by causing a healthy child to associate with, or even to dine at the same board, play at the same games, or even to sleep in the same bed with a scrofulous child, I should always object to the cohabitation of a sickly child with one in good health. "Quotidie occurrunt exempla ubi sani infantes cum scrofulosis arcto et ipsius lecti consortio fruuntur nec tamen ipsis morbus communicatur,"* is a remark of Kortum, in which I entirely concur.

IS PUS, ARISING FROM OTHER DISEASES, CAPABLE OF PRODUCING SCROFULA?

The opinion has been expressed by several authors, that the disease may be communicated by pus proceeding from a scrofulous person, even though that pus be not derived from a scrofulous abscess or ulcer. Thus Lepelletier maintains, that blennorrhagic discharges which, as he believes, men sometimes contract from scrofulous women, suffering from leucorrhæa, are a consequence of the absorption of scrofulous matter. But he must have been aware how common such cohabitation is, and how uncommon such blennorrhagic discharges are, if there be no reason to suspect Gonorrhæa. He must also have known that they frequently result from cohabitation where there can be no suspicion of Scrofula.

It is also believed by some persons that *variolous* virus taken from a scrofulous person, is capable, when inoculated, of producing Scrofula. Dehaen stoutly maintained, that inoculated Small-pox was a common cause of true Scrofula; but then he was a decided opponent to variolous inoculation, and did not exercise an unbiassed judgment.

Dr. Fordyce† mentions the case of a young lady of sixteen, who had not menstruated. She was inoculated. The disease was mild, and her recovery was rapid—with this exception, that small ulcers of a scrofulous character formed around the punctures and continued troublesome for some weeks. At the same time, the region of the parotid became tumid, the lymphatic ganglia about the neck enlarged, and assumed a strumous appearance, but the affection yielded to bark, sassafras, and generous living. Similar cases are mentioned by Bocquis and others: thus,

* Loc. Cit. p. 216.

† Med. Obs. and Inquiries.

Rowley says,* "A young gentleman, aged 10, son to an officer in the army, came under my care, August 1774. He had been inoculated about five years before, for the Small-pox, under a reputable surgeon. Soon after, there appeared several glandular swellings about the neck and throat, some came to suppuration, &c." In a note, he says, "I have seen several instances where inoculation has produced the King's Evil; therefore we should be very cautious what subject we take the matter from."

That scrofula should present itself in a child who has been broken down by an attack of Small-pox, is not surprising. Is not Scrofula, however, I would ask, as frequently seen after other debilitating diseases? Does it not, for example, as often succeed to Measles? And here there is no inoculation! I therefore agree in opinion with Cullen, who regards Dehaen's position as untenable, and with Kortum, who says, "Scrofulas cum variolis propagari posse cum Whitio negare haud dubito. Qui illud comporbare videntur casus, aliâ ratione explicandi sunt."† Cullen mentions many examples of natural Small-pox occurring in children already affected with Scrofula, in whom the symptoms of Scrofula had given way. In the second volume of the Memoirs of the Academy of Toulouse are many seemingly most conclusive facts of scrofulous tumors and ulcers radically cured during, or by, the suppuration of Small-pox; but they cannot be regarded in any other light than as coincidences.

An important question is raised by Rilliet and Barthez, with reference to the influence of Small-pox upon Scrofula. We have seen that Dehaen and Rowley were of opinion, that the inoculation for Small-pox, had a tendency to excite in the system the development of Scrofula; while Rilliet and Barthez state, that in any of the variolous cases they have observed, the eruptive fever had not been terminated by tuberculisation. They believe it to be proved, that Small-pox and tubercular disease are of different na-

* Select Cases, 1779. † Page 218.

tures and mutually repel each other; that since the use of vaccination, tubercular diseases had become more frequent; that those children who die without having had Small-pox, are more frequently tubercular than otherwise; and that of those vaccinated, a greater number are disposed to tubercles, than of those who have not been vaccinated. They, however, guard themselves from assigning vaccination as a cause of tubercle; all they have been able to observe is, that a greater number of vaccinated children die with than without tubercles. The only precise evidence they furnish for the opinion is the following: of 208 vaccinated children, 138 died tubercular, 70 non-tubercular. Of 95 children who died without having been vaccinated, 30 were tubercular, 65 not so.

We have seen that tubercular and scrofulous matter may become cretaceous, and that in this state it may remain quiescent for a length of time, but we are not acquainted with any means of producing this result. Rilliet and Barthez, however, advance the opinion that Typhoid Fever, Scarlatina, and especially Small-pox, have a tendency to determine this transformation. If there were better reasons than we at present possess for believing their opinion to be correct, it would be easy to avail ourselves of the power of Small-pox to accomplish that transformation; but until we have proof, first that such an influence is exercised at all, and next, that it is permanent, few persons will be disposed to avail themselves of so formidable a remedy.

CAUSES CONTINUED.

I have sought to determine, what is the extent of the influence which the constitution of the parent exercises in the development of Scrofula in the child;—whether a child can acquire the disease through the medium of the milk which he derives from the breast of a scrofulous nurse;—and whether it can be communicated by contact or by inoculation; and I have maintained, that the influence of the first agents, though real, is less energetic than is commonly supposed; and is, I conceive, quite insufficient to explain the prevalence of the disease. I do not, however, mean to say, that one child does not come into the world, with tendencies whereby he is prepared to profit, or to suffer, more than another, from the influence of the circumstances which surround him; but I do mean to

convey my strong conviction, that whatever may be his condition, on coming into the world, it will be modified, either for good or for evil, by the circumstances to which he is exposed during childhood. They may tend either to develop a vigorous constitution, or to produce Scrofula, or other disease. I must, therefore, proceed to show what are the circumstances, to which the child is exposed, which tend to induce the development of Scrofula.

To exhibit clearly the influence of different agents in producing great changes in the constitution, I must refer shortly to the general mortality, but I shall do so only as a means of establishing results which bear upon the question of the development of Scrofula. It may be thought that in alluding to the general mortality, I am entering a wide and not strictly relevant field of inquiry; but I have a strong conviction, that many of the causes which tend to destroy life, do, when acting with less energy, tend to develop Scrofula; and that where they are intense enough to determine a large general mortality, they leave a scanty harvest for the slower moving ravages of Scrofula. I will adduce examples for the purpose of making this law evident.

There are places in England and Wales, where the general mortality scarcely exceeds 1½ per cent., whilst there are others where it amounts to 3½ per cent. on the gross population. In the former districts, the deaths from Scrofula are 1 in 7000, a number nearly double that of the average of England and Wales; in the latter, they only amount to 1 in 20,000. Again, the Registrar-General's Reports for 1838—42, show that in the districts of Melksham and Bradford, the deaths from Scrofula are nineteen times more numerous than in the districts of Durham, Exeter and York, whilst the general mortality is less. In England and Wales, the district in which the mortality is greatest, is the North-western, comprising Lancashire and Cheshire, where it amounts to 2.64 per cent.; and a district where the mortality is among the lowest, is that of Monmouth and Wales, where it does not exceed 1.96 per cent. In the former district, the deaths from Scrofula, compared to those from all causes, are as 1 to 505, while in the latter, they are as 1 to 173. In the North-western District, the acute disease destroys life, and a small harvest is left for Scrofula; whilst in Monmouth and Wales, the causes by which life is destroyed act with less intensity, and the chronic disease becomes more exten-

sively fatal. My next example I take from another country, in order to show the extent to which the law I have alluded to prevails, and not because similar evidence might not be furnished amongst ourselves. In France, the mortality, as proved in the Memoir of Legoyt, is not greatest in those Departments where the rejections for Scrofula among Recruits is most frequent. Thus the mortality is greatest in the three Departments of *Bouches du Rhône*, *Vienne* and *Var*, where it amounts to 3 per cent.; the mean for the whole of France being 2.4. The rejections for Scrofula, in those Departments, are 5.3 per 1000.; whilst the mean for the whole of France is 20.4 per 1000. *Corse*, *Orne* and *Sarthe*, are three Departments where the mortality is amongst the lowest, it amounts to 1.9 per cent. only. But the rejections for Scrofula in those Departments are 7 per 1000, or nearly 35 per cent. more than in the districts where the mortality is greatest. The largest amount of rejections for Scrofula occurs in *Nievre*, *Noid*, and *Oise*, and is 38.3 per 1000; the mortality being 2.5 per cent., a fraction only, as 25 to 24 over the mean, for the whole of France. The smallest amount of rejections for Scrofula, occurred in *Landes*, *Vendée* and *Pyrenées* (*Orient*), where it is 2 per 1000, while the general mortality was greater than in *Nièvre*, *Nord*, and *Oise:* viz. 2.6 per cent.

Those examples, and they might easily be multiplied, show a very definite relation between the general mortality and that from Scrofula, and fully justify us in referring to the one while considering the other subject.

A similar rule applies when we compare Consumption and Scrofula. Where the general mortality is largest, that from Consumption is also, almost always largest, but that from Scrofula is smallest. It is, therefore, almost a safe assertion to make, that whenever the general mortality, and that from Consumption, are large, that from Scrofula is small.

The evidence of Dr. Willis shows, that in Dublin, among people "not destitute," under the age of five years, the mortality is 12.45 per cent. per annum; while in Herefordshire, it is only 3.8. Now, however we may differ about the causes of such different rates of mortality, it is certain, that some agent, or group of agents, must exercise a very powerful influence when producing such disastrous effects as are experienced in Dublin; and that if the same

agents exist at all in Herefordshire, they act there with much less intensity.

Although the comparative value of life in different localities, and under different conditions can be thus clearly estimated, and the combined influence of many associated causes can be shown, we are unable to determine the actual value of each one of the many causes so associated which influence the duration of existence. We can show, indeed, that employment, social position and locality, is each accompanied by a proper mortality; and that certain groups of morbific agents are more directly in action under one condition of existence than another. But the comparisons which have been made for the purpose of estimating the influence of certain agents, in the duration of life, have too often been very unsatisfactory; and on this point the following observations of Mr. Neison* are most judicious.

"At present it is right to assume, that either the employment or occupation—condition in life, or rank in society—poverty or riches—has as direct an influence on the duration of life, as peculiarity of locality or habitation; for the effect of neither the one nor the other of the presumed influencing causes has yet been correctly defined. The truth of this assumption may appear more evident thus:—suppose that the town of Liverpool were compared with some purely agricultural district, and that a much higher rate of mortality was found to prevail in the former; it would be no more right to assign this result wholly, or indeed any given portion of it, to the badly-conditioned streets and ill-planned houses of Liverpool, than to any other of the supposed causes.

"In order to determine the simple influence of locality, like classes in the respective districts must be compared. In a comparison of districts A and B, if it so happened that in A two elements, *c* and *d*, were found to influence the value of life, while in B only one of those elements existed, the grounds of comparison would evidently be fallacious. Now this is precisely a parallel case to the state of things which exists in comparisons that have frequently been made between the Manufacturing Towns and Rural Districts of England, and between one Manufacturing Town and another. Causes influencing the duration of life, independently of locality itself, frequently exist in one, and not in the other; by

* Contributions to Vital Statistics.

overlooking which, observers are often led to assign excessive mortality to imaginary causes. If simple elements were compared, errors of this kind would be avoided. Keeping this in view, and referring to the preceding case, let *c* be supposed to represent comfort, and *d* distress. If, comparing comfort in district A with comfort in district B, a greater mortality were found to prevail in the former than in the latter, it would then be right to assume that the remaining elements—ill-ventilated houses, badly drained streets, and the like—in district A, were not so favourable to life as in district B; but it would have been wrong to draw such a conclusion, had comfort and distress in the one district been compared with comfort only in the other.

"It is evident that, in a comparison of the general mortality of any one place with that of another, such errors could not be avoided. It may happen that the prevalence of a particular kind of employment or occupation in the one, which is not common to the other district—but which employment is of an unhealthy nature, or perhaps subject to great fluctuations in prosperity, or probably both combined—may produce an excessive mortality, the cause of which may be attributed to badly-planned dwellings, instead of poverty and its train of direful consequences.

"If it were possible to compare any one class in a given district with the same class, under exactly similar circumstances, in another district, the only distinction being the difference of district or locality, then it is plain that the influence of locality, if any, would manifest itself.

"Again, if different classes of persons in the same locality were compared—for example, those following different employments—the only distinction being difference of employment, then the effect of that element, if any, on the duration of life, would appear."

The following illustrations will serve to give point to these observations of Mr. Neison. The mortality of a town is found to be larger than that of a rural district, whereupon, insalubrity in the town is assumed, and the causes of that insalubrity are sought for, while the materials to be compared may be unequal, and the difference is only apparent. In one place, the juvenile population amounts to a fifth, in the other to a fourth of all living. Now, it is upon the juvenile population that the mortality falls heavily. To make the comparison equal, the proportion at different ages should be also

equal; but this adjustment has been usually overlooked. Places where a large mortality occurs are regarded as unhealthy; whilst others, where the general mortality is smaller, are reported to be healthy. And yet, if the conditions of the population were only adjusted, the results might be reversed. Thus, a town, A, has 10,000 inhabitants, whereof 2000 are young children, among whom the mortality is 4 per cent. A town, B, has also 10,000 inhabitants, but only 1500 children; the rates of mortality are the same in both; the deaths among the children are 80 in A, and only 60 in B; all else being equal, and the mortality alone being regarded as the test, A would be pronounced an unhealthy town as compared with B, while the salubrity would in fact be the same, and the populations only, different. Here is a pertinent case extracted from Mr. Neison's paper: "In the year 1840-1, the actual mortality at Bethnal Green was 2.38 per cent.; that of St. George's, Hanover Square, was 1.73; but if the population be adjusted, that is to say, if the proportions of the living at different ages be made equal, and the actual force of the mortality at each place and each age be applied, then St. George's would be represented by 2.50."

At Sheffield the fork-grinders, (a class whose age at death, according to Dr. Knight, averages only about thirty-six years, and among whom the mortality, between the age of twenty and forty, is, according to Dr. Holland, 88 per cent., while among the general population there, it is only 35 per cent.), do not live so long as the knife-makers; the earnings of each are sufficient to procure the necessaries of life, the locality to which they belong is the same; it is therefore the particular employment alone which determines the larger mortality.

The people of Norfolk do not live so long as those of Devon or Surrey; and as they are all mainly agricultural, it is, probably, locality which causes the difference of mortality.

Rank in society, or social position, also has its proper mortality. Take the most elevated class in this country—the Peerage—amongst whom the duration of life is given by Dr. Guy.* "A class combining the greatest number of physical advantages, and having at its command all the means by which health may be preserved, and the best advice and assistance procured in case of accident or ill-

* Journal of the Statistical Society.

ness. There is no class which possesses all these advantages in so eminent a degree as this, and what is the result?

At 20 the expectation of life is 38.47 years.

30	"	30.87 "
40	"	24.45 "
50	"	17.92 "
60	"	12.56 "

While, at corresponding ages, among the general population, a very large proportion of whom are deprived of advantages enjoyed by their more elevated countrymen,

At 20 the expectation of life is 40.69 years.

30	"	34.09 "
40	"	27.47 "
50	"	20.84 "
60	"	14.58 "

Here the increased mortality is owing, I apprehend, to *social position*. It is unnecessary for the purposes of the present inquiry to carry the illustration further. But none of these circumstances should be lost sight of when we are estimating the salubrity of a district.

It is strongly urged in the present day, by persons who are regarded as safe authorities, that the causes of the larger mortality of particular places may be easily extinguished; that the mortality in the worst districts may be reduced to an equality with that of the most favoured; and that by so legislating as to secure an improved system of sewerage, and better ventilated habitations for the poor, the mortality of England and Wales can be lessened by 25,000 or 30,000 per annum. I do not, however, believe that even if sewerage were good, and the dwellings of the poor were clean and well ventilated, the mortality of the country would thereby alone, be greatly lessened; and yet no one would less desire than I should to impede any well-meant efforts to better the condition of the poor, or more gladly see procured for them more roomy dwellings; these, with the removal of impurities and increased cleanliness, are not less efficacious as moral than as physical means of improvement; but to exaggerate expected advantages is to ensure disappointment and to paralyse future exertion. Cold and hunger will still remain, amongst those agencies, which the most impair health

and most abridge the duration of life, and these are agencies which legislation can but slightly modify; and although other influences are in constant operation upon our bodily frames, yet the food which is introduced into the stomach, and the air which passes into the lungs, are among the most energetic agents in supporting health or inducing disease.

FOOD.

Conceiving, as I do, that nutrition holds the first place amongst those agents which influence the production of Scrofula and the duration of life, and that it is by the materials which are introduced into the stomach, that nutrition itself is mainly influenced, I shall now inquire to what extent food acts in developing Scrofula. And as the following inquiry into the influence on life and health, of the food of infants and children, may appear to some persons to be more minute and detailed than the subject we are considering required, I would state at the outset, that in my judgment, the food exercises a most important influence in the production or prevention of Scrofula, and that the seeds of that deterioration of the bodily frame which predisposes to Scrofula are sown in infancy or early life.

There can be no doubt, but that an infant's natural food, when obtained from the breast of a healthy mother, is that best adapted to the wants of the child; but it often happens that this cannot be obtained; and it then becomes necessary to provide a substitute. An unexceptionable one, under certain circumstances, may be found in the breast of a foster-mother. I say under certain circumstances, because I am aware that it has been shown by Benoiston de Châteauneuf, that, at Paris, of 100 infants nursed by their mothers, 18 die in the first year; while of those nursed by "strangers," 29 die in the same time. By the bulk of our population, however, a foster-mother cannot be procured, and some plan of artificial feeding is their only resource. But any plan of artificial feeding leaves much to be desired, and an undue proportion of the children subjected to it, languish and die; because, exclusively of less care and tenderness on the part of the substitute, such food does not furnish them an appropriate nourishment; and in many of those who do not die in infancy, the foundation of Scrofula is sure-

ly laid. The mortality of Infant Institutions, where the child is brought up by hand, is unusually large; and although other circumstances may contribute to increase the mortality of such establishments, we have proof that the method of feeding exercises a most material influence on the extent of that mortality.

The researches of Casper confirm that view. The Report of the French Minister Laine, on Foundlings, (1818), showed that from 1787 to 1789, the deaths amounted to 90 out of 100; from 1815 to 1818, they amounted to 75 per cent.; in 1824; to 60 per cent.; in 1838, for Paris,* to 50 per cent. At *Parthenay*, where the children were brought up by wet nurses, the mortality in the first year amounted to 35 per cent. At ——— where they were brought up by hand, to 80 per cent. At *Poitiers*, the usual mortality was 12 per cent. for the first month. In 1854, the Conseil-Général of the Department of *Vienne*, closed the tours; 164 infants were taken to the Hospice; 43 died in the first fortnight, and 16 in the second, or 35 per cent. per month;—being three times the mortality which was experienced when they were provided with wet nurses. At *Rheims*, the infants were brought up by hand, and from 1826 to 1835, the mortality in the first year was 63 per cent. At *Lyons*, a crowded manufacturing town, where the infants were suckled, the mortality in the first year amounted to 33 per cent. The ordinary mortality at *Lyons* during the first year of life does not exceed 20 per cent. In *Loiret*, the mortality amounted to 31 out of 57, or 55 per cent. in the first year. In the *Vosges*, in the same time, the mortality was only 38 out of 400, or 9½ per cent. In the *Pyrénées Orientales*, 20 out of 33 or 60 per cent. In our own Foundling Pospital, where the children are provided with wet nurses, the mortality does not exceed 22 per cent. during the first five years of life; and of these 10 per cent. only died during the first year. But it must be borne in mind, that a child is rarely admitted into that establishment before the third month, and that it is during the first three months of life, that the mortality is relatively very large. It would, therefore, seem that the mode of rearing infants, and the food which is furnished them, according as it is derived from the mother's breast, or one or other

* Villerme.

of the vicarious methods, namely by a foster-mother or by spoon food, influence greatly the amount of the mortality of infant life.

I know that some people maintain a contrary opinion, and Baudelocque urges, that in Normandy and Maine, where the greater part of the children are said to be brought up by hand, the population is robust, and Scrofula is not more frequently observed there than in other countries, but we have no proof that this statement is correct, and it is certainly opposed to all the evidence with which I am acquainted.

When a child is brought up by hand, there are two material circumstances to be noted, the food he takes, and the manner in which it is taken. The food even if it be milk, (instead of being taken at the moment from his mother), has probably been obtained, some time before, from a purely herbiverous animal—the cow, and between that fluid and human milk, the differences are considerable, as will appear from the following analyses.*

The great difference in those results shows that the composition of the fluid is very variable, but in one respect they concur in showing that the milk which most resembles that of woman is that of the ass, which is obtained by very few children. That of the cow contains more than twice as much caseine, and less butter and sugar of milk, so that ordinary dilution cannot make its composition to resemble that of the milk of woman. But there is a further difference, which cannot be unimportant. If an infant

	Cow.	Ass.	Woman.	Goat.	Ewe.
* Caseine	4.48	1.82	1.52	4.02	4.50
Butter	3.13	0.11	3.55	3.32	4.20
Sugar of milk	4.77	6.08	6.50	5.28	5.00
Various salts	0.60	0.34	0.45	0.58	0.68
Water	87.02	91.65	87.98	86.80	85.62

Henri et Chevallier, Journal de Pharmacie, t. xxv., p. 340.

	Cow.	Ass.	Woman.	Goat.
Caseous matter	8.95	1.95	1.93	4.38
Butter	2.68	1.20	8.97	4.56
Sugar of milk	5.68	6.29	1.20	9.12
Water	84.69	90.95	87.90	81.94

Meggenhofen, Van Stiptrian, Luiscius Bonpt. Peligot.

be suckled by two different persons, his digestion is likely to become deranged, and yet the food taken by the child, brought up by hand, may be derived from the mixture of the milk of many cows. Again, when he derives his food from his mother's breast, it is of a proper temperature and homogeneous; when obtained from the cow, it may have been drawn so long as to have become separated into two parts, or to be even further decomposed. How often is the influence of these things apparent; a child loses its mother, an attempt is made to bring it up on cow's milk, it gradually droops and languishes;—a foster-mother is then procured, and it rapidly recovers. Again, even if the milk of a healthy cow were unexceptionable food for the child, it happens, particularly in large towns, where the animal is kept in a state of close confinement, that she becomes liable to disease of a tubercular nature, and her milk undergoes considerable change in its composition; acquires a sweeter taste than is natural, and the proportion of its saline elements is much increased. In this state, it is said to be less easily digested, more apt to disagree with the delicate stomach of the infant, and to impair nutrition.

Then the mode of taking the food exercises an important influence upon the health of the child. By the act of sucking, a certain quantity of saliva is pressed into the mouth, and is mixed with the milk so as to render its digestion easier. Indeed the admixture of saliva with the food is an essential condition of a good digestion, not only in children, but in grown up persons. Add to all this, that the natural mode of taking food is to some extent a protection against improper feeding. The act of sucking is an exertion which can only be maintained for a certain time, and therefore the chance of improperly distending the stomach is not great; but when fed by hand, no such exertion is necessary, and the only measure of the capacity of the child's stomach and of its wants, is the judgment of the nurse. And the chance of harm from over-feeding is thus considerably increased.

If these evils are attendant upon bringing up by hand, even when milk is used, they are unquestionably greater where the food is of a different kind. In the great bulk of cases, instead of milk, vegetable substances are used ; gruel, with a little milk; sopped bread, or flour, or other farinaceous substance. The delicate mucous surface of a child is at first only fitted for the conversion of such

food as is very easily assimilated, and the breast of the mother furnishes such a pabulum; but the ordinary farinaceous food is difficult of assimilation, and the digestive surface becomes so far deranged as to unfit it for the purpose of healthy nutrition. The evils upon which I have dwelt, are made evident by the following facts. In Lancashire and the West Riding of York, the deaths in the first year of life, are, to the total deaths, as 1 to 3.9; while in Devon and Wilts, they are as 1 to 6.4 ! Now it is in the great Factory Towns of this country, which are found in Lancashire, Cheshire and Yorkshire, that the system of bringing up the child by hand is most commonly practised, and where its evil effects are most apparent; first, as we have seen, in the great destruction of infant life, and failing that, in the development of Scrofula. It is not that the mother has no milk, but that in such places she is enabled to make what she considers to be a more profitable use of her time than by staying at home and nursing her child.* Her child may be suckled at early morn, and again in the evening, possibly too, at the middle of the day; but whatever food it may require at the intervening periods, if furnished at all, is afforded in the shape of the crudest and most inappropriate substances, and restlessness is known in many places to be habitually repressed by Godfrey's Cordial.

The digestion of infants is very rapid, and as the quantity of food taken at a time is small, it is necessary that feeding should be frequently repeated, and that during the first month the interval of feeding should not exceed from one and a half to three hours, because if longer periods are allowed to intervene, nutrition languishes, disease is developed, and life is ultimately sacrificed. The proof of the statement I have made, that bringing up by hand tends to produce Scrofula, is to be found in the larger Factory Towns, where during the first year of life, the deaths from tuberculous and scrofulous diseases are as 1 to 31 of the total deaths, whilst in the Metropolis they are as 1 to 42. During the whole of life, they are 1 to 5.6, in the Factory Districts, and 1 to 6.4 in the Metropolis. The facts I have adduced prove, as I submit, that because the food itself is not appropriate, and the mode of taking it is not natural, it acts injuriously upon nutrition, and that a

* Thus, in the Cotton Districts supervised by Mr. Horner, 141,450 persons above eighteen are employed; of these, 77,208, or 54½ per cent. are women.