable, as it comes from a surgeon, instead of a divine. He was however a Frenchman, and a courtier.

At what time the practice of touching fell into disuse in France, I am not informed; but in England it was discontinued by "the present Royal Family, who observed, that it could no longer give amazement even to the populace, and was attended with ridicule in the eyes of all men of understanding."[11]

Mead considers it merely as a piece of flattery paid to the reigning monarch; and he accounts

11. Hume's Life of Edward the Confessor, vol. I.

for it by saying, that it was observed, that the changes produced on the constitution by puberty often effect the cure of this very obstinate disease, and that this gave rise to the contrivance of the *royal healing touch*, "tactum sanantem regium."

"Cum enim," he says, "istam mali hujusce naturam deprehenderent homines astuti, facile existimarunt rem gratam se regibus facturos, si illis persuaderent, ut ritu solenni, adjunctis sacerdotum precibus, virtutis suæ hac ederent experimentum; quo silicet populi reverentiam sibi conciliare, et jure divino, si diis placet, datum sibi, imperium evincere possent.."[12]

There was accordingly a great deal of circumspection used to make the touch seem effectual, for it is certain that none were presented to be touched who were not previously examined by the court physicians and surgeons; nor is it less so, that all those were withheld under some pretext or other, whose cases were judged to be unlikely to yield readily to the touch alone, or to the remedies that were employed in conjunction with it. For that this spiritual remedy condescended to use auxiliaries, is plain from one of Wiseman's own cases; in which after he had destroyed an indurated gland by the application

12. Mead, Mon. et Præc. Med. Caput de Strumis.

of caustics and escharotics, he proposed to cover some slighter scrofulous swellings with a "resolvent plaster," and to present the patient to be touched.[13]

Barrington, in his observations on the more ancient statutes, thus relates what he heard from an old man who was a witness in a cause that was tried before him; and which shews that the faith of the populace was not very highly excited in favour of touching in the beginning of the last century: "He had, by his evidence, fixed the time of a fact, by Queen Anne's having been at Oxford, and touched him while a child for the evil. When he had finished his evidence, I had an opportunity of asking him whether he was really cured? Upon which he answered with a significant smile, that he believed himself never to have a complaint that deserved to be considered as the evil, but that his parents were poor, and had no objection to the bit of gold." "It seems to me," he further observes, "that this piece of gold which was given to those who were touched, accounts for the great resort on this occasion, and the supposed afterwards miraculous cures."[14]

Of the intrinsic value of the gold coin, or touch-piece as it was called, which was suspended from

13. Wiseman's Chir. Treat, vol. 1. p. 444. Ed. VI. 8vo.

14. Letters from the Bodleian Library, vol. 2. p. 251, 2, Note.

the neck on these occasions, I am ignorant; if however it was an angel, as is asserted, its value was sufficient to stimulate the cupidity of the greedy as well as the necessitous, for it was then rated at ten shillings. And that this really was the coin which was used, its having the impress of an angel, which gave it a sort of religious fitness for the purpose, renders very likely.[15]

It must not however be concealed, that in the latter part of the reign of the First Charles, when that unfortunate and distressed monarch, was no longer able to give the amulet in gold, silver was substituted, and at length even that was dropped; but still, as is affirmed by Wiseman, the touch was neither less in request, nor less efficacious.

In France no touch-piece was used, but every native who received the touch was *paid* 15 sous, and every foreigner double the amount. The ceremony therefore was not attended with any great expense, but in England it is stated to have cost £3000 per annum. It was owing to this probably, that the frugal Elizabeth, on one occasion at least, told the people who pressed about

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15. A piece of money anciently coined and impressed with an angel, in memory of an observation of Pope Gregory, that the Pagan Angli, or English, were so beautiful, that if they were christians, they would be Angeli or Angels. The coin was rated at ten shillings.

Johnson's Dictionary.

her to be touched, "that God only could cure their complaints." She had however a more sufficient reason if she had condescended to use it, which was that none but *kings* could apply the touch, because to them only was the gift of healing imparted.[16]

It probably was the same dislike of expense, on such an occasion, that induced the needy James to issue his proclamation of the 25th Mar. 1616, forbidding those afflicted with the evil from approaching him during the summer months; and also that of the 18th June, 1626, ordering that no one should apply to be touched who could not bring a proper certificate that he had never been touched before.[17]

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16. Item Regibus Angliæ Regali ipso officio plura incumbunt, quæ naturœ muliebri adversantur.—Reges Angliæ in ipsa unctione sua talem cælitus gratiam infusam recipiunt, quod per tactum manuum suarum unctarum infectos morbos quodam, qui vulgo Regius Morbus appellatur, mundant et curant, qui alios dicuntur incurabiles. . . . . Quæ gratia Reginis non confertur, cum ipsæ in manibus non ungantur.

Fortescue's Defence of the Title of the House of Lancaster, in the Cotton Library.

Appendix to Freind's Hist. of Phys. No. 6.

17. Nichol's Lit. Anecd. v. 2, p. 499—500.

Shakespeare has left us an account of the practice as it was in use in his time, and in his own language:

"*Mal.* Comes the King forth I pray you?
Dort. Ay, Sir: there are a crew of wretched souls
That stay his cure; their malady convinces
The great assay of art. But at his touch,
Such sanctity hath Heav'n giv'n his hand,
They presently amend.
Macd. What's the disease he means?
Mal. 'Tis call'd the Evil;
A most miraculous work in this good King,
Which often since my here remain in England,
I've seen him do. How he solicits Heav'n
Himself best knows; but strangely visited people,
All swoln and ulc'rous, pitiful to the eye,
The mere despair of surgery he cures,
Hanging a golden stamp about their necks,
Put on with holy prayers."[18]

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18. Macb. Act. IV. Sc. V.—"Veni in Angliam ad Regem Anglicum præsentem, duc tecum christianum quemcunque habentem morbum Regium, quantumcunque inveteratum, profundatem et turpem, et *oratione fusa, manu imposita, ac benedictione sub signo crucis data, ipsum curabit in nomine Jesu Christi.*"

J. Bradwardine, Abp. Cant. in lib. de caus. Dei.
Freind's Hist. Phys. App. No. 7.

In the additions of the Bible published in and before the reign of Queen Anne, is the form used "at the healing," from which the following short prayer is copied: "God give a blessing to this work: and grant that these sick persons, on whom the Queen lays her hands, may recover, through Jesus Christ our Lord." In France the words used were "Le Roy te touche, Dieu te guerisse." "Rex te tangit, Deus te sanat."

CHAPTER II.

A Review of some of the Theories which have been invented to elucidate the nature of Scrofula.

IN the preceding chapter I have endeavoured to ascertain the original import of the terms χοιραδες, scrofula, struma, and the king's evil; and I think it is there proved that the application of the first of them to this disease was in a metaphorical, and not in its usual sense; that the second was a literal translation of the first term, but taken in its strict and usual sense; that the third, although less exceptionable than the two former as to its origin and signification, yet was objectionable as having a tendency to create confusion, from the circumstance of its having been applied to several other complaints of quite a different character, and nature; and the last as no longer applicable to the disease, in consequence of the practice of touching for the cure of it, being now in disuse, and obsolete.

Of the four appellations I was therefore induced to prefer the second, partly from its great antiquity; partly from its having no other medical application; and partly from its being naturalized

and familiar among us, to denote this affection in particular. It must however continue a lasting objection to it, that it signifies what is inapplicable to the disease, and does not express in what it consists.

I now proceed to investigate whatever theories, or rather hypotheses of this disease, I have met with. That many others will be found to have escaped me, of which some perhaps will be thought to have been more deserving of attention than those which I am about to examine, is by no means improbable.

For this, if any apology be necessary, my excuse is, that my situation is very remote from all public collections of books; and that I have access to none but such as are in my own collection. Were it otherwise, I should have found it no uninteresting labour, to trace the more modern opinions through their various ramifications usque ad fontem. But as I am circumstanced, it would be to no purpose to think of such an undertaking.

Indeed the chief object which I have in view in composing the present work, is the improvement of the treatment of scrofula; and although I am sincerely desirous to establish the theory of it on, what appears to me, a less exceptionable

basis, than that on which it has hitherto rested, yet this is but a subordinate concern, and is only thus far desirable, that it tends to make the principle more intelligible, on which the practice, which it is my design to recommend, is founded.

The first theory which I have to examine occurs in the treatise on "the King's Evil," by Richard Wiseman. I commence with this, because it was not only sanctioned by his contemporary practitioners, but had, and perhaps still has, a very extensive influence on the public opinion. This author, in addition to his very ample private practice, had large opportunities for observing the character of scrofula in a great variety of instances. For in his time, the superstitious notion that the royal touch was capable of curing scrofula, existed in its fullest maturity; and accordingly, great numbers crowded to the court to receive it; which they could not do, till they were previously examined and certified by him, in his capacity of serjeant surgeon to the king.[1]

With such uncommon opportunities for observing the phænomena of this disease, and for forming an accurate judgment of its peculiar

1. It is stated by Turner, that upwards of 100,000 persons were touched between the time of the Restoration of Charles the Second, and the commencement of the reign of Queen Anne. Art of Surgery, v. 1, p. 171.

character, Wiseman framed the following theory :

" I shall endeavour," he says, " to fix upon a peculiar acidity of the serum sanguinis for my specifick difference, and shall describe the King's Evil to be a tumor arising from a peculiar acidity of the blood ; which whensoever it lights upon glandule, membrane, or muscle, it coagulates and hardens ; when it mixeth with marrow, always dissolves it, and rotteth the bone."[2]

A similar opinion is expressed by Turner, whom I have already had occasion to notice ; he wrote subsequently to Wiseman, and appears to have adopted his theory without any qualification.

" The indications for the cure of this disease," he observes, " we shall find the same, whether its origin lies in the said juice of the nerves distempered, or as we rather conjecture in some particular acidity, or somewhat of kin thereto, in the serum of the blood, or in some fault of the lymph, as others ; since before we can gain any ground upon the same, the dyscracy of the succus in the one must be amended, while the acidity in the others is corrected ; especial care being taken for a future supply of such a sweet,

2. Chir. Treat. v. 1, p. 358.

temperate, and wholesome chylous juice, out of which all are derived, as may cut off any future fomes for the disease: indeed without altering the juices of the blood in general, we are like to gain very little ground, there being scarce any part of the fabric, which, in its perambulation, it doth not at some times call on. Thus in the eyes it shews itself," &c.[3]

Between these theories, there is however this difference, that the framer of the former of them, judges a particular acidity of the serum of the blood to constitute scrofula, but confesses himself to be quite at a loss to determine the precise cause or origin of the acidity itself; refering to air, diet, exercise, natural complexion, hereditary affections, &c. as heads: but Turner derives it from a "dyscrasy of the chyle" alone.

Of the former of these opinions it may be remarked, that this supposed acidity of the serum, although apparently not insusceptible of proof, if it really exists, yet certainly has never been proved; and may therefore be pronounced to rest on a perfectly gratuitous foundation. If however it were proved, it could not possibly afford any explanation of the symptoms, which denote scrofula.

For if there be any particular acidity of the serum of the blood, there must be a general

3. Art of Surgery, vol. 1, p. 123.

acidity of all the blood; since, while it circulates, it is an uniform fluid, all its component parts, being, by the action of the heart and arteries, most intimately blended. If then the whole mass of blood be vitiated by this peculiar acidity, and, when thus depraved, has the property of inflicting scrofula "wherever it 'lights;" it must inevitably follow, that those glands which are destined to secrete fluids, shall be acted on in the greatest degree; since they receive the blood in much greater quantities, and would consequently be so much the more exposed to the exciting cause of the disease. For the same reason, they ought first to be acted on; or rather, all parts of the body, susceptible of the action of scrofula, should exhibit symptoms of it, at nearly, if not precisely the same time.

Yet how much in opposition to this order, is the general commencement of scrofula; in which, an individual, without previous indisposition, shall find a gland, or a cluster of glands in his neck, suddenly enlarged. These shall either long continue stationary, or being converted by suppuration into abscesses, the sores which ensue shall have no disposition to heal; nor does granulation, which is the process of nature in repairing loss of substance in the body, occur spontaneously; nor can it be promoted by the means which avail in ordinary sores.

This I consider to be a just description of scrofula at its commencement, as it very generally occurs. And if it be so, I may with confidence affirm, that an affection thus local, remote, and solitary, can with no pretensions to correctness, be attributed to acidity in any of the component parts of the blood.

There is however yet another conclusive argument against this theory, which is, that the glands which are uniformly first affected with scrofula, are of the conglobate kind. These not being subservient to secretion, have no excretory duct; and consequently receive no fluids, but such, as being taken up on the surface of the body by the corresponding cutaneous absorbents, are conveyed to them.[4] Hence it becomes impossible, that an acid condition of the blood, can give rise to this disease in the glandular structure.

Moreover, it is well known, that when acid qualities are present in any liquor, there are certain tests by which they readily are detected. Of these tests, none is more delicate and correct, than

4. This statement is not intended to call in question the existence of the vasa vasorum in the coats of the absorbent vessels and glands. If these have not, owing to their extreme exility been demonstrated, yet can no reasonable doubt be entertained that there are such vessels. But as it is not the tunic or cyst which incloses the gland, but the glandular structure itself, which forms the enlargement, it must be allowed that this forms no exception to the position, that the conglobate glands receive none of the circulating fluids within their tubes.

writing-paper stained with the juice of violets, or of the blue-bottle, centauria cyanus Linn. or of the outer rind of the root of the red garden radish, or of that preparation of archill, called lacmus, or lithmus. Into blood, recently drawn from patients, labouring under scrofulous swellings and ulcers, slips of test-paper thus prepared, have been immersed, and have shewn no sign of the presence of an acid.

The latter opinion, that acidity of the chyle is productive of that peculiar acidity of the blood, which is supposed to constitute scrofula, requires further consideration. If this were a just conjecture, it would be natural to expect that alkaline substances would prove beneficial, and such as are acid, noxious to persons afflicted with this disease. And accordingly millepedes, sponge, lime water, the testaceous powders, and absorbent earths, were at one time much relied on as anti-scrofulous remedies; but to how little purpose, is sufficiently evinced, by the total disgrace into which they long since fell. A fate which scarcely could have befallen them, if they had possessed in any degree, the virtues for which they were extolled. Nor ought it less to be expected, that when acidity of the primæ viæ is really prevalent, symptoms of scrofula should arise. This effect, however, has never been observed. It therefore can no longer be justly a matter of surprize, that medicines,

very well adapted to correct present, and to prevent future acidity of the fluids of the body, entirely fail to cure any one symptom of scrofula.

The doctrine of acidity as the cause of this disease, being neither proved by demonstration, the only evidence which is strictly admissible; nor sustained by arguments; nor rendered presumptive by the effect of medicines, administered on that sole principle, must therefore be abandoned.

Another theory of this malady is, that it is the effect of an acrimonious, or corrosive state of the blood: "Lentam autem et acrem hanc humorum pravitatem designant glandularum tumores, parum vel non dolentes, leucophlegmatiâ comitati, &c."[5]

This notion of acrimony seems to have been devised, with a view to explain the different affections of the more solid parts of the body, which received the name of scrofula, and were judged to be of a scrofulous nature.

"What shall we say, when we find the very marrow of the bones infected, nay the solidity of these parts themselves, not fence sufficient against the acrimony of these humours?" says Turner,

5. Richardi Mead, Monita et Præcepta Medica, permultis notationibus et observationibus illustrata, Auctore Clifton Wintringham, M. D. &c. Tom. 2. App. p. 211.

not quite satisfied with his former theory of acidity. "Witness still the worst of all, the carious ulcers and terrible exostoses; witness the formidable spina ventosa, where the corroding solvent, beginning inward preys upon the bone like an aqua stygia, sive fortis duplex, penetrating the inward lamellæ, eating through the outward cortex, and this even in the largest bones of the body: so that in this particular, for its corrosive nature, it may be said to come up with, and even far to surpass the pox itself, although the acrimonious salts by which they act, are of a diverse nature as appears in the method of their cure."[6]

Now not to mention that we thus have one effect ascribed to two causes of a very opposite nature, and that while acidity is employed to account for scrofula in the glands, recourse is had to acrimony, to explain the same disease in the bones, it must be observed that the very notion of the acrimony of the humours in scrofula, like the preceding one of acidity, rests on a perfectly gratuitous footing; and all the arguments which were urged against that hypothesis, apply with undiminished force to this.

It cannot, for example, be supposed, that any portion of the blood is thus acrimonious and corrosive, while all the rest of it is in its natural and

6. Art of Surgery. Vol. 1, p. 124, 125.

healthy state: and it therefore must follow, as a necessary consequence, that if all the blood were thus vitiated, every part of the body susceptible of the scrofulous action, would be contaminated, and disclose the characteristic symptoms of the disease. This, it is well known, is not the case; for it is extremely rare, as already has been shewn, to meet with an instance, in which, when scrofula makes its attack, more than one gland, or cluster of glands, becomes affected at one and the same time. Neither can it be conceived, that the vessels destined to convey the blood, could withstand its injurious action, if it were to become sufficiently corrosive to cause caries of the bones.

This is proved by the circumstances which attend the true scurvy. In this affection the blood is believed to be so acrid, if not putrid, as to corrode the extremities of the minuter vessels which contain it. It is not however ascertained, whether this state of the blood precedes and causes, or is produced by the local affections of the legs and mouth. Yet as it was attributed by the ancients to the use of impure water, and by the moderns to the want of vegetable aliment, together with the respiration of air not sufficiently oxygenated;[7] it seems probable that the constitutional affection precedes the stomacace, and the sceletyrbe.

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7. See Observations on the Scurvy, by T. Trotter, M. D. and Observations on the Nature and Cure of Calculus, Sea-Scurvy, &c. by T. Beddoes, M. D.

Mead however is of a different opinion : " Incipit hoc malum;" he says, " a fædis in ore cruribusque ulceribus, unde Plinio† stomacace et sceletyrbe dicitur, qui sceleribus aquarum imputat.—Sed et ipsi Hippocrati‡ jam olim innotuit, a quo σπλην μεγας lien magnus vocatur ; et pariter a frigidis, crudis, turbidisque aquis epotis oriri dicitur."[8]

Now if the theory which is the subject of examination, had any foundation in truth, it would be perfectly reasonable to expect, that scrofulous affections of the glands, and even those diseases of the bones, which, by the author of it, are reputed to be scrofulous, would be concomitants of the scurvy. This however, they are known not to be.[9]

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† Hist. Nat. l. xxv. sect. vi.

‡ Vid. de intern. affect. sect. xxiv. et de aeribus, locis, et aquis epotis, sect. x.

8. Mon. et Præc. Medic. Caput xvi. de Scorbuto.

9. The following very accurate description of the effects of scurvy, is copied from Mead, loc. cit.—" Ab ulceribus istis supra memoratis os ipseque spiritus male olet ; gingivæ vitiantur, sublividæ et nonnumquam subatræ redduntur, ac digito vel leviter pressæ atrum cruorem emittunt ; eædemque sic laxæ sunt, ut a dentibus discedant, quos facile omnes interdum eximere liceat. Interea maculæ lividæ, tanquam vestigia suggilationum, variis corporis locis efflorescunt ; in brachiis scilicet, in coxis, in cruribus, sæpeque per universi corporis cutem, adeo ut hæc quasi ictero fædata videatur. Tormina quoque ventrem discruciant. Et ne levia quidem prætermittam, ab intestinorum doloribus nomen suum, tum Latinum, tum Anglicum, traxisse videtur iste affectus, a voce nimirum schorbock, vel schorbuck, (Freind from Fabricius, calls it scharbock, and says from him, that it signifies inflammation) quæ illa lingua ventris lacerationes denotat."

The blood of persons recently affected with scrofula, has also been examined, and compared with that of other healthy individuals, with a view to detect the acrimonious and corrosive properties, which by this theory are imputed to it; and, as far as the eye or the tongue are competent to determine, there is no distinguishable difference between one and the other, either in colour, consistence, or taste.

When however scrofula has continued for any great length of time, the blood becomes impoverished, and appears pale, thin, and watery, in the same manner as it does in other complaints of a debilitating character. This however materially depends on the glands affected, having suppurated, and on the sores resulting, having no disposition to heal. Under these circumstances, the quantity of serum which is poured into them for the purpose of forming pus, that, together with granulation, being the chief process of the constitution for healing sores, contributes in a very great degree, to the production of debility, by the drain which it keeps up from the fluids of the body.[10]

Another theory of scrofula is, that the lymph, which is deposited by the exhalents in the cavities

10. See Sir John Pringle's Observations on the Diseases of the Army. Paper vii. Exper. XLV. p. 397.

of the body, occasionally becomes viscid; and that when it is taken up in this state, by the absorbent vessels which communicate with those cavities, and is by them conveyed to the corresponding glands, it obstructs them, and thus produces scrofula.[11]

On this supposition, the morbid affections of individual glands, independently of any constitutional affection may certainly be explained; since the lymph in particular situations, may possibly become viscous, and unfit to pass through the very minute vessels, which are destined to convey it. But if it becomes thus glutinous in the cavities of the body, some difficulty must surely attend its entrance into the orifices of the absorbents which originate there; for it is necessary, that it shall pass through these vessels, before it possibly can arrive at the glands themselves.

Supposing however, that this tenacious fluid is able to enter, and pass through the strait absorbent vessels, which lead to the gland; and that it

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11. Of this hypothesis, as far as it relates to the production of scrofula, by the absorption of viscid lymph from the cavities of the body, I am unable to name the author, having lost my reference; but numerous writers concur in ascribing it to viscidity. Mead speaks of it as a disease, "qui ex viscidis humoribus nascitur;" Fothergill imputes it to "viscidity of the fluids, especially those contained in some particular series of vessels;" and Kirkland says, that "upon opening and examining some scrofulous glands, that were taken out, I could only discover that they were distended with viscid lymph."

only is impeded in its progress at the gland itself, which consists of a congeries, or convolution of absorbent vessels,[12] it is very improbable that mere viscidity, or ropiness of the lymph should do more than mechanically obstruct the gland. But even allowing, that it becomes acrimonious by detention in the gland, the only probable effect of this would be local inflammation; but it is most unlikely, and against all probability, that so uniform, and peculiar a disease as scrofula, should be excited in this manner.

If this indeed were a just mode of accounting for the production of scrofula, it ought most frequently to be met with in the neighbourhood of cavities; this however is contradicted by experience. Neither could any reason be assigned on this supposition, for the neck being, as it is well known to be, so uniformly the seat of, at least, the primary symptoms of the complaint.

If there be any thing like evidence in support of this opinion, it is what is above quoted from Kirkland; that however goes no further, than to shew that glands scrofulously enlarged, sometimes contain viscid lymph. He does not mention the situation of the glands which he examined, and

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12. For an accurate description of the structure of the conglobate glands, the reader is referred to Cruikshank's Anatomy of the Absorbing Vessels.

by this omission, leaves undiminished the improbability of the opinion, which his report seems intended and calculated to uphold, that scrofula depends on the absorption of viscid lymph from cavities.

But admitting the statement of Dr. Kirkland, the accuracy of which is confirmed by my own observations, there is nothing irreconcilable to it in supposing, that the lymph, which after the death of the part was found to be viscid, was on its first entry into the absorbent vessels of perfect tenuity, but unfit from other qualities to pass into the system. In such circumstances the gland would suddenly become impervious, and the lymph would attain a thicker consistency, merely by being stagnant in the obstructed gland; which would be followed by a dissipation of its more watery and volatile parts. A fact that will meet with further consideration in a future part of this work.

If this explanation of the apparent difficulty be received, the supposed cause is converted into an effect; and this theory of the origin of scrofula, must be abandoned.

Another theory of Scrofula is that it originates in debility of the whole frame, or in relaxation of the lymphatic system in particular. This

notion is, I imagine, of a very modern date; perhaps the following account of the employment of the cinchona, as a remedy for this disease, may serve to explain the establishment, if not the rise of it.

In the year 1755, Dr. John Fordyce read a paper to the Society of Physicians in London, on the subject of scrofula; and very highly extolled the cinchona as a specific for it.[13] In the following year, Dr. John Fothergill gave his testimony to the same effect, in another paper read before the same society. He even exceeds his precursor, in the very flattering account which he gives of the utility of this remedy.[14] Four years afterwards Dr. Bond, of Philadelphia, addressing the Society on the same subject, narrated two cases of scrofula, which he had successfully treated by the cinchona.[15]

Whether the belief, that scrofula is the offspring, not the parent of debility, sprung from these recommendations of it as a remedy for it, can only be conjectured; but it is so customary to think that whenever that admirable medicine is proper, relaxation and want of tone prevail, that I entertain no doubt, but that the persuasion, that scrofu-

13. Medical Observations and Inquiries, vol. 1.
14. Id. 15. Id. vol. 2.

la originates in enervated actions of the whole, or of the lymphatic system, is to be attributed to these papers.

A fitter occasion for investigating the utility of cinchona in scrofula, as well as for remarking on the cases adduced by these physicians in support of it, will occur in that part of this work, which expressly relates to the medical treatment of it. At present we confine ourselves to principles, and I shall therefore make a few cursory observations on the principle, on which the use of this medicine is inculcated; namely, that the mass of blood in scrofula is impoverished, and that the solid parts of the body are in a relaxed, and enfeebled state.[16]

Now that scrofula *at its commencement,* is not in any manner connected with an infirm condition of the body, is almost a matter of demonstration; since it has been observed in numberless instances, that in that stage of the disease, the state of the general health has been most unexceptionable; the action of the heart and arteries vigorous; the appetite keen; the digestive process perfect; and the power of enduring fatigue unimpaired. Un-

16. "The aspect, habit, and age of strumous persons, the nature of their tumors in respect of their formation, seem to indicate a general laxity of the solids, as well as viscidity of the fluids; especially those contained in some particular series of vessels." Med. Obs. & Inq. vol. 1.

der this conjunction of circumstances, indicative of the highest health, a scrofulous tumefaction of one or more glands shall occur.

To ascribe this affect to general debility, would be quite unwarrantable by any existing appearances; nor is it less repugnant to analogy or just reasoning, to maintain that, while all other parts of the body are sufficiently nourished, and in a state of health; the lymphatic system alone, which derives its nutriment from the same source, namely, the regular transmission of arterial blood, shall be in a state of debility.

If it were to be admitted that scrofula consists in a native debility of body, or in an acquired weakened action of the lymphatic system, it certainly ought to follow, that the whole, or at least different parts of that system, should either at once, or successively, disclose symptoms denoting such an affection; and not merely that a detached gland, or a cluster of connected glands should be relied on for the proof of it.

Yet, although I am perfectly convinced that neither general nor local debility, is to be accounted the *cause* of scrofula; I readily acknowledge, that, in what may at some future time, perhaps, be called the secondary stage of this disease, (that is, when symptoms of constitutional affection are

present,) a weakened action of the arterial system, and a flabbiness, and want of tone in the muscles of the whole body are most conspicuous.

This debility however I ascribe to two causes: one is the absorption of scrofulous virus into the system, from the part first affected; the other is the great waste of fluids from ulcerated surfaces; which not only greatly exceed ordinary computation as to quantity, but besides contain much coagulable lymph.

If the reader receives with hesitation my objections to the doctrine of debility as the cause of scrofula, I refer him to Wiseman's Treatise, in which he will find 88 cases narrated of what that author judged to belong to this disease. In the whole number of which, nine only were accompanied with debility, and even these endured the rough cathartics then so much in use. Of the rest, a large proportion was healthy and even vigorous.

From these and my own observations, I therefore conclude, that debility is not to be regarded as the cause of scrofula.

CHAPTER III.

Of the supposed Hereditary and Constitutional Nature of Scrofula.

IN the preceding chapter, I have carefully examined such theories, or opinions of the character of scrofula, as appear to me to have chiefly influenced its medical treatment. If I am not deceived, I have shewn them to be not only destitute of any foundation in nature, but quite incapable of accounting for the production, the situation, or the obstinacy of the disorder, or of teaching a just ratio medendi. I therefore submit it to be determined by the judgment of the reader, whether as they are only calculated to convey erroneous notions, to mislead us into false reasoning, and into a practice at once injudicious and injurious, they are not most unfit to be retained.

I am now to advert to an opinion concerning the nature of scrofula, which has long been entertained, and which, if it were well founded, would supersede all reasoning, and render the practice of medicine in it of no avail; namely, that it originates in, and wholly depends on a *something*, which is transmitted through parents to their progeny; and that this something so received, is the sine quâ non of the malady. By some writers this is supposed to consist in a peculiarity of

structure of the whole body, or of some particular parts of it; by others in a fomes, or taint, resident in the fluids; while others think it constituted by a prædisposition only. It seems, however, to be pretty generally agreed among them, that the number of families which are susceptible of scrofula, is comparatively very inconsiderable; that in all the individuals of such families, it rarely fails to manifest itself at some period of their lives; and that its existence, whether it be thus demonstrated or not, is not the less real, being only dormant, but certain to be communicated by them, and to be inherited by their issue.

Of the truth of the opinions thus delivered, we look in vain for proofs. Nor are we more successful, when we seek for the arguments which were first employed, if any ever were employed to give it accuracy. But the observation, that healthy parents procreate healthy children, and infirm parents such as are sickly, is as ancient as the time of Hippocrates, who gives his own sanction to it, and as appears from the following passage, extends it to peculiarities, and even to deformities of the body:

"Ο γαρ γονος πανταχοθεν ερχεται, απο τε των υγιηρων υγιηρος τω σωματος, απο τε των νοσερων νοσερος. Ει ουν γιγνονται εκτε των φαλακρων, φαλακροι, και εκ γλαυκων, γλαυκοι, και εκ διεγραμμενων, γρεβλοι, ως επιτο πληθος, και περι της αλλης μορφης ο αυτος λογος, τι κωλυει και εκ μακροκεφαλου μακροκεφαλον γιγνεσθαι."[1]

1. ΙΠΠΟΚ. περι αηρων, υδατων, τωπων. S. 3.

And Duretus,[2] commenting on the words μη συμφυτος, nisi congenitus, after refering to the passage just quoted, says, " Atque non inde solum temperatio est atque complexio, sed etiam conformatio; ut é macrocephalis arte factis nascuntur natura similes macrocephali. Sic igitur νομος και φυσις, i. natura et instituta hominum, mutuas tradunt operas ad ideam quæ cernitur in temperamento, complexione, atque figura. Nec vero mirum videri debet si é macrocephalis arte factis nascuntur similes macrocephali: sic etiam virulenti ex iis quos veneris occupat virulentia. Scitum est illud Baptistæ Mantuani, quod ante me, præceptor Sylvius usurpavit.

" Qui viret in foliis, venit ab radicibus humor;
Sic patrum in natos abeunt cum semine morbi."

The comment, however, far outstrips the text, for Hippocrates advances nothing that can, even by implication, be understood to signify, that persons whose heads are artificially lengthened, shall procreate macrocephalous children. Having assumed it as a fact, that healthy children spring from healthy parents, &c. he asks why may not such persons as are macrocephalous, beget macrocephalous children? Now this is put interrogatively and seemingly as an inquirendum; and might perhaps have had some reference to the

2. Lud. Dur. Com. in Coac. Hip. Tr. 2, p. 434.

people who were called Macrocephali.[3] If this conformation of the head was regarded as a natural effect, and as peculiar to them, it could only be accounted for by supposing it hereditary; and this might have been the design of Hippocrates. But it is a much more probable conjecture, that it was a custom among this people, to mould the heads of their children during infancy, by compressing the parietal bones, with a view to obtain this particular shape; as it is at this day among the Turks, to surround the heads of their infants with tight bandages, to give them exact rotundity, which by that nation is considered highly ornamental. Thus this conformation instead of being hereditary, was the effect of art; as it therefore proves nothing, it is not to the purpose, and the assumption of Duretus may be regarded as visionary and foundationless. But the opinion, that diseases are communicable by inheritance, appears to have been in fashion some years before Duretus composed his commentary, or had become at all eminent; for his countryman Fernelius, a physician of great celebrity for classical, and professional knowledge, and whose lectures

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3. They dwelt, according to Valerius Flaccus, in the vicinity of Cerasus, a maritime city of Cappadocia. What was esteemed an ornament by them, Homer judged to be deformity; and accordingly in his satirical description of the person of Thersites, he gives his head this shape—

——— αυταρ ευπερθε
Φοξος ην κεφαλην.——ΙΛ. Β. x. 218, 219.

on the writings of Hippocrates and Galen, were received with high applause, had sanctioned, if he did not introduce it: "Quocumque etiam morbo," he says among other things, "pater quum generat tenetur, cum semine transfert in prolem."[4] After this it became the established language, that the "affectus parentum in fætus transeunt."

If these opinions that scrofula is peculiar to certain families, and that it is transmissible to children, were the result of accurate observation, and had obtained the concurrent sanction of unprejudiced writers, no reasoning, however specious, should convince me of their fallacy, or induce me to controvert them. But since I regard them as not having been originally founded in just observation, and as still received either from deference or prejudice, I think it necessary to examine the grounds, and some of the modern authorities on which they rest; not without an expectation, that the arguments and facts will be found to preponderate against them.

By one of their advocates it is asserted, "that the true struma is less common than has been imagined, and never happens but in families who are subject to it."[5] By another, but with more

4. Fernelii Pathol. L. 1. c. 11.—He died A.D. 1558, at which time Duret was in his thirty-first year.

5. Medical Inquiry. Vol. 2, p. 475.

caution, "eo autem terribilius est hoc malum, quod à parentibus in prolem sæpe transit; et hæreditate quam cepit, haud facile se privari sinit." [6] So that, according to the former of these writers, the disease is *always* hereditary; and to the latter of them is often so; but both agree, that when thus derived it is seldom dispossessed. These however were writers of the former century, but the following passage, cited from a respectable work published during the present, shews how far their opinions are from being obsolete. This author however does not leave us to despair, for he encourages us to expect that by a dietetical method, continued during the first four years of childhood, scrofula may be postponed, or prevented through life.

"If a child," he observes, "is born of scrofulous parents, I would strongly recommend that it be entirely nourished from the breast of a healthy nurse for at least a year; after this the diet should consist of milk and farinaceous vegetables: by a perseverance in this diet for three years, I have imagined that the threatened scrofulous appearances have certainly been postponed, if not altogether prevented; and that too, in some instances, where we might presume the prædisposition to such disease was very strong, from the operation of hereditary influence." [7]

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6. Mon. et Præc. Medica Caput xv.

7. Pemberton on the Diseases of the Abdominal Viscera; p. 201. Ed. 2. 1807.

It would be fortunate indeed for mankind, if these sanguine expectations could be realized; but as it does not necessarily follow, that the children of scrofulous parents shall be attacked by scrofula, its prevention or postponement cannot have been ascertained, and must therefore be doubtful.. It is however pertinent to inquire, what constitutes this strange material, which children thus inherit, and which, according to this author, may be suppressed, if not extinguished, merely by a regimen continued during a very inconsiderable period; but according to those above quoted, can rarely, if ever, be dispossessed? If it be some particular conformation of part, or of the whole body, some deviation from the usual structure of it, how can that be corrected by these, or by any means? It cannot be maintained that the actual disease is born with us, because, unless it be evinced by its appropriate symptoms, which are swellings of the superficial glands, there is no evidence of it. If these be present, they must be manifest. If then there be no local affections, for these are not only the diagnostic symptoms of scrofula, but constitute its very existence, it is not present, and to contend that it is, is but to support a contradiction; for to use the old saying of the schoolmen, "de non apparentibus, et de non existentibus, eadem est ratio." If a fomes or vice in the fluids of the body, and congenital with it, be the materia morbi of the

scrofulous, why does it so generally delay to shew itself during the weakness of infancy; or why does it so often fail to shew itself at all, at any other period of life.

But some of the advocates for these doctrines, sufficiently sensible of their defects, refined the notion of inheriting disease, into inheriting a præ-disposition to disease. As if this alteration was any thing more, than the substitution of one term for another, without obviating any of the objections. For that a peculiar propensity to scrofula is inherited, is a position quite incapable of being proved or disproved; because children may be attacked by it though not descended from scrofulous parents; and they certainly may pass through life without being attacked by it, although they are. It is quite as presumptive, that all mankind, if alike exposed to the proximate or exciting causes of scrofula, under the circumstances which enable those causes to act, are alike susceptible of its influence. What these are will be the subject of another chapter. To these causes, many individuals pass through life without being exposed under the necessary circumstances; many others, although exposed under these circumstances, escape by being endued with superior strength of body; and some are rendered insusceptible of their action from custom, which has a wonderful faculty of disarming noxious effluvia of their power of acting on the human body.

It may also be urged, that if either the disease or the prædisposition to it be hereditary, it should be constantly, not occasionally inherited; upon the principle, that the operations of nature are for the most part uniform and constant, and that the same cause is usually productive of similar effects. From this principle it ought to follow, that all the children of the same bed should alike inherit and possess the same prædisposition. It must either be hereditary in this full sense, or never can be inherited. There can be no middle course. In the accurate and well-defined language of the law, an hereditary estate of necessity devolves on the heir; and so, in strictness of language, should be the devolution of hereditary disease. Here all the children are heirs alike, and that which constitutes the primordium of disease, ought to descend to all of them in common, or to none. All must participate in it, or all must be exempt. If to this reasoning I can imagine an objection, it is, that children, derived from a father, scrofulous himself, or descended from scrofulous progenitors; and from a mother, altogether exempt from it both in her person, and descent; may be supposed to inherit or escape the disease, according to the stronger resemblance of his constitution to the first or last. If however both parents be contaminated by it, there is then no ground left for denying, that the whole of the issue should exhibit symptoms of the disease, if indeed it be impartible

by inheritance. But these suppositions, however plausible they may appear, far from being verified by experience, are perpetually refuted by it.

It is a fact, on every account worthy of observation, that gout and mania,[8] scrofula and phthisis, together with epilepsy, the only diseases, I believe, which are acknowledged to be incurable by the means of medicine, are the only ones that have acquired the character of being inheritable. A fact that begets some suspicion, that the medical

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8. With regard to mania, although the prejudice is so strong and general in favour of its hereditary nature, yet I observe that an acute and ingenious writer, (whose opportunities, as Apothecary to the largest Institution for the reception of insane persons, perhaps in the world, must be very ample;) out of twenty-nine cases, of which he relates the previous history, and the morbid appearances after death, mentions but three, in which there was any suspicion of its being a family disease. These are the first, the sixteenth, and the last. Indeed it does not appear to be his opinion, that this is often a cause of madness. He divides the causes into physical and moral; "under the first are comprehended, repeated intoxication; blows received upon the head; fever, particularly when accompanied with delirium; mercury largely administered; the suppression of periodical or occasional discharges and secretions; hereditary disposition, and paralytic affections." "By the second class of causes which I have termed moral, are meant those which are applied directly to the mind; such are the long endurance of grief, ardent and ungratified desires, religious terror, the disappointment of pride, sudden fright, fits of anger, prosperity humbled by misfortunes; in short the frequent and uncurbed indulgence of any passion or emotion, and any sudden and violent affection of the mind." He says moreover, "from the preceding dissections of insane persons, it may be inferred that madness has always been connected with disease of the brain and its membranes." Haslam's Observ. on Insan. Ed. 1, p. 95, 100, 102.

world has taken sanctuary under this term hereditary, to shelter themselves from the opprobrium of not having devised remedies for these obstinate maladies. For surely, if it can be rendered plausible, that these infirmities are so intimately blended, by nature, so interwoven, as it were, with our fabric, as to be inextricable from it by any art, we vindicate our profession from censure, although we add nothing to the reputation of it.

For my own part I readily acknowledge, that I think it just as capable of proof, that various other diseases are acquired by inheritance, as that all or either of these are derived from that suspicious source. I might for instance, assume that hypochondriasis and dyspepsy are hereditary, because I have observed, that out of four persons, who were the children of a dyspeptic hypochondriac, three were subject to the same diseases; and although the fourth has hitherto escaped, yet the balance in favour of my position would be three to one; besides the chance, that at a future time, the remaining person may become the subject of similar complaints. But when I proceed to state the particular circumstances, under which these persons were placed, I at once confute the position which I before advanced; and shew, not that they inherited these diseases, which might have been inferred, but that, by living in a very similar manner to that in which their parent had

lived, they made themselves liable to be affected with the same complaints. For of these persons, one by intemperance and sedentary habits; another by voluptuous living; a third by a full diet, an indolent disposition, and an inactive course of life, fell into these distressing diseases; while the fourth, debarred from these gratifications, has escaped them all.

Nor would it be difficult to strengthen and illustrate this argument, by adducing further instances of the prevalence of other disorders in particular families; but the preceding appear to me to be sufficiently conclusive.

I have already mentioned the substitution of the term hereditary prædisposition to disease, for that of hereditary disease itself. It may not be uninteresting to the reader to have the manner explained in which that change was effected. In the year 1781, Mr. Hunter, the celebrated surgeon and anatomist was subpænaed to give evidence in the trial of Donellan, for the murder of Sir Theodosius Boughton, by poison. It was the object of the counsel for the prisoner, to shew that Boughton's father, having died apoplectic, the son might have inherited a propensity to the same disease, and might have suddenly perished by it; and it seems to have been expected of Mr. Hunter to sanction and confirm the justness of

this assumption. He was asked by the counsel, "Is not apoplexy sometimes apt to run in a family?" To which he replied, "There is no disease whatever that becomes constitutional, but what can be given to a child; there is no disease that is acquired that can be given to a child, but what is constitutional in the father. The father has a power of giving that to the child, by which means it becomes hereditary. There is no such thing as hereditary diseases, but such a thing as hereditary disposition." He was then asked, "Do you call apoplexy constitutional?" He answered, "I can easily conceive there are no diseases hereditary, but what are constitutional. In the small-pox as there is a constitutional disposition more in some than others; but it requires an immediate cause to produce the effect. The venereal disease is hereditary for that reason.[9]

These opinions might have been formed with deliberation, but seem confused if not contradictory. Candour however requires that allowances be made for the agitation of mind, so likely to arise on such an occasion, and in such a place. Yet as the opinions have never been disavowed, it is not improper to take the meaning of the author, and examine it. He thinks that no diseases can be conveyed by the parent to his children,

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9 Donellan's Trial for poisoning Sir T. Boughton, Bart. 1781.

but such as are constitutional in the parent; that even acquired diseases becoming constitutional, may be thus imparted; yet, he adds, that it is not the disease itself which is imparted, but the disposition to it, and that this requires a proximate or immediate cause to give it the effect of exciting disease. These positions he illustrates by refering to the venereal disease and the small-pox.

Now if the doctrine of prædisposition to other diseases, be made to depend on what occurs in these particular complaints, its foundation is weak indeed. For it is obvious that when those maladies first visited the world,[10] no person could have inherited the prædisposition to it from his parents; and therefore if a disposition previously imparted, were necessary to its action on the human body, it could not have been received. But when mankind had become familiar with them, instances of

10. The remotest period to which the rise of the small-pox is traced, is the commencement of the seventh century; but the lues venerea broke out in the year 1492. It was however entirely unknown in the islands of the South Sea, till it was imported there by the crew of an European vessel. about the middle of the last century. "On our inquiring," says Captain Cook, "of Taweiharooa, how many ships like ours, had ever arrived at Queen Charlotte's Sound or its neighbourhood, he gave us an account of one entirely unknown to us. He also mentioned that this ship first introduced the venereal disease among the natives of New Zealand. This dreadful disease is now but too common among them." This may be considered as a very decisive proof, that no prædisposition derived from parents, is requisite for the action of the venereal poison. See Cooke's Voyage, c. 7, p. 76.

children, born with conspicuous symptoms of the venereal disease upon them, were reported to have occurred. Admitting the authenticity of these instances, the only deduction from them is, that the disease itself, not the disposition was inherited. Nothing however but the most decisive appearances, united with the most unexceptionable testimony, should be relied on as proofs of so doubtful an assertion. Similar reports were given to the world, of children being born with small-pox pustules on them. In determining the degree of credit which is due to them, the reader will be assisted by the following observations:

"It has been remarked, that the variolous virus has a peculiar effect in exciting the uterine flux? and upon this property of it perhaps depends its well known effect upon pregnant women, who usually miscarry on the seventh or eighth day from the first eruption, and in a day or two after die. The fœtus of this abortion I have often examined with great attention. The skin of it has been much discoloured, in some parts of a dirty red, in others blackish, and in a few places of a natural colour; but I never could see any appearance of a variolous eruption. I have known a very few pregnant women who have gone through this distemper without miscarrying, and have afterwards been brought to bed at the natural time; but I could never see upon these children any such

marks as might have been left by a variolous eruption; and I am well assured, that such children have afterwards had the small-pox. A young girl was opened, who died full of the small pox, and I observed that none of the bowels or internal parts shewed the least marks of having any variolous pustules: now the fœtus in utero seems to be so much in the same state with the bowels, that if these are never the seat of the pustules, it is hardly to be expected that any should be found upon the fœtus."[11]

As to the prædisposition to these diseases, it has been so constantly found, as to be almost without exception, that individuals of both sexes, of all ages and climates, and of the most opposite temperaments, are equally susceptible of the action of those morbid persons which produce them, whether their parents were previously affected by them or not. Indeed it seems an absurdity, on the evidence which we at present possess, and that seems all to which we can hope to attain, to speak of parents imparting to their children a disposition to receive particular diseases. It is undoubtedly the dispensation of providence, that mankind in general, if sufficiently exposed to the exciting cause of diseases, shall be afflicted with them; no other disposition being necessary for this purpose,

11. Heberden's Med. Comm. p. 441, 442.

than the structure and composition of the human frame. Thus every person has a susceptibility of the action of the contagion that excites fever; of the infection of cutaneous ails; of the matter of morbid poison which requires an external application; and of that of mineral and vegetable poisons, which rarely act unless received into the stomach.

But this notion, that it is not the disease itself that is transmitted by parents to their progeny, but only the disposition to it, although it is, I believe, pretty generally supposed to have originated with Mr. Hunter, is in reality of a remoter date; for Dr. Cadogan, (whose dissertation on the gout was published fifteen years before Mr. Hunter made the preceding deposition,) probably first contributed to the formation of the distinction between hereditary disease, and hereditary disposition to disease. Yet with Mr. Hunter he acknowledges, that disposition alone never produces disease, unless a proximate or immediate cause be superadded to it. Speaking of the gout he says:

"If it were hereditary it would necessarily be transmitted from father to son, and no man whose father had it, could possibly be exempt from it; but this is not the case, there are many instances to the contrary: it is therefore not necessarily so, but the father's having it, inclines or disposes the son to it. This is the causa proëgumena or

prædisponent of the learned, which of itself never produced any effect at all; there must be joined the causa procatarctica, or active efficient cause, that is, our own intemperance or mistaken habits of life to produce it, and accordingly as this operates more or less, so will the gout be. Our parents undoubtedly gave us constitutions similar to their own, and if we live in the same manner as they did, we shall very probably be troubled with the same diseases, but this by no means proves them to be hereditary. Those who insist that the gout is hereditary, because they see it so sometimes, must argue very inconclusively; for if we compute the number of children who have it not, and women who have it not, together with all those active and temperate men who are free from it, though born of gouty parents, the proportion will be found at least one hundred to one against that opinion.[12] And surely, I have a greater right from all these instances, to say that it is not hereditary, than they have from a few to

12. The proportion here stated is very much too small. It is observed in a very useful and respectable publication, that "The gout, if not a disease of the rich exclusively, seldom or never occurs, however strong hereditary prædisposition may be, except under circumstances, where indolence and what is called good living is indulged in. It is not a disease of the poor and laborious class of people, and scarcely ever appears at the institutions for medical charity, except in the lazy and pampered butlers and footmen of the wealthy. Its increase therefore necessarily goes hand in hand with the increase of wealth, and its attendant luxury." To this the Editor subjoins the following note: "We remember to have heard

contend that it is. What is all this, but to pronounce a disease hereditary, and prove it by saying that it is sometimes so, but oftener not so? Can there be a greater absurdity?"[13]

By these unanswerable arguments was shaken to the foundation the inveterate opinion that gout is an hereditary disease. They indeed allow that the disposition to it is transmitted, but in the same paragraph, qualify or rather cancel the concession, by adding that this never produces any effect at all; that there must be an active efficient cause, that is, intemperance or ill habits of life to produce it.

Now this reasoning, though perfectly apposite to other diseases, this author himself is so far from extending to them, that for want of generalizing his ideas, he goes on the same wrong supposition with regard to them, that others had entertained concerning gout; and acknowledges them to be not only hereditary, but incurable. Nay he even enlarges the sad catalogue, and

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an observation of Dr. Gregory, of Edinburgh, that in the course of 23 years, he had superintended the treatment of 2000 patients in the clinical wards of the Royal Infirmary there, only two of whom had the gout. But this proportion is much too large, if applied to the whole number of patients admitted into that hospital. We know that in some extensive charities in London, not one case of gout occurs in 6000 patients."

Ann. Med. Review. Vol. 1, p. 339.

13. Dissertation on Gout and Chronic Diseases. Ed. vi. 1771, p. 17, 18, 19.

makes deformity itself hereditary: "Diseases really hereditary," he observes, "I fear are never cured by any art or method whatever, as it is but too true in the cases of scrofula and madness, and diseases of taint or infection, and malformation."[14]

If this vaticination were founded in truth, how helpless and deplorable would be the condition of mankind! How acceptable the old congratulation, "Gaudeant bene nati."

If then it be allowable to doubt, whether scrofula be at all derivable from parents, how much more reason is there for disputing the position, that it is obtainable in no other manner; or in other words, that none but the children of scrofulous persons are susceptible of scrofulous complaints. That scrofula often occurs in individuals whose predecessors were never known to have it, is so abundantly proved by every day's experience, that it would be quite superfluous to adduce more evidence in support of it. There is however one fact that furnishes irrefragable proof of it, and that is, that the natives of the temperate climates, where scrofula is unknown, upon migrating to the cold and fluctuating regions of the north, are there invariably attacked by it. But the proof and illustration of this important fact will be more appropriate to another part of this work.

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14. Dissertation, p. 19.

CHAPTER IV.

Of the Prædisposing Cause of Scrofula. That it is foreign to the body, and depends on peculiarities of climate.

HAVING thus endeavoured to prove, as well by deductions from facts as by arguments, that scrofula is neither produced by any morbid action of the solids, nor by any depravation of the fluids; that it is neither inherited from parents in prædisposition, nor in the form of symptoms; and that it is not generated within the body in any other manner; I proceed to explain the peculiar way, in which I conceive it to take its rise.

It is a fact which is entitled to the greatest attention, that diseases of the superficial glands are endemial to certain countries or districts; in which, either from their elevation, or from evaporation, the atmosphere is generally cold and damp; and also, that in the most indulgent climates, where the surface of the earth is but little broken by hills, where the atmosphere is always warm, and generally dry, and rarely if at all disturbed by inclement winds, these diseases are altogether unknown. It is highly important to ascertain, on what causes this proneness to, or exemption from scrofula, is dependent. This

can only be done, by determining in what respects climates differ from each other.

It is presumable from its being the general opinion, that the composition of the air of the atmosphere is the same in all parts of the world, and that it varies in different situations, from accidental circumstances only; such as the less or greater prevalence of particular winds in certain districts; their propinquity to, or remoteness from the sun, and the sea; the abundance or rarity of hills, on which depends the quantity of rain; and the structure of the surface of the earth, which if it be solid, disposes the atmosphere over it to be dry; if marshy, to make it, by affording a constant source of evaporation, perpetually moist, and generally cold. It may therefore be concluded, that climates differ from each other chiefly if not solely, as the relative temperature of the air in them differs. In some, this temperature is not only much higher than it is in others, but it is also less variable; and in those which are most favoured as exempting from scrofula, it continues with slight variations at the same standard.

"In countries between the tropics," it is observed by Dr. Moseley, "the heat is nearly uniform; and seldom has been known to vary through the year on any given spot, sixteen degrees. It is at a medium on the coast, and on

plains not much elevated above the level of the sea, at about 80 degrees of Fahrenheit's, or 21 of Reaumur's thermometer."[1] "This," he further observes, "is to be understood of the climate at large, as unconnected, and uninfluenced by local circumstances, as mountains, vallies, woods, particular soil, situation, or any other cause favouring the aggregation or dissipation of heat and cold."[2]

Observations very similar to the above are made in the account of Captain Cooke's voyage to the Pacific Ocean. "The luxuriant growth of the productions here sufficiently indicates the quality of the soil. This strength in vegetation is doubtless greatly assisted by the agreeable temperature of the climate, for, at this time, though answering to our month of August, the weather was not so warm as to be disagreeable, nor did it raise the thermometer higher than 66°. The winter also seems equally mild with respect to cold; for in the month which corresponds with our December, the mercury was never lower than 48 . the trees at the same time retaining their verdure, as if in the height of summer. It is supposed their foliage remains, till pushed off in spring by the succeeding leaves."[3]

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1. 2. Treatise on Tropical Diseases, and on the climate of the West Indies. By Benjamin Mosely, M. D. p. 2, 5.

3. Voyage to the Pacific Ocean. Book 1, ch. 8, p. 79.

Thus it appears that the variations of the atmosphere do not exceed 16 degrees of Fahrenheit's scale in the tropical climates, nor 18 in the temperate. There is however this great difference between the two situations, that in the former, the quicksilver ranges at about 80 degrees, and never descends below 64; whereas in the latter, it never ascends above 66, and sinks as low as 48, which is seven degrees below what is called temperate in Europe. Whether this difference of temperature can account for the following fact, which is recorded by Captain Cook, I must leave undetermined; but if there be no mistake in the statement, it shews that temperate climates are not exempt from some glandular affections, while the tropical ones are free from all. "Two other diseases are common among them; one of which is a firm swelling which affects the legs and arms; the other is a tumor of the testicles, which sometimes exceeds the size of the two fists."[4] If this was not an enlargement of the epididymis, nor a varicose distention of the spermatic veins, which, when the scrotum is relaxed and unsupported, will sometimes swell to a considerable size; the glandular substance alone must have composed the tumefaction; and might have been of the same nature as that swelling of the testis, which occurs not unfrequently in this country, and supervenes to the cynanche parotidæa.

4. Voyage to the Pacific Ocean. Ch. x. p, 279.

In Europe, however, and especially in insular and elevated situations, the fluctuations of the atmosphere are disproportionately great compared even to the temperate climate just spoken of; for the occasional range of the thermometer, constructed by Fahrenheit, is from zero, at or very near to which, it has been known in the depth of a severe winter, to 85°. in a hot summer. If then scrofula be a disease of climate, it is not to be wondered at that we have it in a very great degree in this country. That it is so must be proved by facts.

One of the most striking examples of the effect of climate in the production of glandular affections, is in that enlargement of the thyroid gland, which is commonly, but improperly called bronchocele. It is endemial to very elevated situations, and is rarely met with in others. On the Alps it is so extremely common a disease, that Juvenal speaks of it as exciting no surprize.[5] He calls it the "tumidum guttur," and the Swiss at this day "goitre." It is not less prevalent on the mountains of Genoa and Piedmont. And even in the most hilly situations of this country, it occurs with great frequency; but chiefly, I believe, in Derbyshire, whence it has obtained the

5. "Quis tumidum guttur miratur in Alpibus, aut quis
In Meroë crasso major infante mamilla."
Sat. 13, *x.* 162. 163.

name of the Derby-neck." By different writers it has been variously accounted for, but all concur in ascribing it to an external cause. The late Dr. Heberden was of opinion, that it was owing to some bad quality of the water that swellings of the throat are endemial in some parts of England, and notoriously among the inhabitants of the Alps; but by no means owing to snow-water, to which it has been attributed; for this, on account of its great purity, he believed would be one of the best remedies that could be employed.[6] In attributing this complaint to the bad quality of the water of certain places, the Doctor was probably strengthened by the following circumstances which he quotes:

"The inhabitants of Rheims had been so afflicted with strumous diseases, that they maintained an hospital for the sole purpose of curing such complaints. They then made use of no other water than what they had from wells. After a machine was constructed, which brought water from a neighbouring river, and distributed it into all quarters of the city, it was observed, that scrofulous disorders were become less common; in the space of thirty years the number of those patients was reduced to one half of what it had usually been; and it continued to decrease so fast, as to give occasion for thinking, that the greater

6. Heberden's Commentaries on Diseases, ch. 87.

part of the revenues of the hospital might be applied to other purposes. Soc. Royale dé Médecine, vol. 11. Hist. p. 280."[7]

On this statement it may be remarked, that if the common use of well-water was the sole cause of the prevalence of scrofula at Rheims, the amendment on substituting river water for it, was surprizingly slow; for it appears, that at the end of thirty years, the number of the scrofulous was reduced only by one half. It seems to me, that the society should have resorted to some other principle, to account for the effects.

Freind takes the low temperature of the water on mountainous districts, to be the cause that affections of the thyroidal glands are endemial to them. "Bronchocele," he says, "is a very frequent distemper in those countries where they drink cold water, especially where they do not cool their water in snow, as in other warm climates, but pour ice into it, as the way is with the ordinary people, who live upon the bleak mountains of Genoa and Piedmont. The matter of fact is as true, as that they themselves attribute it to the drinking this water; and from the nature of cold it is not difficult to account for this effect." "Among the Spaniards," he continues, "swellings in the glands of the throat are very frequent,

7. Heberden's Commentaries on Diseases, ch. 87.

who indulge themselves immoderately in the use of cold liquors. And that the coldness not only of the liquors, but of the *climate* itself may produce these effects seems to be plain from the observations we find in writers, that these swellings about the *throat and head*, are much more frequent among the *northern* nations, than the *southern*."[8]

These accounts render it extremely probable, if they do not even prove, that the cause of the tumefaction of the thyroid gland at least is external to the body, and depends either on the local action of very cold liquids received into the mouth, or on the influence of climate. It is to this last cause that I am disposed to impute it, because it is reasonable to suppose, that when once the fact was ascertained, that the use of very cold liquors is productive of inconvenience, deformity, and disease, people would be taught by common prudence to abstain from them; and the complaint would, in the course of time, become very much less frequent in occurrence. This however has not proved to be the case. Indeed the account given us by Dr. Friend is not quite intelligible: he says, "they, (that is the inhabitants of the bleak mountains of Genoa and Piedmont,) do not cool their water in snow, but pour ice into it."

8. History of Physic, vol. 2, p. 146, 147.

Now it should seem, that during the winter season in so cold a country, the water would require no cooling, and that in the summer there would be neither ice nor snow to cool it with. It is therefore to be presumed that the climate alone is the cause of this disease, and that the thyroid gland is susceptible of the action of scrofula.[9] This conjecture is rendered still more probable by this gland's having no excretory duct, at least none has ever been discovered; by the sex and age of the persons who are most prone to it; by the insensibility of the tumor, and its long duration with impunity to the general health; by the kind of medicines which are found to prove most serviceable in it; and by its contents, when it has been examined after the death of the patient.[10]

Nor is it less probable that the other glands of the throat and neck are acted on in an equal

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9. I must here correct an opinion which I expressed in the first chapter of this work, where, anticipating the subject of Bronchocele, I said that it could not be regarded as of a scrofulous nature. On mature consideration I think differently.

10. "When a section is made of the thyriod gland affected with this disease, it is found to consist of a number of cells which contain a transparent viscid fluid. These cells vary in their size in different parts of the same gland, and in different swellings of the same kind in different individuals. Some of them are so large as to be able to contain a small pea, but most of them are of a smaller size. The viscid fluid, when the gland has been preserved some time in spirits, is changed into a transparent jelly." Baillie's Morb. Anat. p. 8516. An account similar to this, of the contents of scrofulous glands, is given in pages 42 and 43 of this work.

degree with the thyroid in the production of scrofula by the influence of climate. Indeed the evidences in support of the opinion, that climate is the sole prædisposing cause of scrofula, are highly respectable, and include some writers who are accustomed to speak of this disease as generated within the body, or obtainable by inheritance. Wiseman himself, whose opinions concerning it have been very minutely discussed, acknowledges, that "those who live in an air particularly thin and sharp, or very thick and foggy, are very subject to the scrofula;"[11] and Mr. Hunter, who speaks of it as a disease, although not hereditary yet as running in families, imputes it to climates, in which cold damps with alternate heats prevail; and adds that the scrofulous find a ready cure for their complaints by removing to certain latitudes. Dr. Leake also observed, that it was very probable that glandular swellings of the neck and face, owe their origin to cold moist air, as they occur chiefly in winter: and remarks, that in the dry and warm climates of Portugal and Italy, he had found them very rare.[12] But the following report is still more decisive;

"Mr. Pearson, who superintended the establishment for the African boys, brought over for education by the Siera Leone company, states that

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11. Chir. Treat. B. iv. ch. 11, p. 399. 12. Med. Instruct.

they all died of consumption." 'It is remarkable' he says 'that boys brought from tropical climates, from the age of eight to twelve, almost uniformly become scrofulous. They bear the first winter tolerably well, but droop during the second, and the third generally proves fatal to them. Sometimes the consumption was preceded by swelling and suppuration of the glands, enlargements of the bones, &c. but in the females the consumption was often the primary complaint.'[13] To the effect of such testimony it would be difficult to make any addition.

Climate then, in a medical sense, is only a relative term, and refers to the general state of the atmosphere, which as it is more or less cold, humid, or variable, may justly be regarded as exempting from, or imparting certain diseases to those who are exposed to its operation and influence. It is therefore thus far the remote or prædisposing cause of scrofula, that this complaint can only occur in those districts of countries, where the atmostphere is generally cold, boisterous, and changeable.[14]

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13. Ann. Med. Rev. Vol. 2. p. 130, 131.

14. "Naturam igitur habent quidem refrigerandi et humectandi venti omnes. Verum propter situm regionum et locorum, per quæ ad regiones quasque accedunt, diversi inter se sunt, frigidiores, calidiores, humidiores, sicciores, morbosiores, salubriores.

Hippoc. De Victus ratione Sanorum. L. 2. C. 2.

CHAPTER V.

Of the Proximate Cause of Scrofula—That it solely depends on cutaneous absorption.

AS peculiarities in the constitution of climates, have been shewn to be indispensably necessary for the production of scrofula, it next becomes a very interesting subject of inquiry, what is the proximate or immediate cause of it, and what is the modus operandi of that cause in forming this disease?

It is stated by Mr. Cruikshank in his Treatise on the Absorbent System,[1] that the very celebrated teacher of anatomy, Dr. William Hunter, entertained an opinion, which he founded on the universal swellings of the glands under the skin, "that the lungs took up some noxious particles from the atmosphere," and thus gave rise to scrofula. The opinion of so eminent and judicious a person, would on every account be entitled to much attention; but the circumstance of its approximating so nearly to that, which it is one of the objects of this work to establish, is an additional motive with me for investigating the foundation of it.

1. Anatomy of the Absorbing Vessels, P. 1. p. 112.

Now if the existence of particles injurious to health in the atmosphere, and their consequent application to the lungs in respiration, together with their absorption into the system be admitted; still it would seem impossible on such data, to explain why the absorbent glands of the neck in particular, are with such striking uniformity, the first, if not the only parts that are attacked by this distemper. Nor is it more obvious, why swellings should be thrown out on the surface of the body, and in glandular parts too, by the entry of effluvia through the lungs, into the system. By this mode of absorption, such effluvia could by no possibility arrive at the surface of the body, by any other route than through the medium of the circulation. The same objections therefore present themselves to this supposition, as have been already advanced against those theories or hypotheses, which have been examined, and shewn to be ill-founded, and unsatisfactory.

There is however another objection to this opinion, which, if it be just, must be acknowledged to be insurmountable; this is, that no absorbent glands or vessels have ever been demonstrated in the substance of the lungs. And when it is recollected how repeatedly, but in vain, the usual processes have been instituted for their detection in these parts, which have proved successful in almost every other part of the body, it seems highly

probable that they possess none. "The existence of lymphatic glands in the substance of the lungs," says Dr. Reid, "has never yet been proved, or ever been attempted; it is one of those general assertions we so frequently meet with in medical authors, misleading the student, and deceiving the practitioner. From my own inquiries into this matter, I am disposed to think that there are none; and the more so, as I am supported in the opinion by a late eminent and ingenious anatomist, (Mr. Hewson.) In all nature's operations we find a striking simplicity and conformity. (qu. uniformity?) If there were lymphatic glands, there would be lymphatic vessels, visible by their magnitude and number, running from one to the other, and entering their substance as they do in every other part of the body; but in the substance of the lungs no lymphatics are found, and for the best of all possible reasons, that there is no use for them; the air in respiration performing the office of absorbents."[2]

If this statement be correct, absorption cannot possibly go on from the lungs, at least not consistently with the laws, by which that wonderful process is generally believed to be regulated. This opinion of Dr. Hunter's, therefore, furnishes us with no solution of the difficulties that attend

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2. Essay on the Phthisis Pulmonalis, Ed. 2, p. 38, 39.

us, when we endeavour to detect the proximate cause of scrofula, and the manner in which that cause operates in the production of the disease.

Yet I entirely concur with him, in believing that it is occasioned by absorption from the atmosphere. This opinion I first formed from observing how constantly the absorbent glands of the neck are the seat of the primary symptoms of scrofula; a phœnomenon, which I conceive to be explicable in no other manner, than by ascribing it to the action of the cutaneous absorbent vessels. Why, it may be asked, are not other glandular parts subject in a commensurate degree, to be affected by scrofula, but that they are not, like those of the neck and face, exposed to the inclemencies, and the vicissitudes of the atmosphere? Whether if they were alike exposed to the action of these causes, the inguinal and axillary glands might not as commonly be primarily affected as those of the neck, I cannot determine; but since it has been the universal custom of all ages and conditions of the human race, in all climates where the temperature of the atmosphere is low, and this it must be recollected is the only situation in which scrofula is known, to guard all other parts of the body from the action of cold; it is not easy to form a judgment, whether it be a law of the disease, that the neck alone should exhibit the first signs of it, or

whether other parts are more exempt from it, in consequence of their being protected from cold by warm clothing.

But there is a still stronger reason for believing, that the other parts of the body are less susceptible of the influences of the atmosphere than the face, for the neck is only consequently affected; and that is, that while all the rest of the body is defended by a thicker epidermis, or scarf-skin, which must be more unfavourable for absorption; the extent of surface which belongs to the face, where the epidermis is very much thinner, and in some parts of it is of exquisite delicacy, imparts to it not only an increased aptitude, but a strong disposition for absorbing or imbibing whatever is applied to it in a fluid, or aëriform state. The lips in particular, and the gums, and insides of the cheeks, are known readily to absorb even mechanical substances, when moistened, and applied to them by gentle, and long-continued friction; and it is much less difficult to conceive, that the orifices of the absorbent vessels of these parts, are capable of absorbing such subtile matters, as are, under particular circumstances, diffused or dissolved in the air, and perhaps form a component part of it; and as are applied to them by the powerful pressure of the surrounding atmosphere, made still more powerful by passing through a narrow aperture, and thus becoming a current, or a blast.

That this mode of application, is sufficient for absorption from surfaces, on which the epidermis is very thin, will be proved by facts which are to be adduced; but unless the cause be applied during a considerable length of time, it is probable that absorption does not readily take place from parts over which a thicker epidermis is spread. Were this not the case, surgeons would be exposed to great danger in dressing venereal, and some other sores, the discharge from which will occasionally daub their fingers; nor could the dissection of dead bodies, be prosecuted with safety by the anatomist. If however the cuticle be entire, it is very rarely that any harm ensues; but if it be ever so slightly abraded, the most mischievous consequences may follow. Now the lips are under nearly the same circumstances, as any other part when deprived of its cuticular covering, and are highly susceptible of the action of morbid matter. Mr. Cruikshank relates a case which affords a striking proof of this.[3] He also observes, that absorption may take place from any part of the surface of the body; yet in general the thinner the cuticular surface, the closer will the matter to be absorbed, be applied to the mouths and coats of the absorbents; and stimulating them more readily, will be sooner absorbed. Thus venereal matter applied under the prepuce

3. See the Appendix, Case the first.

in men, or on the inside of the labium in women, gets sooner into the inguinal glands, sooner into the habit, than if it had been applied to the outside of either."[4]

That the matter of morbid poison is capable of passing into the system by means of the absorbents, notwithstanding the interposition of the cuticle, has been often proved. A very conclusive instance is recorded, I think, in the Philosophical Transactions, of two boys, who were both attacked with hydrophobia, in consequenee of having handled the tongue and throat of a dog, which was afflicted with that dreadful disease. It was clearly ascertained, that the cuticle of the hands of both of them was entire. I believe it is an acknowledged fact, that the plague, and even fevers of the typhöid class, are communicable by contact. The matter of variola and vaccinia, is not sufficiently active to pass through the cuticle on the extremities of the body; it is therefore usual in the process of inoculating those diseases to abrade it. But the experiment of Dr. Mead, who applied variolous matter on lint to the nostrils of some condemned criminals, and thus communicated the small-pox in an aggravated form, shews

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4. See "A New and Easy Method of curing Lues Venerea, by the introduction of mercury into the system through the orifices of the absorbent vessels in the inside of the mouth," by Peter Clare, Surgeon. Ed. 3, p. 19, 20, 21, 22.

that on such surfaces, the abrasion of the cuticle is unnecessary. And that the matter of lues venerea is capable of acting on parts where the cuticle is thick, is proved by the occurrence of chancre on the body of the penis, as a primary symptom of that complaint. Other substances than morbid poisons are known to pass into the system through the cutaneous absorbents. Thus garlic applied to the soles of the feet soon communicates its peculiar odour to the breath; the oil of turpentine also, smeared over any part of the skin of the body, is soon discovered in the urine by its violet-like smell; and that the cantharis is thus absorbed, is proved by its inconvenient effects on the urinary passages. That fluid bodies pass through the epidermis, and enter the system, is further proved by the support which is derived, in cases of great debility, where the stomach is incapable of receiving, or retaining food, from the use of baths, made of milk, or of meat broths.

That aëriform bodies in like manner penetrate the epidermis, and enter the orifices of the cutaneous absorbents, is an opinion, which numerous facts concur to uphold. Of these facts many have been anticipated in the preceding chapter. But it is more satisfactorily supported by the occurrences of practice, as they are recorded without any particular design by different writers. Thus Dr. Kirkland narrates the cause of "a young

gentleman, about ten years of age, lying one night with the curtains of his bed open against the door, from which he received a stream of cold air upon the side of his neck and throat; a swelling of considerable size appeared upon the part next morning; but though the swelling of the skin and cellular membrane disappeared by the remedies that were applied, yet several glands that were also affected remained in statu quo, and in time some of them grew to the size of a pigeon's egg and suppurated. In this state I first saw him, and considering it as a local disease, he was cured by topical applications only."[5] This case is entitled to greater attention, by its having the testimony of a practitioner, whose prejudices concerning scrofula were so rooted. For he every where speaks of it as of a most inveterate nature, as occurring "only in families who are subject to it," and as being always incurable. He therefore pronounces every symptom that is controulable by medicine, to be not scrofulous, but glandular. A distinction which he took great pains to establish, yet the only criteria which he allows, are the incurability of one kind of tumors, and the curability of the other. A distinction of no practical use at least. To glandular tumors, all constitutions, he says, are liable; to scrofulous few only; if the latter yield to medical means, it

5. Inquiry, vol. 2, p. 479.

is only for a time, as they are sure to return; but when the former yield, the cure is permanent. It cannot however be admitted that the subsidence of swelled glands, in consequence of the application of powerful deobstruents, affords any proof that the tumefaction was not scrofulous. Numerous are the instances which might be adduced against this dogma; and I trust that I shall make it appear, before I conclude this work, that the most unequivocal symptoms of scrofula are perfectly, and permanently curable.

Dr. Reid, in his treatise on pulmonary phthisis,[6] relates the outlines of a case, which is only dissimilar to the preceding in its consequences, as it seems to have terminated without induration, suppuration, or permanent enlargement of the affected glands, which, it is to be presumed subsided spontaneously: "I have seen," he says, "the glands on one side of the neck and throat, swelled and inflamed by a momentary blast of cold air, without any other symptom succeeding."

I myself have recently met with two cases of scrofulous tumefaction excited in a similar manner. One is of a boy six years of age, who was exposed to a stream of air from the door of a school-room, and who complained within a few hours of stiffness and pain in his neck. On exa-

6. Essay, ch. 2, p. 29.

mination the submaxillary glands of both sides were swoln and very tender. By covering them with the emplastrum resinæ, they soon became free from pain, and in the space of a few days, when the plasters were taken off they were found to have subsided.' The other is of a female, seventeen years of age, who was attacked with a tumefaction of a cluster of glands on the left side of her neck, in consequence of travelling in a waggon during the night. On the following morning she complained of stiffness of the neck, with tenderness and tumefaction of the submaxillary glands. At length suppuration took place, and either from neglect, or unskilful management, the sores had no disposition to heal till four months had elapsed, and a more proper method of treatment was adopted. During this time, the discharge from them was very considerable, and her health was much injured. At length she recovered, but the deformity is great indeed; the cicatrix, which every where rises into a ridge, being in one direction nearly three inches in length, and in the other about one and a half; the last originating in the first, and descending from it.

Wiseman has also left us an account of a fatal instance of scrofula, which made its attack during the sleep of the patient, and which he attributes to compression of the neck. "I shall give

you," he says, "one remarkable instance of a cook's servant in the Old-Bailey, who sleeping one summer's night upon a form, his head slipping off, the one side of his neck pressed upon the end of it; when he wakened, his neck was full of strumæ on both sides, some as big as walnuts, others less; they were of different figures, and distinct from one another. He was presently let blood, and purged, all else was done that expert physicians and chirurgeons thought fit to relieve him; but the strumæ continued, and after a few days apostemated and mattered, and became virulent ulcers; he died tabid within half a year."[7]

Now if the tumors on that side of the neck which was in contact with the resisting body, are to be accounted for by the pressure made on it by that body, the origin of those on the other side must be explained on a different principle, because there no compression could have been made; and thus it becomes necessary to ascribe one and the same effect to two different causes. How much greater is the probability, that the tumors in both situations were produced by one common cause, and that the same as excited the attack of scrofula, in the four cases just mentioned. It is only necessary to suppose that the patient was in an exposed situation, with his face towards a stream of air, issuing from a door or

7. Chir. Treat. Vol. 1. B. iv. p. 400.

a window, open or ill-closed. This seems likely enough from all the circumstances to have been the case. The author of a treatise on scrofula, which was published a few years ago, cites the above case from Wiseman, and says that the patient lay in a *damp* cellar; to which quality, I imagine, he designed to ascribe the attack of the complaint. There is however nothing of this kind in the original.

It is on the same principle to which I have had recourse in explaining the production of scrofula in the preceding cases, that I would account for an effect, noted by the accurate Sydenham in his Processus Integri, which occurred in some patients, who had been supposed to be cured of consumption, by exercise on horseback: "the principal assistant," he observes, "in the cure of this disease is riding on horseback every day, insomuch that whoever has recourse to this exercise, need not be tied down to observe any rules in point of diet, nor be debarred any kind of solid or liquid aliment, as the cure depends wholly upon exercise. Some persons that have recovered by this method, have been seized with a tumour in the neck, not unlike those in the king's evil."[8]

These cases appear to me to afford conclusive evidence that affections of the glands unquestion-

8. Wallis's Edit. of Sydenham's Works, vol. 2, p. 483.

ably scrofulous, are excitable by the sole action of atmospheric air on the surface of the human body. But whether peculiar modifications of that element be requisite to give effect to such action, or whether it depends on its temperature only, or on temporary relaxation of the surface of the body, which may be supposed to furnish it with an almost morbid fitness for receiving impressions from the atmosphere, merits further inquiry.

From the circumstance that scrofulous affections are endemial or peculiar to certain latitudes of the equator, the mind feels a ready and strong propensity to account for it, by ascribing it to the operation of some local cause. This cause, a physician, who spent thirty years in travelling over mountainous districts, where scrofulous affections were so common, that no family was entirely exempt from them, concluded was in the general use of water issuing from chalk hills, and holding much cretaceous matter suspended, or in solution : "In certain kinds of mountains," he remarks, "neither age nor sex is spared. I have seen children affected in their earliest infancy, and persons 50 years old, who had nothing of this tumour, acquire it, by removing to a situation in which it is endemic. I have also seen the bronchocele propagated, after the parents had migrated to a country in which it is not known. The children, however, in this case, had not so large a

tumour. In understanding they had improved; they lost the idiotic involuntary laugh; and in the second generation, the affection had altogether disappeared.—"The cause of the swelling and induration not only of the thyröid but of other glands in the neck, lies in the water, of which the people who are liable to the complaint daily drink. If the mountains or the soil communicate to the waters such earthy particles as can neither be dissolved nor decompounded in the body, the consequence is, that these particles stop in the organs of which the vessels are deficient in tone, i. e. in the glands."—"This," says the editor of the Monthly Review, from which work the above quotation is borrowed, "is sorry pathology; and the hypothesis is the more to be suspected, as it seems to have been suggested by the pathology." A fact respecting the village of Netsch is more to the purpose. "All the surrounding high hills are calcareous, but lower down is a small elevation of trap, whence issues a clear spring, that produces the brochocele both in man and beast. It also results from the statement before us, that vast calcareous tracts, mountainous and plain, are without this deplorable and unsightly malady; and that its remote cause is still problematical: though it would every where appear to have a local cause."[9]

9. Hacquet's latest Physical and Political Travels through Dacia and Sarmatia.—See the Appendix to the 21st vol. of the Monthly Review Enlarged, p. 557, 8.

But the constitution of the atmosphere as to the preponderance of some one over the rest of the gases, which, together with aqueous vapour, compose that important fluid; or the super-addition of some other noxious gas, has never, I believe, been employed to explain the preference that scrofula has for certain districts. It is however a very remarkable fact, that in the situations to which it is endemial, namely such as are very elevated, where the air is "thin and sharp;" or such as are low and marshy, where it is "thick and foggy," hydrogen gas chiefly abounds. For being the lightest of the gases, its natural tendency must be to surmount those which are constituent parts of our atmosphere. On this account it must be more particularly prevalent in the most elevated situations. At the same time, being the production of marshy soils, and stagnant waters, it cannot but form a considerable portion of the atmosphere above such situations, either by combination with the other atmospheric gases, or by decomposing them. This gas, however, unlike the deadly mofete which issues from the Grotto del Cano, near Naples, and which is carbonic acid gas, is not regarded as destructive to animal life, as long as it is sufficiently diluted with atmospheric air; although it soon proves fatal to the existence of small animals, if inhaled by itself. But from the source whence it arises, namely, the constant and gradual decomposition

of animal and vegetable matter, it cannot but be suspected to have other noxious effluvia in combination with it, which can hardly fail to render it very prejudicial to the general health of those who reside where it most abounds.

Hence perhaps it is, especially during the autumnal months, when the intense heat of the sun by consuming the waters on the surface of such marshes destroys the animal and vegetable substances which exist there, giving them a greater proneness to putrefaction, and causing at the same time an increased exhalation from the soil, that the air in the vicinity of such places is so noxious to the natives. That to this cause it was owing, that the air of the Campagna di Roma was so insalubrious, or rather pestilential, is proved by the fact, that the diseases endemic there diminished in proportion to the draining and cultivation of the soil, and returned with the neglect of agriculture.

The same ill quality of the air is found to exist over all the marsh country intermediate to Genoa and Naples at least. This fact is entitled to the greater attention, as it is on the lofty hills adjacent to them, that scrofulous affections are so prevalent as to be almost universal. It is however a very probable supposition, that hydrogen gas, before it attains the summit of those mountains,

quits whatever effluvia were extricated with it from the marshes; as such effluvia, especially carbonic acid gas, would, on account of their specific gravity being greater than that of atmospheric air, be incapable of reaching so high an elevation. This seems to be the true reason why the inhabitants of mountainous districts are so exempt from the pestilential diseases that infest the plains beneath them; and why they are so prone to be attacked by scrofula; for the air of these regions, on account of its extreme tenuity, to which the hydrogen gas so greatly contributes, is much better adapted than ordinary atmospheric air, for penetrating the epidermis, and passing into the minute orifices of the cutaneous absorbents. This I take to be the modus operandi of the atmosphere in producing scrofula, and, it is probable, that the disease, if permitted to take its own course, will prove more or less obstinate, as the gas in the air absorbed is more or less abundant. On this supposition it is also easy to account for the fact, that scrofula prevails so much more in the winter, than in any other season of the year; because then the low temperature of the air, which is so necessary for the production of scrofula, contributes so much to its tenuity.

It is not, however, merely a low temperature of the atmosphere that either excites scrofula, or proves detrimental to the health of those that

respire it;—for the inhabitants of cold but dry climates, are remarkable for their exemption from disease, and for the natural consequence of this exemption, longevity;—but the union of cold with vapour; a combination, no where more prevalent than in very lofty, or very low districts, in both of which hydrogen gas may well be supposed to abound, as it is extricated in the one, and from thence buoys up to the other, where it becomes stationary, till lost by diffusion.

Medical writers have accordingly ascribed some of the most formidable diseases that afflict mankind, to the influence of an atmosphere at once cold and damp; a conjunction of qualities, which is familiarly known by the coarse, but expressive term *raw*. But they do not seem to have suspected that this dampness is any thing more than the superabundance of aqueous vapour. It is however not only an improbable supposition, that a mere superaddition of pure elementary vapour, to that which is a constituent part of our atmosphere, is competent to excite disease; but is contradicted by the fact, that when the air is saturated with moist particles from a long continuance of rain, its purity is not affected, as is shewn by its being uninjurious to health.[10] It

10. In climates where the temperature is high, as between the tropics, wet weather is very unfavourable to health, especially to foreigners newly settled there; but it may be concluded from the kind of complaints which then prevail, that the effect is to be attributed to the evaporation from the earth.

may therefore be conjectured that it is not the moisture which descends from the clouds, that is possessed of properties noxious to health, but that which evaporates from the surface of the earth, and from that of stagnant and impure water. That the vapour which exhales from this last source, is capable of destroying the existence of animals, made to respire it in an undiluted state, has been proved by experiments made under the receiver of an air-pump, which, after exhausting the atmospheric air, has been filled with hydrogen gas. It may therefore well be suspected of being pernicious to health when diffused in the atmosphere, and of exciting local disease by its action on the surface of the body.

But it may perhaps be asked how do these effluvia act in the production of scrofula, or in the excitement of epidemic diseases? An important question certainly! For the manner in which these and other agents produce their effects, as well as the route by which they enter the body, have been very uniformly passed over in silence. Thus when Sydenham ascribes the rise and variety of fevers, to "a latent and inexplicable alteration of the air;" "to the secret constitution of the air;" to the secret temperature of the air," and the like;[11] he furnishes us with no new notion of what these causes are composed; of the

11. Works. Vol. 1, p. 5, 15, 442.

manner of their action; or of the parts which they first affect. Thus also when Dr. Haygarth imputes the attack of rheumatic fever, "to exposure to cold and moisture, which he says is a principal cause of these and many other inflammatory diseases,"[12] who is there that would not have been much gratified, if so enlightened and experienced an observer had discussed the manner of the operation of these causes on the human frame? That he renders his position very probable cannot be denied, since out of twenty-three cases, which he reports from his own practice, twenty seem pretty certainly to have originated in exposure to cold and moisture. But he seems to acknowledge that even this induction from facts is not fully satisfactory; when he says, "that it may reasonably be expected, and is greatly to be wished, that medical science should be able to establish on this important subject, a true theory founded on facts, and conclusions deduced from them on philosophical principles."[13]

The opinion that the fever of rheumatism consists in a perspiratio diminuta, to which Dr. Haygarth seems disposed to lean on the authority of Sanctorius, is hardly reconcileable with numerous facts which are perpetually verified; but is particularly opposed by the continuance of the

12. Clinical History of Diseases; Part. 1, p. 23, 24.
13. Idem, p. 28.

disease even while the whole surface of the body profusely sweats. It therefore follows, either that the insensible perspiration is different not only in degree, but in its nature, from that diaphoresis which flows spontaneously, or is excited by sudorifics, or that it must exude through different channels; otherwise, those affections which were caused by its suppression, should cease on its return. This they are known not to do. Nor is it easy if it be practicable, to trace the effect to the supposed cause, nor to account for the suppression of the perspiration of the whole body, by the local action of cold on some remote and comparatively unimportant of it. It seems therefore probable that the effect of the atmosphere in exciting rheumatism, as well as some at least of the other phlegmasiæ, is accomplished in a different way.

If, however, the combination of cold and moisture, deserves to be regarded as the cause of this, and other internal diseases of an inflammatory character; and if it be supposed, that it is rather the former than the latter that gives rise to them; it would seem requisite that there should be some temporary relaxation of the surface of the body, to facilitate the action of this cause. That such a relaxation may be produced by the moisture of a damp atmosphere alone, is rendered very probable by the common effect of vapour, and by

the languor which is felt by the weakly during this state of the air. It may however have been caused by previous indisposition.

The effect of cold alone, when suddenly, and during a short space of time applied to the surface of the body, is to constringe, and even close the orifices of the minute vessels which open there, and thus to prevent absorption. It has also a further effect, for it contracts the superficial blood vessels, and for a while diminishes or impedes the circulation in them, till, by the reaction of the heart and arteries, the blood, thus thrown on the centre, returns with a greater impetus to the circumference. Hence the glow on the skin after plunging into the cold bath; here cold acts as a tonic, and provided there be no congestion, nor any other morbid affection in the thoracic, or abdominal viscera, or in the brain, it invigorates the frame, and produces altogether a salutary effect on it.

But the long-continued application of cold, especially in conjunction with moisture, although its first effects are very similar to those which have just been described, prevents that vigorous reaction, which drives to the vessels of the surface the blood which has quitted it, and thus relieves the internal parts which are oppressed by it, and restores the just equilibrium in the circulation of

the centre, and the surface. The effect seems to be for the most part mechanical, and the means generally employed for determining the fluids to the surface of the body, discuss the internal accumulation, and thus relieve the patient. It is on this principle that Dr. Baillie accounts for the attack of pleuritis: "the pleura," he observes, "appears to be more liable to inflammation than any membrane lining those cavities which have no external opening; as the peritonæum, the tunica vaginalis testis, and some others. This may arise from the following causes: the branches of the intercostal vessels, which are very numerous, piercing through the substance of the intercostal muscles, communicate a good deal by anastomosis, with the external vessels on the side of the chest. Hence whatever may act upon these external vessels so as to excite contraction in them, may be supposed capable of producing an accumulation of blood, as well as an increased action in the inner branches of the intercostals, many of which are distributed upon the pleura. Many of the inhabitants of this country, from their mode of dress, have their chests much exposed to the influence of a cold and very uncertain climate, and hence the blood is frequently thrown inwards into the small vessels ramifying upon the pleura."[14]

14. Morbid Anatomy, Ed. 3, p. 49, 50.

Dr. James Keill accounted for the production of all the effects which are ascribed to a cold, from the increase of the fluids caused by a diminished perspiration, by supposing that matter of a particular quality, which he conceived to be "frigorific particles of a nitrous kind, having a power of chilling, condensing, and thickening the animal fluids, enter the blood through the cutaneous pores."[15] If he had been perfectly acquainted with the modern doctrine of absorption, the physiology of which was unknown in his time, he could not have given a more explicit account of the power in the human frame of imbibing from the atmosphere; an account quite in unison with that which was since given by Dr. Wm. Hunter,[16] except that the latter supposed the noxious particles to enter the system through the lungs; the former through the pores of the skin. That this is a just mode of accounting for the production of most of the phlegmasiæ, and epidemic diseases in particular, is rendered probable by the immediate effects which follow their attack. Thus when the mucous membrane of the nose, the fauces, or the bronchiæ are seized with catarrh, sneezing, cough, and an almost constant irritation are excited. These irritations cause an increased secretion from the parts affected, and clearly shew that the aim and object of the con-

15. See his Dissertation annexed to the Medica Statica Britannica.

16. See the 80th page.

stitution, is to dislodge and expel some noxious matter, that has insinuated itself into the vessels of these parts. This end it has no other means of accomplishing, than by pouring a defluxion on those vessels. The defluxion therefore is not the disease, but the remedy of the constitution to relieve it; and the cure of it is quickened by promoting the defluxion, taking care however that it be restrained within due bounds. Thus also when the skin is the seat of the attack, rigors first ensue, because at first there is a derivation from the surface inwards; heat then follows, because the vigorous reaction of the system is necessary for the production of a diaphoresis, which is the natural way of rejecting what has entered into the vessels of the skin. When this reaction is sufficiently vigorous, the cure is readily accomplished; but when it is feeble, the determination that was made to the centre causes congestion in some one or more of the abdominal or thoracic viscera, and thus produces an internal phlegmasia, which will be more or less dangerous, according to the importance of the part which is the seat of it. But besides this, the reaction so necessary for the expulsion of the fomites morbi, which have penetrated the surface, and are pressing into the system, failing to effect the end for which it was excited, affords no impediment to their progress; and thus fever is kindled independently of the congestion, and goes on when the congestion is discussed.

These observations, which at first sight may appear to relate to the production of internal diseases only, are made with a view to shew the analogy which exists between them, and certain local affections, at least as to their origin, and that they are the effects of the same cause. This cause is the influence of certain modifications of the atmosphere first exercised on the superficial absorbent vessels, and ultimately, but through the medium of them, on the whole system. The only essential difference in the action of these causes, would seem to depend upon the part of the surface of the body which is exposed to it. For if they are applied to the trunk of the body, on the integuments of which absorbent vessels are very numerous, but unaccompanied by absorbent glands, their passage into the system can only be prevented by that reaction which I have endeavoured to explain. If, however, they are applied to the face, or to the upper or lower extremities, their progress is arrested by the absorbent glands, which are placed in the neck, in the groins, and in the axillæ, apparently for the sole purpose of guarding the system from their entry. Thus these glands, by the tumefaction which they undergo, oppose an insurmountable obstacle to the further progress of the moventia morbi. And this appears to be the use for which they were designed by the all-wise creator.

CHAPTER VI.

Of the Seat of Scrofula. That the superficial absorbent glands alone are susceptible of the original action, of this disease; and that if other parts become affected by it, such affection is consequential.

IT has been shewn in the two preceding chapters that scrofula can only occur in certain latitudes of the equator, where the atmosphere is very changeable, and its temperature low; that these peculiarities constitute the remote, or prædisposing cause of the disorder; and that the proximate, or immediate cause of it, is the action of the atmosphere, either in its natural state, or vitiated by the addition of extraneous effluvia, on the superficial absorbent vessels; whose office it is, to imbibe whatever is applied to them, under circumstances favourable for its reception.

I now proceed to treat of the seat of this affection, which it is of so much the more importance to limit and define, as there is scarcely any part of the body, whatsoever may be its structure, which has not been spoken of, both in vulgar and technical language, as scrofulously affected; so that it seems fashionable, if I may use such a term, to call almost every local, but every glandular disease, marked with much obstinacy of character, scrofulous. Yet have the writers on

Nosology restricted the application of the term scrofula within much narrower bounds, as appears from the following table:

" O. III. Impetigines.

Cachexiæ, cutem et externum corpus præcipue deformantes. Impetigines Sauvagesii, Cl. x. o. v. Sagari Cl. iii. o. v. G. lxxxiv. Scrofula.

Glandularum conglobatarum præsertim in collo, tumores in labrum superius et columna nasi tumida; facies florida, cutis levis; tumidum abdomen.

Scrophula Sauv. G. 285. Vogelii 367. Sag. G. 121.

Struma Linnæi, 284.

Species sunt,

1. Scrophula (vulgaris) simplex, externa, permanens. Scrophula vulgaris, S. sp. 1.

2. Scrophula (mesenterica) simplex interna, cum pallore faciei, inappetentia, tumore abdominis, et fætore fæcum insolito. Scrophula mesenterica S. sp. 4.

3. Scrophula (fugax) simplicissima, et tantum circa collum, plerumque a resorptione ex ulceribus capitis proveniens. Scro. fugax. S. sp. 2.

4. Scrophula (Americana) cum frambæsia conjuncta. Scrophula Americana. S. sp. 5. Neque

Scrophula periodica, S. sp. 6. neque scrophula Moluccana, S. sp. 8. ad genus scrophulæ pertinere mihi videtur."[1]

According to this arrangement scrofula consists in tumors of the conglobate glands, especially those which are seated in the neck; in tumefaction of the upper lip; in thickening of the inferior part of the septum narium; and is accompanied by a florid countenance, a delicate skin, and a swoln belly. To this description Linnæus however adds scrofula simply of the mesentery, or rather of the mesenteric glands; of which affection a pale face, anorexy, a tumid abdomen, and an unusual fetor of the intestinal evacuations are concomitants, or symptomatic. The other species are of small importance, yet may just be adverted to. The scrofula fugax, which is the effect of local irritation, subsides with the removal of the irritating cause. The scrofula Americana, which occurs only in conjunction with fram-

1. Cullen's Nosology.—It may admit of some doubt whether scrofula might not be more correctly classed among the Locales, than, as it is by Dr. Cullen, among the Impetigines. If I have succeeded in the attempt to shew that a depraved habit of body is unnecessary to the production of scrofula, the classification of it must be changed; and if it can exist without deforming the surface of the body, it should be removed to another order. I would therefore propose to place it in Cl. IV. Ord. VI. Tumores; Gen. 126. of the Professor's arrangement. Thus it would follow scirrhus and cancer,—which, like scrofula, are local in their origin, but like it, have a sure tendency to induce a bad habit of body—and precede bubo, with which perhaps it has no remote analogy.

bæsia, may be consequential to the absorption of the matter of this last disease, analogous to bubo in the lues venerea; or it may be regarded as of the same nature as scrofula fugax. Of this however I cannot speak from experience. The scrofula Moluccarum insularum, and the scrofula periodica, are denied by Dr. Cullen to have any affinity with genuine scrofula.

With regard to the glands of the mesentery, being subject to the attack of scrofula, the accuracy of Linnæus, who, I apprehend, first entertained that opinion, may be questioned with the less reserve, as the practice of medicine obtained so small a share of this eminently ingenious man's attention. But that they are remarkably prone to enlarge is without doubt. It is also very probable, that this enlargement occasionally induces an inflammatory action, especially in plethoric habits; and the warmth of the parts can hardly fail to give them a powerful tendency to suppurate; than which no event can be more calamitous. More frequently, however, the tumefaction is simple, and of a temporary nature, yielding readily to such medicines as remove the cause, This however supposes that the complaint is attended to without much delay, for if the cure be at all protracted, the tumefaction becomes chronical, and will continue to exist, independently of the cause in which it originated. The abdomen then

becomes more tumid, the limbs more emaciated, the paleness more cadaverous, and hectic fever ensues; a proof that the constitution despairs of subduing the local disease and the body, how much food soever the patient may swallow, is literally starved to death.

Now it may be asked what is there in the cause or consequences of this affection of the mesenteric glands, that assimilates it to scrofula; or by what analogy is it entitled to that term? The parts affected are certainly glandular, the glands affected are conglobate, and, what is really striking, they enlarge to stay the progress of noxious matter into the system. Thus far the analogy goes, but here it ends. For when the prædisponent and proximate causes of scrofula are considered, together with their mode of action on the body; when the mind attends to the contents of tumors really scrofulous, and to the firm and unyielding resistance which they make against the touch, it feels at once convinced that a very different designation must be assigned to them. For scrofula is a disease of climate—tumors of the mesentery not so—scrofulous tumors are almost incompressibly hard—mesenteric tumors are more soft to the feel than natural—scrofulous tumors contain viscid mucus, or rather, as De Haën says of them, are "muco turgidœ"—but the contents of the glands of the mesentery when enlarged, are

such stuff as are found in steatomatous swellings either mixed with pus or not. The following satisfactory account given us by Dr. Baillie on this subject may be regarded as conclusive: "When the absorbent glands of the mesentery are affected with this disease, i. e. scrofula, the glands exhibit different appearances, according to its progress; they are enlarged in their size, and somewhat softer to the touch, than in a natural state. When cut into, they sometimes shew very much 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."[2]

Thus all the characters which distinguish scrofula are wanting to the tumors of the mesenteric glands; and unless the difference of their relative situation from that of the superficial glands can account for it, they must be regarded as different in their nature. It is, however, by no means difficult, to explain the morbid affections of the glands of the mesentery, without refering to scrofula as the cause of them, and merely by adverting to the uses for which they were designed, which are to guard the system against the entry of noxious substances from the intestinal canal, into the circulation. The chyle, therefore, after

2 Morbid Anatomy, C. 8, p. 198.

being formed by the digestive process in the stomach, and by admixture with the bile and pancreatic juice, has yet to pass through these glands by a kind of percolation, and possibly receives some modification, or undergoes some further digestion during its passage through them. If however this fluid is unfit from its impurity, or grossness, to pass through these convoluted tubes, they either take on a tumefaction to stay its progress, or are mechanically obstructed by it. Of this last species of obstruction Turner relates a very striking instance; speaking of the testacea as a remedy in scrofula, he says, "that although he believes them to be very proper for sheathing the offending acid, and edulcorating the sour humours of the primæ viæ, yet by reason of their grit, or exceeding hardness, unless very finely levigated, he should suspect their passage through the lacteals, or passing, their being coacervated in the mesenteric glandules, as he remembers once to have found them in a strumous patient, who had taken great quantities thereof."[3]

It may therefore be presumed that a defective secretion of the juices which are essential to chylification, or a greatly impaired power in any of the organs of digestion, or even ingesta of an unwholesome quality, by furnishing a crude and

3. Art of Surgery, Vol. I, p. 128.

ill-concocted chyle, are the causes of the obstruction of the mesenteric glands. Of this effect then, the tumid abdomen is not the cause, but the consequence; and is either produced by the accumulation of ill-digested alimentary matter, or by the regurgitation of the chyle into the intestinal canal, where by stagnation it becomes putrescent, and thus causes the fætor fæcum insolitus mentioned by Dr. Cullen as a diagnostic symptom of obstructed mesentery. If this be a just mode of accounting for this obstruction, the primary object must be to cleanse the intestinal canal from the impurities collected there, before any attempt be made to subdue the glandular enlargements. It is therefore most highly important, that this end be accomplished by such laxatives, as, confining their action to the intestines, have no tendency to pass into the system. Of this kind are the neutral salts in particular; these if but little diluted, will act very quickly; and make no addition to the debility which generally accompanies these complaints. Mercurials should by no means be administered, till by the use of simple evacuants, the fæces are become inoffensive, and well-coloured; then the deobstruent power of mercury will be signally serviceable, to penetrate and dissolve the substance, which is impacted in the glands. Till this end is answered, the cold sea-water bath, which has been too much extolled in this complaint, can hardly be employed without

danger. But when the obstruction is overcome, its tonic properties may recommend it.

Thus it appears, that of all the parts of the body reputed to be subject to the attack of scrofula, none but the conglobate or absorbent glands, are indisputably so; for it is very questionable whether the ulceration of the tarsi palpebrarum, the thickening of the septum nasi, and the labrisulcium, or pouting and furrowing of the upper lip, be not all independent of scrofula. These affections however are all very generally believed to be scrofulous, and it is perfectly consistent with the opinions which have been delivered in this work, to ascribe to them the same nature as scrofula when it occupies the neck: The parts affected are all glandular, are in all probability much connected with absorbent vessels passing through them, if they be not even studded with them; and are all alike exposed to the vicissitudes and inclemencies of the atmosphere. They must therefore, be very much under the influence of that element.

It is the neck, however, that abounds with conglobate glands in a far greater degree than any other part of the body, and hence it appears to have been anciently thought the only legitimate seat of the disease. Yet it has been asserted by a modern writer, alike strangely and erroneously,

"that Hippocrates used the word χοιραδες to signify chronic affections of the glands, but says that those about the neck are worst."[4] How ill this agrees with the real sense of the venerable father of medicine, whom to vindicate from misrepresentation it is no unpleasing task, will appear from the following passage, the only one in his writings that bears directly on the subject. It is in the book περι αδενων, and discriminates scrofula from the glandular affections which occur in other parts of the body, in so particular a manner, that it is evident he considered them of a different nature and original :

" ην δε η φλεγματωδες και πολυ και αργον η ρυη, φλεγμαινει δε καιωδε. και η φλεγμονη, ϝασιμον εον υγρον, χοιραδες εγγινονται, αυται χειρους αι νυσοι τραχηλω. μασκαλησι δε, ξυρρεειμεν και ενταυθα, αλλ' οταν πληθος η, δριμεις ιχωρες, καιωδε γινονται φοματα κατα ταυθα. και εν τρισι βεβωσιν ελκει την απο των υπερκειμενων υγρασιην η αδην. αλλως ει πληθος λαβοι βεβωνηται, και διαπυισκεται και φλεγμαινει ικελως μασκαλησι τε και τραχηλω,"[5]

From this passage it appears to have been the opinion of this great man, that scrofulæ " χοιραδες" are produced in the neck by a tough defluxion; that a serous defluxion causes tubercles, " φοματα," in the axillæ; but that when humors are abundant in the body, the inguinal glands attract those humours from the superior parts, and form

4. Kirkland's Medical Inquiry, vol. 2, p. 446.

5. Ιπποκ. περι αδ. Ed. Foësii, p. 271, 272.

buboes, "βεβωνε;" these buboes, he adds, inflame and suppurate in the same manner as (the before-mentioned affection of) the axillæ and the neck. Thus he clearly distinguishes the swellings of these parts respectively from each other, not only by assigning a different appellation to each, but by attributing the rise of each to a different kind of defluxion. And then instead of saying, as by the hasty writer above quoted he is reported to do, that χοιραδες about the neck are worse than elsewhere, he really says, that they are the worst diseases to which the neck is liable: "αυται χειροις αι νεσοι τραχηλε.6"

This author however, not only misrepresents the sense of one ancient writer, whose authority on medical subjects is universally acknowledged; but, unfortunately, proceeds in the very same page to another eminent author of antiquity, whose authority is also very high, and whom he reports to have given "nearly the same account of strumæ, as Hippocrates."7 Now we have seen that the account given by Hippocrates of the nature of scrofula is, that it is generated by an inflammation, which arises from a copious, phlegmatic, and thick defluxion. On the other hand it is thus explained by Celsus: "struma quoque est tumor, in quo subter concreta quædam, ex pure

6. Idem.
7. Medical Inquiry. Vol. 2, p. 446.

et sanguine, quasi glandulæ oriuntur."[8] And with regard to situation, Celsus, although he allows the neck to be the part chiefly affected by it, yet extends the seat of the affection to the axillæ, the groins, and the sides; and adds that Meges, a surgeon, perhaps co-temporary with himself, had discovered them in the breasts of females: "nascuntur maxime in cervice, sed etiam in alis, et inguinibus, et in lateribus. In mammis quoque fæminarum se reperisse, chirurgus Meges author est."[9] But Hippocrates limits scrofula exclusively to the neck, and no where, as far as I can find, regards it as occurring in the breasts of females. Nay, in the very book referred to by Dr. Kirkland, he speaks of the breasts as being subject to *tubercles*, consequent to inflammation: 'ποιεοισιν και μαζοι φυματα, φλεγμονας, τυγαλα αποσηποντες;'[10] a term which he uses in contradistinction to scrofula.

It is then, I presume, apparent from these passages, that the assertion, that Hippocrates and Celsus give nearly the same account of scrofula, is quite unwarranted; indeed they so entirely

8. Aur. Corn. Cels. Lib. v. Cap. xxxiii. Sect. 7.—The word subter, as it occurs in this passage, has no relation, whether used adverbially, or as a preposition. There must therefore either be an omission of some other word, or this must be taken as an expletive. Would not subter cutem, or subtercutaneum be a better reading? The construction of the passage, when changed by this emendation, is, that strumous tumors consist of certain concretions of pus and blood, which arise under *the skin*, but resemble glands.

9. Idem.

10. περ. αδεν. p. 273.

differ, that it seems quite impossible for any person who had consulted their respective writings with any degree of attention, to commit so strange a mistake as to suppose that they accord. One useful inference may, however, be made from this mistaken representation, that if we desire to be acquainted with the genuine and unsophisticated meaning of the writers of antiquity, we must search for it in their original works.

We have thus the authority of Hippocrates, for fixing on the neck, as exclusively the seat of scrofula. The opinion of Celsus that the axillæ, the groins, the sides, and occasionally the female breasts are attacked with scrofula, is, I believe, inaccurate. From the opportunities which I have had for observing the character of the affections of the axillæ, I am led to judge, that they want the character of scrofula. In general they will be found to depend on some morbid condition of the mammæ ; under these circumstances, the absorbent vessels of the breast receive the materia morbi, and would convey it into the system, but the glands of the axillæ, to which those vessels lead, either become obstructed by it, or take on a spontaneous tumefaction to stop its progress.

But another cause of the tumefaction of the glands of the axillæ, is the absorption of morbid

poison, or any other noxious matter, from the surface of the upper extremities. Swellings of these glands from this cause are in general attended with so much increased action, that inflammation and suppuration ensue, and the parts recover their former healthy state. But it will for the most part be found, that when the absorbent glands enlarge from any cause whatever, they do not so entirely subside, but that some increase of bulk, however slight, will continue; an event, that happens more frequently, when the tumefaction does not end in suppuration; so that, although they were imperceptible to the touch before they were attacked by disease, they will often be distinguishable ever afterwards. Hence these glands were at one time thought to be "adventitious," and indeed were called by this very term; and hence it is, that Celsus describes them, as "concreta quædam quasi glandulæ." This continuance of their enlargement, can hardly fail to remind a person, of their resemblance to glands, that have undergone scrofulous tumefaction, without totally subsiding afterwards.

I have therefore no hesitation in expressing my conviction, that the axillary glands are never the seat of idiopathic scrofula; and I feel fortified in this conclusion, by observing that among the very numerous instances of scrofula reported by Wiseman, as occurring in various parts of the

body, the axillæ is no where implicated. It seems at one time to have been thought, that the axillæ as well as some other parts, became contaminated by some neighbouring mischief; and Lommius, an accurate writer, makes use of an expression to this effect, somewhat remarkable for the time when he wrote: "finitimæ huic vitio, he says, scil. scirrhus, sunt strumæ, Græcis χοιράδες appellatæ, duri scilicet glandularum tumores, maximèque in collo, in quo longa serie disponuntur; *unde interdum ad alas perveniunt, itemque in pectus, et in mammas fæminarum.*"[11]

Another cause of the ascription of other diseases of the axillæ to scrofula, is that the formation of critical abscesses in these parts,[12] during the presence of pestilential fevers, and sometimes even in chronic illnesses, is no uncommon occurrence: when these abscesses suppurate, which it is always for the benefit of the patient that they should do, they form sores which are very much indisposed to heal, and from the thinness of some

11. Obs. Med. Jodoci Lommii, Lib. 2, p. 269.

12. It is somewhat singular that these abscesses whether they occur in the axillæ, the groins, or near the ears, are by the best writers indiscriminately called *buboes;* a word, which from its known signification would seem to require that swellings with this denomination, should occupy the groin alone. Duretus makes the following short comment on the use of this term: "jam vero quod ad bubonis philologiam attinet, scire licet, Bubonem sæpenumero usurpari pro inflammatione glandularum quæ sunt pone aures, in axillis, et inguinibus."
In Coacar. Hip. Prænot. Com. L. 1. Aph. 79, p. 42.

part of the discharge, and the flakiness of the rest, I can easily conceive that they have often been confounded with scrofula. For though the tumors arise during a great indisposition of the body, yet the sores remain long after convalescence has taken place. Such a misapprehension, however, could only have arisen from the want of discrimination; for in every instance of this kind which has fallen within my notice, the axillary glands have been quite unconnected with the abscess. Three cases of this nature have occurred to me since I have been engaged in writing this work, two of which are briefly narrated in the Appendix, to exhibit the mode of treatment which will readily succeed in the cure of them.[13]

The inguinal glands which follow next in the enumeration of Celsus, are, I believe, most rarely, if ever attacked with scrofula as an idiopathic disease. It is however familiarly known, how readily they sympathize with the affections of some of the uropætic organs, even when neither chancre nor gonorrhœa are present. It may therefore be received as no improbable conclusion, that swellings of the glands may have been erroneously supposed to be scrofulous, when they were in reality excited by sympathy or absorption. One case which I consider to be of this kind, unless it be an anomaly, is related in the

13. See the Appendix. Cases the second and third.

Appendix, in the words of the surgeon who attended the patient. The narration is very faithful. Another cause of the tumefaction of the inguinal glands, is the absorption of irritating matter from any part of the lower extremities, and occasionally when there is no breach of surface, nor any apparent collection of fluids. Of this I very lately met with an instance in a gentleman, who from exposure to cold, was attacked with erysipelas typhodes in both his legs. Within a short space of time after this attack, the absorbent glands in both his groins became swoln and painful; but upon their subsiding, which was either spontaneously, or rather as I suspect, the effect of purgative medicines, much disturbance of the constitution came on, with a very frequent nausea, and vomiting of an offensive mucus. Wiseman also mentions a case, in which the inguinal glands were excited, by absorption from a pea-issue in the leg, which had become irritable from too much exercise: "a fontanel in the leg distempered with pain caused a swelling of the glands in inguine. I was consulted about the swelling, and, enquiring of the reason of the sudden tumor, found the fontanel disturbed by much walking that day. I dressed the fontanel with lenients; and the tumors of the glands in inguine, which were risen like so many scrofulæ, relaxed, and were scarce to be felt the next day."[14]

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14. Chirurg. Treat. Vol. 1. B. 1. ch. 9, p. 77.

Next to the groins, the sides are mentioned by Celsus as being subject to the attack of scrofula. In this, however, I am disposed to think there must be some mistake, as no scrofulous affections of these parts have ever fallen within my notice. And I observe that Mead, who in his Monita et Præcepta Medica, is so frequently the mere copyist of Celsus, in enumerating the seats of scrofula, dismisses the sides, but includes the breast: "in cervice maximè nascuntur," he says, "item in alis, inguinibusque, præsertim in pueris. Interdum vero in pectus, et in mammas fæminarum perveniunt."[15] The sides, I believe, are wholly exempt from scrofula; this might be partly owing to the universal custom of screening the trunk from the influence of the atmosphere by warm clothing; partly to the greater thickness of the epidermis there; but is principally to be attributed, in my opinion, to the absence of absorbent glands in this part of the frame, without which scrofulous tumefaction cannot occur. It is therefore not an improbable conclusion, that the tumors which were regarded by Celsus as scrofulous, were in reality encysted, perhaps steatomatous. These are of a different nature from scrofula, and have an origin entirely different.[16]

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15. Caput de Struma.

16. For an account of encysted tumors the reader is refered to Sharp's Treatise on the Operations of Surgery; also to Bell's System of Surgery, vol. 1. ch. 2. sect. 3. subs. 2.

As long as scrofula was considered as a disease, of the action of which all parts of the body were alike susceptible, the diagnosis between other indolent tumors, and those really scrofulous, must have been alone dependent on the different sensations imparted by them to the touch, and therefore must have been attended with great difficulty. This remark, is more particularly applicable to the different tumefactions of the female breast, which, while they are recent, are with difficulty discriminated by the touch of even experienced surgeons; so that mere obstructions of the glands of the mammæ have been mistaken for scirrhi, and the operation proposed, but while it was postponed by the apprehensions of the patient, the obstruction has spontaneously given way, and made that severe expedient unnecessary.[17] Of this I have seen more than one instance. This observation of the difficulty of determining the nature of tumors, if it be applicable to the present state of chirurgical knowledge, must be allowed to be much more so to that, which had been acquired when Celsus lived. Perhaps therefore the authority to which he refers was not entitled to implicit reliance. And the tumors of the breast, of which Mead makes mention as coming within the class of scrofula, unconnected with the mammary glands, are also much to be suspected of being

17. See Heb. Comm. Ch. 61, p. 296.

merely encysted; by which kind of tumefaction the parts subjacent to the pectoral muscle, are somewhat prone to be attacked. Of this, Sharp gives at once an instance, and a confirmation: "I once opened," he says, "a remarkable atheroma of this kind; it was about as big as the crown of a man's hat, and lay underneath the pectoral muscle, (as all I ever met with on the breast have done,) extending itself towards the arm-pit, amongst the great vessels, and pressing against the clavicle, &c."[18]

With regard to the various morbid affections of the bones, the joints, the cartilages, and membranes, to which, whenever they become difficult of cure, it is so much a custom with the generality of modern practitioners, to assign the name of scrofula, I have only to make this observation, that if scrofula be indeed a disease of the conglobate glands alone, it is requisite first to prove the existence of such glands in the parts specified, before their affections can consistently, and with any strictness of language, be classed with such as are really scrofulous. If, however, future observation shall shew by some stronger analogies, and an unexceptionable induction from facts, that the bones are subject to the attack of scrofula, it will be necessary at the same time to

18. Treatise on the Oper. of Surgery, p. 127, 128.

prove that such affections are idiopathic; otherwise, I am disposed to think that they will most fitly be regarded, as consequential to some preceding affection, and be entitled to the term secondary symptoms. On this supposition they must be ascribed to the deposition on the joints, of scrofulous virus, previously absorbed into the system.

Two cases are inserted in the Appendix,[19] to exhibit the mischievous effects which result to the system from the absorption of scrofulous virus. They both afford countenance to the conjecture, that scrofula has its secondary, as well as its primary action on the body. No evidence can be more convincing than that which is furnished by one of those cases, that pulmonary consumption was the direct result of the absorption of the contents of a scrofulous abscess. There were also other sequelæ, and it is probable, that if the career of the phthisis had been less rapid, other symptoms of constitutional affection might have been remarked. In the other case, the mischief consequent to the absorption of scrofulous virus was first deposited on the joints of the hands and feet; but being repelled from thence seized the lungs, and quickly destroyed the patient.

The neck then it may be presumed is the established seat of incipient scrofula; the very

19. No. fourth and fifth.

frequent occurrence of tumefaction of the glands of this part of the body, and the rarity, to say the least, of such affections in other parts, cannot be the effect of accident, but must be the result of some adequate cause ; and from its uniformity, it may be regarded as a law of the constitution, that whenever scrofula makes its attack, it shall be on these parts. The principle of this selection has been already explained, and may be considered as founded on the circumstance that the orifices of the absorbent vessels of the face, which communicate with the glands of the neck, are exposed to all the various vicissitudes of the atmosphere, while they have an epidermis disproportionately thin to that of other parts, to protect them from its operation. This peculiarity imparts to them an aptitude to receive its influence, which no other parts possess ; and at the same time, no artificial coverings are, or can be employed for their defence. This fully accounts for the exemption of the inguinal and axillary glands from the attack of scrofula, notwithstanding that like those of the neck they are superficial, conglobate, and have similar functions to perform.

If this be a just explanation of the predilection which scrofula shews for the neck, it furnishes a solution of some of the difficulties which have hitherto perplexed and confused this important subject. It demonstrates that the disease is

neither generated within the body, and thrown out upon the surface, nor derived from parental taint; it shews that at its commencement at least the glands of the neck are its confines, and that they continue so to be as long as their tumefaction continues undiminished; it therefore shews that this tumefaction, instead of constituting the disease, is to be regarded as an effort of the self-preserving principle in the body to avert it, by interposing an obstacle to the passage of what may prove detrimental to its health; that this is the proper use of these glands; that as long as their excitement is maintained, the constitution is safe; and that in their spontaneous subsidence, or repercussion by art, consists the danger, because being continuous with absorbent vessels, whose office it is to convey from the surface to the centre whatever enters their tubes, the matter absorbed will pass immediately into the system, and produce on it its peculiar effects; it explains why those individuals are most prone to the attack of scrofula, whose skins are most transparent, the medium between the atmosphere and the orifices of the absorbents being in such persons much less dense than in others; it proves, that if we can prevent absorption from the affected glands, we can by so doing, prevent the constitutional disease; and I think it shews how easily, and how perfectly curable a complaint scrofula is at its commencement. This last position, however, is

in this place premature, but it will receive ample proof in that part of this work which discusses the method of treating scrofulous tumefaction.

If it be asked by what means it happens, that the absorbent glands of the neck are not always, and without exception affected, before the system exhibits symptoms of scrofula? I reply that it is highly probable they are; but it neither follows of necessity that they shall suppurate, burst, and leave stigmata, nor that they shall remain in an enlarged, and indurated state. It is altogether possible, that scrofulous virus, after first exciting tumefaction of the absorbent glands, is insufficient to maintain permanent increased action in them; this will therefore after a time subside spontaneously, and permit it to pass. But that this effect ensues from the expedients which are very usually employed, not only to moderate or subdue that excitement which approaches to inflammatory action, but to abstract the natural heat of the surrounding parts, is quite certain. For by these means the provision, which the constitution had made against the inroad of the virus is removed, and the body may become contaminated, without our being enabled to track its vestiges, or determine by any positive evidence, the route by which it entered. When therefore symptoms are observed, that render it suspicious that scrofulous affections are going on within the abdomen, some

assistance may be gathered by examining the usual seat of scrofula. It is observed by Dr. Baillie "that if decided marks of scrofula shew themselves in an external part of the body, they will lead a practitioner more satisfactorily to the opinion, that the mesenteric glands are also affected with the same disease."[20] And Allen, speaking of scrofulous consumption, says that it is generally accompanied or preceded by external scrofulous affections: "phthiseos scrophularis signa diagnostica sunt plerumque tumores scrophulares et crudi in externo corporis habitu, accomitantes vel præcedentes, opthalmiæ, aut scabies, et similes affectus scrophulares."[21] But this evidence, however desirable it may be to give certainty to our conclusions, is not so absolutely necessary but that we may presume independently of it, that the absorbents were the route, by which the fomes entered the system. It is a well-known fact that venereal ulcerations, which are the produce of a more active and virulent poison, do not always excite bubo, even when secondary or constitutional symptoms ensue; yet it is not the less certain, that the absorbents of the parts first affected, and the inguinal glands communicating with those vessels, were the channels through which the virus took its course, and corrupted the body. But even if bubo be excited,

20. Morbid Anatomy, c. 8. p. 208.

21. Synopis Medicinæ, Cap. iv, p. 206. Art. 524.

it is not a necessary consequence that it shall suppurate: it may subside of its own accord, or it may be dissipated by the effect of medicinal treatment; in either of which circumstances no evidence would be left of its having existed.

It may also be asked how it happens that scrofulous affections are not more common than they are generally reputed to be, since all mankind are in a greater or less degree, exposed to the cause which I have assigned, if that be really the exciting cause of them? In answer to this objection, let it be remembered how different in degree is the tendency in different individuals to be acted on by the various moventia morbi. A fact which is verified by what is frequently observed to happen in contagious fevers, in the exanthemata, and in other diseases. In these, individuals of the same family, and placed under very similar circumstances, are so differently affected, that some shall receive the infection in such a degree as to prove fatal to them; others moderately; while others shall entirely escape from its action. Scrofula is, however, a much more prevalent disease than it is commonly held to be. Indeed it has been asserted, that "there is not one family in twenty in this country, consisting of several children, where this complaint has not in some form and at some period made its appearance."[22] This

22. Anon. as quoted by Dr. Kirkland, vol. 2, p. 479.

calculation has been reprehended as being excessive, in the proportion of those who become the subjects of scrofula, to that of those who escape it; but I am disposed to think the allegation just, and that it is a very common disease. As to the grounds, on which the advocates for the limitation of scrofula to some particular families, rest their opinions, namely, the continual reproduction, or recurrence of its symptoms in those individuals whom it has once attacked, and its consequent incurability, I believe them to be quite fallacious. For the re-appearance of the disease, may be dependent on the further exposure of the patient to the action of the same cause which first excited it, and this probably is often the case: but Celsus makes it doubtful, whether it be not consequent to the harsh method of treating it: "sive ferro, (he says,) sive medicamentis curantur, plerunque iterum juxta cicatrices ipsas resurgunt, multoque post medicamenta sæpius; quibus id quoque accedit, quod longo spatio detinent."[23] Indeed when any one reflects on the very rough and coarse expedients, which were not only in use in the time of Celsus, but still continue to be recommended and adopted by many modern writers and practitioners,[24] he hardly can refrain from thinking it a matter of much surprise, that greater

23. Celsi Opera; L. v. cap. 28. S. 7.

24. See a Treatise on Ulcers, by M. Underwood, M. D.

irritation, and more extensive mischief have not been observed to ensue; for the strongest escharotics, the most powerful caustics, nay even the actual cautery itself have been freely employed on occasions, when scrofulous tumors have proved obstinate. It is in this sense, I apprehend, that the passage above cited must be understood; for that the words medicamentis and medicamenta here imply, as indeed the word medicamentum generally does, external applications, is apparent from this writers disclaiming, as he expressly does, any intention of delivering directions for the treatment of scrofula by internal means. Perhaps he regarded scrofulous tumefactions as merely local affections.

But the glandulous tumefaction which springs from irritation, admits of this distinction from such as is really scrofulous, that while recent, it will readily subside on the removal of the stimulus that caused it, while scrofulous tumefaction is notoriously stationary. If, however, the irritation be kept up for any length of time, the glands which have been excited by it, will sometimes continue permanently, although not considerably enlarged, and in this state may easily be mistaken for real scrofula; but, unless I am very much deceived, these tumors consist not of absorbent, but of sebaceous glands, which are every where distributed under the skin; and accordingly, they will very

generally be found straying from the line, or course of absorption. Thus it has happened to me, in more than one instance, to see the subcutaneous glands in the nape of the neck, excited and swoln by a pea-issue, or seton, or perpetual blister, becoming irritable although placed beneath them. The tumefaction of these glands may reasonably be accounted for, by supposing them rouzed into diseased action, by sympathy with the neighbouring parts, smarting under a painful stimulus. In consequence of this excitement, they secrete too gross a substance to pass through their excretory ducts, which thus become obstructed. If the matter which obstructs them be not too solid, their enlargement is only fugitive; but if the duct continues to be obstructed, their tumefaction must continue, and what but their situation can possibly determine whether they are absorbent glands containing viscid lymph; or sebaceous glands, distended with the stuff of steatoma, meliceris, or atheroma?

If then there be a tendency in scrofulous tumefaction, to recur in the neighbourhood of parts, which it has once attacked, it can only be accounted for by supposing a renewed action of the same cause which first excited it, and to which habit might give some facility; or the subsequent swellings must be in the line of absorption. Still, however, far from deserving to be thought an in-

curable disease, it generally has been found to be both perfectly and permanently curable. Indeed it was an observation of the celebrated Mead, that the mere changes effected on the constitution by puberty, especially in males, were sufficient in themselves to reinstate the patient in perfect health: "illud denique in hoc morbo quantumvis pertinaci, quod nonnunquam per ætatis et habitus corpores mutationes, in juvenibus præsertim, ita sponte sua desinit, ut integra sanitas restituatur."[25] But if it be even admitted, that a propensity exists in those individuals who have once had scrofula, to be revisited by it; it is no more a just inference, that it is some particular fomes or taint inherent in the bodies of such persons, that causes the subsequent affections; than it would be, that repeated attacks of catarrh, or of the cynanche tonsillaris, to which some persons are remarkably prone, owe their rise to depravation of the solids, or fluids of the body.

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25. Caput de Struma.

CHAPTER VII.

Of the Analogy between Scrofula, and Lues Venerea; of the importance in both these complaints, to cure the enlargements of the absorbent glands by encouraging suppuration; and of the probability, that by these means, the constitution escapes contamination.

WHEN it is recollected that the fomes of scrofula, and that of the lues venerea are both communicated to the body by the peculiar agency of the same description of parts, the superficial absorbent vessels; that the further progress of these poisons, is opposed by precisely the same process, the tumefaction of the nearest absorbent glands; and that the diseases consequent to them both, are most materially influenced by the same medicine; if it should be thought a digression in the author to attempt to trace the analogy, which he conceives to exist between them, it is hoped that he will the more readily be pardoned, when he suggests, that the improvements which he has to offer in the treatment of scrofulous abscesses, are perfectly applicable to venereal buboes, and have been successfully employed in the cure of them, as will be exemplified in the Appendix.[1]

This analogy, however, is obviously rather in the mode in which the absorbent glands enlarge

1. No. vi and vii.

in the two diseases, and in the purposes of their enlargement; in the interruption which, by enlarging, they set up against the further progress of the poisons, and in the lasting security, which if rightly managed, they afford the body, than in the nature of the diseases themselves, or in that of the fomites which excite them. In these respects they are known to be totally different, as the fomes which excites scrofula is imbibed from a vitiated atmosphere, and cannot, I believe, notwithstanding the prejudices which are known to exist, be imparted to the body either by infection, or by inoculation, while that of the lues is a morbid poison, the existence of which is maintained, by its being successively communicated among individuals, by contagion alone. The poison of lues, although endued with so much more virulence than that which generates scrofula, does not, like it, pass into the orifices of the absorbents without first destroying the solution of continuity. This is to be attributed to the grossness of its particles, and the manner of its application, and accounts for the seeming slowness of its operation; for it first has to insinuate itself through the perforations of the epidermis, which, especially, where this membrane is very delicate, it does with great certainty. It then acts on the subjacent parts, somewhat in the manner of a mild caustic, and, by its irritation, causes a small quantity of serum to be exhaled, which raises the cuticle into

a vesicle, or pimple containing a fluid. This either bursts spontaneously by distention, or is torn by accidental friction, or by being scratched to allay the itching which it excites, and then discloses a small ulcer, of a peculiar character, as well as appearance, having a florid and somewhat elevated circumference, and a centre of a white-brown colour, not unlike dirty lard, or the fat of rusty bacon. The sore thus formed is, from the malignity of its nature, called by the French term chancre, which is synonymous with the English word canker, i. e. corroding; for this is the manner of its spreading, with jagged and denticulated edges, as if they were eaten away.

The number of chancres produced by one infection is casual, but as many vesicles as there were, so many of these minute sores there will be: these, however, if they are not far apart, quickly coalesce and form one ulcer. Occasionally this ulcer takes on a most alarming disposition to become phagedœnic; I have known it continue its ravages even beyond the penis. Fortunately this is a rare occurrence. In general chancre is tolerably quiescent, creeping gradually on till it meets with the orifice of an absorbent vessel; into this, the secretions of the chancre immediately enter, and would by the action of this vessel be conveyed into the system, but for the formation of bubo, by the tumefaction of the

first absorbent gland, which completely stops its career. Both before, and for some time after this enlargement of the glands, I am quite convinced that the disease is local, and may with tolerable certainty be cured by local means; and I am therefore of opinion, that such means should always be employed, before any attempt is made to cure it through the medium of the constitution. I rest this conclusion on the following circumstances:

1. On the length of the interval from the application of the poison, to the appearance of the chancre, provided there be no solution of continuity. This may be called, in the language of Dr. Haygarth, the latent period of the disease.

2. On the general length of the interval from the appearance of the chancre, to the formation of bubo. Of this interval the duration will vary with the proximity of an absorbent vessel to the seat of the chancre.

3. On the occasional cures of chancre by local means unassisted by the action of mercury on the body, even as a prophylactic, and without any symptoms of constitutional affection being consequential to it.

But if we even fail to effect the cure of the local disease by these means, it seems to be always

worth our while to make so promising an effort; since we may thus avoid the necessity of giving mercury, which (however valuable it is as a remedy, and no one can estimate it more highly than I do,) when administered in such quantities as are requisite for the cure of this disease, is in some individuals, especially in such as are prone to phthisis, productive of the worst consequences. These consequences, if I am not much mistaken, are more particularly produced by the exhibition of this powerful medicine, when it has no great object to accomplish. It is a further recommendation of this method of treating chancre locally, and of postponing the use of mercury till it has failed, that the same quantity of the mineral will now suffice, as would previously have been requisite, while the cure will be accomplished with equal certainty.

If therefore, the chancrous ulcer can be freed from its specific or venereal character, and can be changed into a common sore, by the timely application of any mild caustic, whose action while it can be limited, shall yet extend far enough around, and sufficiently deep, to convert the whole contaminated part into an eschar, this the first symptom of the lues will be extinguished, and the propagation of it will consequently be prevented. I have not the slightest pretensions to be thought the first person, who have entertained this notion, of

the destructibility of the original symptom of the venereal malady. It has long been before the public. But the design, however probable in theory, however practicable, has been, I suspect, less frequently executed than might be supposed. For this several reasons may be assigned, but the most obvious appear to me to be, the tardiness of the patient in applying for relief, while the complaint is most certainly local; the injudicious application of the caustic to a chancre either spreading or prone to spread: or the kind of caustic which is chosen for this purpose, or the feeble and indecisive manner of using it. The argenti nitras, which is generally preferred because the extent of its action can be defined, should be either applied to the sore in a solid form, and during a sufficient length of time; or if it be used in a state of solution, the menstruum should be saturated with it; so that the effect to be produced, namely the formation of a slough, of sufficient width and depth to include the whole contaminated part, be accomplished at once, and not by repeated touches on different days. If it be not used according to this method its powers will be found too weak, its action too limited, and it will either not deaden, to a sufficient depth, the part to which it is applied; or at least not with sufficient quickness, to prevent excitement in the vicinity. Of this excitement the direct consequence is, that the absorbents are rouzed into

action, bubo is at once produced, and the surgeon, judging this to be an unequivocal proof that the system is infected, enters without further delay on a course of mercury, partly to subdue the bubo, but partly also to cure the constitutional disease.

It is on this account, that I think a more active caustic than the nitrate of silver should be employed. I am disposed to believe, from the power which has been shewn of confining the action of the potassa fusa, when applied to the urethra for the cure of strictures there, that this caustic might when liquefied, and sufficiently diluted, be made to answer the purpose of destroying chancre, without extending much beyond the limits of the disease. This, however, is only a conjecture, and must be received with caution.

But admitting that, the secretions of the chancrous ulcer have reached the absorbent glands of the groin, it may still be permitted us to hope that, even in these circumstances, it is not too late to prevent their further progress. It certainly is not too late to make the attempt. This however requires a practice, directly the reverse of that which is in ordinary use, and which has the sanction of custom of some duration. For instead of mercurial inunction on the thigh, with the design of rendering pervious the obstructed gland,

by its action on those absorbents which lead to it; instead of cathartics, which are also deobstruents, although inferior to the former in degree; and as such powerfully promote absorption, by their tendency to remove the obstruction of the gland; or of leeches, with a view to lower the excitement of the blood vessels in it; or of cold and sedative washes, to dissipate the increased, or abstract the natural heat of the part: instead of these means, which are without doubt proper, if it be proper to discuss the tumefaction of the gland; I advise the application of the emplastrum ceræ, either alone, or joined with an equal proportion of the emplastrum galbani compositum, according to the circumstances of the case. If moderate excitement be already present, or if the swelling of the gland be suspected to arise, rather from sympathy than absorption, the emp. ceræ is to be preferred to any more stimulating application; as in either of these cases nothing more is requisite, than to confine the heat of the part, and to prevent the irritation, which friction, or even the influence of the air will occasion. But if there be a want of excitement, the emp. galbani, alone, or mixed with the wax plaster, will be better adapted to increase the action of the blood vessels of the part affected. If these means fail to promote suppuration, which they will rarely do, such as are more active must be employed; as these will be more particularly specified in the

succeeding part of this work, I will not here anticipate them. And when maturation has taken place, the contents of the abscess may be evacuated according to the plan which will hereafter be explained, and which will exempt the patient from any risk of the formation of an ulcer.

By this method of treatment, there is a very strong presumption that no secondary symptoms will ensue, or that they will be of a very slight character, and readily curable. For either the whole of the venereal poison will be evacuated at the artificial opening, if the chancre be completely changed into a common sore before the obstructed glands become pervious; or, if any should pass into the system, it will be so inconsiderable in point of quantity, so diluted and sheathed by the purulent matter in which the suppurative process involves it, as to be no longer capable of exciting severe constitutional disease.

If these opinions relative to the prevention of the lues venerea as a disease of the constitution, be well-founded, it is an obvious and just conclusion, that the chancrous sore should be destroyed, if possible, as soon as it is formed; but at all events without any further delay after the surgeon is applied to; that no means whatever should be employed to overcome the obstruction of the gland, till the local disease is cured; and that

buboes should from their commencement be encouraged to suppurate. The advantages attendant on this practice, are too conspicuous to escape the notice of any reader of discernment, but whoever has witnessed, as I have often done, the irreparable mischief which is inflicted, on at least delicate habits, by full courses of mercury, will justly appreciate an expedient, by which those ills may be avoided.

The candid reader will not do the author the injustice, to suppose that he is unconscious of the strong and general prepossession of the minds of professional men, that the presence of a bubo is an undoubted proof that the constitution is already infected with the disease, although it is not yet made manifest by unequivocal symptoms; and that the sole method of curing the bubo is by the local and general action of mercury on the body. It was the contemplation of scrofula, as a disease local in its origin, and curable while local, which first led him to a different way of thinking; and the result of practice confirms him in the belief of its justice. To the professional world, however, he proposes it only as an inquirendum. It certainly is a problem well worthy solution; but it can only be determined by experiment, which, as it does not fall within his department of practice, he invites them to make.

PRACTICE IN SCROFULA.

PART II.

CHAPTER VIII.

Observations on the Ordinary Methods of Treating Inflammation and Abscess.

IN the preceding part of this work my object has been to offer a rational, philosophical, and intelligible account of the cause, the nature, and the seat of scrofula. In the course of the investigation I endeavoured to shew by argument, by analogy, and by a copious induction from facts, that the affections which constitute this malady at its attack, are altogether independent of any peculiarity in the conformation of the body, or of any of its parts; that they are unconnected with any depravation of its juices by ingesta of an unwholsome quality; that they are not inherited by children from their parents, even in predisposition; that they are not confined to any particular families, or individuals; that, at their commencement, they are absolutely local; that they are peculiar, at that time, to the absorbent glands; that it is this peculiarity, which gives them the consistent

and unvarying character, for which they are so remarkable; that they are indigenous to climate; that the fomes which produces them becomes a morbid poison; and when it passes into the system from the part first affected, it excites other local affections, very much resembling in the manner of its action the virus of the lues venerea, which first causes a local disease; of this the matter then enters the system, and shews an uniform predilection for parts of a membranous, cartilaginous, and osseous structure.[1]

From these premises I felt myself justified in concluding, that the tumefaction of the glands both in scrofula and the lues, deserved to be regarded as a salutary process; and that on the just management of this tumefaction, will depend the prevention of every future or secondary symptom by the extinction of the first.

I shall now therefore, proceed to explain the result of my practice in scrofula, and to detail the method of treating it upon the principles of my theory; but it may not be inexpedient, first to

1. Is this effect a law of the the disease, or may it be explained by supposing that the materia morbi of the lues venerea, after it has passed into the circulation by absorption, is incapable of exciting disease as long as it continues in the large vessels, where it is diluted and in constant motion; but when it is carried into the minute vessels of the bones, &c. the diameter of whose tubes does not perhaps exceed the bulk of the particles themselves, it is by being fixed rendered capable of a local action?

exhibit, by way of contrast, the methods which are in ordinary use; and if the reader should be disposed to generalize this practice, and to extend it to common abscesses occurring in distempered habits of body, where the formation of an ulcer is hazardous; or in particular situations, which are found to be unfavourable for the healing of sores, such as the lower extremities; or in conspicuous parts, which are kept uncovered, such as the face, where every scar is a blemish; I am of opinion, that he will find ample reason to be satisfied with himself in having done so.

Now the established method of treating tumefaction of the glands, as well as of the cellular membrane, is by general and topical blood-letting, refrigerant and discutient applications, evacuating and antiphlogistic medicines, together with an abstemious regimen, and absolute rest of the body or the part, to endeavour to overcome the local affection, and to bring it to that termination, which is called resolution. In venereal tumefactions of the inguinal glands, in addition to the measures just mentioned, mercurial ointment is rubbed in on the neighbouring surface, where the absorbent vessels, which lead to the affected part, arise in the greatest number. Of this inunction the object is, that the quicksilver shall be received and conducted by the absorbents through the tumefied glands, and by its specific power over

the virus, as well as by its momentum, shall dissolve the obstruction, and thus prevent suppuration. This end, however, when it is obtained, is accomplished at the expense of the constitution; for the gland now rendered pervious, no longer opposes the passage of the virus, so that the system must inevitably be contaminated. In this manner, from six to ten days at least are generally wasted, nor does the surgeon cease from his attempts to frustrate the design of the constitution, till he has exhausted every effort. At length the occurrence of a rigor, &c. makes it no longer doubtful, that nature will not be disconcerted; the practice is now to be entirely reversed, and every exertion is made to promote suppuration.

This vacillating practice is certainly of ancient date, and derives some countenance from Celsus, but he makes a distinction between tumors which form in an ill state of health, and those which are not accompanied with any indisposition: "animadversionem tantum modo hanc habet necessariam," he observes, "ut, si sine morbo id intumuit, primum reprimentibus experimentum fiat; si ex adversa valetudine, illud inimicum est, maturarique et quam primum aperiri commodius est."[2] This distinction, although obviously of great importance, has not been sufficiently attended to, except perhaps in critical

2. Medicina, L. 6. C. 16. p. 392.

abscesses. And even in these, to which is to be attributed the solution of the fever, we have been told that it is an improvement of practice, to cause their contents to be absorbed and carried off by purgatives, instead of evacuating them by an external opening!

The disadvantages of these different proceedings seem to have been either not sufficiently observed, or at least regarded. When first a tumor is formed, there is probably a disposition always imparted to it to become an abscess, and the constitution, if not defective in vigour nor unthwarted, will generally accomplish this purpose without much assistance, but if proper assistance be afforded, it will perhaps always do so. If, however, in consequence of our misjudged efforts to dissipate the tumor, the necessary heat be abstracted by the impaired action of the vessels of the part, it is much less easy than may be imagined, to restore to it the same disposition to suppurate, that it previously possessed. This inaptitude may arise from the dissipation of the more volatile and aqueous parts of its contents, so that what remains of them is incapable of undergoing sufficient rarefaction to produce the requisite distention. This effect may receive a familiar illustration by what is observed to take place in ecchymosis, which is an effusion of blood under the skin from a ruptured vessel. At first the pain is severe from distention:

this is soon taken off by the absorption of the serous part of the effused fluid, and the pain is relieved; but that which remains becomes a dry cake, which no external applications can possibly soften.

Hence it is that practitioners are so often foiled in their endeavours, to convert tumours, when they are become indolent, into abscesses. For not only is the active period gone by, but perhaps there is even an habitual torpor acquired by the vessels of the part, from the use of lead and other sedatives, from which they cannot easily be excited. And hence that these tumors will sometimes continue indurated in spite of all our efforts, and sometimes take on that dreadful action which constitutes scirrhus and cancer.

No words can paint too strongly the danger which attends this indecisive practice. But as example is more convincing than precept, I shall refer the reader to a fatal case, which occurs in the chirurgical treatises of Wiseman.[3] The narrative was drawn up by Dr. Duke, the physician, who for the first six days of the disease, had the sole management of the patient. During this time, although it was a critical abscess, he employed phlebotomy, clysters, and topical discutients, to

3. The original of this case is transcribed verbatim in the Appendix.

disperse the tumor, merely, as he acknowledges, from a dislike to the tedious and inconvenient way of suppuration. On the seventh day of the disease Wiseman was called, who so far countenanced the previous practice, as to continue it two days longer; when, in spite of all their endeavours to prevent it, suppuration took place. The abscess was opened by caustic, and the pus which first escaped was of a proper consistence; but after three days, the discharge became sanious, and highly offensive.[4]

Digestives were had recourse to in vain, for at the bottom of the cavity an unusual substance was observed. The discharge became more and more sanious, and left no doubt that a vessel was eroded, probably the effect of mortification; fatal symptoms now rapidly supervened, and on the twenty-first day after the attack the patient died.

An instance, in some respects similar to the preceding, occurred within my knowledge: a critical abscess supervened to fever within so short a time after the febrile attack, that the abscess was thought the primary disease, and the fever symptomatic. The progress of the abscess was therefore opposed, and the patient, a man in the prime of life, was quickly cut off.

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4. It is remarkable that the contents of this abscess were evacuated "per intervalla debita, et partitim," at stated intervals, and in equal quantities.

Admitting, however, that all the efforts of the practitioner to dissipate the tumor are frustrated, and that to inflammation abscess has supervened; that the integuments are become sufficiently thin to render the fluctuation of the matter perceptible to the touch, the next consideration is in what manner shall it be evacuated?

On this subject the opinions of the faculty have been very fluctuating and unsteady; so that at one time, the exposure of the whole cavity of the abscess by a free incision, thus giving an immediate vent to the whole of its contents, yet without the destruction of its parietes, has been deemed the most judicious practice; at another it has been advised, to make a double perforation through the integuments of the abscess with a seton-needle, the eye of which is to be filled with a skein of silk or cotton; the needle being carried entirely through the abscess, is then to be separated from the skein, which is to be drawn daily from end to end, so that the contents of the abscess may escape by slow degrees, and the detached and elevated skin gradually collapse, till re-union shall take place. At another time the entire destruction of the projecting part of the abscess by the application of the potassa cum calce, or by rubbing it with the potassa fusa, had its supporters; by this method they contended, that neither can matter lodge and form sinusses, nor can diseased skin retard the progress of the cure; but that the

loss of substance shall be wholly repaired, by granulations of new flesh. And at another, it was thought better, to suffer the abscess to burst of its own accord, as the openings thus made were believed to have a disposition to heal more kindly.

These practices, how different soever they may seem and really are to the patient, are in their principle and consequences very much alike; that is, they all tend in a greater or less degree to expose to the air the cavity of the abscess; are all unnecessarily painful; unnecessarily tedious; always leave unsightly and disgusting scars, and sometimes are followed by ulcers which resist all our remedies, and even prove fatal to the patient.

In the observation of these consequences, arose, as I conjecture, the aversion in the minds of many practitioners of great respectability, to make scrofulous tumors the subject of chirurgical treatment. They dreaded their suppuration, and thought no practice could prove more detrimental to the patient, than to promote this termination. Indeed they would dissuade from any interference with them, and appear to be of opinion that the constitution can do much better without the assistance of art, than with it. From thus doing too much, they passed into the opposite extreme, and left every thing unattempted; so that, from their very commencement, scrofulous tumours were suffered to take their own course, and recede, ad-

vance, or continue stationary at their own accord. —They were abandoned to chance and time:

. . . . τεκτων ὁ σοφος
απαντα δ'εργαξομενος ασθενεστερα. [5]

To this indolent practice there are the strongest objections; for, if the tumor subside, it is no visionary fear that injury may accrue to the general health; if it advance to suppuration and burst, either will the sore heal prematurely, and leave a necessity for other openings to give vent to the residuary matter, or that which was first formed may acquire an indisposition to heal, and become eventually an obstinate and insensible ulcer. But even if it escape this alternative, yet the coagula or flakes, which so generally form a part of the contents of scrofulous abscesses, cannot ooze through the inconsiderable opening which spontaneous bursting causes, and the affected part therefore never can regain its natural appearance, as some induration and enlargement must continue even from this cause.

There is yet another practice in scrofulous swellings which have suppurated, which has lately been proposed by Mr. Crowther; it consists in detaching the cuticle by a blister, and in maintaining the exulceration by stimulating applications till the swellings shall have disappeared. It appears to have resulted from this treatment, that

5. Stobæi Eclog.
. . . . that wretched Smith who makes,
Still worse and worse whate'er he undertakes.

collections of matter to a considerable amount, have been dispersed without exposure of the cavity of the abscess. Mr. Crowther's own opinion is that they were taken up by the absorbents.

Now this, in my estimation, forms an objection of the greatest moment against this practice; and even although it may be made to appear from the cases, which he delivers for its exemplification, that no injury was eventually, as far as the event could be ascertained, sustained by the system, yet it surely must be allowed that there was very considerable risk of it. In the Appendix will be found a case, which places in a very striking point of view the danger attendant on the absorption of scrofulous virus. It must however be acknowledged, that the irritation kept up by the raw surface in Mr. Crowther's practice, has a very powerful tendency to divert from the constitution, consequences which without it could hardly fail to result.

If, however, it be conceded that this is a successful practice, it must at least be owned that it is a tedious, and a painful one, and not by any means exempt from objections of a stronger kind. It may therefore be presumed with some confidence, that if a method at once more expeditious and less painful, above all exception in point of security, and having no tendency to deform the

part can be taught, the preference due to it will readily be acknowledged.

I should now be led directly to the consideration whether when an absorbent gland enlarges, although from an external cause, it ought not as much to be encouraged to suppurate, as tumors arising from derangement of the health, and even critical abscesses, but the argument has been anticipated. It will be found by referring to it that I am an advocate for the affirmative of this proposition, and I rest my assent to it on the following grounds:

1. That the obvious purpose of the constitution in forming the tumefaction is frustrated by its repercussion.

2. That the local disease is readily and much more perfectly cured when abscess forms; at the same time that the constitution is either exposed to no risk of being injured by absorption, or that risk is very much diminished by the suppuration of the tumor, and the evacuation of its contents.

3. That from the time when I first employed this practice, I have never known any inconvenience result from it.

4. That both before and since that time, I have witnessed much present inconvenience, and future injury to the patient, from discouraging scrofulous tumors from becoming abscesses.

CHAPTER IX.

Of a New Method of treating Scrofulous Swellings, and of evacuating the Contents of Scrofulous Abscesses.

In the preceeding chapter, I have delivered a summary account of the methods in ordinary use, of treating scrofulous as well as other tumors, when they have arrived at a state of maturation.

I have shewn that by the three first of them, the cavity of the abscess is more or less exposed to the influence of the atmospheric air; that there is consequently a risk, that obstinate and even incurable ulcer may result from such exposure; but that there is a certainty of that deformity, which arises from the cicatrices or seams produced by the healing of the ulcer, and which continues during life. These scars, in what situation of the body soever they may occur, have a very disagreeable appearance; but in certain situations they lead the mind by association of ideas, to connect with them the past existence of discreditable, or the proneness to family and hereditary diseases. In either of these cases, they are particularly distressing to those who have the misfortune to exhibit them. But in no situation should they be more sedulously avoided, than in the necks of

females; where, as they cannot be concealed from observation, they are blemishes to beauty, and what is still harder, are regarded by the stern eye of prejudice, as exhibiting unquestionable proofs that the constitution is poisoned by evil.

My objections to the fourth of the above methods, were grounded on the danger to which the constitution is exposed, from the chance, that the contents of the abscess, if left to make their own exit, not only may be carried by absorption into the system, to the detriment, if not to the ruin of the patients health; but that if the abscess bursts, the openings from their form are ill-disposed to heal, and from their size cannot allow the passage of the flakes or coagula, which by remaining in the cavity, form concretions that continue to elevate the skin, and form permanent enlargement.

To the fifth I objected, because while it is both a tedious and painful process, much to be suspected, that the contents of the abscess, instead of finding an external vent, are carried into the system. Of this the ill consequences cannot be too much dreaded.

It now remains for me, to give the clearest description that I am able, of a method, which as applicable to scrofulous and venereal abscesses, is, I apprehend, exclusively my own. It originated

in the following circumstances. A gentleman of a very delicate frame, who had been very prone to the attack of scrofula, discovered a tumor in inguine. As he had witnessed in a friend, some very distressing consequences from a similar enlargement, which came to suppuration, and was opened in the ordinary way, he was much alarmed, and earnestly requested me to devise, if possible, some safer method. Having in a previous case,[1] healed with unexpected ease, and by the first intention, a moderate incision which had been made into a suppurated bubo, I resolved to repeat the practice in this instance, but with more circumspection, and the same success attended it.[2] I now felt that I had made an acquisition of considerable value, and anticipated its successful application to scrofula.

At that time my attention had been but slightly attracted by the ancient writers on medicine and surgery; subsequently, however, my investigation of their invaluable records has not been inconsiderable; for by how much I became more convinced of the importance of the new practice, by so much the more was I desirous to ascertain, whether or not I had been anticipated in it; and after all the research which it has been in my power to make, I cannot find that I have.

1. App. Case 2. Do. Case

The expression "per intervalla debita et partitò," used by Dr. Duke,[3] to explain the gradual manner in which the contents of an abscess had been discharged is striking; that abscess was however a phlegmon. But the practice of emptying large abscesses at intervals, is mentioned by Ambrose Parey,[4] and as he makes no intimation of its novelty, it was probably even more remote. This conjecture derives strength from the consideration, that Parey was less an original writer than a compiler from the writings of his predecessors and contemporaries. But Mr. Crowther states, that the method of discharging large collections of fluids in gradual quantities, is by no means novel, and is to be found in the works of Decker.[5]

Now it is indisputable, that if it was known how to discharge the contents of abscesses, in divided portions, and at certain times, it could not but be known how to controul the orifice during the intervals. Yet it is remarkable, that this practice should have fallen into such entire disuse,

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3. App. Case

4. Enumerating the various ways of opening abscesses, he says, "the fifth is, that the matter contained in them be not evacuated too abundantly at once in great abscesses."
Johnson's Translation, Ch. 5. B. 7.

5. I have looked over the "Exercitationes" of Decker with care, but cannot find the passage referred to by Mr. Crowther. He refers too generally to the work, but does not specify the part where the practice, of which he speaks, is to be found.
See Crowther's Practical Observations.

that when Mr. Abernethy revived it, the very memory of it was almost lost; so that it was pretty generally thought to have originated with him, till it was found accurately described by preceding writers.

The practice consists in puncturing the abscess with a trocar at different times, till the whole of its contents are evacuated, while the admission of air is prevented, by keeping closed the orifice during the interval, by means of adhesive plaster, or by corking the mouth of the canula of the trocar which is retained in the wound. Of this practice the principle appears to be, that by the gradual evacuation of the matter the internal surfaces of the cavity may by degrees collapse, approximate and unite, while by the exclusion of the atmospheric air, fresh inflammation of them is prevented.

I have reason to believe that this mode of treating lumbar abscesses, for to such alone Mr. Abernethy confines it, has been tolerably successful; yet it appears from Mr. Crowther's representation that he thinks it imperfect, and has abandoned it. For instead of evacuating the matter at intervals, he now empties the abscess at once, and trusts to compresses and bandages for re-uniting its surfaces. But if the relative situation of the abscess of the psoæ muscles be well considered, it

must appear that, in whatsoever direction it may point, compression connot be made on the whole of the cavity, nor indeed on more than a very inconsiderable portion of it. It is therefore more than doubtful, whether the change is to be regarded as an improvement.

It certainly did happen that the first case of abscess which I treated on the principle of excluding air after discharging its contents, and then applying pressure to procure the re-union of its surfaces, was in the year 1798, when perhaps, the method proposed by Mr. Abernethy was before the public. I speak doubtingly, and have not now the means of knowing; but the candid reader will exercise his own judgment, and give or refuse credit to the author, when he asserts that, at that time he had not heard of the practice revived by Mr. Abernethy. This perhaps will be rendered less difficult of belief, if it be considered how remote is the analogy between lumbar abscesses, and scrofulous and venereal tumors, to which it is the sole object of this work to apply the practice.

But what I conceive to be a far greater improvement than the mere method of evacuating the contents of abscesses by degrees, and preventing ulceration by closing the orifice, is the just application of pressure, so as to promote, and ef-

fect the re-union of their surfaces; and the application of the principle to glandular tumors.

As soon then as a tumefaction is discovered in any glandular part, instead of applying leeches, refrigerant lotions, or discutient ointments, liniments or plasters, with a view to resolve and render them pervious, while mercurial, antistrumatic, or aperient medicines are administered, in the contemplation of curing the supposed disease of the constitution; I judge it to be in every instance more eligible, to cover the local affections with any mild adhesive plaster, spread on silk or thin leather, and sufficiently large to extend beyond the dimensions of the swellings.

By these means the enlargement is neither encouraged nor repressed, but nature is allowed to follow her own course without interruption.—If the obstruction be but slight, that is, if the fomes absorbed be not highly noxious, it will by the gentle and constant warmth which the plaster covering affords, be digested in the gland, and be thus rendered fit to pass into the system without endangering the health. In this manner the gland will become spontaneously pervious, and will nearly if not entirely regain its natural state; for some slight thickening of its coats, or some vestiges of adhesive inflamation generally continue.—But if the obstruction be more considerable, that

is, if the fomes absorbed be highly noxious and of course indigestible in the gland, the plaster will not only protect it from the variations in the temperature of the atmospheric air, which may promote absorption, but will by its warmth, steadily maintain the excitement which has already taken place in the affected parts.

The tendency of the parts to these very opposite terminations may be ascertained in the space of a few days. It will therefore be in all cases right, to remove the plaster on the third or fourth day. If the tumefaction be reduced in point of size, and tenderness and redness be absent, the same plaster, if it will adhere, may be replaced, if not it may be renewed; and small doses of the submuriate of mercury at night, with gentle purgatives on the subsequent mornings, will much increase the already existing disposition in the gland to subside.

But if the tumor be increased both in its circumference and elevation, if it be possessed of more sensibility, and at the same time redness and hardness of the integuments are perceptible, I no longer doubt that suppuration should take place, and ought to be promoted. I therefore change the plan, and hasten to the use of those means, which more powerfully contribute to the formation of matter. For this purpose, a poultice, consisting

of equal quantities of the unguentum elemi compositum, (ph. Lond.) and of bread and milk previously boiled, may be applied. These are to be incorporated by heat, and are to be placed on the tumor while they are still as hot as can be born without giving pain. The poultice should be sufficiently large to extend beyond the boundaries of the tumor, and should be renewed twice in twenty-four hours. In some cases the following composition is more convenient to the patient than the poultice above-mentioned. It is a very powerful suppurative, and being in consistence between a plaster and an ointment, can easily be kept on the part, and has the advantage of being removable without causing pain. At the same time it is much less bulky than a poultice, and need not be renewed.

R. Terebinthinæ venetæ,
Mellis despumati,
Albuminisque Ovi,
Singulorum partes æquales,
Tritici farinæ, quantum satis sit.
M. s. a.

The tumor must now be examined at least every other day, and as soon as the suppuration of it has so far advanced that fluctuation is distinguishable, nearly the whole projecting part of it will be soft and elastic, while the basis continues indurated from the adhesive inflamation. It is quite

unnecessary to wait for the conversion of this into matter, this being common inflammation, and quite unconnected with the scrofulous gland.

At this precise boundary, namely where the softness terminates, and the induration begins, I direct a spear-pointed lancet, with a long blade and very narrow shoulders, rather larger in all respects than that which is employed by the oculists in puncturing the lachrymal sac, to be carried with its edges parallel to the horizon, through the parietes of the abscess, till the point of the instrument reaches the centre of it. The lancet is then to be withdrawn, and if the quantity of matter do not exceed a table spoonful and a half, the whole of it is to be evacuated, and the skin is to be firmly pressed on in all directions, that none may remain. The lips of the orifice are now to be adjusted with minute accuracy, and are to be kept in exact apposition with two very narrow slips of what is called court-plaster; over which many other slips of the same, but wider and longer, and crossing each other quaquaversally, are to be placed. Over these several folds of old linen, without seams, and of different sizes, so as to form what has been called by the French surgeons, the graduated compress, are to be applied, and secured steadily in their situation, by a cravat passed thrice round the neck, and drawn as tight as can be borne by the patient. In proportion to the

thickness of the pile of the graduated compress will be its pressure on the parietes of the abscess; and in the same proportion will the pressure be diminished on the other parts of the neck.

At the expiration of two days, the compression may be discontinued altogether; but it will be prudent to permit the slips of plaster to remain for two or three days longer, unless they cause any uneasiness, which when their edges curl in, they are apt to do. In this case a damp sponge, by softening them, will put an end to the pain.

In this manner the internal surfaces of the abscess are made to coalesce, and leave no cavity to be filled up by granulations; the external opening heals by what is called the first intention, so that no ulceration ensues; the cicatricula is so very small, as to be afterwards scarcely perceptible, so that no unsightly scar remains; and the scrofulous virus, possessing such unquestionable powers of contaminating the body, instead of being absorbed and carried into the system, is at once evacuated.

If the quantity of matter contained in the abscess chance to exceed what a table spoon will contain, and half as much more, as soon as these quantities are evacuated, the orifice is to be closed in the manner before described, with the slips of

plaster; but no pressure is to be made on the abscess with compresses, although it will be useful to apply a cravat if it be in the neck, or the spica inguinalis if in the groin, and to draw it moderately tight. At the end of two days, the slips of plaster are to be moistened with a damp sponge and removed, and the residue of the matter is to be let out, provided it do not exceed the quantity which has been specified: if it does, what remains must be reserved for a third, or even a fourth evacuation. These, however, are very rare occurrences. But after letting out the matter at each time, the utmost exactness is requisite in closing the orifice, and preventing the admission of air. At length when the cavity is completely emptied, the compresses are to be applied over the slips of court-plaster, as is before described, and should be worn during several days; but it will generally be found necessary, to remove and replace them once in two days at least, if not daily; for if they wander ever so little from their situation, the compression will be partial, and that portion of the cavity which is not acted on, will not coalesce, but be the source of a fresh inflammation, and a further formation of matter.

But where the dread of instruments is great, as generally is the case in little patients, and indeed is not confined to them, I have found another method more expedient; which is, instead of bring-

ing the lips of the orifice into apposition, and retaining them so with the plaster, to insert between them a very small slip of sponge, to the outer end of which is to be appended a noose of sewing silk; by this the sponge can be withdrawn easily, and as often as there may be occasion, When the sponge is used, two or three slips of the emplastrum plumbi may be employed, instead of the court-plaster. It is obvious that this method is only applicable to those cases, in which more than one evacuation of the contents of the abscess is required.

In discharging the contents of these abscesses it will sometimes happen that the orifice will be choked with the coagula or flakes, so frequently met with in them. Instead of enlarging the opening to give vent to these substances, or of thrusting them back with a probe, it is better to seize them and draw them out. For this purpose the small forceps used by oculists to extract the cataract is a very convenient instrument.

The induration and redness that are consequential to the adhesive inflamation, will if left to themselves gradually soften and disappear; but as it is more satisfactory to patients in general, to be doing something while any appearance of disease continues, I usually direct a small quantity of the following ointment to be well rubbed on

the hardened and discoloured part once or twice daily, with a view to stimulate the superficial absorbents.

R. Camphoræ, gr. xv.
Spiritus Vini r. gut. xx.
triturentur simul, et dein addentur,
Hydrargyri Submuriatis drach. 1.
Cerati Plumbi Superacetatis, unc. 1. m.

If the plan which I have recommended be acted on from the commencement of the disease, that is, from the time when the enlargement of the gland was first perceived, but little difficulty will in general be found, in inducing the suppuration of it. But if attempts have been made to dissipate the tumefaction, or if it has been long neglected, it will often be found difficult and tedious, and sometimes impracticable, to re-excite sufficient inflammatory action in it to produce suppuration. Yet is it highly worth while to attempt it in every instance by the means already recommended; but if after using the suppurative poultice, or the composition, for a week, no signs of suppuration ensue, it will be much more convenient to the patient, to have substituted the emp. lithargyr. compos. of the former London Pharmacopæia, thickly spread on silk or leather, and made warm before it is applied. Instead of this I have sometimes used the following composition on the recommendation of Dr. Kirkland. It is

slower in its operation than the compound litharge plaster, but it is also less apt to excite pain. I shall set down the formula, as it is given in the Pharmacopœia Chirurgica:

"Emplastrum Lithargyri Paracelsi.

R. Olei Olivæ, lib. i.
Ceræ flavæ, lib. iss.
Lithargyri, lib. ij.
Thuris,
Masticis,
Myrrhæ, sing. unc. ijss.
Minii, unc. iij.
Camphoræ. unc. ss."

"The Oil wax and litharge", says the editor, "being properly incorporated over the fire, the other ingredients are to be added successively, except the camphor, which, being previously, dissolved in a little oil, must be withheld till the plaster is nearly cooled."

It happens not unfrequently, that after either of these plasters has been worn a week or a fortnight, the abscess shall burst, and surprize the patient with the sudden discharge of matter. In this case all that is requisite to be done, is to remove the plaster, and to close the aperture with sponge, or the court-plaster, according to circumstances; treating the abscess in all respects, as if it had been opened by art, and in the manner before described. It is, however, for the following

among other reasons, much more desirable that the abscess be opened by the surgeon, than that it shall burst spontaneously :

1.—The thinning process is not allowed to go so far as to destroy the integuments.

2.—The opening made by a keen instrument, such as a lancet, is more disposed to heal by the first intention, than that which is the effect of the spontaneous bursting of the abscess, which is in reality a process of ulceration

3.—The situation of the opening may be chosen by the surgeon, and, in many instances it may so be made, as to be quite out of the reach of observation afterwards.[1]

4.—The quantity of matter to be discharged may be regulated by the discretion of the surgeon; as in some instances it may be requisite to evacuate it at three, four, or even five times, instead of at once or twice.

5.—When the opening is made by the surgeon, there is no danger of the admission of air in-

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1. In general practice the most depending part of an abscess is selected for the opening, in order that its contents may gravitate, and thus escape the more readily. In this method the Surgeon is at liberty to choose the situation of the incision, and he will of course prefer that where the little scar that remains, will be least perceptible.

to the cavity of the abscess; which would frustrate our hopes of uniting its internal surfaces, even if the opening can be healed by the first intention; and would thus put the sore upon the footing of scrofulous abscesses treated in the ordinary way.

For these various and conclusive reasons, I earnestly advise, that abscesses thus formed, be never, if it can be avoided, allowed to burst of their own accord, but that the surgeon be always permitted to open them.

CHAPTER X.

Of the treatment of Abscess and Ulceration of the Edges of the Eyelids, and of the Auditory Passage; of Abscesses in or near the Joints; of the Bronchocele; of the Labrisulcium; and of the thickened Columna Nasi.

THE tarsi palpebrarum, or edges of the eyelids are studded with small glands, which from their discoverer Meibomius, are still called glandulæ Meibomii. They are very proneto inflammatory disease, especially in the early part of life; this often ends in suppuration, which terminates in indolent and very troublesome sores; these, when at length they heal, form subalbid spots, which are the cicatrices of the ulcers, and which are made more distinguishable by the absence of hair.

Whether these glands are primarily affected, or whether that affection is consequent to some obstruction of the puncta ciliaria, which are their excretory ducts, I cannot determine. It is, however, important to recollect that these are not absorbent but secretory glands; their affections therefore, although very commonly supposed to bescrofulous, cannot be really so, if the restriction, which I have endeavoured to impose on the term scrofula, be just. Neither do the Nosologists consider

it as belonging to scrofula; Dr. Cullen classes it with the Phlegmasiæ, calls it opthalmia tarsi palpebrarum; and defines it to be, small ulcers in the sebaceous glands of the tarsus, discharging a glutinous matter.

By puncturing the little abscesses as soon as they are observed to contain a fluid, which is known from their transparency, and then anointing the outer surfaces of the eyelids, but more particularly their edges, with either of the following ointments, they are cured with very little difficulty.

R. Hydrargyri Submuriatis, drach. 1.
Unguenti Cetacei, unc. 1. m.

R. Hydrargyri nitrico-oxydi,
probè triturati, scrup. ij.
Unguenti Cetacei, unc. j.

They should be used twice daily, while any ulceration continues, which is best ascertained by the ease with which the eyelids are separated when the patient first awakes from sleep. Of these ointments the last is I think the most efficacious; but I have found them both far preferable to the unguentum hydrargyri nitratis, which has been so much recommended. The trouble of applying this last ointment as it needs to be first melted, and the pain which it excites, are great objections to its use; yet it certainly unloads the vessels of the

eyelids in a manner peculiar to itself, and on that account, may be more efficacious in breaking through any obstructions in the puncta ciliaria, than any other application. Perhaps, therefore, the proper time for using this ointment is before suppuration of these glands has taken place, while the others are more proper for the ulcerations; or it may occasionally be used with them, interchanging the three, which I have thought to be attended with advantages, not possessed by either of them singly.

A very useful direction has been given in the management of this disease, which is to smear the edges of the eyelids at bed-time with any mild ointment, Turner recommends his own cerate, with a view both to prevent the adhesion of the raw surfaces to each other, and the violence which is necessary for their separation, when the viscid secretions of these parts have glued them, as it were, together. This end is further promoted by immersing the eyelids in any mild luke-warm fluid in an eye-cup, before any effort is made to open them in the morning.

This affection of the eyelids, when it has continued for any length of time, is rarely unaccompanied with increased action of the vessels of the tunica conjunctiva; but occasionally the cornea itself becomes affected with severe symptomatic

inflammation. The disease then takes the name of ophthalmia membranarum, for the original affection is now lost sight of, and when it proves obstinate, which is not unfrequently the case, it is called the scrofulous opthalmy.

In addition to general and local blood letting, blisters, evacuations from the bowels and kidneys, an abstemious regimen and antiphlogistic medicines, together with screening the eyes from strong light, I have witnessed the utility of the following lotion:

R. Liquoris Ammoniæ Acetatis,
Decocti Papaverum Capitum,
Singulorum uncias tres,
Liquoris Plumbi Acetatis, minim. viginti. m.

The instillation of the tincture of opium has been much recommended, and if its use was not attended with such excruciating pain, it would deserve to be more generally employed than it either is, or is likely to be, as long as it is the duty of surgeons to give preference to the gentlest methods. In one instance the cure of a very obstinate ophthalmia membranarum, which had supervened to ulceration of the tarsus, was accomplished by a patient's choosing to have water pumped on his forehead and eyelids, as long as he could endure it.

Of internal medicines, that which I have observed to produce the most striking effects in ophthalmia, is the submuriate of mercury; which I am accustomed to administer in the dose of two grains every night, till the gums become tender.

There is also an affection of the cavity of the Ear, which is reputed to be scrofulous. It is generally preceded by exposure to a cold or wet atmosphere, and commences with exquisite pain, which is dependent on inflammation of some part of the meatus auditorius externus. It almost always terminates in suppuration. When the small abscess bursts, which it generally does in a very short space of time, in comparison with other abscesses, ulceration not unfrequently ensues, and sometimes proves very obstinate. Occasionally it continues for years, and at length destroys the tympanum, and the small bones which form so material a part of the organ of hearing. When the disease has made such havoc, incurable deafness is the consequence.

Inflammation when it attacks the cavity of the ear, is so rapid in its progress, that there is, I believe, no method known by which it can be prevented from terminating in suppuration, even if it were desirable to do so. The business of the surgeon is therefore to promote this process as quickly as possible, as the patient can have no

relief from the pain he endures, but from the formation of matter.

The quickest method of hastening this event, is by causing the steam of very hot water, impregnated with honey and the rectified oil of turpentine, to ascend into the cavity of the ear. It may be directed through an inverted funnel, the tube of which should be applied as near as possible to the external ear. Occasionally warm water poured into the cavity of the ear, and retained for a short space of time, will act as a fomentation, afford ease, and promote suppuration. Poultices, onions, figs and the like, appear to me to do no good, because they cannot reach the affected part, and by the addition which they make to the heat of it, they may be suspected to increase the pain.

As soon as suppuration has taken place, and the contents of the abscess has escaped, the first attention must be paid to cleanliness. The directions given in the Pharmacopöeia Chirurgica, are insufficient for this purpose, and almost useless; for by the means there recommended, neither can the lower part of the meatus be cleansed from the discharge, which soon grows dry and then firmly adheres to it; nor can even that which is recently secreted be imbibed. It therefore be-

comes fetid and acrimonious, and very much indisposes the sore to heal.

Having experienced this, I was led to substitute sponge for lint. I give the preference to such as is both soft and compact. It should be cut into pieces conical in their shape, and of such a size as can without difficulty be conveyed through the meatus, till the small end of the cone reaches the tympanum, with which it ought to remain in slight apposition. If it be gently applied it can be retained there without pain. The most convenient method of introducing it, is with a pair of dissecting forceps with very narrow blades. The cone of sponge being first dipped in water, is to be dried by pressure in a napkin. It is thus rendered soft and elastic, and fitter both to imbibe whatever is applied to it, and to fill the cavity without pain. Thus prepared, the sponge is to be placed longitudinally between the blades of the forceps, so that the whole of it shall be included within them, except a short portion of the smallest end of the cone, which is to project beyond their extremities, that it may touch the tympanum, before the forceps arrive at it. When the sponge is thus conveyed to the bottom of the meatus, the blades of the forceps are to be allowed to expand, and the instrument is to be withdrawn while the sponge remains in the ear. Twice in

twenty-four hours, or even thrice, if the discharge be offensive, which shews that it is highly acrimonious and capable of affecting the sound parts, the sponge should be taken out with the forceps, be washed clean and made dry, and be re-applied as before. The same piece of sponge should not be worn longer than a week, as the discharge soon makes it rotten.

It is desirable that the sponge be conveyed into the ear by the patient himself, unless he be too young, because his hand, being under the guidance of his feelings, will soon acquire such dexterity as not to touch the tympanum rudely, which is attended with exquisite pain; and because he can change the sponge as often as may be necessary.

While the discharge is considerable in quantity and offensive, a few drops of a solution of the nitrate of silver in water, may be instilled daily into the affected ear. But when it becomes inodorous, the compound tincture of benzöin, or a solution of myrrh in lime water, will be more suitable. The advantages which the method of curing the diseases of this organ by the applicati- of sponge, possesses over that which is in common use, are:

1.—The meatus of the ear is completely filled up by the elastic sponge, so that no air can

find access to the sore; the effect of which is to irritate the sore, to impart to it a disposition to inflame and spread, and to make the discharge acrimonious.

2.—The sponge, by its elasticity, so completely applies to the whole canal of the ear, that in whatever part of it the ulcer chances to be situated, the sponge must be in apposition to it.

3.—The sponge thus applied, imbibes the matter of the sore as fast as it is secreted, and prevents it from eroding the adjacent parts; but it more particularly protects the tympanum from the action of this acrimonious discharge; which when it ulcerates that membrane, is, not unfrequently productive of permanent deafness.

4.—If the sponge be carefully withdrawn, and accurately examined, the situation and extent of the ulcer may be observed; the use of which is, that dressings of any kind may be applied to the part affected, and to that alone.

5.—In this manner diseases of the ear, which, in the ordinary way of treating them, are extremely tedious, very disagreeable, and often greatly and durably injurious to the organ of hearing, are very readily and certainly cured, and leave the functions of that valuable organ unimpaired.

Those affections of the various joints which are reputed to be scrofulous, and which I have imagined may be secondary symptoms of that disease, and produced by the absorption of scrofulous virus into the system, can only be briefly touched on. In the commencement of every affection of a joint which cannot be accounted for by an external injury, I am of opinion that local blood-letting, and the application of the liquor ammoniæ acetatis, should precede every other remedy. After this a drain may be kept up near the part affected, till the complaint gives way. But poultices and fomentations should on no account be employed, as no termination is more to be shunned than suppuration. If, however, suppuration has already taken place, rather than permit the teguments to burst and form ulcers, I would much prefer taking off the distention from time to time by puncturing them where they are sufficiently sound, and evacuating a portion of matter, and then securing the orifice in the manner before recommended. In this way I have often succeeded in the cure of abscesses in and about the joints.

The late Mr. Crowther's report, on the subject of diseased joints, shews how much may be done by perseverance in these generally despaired-of cases; and how unwarrantable it is to abandon any joint as hopeless and irremediable, as long as

the health of the patient does not give way. In this point, I, from much experience, entirely concur with him; as well as in another of no small moment, that no limb should be amputated, but when the life of the patient is endangered. Two cases are narrated in the appendix, of diseased ancle and elbow joints being completely cured, under the most unpromising circumstances, by a steady perseverance in the use of local means. They had been previously abandoned, as without remedy.

Of the effects of external applications in Bronchocele I have had but little experience, this disease being as rare in some parts of this kingdom, as it is rife in others. In its commencement, it would seem a most important measure for the patient to quit the situations where it is endemic. It is much to be doubted whether any means can avail, while the cause of the disease still continues to act. I should be disposed, however, to cover the whole thyröidal gland when affected with bronchocele, with the emplastrum saponis, which may be worn during any length of time. But it will be requisite to watch the part attentively, during the first week at least, and if any inflammatory disposition be discovered in the gland, the application of leeches, &c. must be had recourse to, to take it off. "For, as it is very justly observed by Dr. Baillie, practioners ought to be particular-

ly cautious to prevent inflammation of the thyroid gland from advancing to suppuration. If it should suppurate, and the pus be evacuated externally, there will be a scar in the neck, and if it should point internally, it will probably make its way into the larynx or the trachea, and suffocate the patient. There is a preparation in Dr. Hunter's collection, shewing this fatal termination of inflammation in the thyroid gland."

The labrisulicum and the thickened columna nasi will frequently yield to the following composition, with which they should be well anointed twice daily.

℞ Hydrargyri Submuriatis, drach. j.
Olei Amygdalæ,
Unguenti cetacei, sing. drach. iv.

CHAPTER XI.

Of the Medical Treatment of Scrofula.

HITHERTO I have purposely abstained from speaking of the internal exhibition of medicines, lest, in the treatment of the primary symptoms of scrofula, the attention of the practitioner might be diverted from an active to an inert, from a serviceable to an injurious practice. During the maturation of the abscess, all medicines of an active character are very likely to interfere with that salutary process, and may contribute, by their tendency to render pervious the gland in which it is going on, to promote absorption from it; an event which, as yet, we cannot be too solicitous to avoid. That such is the direct effect of mercurial and purgative medicines, is well known. They are, I believe, the most powerful deobstruents which we possess; and, if there be any truth in the doctrines which I have advanced, are exactly calculated to render frustrate and ineffectual the practice which is built on them, both before and during the suppurative process. But no sooner are the contents of a scrofulous abscess discharged, than the exhibition of medicine becomes expedient, at least as a safeguard, even if there be present no symptoms which indicate an affection of the constitution. For it is now of

importance to render pervious the whole of the gland which was the seat of disease, that no deformity may remain; and at the same time to support the vigour of the system, which is the only effectual method of counteracting whatever relics of the virus may possibly be absorbed from the gland.

The articles which appear to me to be endued with the greatest efficacy in constitutional affections, arising from the absorption of scrofulous virus, and which may therefore with strict propriety be called secondary symptoms of that disease, may be divided into two classes, namely, tonics, and deobstruents. Of the first class, the articles which appear to me to be most deserving of notice, are the Cinchona, Iron, Copper, Port-Wine, the Vegetable Bitters, the Mineral Acids, and the Cold Bath. Of the second, Quicksilver, Eccoprotics, Calcined Sponge and Mezereon. Of these different articles I shall treat somewhat at length, and in the order in which they are here arranged.

Dr. John Fordyce, who has already been spoken of,[1] as having introduced the cinchona as a remedy in scrofula, illustrates this practice with seven cases, of which two only, at the utmost, can be regarded as strictly in point. The first is a

1. See pages 45, 46.

case of swelled glands consequent to small-pox; the cure of which was effected by the steam of hot vinegar, by purging with the submuriate of mercury, and by taking the cinchona with arum and sassafras. The other was a child, four years of age, who had a large swelling under the left ear and lower jaw. This last patient drank twice daily an ale medicated with rhubarb, &c. used a strong discutient ointment to the parts affected, [2] and took the cinchona with sassafras, in the form of an electuary. The complaint, which had existed two months, was cured in about a fortnight. The other cases are only adduced to shew the general usefulness of the cinchona. The conclusions which the Doctor drew from these cases, were "that in tumefied glands, where the habit is feeble, and the circulation weak, whether from constitution or accident, bark is a most efficacious medicine.[3]

In the following year Dr. Fordyce was followed by Dr. Fothergill, who fully concurred with his opinions on this subject. He relates four cases. Of these, the first which was certainly scrofulous, was cured with purgatives, and the decoction of bark. The second and third were cases of opthalmia, and were relieved by cin-

2. Unguentum ad Strumas, Zacuti Lusitani.

3. Medical Observations and Inquiries, Vol. 1. Art. 17, page 184.

chona, and the submuriate of mercury. The fourth was a case of enlargement and induration of the parotid gland. The patient was put on the use of bark, with the submuriate of mercury, and the sulphur auratum antimonii, but received scarcely any benefit, as to the tumefaction, from either or all of them. They had the effect however of putting the patients general health into a better state, and he became negligent of the local disease. This testimony in favour of the bark, though certainly entitled to the praise of candour, is but feeble; yet even this is lessened by an acknowledgment, that in scrofulous ulcers he had used it without effect. After this it is somewhat surprizing to find the Dr. concluding, "that he had given it, the bark, to children of different ages; to adults of both sexes, and in various conditions, with safety and advantage. Ophthalmies, he says, yield to it, incipient glandular tumors are frequently resolved, and their further progress stopped; swelled lips are reduced; cutaneous blotches healed, and the tendency to a strumous habit corrected by its use."[4]

Four years after Dr. Fordyce had excited the attention of the public to the usefulness of the bark in scrofula, Dr. Bond, of Philadelphia, sent a paper to the same Society, before which those

4. Med. Obs. and Inq. Vol. I.

of Dr. Fordyce and Fothergill had been read, communicating two cases in support of their testimony in favour of the cinchona. The first of an adult whose neck was full of tumid glands; the other of a girl who had been subject to tumors for several years. In the first patient the disease had lasted four years, and some of the tumors had suppurated. By fomenting the affected parts, and wearing the emplastrum è sapone, she became better in one month, and nearly well in three. It is to be remarked, however, that this patient had previously undergone salivation. In the second patient, who had also been salivated, the tumors were almost dissolved, after the patient had taken one hundred and fifty doses of bark and steel. The omission of the medicine had caused them to relapse, but by returning to the use of it they were again relieved.[5]

Now of all the instances, which are reported by these respectable advocates for the employment of cinchona in scrofula, I may confidently submit it to the decision of the impartial reader, whether there is one, the cure of which appears to have been accomplished by that medicine solely, and independently of other powerful means, either local or general? Indeed it is very remarkable that, if the cinchona was thus believed to possess so ample a power in itself over scrofula, such

5. Med. Obs. and Inq. Vol. 2.

other active articles should be used in conjunction with it, as to make it very probable, when the disease yielded, that it was rather subdued by the auxiliaries, than by that which was reputed to be the principal! I am the more induced to make this last remark, because I am convinced, not only that bark has no power whatever over scrofulous tumefaction, but that it is even an unfit agent to be employed in obstructions of the glands, from this or any other cause.

The proper use of bark is, to give tone to the stomach, thus to enable that important organ to digest food perfectly, and in larger quantities; it is in this way only that the system is invigorated by it. For the beneficial action of bark, therefore, the presence of debility is essentially necessary. It is an observation of the late Dr. Heberden, [6] that bark is never serviceable in hectic fever, unless there be an ulcer; but it is admitted by Dr. Fothergill, that in scrofulous ulcers it is useless. In this opinion I concur, unless the body be much enfeebled. Its salutary effets are then conspicuous. Yet it will not cure the ulcer by its own immediate action on it; it is by improving the impaired general health, that such an alteration will be effected in the granulations and secretions of the ulcer, that those dressings, which

6. Gul. Heberden Comm. de febre hectica.

were before entirely useless, will now so readily succeed.—But the proper time for the exhibition of the bark is when suppuration has taken place in a scrofulous gland, and previously to the discharge of its contents. At this time it will not only by its tonic and invigorating properties, powerfully counteract the tendency of the scrofulous virus, should any pass into the system from the gland now about to become pervious, to create debility; but it will exert whatever other antistrumatic virtues it is supposed to be endowed with. It is however very much to be doubted, whether there is any such specific for scrofula as mercury is for the lues, sulphur for the itch, and bark for the ague. None such is known at least. Yet, if this disease be produced solely by the operation of particular states of the atmosphere on the human body, the cinchona may well be supposed to possess the same power over it, as it unquestionably has over other diseases arising from the same cause.[7]

As to the most eligible form of administering the bark, there is none, in my opinion, either for elegance or efficacy, comparable with that

7. The notion that the fever of rheumatism is excited by the same agents which give rise to intermittent fever, was first conceived by Dr. Morton. Practice has been but slowly influenced by it, but the facts adduced by Dr. Haygarth, place it in a very striking point of of view.

of the finest powder, thoroughly mixed with milk. In a tea-cup-ful of the latter, one or even two drams of the bark may be taken with scarcely any unpleasant taste. And I believe that patients who nauseate, and cannot without difficulty retain even small doses of these medicines in any other form, can with ease swallow and keep down the largest that need ever be given in this. It is however necessary that it be mixed quickly, and swallowed as soon as mixed, otherwise the vehicle will contract the taste of the drug. One drop of the oil of cinnamon or of nutmeg, first mixed with white sugar and then with the draught, while it greatly improves the flavour, makes a considerable addition to the tonic properties of the bark. For children, who require still more indulgence, the following very palatable formula was contrived by the late Dr. Heberden: "One scruple of the extract of bark, and as much sugar, first mixed with half a spoonful of water, and then with a spoonful and a half of milk, is a form which will disguise its nauseousness sufficiently for many children to take it without unwillingness.[8]" The extract may also be formed into pills, for those who are averse from liquid medicines; and for the same purpose the powder may be formed into an electuary. The decoction, infusion, and tinctures of the bark, particularly the latter, are very

8 Com. de febre intermittente.

inefficacious forms of administering this admirable medicine; and where its tonic, invigorating, and specific properties are required, should not be relied on singly.

Another article of very considerable utility in scrofula, is iron; the general properties of which, being to give energy to the circulation, and tone to the muscular fibres, make it remarkably well adapted to remove that debility, which arises from or attends the secondary symptoms of this disease. That paleness of the surface, which so often accompanies scrofula, when it has continued for any length of time, that it forms part of the description given by authors of the scrofulous diathesis, is remarkably altered by the use of this medicine, so that a florid redness is soon produced by it. But it is indispensably necessary for the beneficial action of iron, that weakness and relaxation shall be present; for if the circulation be much accelerated, and the pulse at the same time firm; or if the skin be dry and hot, it cannot be employed without detriment to the patient. The proper time for the employment of this metal in scrofula, is after the suppuration of the gland, and the discharge of the contents of the abscess; but especially when langour and debility prevail, and there is an evident want of tone.

From among the various preparations of iron there is scope for selection, some being more

proper than others, according to the state of the first passages. If, for example, acidity be present in them, the filings,[9] ferri ramenta et fila, ph. Lond. reduced into a very fine powder, prove more serviceable than the most elaborate preparations of it; even than the liquor ferri alkalini, which seems to have been purposely adapted to this state of the alimentary canal. If, on the other hand, there be no acidity present, solutions of this metal in an acid menstruum, are productive of excellent effects.[10] But if the secretions into the alimentary canal have an alkalescent character, liquid preparations of iron are at least useless. Again if there be a tendency to constipation of the bowels, that form of this medicine, which consists in a combination of it with sulphuric acid, is most proper;[11] if the opposite state prevails, the muriated tincture is to be preferred on account of its stypticity. The ferri carbonas of the London Pharmacopæia is a very pure preparation of this metal, and may be administered when any of the preceding forms disagree. The dose is from five to twenty grains,

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9. The Thesaurus Medicaminum gives a formula from Sydenham for making the filings of iron into pills, by mixing eight grains of them with a sufficient quantity of extract of chamomile flowers. This quantity he directs to be given for a dose daily, with some bitter wine or infusion.

10. Tinctura ferri muriatis, ph. Lond.

11. Ferri sulphas, ph. Lond.

according to the age of the patient. I conclude these observations on this very valuable medicine with two remarks :

1.—That small doses of it often repeated, prove more serviceable, and agree better than large ones

2.—That unless the fœces be rendered black during the use of it, it is to be doubted whether a proper effect is produced on the system.[12]

The next medicine in this arrangement is Port Wine, which is a very powerful tonic, and of singular utility in the debility which is consequent to scrofula. Of an article with which every one is so familiar, it would be superfluous to say much ; but this very circumstance is no weak argument in its favour, as it is found to be taken even by children without disgust, or any of the prejudices that exist against medicine, when administered in the usual forms. The only observation that I have to make, regards the time of giving it. I have often remarked that its tonic and medicinal powers are more evident and more certain, if, like other medicines, it be taken between, instead of after meals, that is, on an empty instead of a full stomach. It is remarked by Dr. Lewis, that the more

12. For several of the preceding remarks I am indebted to the Treatise on the Materia Medica, by Dr. Lewis.

full-bodied wines are, the more permanent are their effects. In this I concur but with one qualification, that strong wines should be mellowed and matured by age; otherwise it is apt to be too stimulating and heating to be of service in this complaint.

Next in order are the Vegetable Bitters. It sometimes happens that the temperature of the skin is too high for the exhibition of the articles which have been enumerated. In this case light infusions of the root of gentian, of lemon-peel, of the flower of chamomile or the hop, will sometimes agree and give tone to the stomach, and prepare the way for the more active tonics. But when, in addition to heat of the skin, the action of the heart and arteries is also accelerated, every astringent is improper, and recourse must be had to the Mineral Acids.

Of these the nitric and sulphuric are by much the most serviceable. They have the singular advantage of giving tone without stimulating; hence it is that they can be advantageously used, when both metallic and vegetable tonics are prohibited by the excitement which they occasion. The former of these acids is, in my opinion, more tonic, and fitter to be given in cases where the relaxation and debility are great, while the circulation is quick, and the skin cold and damp; the

latter more refrigerant, and therefore better adapted to those cases, in which, at the same time that debility prevails, there is not only an increased action of the vascular system, but some firmness of the artery. When sufficiently diluted, and sweetened with syrup of roses, or of the red poppy, they both make elegant and very palatable medicines, which are taken, not unwillingly, by the most difficult persons. The dose of the diluted nitric acid for children, is from three drops to six, and for adults from ten to twenty; that of the diluted sulphuric acid is from five to ten drops for children, and from fifteen to thirty for adults. In these quantities they may be given four, five or six times in the twenty-four hours, with this only caution, that if they pinch the bowels, some mucilage of acacia should form part of the vehicle in which they are administered.

The concluding article of this class is the Cold Bath, the invigorating properties of which are very generally known. The principle of its action, has already been explained in this work.[13] It has been thought more advantageous for persons, requiring the use of the cold bath, to plunge into large, rather than small bodies of water. This I believe to be only prejudice. It certainly is not easy to conceive, that any difference can

13. See page 102.

result to the patient, whether the quantity of water be large or small; unless there be any corresponding variation of temperature, produced by the variation in bulk. This is not the case; for such a body of water as usually composes an artificial cold bath, will be as cold, if placed under similar circumstances, as ten thousand times that quantity. There may be less space for swimming, but, let it be remembered, that the long continued application of cold to the surface of the body is not a remedy for debility, nor even conducive to health. If therefore the patient merely plunges into a cold bath, and gets immediately out, the re-action of the superficial vessels must be as complete and vigorous as if he had bathed in an ocean.

As a remedy of scrofula, the cold bath deserves to be regarded rather as preventive, than curative. For the constant use of it, by giving tone to the surface, may counteract the operation of the causes of that disease. But when scrofulous affections have made their appearance, the use of the cold bath is evidently improper, till suppuration is induced, and the contents of the abscess are discharged. Under these circumstances, if there be no excitement of the system, the cold bath may very properly be employed. It is usual to bathe in the morning, when the stomach is empty, and it is proper that the skin be neither

hot with exercise, nor in a perspiring state. After bathing exercise is proper, as it serves to promote the re-action of the cutaneous vessels. Before the bath is used every day, it will be a proper precaution to go into it at first only twice, then thrice in the week.

Having endeavoured to ascertain the virtues of tonics as remedies of scrofula, and to determine in which some are preferable to others, I proceed now to the class of deobstruents. Of these quicksilver is by much the most efficacious. It is not however in its natural state, nor when its particles are separated by mechanical means, as in the pilula hydrargyri, and the hydrargyrus cum creta, that this wonderful medicine shews its powers over scrofula. It is in the forms which chemistry gives it that its efficacy is best developed. Of these forms the submuriate, the oxymuriate, the red oxyd, and the grey, or ash-coloured oxyd, are by far the most eminently useful.

The submuriate has been most highly extolled, and by those practitioners too, who have been able to give it the fullest trials. It is indeed a medicine of very extensive utility, and very extraordinary powers; and when it is judiciously administered, its virtues even exceed all the praises which have been bestowed upon it. When first exhibited this preparation generally proves pur-

gative in almost any dose, but the first passages soon become accustomed to it, and it rarely acts on them. A single grain formed into a pill, and taken at bed-time, will act forcibly on the bowels of children, and often on the stomach too; sometimes producing a very distressing langour for the whole of the following day. But after a short time, three and even five grains can be taken with less effect than was at first produced by one only. When the submuriate of quicksilver is exhibited with a design that it shall prove purgative, it is much more safe and less debilitating to the patient, to administer a grain or two at bed-time, with the syrup or infusion of senna, or any of the purgative salts on the next morning, than in large doses by itself after the manner of Wiseman. But when it is prescribed as an alterative, or as a deobstruent, its action on the bowels, and its peculiar tendency to affect the mouth is much diminished by combining it with sulphur, and diaphore. It was with this view that Dr. Plummer composed the very useful pill, which was long distinguished by his own name, but is now called by the college, Pil. Hydrargyri Submuriatis. In this pill the active properties of the submuriate are much blunted by the sulphur, while the antimony and guaiacum give it a determination to the skin.

The oxymuriate of quicksilver may be regarded

as the most subtile and penetrating preparation of this semi-metal; the fittest for pervading minute glandular structure, and for dissolving the obstructions of such parts. It is, I believe, rarely administered in a solid form, although it has been recommended to be made into pills, and to be given in the dose of a quarter of a grain four times daily. Its tendency to disturb the bowels is considerable, and can scarcely be controuled by opiates. Whenever therefore the oxymuriate is prescribed, the liquid form is preferable. Of the Liquor Hydrargyri Oxmuriatis, Ph. Lond. from eight to sixteen drops is a proper dose for adults, and from three to seven for children; it may be thus given thrice daily. Its general good effects are very much promoted by a large use of the simple, or the compound decoction of sarsaparilla. It is, I believe very well understood, that the conjunction of the oxymuriate of quicksilver with decoction of the woods and sugar, forms the vegetable nostrums, of which at one time the world heard so much.

The red oxyd is a very efficacious preparation, one grain of it being, as Mr. Hunter observed, equal to fifteen grains of crude quicksilver when triturated with conserve, or with chalk. On account of its tendency to affect the bowels, it is very usually combined with the extractum opii. This last article, however, by inducing costiveness,

seems to hasten the determination of the oxyd to the salivary glands, an event by no means desirable in scrofula. Sir Clifton Wintringham joined with it the sulphur lotum, in the proportion of one grain of the former, to five of the latter. This he continued during ten successive days, taking care to keep the bowels just open with infusion of senna, or with rhubarb. He then omitted it for a day or two, and again employed it, persisting in the use of it, with these short intervals, during six or eight weeks. He thus expresses his opinion of it: "Rarissime autem tale quid accidisse comperi, nullas enim turbas excitat hujusmodi Bolus, qui omnes interiores corporis meatus placide ingreditur, vasorum et glandularum obstructiones reserat, simulque, ut verbo quasi dicam, eas, cæteris omnibus remediis ferè innumerabilibus, quæ expertus sum, citius et tutius depurat."[14] Notwithstanding these praises, I am disposed to think upon the whole, that this oxyd is less useful than the submuriate, either as a purgative, or as a deobstruent; being in the former respect apt to cause severe tormina, with bloody stools, and in the latter to affect the mouth.

Of the grey oxyd of quicksilver the advantages are, that it can, like the oxymuriate, be administered in a liquid form, and is but little prone to

14. Vid. Append. ad Mon. ot Præc. Med. R. Mead, Auctore Clifton Wintringham; p. 213, 214.

disturb the bowels. It should be incorporated with mucilage, as in the following formula of Dr. Saunders:

R. Hydrarg. Oxyd. ~~Rubr~~ Cinerei gr. xij.
Gummi Acaciæ,
Mellis, sing. drach. ij
Aquæ distill. unc. vij. ss. m.

It may also be taken in a solid form. In either case, the dose is from half a grain to a grain and a half thrice daily for children, and from two to four grains for adults.

In scrofula as a constitutional disease, these and all other preparations of quicksilver are, however, very much less useful than they are commonly reputed to be; nay more, unless I am very much deceived, the incautious use of them will remarkably aggravate such scrofulous affections as are present, and even give rise to others, which possess all the characters of scrofula, and yield to anti-scrofulous remedies.[15] This injurious property of this valuable article has not, as far as I know, been attended to. The principle of it I take to be this; quicksilver, as is well known, has a peculiar and very powerful operation on the glandular system in general, but it has a still more powerful one on the absorbent glands in particular, and on the vessels with which they are connected. It is for

15. See the Appendix.

this reason that we administer it in hydrocephalus, and in other cases where fluids are deposited in cavities to which we can have no access with other remedies. But the operation of quicksilver is not confined to the deep-seated absorbents, it extends to those which are subjacent to the cuticle. Its action on these is to excite in them a disposition to absorb whatever is applied to their orifices, whether it be in a fluid, or in an aëriform state. Hence arises the utility of that practical caution, to patients who are under the influence of quicksilver, to guard themselves from exposure to a cold or wet atmosphere; it having been ascertained by experience, that while taking this medicine, they are susceptible in a remarkable degree, of the action of these causes of disease.[16]

The consideration of these circumstances leads me very much to doubt, whether the power which by many authors is ascribed to the lues venerea, of exciting the fomes of scrofula, supposed to be latent in the body, into action, should not rather be imputed to the operation of quicksilver on the surface of the body, when it is administered for the cure of that disease. Should the validity of this supposition be confirmed by future observation, it will afford additional probability to my conjecture, that scrofula depends on an increased, instead of an impaired action of the superficial absorbents.

16. Appendix.

That quicksilver, when administered in large and often repeated doses, is not a remedy for scrofulous tumefaction of the glands, is clearly shewn by Dr. Bond's cases; in both of which, the primary symptoms of scrofula continued, after enough of that medicine had been taken to excite salivation; and were afterwards cured by other means. But that when given in small quantities and accompanied by evacuants, it is a very powerful deobstruent, and as such, tends to resolve glands recently affected with scrofula, is a fact, the verification of which is in the power of every practitioner. It is on account of this property, that I am so solicitous that quicksilver should not be administered, as long as there is any danger of promoting absorption from a gland scrofulously enlarged and obstructed. I therefore conclude these observations on this most powerful remedy, by advising practitioners to refrain from employing it, either till suppuration is effected, and the contents of the abscess are discharged; or at least till the tumor begins spontaneously to recede. Then it may safely be administered, to render the gland completely pervious, and to hasten the exit from the system of that which obstructed the gland.

In the preceding observations on the preparations of quicksilver as deobstruents, I have in some measure anticipated what belongs to the sub-

ject of eccoprotics as such. In so doing, I was led by the deobstruent effects of aperients, being greatly increased by their having been preceded by quicksilver. But laxatives even by themselves, are powerful agents in removing obstructions in the vascular parts of the body. Of these none in my opinion are equal to the alkaline salts. From among these if there be any need of selection, it is in point of palatableness, and of the ease with which they produce their effects. I am accustomed to prefer the sulphate of soda, as being both easy in its operation, and free from any very nauseous taste. Occasionally the sulphate of potash is entitled to a preference as having a more remote operation than the preceding article. When these salts are preceded by any of the preparations of quicksilver, they may be taken with most advantage in the morning, otherwise at night. In this last way they are more likely to be taken up by the lacteals, and to pass into the circulation; where of course they will have a more extensive effect, than if taken in the morning, when they will seldom act beyond the first passages. If they are taken over night they should be more largely diluted, otherwise it signifies not how scanty is the vehicle in which they are dissolved. But of all the neutral salts the least unpalatable is the tartarized soda, which, in the dose of three or four drams, dissolved in meat broth, has scarcely any

medicinal taste. This may be taken for a great length of time, without at all impairing the health or strength.

Some people have a great predilection for sea-water as a purgative, and especially in scrofula; but it is not easy to say, upon what grounds this preference is founded. Sea-water is supposed to contain muriate of soda or common salt, in the proportion of one dram of the salt, to from thirty to fifty of the menstruum. Besides this, it holds a small but uncertain quantity of the sulphate of magnesia, and of muriate of lime in suspension. Its active properties as a laxative, obviously depend on the soda and magnesia; but it is no slender objection to it, that so large a quantity of the menstruum must be swallowed, to procure any aperient effects, for in a pint and a half of sea-water, taking it only at the average of forty, is but one dram of common salt. If therefore the muriate of soda be more eligible than any other alkaline salt, it is surely more expedient, and much more palatable, to administer the requisite quantity of it, dissolved in just as much pure water as is sufficient; the sulphate of magnesia, and the muriate of lime can easily be added. In this manner an artificial sea-water, equal in point of efficacy, and superior in elegance to the natural, may be composed as it is wanted, in the most inland parts of the kingdom. Thus the inconvenience of go-

ing to the sea side to drink this water, or of sending for it, is superseded. There is, however, an objection to the use of common salt as a purgative, which is, that it causes heat of the skin, and thirst, an effect which no other alkaline salt produces; and this inconvenience is certainly not counterbalanced by any advantage which it possesses over them. Before I conclude these observations on eccoprotics as remedies of scrofula, I will just remark, that in the long-continued use of them, it is proper to support the tone of the first passages, which the vegetable bitters are well calculated both to maintain and restore.

The next article in the class of deobstruents, is sponge calcined to blackness, and then pulverized. It has long been used as a remedy of scrofula, and even in the middle of the last century, its reputation was sufficiently established, to procure it admittance into the London and Edinburgh Pharmacopœias. It was then considered not only as serviceable in scrofula, but in some cutaneous defedations. It is a powerful deobstruent, and when used on this principle, often, but not always, satisfies the expectations of the prescriber. Perhaps it is employed with too little discrimination. Subsequently to the time above spoken of, its application was extended to the bronchocele, probably on the supposition that that complaint is of the same nature as scrofula, with which it has so many

analogies.[17] Whether this opinion be just, or the reverse, the calcined sponge has been said to be very effectual in relieving that complaint. It appears to have been for many years used at Coventry, as a nostrum both for scrofula and bronchocele; its composition was kept secret, and hence it was called the "Coventry Medicine." At length it was publicly recommended by Mr. Prosser, in a pamphlet written by him expressly for that purpose,[18] and by Mr. Wilmer.[19] With regard to the medical virtues of calcined sponge in other affections, I have observed that it is particularly serviceable in the labrisulcium. I have also noticed its great utility, in those anomalous swellings, which are not unfrequently met with after long continued, or often repeated courses of quicksilver. In the swellings of the absorbent glands of the neck, of the nature of which there can be no doubt, sponge is, I think, more particularly serviceable, when they have been enlarged during a considerable length of time. Under such circumstances, its effects are sometimes very striking.

The calx, or imperishable part of the sponge, is supposed by the chemists, as well as by some practitioners and writers, to differ in no respect, as to its medical properties, from the carbonate of

17. See page 77 18 Prosser on Bronchocele.

19. Wilmer's Cases in Surgery.

soda. I have often given the former of these articles, and occasionally the latter, but I have not witnessed the same good effects from the soda, as from the sponge. I therefore conclude that there is a difference between them, although it may be only discoverable in their relative effects on the human body.[20] The calx of sponge may be given in powder, troches, electuary, decoction or infusion. In powder, mixed with any vehicle extempore, its virtues are more certain of being unimpaired; but the form of troches or lozenges is recommended in the bronchocele, as the sponge is thought, when thus administered, to have a local, as well as a general effect. The troches of sponge are made, by uniting it with mucilage of acacia, and white sugar. When these articles are thoroughly incorporated, they are to be formed into lozenges, and be dried before the fire, or in an oven. Each lozenge should contain half a dram of sponge, and is to be placed under the tongue, there gradually to dissolve, and, as it dissolves, to be gradually swallowed. This dose may be repeated twice, thrice, or oftener daily. This is undoubtedly an efficacious method of administering sponge, as by its previous admixture with the saliva, its solution in the stomach is much facilitated; it is also with a

20. Turner relates a case of tumors in the glands of the neck, in which sponge was eminently serviceable after every thing else had failed. Its action was so remarkable on the kidneys, that the patient, who was a clown, remarked it to that writer. See Appendix.

little use an agreeable one. To the form of electuary if it be recently made, there can be no objection. The decoction or infusion of sponge should only be had recourse to, when the patient cannot conquer his dislike to any of the preceding forms.

A very eminent and experienced physician, Sir Edward Hulse, always added rhubarb to the sponge, as an aperient, unless it proved laxative of itself. And I believe it will be found, that whenever sponge proves particularly serviceable in scrofula, it is by producing sensible effects on the excretories. I therefore always unite with it, either the acetate of potash, the syrup of senna, or in fuller habits, the syrupus rhamni, with or without the acetate.

One article in the class of deobstruents, yet remains to be noticed as a remedy of scrofula. It is the powdered bark of the root of Mezereon, Daphne Mezereum, Lin. It is to be powdered as it is wanted, and may be given, in the form of a pill, in the dose of from one quarter of a grain to a grain, or a grain and a half, three times daily. The quantity must be very gradually increased, as mezereon in substance is extremely acrimonious, and apt to produce flatulence in a very extraordinary degree. The cases in which this very active and penetrating medicine is chiefly applicable, is

in scrofulous tumefaction of some duration; and in those thickenings of the periosteum, which are often misjudged to be scrofulous. A more dangerous mistake is to consider them venereal, which, as they often succeed to venereal affections, is not unfrequently made. When this happens, recourse is usually had to mercury, which seldom fails to multiply them, although they generally yield for a time to that powerful remedy; but fresh affections of the same nature, often arise before the mercurial course is finished, and serve to convince the intelligent practitioner of their true nature.

There are a few other articles which have been reputed to be serviceable in scrofula, and which, as they could neither be classed with tonics or deobstruents, I purpose to speak of here as heteroclites. These are cicuta, muriate of barytes, muriate of lime, the decoctions of the woods, and the warm bath.

As far as my experience goes, I regard cicuta as a medicine of very little utility in scrofula. I cannot however, say that I have formed this unfavourable opinion, from a trial of it in a great many instances. My employment of it has been inconsiderable, and therefore my report must not be considered as at all decisive. In one case of thickening of nearly half the tongue, with ulcera-

tion at the edge of it, the extract of hemlock was given, but in conjunction with the submuriate of quicksilver; and the patient grew well so readily, that his cure was attributed to the cicuta. The patient had been afflicted with lues venerea, and quicksilver had been given in sufficient quantities to excite salivation. The mouth had been extremely sore, and the tongue very much swelled, and in some parts ulcerated. In other respects the mouth became well, and the mercurial irritation had subsided, but the tongue continued in the state above described. Under these circumstances, the extract of hemlock was administered in the dose of two grains twice daily, and although two grains of the submuriate of mercury were also taken twice a week, it seems probable that the cicuta was the efficient remedy. The disease was supposed to be scrofulous.

Cicuta may be administered in either a solid or a liquid form. The former is by much the most usual, and, as it disturbs the stomach least is preferable, But pills are occasionally disgusted, and swallowed with great difficulty. In this case the extract may be dissolved, or rather suspended in water. The following formulæ of Dr. Stoerk, and Dr. Collin are transcribed from the Thesaurus Medicaminum:

"Take of the inspissated juice, or extract of

hemlock one dram, powder of the dried leaves of hemlock, enough to make into pills each weighing two grains.

Dose at first, one pill night and morning, to be afterwards increased by degrees to as much as the constitution will bear.

Take of the inspissated juice of hemlock,
half a dram,
Any distilled water, seven ounces,
Syrup of white poppies, one ounce. Mix.

Dose a large spoonful three or four times a day."

In administering cicuta, the rule is to begin with a very small dose, and to go on increasing the quantity till it affects the head or stomach. At this time, its salutary effects ought to be produced, and if, when it thus acts on the constitution, no benefit is afforded to the complaint for which it is exhibited, none can be expected from it.

Great expectations were at one time entertained, that the muriate of barytes would prove a valuable acquisition to the class of antistrumatic remedies, but the very ardent hopes which were raised, by the too flattering representations of Dr. Crawford, have not, I believe, been realized in practice. I am not quite sure that I understand the principle, upon which the combination of

barytic spar with muriatic acid was founded. Barytes is an alkaline absorbent earth, chiefly remarkable, as its name terra ponderosa imports, for its weight, being twice as heavy as clay, limestone, or magnesia. The muriatic acid may be regarded as the basis of sea-water, in a concentrated form. Was it then designed by Dr. Crawford, to form a compound, which should combine the virtues of an absorbent earth, and of sea-water? If it was, its failure would excite no surprise in my mind, for the notion that scrofula depends on acidity of the fluids, has, I presume, been shewn to be foundationless; and sea-water, I am quite convinced, has no power whatever over that disease, except when it proves laxative. It is a remark, I think, of Dr. Ferriar, that when the muriate of barytes appeared to be serviceable, there was reason to doubt that the acid had not been saturated with the absorbent, and that it alone proved useful by its tonic properties.

If, however, any person is disposed to make a trial of this medicine in scrofula, he may give Dr. Crawford's saturated solution of it in the dose of from three to twelve drops twice daily. It will be rarely if ever, proper to exceed the dose of eighteen drops; but it will be always unsafe to increase the dose, if nausea, vertigo, or any other disagreeable symptom has arisen from its use.

The combination of muriatic acid with lime, forming the muriate of lime, seems to have been made in imitation of the preceding article. At least the principle is very much the same in both. Barytes, however, had the recommendation of novelty, for it was unknown to the materia medica; whereas lime, as well as the other absorbent earths, had long been in use as antistrumatic remedies. The ground, on which lime was regarded as a suitable medicine in scrofula, was that it was believed to have a like power to prevent that coagulation of the fluids, in which scrofula was at one time supposed to consist, with that which it visibly had on milk. It was moreover an absorbent, and as such was thought competent to neutralize the acidity of the fluids. It was, however, generally administered in a liquid form, such as the Liquor Calcis of the Lond. Phar. I have reason to believe that lime-water sometimes proves serviceable in scrofula; it is not, however, as an absorbent, nor as a specific, but as a tonic; a quality, which the stypticity of the lime might well be supposed to impart to it. Occasionally also it proves diaphoretic, and sometimes diuretic; when such are its effects it may be regarded as a deobstruent. But the muriate of lime is, in my opinion an useless compound, and unfit to be relied on for the cure of any one symptom of scrofula. When lime-water is used in this complaint, it may be drank in the dose of from one to four ounces,

according to the age of the patient, three or four times daily. By mixing it with an equal quantity of milk, it is rendered not only more palatable, but sits more easily on the stomach.

Decoctions of the woods, and the substances themselves, from which those decoctions are prepared, although eminently serviceable in the constitutional affections which are sometimes consequential to the free use of mercury, and which are often reputed to be scrofulous, are of such little use in tumefactions of the glands, that they are rarely mentioned by modern writers among the very numerous remedies of scrofula. They are, however, very useful auxiliaries to the liquor hydrargyri oxymuriatis, which I think, should not be given without them. The sarsaparilla in substance, is remarkably serviceable in those cases, which appear to partake of the nature of scrofula and lues, especially when there is an ulcer. It may be taken in the dose of from half a dram, to a dram and a half, or two drams, in the compound decoction of sarsaparilla, twice or thrice daily.

Of the warm bath as a remedy of scrofula, I can say nothing from my own experience, having never employed it. It is however highly recommended, and may be supposed to promote the cuticular discharges. If there be any doubt about it, it is as to its tendency to increase the

relaxation and debility, which attends scrofula when it becomes a constitutional disease. The proper temperature of the warm bath, is from ninety to one hundred degrees of Fahrenheit's scale; the patient should not sit in it for a shorter time than a quarter of an hour, nor for a longer than half an hour.

I should feel that these remarks on the curative means of scrofula were very imperfect, if I were to pass over in silence, the singular utility of drains in this disease. Their good effects, indeed, have been very generally acknowledged, notwithstanding which, they are but little more in use, than if their merits, instead of having been ascertained, still continued doubtful. From my own observation, as well as from the testimony of others, I am disposed to estimate them so very highly, that in every case where scrofula either is, or is likely to become a constitutional disease, I recommend the formation of an issue. Of the manner in which drains act, in the cure, or prevention of scrofula, as a constitutional disease, various accounts have been given; but I feel most satisfaction in considering the local irritation which they maintain, as engaging the attention of the constitution and thus preventing the affections of other parts. It is no improbable supposition, that when the fomes of scrofula has passed by absorption into the system, it may here be

deposited and find an exit, instead of falling on the lungs, or other important parts of the body. And when it is considered, how slight is the pain of making an issue, how inconsiderable is the inconvenience of maintaining it, and with what safety it may at any time be closed, there can, I think, be no hesitation in adopting it, as a most promising effort, to secure the constitution from the attack of scrofula as a secondary disease, as well as to free it from such disease when it is already present.

The part generally chosen, as most convenient for the seat of an issue, is at the insertion of the deltoid muscle in the humerus.

CHAPTER XII.

OR THE

APPENDIX.

Containing Proofs and Illustrations of the Doctrine, which has been advanced in the preceding part of this Work; together with Cases, exemplifying the Practice which is there recommended.

CASE 1. See page 85.

"A little child in her maid's arms, received a kiss from a girl of the town, who accidentally passed by. The cuticular covering is remarkably thin on the edge of the lips, and allowing the blood to appear more readily through it, gives them their greater redness. A chancre on the projecting part of the under lip, was the consequence of this salute, which in a few days made its appearance, and resisted every application for a fortnight. At length it yielded to mercury, and thus shewing itself to be venereal, recalled the circumstance of the kiss, which but for this had passed unnoticed. Had the venereal matter been applied to the cheek externally, it is probable from

what we see daily, that it might have lain some time without producing any effect, and at last have been wiped off; or at least that it would not have produced chancre sooner than in a fortnight, or perhaps six weeks."

Cruikshank, as quoted by Clare, in his New and Easy Method of curing the Venereal Disease.
Ed. 3. p. 28, 29.

CASE 2. See page 122.

A middle aged person, of a weak habit of body, had been for some time indisposed in his general health, when an abscess formed in his left axilla. Under the use of poultices, it suppurated, and was opened, but at the end of seven weeks, the cure of it was not at all advanced; for the local disease, being supposed to be dependent on some constitutional cause, was opposed by internal means, while the affected part was merely covered with a poultice.

The cavity being examined with a probe, was found to penetrate nearly to the scapula. By my desire, the poultices and internal medicines were discontinued, the cavity was syringed with a saturated solution of myrrh in lime water, and compression was made on it by the figure of eight bandage, applied as in fractures of the clavicle. By

these means the local complaint was very readily cured without any injury to his general health.

CASE 3. See page 122.

A Mason, aged about fifty, was attacked with pneumonia, which nearly proved fatal to him. During his convalescence, an abscess formed in the axilla, which his surgeon, designing to bring it to suppuration, directed him to poultice. But some officious old women dissuaded him from pursuing this plan, and applied discutients. The consequence was, that although suppuration was too far advanced to be prevented, yet maturation of the abscess was retarded, and the thinning process could not go on. The contents of the abscess, being thus repressed from the surface, dissected their way through the cellular membrane to some distance, and there, eluding the vigilance of his doctresses, formed an external opening, and made their escape. But as at the end of three weeks, the opening shewed no disposition to heal, while the discharge from it continued to be very considerable, he returned to his surgeon, with whom I had visited him in his former illness. The cavity of the abscess was very extensive, but did not descend to a sufficient depth to intersect the muscles. A curved probe being introduced at the opening, was pushed gently on, till it reached the most dis-

tant part of the cavity; an incision was then made through the skin, where the rounded extremity of the instrument was felt, and a skein of silk, inserted in the eye of the probe, and thickly spread with the unguentum hydrargyri nitrico-oxydi, was drawn through both openings, and then cut off. At the end of a few days the seton was withdrawn, the solution of myrrh in lime water was injected through both openings, compression was made on the surface, and union very quickly followed.

CASE 4. See page, 127.

A female aged seventeen, of a fair complexion, a habit somewhat full, and in perfect health, was attacked with scrofula in the jugular absorbent glands on the left side of the neck. In compliance with a vain and senseless, but by no means an uncommon custom in this part of the kingdom, the cure of this tumor was entrusted to a clown, who chanced to be the seventh son of his mother. It was expected of this person, that, by making the sign of the cross on the swelling with his finger, he could chase it away, as it were by a charm. Under the influence of this infatuation, and that she might have the full benefit of his conjuration, this charming young woman was in the daily habit of going several miles, at a very early hour in the

morning, and through an extensive marsh, which, on each side of the road, was nearly covered with water.

At length, the tumor being observed to increase, she placed herself under the care of a very skilful and judicious surgeon, who recommended her to apply poultices to the tumor; but the dread of having her neck deformed with scars, which she thought unavoidable, had taken such full possession of her mind, that she would not be prevailed on to use any means, that might promote suppuration. But the tumor advanced of its own accord, and soon became an abscess, with a very manifest fluctuation. Her surgeon now intreated her to allow him to evacuate its contents, but in vain, for she obstinately persisted in refusing his assistance. At length it became too late, for the fluctuation, which had been so evident, was now no longer perceptible, and the parietes of the abscess were flaccid, pendulous, and empty.

In these circumstances I was desired to see her. I found her health very much disordered; her strength so reduced, that she could not walk without help; her pulse, at midday, above a hundred; her chest affected with pain, cough, and great difficulty of breathing; and her skin cold and damp. In a word, hectic fever was fully formed. Moreover, in different parts of the surface of the body

and of the limbs, there were patches of a blue or purplish hue, not raised above the level of the adjacent skin, which bore no faint resemblance to the discolourations which are made by bruises, tanquam vestigia sugillationum, as Mead says, speaking of the same appearances in scurvy. Of these patches, many had already ulcerated, and formed sores, on which no dressings had any influence. Many of her joints also were stiff, painful, and enlarged.

In so deplorable a case, I had nothing to propose with any hope or prospect of success; but another physician, who was called into consultation, thought highly enough of the muriate of lime, to urge a trial of it. It was, in my opinion, at least useless; but in that of the patient and her friends, it was injurious.

At this time she resided nearly in the centre of a large marsh, which, during at least four months in the year, is entirely covered with water, and at other times is subject to frequent, but not lasting inundations. I urged her to quit this place, and remove to a warmer and drier atmosphere; this she did without delay and went into a neighbouring town; but so complete was the mischief, occasioned by the absorption of the contents of the abscess into the system, that the symptoms, par-

ticularly those of phthisis, became hourly more distressing, and death soon closed the scene.

CASE 5. See page 127.

A boy aged fourteen, a native of the sea-coast, was attacked, while at school, with scrofulous tumefaction of the submaxillary glands; which after attaining considerable size, and seeming to be advancing to suppuration, subsided subsequently to the exhibition of purgative medicines. In a short space of time, the joints of the hands and feet began to swell, and at length ulcerated, pouring out a serous fluid in considerable quantities, and occasionally pus mixed with cretaceous substance.

This affection, which in common language is called the joint evil, continued during several years, and was in no small degree aggravated, by his being directed, on the mistaken supposition that his case was gout, to follow a very abstemious regimen. He was therefore debarred the use of animal food, and of malt, and all other fermented liquors, and confined to water; in the hope, which his physician inspired, that by these means his constitution would be entirely changed. He was, however, soon guided by his feelings, to find out the disadvantages of this plan; but did not ven-

ture to change it on his own judgment. In this state of doubt he applied to me. I had no hesitation in reversing the directions which had been previously given, as it was clear, that the theory and practice were both wrong; and allowed him a generous mode of living. By these means, together with the use of burnt sponge, cinchona, and local dressings, he received much benefit, and would in all probability have recovered his health, with the loss of some of his fingers and toes, which had long been nearly rotted off, if he had not been misled by some well-meaning, but ill-judging friend to go to Bath, and there to apply the waters with a view to strengthen his limbs.

The consequence was, that the fomes, which had so long wasted itself on these remote, and comparatively speaking, unimportant parts, being now no longer able to find a vent at these outlets, fell on the lungs and induced phthisis, which destroyed him with incredible rapidity.

CASE 6. See page 137.

Six weeks after infection, a chancre appeared on the prepuce. During a fortnight the patient merely kept it clean, but as it maintained its ground, he then touched it with the nitrate of silver, and it skinned over. Three weeks elapsed

after this, when a bubo was found to have formed, and as some doubt of its real nature was entertained, it was allowed for a week to pursue its own course. He then became alarmed, and applied for advice.

The part, which had been the seat of the chancre, was thickened and indurated, and had lost its natural colour; and the rise and progress of the swelling in the groin, together with the previous history, left no room for doubt that the case was altogether venereal. It was therefore determined, that he should enter on a mercurial course that same day; but a saline purgative was first administered to carry off whatever accumulations might be present in the alimentary canal. And as it was hoped, from the slow progress which the bubo had made, and its indolent character, that it might be prevented from going to suppuration, the mercurial friction was confined to the corresponding thigh; and no preparation of quicksilver was administered internally, lest by a premature affection of the salivary glands, the further use of the friction should be prohibited. But the purgative had very nearly frustrated these precautions; for before its operation was over, the tumor became larger, severely painful, and the skin which covered it was highly inflamed, and very tender. It was, however, soothed by the constant use of the liquor ammoniæ acetatis, and the friction was con

tinued during six days, but without making any reduction in the size of the tumor. The gums and cheeks of the patient were now become very tender, the secretion of saliva was increased, and the fetor plainly shewed that the quicksilver was too strongly directed to the mouth to be continued any longer, without a counter-determination. It was therefore necessary to repeat the purgative, but the tumor was again excited by it, and enlarged so rapidly and with such distressiug pain, that no hopes of relief were afforded, but by promoting suppuration. An effort was, however, made, by the application of leeches &c. but in vain; for on the following morning the patient awoke with nausea, rigors, and fever, and great increase in the size and pain of the tumor, and he desired that it might now be permitted to suppurate. It was therefore fomented and poulticed. It was howerer observed, with much satisfaction, that the thickening, the hardness, and the paleness, the vestiges of the chancre, had left the prepuce, being subdued by the action of mercury on the system.

On the fourth day after the application of the poultice, suppuration was sufficiently advanced, although the thinning process was imperfect, to enable me to evacuate the contents of the abscess. I accordingly discharged through a small incision, nearly three ounces of pus mixed with blood, then

dressed the wound with a pledgit of digestive ointment, and made gentle pressure on the cavity, with a silk handkerchief folded up in the shape of a compress, and secured in its situation with the spica inguinalis bandage. When these dressings were removed, some inflammation was observed round the incision, and a slight fluctuation was felt; a poultice was therefore applied for a few hours, which by relaxing the orifice, gave vent to a further discharge of, as was computed, about half an ounce of pus. The digestive and compresses were now again applied, but the pressure was made with as much firmness as could well be employed, and continued during that and the next day. Upon removing it, the parietes of the abscess were found to be firmly coalesced, the incision healed, and the part to be free from tenderness. The induration which remained, was dissipated in a short space of time by the ung. hydr. mitius, joined with camphor, and the liquor plumbi acetatis; and the patient had no occasion for the further use of medicines, nor did any secondary symptons supervene. My attendance on this patient commenced on the third of December, 1798, and closed on the 20th.

Case 7. See page 137.

Nov. 28, 1802— Three days ago a Gentleman discovered that he had chancres. He takes the

quicksilver pill in the dose of ten grains thrice daily, and is gradually to increase it till he arrives at double that quantity. Dec. 5. The pill has proved purgative, notwithstanding the use of a powder, composed of chalk, rhubarb, and opium; and absorption has taken place from the chancre, and produced bubo. He therefore omits the pill, and uses mercurial friction largely, on the thigh corresponding with the affected groin.

Dec. 12 — The mouth is very much affected, and the chancres are healed; but the bubo increases in hardness, tenderness, and prominence. As there are no hopes that it can be prevented from suppurating, he is directed to poultice it.

16—Fluctuation in the tumor is very manifest. It was proposed to discharge the contents of it in the usual way, but the patient's extreme dread of an ulcer,[1] induced me to imitate the practice which succeeded so well in the preceding case, but with some variations, which, I augured in my own mind, would be improvements of it. With a very narrow-shouldered lancet, I made an horizontal opening into the cavity in its most dependent part, and just above the margin of the indurated skin and cellular membrane, which bounds and confines, as it were, the abscess. The lancet, which was carried on till its point reached the

1. See page 161.

centre of the cavity, being withdrawn, about a table-spoonful of bloody pus was discharged, and that none might remain, pressure was very freely employed. The lips of the small wound were now adjusted, and the parietes of the abscess were covered with a pledgit of mild ointment. Over this a thick graduated compress was applied, and very firmly bound on by the spica bandage.

18.— The dressings being removed, the wound was found to be perfectly healed, but the surfaces of the cavity were not perfectly united, so that the integuments imparted to the touch, a sensation not much unlike the fluctuation of a fluid. But neither pain nor tenderness were present, only the surrounding hardness had undergone no alteration. The bandage and compresses were therefore re-applied, but so as to make a greater pressure, which was effected by increasing the size of the pile.

21.—On removing the applications, the parietes of the abscess were found to be perfectly united, nor could any hardness be felt. Nor was there any observable difference between the sound and the affected groin, except in the colour of the skin.

Jan. 11.— Some discolouration remains. In other respects the patient is well.

CASE 8. See page 152.

" Observatio casûs non vulgaris de Sarcomate in Arteria Axillaria reperto, communicata à cl. viro Ed. Duke, M. D.

' Die 5to Aprilis, Puella quædam 16 annorum, Filia Nobilis Viri, febricitavit et capite dolebat. Die sequente de cervice rigida et dolente conques ta fuit. Tertio Tumor occupavit humerum. Quarto vocatus adfui, Febre laborantem inveni, et tumore circa humerum gravatam. Huic menses paulo antea substiterunt, et fallaci impetu in massam sanguinis traducti ejus molem adauxerunt, collisisque ad invicem particulis putridis febrem excitaverunt, cujus ope natura partem sanguinis concitati ductilisque in humerum, (sui levandi causâ) transtulit. Apparatus sane pro Phlegmone notha struenda idoneus. Hisce perpensis, revulsio instituitur, per phlebotomiam in latere opposito, præmisso clystere, nec non discutienta Tumori adhibentur, febrisque pro more suo tractatur. Septimo die chirurgum vocavi, artis peritissimum, Dominum R. Wiseman. Ad trutinam res denuo revocatur, et ex indicatis ducimur revulsionem repetere, placidéque per media conferentia humorem ducere, *sine tædio et incommodo Suppurationis.* Elapso autem biduo adsunt Abscessus maturescentis indicia, et commodum satis Materia in musculo Deltoide circa ejus initium præsentium sui testabatur, cui per Caustitum datur exitus. Aperto

Apostemate, effluxit illico pus laudabile, quod per intervalla debita etpartitum fuit eliminatum. Tertio post apertionem die consistentia Materiæ tenuior et male olens : quinto autem in saniem degener, cum fætore insigni et cadaveroso. Chirurgus ad mundificantia progreditur : sed sub examine cavitatis occurrit nescio quid grumosum, seu potius densa et thrombo magis cohærens substantia cruenta. Stylo igitur exploratiorio undiquaque per Abscessus cavernam circumacto, ductus versus interiora detegitur caute interim tractatur ulcus, ne sanies effusior vires attereret : ultro tamen per noctis intervalla effunditur, et certiudinem erosi vasis confirmavit. Iam tandem Catarrho perpetim in fauces depluente, aphthis os et gulam obsidentibus, febreque scintillante in materia maligna, quæ sparsa et indomabilis sub uniformi naturæ concoquentis opificio subigi recusavit, virtus vitalis fatiscit, et morbus insolens vigesimo primo ab invasione die de natura triumphavit. Aperto cadavere, ecce, cruentum illud coagulum, seu figmentum sanguinis ad latera claviculæ conspicitur, perque semitam arteriæ axillaris frequenti hujus substantiæ conspectu ducimur recta ad cordis ventriculum sinistrum, quo loci ad ovi columbini magnitudinem congestum invenimus Sarcoma pellicula densa circumvestitum. Mirum sane hospitem tam male moratam palatio illo toto frui, sine ullo viventis de dolore cordis sensu, vel symptomate læsarum ejus exinde actionum eminenti. Imo per totum morbi

decursum. interrogata quomodo se haberet, quam optime se corde valere respondit; et sponte etiam non longe ante obitum in eadem verba prorupit."

Wiseman's Chir, Treatises,
8vo. Ed. Vol. 1. B. 1. Ch. 3.

CASE 9. See page 165.

A Girl, thirteen years of age, who had been on the preceding day exposed in an open carriage to a cold and wet air, complained of pain and tenderness on one side of her neck. There proved to be a general enlargement of the superficial absorbent glands of this part, but some were distinctly larger than others. The whole were covered with the resin plaster, by the warmth of which, the fomes in the smallest of them was digested, and they resolved; but two principal ones grew larger, and shewed by the redness of the integuments, and the increase of tenderness, an evident disposition to suppurate. Each was therefore covered with a small cataplasm, consisting of equal parts of the unguentum elemi comp. and of bread and milk. For some days their progress was but slow, but by applying the composition of turpentine, &c. they advanced with much more rapidity. As soon as fluctuation became manifest, and before the thinning process had advanced far, the tumor which was most forward, was opened in the manner before described,

and its contents, not exceeding nine or ten drams, were discharged. But as the other tumor was not sufficiently mature for being punctured, no compression could yet be made on that which had been; it was therefore requisite to close the orifice of this last, and to postpone the application of pressure. At the end of two days the second tumor was fit to be punctured, and its contents were also evacuated at once. The parietes of the tumor which had been before opened, had not adhered for want of compression, and as they imparted to the touch a sensation of fluctuation, I hesitated whether I should separate its orifice, and force out whatever fluid there might chance to be within it. Recollecting, however, the result of case the seventh, where a similar sensation was communicated to the touch, by mere flaccidity of the integuments, I resolved to try the effects of pressure on it. Compression was therefore made on both, and I had the satisfaction to find, upon removing the cravat and compresses, that union had taken place. It was, however, less perfect in the first, on which account the compresses were re-applied on it, and kept on it for a day and a night longer. The patient was now put on the use of the submuriate of quicksilver at night, with the sulphate of soda in the morning; and anointed the indurated bases with an ointment composed of the submuriate of quicksilver with axunge. After a few days, as some debility

was present, the submuriate and sulphate were discontinued, and an electuary of burnt spunge, cinchona, and the syrup of senna was substituted, and port wine was allowed. By these means the local affections were dismissed without any deformity, or any ill consequences to the general health.

CASE 10. See page 173.

A healthy child, five years of age, awoke with a stiff neck, and complained of much pain, when the skin on the left side of it was put on the stretch. She therefore found ease by inclining her head towards the left shoulder. On examination, I found that some of the absorbent glands, near the external jugular vein, were enlarged and exquisitely tender. She had besides considerable pyrexia, and was therefore put on low diet, and directed to take the nitrate of potash, with the tartarised antimony. The tumor was covered with the emplastrum resinæ. Three days having elapsed; the child continued very much indisposed in her general health, and was unable to move her head without much pain. The integuments which covered the tumor were also much increased in redness, and the tumor itself was more prominent. The plaster was therefore changed for a cataplasm composed of the bread poultice with honey. This application was renewed twice

daily during four days, when on removing it for my inspection of the tumor, the skin was found to have just given way, owing, as it seemed, to the poultice having stuck to the skin in this particular part, and to its being taken off too hastily. The contents of the abscess, which consisted of very thin pus intermixed with coagula, issued through the small opening with considerable impetus, although it was every now and then restrained by the flakes, which choked the orifice till they were removed by the forceps. When about an ounce and a half of matter had escaped, I closed the aperture with a small cone of sponge, over which some slips of adhesive plaster and a cravat were applied. The child was now able to move her head with ease, and the symptomatic fever was very much abated. On the two following days a further evacuation was made; and on the next, the quantity of matter that remained not exceeding five drams, the abscess was completely emptied, and the orifice was united with court-plaster, in the manner which has been described. Over the parietes of the tumor a pile of compresses was applied, and secured with a cravat drawn as tight as the child could be prevailed on to bear. She was now restored to full diet, and allowed to drink port wine, in which was concealed fifteen drops of the muriated tincture of iron. She took also the submuriate of quicksilver with syrup of senna.

In this instance, although the integuments burst of their own accord, which was owing to the thinning process having gone further than it ought to have done, the cicatricula was so small, as to require very minute inspection to be seen, yet I should have very much preferred an artificial opening, but the child was of an ungovernable temper, and could hardly have been kept sufficiently still for an operation that requires to be so nicely performed.

I have selected these two cases from a great many others, as best adapted to illustrate my method of treating scrofulous tumors when they are convertible into abscesses. It would be easy for me to multiply them, but no use could result to the reader from my doing so.

CASE 11. See page 122.

Mr. ——— applied on the ninth of December with a disease which he supposed to be venereal, and which he had reasons to suppose he contracted on the first of September preceding. He had no gonorrhœa, nor any other affection of the penis, the usual antecedents of lues, but he had two or three enlarged glands in each groin. He rubbed in mercurial unguent for three weeks, within which time the glands about the neck, and the poll, also became enlarged and indurated. I

doubted that it was venereal, and to satisfy myself and him, I advised him to consult you. He did so, and under the use of Plummers's pill, the extract of cicuta, with bark and burnt sponge, he got a perfect cure. I know nothing which I can add to this statement, but it will give me pleasure to answer any questions you may please to ask on this subject."

Communicated by Mr. Board, a very skilful and judicious surgeon, of Huntspill, Somerset.

CASE 12. See page 186.

A Girl, eleven years of age, pale and lean from illness, had laboured for a year and a kalf, under a disease in the immediate neighbourhood of the ancle joint. The joint appeared to be larger than the natural size; this, however, was owing to the emaciation of the muscles of the leg, which were so shrunk, that the limb seemed to consist only of bone and skin, for upon measuring and comparing the two ancles, there was scarcely any difference. The skin covering the affected joint, was red, glazed, and elastic, and very tender, even when gently touched. On pressing it, a thin serous discharge issued, in considerable quantities, from two small outlets, one exterior to the joint, and near the extremity of the fibula, the other interior to it, and near the extremity of the tibia. A probe introduced at one of these openings, passed on

two inches and a quarter; at the other, rather more than an inch; but there was no evidence that they communicated.

As her appetite was good, her strength not very much reduced, and as no symptoms of hectic fever were present, it seemed worth while to attempt to save the joint, which had been already condemned as a necessary sacrifice to preserve the life of the girl. I therefore directed some leeches to be applied to the inflamed skin, together with cold applications, and a blister at a small distance above the ancle. At the end of a few days, the tenderness was so much lessened by these means, that the part bore pressure without inconvenience. I now directed the saturated solution of myrrh in lime-water to be injected at each opening, and retained in the sinuses during two minutes; when it was suffered to escape, a pledgit of ointment was applied to each opening, and a roller with compresses round the joint. But an inconvenience arose from this practice, which was, that while the discharge was evidently increased, it was so pent in by the compression, that it could find no vent. Indeed the secretions from the sore, seemed much to exceed in quantity, what sinuses of such dimensions should supply. It was therefore determined to examine again with a probe, on the suspicion that the sinusses might communicate with each other; and by bending

the instrument in different directions, it was at length, after many fruitless trials, found to pass from one sinus to the other, and to go fairly through the limb. While the probe remained in this situation, part of a skein of silk was inserted in its eye, and it being covered with the ung. hyd. nitrico-oxydi, was drawn through both sinuses, and being cut off from the probe, was left in the part. The seton, after having been kept in the sinus a week, was then gradually withdrawn, by taking away one end of the silk at a time. The lime-water and myrrh injection was again taken up, and as the discharge diminished, compresses and a roller were employed; at length the sores were entirely healed. Dry friction to the leg helped to restore the plumpness of the muscles, and passive motion the use of the joint; so that she walked as well as she did before the attack. The only medicines which she took were bark, steel and sponge. About a month after her cure, she was attacked with ophthalmia tarsi, which yielded readily to common remedies.

CASE 13. See page 186.

A girl of a robust habit of body, and about fifteen years of age, was attacked, without any assignable reason, with stiffness of the left elbow-joint. As the symptoms were of a very passive character, she imagined there was no danger,

and was under no alarm. At length, however, she found that the difficulty of motion in the joint increased, and that the tumefaction became more considerable, and more rapid. Her general health too began to participate in the disease. She therefore applied for advice, but as the tumor was regarded as undoubtedly scrofulous, she was directed to let it take its own course. This seemed to her, to threaten consequences, the extent of which could not be calculated, and as one told her she would lose her arm, and another her life, she resolved to be further advised. Some time, however, was lost, while she was taking this resolution, so that when I visited her, the integuments were not only very much distended, but the thinning process had advanced so far, that it was doubtful whether any further delay, would not be attended with the bursting of the abscess, and the consequent exposure of its cavity. To prevent this, I punctured the tumor, and let out three ounces of ill-digested pus, mixed with coagula. This timely evacuation relieved the distention, and afforded the patient considerable ease for the present, as well as security for the future. The orifice was closed, and secured with court-plaster, and a roller. At the end of two days, a further discharge was made of about two ounces, the whole quantity contained in the abscess, as far as a judgement could be formed by the degree of distention, and by the impetus of

the stream, being too much to be let out at once. After a further interval of three days, the abscess was entirely emptied, and very firm compression was made on its parietes, with compresses and a roller. But it was found, that even when the fluid was evacuated, the joint exceeded its natural size. She was therefore advised to apply a small blister near it, and make it perpetual. This gradually reduced the joint to a healthy state, and restored to it the power of motion.

CASE 14. See page 206.

A person, aged 24, applied for the cure of complaints, which had been, during a space of two years, regarded and treated as venereal. He gave the following account of them. A chancre made its appearance, and was in the course of a few days healed by the exhibition of quicksilver. But the seat of it, continuing hard and pale, in less than three weeks ulcerated afresh. He again resorted to the use of quicksilver, and within a week the sore was healed, and without any remaining hardness. As a precaution, however, he continued to use the medicines for a month. Two months had now elapsed since the chancres had been healed, when the patient, who was a naval officer, was the bearer of dispatches to the Admiralty, and the occasion was so urgent, that for six successive nights he was not in bed. Before

he had accomplished his errand, a swelling appeared in each groin, accompanied with fever, which last soon subsided. The swellings took their own course, one of them coming to suppuration and healing of its own accord, the other subsiding. This was effected within a month, and no medicines of any kind were taken. Ten days subsequent to the disappearance of these swellings, the patient got wet in his feet, which brought on a sore throat with fever. Both these affections were slight, the latter continuing only twenty-four hours, but the throat, without any appearance of disease, was still uneasy. At the end of seven days, ash-coloured sloughs were discharged from the nostrils, and, on inspection, the throat was found to be ulcerated. A mercurial course was now directed, but when six frictions had been used, the throat became well. Notwithstanding this, the course was protracted during four weeks, and the mouth was kept sore all that time. But before it was finished, a swelling seized the space intermediate to the metacarpal joints of the fore and middle fingers, and quickly diffused itself over the whole of the back of the hand. It was free from pain, inflammation, or even tenderness. At the end of three weeks it subsided of its own accord, after having been rubbed with a liniment to no purpose.

The swelling of the hand had hardly disappeared, when the right knee-joint became affected in

a very similar manner, except that it was attended with pain, which recurring every evening, continued during the whole night. The lower extremity of the fibula, and the joints of the elbows and shoulders, were soon after seized with the like pains, but they were not enlarged. These pains were constantly relieved by a moist state of the skin, but as this relief was only temporary, and as the affections were judged to be venereal, the use of quicksilver was resumed; in four days the pains were sensibly less severe, and in ten days entirely ceased. The mouth, however, was kept sore during eight weeks, by persevering in the use of quicksilver, and while it remained so, an abscess formed in one of the axillæ; it was opened, and healed readily.

After this course he had continued well during a month, when he was attacked with a violent head-ache, which recurred every evening; this lasted several weeks, and then ceased spontaneously. He now passed three months free from complaints, when, in consequence of getting wet, both knee-joints became affected with pain and swelling; this attack went off in the course of a few days, but was succeeded by head-ache and sore throat as before. Under the use of a decoction of the woods, and of quicksilver in small doses, these complaints grew worse; it was therefore thought right to embark on a new course of mercurial

inunction, which was maintained for the space of nine weeks, during eight of which the mouth was kept sore. The sixth friction made the gums tender, and the tenth cured the throat. Two days after this course was finished, an abscess formed on the tibia, and, having discharged a small quantity of ichor, healed, leaving a thickening under the skin.

Four months now elapsed without the accession of any new symptom, till from exposure to night air, the throat became affected as before. Mercury was once more employed, and continued during the space of three weeks; the affection of the throat gave way in a few days, but the thickening on the tibia resisted this course. At this time the nitric acid, which was asserted to possess superior powers to mercury, in at least some venereal affections, was had recourse to in the present perplexing circumstances; it was taken in the quantity of two drams daily, and the acid of lime was drank ad libitum. This plan was persevered in a month, at the end of which, the thickening in the periosteum had totally disappeared.

After an interval of six weeks, and during an unusually low temperature of the atmosphere, the periosteum of the humerus just above the elbow joint, and that of the fibula near the ancle, were attacked with swelling and pain, and at the same time the head-ache returned with as much severity

as ever. The acids were again resorted to, and the complaints at once gave way; but, in the short space of a fortnight, the throat relapsed into its former state of disease, and as no doubt was entertained, that these various affections were of a venereal character, it was resolved to enter on a more decisive mercurial course, than any which had yet been pursued. The mouth was now kept sore for two months, and then the decoctions of the woods, with the red oxyd of quicksilver were taken for two months more. On the twelfth day after the patient entered on this course, the mouth was made tender, and the throat became immediately well.

The patient now enjoyed an interval of health of three months duration; at the end of this time, great prostration of strength was the prelude to another attack on the throat. The acid was now again tried, but could not be persisted in, on account of its disagreeing with the stomach; recourse was therefore had to the same kind of pills as had been taken before, and both the debility, and the disease of the throat yielded to them. He now obtained a further respite for two months, when an abscess formed on the occiput, and having broken, the sore which ensued was healed with mercurial dressings. At the same time a tumor was detected on his forehead, which became stationary. Within the space of four weeks, the throat and arm relapsed; for these affections

as well as for the tumor on the forehead, another mercurial course of five weeks duration was directed, and they all yielded to it; yet during this course, an indolent tumor seized the upper part of the tibia, and continued stationary; soon after the humerus relapsed, and an ulcer formed in the roof of his mouth, which perforated the os palati, and penetrated into the cavity of the nose.

Under these circumstances he placed himself under my care, having been previously attended by five surgeons of high professional character, and eminent for their abilities. On reviewing the case, I was led to doubt, whether any one symptom had been venereal, since the thickening produced by the chancre had ulcerated, and was healed by the action of quicksilver on the system; that none of the present symptoms were such, I was most fully assured. That mercury, though apparently the remedy, was in reality the cause of these evils, I more than suspected; and I trusted, that by the entire disuse of it, and the substitution of tonic and deobstruent remedies, he would obtain a cure; for his health, though much shaken, was not dangerously affected, his pulse were natural, and his lungs were sound.

Nov. 8. 1798—He this day begins to take the decoction of bark with burnt sponge twice daily, and the muriated tincture of iron at mid-day. The swellings were made wet, as often as was

convenient, with sea water, and the mouth was frequently rinced with the same.

28.—The swellings are less ; the ulcer is nearly healed; the patient's general health is much improved; the dose of each of the medicines is to be increased.

Dec. 10—The swellings are stationary; let him apply a plaster of soap and litharge, sprinkled with the muriate of ammonia.

Jan. 2. 1799—The swellings are very much diminished; as he is weary of the sponge, he takes powdered sarsaparilla and mezereon, but continues the iron and bark.

Jan. 17—No vestige remains of the swellings; the mouth is well; the general health established; he is allowed to relinquish all medicines except the steel, and is to bathe in the sea. I had an opportunity of seeing this gentleman a year after this time. He was become fat and florid, and had suffered no relapse.

CASE 15. See page 207.

A person, sixty-four years of age, had for many years a small and indolent tumor in her left breast; the effect, as was supposed, of an accident. At length it became uneasy, and she was directed to take a purgative composed of half a grain of the muriate of quicksilver with one scruple of rhubarb. During the operation of this medicine, she was

exposed to a wet atmosphere, and was attacked with a severe catarrh. This was attended with a very great defluxion to the mucous membrane of the nose and fauces, and to the salivary glands. The catarrh gradually subsided, but the salivation continued, resisting every method that was, under the ablest advice, had recourse to for its suppression.

At the end of several months, she went to London for advice, both for the complaint in her breast, concerning which she was very uneasy, and for the salivation, which greatly distressed her. She submitted to the amputation of her breast, and indulged the hope, that the effect produced on her constitution by the operation, might suppress the salivation.

Unfortunately, the operation failed to accomplish either of these objects; the cancerous disease reproducing itself in the skin, near the cicatrix of the wound, and the salivation continuing for almost a year longer, when she was mercifully relieved from her afflictions, by a paralytic stroke which proved fatal.

Case 16. See page 212.

An elderly lady had for three years been teazed with labrisulcium. The lip was everted, very much thickened, and separated by fissures. She was directed to take the sponge with bark, in such

doses as her stomach could bear, and to anoint the lip at bed time with an ointment composed of axunge with the acetate of lead. She began this plan on the 18th of January, and was quite well by the middle of March

CASE 17. See page 213.

"A countryman, about 30 years of age, presented himself to me for advice, with both sides of his neck, where the strumæ were placed racematim, as I may say, like a bunch of grapes, but more fitly compared to that of turnips, with which extending forwards, the larynx was compressed, so as to endanger suffocation. He had the like glands upon the pectoral muscles, about the axillæ, with other ganglionide tumors on his arms and wrists. A case so pertinacious, and by so many years rivitted, that fearing I should do little good with him, I prescribed a diet of the woods, with some antistrumatics, purgation with ext. rud. et merc. dulcis between whiles; also an alterative electuary of gum guaiac, æthiops min. pulv. millep. made up with the cons. fruc. cynosbat. together with a roll of the emp. de ranis cum dupl. merc. to be applied externally upon the glands plaster wise, and renewed as there was occasion; returning him back into the country, where before his coming up, I might have told you he had been salivated, and had spit plentifully for thirty days;

notwithstanding which the distemper gained upon him, and grew worse than before.

But growing weary of method, he quickly after threw all aside; till meeting in company with one who had laboured under the like malady, and had got his cure by a remedy under which he lived at large, without regimen, he procured from his correspondent here in town, some of the same for our patient, being a large gally pot full of a dark or blackish powder, out of which he took a spoonful night and morning in a draught of beer; and finding his kernels waste he was encouraged to go on, especially perceiving how easily it was purchased, his friend making no secret of the matter, but frankly telling him what it was: upon which that he might not be further troublesome, he desired a relation he had here, according to the direction he had given him, to buy a large quantity of the most gritty or sabulous sponges he could pick out, which, drying in an oven, he reduced to powder; and having continued taking the same for about three months, the glands were all dispersed, and his distemper vanquished; so that being in town about some business at the year's end, I saw him with a smooth neck, scarce a vestige of the same remaining, having, as he expressed himself, p—d away the king's evil."

Art of Surgery, Vol. 1. p 130, 131.

FINIS.

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