Health of Towns Commission : minutes of evidence given by Joseph Toynbee ... on scrofulous affections and their causes.

Contributors

Toynbee, Joseph, 1815-1866.
Royal College of Surgeons of England

Publication/Creation

[London] : [publisher not identified], [1844]

Persistent URL

https://wellcomecollection.org/works/vckmvfbx

Provider

Royal College of Surgeons

License and attribution

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

4

To the Library of the Royal College of Surgeons

from the Author.

HEALTH OF TOWNS COMMISSION.

MINUTES OF EVIDENCE

GIVEN BY

JOSEPH TOYNBEE, Esq.,

Surgeon of St. George's and St. James's Dispensary,

ON

SCROFULOUS AFFECTIONS AND THEIR CAUSES.

1844

C

JOSEPH TOYNBEE, Esq., F.R.S., Surgeon, examined.

J. Toynbee, Esq., F.R.S.

You are one of the surgeons of the St. George's and the St. James's Dispensary?——Yes, I am the senior surgeon, and for several years I visited the patients of the Westminster General Dispensary at their homes.

Is it not part of your duty to visit the out-door patients at their own houses?——Yes it is, I visit cases daily in the neighbourhood of Golden-square and Grosvenor-square, large portions of which are inhabited by persons in the poorest condition.

In a statistical report made by Mr. Weld, on a house-to-house visitation made at the instance of Lord Sandon to the Statistical Society in 1842, it is stated that there were in the parish of St. George's, Hanover-square, 1465 families of the labouring classes, who had for their residence only 2175 rooms and 2510 beds. The distribution of rooms and beds was as follows:—

Dwellings.	Number of Families.	Beds.	Number of Families.
Single rooms for each family .	929	One bed to each family . .	623
Two ,, ,, .	408	Two ,, ,, . .	638
Three ,, ,, .	94	Three ,, ,, . .	154
Four ,, ,, .	17	Four ,, ,, . .	21
Five ,, ,, .	8	Five ,, ,, . .	8
Six ,, ,, .	4	Six ,, ,, . .	3
Seven ,, ,, .	1	Seven ,, ,, . .	1
Eight ,, ,, .	1	Dwellings without a bed . .	7
Not ascertained	3	Not ascertained	10
Total . . .	1,465	Total . . .	1,465

How far does this state of the occupation of the rooms accord with your own observation?——In the class of patients to our dispensary, nearly all the families have but a single room each, and a very great number have only one bed to each family. The state of things in respect to morals, as well as health, I sometimes find to be terrible. I am now attending one family, where the father, about 50, the mother about the same age, a grown up son about 20, in a consumption, and a daughter about 17, who has scrofulous affection of the jaw and throat, for which I am attending her, and a child, all sleep in the same bed in a room where the father and three or four other men work during the day as tailors, and they frequently work there late at night with candles. I am also treating, at this present time, a woman with paralysis of the lower extremities, the wife of the assistant to a stable-keeper, whose eldest son, the son by a former wife, and a girl of 11 or 12

J. Toynbee, Esq., F.R.S.

years of age, all sleep in the same bed! In another case which I am attending in one room, there are a man and his wife, a grown up daughter, a boy of 16, and a girl of 13; the boy has scrofulous ulcers in the neck; the father, though only of the age of 49, suffers from extreme debility and a broken constitution. As another exemplification of this state of things, I may mention the following instance rather extraordinary in its facts, but an example of the overcrowding of some of these places. In the course of the first months that I was attached to the dispensary, an aged Irish woman applied to me with a broken rib; she declined going into an hospital; the dispensary therefore supplied her with a flannel roller, and I promised to visit her and apply it. On reaching her *home*, I found that it consisted of one corner of a room on the first floor of a house in Peter-street. The landlady of this room, who herself occupied the central part, near the fireplace, had tenants in the other three corners, in one of which was a widow with three or four children. I applied the bandage to my patient, who went on, to use her own words, *very comfortably* for four or five days, at the end of which time I found her in considerable pain from the following cause:—Not being able to go out as usual with her basket, to sell fruit and vegetables, she could not pay her daily rent, and therefore, on the suggestion of the landlady, consented to under-let half of her bed; but it happened unfortunately, that the new tenant being bulky in person, occupied more than her fair proportion of the joint tenancy, so as to press against the broken rib of my poor invalid, and displace it, thus producing a recurrence of the pain and suffering from which she had but just been freed.

What do you find generally the state of the rooms which are so crowded?——Wretched, extremely close, so close that, for self-protection, I am obliged to have the windows open during the visit; they are not only close apparently from overcrowding, but they frequently contain noxious odours; the usual source of such odours, so far as it can be detected, is sulphuretted hydrogen arising apparently from the privy, and from the neglected drains. Odours from these sources are frequently to be traced to the top of the house. In certain states of the weather, they are intolerable even to the inmates, who are scarcely conscious of the existence of the ordinary odours.

One cause of the defective ventilation of the rooms in these districts inhabited by the poor is, that the windows never open at the top. The opening at the bottom frequently gives an inconvenient rush of cold air, which I have known to be productive of very bad results. The clothes of the poor people living in these places often contract such a smell that I have known a patient who has remained a few minutes in the room leave such a taint in it as was only to be removed by throwing open the windows and ventilating it.

Were there generally sewers in the fronts or near to the houses

J. Toynbee, Esq., F.R.S.

which you have visited?——In some streets and courts there are no sewers; in others, in which there are sewers, there are scarcely any drains from the houses into the sewers, and the gully-holes are too far apart that the slops thrown out from the street door mix with the dirt of the street, and very little of the fluid appears to arrive at the sewer. There are great complaints that the gully-holes emit very offensive smells.

What do you find to be the effect of defective ventilation, and the atmospheric impurity apparent as causes of disease?——The defective ventilation appears to me to be the principal cause of the scrofulous affections, which abound to an enormous extent amongst our patients. When I have had a scrofulous patient come before me, I have always been able to trace this as one of the agents. I am not prepared to state that other causes may not produce this disease, but I am prepared to state that I believe this is the greatest cause in our district. We find as accessories the want of personal cleanliness, badly chosen and badly cooked food, and defective clothing. My observation is very generally corroborative, however, of the view taken by Monsieur Baudelocque, who in a treasse, "Observations sur les Maladies Scrofuleuse," states that the repeated respiration of the same atmosphere is the cause of scrofula; that if there be entirely pure air, there may be bad food, bad clothing, and want of personal cleanliness, but that scrofulous disease cannot exist. He gives such facts as the following:—

"The development of scrofula is constantly preceded by the sojourn, more or less prolonged, in air which is not sufficiently freshened. This is the only cause which is always met with isolated, or united to circumstances whose action is very secondary. Seeing that scrofula spares children born of scrofulous or of syphilitic parents, and children of a lymphatic temperament, uncleanly, badly clothed, badly nourished, and brought up in a cold and humid country—seeing that it attacks children whose parents and grand-parents have always enjoyed the best of health, children—of a sanguine, bilious, or other temperament—placed, too, in the most advantageous circumstances, as regards cleanliness, clothing, and food, and brought up in a warm and dry climate, it is impossible to deny that hereditary disposition, syphilis, the lymphatic temperament, uncleanliness, want of clothing, bad food, cold and humid air, are of themselves circumstances non-effective for the production of scrofula.

"When it is seen, on the other hand, that this disease never attacks persons who pass their lives in the open air, and manifests itself always when they abide in an air which is badly renewed, and this whatever may be the extent of the other causes enumerated above, is it not evident that the non-renewment of the air is a necessary condition in the production of scrofula?——If this cause has not always been recognized and pointed out, that arises from the importance attached to secondary causes, which, having once perceived, inquiry has not been carried further. Invariably it will be found, on examination, that a truly *scrofulous* disease is caused by a vitiated air, and it is not always necessary that there should have been a prolonged stay in such an atmosphere. Often a few hours each day is sufficient, and it is thus they may live in the most healthy country, pass the greater part of the day in the open air, and yet become scrofulous, because of sleeping in a confined place,

J. Toynbee, Esq., F.R.S.

" where the air has not been renewed. This is the case with many shepherds. It is usual to attribute scrofula in their case to exposure to storms and atmospheric changes, and to humidity. But attention has not been paid to the circumstance, that they pass the night in a confined hut, which they transport from place to place, and which guarantees them against humidity; this hut has only a small door, which is closed when they enter, and remains closed also during the day; six or eight hours passed daily in a vitiated air, and which no draught ever renews, is the true cause of their disease. I have spoken of the bad habit of sleeping with the head under the clothes, and the insalubrity of the *classes* where a number of children are assembled together. The repetition of these circumstances is often sufficient cause of scrofula, although they may last but for a few hours a-day."

He gives the following instances:—

" At three leagues from Amiens lies the village of Oresmeaux; it is situated in a vast plain, open on every side, and elevated more than 100 feet above the neighbouring valleys. About 60 years ago, most of the houses were built of clay, and had no windows; they were lighted by one or two panes of glass fixed in the wall; none of the floors, sometimes many feet below the level of the street, were paved. The ceilings were low; the greater part of the inhabitants were engaged in weaving. A few holes in the wall, and which were closed at will by means of a plank, scarcely permitted the air and light to penetrate into the workshop. Humidity was thought necessary to keep the threads fresh. Nearly all the inhabitants were seized with scrofula, and many families, continually ravaged by that malady, became extinct—their last members, as they write me, died *rotten with scrofula.*

" A fire destroyed nearly a third of the village; the houses were rebuilt in a more salubrious manner, and by degrees scrofula became less common, and disappeared from that part. Twenty years later another third of the village was also consumed; the same amelioration in building, with a like effect as to scrofula. The disease is now confined to the inhabitants of the older houses, which retain the same causes of insalubrity. I ought to add, that there is more wealth in the country,—that the weaving of linen has been superseded by that of cotton, for which moisture would be hurtful, and darkness inconvenient, and that in consequence of the division of landed property, many of the peasants possess a little land which they cultivate between times. But all these advantages are common to the quarter which has not been burnt with the two others, and in the mean while there is always scrofula in the first, and never in the others. The difference seems to me to be clearly referable to the difference in the habitations. If, in the old quarter the number of the scrofulous is less considerable than formerly, it is necessary to attribute it to the circumstance of the inhabitants being less sedentary, and their going more often to the fields,—the purity of the air respired during the day diminishes the noxious effects of that which is breathed during the night.

" In this village exists a numerous family, which may furnish matter for instructive remarks on the cause of scrofula: this family, very poor, live in a house with two rooms, dark, low, sunk below the ground, unpaved, constructed of clay, where air and light can find no entrance save by two doors, of which the one opens upon the court and the other into the garden; the second room is much worse lighted, and the external air is much more impeded. The father is 47, hump-backed, and of a weak constitution; the mother is robust (but she was born of a scrofulous woman); they have had eight children, two died early, six are living; the eldest, aged 20, is dreadfully afflicted with scrofula, of which his body bears many scars. From his birth till he was seven,

J. Townbee, Esq., F.R.S.

he was healthy, but at that age an abscess formed near the angle of the lower jaw; he was sent to school till 11; he was then placed in a cotton velvet manufactory: various scrofulous abscesses soon broke out in the groins, thighs, towards the great trochanter, beneath the left clavicle, &c. A sister, aged 18½, presents unequivocal traces of rickets and scrofula; four others who are younger enjoy good health. These six children have been brought up under very different atmospheric influences; during the first years of his marriage the father was a weaver, and the afflicted eldest son scarcely quitted the house, and slept habitually with his parents. When he ceased to attend school, he was put to a sedentary employment. At a later period the father left the loom and became day-labourer; the mother tended pigs, and the children did not rest at home, but from the time they could walk, the mother took them with her to the fields, or sent them begging.

"Here we have a scrofulous man,—his wife, born of a scrofulous mother, giving birth to eight children, two of whom died young. Of the six yet living, four escaped entirely the scrofulous disease; the eldest, on the contrary, is heavily afflicted, and the second bears marks.

"Whence the difference in the health of these children? They cannot allege the youthfulness of the parents at the moment of fecundation, because the parents were 26 when they married; nor the too great age, because four children born since are quite exempt from scrofula. There was somewhat less poverty in the first years of marriage than since; the eldest children were better nourished and better clothed. The boy especially has always been placed in more favourable conditions for nourishment and cleanliness than the others. Working very young in a cotton factory, and earning a little money, he was better nourished and clothed, and afterwards, in consequence of sickness, he was the object of most care. Bad nourishment and want of cleanliness cannot therefore be here said to have caused the evil. Its true cause appears to me to reside rather in the difference of the atmospheric conditions in the midst of which these children have been elevated. The younger, constantly in the open air, breathing always a pure air, are very strong, and have never presented a trace of scrofula; and yet they were badly nourished, badly clothed, and exposed to all weathers; the elder, on the contrary, habitually shut up, plunged in a vitiated air, is deeply *scrofulous*,—he was better nourished, better clothed than the others, and always protected from atmospheric vicissitudes."

In speaking of the hereditary descent of the disease, he says—

"The cases I have stated appear to me to throw a broad light on the influence which it exercises in the production of scrofula. Is it not remarkable that of eight children born of such parents, one alone has been severely afflicted, and that, too, precisely the one who has been brought up under circumstances such as would have made it scrofulous had its parents never been so? This observation diminishes the importance generally attached to hereditary constitution as a cause of scrofula, and it shows besides that it is possible to destroy the resulting predisposition, and to avoid the malady, and also by what means.

"Facts prove that parties may be born scrofulous; but then the mothers must be scrofulous at the moment of conception, and during the greater part of her gestation live in the midst of circumstances which have excited and which support the disease. The materials that she furnishes to the support of the fœtus should have the same effects on it as on her. It will be formed entirely, so to say, of scrofulous elements, and nine months are more than sufficient for the symptoms of scrofula to manifest themselves outwardly.

"When the parents have ceased to be scrofulous they can only transmit to their children a predisposition to the disease of which they are cured

J. Toynbee, Esq., F.R.S.

"That this disease be developed, it is necessary that the children find "themselves placed under the atmospheric condition of which I have "spoken; that they habitually respire an air whose principal constituents "are altered. In consequence of their predisposition to scrofula, it is "true it will show itself more readily in their case than in that of other "children exposed to the same cause; but the action of a vitiated air is "always necessary to the development of the disease: to withdraw from "the one is to avoid the other, whatever may be the hereditary predis-"position.*

"It is rather to the disposition of the places than to the substance em-"ployed that scrofula ought to be attributed. Professor Alibert has well "observed, that the workmen employed at Meude, in the fabricating of "*cadis*, a kind of coarse woollen serge, are *nearly all scrofulous;* but it "should be observed, that they prepare the wool without oil, and that to "work the easier they work in low and vaulted shops, where the air is "soon altered, and is but slowly and with difficulty renewed.

"As to wool, I will mention a remarkable fact, communicated by "Mons. Regnault. At Aubigny, a small town of the Department du "Cher, scrofula, and *le teigne faveuse*, scrofulous eruption, are much "spread among the working class, and to such a degree, that it is often "impossible to complete the number of soldiers for the annual conscrip-"tion, la teigne faveuse being, as is known, a cause of exemption. The "disease is generally observable among the woollen workmen; but the "greater part of the houses of business are very damp, lower than the "grounds, imperfectly lighted by very small windows, *never opened*, or "by panes fixed in the wall, the ceilings being low. The workpeople "seldom go out, except for an hour or two in fine weather; and during "the night the re-union of all the family, in proportion as it is numerous, "and the door closes more exactly, alters still more and more quickly the "air already vitiated. There is no need to suppose a special action of the "wool to explain the frequency of scrofula; it matters not what material "is manufactured; when the workpeople are placed in the circumstances "just mentioned, scrofula will soon appear."

"The above details I owe to M. Andrieuse, a young man full of zeal for "science, whose father has practised medicine for 40 years at Oresmeaux, "in succession to his father and his grandfather."

The following case is related by Baudelocque, on the authority of Dr. Blache, Doctor of the Central Bureau of the hospitals. I cite it in illustration of cases of a somewhat similar character,

---

* Mr. Baudelocque states, in reference to locality—"There are countries where, independent of the mode of living of the inhabitants, scrofula is endemic. This is owing to the locality. This is the case with villages built in the narrow gorges formed by the approach of elevated mountains, as is seen in the Alps and Pyrenees, and especially in those of the valley of the Rhone. The air respired habitually in these gorges is *stagnant*, *humid*, *warm*, and *corrupt;* its renewal is very difficult. Ordinarily this renewal can only be effected by the displacement of the upper strata which are continual y affected by the winds. Occasionally the direction of the wind corresponds with the line of the gorge; and then there is a more rapid and effectual renewal. But there always remains a part which, being arrested by the bottom of the gorge, is, as it were, heaped back on itself, momentarily compressed, but not displaced, or therefore not renewed.

"The renewal of the air is not so light a matter as is supposed. To effect it, a *simple communication is not sufficient*, a mere contact of the external and internal air. It is necessary that one or more currents exist to multiply that contact, and cause the pure air to pervade that which is vitiated. I believe one of the principal offices of the winds is to maintain the uniform composition of this air by continually agitating it, so as to mingle that which has lost a part of its oxygen with that which is surcharged."

which have fallen under my own observation, and in which I have been consulted both in London and the country. J. Toynbee, Esq., F.R.S.

"A child living at Versailles, of the age of eight or nine years, was attacked with scrofula, and put under my iodine treatment. At the end of about six months the state of the child had not at all improved, notwithstanding scrupulous exactitude in the administration of the remedy. Dr. Blache was then consulted, to whom I had just communicated my ideas on the true cause of scrofula. In examining into the mode of living of the child, Dr. Blache learned that he passed the night in a very small room, and that he had the bad habit of sleeping with his head under the bed-clothes. He perceived that here laid the cause of the want of success in the treatment. He gave the most judicious advice in this respect, and renewed the use of iodine. Scarcely a fortnight had passed before a very great amendment was perceptible in the disease; this amelioration has continued, and now its health is completely re-established."

Do your colleagues who have had equal experience with yourself coincide with you as to the causes of scrofula?——In all the conversation I have had with them on the subject they do. Dr. Blakely Brown, who has visited even more patients than myself, and who has read the statements I have submitted to the Commissioners, confirms my remarks in all particulars. I observe that Dr. Duncan, in his Report on the sanatory condition of Liverpool, adopts similar views, and refers to the authority of Her Majesty's physician. He says—

"But the operation of these physical causes is not confined to the 'generation or extension of fever. When acting with a less degree of 'intensity, there may still be sufficient to affect the general health; and in 'fact, they do deteriorate the health of those exposed to their influence, and 'call into action the latent germs of other diseases. It would be a waste 'of time to point out the way in which the general health is injured by 'the habitual respiration of contaminated air, but there are one or two 'diseases whose existence seems specially favoured by this circumstance, 'and to these alone I shall call your attention. The first I shall notice is 'consumption.

"It seems natural to expect that the organs with which the foreign 'gaseous ingredients of the atmosphere come more immediately into 'contact, and whose blood-vessels they must enter on their passage into 'the system, should feel in a distinctive manner their noxious influence; 'and this *à priori* expectation is strengthened by observation both in 'man and animals, as well as by experiment on the latter. It has been 'observed that where individuals breathe habitually impure air, and are 'exposed to the other debilitating causes which must always influence, 'more or less, the inhabitants of dark, filthy, and ill-ventilated dwellings, 'scrofula—and consumption, as one of its forms—so very apt to be 'engendered, even where the hereditary predisposition to the disease 'may be absent. Professor Alison, one of the highest authorities on this 'subject, remarks:—'It is hardly possible to observe separately the effect 'on the animal economy of deficiency of exercise and deficiency of fresh 'air, these two causes being very generally applied together, and often in 'connexion with imperfect nourishment. But it is perfectly ascertained, 'on an extensive scale in regard to the inhabitants of large and crowded 'cities, as compared with the rural population of the same climate,—first, 'that their mortality is very much greater, especially in early life, and the 'probability of life very much less; and, secondly, that of this great

J. Toynbee, Esq., F.R.S.

"early mortality in large towns, a very large proportion is caused by "scrofulous disease. And from these two facts it evidently follows, that "deficiency of fresh air and of exercise are among the most powerful and "the most important, because often the most remediable, of the causes "from which the scrofulous diathesis arises.'* Sir James Clark, who has "written the best monograph on consumption in our language, regards "'the respiration of a deteriorated atmosphere as one of the most powerful "causes of tuberculous cachexia,' (*i. e.* the constitutional affection which "precedes the appearance of consumption). He says, 'If an infant born "in perfect health, and of the healthiest parents, be kept in close rooms in "which free ventilation and cleanliness are neglected, a few months will "often suffice to induce tuberculous cachexia.' 'There can be no doubt,' "he adds, 'that the habitual respiration of the air of ill-ventilated and "gloomy alleys in large towns is a powerful means of augmenting the "hereditary disposition to scrofula, and even of inducing such a disposi-"tion *de novo*. Children reared in the workhouses of this country, and in "similar establishments abroad, almost all become scrofulous, and this "more, we believe, from the confined impure atmosphere in which they "live, and the want of active exercise, than from defective nourishment.' "The same distinguished physician has actually succeeded in inducing "consumption in rabbits, by confining them in a cold, dark, damp, close "situation, and supplying them with innutritious food. Monkeys present "the same phenomenon in this country, where they are often crowded "together during the winter in a confined and heated atmosphere, and "where true tubercular comsumption commits more extensive ravages "among them than it does even among the human race. It is known, "also, that this malady is very prevalent among the cows which supply "milk to the inhabitants of some large towns, where they are immured "during part of every year in dairies perfectly closed, and which, being "too small for the number of animals they contain, soon become filled "with heated, vitiated air, for the removal of which no provision is "made."

The general climate, the cold, the damp, and the soil, were at first accused of the excessive mortality amongst the animals in the Zoological Gardens, but it is now clearly ascertained that it principally arose from defective ventilation. During the two years that I held an appointment at the College of Surgeons, I made a number of dissections of the animals which had died in the Zoological Gardens. I found that scrofula was by far the greatest cause of their mortality. Whether the disease attacks the bones, the joints, or the lungs, the diseases are of a scrofulous character. A few days ago, the fine lion which died there had a scrofulous affection of the bones and joints of the paw. Since the dens have been properly ventilated, the previous complaints have much diminished; and it has been observed that the animals have become more ravenous, and that some have attacked and destroyed each other.

But do you find the operation of this one cause—the atmospheric impurity arising from overcrowding and defective ventilation—attended only by one form of disease?——The forms of scrofula I find are various: we have scrofulous affections of the eyes, called sore or inflamed eyes, which are very frequent; scro-

* Outlines of Pathology and Practice of Medicine, p. 194.

J. Toynbee, Esq., F.R.S.

ous affections of the joints, called by the people themselves abesses—the abscess being in the neighbourhood of the joint, and y have no idea that they communicate with the joint; this ease frequently attacks the hip-joint. The defective ventilation y be considered one great cause of all the diseases of the joints ich we so frequently meet with, as well as of the diseases of eye and the skin; the diseases of the skin, herpetic diseases, called shingles, lepra, *porrigo*, or ringworm. The disease hydrocephalus, or water in the brain, so fatal to children, find associated with symptoms of scrofula, and arises in undance in these close rooms. I believe water in the brain, in class of patients whom I visit, to be almost wholly a scrofulous ection.

The general depressing influences affect most injuriously the st sensitive or weakest organs. Besides the eye, the ear is, I ieve, injuriously affected by them. Amongst other forms of ease, which I think ascribable to the influence of vitiated air, is a ge amount of what has not hitherto been ascribed to it, namely, afness. In justification of this opinion, I may state that I have eady made between 500 and 600 dissections of ears, with the w of determining the seat of this particular disease. One hunred and twenty of these cases I have submitted to the considera- n of the profession in the twenty-sixth volume of the 'Medico- irurgical Transactions.' The general effect observable is the ckening of the membrane of the middle ear. This membrane semi-transparent, and, being extremely sensitive and delicate, is, believe, injuriously affected by the contact with the vitiated air, ll debilitated by it; inflammation and other diseases are induced the access and pressure of cold air on leaving heated rooms to out into the colder atmosphere. The delicate membrane of the ; it is to be recollected, is longer exposed to the depressing luence of the vitiated air than any other part of the body. On ving a room the surface of the body is relieved from the continued cess of the vitiated air, whilst the quantity of vitiated air contained the middle ear remains for a considerable time, and is only slowly moved. The suspicion which I had formed from the dissections, at the cause of deafness is dependent upon the contact of foul air, pears to me to be corroborated by the fact, that at least double number of children of the labouring classes are affected by -ache and deafness than children of the rich and better condined classes less exposed to the like influences.

Have you observed any difference in the effects of medicine proced by different states of overcrowding or different states of mospheric impurity?——In the crowded rooms, as a general e, the diseases are excessively difficult to manage. In the less owded and more cleanly habitations the mortality is not so eat; diseases are less severe, and last a shorter time, and do not

J. Toynbee, Esq., F.R.S.

leave behind them the same shocking effects on the system. When ventilation has been applied to the rooms where it is needed, the patients have improved rapidly.

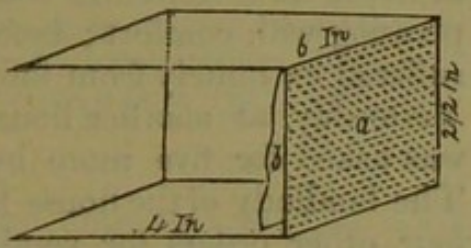
Have you been led to recommend the introduction of ventilation as an effectual and comparatively permanent remedy?——Yes, I have. The publication of the evidence contained in the Sanatory Report drew public attention to the importance of the ventilation of dwellings and workshops. I adduced the facts there given (which coincided with my own observations) in a Report which led to the formation of a Committee of the Governors of the St. George's and St. James's Dispensary, and the establishment of a Samaritan Fund, in connexion with the charity, one object of which is to improve the ventilation of the apartments of sick patients. It was generally acknowledged by the Committee that ventilation was one of the most important curative means. The new fund is placed under the care of my five colleagues and myself, I being the honorary secretary to it. The objects are to ventilate the habitations of the sick poor, and to provide them with flannel and nutritious food. The fund has been of the greatest service in carrying out ventilation.

Will you describe the ventilation you have introduced?——I advised with a number of persons, and the means adopted were these:—First. A ventilator for the admission of external air through the windows, consisting of a plate of zinc, very finely perforated with 220 holes to an inch. The use of perforated zinc was suggested to me by Mr. Cottam, the engineer, of Winsley-street, Oxford-street, who, having observed the great value of its application by myself in ventilating the rooms of the poor, has lately made use of it in the ventilation of the whole of his extensive establishment. The size of the window ventilators varies from 4 to 12 inches square, according to the size and construction of the room. They are generally introduced in the uppermost portion of the window, and in the corner pane the farthest from the fire-place. These fine orifices prevent the air coming in with a rush, which would occasion discomfort, and tend to diffuse the air equally and gently throughout the apartment. In the tap-rooms of public-houses a revolving ventilator is introduced, which is objectionable, not only in letting in air suddenly or in large quantities, but in making a noise by its revolutions, and being liable to be stopped up. Besides the window-ventilator, we have introduced a chimney-ventilator, to remove the vitiated air from the room.* It was contrived by Dr. Arnott, who was consulted on the subject. This consists of a square iron tube, of from 3 to 6 inches in diameter, and so

* The later experience of these chimney-ventilators proves that the size of the chimneys and the badness of the draught render the benefit to be derived from them very uncertain. Their use is now nearly discontinued.

J. Toynbee Esq., F.R.S.

gg that the outer orifice should be flush with the wall of the artment, and the inner one enter chimney. These tubes are ually from 4 to 6 inches in gth. At the orifice entering the m there is either a plate of per-ated zinc or a piece of fine wire-rk; from the upper and back part which hangs a piece of ordinary or oiled silk, which acts as a ve so as to allow the warm and vitiated air to pass up the mney and prevent any smoke from entering the room.



HHave you considered that the apparatus you have introduced ght be further improved, to attain the desideratum of a cheap f-acting ventilator with air that is warm as well as fresh?——aave certainly considered that it might be improved, and that it ll be improved when attention commensurate with the great portance of the subject is given to it, and a certain amount of ther experience is had upon it.

WWhat is the expense of the ventilators now successfully used?—For each window-ventilator, and the expense of fixing it, is ;; for each chimney-ventilator, and the expense of fitting it, 3*s*. ae expense would be less if the houses did not lie so far apart, ll if more were put in at one time.

HIf a neighbourhood of several hundred houses were ventilated once, what do you conceive would be the expense?——I expect t one-half of the present expense.

WWhat have you observed of the effects produced by these means ventilation?——The effect on the health of the patient, I have served, is to accelerate the cure and to alleviate the symptoms as to give great comfort to the patient. The general observa-n of the inhabitants, as well as the patients, is, that the room is much more comfortable and airy;" the smells from the abscesses e very disagreeable, and in close rooms sometimes insupportable. ne people remark that the ventilation has carried away the smells d purified the place. They have frequently said that they have en in so much better spirits since they have had these ven-ators, and have always been most grateful for them; they have en been more thankful for the ventilators than for the flannel d bread and milk. I am now continually applied to by the ends of those whose rooms have been ventilated to bestow upon em a similar boon. In one at No. 8, Duke-street, Grosvenor-uare, I commenced with one ventilator to a room, and, on the perience of this one, and the praises given of it by the patients, e inmates of the other rooms applied to me for ventilators. I ve put ten ventilators there on the stairs and landing, and the hole of the people there express a very high sense of the comfort ey have experienced. In the first room the smell was so bad at I could not enter into or remain in it, unless the windows were

J. Toynbee, Esq., F.R.S.

opened. I can now go there without annoyance. Tailors working at home have told me that they can now use the hot irons for pressing with comfort; before the ventilators were introduced they suffered extremely from the heat and depression consequent thereon. Yesterday, at another house, where I had put in one ventilator, I was asked for five more by the inmates of five different rooms. The landlady of the house herself joined in the application. I had four other orders for ventilators to give during the same day. I have taken clergymen and other gentlemen desirous to carry out the plans of ventilation over the houses, into some of the rooms of which ventilators had been introduced; we could always tell by the state of the air immediately we entered a room whether a ventilator was in operation. I have had dispensary patients who paid for ventilators themselves.

Were there no complaints at any time of the cold from the air through the ventilator in the windows?——In some instances there were complaints from cold, in which instances I had erred in placing too large ventilators in rooms that were very small. I find that it requires some experience to judge of the proper size and situation of a ventilator for a room, its position in relation to the bed, &c. A room with a smoky chimney requires a larger ventilator. I have very often succeeded in curing the smoke, and have been applied to by patients to cure their chimneys.

An instance is stated of the scrofula having broken out at the Norwood School in 1832. There were then 600 pupils there, amongst whom scrofula had broken out extensively, and great mortality had occurred, which was ascribed to bad and insufficient food. The case was investigated by Dr. Arnott; the food was proved to be most abundant and good; and defective ventilation, and consequent atmospheric impurity, was assigned as the cause. Ventilation was applied by his direction, the scrofula soon after disappeared, and 1100 children are now maintained in good health, where the 600, before ventilation, were scrofulous and sickly. More recently, in some information given to Dr. Lyon Playfair by Mr. Fleming, surgeon, the latter gentleman mentions the following case, which arose on the inspection of the state of schools with respect to ventilation, which he almost everywhere found to be extremely defective:—

"On inspecting the Blue-coat boys at Manchester School, I observed a "cutaneous eruption on the hands and arms; and I have seen it since "on the bodies of some of the boys. Three whom I examined looked "delicate, and appeared to suffer from indigestion. On inquiry I found "that this disease (I should call it scurvy) had prevailed some time "ago to a more alarming extent, and that it was comparatively sub-"dued. The first relief they obtained was from a change in diet, giving "a portion of meat every day with beer, and more potatoes and less "bread.

"I desired to be shown into the dormitories, where I saw large aper-"tures had recently been made in the side walls near the ceiling.

I was informed that the object had been to improve the ventilation, and that they had to a great extent answered the purpose. Upon comparing dates, it seemed clear that the disease to which I have alluded, though relieved by change in diet, assumed a much milder form from the time of the alterations in the dormitories, and is now almost overcome." J. Toynbee, Esq., F.R.S.

Have you, in the course of your own observations, met with similar collective cases?——I have met with one case strikingly similar. A charity school in London contained 60 boys and 60 girls, the ages of whom were from 9 to 14 years. These children, together with their attendants, lived in an old and large house, the girls and female attendants sleeping on the second floor, and the boys on the attic floor. All the boys slept in one large room, having windows on each of two sides, and each boy had a separate bed. Scrofula in a greater or less degree always existed amongst these children. In the year 1825, a project which for a long time had been entertained was carried out, viz., the erection of a separate house for the boys, which consisted of five stories, each story consisting of one large and lofty room. The basement was a dining-room; the ground floor the school; first floor, wash and store-room; second and third floors being sleeping-rooms; by this arrangement the 60 boys were divided, and 30 slept in each of the two rooms which were large, well ventilated, and airy. With this change in their sleeping apartments, &c., the boys took much more exercise in the open air. The result was, that in a short time scrofula entirely disappeared from among the boys. Although the 60 girls, by the removal of the boys, gained a great deal of additional room, and although they walked out twice a-week, yet among them (at the very period that the boys were getting well) scrofula was so prevalent that the attendance of a consulting physician and surgeon was required in addition to the ordinary medical officer. The boys and girls were from the same class of the poor, and from the same localities; their food was quite alike. The girls did much laborious work as well as needle-work; the boys did the domestic work of their own house, and were also employed in tailoring.

Have your duties at the dispensary brought before you in numbers the complaints of any particular class of artisans?——Yes, of tailors particularly, and other sedentary classes.

To what extent do you believe their health to be affected by defective ventilation?——To a very great extent. One great cause of the diseases which they suffer is from defective ventilation and its results. This class of artisans, who work together in numbers, suffer from a variety of scrofulous and gouty affections. The scrofulous affections appear to me to be the immediate effects of the want of ventilation; the diseases of a gouty character are the secondary effects.

Will you describe the way in which you believe that these

J. Toynbee, Esq., F.R.S.

secondary diseases are produced?——I find that the great majority of my patients confess, upon inquiry, that they are led to indulge in spirituous and malt liquors to relieve the extreme physical and mental depression produced during their occupations; and I have no hesitation in ascribing the diseases of a gouty character, which are extremely numerous and variable, to the indulgence in spirituous and fermented liquors. I may add, that I have found those who worked singly, even in their own rooms, small as they may be, and surrounded by their families, to be in better health, or rather not to suffer so much as those artisans of the same class working in numbers.

From what you have observed, do you entertain any doubt of the expediency of a compulsory provision of the means of ventilation in new houses, especially for those intended for the labouring classes, or to edifices occupied as school-rooms, or as work-rooms, or places of public assemblage, such provision being to be made to the satisfaction of an officer competent to direct and judge of the appropriate means of ventilation?——None whatever.

Do you think that the exercise of a similar authority for providing ventilation to existing tenements would, if proceeded with properly, and duly explained, and the whole of the outlay not required immediately, be acquiesced in by the landlords, and received generally in the same grateful and satisfactory manner which you have experienced from the labouring classes?——I have no doubt of the expediency and the benefits derivable from such a provision.

Supposing a complete ventilation effected in the upper portion of any of such houses as those you visit, but cesspools still allowed to remain on the ground floor and give off their exhalations, though those exhalations might be diluted and rendered less noxious; from the observations you have made on the tenements now ventilated, have you any reason to doubt that the cesspools would still, to some extent, impair the general health of the inhabitants?——I have no doubt of it; indeed that is one of the sources of which it is absolutely necessary to remove before there can be any effectual cure. Some of the cesspools are in the cellars, and give out their exhalations from thence; others are in a yard, close to the door, which door is always open on account of the want of windows in the passage. When I have proposed to ventilate some of the rooms by means of the window ventilation, the occupants have made the well-founded objection, "We are afraid of any opening in the window on account of the bad smells which come up from the yard." I perceived at once that fixing the ventilator in the window would only have been the means of intruducing this noxious air. When I have proposed to fix a ventilator in the door of the room, a similar objection has sometimes been made: "The bad smells from the privy and the drain will only get into the room by that way." "The smells from the passage are often worse than

J. Toynbee, Esq., F.R.S.

sse in our own rooms." One poor woman, labouring under reme debility, and who attributed her illness to the bad smells the place, told me to-day that she could not go out of her room kitchen cellar) without feeling sick from the smells arising from cesspool, and that it would make her still worse if any opening re made in the window. In places which are not overcrowded, l which do not need ventilation so urgently, I have had cases debility, headache, pains in the head, and general depression, ch were attributed, and were correctly attributable, to the bad urs arising from the cesspools. The patients continually com- in of these smells. It is a common expression amongst them, We owe some rent, but as soon as we can pay it we shall get ay from this place, on account of the bad smells from the cess- l." The strong bear these stenches; but they take beer, which y consider necessary to counteract their effects.

When your own observations lead you to coincide in the con- sion that there cannot be a healthy population living over or idst the emanations from cesspools?——Exactly so; I find people themselves are now becoming aware of the noxious cts of these smells, which now form a subject of discussion ongst them.

You have mentioned that, in visiting this class of the popula- n, you find the want of personal cleanliness one collateral cause disease?——Decidedly so.

Has the action of want of cleanliness as a cause been shown the effect of cleanliness in abating it or removing it?——Yes; the cases of porrigo or scald head in the children, and some ammations of the eyes—very common disorders amongst them which I have removed mainly by the strict enforcement of anliness and general ablutions. I believe that a variety of eases, such as affections of the chest, rheumatism—which are generally considered to have any connexion with personal anliness—are greatly aggravated by the neglect of it.

How far, in such places, does this want of personal cleanliness ppear to be influenced or governed by the nature of the supply water, its quality, whether it be accessible, or has to be fetched onvenient distances, or otherwise?——It was only this morning t a patient stated that she could not drink the water that was pplied to the house, it being "full of insects." Patients have d that they only drink water when they cannot get beer. They ve complained to me that they are often compelled to go to a tance to fetch water, because the water supplied to the house so bad.

Have you observed how far the impurity of the water may have sen from neglect to cleanse the water-butts?——I have observed t the water-butts do not look very proper receptacles, being ade of wood, from which the paint has decayed, and the wood itself

J. Toynbee, Esq., F.R.S.

looking decayed, no cover on the top, and a film of blacks and dust on the surface of the water.

The water is generally laid on in the yard or the lowest part of the premises, and a supply is generally given three times a-week, and at each time the water comes on the film of dust and blacks that has been deposited on the surface is mixed up with the previous accumulations. Even in a more open and less sooty and dirty neighbourhood, as on the surface of the Water Company's reservoir, in the Green Park, the deposit of soot, or dust or dirt may be at times observed as a dark scum or carpet spread over it. One patient complained very much of the quality of the water taken from an old wooden butt. In respect to it I learned that this same water is used for making bread by a baker who supplies a great number of the poor. Since attention was directed to the subject by the Sanatory Report, I have availed myself of opportunies of making observations upon it, and the result is, the strong conviction that the quality of the supplies of water, and the mode in which it is received and kept in such atmospheres, influences the diet and health of the population to a much more serious extent than has hitherto been imagined.

As to the state of the household economy, have you observed any effects apparent from water not being conveniently accessible or laid on in the rooms which form separate tenements?——I have observed the same water, which is very filthy from having been used in washing some clothes, used again to wash others. They have told me, indeed, that they have done this to avoid the inconvenience of fetching water from a distance, and from the inability to carry the water up stairs when the rooms inhabited have been on the upper floor. My informants on this topic, it should be remembered, are patients, sickly people, weakened by sickness, and who cannot afford to pay for attendance. To the mothers who are debilitated, the carrying water up stairs is a very great exertion; mothers not daring to leave a child in the room, have to carry the child in one arm and the vessel of water with the other. I have had even sick children neglected and left dirty, and the excuse given has been the inability to fetch the water. Recently I have had a case of this kind. I have attended three children, two of them with scrofulous inflammations of the eyes, the other of them with a scrofulous affection of the throat; all of them rarely washed, and in an extremely filthy condition. The mother is a poor woman, who has been in a respectable condition, but she is now so far advanced in pregnancy as to be incapacitated from going up and down stairs to fetch water. She continually deplores her condition of having neither the strength to fetch a sufficient supply of water nor the means of paying for it being brought to her.

In these cases water is laid on in outer yards?——Yes; in

J. Toynbee, Esq., F.R.S.

ter yards principally. A considerable obstruction to the oper cleanliness arises, not only from the inability to bring sh water up, but from the inconvenience and inability, arising m the want of proper sinks, to take dirty water down stairs. e source of dampness and smell I have frequently found is the ssels of dirty water retained in the room. The common excuse this retention is, "We are so knocked up with the day's work at the water must wait until to-morrow, when we shall be able remove it." In some cases of accident to the female which have had, such as of sprained ancles, or bad ulcers on the legs, ich confine her to the bed, there has frequently been no water atever in the room; and after dressing and bandaging the tient I have been obliged to try and get water in the next rooms; metimes there has been none in the next rooms; at other times at which the other occupants have had has been so dirty as to unfit for use; sometimes I have waited whilst water has been nt for, for me specially, and sometimes I have been obliged to away with my hands unwashed, and to take the chance of my ding water at a neighbouring patient's. The towels given me wipe my hands with, although ostensibly clean, yet having idently been washed in dirty water, are unfit for use. I fre-ently find that the water brought and kept standing in these owded and close rooms retains dust and other impurities: it no ubt absorbs some of the noxious gas, for it differs considerably m the state in which it is when first obtained. The taste of ter obtained from the common Companies' supplies I have und to be very different from that in which it was first obtained very peculiar and very unpleasant. I have observed that the ople use a very small quantity of water in cooking; that, to save ter, they put greens into the pot without washing them, and to ve having to fetch more water.

"Then the tall houses, let off into separate rooms or flats, such you describe, are in a worse condition than low separate cottage ements in a row, without drainage or water laid on them, the our of carrying water up or down two, three, or four stories gh being so much greater?——Certainly; and this has a very eat effect on their economy, their habits, and their health. I ve frequently remarked that the condition of the whole of this pulation has descended with the condition of the habitation. I ve indeed myself known respectable and cleanly people who ve for some time struggled against the degrading influences by ich they were surrounded, who have ultimately become per-nally dirty and careless, and have had their moral feelings dently in some degree lowered. I beg to state, however, that I quently have occasion to admire the admirable spirit with ich the poor bear up against the dreadful disadvantages under ich they labour. When I see the working man and his wife

J. Toynbee, Esq., F.R.S.

living in a dark damp kitchen, or in a close attic, supplied with a deficient quantity of impure water, the odour throughout the house being most offensive,—paying for this accommodation an exorbitant rent, I must confess that the wonder to me is, not that so many of the labouring classes crowd to the gin-shops, but that so many are to be found struggling to make their wretched abodes a home for their family.

It is stated, on the evidence of persons actually engaged in the occupation, that the expense of cleansing a cesspool is in the metropolis about 1*l.* per annum, and that it constitutes a charge of 4½*d.* per week upon each tenement. It is also proved that if the system of keeping on water constantly at high pressure be adopted, that the use of water-butts and water-tanks may be entirely dispensed with, and water may be distributed into every room of such a house fresh from the general reservoir or filter, at an expense not exceeding 1½*d.* per week; that for the cesspool a cleansing apparatus or soil-pan, with water of the nature of a water-closet, and the requisite drains, may be substituted, at an expense of not more than 1½*d.* per week, and all refuse be instantly removed in water through impermeable pipes, so that the foundation of the house need not be saturated with decomposing matter, and none need to remain on the premises to give off effluvia: according to your own experience and evidence it would appear that the whole of an existing tenement may be ventilated completely at an expense which need not incur an addition of more than one halfpenny per week to the rental; now, supposing these several desiderata accomplished, the cesspools removed, abundant supplies of pure water carried up to the tops of the houses to every floor, and if required into every room, and ventilation made effectual, can you form any opinion as to the extent to which sickness and mortality might be reduced by these several arrangements? ——It is difficult to form an estimate, but I feel confident of a reduction of one-third immediately. It is my opinion that the diseases which are produced secondarily, and which have hitherto been supposed to have no connection with the causes specified, would be influenced or prevented to a very great extent—the habit of drinking, stimulated, if not produced, by nervous depression, would be abated—the diseases, which are rendered more fatal and are modified by the habit, would be diminished. From what I have seen I am disposed to expect that very beneficial effects would arise from the depressing influences on the general spirits, the relief from the depression giving greater spirit and energy to them. I am disposed to believe, on a careful consideration of all the effects producible by such alterations, that a reduction of one-half the existing amount of sickness and mortality might be produced by them. I can corroborate by my own observations of particular cases within the sphere of the charity, that the excessive mortality arising from the depressing causes specified

J. Toynbee, Esq., F.R.S

es not diminish the numbers of the population, and that it only oduces a weaker and more wretched population. I find that worse the condition of the people the earlier are they married, ll the greater the mortality amongst the children the more rapid births. Amongst the scrofulous and even the consumptive tients whom I have attended are remarkably numerous families. ave seen reason to believe that the existence of scrofulous disease often a cause of sexual irritability; even at the latter stages of rofulous disease I have observed peculiar irritability of that scription. I have observed not unfrequently in cases of con-mption of males a particular anxiety for marriage, even within period of four or five weeks of their deaths. I can also, from own observations within the district of my visits, corroborate facts already laid before the public of the demoralizing effects continued deaths in the absence of affectionate feeling and self-ness with which these events are ultimately treated.

If an increased rental were requisite for these improvements, tead of there being generally reductions of existing charges, and hey were to fall as new charges upon occupants, such as those oom you have alluded to, do you believe they would defray em cheerfully?——I have no doubt of it. Having been formed of the practicability of laying on pure pure water con-ntly at a penny a-week. I have asked a great number of the tients whether they would consent to pay an additional rent of .. a-week to have the water laid on in their rooms, and they ve expressed warmly their willingness to pay even more; that ch payment would be but a trifle for such a "blessing," as they ve termed it. They have not complained, because they never agined the practicability of any amendment.

Have you taken notes of the cases which you visit?——I have done , and I enter the information in a tabular form. The following e the first 100 cases which I entered. In them I find a greater quency of deaths in the families, and a greater mortality among milies, which I consider to be the result of the earlier marriages. om the amount of wages obtained in some of the cases it may be nceived that there was no want of proper food; and from my own servation some of the worst cases of scrofula occurred in families o were provided with sufficient food and efficient clothing. From ch experience I have been led to entertain views similar to those ted by Mr. Baudelocque as to the origin of scrofula. The rich, nongst whom scrofula and the strumous diathesis prevail to a very eat extent, will be found to have been in the habit of living and eeping in close and ill-ventilated rooms. Boys of the higher asses, when they go to schools and live with numbers, then mani-st symptoms of scrofula which have never been seen before. I ve known children cured of scrofulous eruptions by the removal close curtains and confined cots.

J. Toynbee, Esq., F.R.S.

The following appears to be a summary of the average ages of death amongst the chief classes of the district of St. George's, Hanover-square, during the year 1839, which appears to have been not an unusually unhealthy year:—

District.	Class.	Deaths of each Class. Total.	Deaths of each Class. Adults.	Proportion per Cent. of Deaths of Children under 10 to total Deaths.	Proportion per Cent. of Epidemics to Total Deaths.	Average Age at Death of all who die above 21.	Average Age at Death, including Children.	Year's Average premature loss of Life by Deaths above Age of 21.	Year's Average premature loss of Life by Deaths of all classes.	Proportionate Number of Deaths to Population.	Excess in Number of Deaths above a Healthy
St. George, Hanover-square. Population 66,433.	Gentry. .	138	110	2·1	·9	59	45	2	..		
	Tradesmen	191	112	6·	1·7	50	29	12	10		
	Artisans, &c.	872	528	26·	9·8	47	27	15	12	1 in 50	273
	Undescribed	35	18	1·3	·2	61	32	1	7		
	Paupers .	89	77	·9	·6	59	51	3	..		
	Totals and Averages .	1325	845	36·2	13·3	..	..	..	..	..	..
		..	..	..	..	50	31	12	8	..	..
		No. of Births 1·260			Age of Living 28·3			Births 1 in 53.			

The summary of the returns you have collected as to the condition of the first 100 families visited by you, of whose condition you were enabled to obtain the facts entered under the several heads, appears to be as follows?—

Average Age of the Heads of Families. Male.	Average Age of the Heads of Families. Fem.	No. of Children living.	Average to each Family.	Average Age of Children living at once.	No. of Individuals sick.	No. of Children dead.	Average to each Family.	Average Age at Marriage. Males. Earliest, 16 to 30.	Average Age at Marriage. Males. Latest, 30 to 45.
39·6	37·7	353	3, & 53 remaining.	10·1	212	253	2, & 53 remaining.	Average. 23	Average. 36
38·6								25	

Average Age at Marriage. Females. Earliest, 16 to 30.	Average Age at Marriage. Females. Latest. 30 to 45.	Average Wages per Family. Highest.	Average Wages per Family. Lowest.	Average Number Sleeping in a Room. Highest.	Average Number Sleeping in a Room. Lowest.	Price of Lodgings. Highest.	Price of Lodgings. Lowest.
Average. 21	Average. 32	30*s.*	4*s.*	9	1	11*s.* 6*d.*	1*s.* 6*d.*
21		19·9		Nearly 5.		Average 4*s.*	

From this summary it appears that the mean age of the living adults or heads of families is at the least six years lower than the

J. Toynbee, Esq., F.R.S.

erage age of the living adults of an agricultural population. hose whom you visited would be of the least healthy; but sup-ssing they have the chances of life of the whole of the class of ttisans living within the district, the insurable span of existence fore them would appear, from the preceding returns of the ttual expense, to be restricted to eight years and a half instead upwards of 20, attained from the same age by better condi-ned classes, living in better conditioned tenements in the same stricts, or than agricultural labourers living in purer atmospheres other districts, and in receipt of a less amount of wages even an those families receive who are applicants for the charity hich you dispense?——Yes; and it is proper to direct attention the pecuniary pressure of the excessive sickness and mortality hich render the families really objects of charity, notwithstanding e wages they receive. Amongst the families will be found the mily of a policeman whom I attended. When he applied for lief the observation which occurred was, "You have, as a lliceman, 20*s.* a-week regular wages, and other advantages; u are never out of work, and cannot be considered a proper jject of relief from the funds of a dispensary intended for the orest class?" His reply was, that he paid for his miserable e room, divided into two, 5*s.* a-week; that he had 1*s.* 8*d.* eekly to pay for keeping up his clothes, which reduced the oney he had for his family of four children and his wife to *s.* 4*d.*; that he had had all his children ill, and lost two; that had during three years paid six doctors' bills, principally for edicine, at the rate of 2*s.* 6*d.* a bottle, amounting to between *l.* and 40*l.*; that two of the children had died, the funerals of hich, performed in the cheapest manner he could get it done, d cost him 7*l.*; the wife and his four children were now ill." ey were so depressed and debilitated as to render them very eat objects for the Dispensary and the Samaritan Fund. All s misery was traceable to preventible causes. Take another se in the list before me. A porter, in regular employment, at ges producing 1*l.* a-week; he paid 3*s.* 6*d.* for a most miserable d unwholesome room, in which himself and six other people, r children and three adults, slept; the children were shoeless, tremely filthy, and badly clad; the wife ill in bed of a diseased ee, for which I attended her; two children had been still-born, d he had lost three others; the sickness of one of these children, hich had died at 14, of consumption, had cost him in doctors' ls 16 guineas; the sickness of the one which died 11 months l, of water on the brain, had cost him 6*l.*; the third had died days old. The expenses in the three cases had so impove-hed him that he was compelled to apply to the parish for aid their burial. I will submit a third case; that of a cook, in eipt of 25*s.* per week regular wages. He was living with his

J. Toynbee, Esq., F.R.S.

wife and three children in a small, close, ill-conditioned room, for which he paid 5*s.* per week rent; he complained that the water was always "thick," and very disagreeable to the taste, and the smells from the sewers and the drains in the house were very bad; he had five children, of whom two had died; that he had paid doctors' bills for his wife's confinements, 5*l.* each; and for one child, which died of scarlet fever, at four years of age, the doctor's bill was 4*l.* 18*s.*; for the one which died of debility at the age of 10 weeks cost him 1*l.* 10*s.*; the funeral of the eldest child cost him 3*l.*; and the one at 10 weeks 1*l.* 10*s.*; he showed that the expenses of confinements, the doctors' bills, and the undertakers' bills, and the illness of his wife, arising from five miscarriages, had so impoverished him, that having now two children ill with scrofula, he was obliged, though reluctantly, to apply to the dispensary for relief. The last case I will submit to the Commissioners is that of a shoemaker, a good workman, who earns 20*s.* a-week: he pays 5*s.* a-week for one small miserable room, in a narrow court; he has had seven children, of whom he has lost five, for which he has paid in doctors' bills between 2*l.* and 3*l.* each; the expense of his wife's confinements amounted to 3*l.* 15*s.* each; the expenses of the funerals of the five children were between 3*l.* and 4*l.* each; his wife's age was 32, his own age 37, and at this age of 37 he continually suffered from nervous depression, and having one of his two other children with a lingering disease, a scrofulous affection of the hip, he was compelled to come to the dispensary; he complained that the water of the house was never clear, and never sweet. A man in receipt of 30*s.* per week's wages, considering his amount of rent, which was 5*s.* 6*d.* for one room, for himself, wife, and three children; having had four deaths after lingering consumptions, and a wife and children never well, I felt that he also was a proper object of the charity. At the time I visited these 100 families, no less than 212 of the members were suffering under disease, manifest in various stages; they had already had no less than 251 deaths and funerals, and a corresponding amount of sickness. It was only in a late stage of my investigations that I began to see the very serious amount of miscarriages they have had, and which in many instances exceed the deaths. Three hundred and fifty of the members of these 100 families were dependent children, whose average age was little more than 10 years.

TIGHT
GUTTERS.

An address de
Newport, Geo
Royal College
[78] b223

24ColorCard CameraTrax.com