

and safest to draw the line where I have done it. And at all events it does not make out a less than actual prevalence.

The result of my investigations has shown, that Scrofula prevails to a much smaller extent than is generally believed, and that the congregation of large masses of people in comparatively small spaces confinement in heated rooms, and sedentary employment, however prejudicial in many respects, have been accompanied by counteracting causes, which have lessened their baneful influence in so far as concerns the developement of Scrofula. At the same time, no one can be more deeply impressed than I am with the necessity of improving the habitations of the poor, not only in towns, but also in country districts; and the Government of the day can approach no subject which will give them greater claims to the character of a paternal watchfulness over the well-being of the people, than the enforcement of such well-considered measures as will improve the drainage, increase the size and better the ventilation of the dwellings of the labouring population. The accomplishment of this object will yet, I trust, afford matter for congratulation, when the angry political contests of the passing hour shall have sunk into oblivion.

But sure I am, that when the houses of the poor are better built and ventilated, when drainage is more perfect, and accumulations of filth removed, Scrofula will nevertheless prevail in our land. Poverty brings in its train cold and hunger, evils which act more injuriously than even bad drainage and imperfect ventilation upon the health of human beings; but those are evils which legislation cannot avert; they are the lot of the many, and they tend, probably, above any other agents, to hurry the masses to the grave.

If the present work shall possess any value, it will be due to the care which has been exercised, first in collecting, and next in classifying and employing the large amount of materials with which I have been furnished. The data thus provided may in some instances only confirm conclusions which were before assumed, but in others they may prove the incorrectness of hypotheses long admitted and acted upon, or may serve to establish views which have not hitherto been entertained; and for myself, this consolation will remain even should my own reasonings have led me into error, that my labours will have provided materials whereby other minds may discover truth.

SCROFULA,

ITS NATURE, ITS CAUSES, ITS PREVALENCE,

AND

THE PRINCIPLES OF TREATMENT.

CHAPTER I.

THE TERM—ITS SIGNIFICATION AND ITS DERIVATION.

To trace out the derivation of terms applied to disease, in early times, is often a source of more trouble than profit; and the conclusion to which we may come, will often be more satisfactory to ourselves than to others.

With reference to Scrofula, it seems doubtful whether the term *χοληραδης* was originally applied to the disease which affects the human subject; or whether it was not directly attached to a different disease, which occurs in certain brute animals. However that may be, the term has long been applied to the disease we have to consider, and some little inquiry into its signification may, therefore, be properly made in this place.*

* The word *χοληραδης*, so constantly applied by Hippocrates and other Greek authors to this disease, is supposed by Hederic and others to be derived from *χοληρος*, porcus; but even among the ancients, the true signification of the word has been a subject of warm dispute. It is assumed that the disease obtained the name, Scrofula, because pigs are infested with it; and certainly there is reason to think that the term was originally applied, not to any disease occurring in human beings, but to a disease of pigs, which, in later times, the Scrofula of the human subject was supposed to be analogous to or even identical with. Kirkland says, "The disease took its name from the glands in the necks of swine being subject to it;" but he

Certain it is that some Roman writers, although they called a particular disease of pigs *Scrofula*, never followed the derivation in designating the human *Scrofula*. Indeed, I am not able to ascertain who first employed the word *Scrofula* to denote the human disease of which we are now speaking. Celsus does not use the word in the chapter that treats of this subject; but employs the term *Struma* to designate the disease.

Although it may be a matter of comparatively small importance whether we use one term or another, *Scrofula*, or *Scrophula*, to designate the disease under consideration, we give below the reasons why we prefer to use the former term.*

As to the term *Struma*, which Galen in his "*Methodus Medendi*," and Celsus used, so much is certain, that in most of the translations from the Greek writers the word *χοιραδες* is rendered by *Struma*. *Struma* is a Greek word latinized, and if the term *χοιραδες*, or rather *χοιραδωδες* bear the interpretation given of it by

adds that, "some of the Greek writers refer it to the multiplicity of their increase, like the offspring of a sow." *Scapula* gives as an explanation of the word *χοιρας*, "a rock somewhat raised above the surface of the sea, so that it resembles a pig swimming in it." He seems to think that the same term which was originally applied to these rocks (*choerades*) 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."

* Turner says, "*Scrophula*, vel *Scrofula*, Gr. *χοιραδες*, idem quod *struma*." According to Celsus, "a suis sic dict. qui peculiariter 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. The significations, which Hanning attaches to the terms *χοιραδες* and *Scrofula* is that they derive themselves from *χοιρος* and *Scrofa*. In most dictionaries *Scrofula* is the term used.

Kortum blamed all the older authors for writing *Scrophula*. "The etymology is not," says he, "Greek, but Latin, proceeding from *Scrofa*." Supposing that to be admitted, it is certain that the Latins used indifferently *Scrophula* and *Scrofa*. The term *Struma*, however, they used to designate the disease we are considering. It is the barbarians who have employed the term *Scrophula*. "Hic vero morbus a Latinis dicitur *struma*, a Græcis *χοιρας* vocatur, a Barbaris *Scrophula*. Mercurialis, (de morbis, puerorum, p. 125), wrote *Scrophula*. Castelli's Lexicon, Edit. Bruno. has it in the same way. Ravenstien, in his edition of the same work, says the term *Scrophula* is derived from the Arabs, the Barbarians of Mercurialis. I am content in this state of things to follow Kortum, and to use the term *Scrofula*.

Henning, *Struma* exactly corresponds with it in sense, and signifies swellings scattered on the neck. It is derived from *σφοννυμι*. *Struma* is the term used by the Roman orator, who seems to convey, that in the minds of his contemporaries something disgraceful was attached to it. "Hi medentur republicæ, qui exsecant pestem aliquam tanquam strumam civitatis."*

The terms *Scrofula* and *Struma* correspond to The Modern Greek or Romaic *χαλόνια*.

- „ French, Mal du Roi, Scrofules, les Ecouelles, from whence
- „ Scotch, Cruels.
- „ Breton, Droucq ar Roue.
- „ German, Kropf Skropheln, Skrophelkrankheit.
- „ Russian, Swinucha, (Bredow).
- „ Sweedish, Körtelvulster, krofer, krittler, krittler, Fistel.
- „ Danish, Skrofer Kiertelknuder.
- „ Dutch, Klieren, kropzweeren, kliergezwellen.
- „ Swiss, Scrovolle.
- „ Italian, Scrofula, Scrofole, Scrofe.
- „ Spanish, Lamparones, Escrofulas.
- „ Portugese, Al porcas.
- „ English, King's Evil.

IDEAS WITH REGARD TO SCROFULA ENTERTAINED BY ANCIENT AUTHORS.

Before I proceed to detail my own views of the nature of *Scrofula*, it seems to me proper to refer to some of the opinions which have been entertained by those who have gone before. To glance at all, or even most of those opinions would be manifestly unnecessary; but some of them I should be scarcely justified in passing by without notice, either because they were advocated by the great men of our profession, or because they are interesting from the ingenuity which has been displayed in supporting them, or because they contain the germs of opinions which have subsequently obtained a wider, if not more justly merited diffusion. Those reasons, however, do not justify a long or labored review of their opinions, but they seem to me to render it proper that they should be succinctly noticed.

* Orat. pro P. Sexto 65.

The opinions which have prevailed may be reduced to two classes, the one including those which regarded the disease as a local affection, the tumid gland being the important feature; the other including those which though they did not disregard the tumid gland, conceived it to be a symptom, or manifestation of constitutional disease.

In that period of comparative ignorance of pathological anatomy, which extended almost, if not altogether, to the beginning of the seventeenth century (1602), when the first volume of the *Praxeos Medicæ* of Plater made its appearance, the essence, or malignity of Scrofula, was supposed to be exhausted in the production of the glandular tumor, and to it, as a consequence, all remedial means were applied. To this we owe the aphorism, to which Duret gave currency: *Tantum præsidia sunt in manu.**

But with Fernel, Plater, Baillou, Bonet, and Morgagni, a new epoch arose. They carefully observed the symptoms of the disease during life; they ascertained what were the internal disorganizations after death; and gradually the opinion gained ground, that the enlarged lymphatic glands were not the only specific phenomena of Scrofula, but that beyond this there was a tainted constitution.

But from the earliest times, at least from those of Hippocrates and Galen, an under-current of humorism has always been apparent; though in their view of the case, the change produced in the pituita was only important as tending to choke up the glands. Thus, Hippocrates says: "*Cum autem proprio morbo laborant glandulæ, morbi suboriuntur, tubercula et strumæ subsiliunt.—Quibus afficiuntur, ubi humore, ad eas ex reliquo corpore confluent, impletæ fuerint.—Quod si pituitosa, copiosa ac lenta fluxio fuerit, sic etiam inflammationem concipit; ex qua cum humor sit stabilis, strumæ generantur; ii que pessimi colli morbi numerantur.*" (*de Glandulis.*)—Again: "*Favus, strumæ . . . à pituita creantur. Curandi iis quæ pituitam repurgunt.*" (*de Affection.*) Galen says: "*Harum adenum passio struma quoque est non ex calida materia, sed potius quodammodo pituitosiore ac frigidiore consistens.*"* And with him the means of cure were thus indicated: "*Est vero duplex ea curationis indicatio, nempe vel totum quod vitiatum est,*

* Comment in Hipp. Aphor. 26, Sect. 3.

scalpello excidentibus nobis, veluti in cancro; vel putrescere id medicamento cogentibus," (*de Strumis.*) Paulus Egineta says: *Struma est tumor induratus circa collum et alas ac inguina maxime consistens, &c. Nascuntur autem strumæ aut circa anteriores colli partes, aut circa alteram ipsius partem, &c.*" In another place: "*Strumæ, inquit, sunt glandulæ in scirrhum induratæ, circa collum,*" &c. Celsus says: "*Struma est tumor, in quo subter concreta quædam ex pure et sanguine, quasi glandulæ oriuntur.*" Wiseman's notion was the following: "I shall," says he, "endeavour to fix upon a peculiar acidity of the serum sanguinis for my specific 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 a ganglione, membrane, or muscle, it coagulates and hardens; when it mixeth with marrow always dissolves it, and rotteth the bone." Mead's idea was similar: "*Lentem autem et acrem hanc humorum pravitatem designant glandularum tumores, parum vel non dolentes, leucophlegmatia comitati.*" Paré considered that the glandular swelling depended upon a particular alteration in the pituita, which became fatty, gypseous and viscid; but that the glandular tumor was not developed until a melancholic humor was mixed with it. Baumes rested his theory of the production of scrofulous swellings upon the predominance of phosphoric acid in the fluids. Bordeu believed that a peculiar state of acidity of the fluids was necessary for its development. Charmetton conceived that there was a thickening of the lymph, and that it was caused by acidity. Peyrilhé advocated the same idea; but the opinion was most decidedly enunciated by Rénard, who says: "*In Scrofula, every thing depends on a vitiated state of the lymph, and never on that of the solids in which it accumulated;*" but in all these views, the tumor was the essence of the disease.

It was also maintained that the disease was owing to a degeneration of the lymphatic fluids by the presence of spermatic fluid in them. "*Juvenes cælibes sæpe strumosi fiunt postea verò uxore ductâ nonnumquam spontè curantur. Nempe materia olim ad strumas fluens ad alias jam partes divertitur.*"* Gamet thought it was owing to a change in the nervous fluid.

Of all these ideas, that of Baumes is the most intelligible, the

* Adenographia, London, 1656.

most plausible, and the most ingenious. He says, "We may hereafter be able to prove that in Scrofula the temperature of the living body being diminished, a strong oxigenation of the albuminous juices is caused, mainly because an acid, morbidly accumulated, exists, and perhaps a combination of many acids." Further on, he says: "Without attaching undue weight to that opinion, we may judge that a predomenon in Scrofula is the presence and the aberration of an acid, of a phosphorous or phosphoric nature, re-acting upon the albuminous juices which it tends to concrete."

The superabundance of phosphoric acid, assumed to exist by Baumes, has never been demonstrated either in the blood or the lymph of scrofulous persons, although arguments have been based, and modes of treatment recommended on its presumed presence.

It is singular how completely dominant for a long period of time was the idea, that an acid of some kind, mixed with the lymph, determined the development of the glandular tumor. And this I conclude arose out of the observation, that many of the excreted fluids, in scrofulous persons emit a sourish odour. A simple experiment, had it been tried, would have unsettled that opinion; for it would have become at once evident, that an alkali, or a salt, exercises a much more energetic thickening action upon the lymph, than an acid.

What was meant by the pituita, referred to in the older hypotheses, it is difficult now to determine; but we have no such difficulty with regard to the lymph. And we may state that its assumed thickening, its viscidness, its acidity, and its alkalisation rest on no evidence whatever! We have no analysis of diseased lymph. The whole is the merest assumption. Thus because the lymphatic glands are enlarged in Scrofula, therefore it was said the lymph must be too thick to pass through them; or because the cutaneous exhalation in a scrofulous person has frequently a sour smell, therefore the lymph must be acid; or because pus from a scrofulous ulcer sometimes excoriates adjoining parts, therefore the lymph must be acrid.

If the retention of the spermatic fluid and the menstrual blood, as seems to have been maintained by Wharton, Faure and others, were the ordinary cause of Scrofula, all children should be scrofulous; because in them, neither of these fluids is ordinarily excreted; or the only exception should be found in those addicted to

masturbation; in whom an unusual tendency to scrofulous affection has given rise to the following aphorism: "*Venus solitaria in junioribus scrofulosorum affectuum ortum faciliat.*" There are few medical men who do not look forward to puberty as a period when great changes are often manifested in a scrofulous constitution, it may be for good, it may be for evil; but the good or evil is in no wise shown to depend on either the retention or the excretion of spermatic fluid. Russell had an idea that the secretion of semen exercised a most important influence in the amelioration of a scrofulous constitution; not, however, by its being excreted, but by its being absorbed and mixed with the blood. In all this, the effect appears to me to have been very generally taken for the cause; the secretion of semen is a consequence, and not the cause of puberty. In the work of Mercurialis,* is a statement, which if not correct is at least curious as showing the diversity of opinion on the subject. "*Cæterum non est prætereundum hoc in loco quod scribitur, lib. 1. Veterinariæ Medicinæ, cap. 20, ubi Absirtus et Hierocles tradid. erunt jumenta castrata non tentari hoc morbo, quod etiam in hominibus observatum est plerumque contingere, ut scilicet qui carent testibus hoc morbo non tententur.*"

Such are many of the humoral theories contrived to explain the mode of production of Scrofula; but for the most part, they are so fanciful, so wanting even in reasonable probability, as to make it unnecessary to enter into any serious refutation of them.

Nearly connected with the humoral ideas, however, is a theory, which has descended almost, if not altogether, to our own time—the doctrine of a *virus*, mixed with the lymph, which determined the development of the disease, either hereditarily, or by inoculation, or by contact;—and certainly the notions arising out of this theory have exercised a very injurious influence on those who belong to what are termed scrofulous families, by tending to interdict marriage with persons so situated. We cannot, therefore, properly pass from the consideration of the humoral theory without offering some remarks upon this curious question.

The belief in the existence of a virus, upon which the communicability of Scrofula depended, whether by hereditary transmis-

* De Morbis Puerorum Tractatus, page 133.

sion, by contact, or by inoculation, was strongly advocated by Aretæus, Baumes, Pujol, Brodeu, and by many other writers; but nowhere was this virus clothed with more wonderful properties than by the disciples of the School of Montpellier. With them this principle or virus was almost an intelligent agent; "in the earlier periods of life throwing itself upon the external glands; in adult life transforming itself into dropsies, or obstinate cutaneous complaints; at other times directing its action upon the axillary or subclavicular ganglia, or attacking the lungs so as to cause phthisis; and at other times associating itself with the virus of syphilis, scorbutus, and rickets."

Pujol says: "The slow but destructive poison which gives birth to Scrofula, attacks indifferently all parts of the human body. It perverts the lymphatic fluids, to which it unites itself in preference, it excites concretions in the flesh, as well as interminable ulcers. It does not limit its ravages to those parts: sometimes it seizes upon the bony framework, dissolving the different portions in the most pitiless manner. Very frequently, indeed, it does not respect even parts most essential to life. This is not all; this dangerous venom attaches itself to certain families, whom it pursues from generation to generation. Not only it causes a dread to become allied to them, but even to have personal communication with them. It attacks especially during the tender years of life, and seems to profit by the feebleness of the sufferers, the more surely, to vanquish and destroy them. If it is obliged to give way at the age of puberty, because of the sudden development of power at that period, it does not completely abandon the person whom it has once infected. It may retreat to some dark corner of the body, where it will await a favorable moment to make a new attack with more advantage. It would even appear, that its long repose had rendered it more malignant and indomitable, for then it neglects the less important organs, and fastens itself on those of the chest, the abdomen, and the head."

These ideas were loudly applauded at the time, and the work of Pujol had for many years a considerable reputation.

I do not ask those who advocate the doctrine of a virus, what is its composition, its nature, or its seat; I would not even ask whether it is to be found among the solids, or the fluids, because

many of them admit their ignorance on those points: they maintain the reality of the principle, but they do not trouble themselves about its cause or its nature, or the place of its existence, they believe in its existence "because scrofulous parents frequently give birth to scrofulous children—because the disease is communicable by true contagion—because the disease may develop itself in all organs, whatever be the difference in the tissues, entering into their composition, and because we frequently see contusions and other causes of inflammation determine Scrofula in suspected persons."

The assumption that Scrofula is the result of a virus introduced into the body, whether by inheritance or by contagion, is so entirely without proof, that I should not be justified in occupying time by seriously considering it. So much, however, may be properly said, that in the case of all virulent diseases, there are particular modes of communication; they can all be induced by simple contact, or by inoculation. In most of them, this can be accomplished through the agency of a particular secreted fluid, puriform in its character, but none of the agencies by which virulent diseases are communicated have been observed in Scrofula. Who, indeed, has ever seen an undoubted case of Scrofula communicated to a previously healthy person, either by simple contact, or by inoculation?

It seems to me, therefore, to be unnecessary to proceed further with the question concerning this vice, virus, leaven, principle, or genius which serves to indicate material and specific agents, whose existence is unproved and, I think, unprovable; because Scrofula presents no character, proper to virulent diseases, but follows the course of those diseases which are independent of particular poisons.

The *Solidists* have advocated the doctrine that the primary seat of Scrofula was the solids; but this is the only point on which they are agreed. Galen saw in Scrofula only indurated scirrhus glands. "*Struma caro est sicca.*" "*Struma est ubi hæ partes squirrhum contraxerint.*" Sömmering believed it to consist in a relaxation and passive dilatation of the absorbent vessels, from whence results, necessarily, a stagnation and alteration of the lymphatic fluid. Cabanis regarded Scrofula as the result of an augmentation

of activity in the absorbed mouths, and at the same time, a state of atony of the vessels themselves. It is rather difficult to conceive, that those two parts of the same whole, can simultaneously, and under the influence of the same cause, one increase in activity, the other diminish in energy. Richerand reverses the thing; he says, the cause is an atony of the white vessels and the ganglia. Hufeland says there is profound atony of the lymphatic system, accompanied by a specific irritation of this same system, and a particular alteration of the lymph. Broussais says, there is sub-irritation or sub-inflammation of the white vessels. Cullen says, in his *Nosology*, "*Cachexiæ, cutem et externum corpus præcipue deformantes, glandularum conglobatorum, præsertim in collo, tumores in labrum superius et columna nasi tumida.*" Dr. Henning says, "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," "and we have the authority of Hippocrates, for fixing on the neck, as exclusively the seat of Scrofula;" and again he says: "The neck then, it may be presumed, is the established seat of incipient Scrofula; the very 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." Although it be incorrect to say that scrofulous enlargements of the glands of the axilla and groin is very rare, yet it is true that they much less frequently end in a success than similar enlargements of those of the neck; and Dr. Henning's explanation of this circumstance may be the true one, namely, that the parts are more exposed to vicissitudes of the atmosphere. He then takes up an important position, which he thinks is justified by the reasons previously given. He says:

"They demonstrate that the disease is neither generated within the body and thrown out upon the surface, nor derived from parental taint; they show that at its commencement, at least, the glands of the neck are its confines, and that they continue to be so, as long as their tumefaction continues undiminished; that as long as their excitement is maintained, the constitution is safe; and I think

it shows how easily and how perfectly curable a complaint of Scrofula is at its commencement."

We cannot commend the logic of the Solidists as much more entitled to respect than that of the Humorists. "The lymphatic glands," say they, "are the ordinary seat of Scrofula, therefore, the disease belongs to the lymphatic system. These glands enlarge, this must be owing to feebleness, atony, relaxation. But absorption is easy, rapid; there must therefore be a greater activity and exalted vitality of the absorbent mouths with feebleness of the vessels. Whenever a system of organs is largely developed, we should conclude that it is stronger, more energetic, has more vitality." Scrofula attacks in preference persons possessing the lymphatic temperament; it is, therefore, owing to the predominant action of the lymphatic system. No matter whether it be most frequently seen among those of sanguine or bilious temperament, every thing is neglected which contradicts the favourite theory.

The notion that Scrofula is a disease essentially resulting from either a disordered state of the fluids or of the solids of the body, has been maintained upon the crudest assumptions. The advocates of either opinion have first assumed a state of things which suited a theory often already invented; they have not stopped to ascertain whether a single step in their doctrine rested on a secure basis; they have made the causes and the treatment to correspond with the theory which had been assumed, and it has become the task of their successors, and for the most part, easy enough they have found it, to raze their baseless fabrics to the ground. In the theories to which I have alluded, many of them propounded by the ablest men of our profession, there is not one to which we can refer, as the result of a scientific investigation of phenomena, or a philosophical deduction from reasonably established facts.