

EXPLANATION OF PLATE.

- Fig. 1. Is taken from a drawing of a Scrophulous Gland, made by Mr. Bellamy. The magnifying power used was about 650 times.
- A. The surface of the healthy tissue, bounded by a cellular capsule.
- B. Granulation corpuscles and amorphous scrophulous matter.
- C. Granules closely packed in the centre of the gland, composed of distinguished granulation corpuscles, granular matter, and oil globules.
- D. Oil globules.
- Fig. 2. Is taken from a drawing made by Mr. Bellamy of Tuberculous and Scrophulous matter; the magnifying power used was about 650 times.
- A. Tuberculous matter taken from a tuberculous lymphatic gland.
- B. This figure, taken from a tubercle, and probably magnified about 650 times, represents "isolated" tuberculous matter.
- Fig. 3. Is taken from the same subject; it represents Tuberculous matter rendered transparent by means of Acetic Acid.
- Fig. 4. Is also taken from the same subject; it represents Phosphoric Tubercles taken from the same subject.
- Fig. 5. This figure is taken from a vessel; the magnifying power is about 400. It represents Tuberculous matter taken from a mesenteric gland.
- Fig. 6. Is also from a vessel; the magnifying power is about 400. It represents Tuberculous matter taken from the kidneys.
- Fig. 7. Is from a vessel; it represents a Lymphatic Gland "infected" with Scrophulous matter; magnifying power probably about 400 times.

INTRODUCTION.

IN submitting to the public the results of a laborious and extensive inquiry into the nature, the causes, and the treatment of Scrophula, some explanation of the circumstances which have occasioned the present Treatise, seems due from the author to his readers.

In the course of my professional practice, and especially in the discharge of the duties entrusted to me as Surgeon to a large Metropolitan Infirmary, the treatment of Scrophulous Affections formed a subject of frequent and anxious consideration. I often felt desirous to relieve myself of anxiety, by consulting the experience of others, as recorded in their published works, but I found that something was wanting in all those to which I referred—too much was assumed, too little carefully examined; and although many of the works on Scrophula which we possess have deservedly acquired a high reputation, at an early stage of my investigations I was led to the conclusion that much was yet wanting to complete our knowledge of the disease.

No branch of the healing art has, indeed, been marked by more of empiricism than the Treatment of Scrophula; and although the superstitious feelings, with which the disease was formerly regarded, have nearly passed away, yet vague assumptions and hasty conjectures are, even now, too often substituted for that patient collection of facts, and that cautious and careful induction, which can alone give value to scientific investigations.

I have not uncommonly been met by the remark, that so many publications have been given to the world on the subject of Scrophula, that we already know every thing which is necessary of the disease. My own investigations have, however, led me to a very opposite conclusion; for whilst the most contradictory opinions prevail upon the nature of Scrophula, the conditions which determine its existence, and the physical changes by which its progress

is characterised, great diversity also exists in the treatment of the disease.

If, indeed, any proof be wanting of the importance of the inquiry I have undertaken, and of the insufficiency of our present knowledge on the subject of Scrofula, that proof may be found in the works of able authors, and the proceedings of learned societies.

In 1749, the Académie Royale de Chirurgie proposed as the subject of a prize Essay, the following question: "Determine the characters of scrofulous Tumors, their varieties, their symptoms, and the cure." None of the Essays which were forwarded were judged to be worthy of the prize; and the same subject was again proposed in 1751. In 1752, six Essays were deemed of sufficient value to be published by the Academy; the first prize was awarded to Faure, the second to Bordeu; and the other Memoirs were by Charmetton, Goursaud Majaut, and an anonymous author. Whatever merit attaches to those Essays, they left much to be desired, as is shown by a decision come to in 1786 by the Société Royale de Médecine, in Paris, to offer as the subject of a prize the following question: "Determine what are the circumstances most favorable for the developement of Scrofula—what are the means, dietetic or medicinal, for arresting its progress, diminishing its intensity, and preventing the secondary affections which it may cause." That prize produced three Essays of considerable merit, by Baumes, Pujol, and Kortum. That of Baumes was declared to be entitled to the prize. All were subsequently published; and, however ingenious the work of Baumes may be, I think the judgment of the present day would be in favor of Kortum.

That much remained to be done after the labours of those men is made evident by the fact that in 1795, the Imperial Society of Naturalists at Vienna, named Scrofula as the subject of their prize, which was awarded to Hufeland; although I think the volume he published was, in most respects, inferior to the Treatise of Kortum. The judgment of learned societies, up to the close of the last century, was thus clearly expressed, that the subject was not exhausted, and that further investigation was necessary; and I cannot say that much has since been done to fill up the void which then existed.

In our own country, besides the works of Henning, Goodlad, Carmichael, and Lloyd, many observations have been published during the present century. In France, besides many minor Trea-

tises, those of Lepelletier, Baudelocque, and Lugol, have been published during the last twenty years. In Germany, the last Treatise on the subject is that of Scharlau; in Russia, that of Bredow. I most readily admit that those authors have given valuable practical information, but they have done little to constitute any substantial forward movement. Without disparagement to any other writer, I may, however, express my opinion, that the work of Baudelocque constitutes an advance in the right direction; but I regret that many of the facts, as he believed them to be, upon which some of his opinions are based, were so ill observed, as materially to lessen the value of the work; yet with every drawback, it is the production of an able man, whose opportunities of observing the disease, when thoroughly developed, were very favourable.

Whatever may be my own opinion of the value of the works on Scrofula published during the present century, it is evident that those most competent to judge conceive further researches on the subject absolutely necessary. One of the prize subjects offered by the Académie Royale de Médecine in the last year (the Portal prize), was "The analogy and the differences between Tubercles and Scrofula," but no Memoir was found to possess sufficient merit to justify the award of the prize. It, therefore, forms the subject for the Portal prize for the present year; and it is curious that "The Nature and Treatment of Scrofula should be the prize subject named by the Medical Society of London.

Fully satisfied that a more extended collection of facts, and a more accurate classification of phenomena than had yet been attempted, were necessary and practicable, I entered upon the task which has now been brought to a close, and men who have been engaged in such extensive and minute inquiries can alone appreciate the patient labour which has been devoted to the work.

The materials which I have obtained and used, are probably the most ample that have ever been collected and brought to bear on a single medical subject; and if I had contemplated the difficulties I have encountered in procuring information, or the extent to which the inquiry would have proceeded, I should probably have been deterred from prosecuting it to a conclusion. But as is the case in all such investigations, the obstacles and discouragements were only gradually unfolded, and the labour was lightened by the interest which the subject itself excited.

In the present Treatise it is my purpose to consider the subject generally, and not to enter upon the various structural diseases which may be set up in a constitution contaminated by Scrofula; for the most part those diseases have in them nothing specific, but their peculiarities are impressed upon them by the particular state of the system itself. That the characters which are thus impressed upon common inflammation, whether of the skin or of any other tissue, are matters of great interest and afford materials for very careful investigation, is quite true; and for any special inquiries of the kind, whether made by myself hereafter, or by others, it is hoped that the present conclusions may serve as prolegomena; but I feel that in treating of the subject generally, I have imposed upon myself a sufficiently heavy task.

Before I proceed further, it may be proper that I should describe the plan I adopted in the conduct of the inquiry.

My position at the St. Marylebone Infirmary was singularly favourable for the observation of scrofulous affections when fully developed; but the field was too limited for the study of their causes. It, therefore, became expedient so to enlarge my sphere of observation, and so to extend my inquiries, as to comprise the influence of the many causes, which, it is alleged, are capable of producing the disease.

To ascertain how far and how constantly Scrofula prevailed in the Metropolitan Districts, I visited a large number of the National Schools, the Parochial Establishments, and the Charitable Institutions, which are found in every part of the metropolis. I was thus enabled to determine whether the healthier and wealthier localities of St. George's Hanover Square, St. Marylebone, and Kensington, were more lightly visited by the disease, than the comparatively poor and unhealthy districts of Shoreditch, Bethnal Green, St. Giles' and the lower part of Westminster. Having ascertained, as far as practicable, the condition of the population of the Metropolitan Districts, where the effects of close packing may be expected to be keenly felt, I pursued the inquiry through districts where the population was widely spread; and I was thus enabled to compare the condition of the people living under very different circumstances, and to ascertain the influence of crowding upon human life, in so far as concerns Scrofula. I extended the investigation to the Mining and Factory Districts, with a view to deter-

mine how far particular occupations tended to develop the disease. I caused children to be examined in the north and south, the east and west of our own country, so as to be able to estimate the influence of particular localities in our own island to determine the affection; and I extended my researches throughout Ireland and Scotland, so as to be enabled to estimate the influence of particular articles of food;—and the correctness of the evidence so obtained, has been to a certain extent tested by the condition of Recruits, and of persons committed to Prisons; by the Mortuary Tables of the Registrar General, so ably analyzed and arranged by Mr. Farr; by those of the Irish Census, so well digested by Mr. Wilde; in so far as they could be made available in an inquiry like the present, and by a large number of Hospital and Dispensary Returns.

Having obtained a fair estimate of the condition of the people of these islands with reference to Scrofula—having ascertained their condition in factory and other towns, and in rural districts—inland and on the sea-coast—whether living on bad food, or better—entirely vegetable, as in Ireland, or more animalized, as in portions of England—in Union Houses, or among the independent population; I came to certain conclusions as to the causes of the great difference which was found to exist between one district and another.

But I soon found that important as the inquiry must prove, even when bounded by our own shores, its value would be increased if its limits were enlarged. It was by such an extension alone that I could test the influence of varying climates and habits, and ascertain whether the cold of Russia called the disease into existence more frequently than the heat of the countries bordering upon, or lying within, the torrid zone: whether the humidity of Holland be more prejudicial than the comparatively dry atmosphere of Spain and Portugal; the marine atmosphere of our own land, than the inland atmosphere of central Europe.

Through the kindness of Lord Aberdeen, I have obtained most valuable reports from Russia, Austria, Prussia, Bavaria, Portugal, and Holland. I have acquired important information from the northernmost portions of Europe, as well as from France and Belgium; and in Bavaria, Belgium, France, Tyrol, and Switzerland, I have been enabled myself to verify the accuracy of the information with which I had been furnished.

I have also obtained Returns of the condition of children in so much of the United States of America as is found on its eastern shores, between Boston and New Orleans; from a certain portion of the Bengal Presidency; from some districts in China; and from portions of Egypt, Syria, and Greece abutting on the Mediterranean Sea, and from Madeira.

The accuracy of the information to which I have referred, inasmuch as concerns the influence of climate, has been, as far as possible, tested by the admirable Reports of Colonel Tullock, which so well shows the influence of climate to induce particular forms of disease in the British soldier.

Besides all these sources of information I have consulted, so far as I knew them, all the written works which bore on the subject; and I have adopted any views which they contained, after satisfying myself that they were correct. I, therefore, take this mode of acknowledging the obligations under which I have placed myself to those authors by whom my task has been lightened, because I should often find it difficult, and sometimes impossible to state from what particular source an idea has been obtained.

Such are the channels through which I have derived the information which has enabled me to bring this work to a conclusion; and it becomes a pleasing duty to express my grateful acknowledgments for the kind and ready co-operation which has been so generally afforded me. Few of the very many medical men whose assistance I have sought, even when personally unknown to me, have discharged my appeal for information, or pleaded more pressing occupations as an excuse for refusing to comply with my request.

But the general acknowledgment is sufficient to express the obligations I have incurred to particular individuals; and I am bound to mention how, specially, I am indebted to Lord Aberdeen, to the Poor Law Commissioners, to Dr. Baly the able medical officer of the Millbank Penitentiary, to Mr. C. R. Hall, to Dr. T. Smith of Leeds, to Dr. D. Griffin of Limerick, to Dr. S. Jackson of Philadelphia, to Mr. W. T. Kayemy former pupil now assistant surgeon of H.M.S. Tyne, and in an especial manner to Messrs Honner and Sanders the Inspectors of Factories, to Messrs Dalrymple and Gulliver, and to Mr. Neilson.

In conclusion, it seems to me desirable that I should explain the

plan which has been followed to obtain the information upon which the opinions hereafter expressed are mainly based. At an early period I became fully sensible of the necessity of introducing a more precise method of conducting the inquiry than any which had been previously adopted. To say that Scrofula is extremely frequent in one place, and rarely seen in another, is to make a statement which has no absolute value, because, so far as I know, it has always been made without particular observation or accurate comparison, and yet it is upon such statements that theories are constructed.

To determine, from an examination of a particular district, that a given agent is the cause of Scrofula, because such agent is there found in connection with the disease, whilst in another district, from which such agent is absent, the disease prevails to nearly the same extent, is a mode of investigation which has been adopted by persons, who have treated ex-professo of the disease, but cannot satisfy the wants of the present day. Early impressed with the fact that what was alleged as *the* cause by one author was *proved* to be no cause by another, though the features of the disease might be equally well described by both, I determined to accept no statement of the causes, the prevalence, or the treatment of the disease, which was not the result of precise observation. In accordance with that resolution, I proposed generally the following questions, which were to be solved by the examination of children in schools into which the admission of the children of the poor is indiscriminate, and in other establishments: *How many children (male or female) were present at the examination? How many presented the characters of the lymphatic temperament? How many presented the ordinary marks of Scrofula? How many of the scrofulous cases were found among those of lymphatic temperament?*

I soon found, however, that it was necessary to make the questions more precise, because scarcely two persons exactly agreed upon what constituted the lymphatic temperament, or what was Scrofula. I, therefore, thought it best to adopt a definition which should include points upon which all seemed agreed about the lymphatic temperament, and to exclude those about which there was less accordance. The same course was taken in defining what was meant by ordinary marks of Scrofula; I therefore re-

quested to be informed how many presented fair hair and eyes, and fair, soft skin. I am quite aware that cases of what is called lymphatic temperament may not be included in such a definition, and that cases which would not be regarded as belonging to that category might be included in it. But this seemed the smaller evil of the two, and it has the merit of securing something like uniformity in the results. There can be no question, that what is called by many persons the lymphatic temperament, is a constitution upon which Scrofula has already impressed its seal. In a tenfold degree was the necessity urgent for defining what I meant by ordinary marks of Scrofula, because some persons regarded diseases of the scalp, as well as those of other portions of the cutaneous envelope, as evidence of Scrofula. I, therefore, defined ordinary marks of Scrofula to mean, enlarged glands, discoverable by the touch, or the sight, sinuses or ulcerations resulting from them, and ordinary scrofulous bones or joints. The following is the form employed.

BOYS.

1.	2.	3.	4.
Number of children examined between 6 and 16 years.	Number of such children who have decidedly fair hair, and light blue or light grey eyes, and a fair, soft skin.	Number of children exhibiting any of the following marks of Scrofula:—Enlarged cervical glands discoverable by touch; sinuses or ulcers succeeding to such glands. Scrofulous bones or joints, or the consequences of them.	Number exhibiting the evidences of Scrofula, described and possessing the characters described in the second column.
GIRLS.			
DIE T.			

The object of the second question is to ascertain how large a proportion of cases is found among those children who have what may be fairly called a light complexion. With reference to the

third question, it is not pretended that every mark of Scrofula is included; but as opinions as to what is and what is not Scrofula, are very different, it seemed important to fix upon certain points which did not admit of much controversy. In a healthy child, the lymphatic glands about the jaw and the neck are not perceptible on passing the finger over them; whenever, therefore, they can be detected, they are to that extent in an abnormal condition, though not necessarily scrofulous. All that is required for the purposes of the present inquiry, is to pass the fingers along the spaces under the lower jaw, and parallel to and in front of the mastoid muscle; and if sensible enlargements can be detected, the case would be enumerated in the third column, which includes all cases in which such enlargement can be perceived.

This inquiry had a twofold object, viz.: to ascertain how far the disease prevailed, and when it prevailed to an unusual extent, to inquire into the apparent cause of prevalence in the particular locality, and on no portion of the inquiry has more anxious attention been paid, than in ascertaining the causes of Scrofula, whether hereditary or acquired.

It is true that the Returns may include some cases in which the enlarged gland may have been owing to some local irritation, but this is as likely to occur in one district as another; and, therefore, the value of the Return will not be invalidated by such an accident. It is also true that passing enlargement of the lymphatic glands is not always regarded as scrofulous, even in the absence of local irritation; but I am satisfied that the state of the constitution which favours the development of such glandular swellings, is one which, if sufficiently long continued, would commonly end in unequivocal manifestations of Scrofula; and, therefore, I have desired to include in my Returns all cases in which sensible enlargements existed. Happily the constitution of the sufferer does commonly change; and of twenty persons suffering from sensibly enlarged glands, in scarcely more than one will they proceed to suppuration. In those cases, therefore, or at least in an overwhelming majority of them, no scrofulous matter is deposited in the glands; but as the state of enlargement is only a previous stage in the development of Scrofula, and as it is impossible, from a surface examination, to say whether the deposit has actually taken place or not, it seemed to me best



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 *χοληραδες* 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 *χοληραδες*, 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