

them as affections possessing a certain general similarity of character, but no identity. It may be that they belong to the same family, as do Pleurisy and Pneumonia; but every one deems it desirable to make as clear a demarcation as possible between those diseases. I say the same of tubercular disease generally and Scrofula, between which the points of resemblance are strong, in so far as concerns the deposit; but in all else they are weak.

CHAPTER VII.

PREVALENCE OF SCROFULA IN GREAT BRITAIN.

AN opinion is very generally entertained, that Scrofula is pre-eminently an English disease, that very few families are wholly free from its taint, and that it is a scourge by which a large portion of the people of this country are afflicted. And this opinion is not confined to Scrofula such as we have defined it, but is extended to all those affections in which a tuberculous product is deposited in any of the tissues of the body. It has seemed to me, therefore, proper to inquire if that opinion be well founded, even should no practical benefit be derived from establishing as a fact, that the disease is more or less prevalent in this than in other countries.

The means which I have taken to ascertain how far the disease prevails in our own country, are the following: I have examined myself, or by the aid of others, a large number of children, in Schools, in Union Houses, in Factories, and elsewhere. I have taken a similar course with adults; I have availed myself of a large number of Hospital and Dispensary Returns, which may fairly represent the prevalence of the disease when it comes under treatment; and as correlative evidence, I have procured from the Army Medical Board, Returns of the prevalence of marks of Scrofula among Recruits; and from Dr. Baly and others, like Returns respecting the inmates of prisons; and I have taken the Reports of the Registrar General as evidence of the destructive effects of the disease.

The result of the examination of children is to show, that of 133,721 examined, in many districts,* 24 1-2 per cent. presented

* See Appendix.

the following marks of Scrofula: enlarged glands *recognisable by the touch*, cicatrices or other similar results of scrofulous glands, scrofulous bones or joints. But the gross number of cases in which the disease so marked was obvious to the eye, amounted to not quite 3 per cent.

In Union Houses, the number presenting marks evident on a simple inspection, was rather above, in Charity Schools rather below, that average. That difference it is easy to understand. Those actually suffering severely, did not appear in the School, whilst those in a similar condition were included in the Union House Returns.

These numbers may not exactly represent the prevalence of Scrofula in this country, because an examination of the children found in Schools and Factories, proves nothing as to children whose condition of suffering from Scrofula prevents them from attending those Schools or Factories; neither does the examination of children in Union Houses give us a more correct result, because sickly children accumulate in such establishments, while healthy ones are sent out. To correct my results, it was necessary to ascertain the proportion absent from a certain number of schools, and to ascertain as nearly as might be, the cause of the absence. The number of children attending the schools in which the inquiries were made was 1017, male and female, the number absent, from all causes, was 102; of these I ascertained that fourteen were absent from scrofulous suffering. The number of children between five and fifteen in the included families who had not been sent to school in consequence of scrofulous suffering was seven; altogether, the absence from Scrofula, was something over 2 per cent. among the children examined. This was in the metropolis.

I find, then, among the children of the poor in England and Wales, that the proportion of children, between the ages of five and sixteen, who present marks of Scrofula, evident upon a simple inspection, amount to as near as may be, but rather under 3 1-2 per cent. The marks to which I refer are glands sufficiently enlarged to be obvious upon simple inspection in the absence of any evident local cause of irritation; scars resulting from their suppuration, or diseased bones and joints, evidently scrofulous in their character. But that proportion does not represent the actual prevalence in the whole population, for among adults similar marks are not found to

exist in a greater proportion than 1 1-2 per cent. The adult population examined were taken from large towns, small towns, and rural districts, and comprised 1521 individuals; the sexes being pretty equally divided. Of these, 3 presented evidence of having suffered from disease of the joints, probably scrofulous; 12 exhibited scars resulting from suppurating glands, and 8 presented glands about the neck, sufficiently enlarged to be perceptible to the eye. Thus, on a total of 1521 persons, we find 23 presenting such marks of Scrofula as I have described. Taking, therefore, the gross population of the country, such marks are not observable in quite 2 1-4 per cent. of the people.

AMONG HOSPITAL AND DISPENSARY PATIENTS.

I think the prevalence of the disease, at a certain stage of its existence, is fairly shown by the applications for out-door relief at Hospitals and Dispensaries. I say fairly, because the disease registered will probably be only that which is most pressing at the time; and I say at a certain stage of its existence, because the bulk of those suffering from Scrofula do not seek relief for mere inconsiderable glandular enlargements, of whose existence, indeed, they are frequently unaware, but await the further development of the disease. Of 100 children under fourteen, well taken care of either in Workhouses or Charitable Institutions, the proportion seeking relief for scrofulous glands in the course of a year, is under 4. In this number, I do not include old cases of former years, which come under treatment again and again, every year. The Returns from Dispensaries, Infirmarys, and Hospitals, include England, Wales, Scotland and Ireland; and the total number of cases reported as treated, is 255,297; of these 3187, or 1 in 80 of the patients, are registered as cases of Scrofula.*

At the Infirmary for Children in Broad Street, Golden Square, all under thirteen are eligible for admission. Some cases of Scrofula are admitted under the care of the surgeons, and others under that of the physicians. Of 1000 cases on the physicians' books, I found that 19 were registered Scrofula; of 2000 cases on the surgeons' books, 112 were cases of Scrofula. If we take 1000

* See Appendix.

of each, which will represent, as nearly as may be, the actual state of things, we find the number of cases of Scrofula to be 75, or nearly 4 per cent. of the total admissions.

This is particularly the period of life when scrofulous glands are prevalent; and a majority of the cases on the books, at any given time, have very commonly come under treatment more than once, so that in the course of a couple of years the same case may be registered several times.

AMONG RECRUITS.

Although many persons would be inclined to think, that in the examination of Recruits there must be a great variety in the results, yet, if the returns be inspected, it will be found that there is a considerable uniformity in the ratio of men found unfit for military service from any given cause. When the numbers are very small, considerable discrepancies are observable, but as numbers are increased, these discrepancies disappear. It has been observed by Mr. Marshall, that in the occurrence of human disabilities, there is a law which determines the proportion of men who are disabled by infirmities, and thereby rendered unfit for the army. The range of the ratio of rejections during the war did not exceed 5 per cent., although the duties of the dépôt were performed by a succession of Staff Surgeons; a convincing proof that there is a natural law which regulates the proportion of physical disabilities among masses of the population. That law is equally apparent in the prevalence of disease; for although if we take any disease, and observe its occurrence through each one of a series of years, small diversities will occur, yet in the main, and during a period sufficiently prolonged for a fair comparison, the proportion will be preserved. There is a disease which would seem to be in an especial manner under the dominion of accident, namely, Locked Jaw; but I know nothing better calculated than this very disease to enforce a conviction that what so clearly appears to be the result of accident, is really under the dominion of a settled law. Take the Returns for a series of years, and the uniformity of annual deaths from Locked Jaw will appear very remarkable.

The result of the examination of Recruits has, it is true, no ab-

solute value, except as a means of comparing one district, or one country with another; but it has a limited value beyond this, namely, as evidence of the comparative state of particular districts, but it will not itself exactly represent the actual prevalence of the disease. A young man who is the victim of scrofulous disease of the joints, will not offer himself for enlistment, neither will he who has open scrofulous sores; but probably, very trifling glandular enlargements in an otherwise promising recruit would not be regarded as a disqualification. However this may be, the Returns show that of 95,586 Recruits examined, all having the requisite height, 800, or 1 in 119, were rejected for marks of Scrofula.

AMONG CONVICTS.

Again, if we compare the information obtained from other sources with that so kindly communicated to me by Dr. Baly, we find a confirmation of the general correctness of the data on which I have so far relied. In the year 1840, Dr. Baly ascertained that of 1052 prisoners received at the Penitentiary, 14 presented, at the time of their admission, "scrofulous disease of the external glands," that is to say, the enlargement, or scar, was obvious to the eye.

The examination of the boys in the Parkhurst Prison, made by Mr. Jemmet, the resident Medical Officer, shows that 660 between the ages of ten and eighteen were inspected; that 95 presented enlarged glands; that scrofulous scars or joints did not exist in a single instance. This result corresponds very nearly with that furnished by the examination of the boys in the Greenwich Naval School.

It is thus seen, that though derived from so many and such different sources, there is a striking concurrence in the results of the evidence I have collected, and that agreement constitutes a strong reason for believing that my data do, very nearly, represent the actual prevalence of the disease. We see that the Returns of cases of Scrofula, found among our ordinary population, are singularly confirmed, not only by the Returns of Hospitals and Dispensaries, but also by the examination of Recruits and Convicts; and I think we are thus justified in regarding as near the truth our esti-

mate of the prevalence of Scrofula, such as we have defined the disease. That is to say, that scars are apparent in about 1 1-2 per cent.; that the subcutaneous glands are enlarged, so as to be perceptible on simple inspection in less than 3 per cent.; and that the glands may be detected by the finger in 24 1-2 per cent. of those of the children of the poor who are under sixteen, and in 8 per cent. of those above; or taking the whole population, in 10 per cent.; and that something less than 3 per cent. of the people are under treatment for the disease in its various forms.

REGISTERED MORTALITY AS EVIDENCE OF PREVALENCE.

The registered mortality from Scrofula, contained in the Reports of the Registrar General, amounts to 8 per 100,000 on the gross population of England and Wales; that is to say, the average annual deaths from Scrofula are about 1200, and the population, in round numbers, about 16,000,000. Although that estimate cannot be regarded as a proof of the extent to which Scrofula prevails, but only of the extent in which it is fatal, yet it affords a means of comparing one district with another, and one country with another; because I apprehend it will not be denied that where there is most Scrofula, there will be most deaths from the disease.

Such are the means I have employed to ascertain how far the ideas commonly held with regard to the great prevalence of Scrofula in this country are correct; and although the facts which I have collected may not represent the exact amount of the disease, still they are a nearer approximation to the truth than any thing we before possessed on the subject. And they cannot fail, I think, to impress upon the mind the conviction, that unless Scrofula degenerates into some other disease, its actual prevalence, as well as its influence in the destruction of human life in Great Britain, is not very formidable.

UNEQUAL PREVALENCE.

In our own country, the result of the examination of children has been to show that the disease prevails very unequally in different districts. We have seen that the general average of the ordina-

ry marks of Scrofula, among poor Children, is 24 1-2 per cent.; but in some districts they have been found to extend to 72 per cent., and in others not to exceed 11 per cent., and this inequality has occurred within my own observation.

In Hospital and Dispensary Returns, the same disproportion is likewise found between different districts. The general result is, that of the cases presented as out-patients at Hospitals and Dispensaries, 1.2 per cent. are registered as Scrofula. I we analyse the table, we observe that in some places the proportion is under 1 per cent. at Exeter the proportion is 2 per cent., while at Glasgow it amounts to 5 per cent. If we take two agricultural districts, the Eastern, which comprises Essex, Suffolk and Norfolk, and the South Western, which includes Wilts, Devon, Dorset, Somerset and Cornwall, we find in the former that the deaths from Scrofula are as 11.8; and in the latter as 10 to every 100,000 population, being a difference of nearly 20 per cent. In the purely manufacturing districts of Lancashire and Cheshire, the proportion is only as 5.66; while in that of Yorkshire, as 3.5 per 100,000. And in the mixed districts of Gloucester, Hereford, Shropshire, Worcester, Stafford, and Warwick, it is as 7.9 to 100,000.

The Irish Census Returns, including as they do a period of ten years, show a mortality from Scrofula of 1 in 25,952 of the population; but in the different provinces is a considerable variety. Thus in Connaught, is 1 in 21,177; in Ulster, 1 in 31,399; in Munster 1 in 23,363; in Leinster, 1 in 29,025; but to this mortality should be added much for Marasmus. In the case of the Irish Returns, the deaths from Marasmus are very large, amounting to 6,865 annually; and as many of these may have been cases of Scrofula, the absolute value of the Returns, in so far as concerns Consumption and Scrofula, is much lessened.

The Infirmary and Dispensary Returns in Ireland show a proportion of scrofulous cases amounting to 82,746, of these 1240, or 1.5 per cent. are registered Scrofula.* The examination of children in Limerick gives a proportion of 54 per cent. having the ordinary marks of Scrofula. And the total deaths comprised in Dr. Griffin's paper were 2918, those from Scrofula, 7.

The recruiting Returns, for the United Kingdom, show an average rejection of 8 per 1000 for marks of Scrofula. In England

* See Appendix.

the smallest number of rejections for Scrofula occurred in London, where they amount to 5 per 1000. In Scotland, in the Edinburgh district, 16 per 1000; in Ireland, in the Dublin district, 13 per 1000.

Such is the best evidence I have to offer as to the prevalence of Scrofula and the inequality of its ravages in different parts of the United Kingdom. I do not claim for this evidence anything more than an approximation to the truth, which, however, I believe to be a near one. But whether near or not, I am not going too far when I say, that it is nearer than any estimate which we previously possessed on the subject; and it will enable us to compare our condition, with reference to Scrofula, with that of other countries, and to determine whether the ravages of that disease fall more heavily upon his own than upon the population of other lands.

PREVALENCE IN OTHER COUNTRIES.

I can show the prevalence of the disease in many other countries, by the examination of children; in France, by the examination of children and Recruits; and in Geneva and Paris by Mortuary Tables.*

In the Orphan Asylum at Lisbon, Dr. Rosas examined 800 children, of whom, 279, or 35 per cent., bore the ordinary marks of Scrofula; of the boys, the proportion was 50 per cent. of the whole number examined; whilst of the girls it was only 10 per cent. In the Orphan Asylum at Amsterdam, of 495 children, 203, or 42 per cent., bore the ordinary marks of Scrofula. At the Orphan Asylum, Munich, the Report shows that Scrofula, at one time, affected two-thirds of the children, but that under improved diet and air, the disease has lessened in frequency. The Vienna Return shows that the number of children boarded in the Imperial Royal Orphan Asylum, was $\frac{308 \text{ boys}}{104 \text{ girls}} = 412$; of these, during the year 1841 $\frac{18 \text{ boys}}{27 \text{ girls}} = 45$, or 11 per cent., came under treatment for Scrofula. The Return made by the President of Police at Berlin, Von Puttkammer, of the condition of the children who were within the walls of the Frederick Orphan Asylum, shows that the number was $\frac{230 \text{ boys}}{123 \text{ girls}} = 353$; of these, 125 boys and

* See Appendix.

50 girls had enlarged glands, 4 boys and 4 girls had scrofulous ulcers, 2 girls had scrofulous joints; making 185, or nearly 53 per cent. At St. Petersburg, of 840 children examined, 343, or nearly 41 per cent., bore evident marks of Scrofula. At the Imperial Foundling Hospital, at Moscow, the number of children examined was 15,515, of whom 1294, or only 9 per cent., are reported as presenting tumid glands, ulcers and sinuses resulting from scrofulous swellings, and diseased joints. This proposition is very small, and that trifling enlargements have been passed over is rendered probable by the fact, that the number presenting scrofulous ulcers and sinuses, and diseased joints, is greater than the number which has been reported to present tumid glands, the latter being 583, and the former 711. I have, therefore, little doubt, but that in the whole of these cases the disease was evident to the eye, and if so, the proportion was very large; and even if we take the 711 cases only, in which we know the disease was apparent to the eye, the proportion is large—nearly 5 per cent. The Returns I have from America vary greatly. That from the Boston House of Industry includes $\frac{98 \text{ boys}}{48 \text{ girls}} = 146$ children, of whom 106, or 70 per cent., are returned with the specified marks of Scrofula. That from Philadelphia, carefully supervised by that able physician, Dr. S. Jackson, shows a total of $\frac{2641 \text{ boys}}{1357 \text{ girls}} = 2998$ school children examined, of whom $\frac{10 \text{ boys}}{3 \text{ girls}} = 13$ are returned as scrofulous; and Dr. Jackson says: "I have been struck with the small number of individuals manifesting any decided marks of Scrofula. No. 6 is a school for black children; three cases of enlarged submental glands were found,* but they can scarcely be regarded as scrofulous. In the Almshouse Asylum, where I expected, from the class of children, to find decided evidence of scrofulous diseases, it was very slight. But one presented the characters contained in your Table. You will find that I have extended in the Returns the signs of Scrofula beyond those presented in your Table. The whole number of Cases that presented enlarged cervical glands, or cicatrices, are but five." He goes on to say: "Scrofula is not a frequent disease in this country. Tubercular Phthisis is very prevalent. Is there not a marked

* See Appendix.

distinction between tuberculous disease and Scrofula? In the course of my observations I have not often met with patients who are affected with Scrofula; in whom tubercular disease occurred. I have been rather impressed with the notion that scrofulous patients were in some manner exempted from the tubercular form of disease."

In consequence of the unusually favourable results of the examination of children in Philadelphia, I applied to Dr. Jackson, to ascertain how far my directions had been attended to. In his answer he says: "In the examination of the children, the results of which were forwarded to you, the hands were carefully passed over the necks of every individual. Whenever the cervical glands could be felt, it was reported, with two exceptions. In these cases, two young girls, acute tonsillitis had existed, from which they had just recovered. They still had their necks muffled in flannel."

Taking the population of New York, in 1840, at 345,000 in round numbers, and taking the deaths from Scrofula as reported, at the average of thirty-five years, at 4278, we find that the annual deaths from Scrofula bear to the total population a proportion of 1 to 1241; in Philadelphia, the proportion is 1 in 453; while in London, the same year, the proportion is, in round numbers, as 1 to 17,500.

Including Beyrout, Cairo, Alexandria, and Greece, the number of children examined was 607; of these, 132, or more than 21 per cent., presented the ordinary marks of Scrofula; in twenty-six instances, they were obvious on simple inspection; in nineteen, or more than 3 per cent., there were scars or permanent marks. It would seem that in those countries, although the disease is somewhat less prevalent than in our own, it oftener proceeds to suppuration. If we exclude Egypt and Syria, and observe the district of Athens only, it is then evident, not only from Mr. Kaye's Returns, but from the statements of Greek surgeons, that the disease is greatly more prevalent there than among ourselves.

From India, I have the following Returns; first, one procured for me by Dr. A. Jackson; which is as follows: "I have examined, at different schools, indiscriminately, under ten years of age, 100 boys, all born in India, and of Creole extraction, of whom 80 may be called of dark complexion, eighteen have flaxen hair and

olive eyes, 2 very fair, with grey eyes. Of the 80, a majority are subject to glandular disease; of the 18, none are free from glandular tumors, but not suppurating. The 2 fairest are also scrofulous."

Second, Dr. Spry's. He examined 75 children of mixed parentage, of whom *all* had swelled cervical glands; 4 had open scrofulous sores; 136, of pure English parentage, of whom none were scrofulous; 504 native children, of whom 300 were scrofulous.

In the Children's Clinique, of Stœber, at Strasburg, we find that of 300 children treated, 40 were for scrofulous diseases, of whom 21 had glandular swellings in the neck, 7 scrofulous ulcers, 11 scrofulous caries.

At Madeira, with a climate said to be singularly favourable in Phthisis, Dr. Renton states, that of 405 children examined, 53 had sensibly enlarged cervical glands, 3 suppurating ones, and 4 had cicatrices; in all, 15 per cent., as large a portion as is found among the boys in the Parkhurst Prison.

Paris and Geneva possess Mortuary tables which enable us to compare their condition as regards Scrofula with that of our own capital. Taking a series of years, the deaths from Scrofula in Paris amount to 1 in every 3221 of the population; in Geneva to 1 in every 2790; in the year 1842, taking the population at 61,871, and the deaths from Scrofula at 16, the proportion is 1 in 3867, while in London, taking four years ending in 1842, they amount to about 1 in 9,000. For the rest of France we have no means of comparison in so far as regards the mortality from Scrofula; but we have materials for instituting a comparison with reference to the condition of Recruits.

Taking the whole of France, the total number of Recruits rejected for all causes, other than want of the necessary height, are as 54 to 86, (54,668 rejected in completing the amount of the conscriptions, 86,000); our own rejections are under 1 in 4. The rejections for marks of Scrofula are 2 per cent., or 1754 in obtaining 86,000; our own proportion is 1 in 119. The rejections for

* I think 8 out of 10 half-cast children scrofulous.

5 out of 10 native kind.

4 out of 10 English.

1 out of 10 Mussulman.

Scrofula in the Département du Nord, are 46 per 1000; in the Eastern Pyrenees, 1 per 1000. It appears, then, that comparing Paris with London, the deaths from Scrofula, when compared with the population, are six times as many in the former as in the latter capital; and that for the whole of France, the marks of Scrofula presented by recruits are twice as many as among our own recruiting population.

Is it not, then, abundantly proved, that the notion that Scrofula is eminently an English disease, is incorrect; and am I not warranted in stating that there is no country, so far at least as our information extends, in which the people are more free from the disease than in England and Wales?

CHAPTER VIII.

IS THE OCCURRENCE OF SCROFULA PROPORTIONALLY MORE FREQUENT THAN FORMERLY?—OR, IN OTHER WORDS, IS IT ON THE INCREASE IN OUR LAND?

THE opinion is strongly and generally expressed, that Scrofula, as well as ordinary tubercular disease, affects a larger proportion of our population at present than it did formerly. It is, therefore, important to inquire whether that opinion be well founded. Although if the question be answered in the affirmative, we may have no present means to lessen the evil. The materials for coming to a correct conclusion on this point are scanty, and are very much confined to the population included within the Bills of Mortality.

The first uninterrupted series of weekly Bills of Mortality, commences on the 29th Dec., 1603, nearly two centuries and a half ago; at which period those Bills comprised only thirteen out-parishes, in addition to ninety-six parishes within the walls of the City of London. Subsequently to 1603, additional parishes were included. In 1625, the number of burials in every parish, was, for the first time, published. The Report of Diseases and Casualties was first published in 1629; it then included twenty-six parishes, besides the ninety-seven within the walls. It may be urged that but little confidence can be placed on their Tables of Disease. To some extent, this is no doubt true; but it is also true, that in their earlier period, the rule was "to appoint in each parish, *searchers*, who, on a death being announced, visited the house of the deceased, and inspected the body, inquiring the age and disease which occasioned the demise." I do not mean to say that a Return so made would exactly represent the causes of death, but at all events, it is the nearest approximation to accuracy which we possess, and in my opinion, it is near enough to justify a comparison. If we look at the deaths from Consumption, which form so prominent a feature