(a.) *The antipathic*, in which the axiom *contraria, contrariis curantur*, is acted upon, which translated implies, that in disease contraries are cured by contraries. Thus a patient suffers from constipation, and a medicine is given which, in health, would produce the opposite of constipation—relaxation.

(b.) *The allopathic*, in which *one disease is tried to be cured by setting up another*. Thus, a man suffers from what is called determination of blood to the head, and a seton is inserted into the nape of the neck; the allopath, says the homœopathists, hoping by this means to set up a new disease in the neck, and so to cure that in the head.

(c.) *The homœopathic*, in which the axiom *similia similibus curantur* is followed, meaning, that similar diseases are cured by similar, which axiom is combined with a second, *that no two similar diseases can exist in a state of intensity in the same body, at the same time*. Therefore, if the lungs suffer from inflammation, a remedy is given which would, in health, produce inflammation of the lungs. Or, if the nose suffer from bleeding, a remedy is applied that in health would produce such bleeding, (a smart tap on the organ for instance;) or the bowels are constipated, and a remedy is given that in health would produce constipation.

3rd. That Hahnemann, the founder of homœopathy, and his followers, have, by experiments on themselves and others in a state of health, discovered that for every natural disease a similar disease is capable of being excited by a medicinal agent. Thus, Peruvian bark is said to possess the power of producing a disease similar to ague, nux vomica of producing a kind of palsy, and so on; therefore, on the strength of the last assumption, these experimentalists have discovered the means of cure for the same diseases.

4th. That in prescribing medicine, the more minute the dose administered the better, and the more safely will it act, so that medicines may be divided into doses consisting of the millionth, trillionth, or decillionth part of a grain, and yet retain their efficacy.

5th. That to homœopathists is due the credit of first calling particular attention to diet, cleanliness, and exercise, as curative means in the treatment of various diseases.

6th. That the practice of homœopathy is safe and effectual; that it places medicine amongst the fixed sciences; and that it is destined to become the practice of all truly scientific men.

The Correctness of the Assumptions.

The first assumption treats of diseases as arising from natural or morbid, and from medicinal causes.

Of the correctness of the doctrine, that certain morbid agents are capable of producing certain diseases, no doubt can be entertained. Marsh miasm produces ague; scarlet fever contagion produces scarlet fever, &c. Nor can it at all be doubted, that medicines carried to an excess in their administration, produce sometimes a powerful effect on the body, a disease in fact; therefore the division of diseases into natural and

medicinal is a proper one. But let no one conclude that homœopathists were the first to make the division here spoken of. The division has been known and used for nearly two thousand years. Thus Hippocrates, the father of medicine, who lived more than 400 years before the birth of Christ, spoke of the effects of impure states of the air as productive of disease, and also of the classes of symptoms, that is to say of the diseases induced by remedial agents, and in this he has been followed by all other writers; indeed the study of the diseases produced by medicinal agents was, without doubt, almost the first step made in medical science, and has ever held a distinct and important position. At the present day there is not a school of medicine existing that does not possess one teacher at least whose only office it is to give instructions on the natural causes of disease, and another teacher to give instructions on the effects or diseases that may be induced by medicinal agents.

This first homœopathic assumption, therefore, is utterly at variance with truth, in so far as it speaks of Hahnemann as being the first person who divided diseases into natural and medicinal, and of the followers of Hahnemann as being the only persons who use such a division.

Mortlake, Surrey.

[To be continued.]

ON THE PROGRESS OF PUBLIC HYGIENE AND SANITARY LEGISLATION IN ENGLAND,

AND THE ADVANTAGES TO BE DERIVED FROM THEIR
FURTHER EXTENSION.*

BY J. INGHAM IKIN, Esq.,

Fellow of the Royal College of Surgeons of England, and Lecturer on Anatomy and Physiology in the Leeds School of Medicine, etc.

Read before the Leeds Philosophical Society, March, 1851.

A recent enterprising proceeding, which will tend strongly to advance the cause of hygiene, as well as to benefit the public generally, is the "Inquiry of the Analytical Sanitary Commission," and the publication of its results in the *Lancet*; the Editor deserves our best thanks for such exertions. Their utility is already being felt in London and elsewhere. This Commission furnishes information as to the quality, composition, and adulteration of the various articles of food in common use, as well as that of the water; and it promises to examine wine, spirits, drugs, &c. It appears from these reports that ground coffee, so called, is very rarely, indeed, to be procured pure, and that it is adulterated not only with chicory but with many other substances not near so harmless; for chicory is adulterated with carrot, parsnip, mangel-wurzel, beans, roasted corn, biscuit powder, burnt sugar, red earth,

* Concluded from page 575.

oak bark tan, tan known as "croats," mahogany sawdust, baked horse's and bullock's liver, Hamburgh powder, Venetian red, &c.—a tolerable list sufficient to show what rascality is committed by some men, though calling themselves honest tradesmen.* With regard to sugar, its impurities and adulterations are equally startling. The "*Acarus Sacchari*," or sugar mite, abounds in the low-priced impure, moist, brown sugar, so no wonder the grocer's itch existing. In these sugars, also are found fungi sporules, starch, wood lime, lead and iron, stone sand or grit. Flour, potato-starch, and gum, are also used to adulterate sugar, but these are comparatively harmless. Lump sugar is recommended to be much more generally used, as being comparatively little exposed to these impurities and adulterations. The flour in London is found to be very pure and genuine; occasionally we have known cases of adulteration. In this town such has been the case to a somewhat large extent, but exposure ensued, and it is to be hoped the crime and fraud of adulterating flour is now rare. Chalk, bone-dust, plaster of Paris, and white clay, have been found in flour. The act of mixing by the miller is perhaps justifiable, I mean only that of mixing different qualities of the same grain; but meal is constantly adulterated with barley-meal. Bread, as is well known, often gets adulterated; and agents are employed to render it light, and of a good colour. Such agents should not be allowed, they injure

the bread, and are not wholesome. The substances employed are—alum, sulphate of copper, (of course, in minute quantities, but sufficient to affect the health, especially of the delicate and young;) and the great majority of persons in the country accustomed to eat home-made bread, cannot take baker's bread, or London bread, without some annoying, if not dangerous symptoms. Rice-flour, boiled and mashed potatoes, are also found mixed with bread. Unsound flour, I need not add, should be avoided as much as possible; the flour mite soon makes its appearance when the sample is unsound; and diseases are apt to attack, to a formidable extent, the cereals, especially in wet and unfavourable harvests. "Bunt, smut, rust, mildew, ear-cockle, wheat-midge, are well known to the corn grower.

With regard to mustard, it is constantly found to be adulterated with radish-seed, rape-seed, wheaten flour, turmeric powder, and capsicum pepper; in fact, like arrowroot, it is very rarely to be procured pure, genuine *Maranta arrowroot* being scarcely ever sold. Pepper is adulterated with linseed, mustard-seed, wheat flour, pea flour, sago meal, pepper dust, husks and factitious pepper berries. Cocoa is constantly mixed and adulterated, not only with sugar and starch, but with other matters of an injurious nature. The farinaceous foods—*ervalenta*, *revalenta Arabica*, &c.—are spurious compounds, and the health of invalids has been often rendered much worse by taking them they mainly consist of lentil powder, resembling in colour, structure, and taste, the pea-meal, and, like both peas and beans, contain a large amount of nitrogenized matter, in the form of legumine. When lentils are taken as an article of diet, they are found indigestible, often occasioning distension and flatulency.

The profit derived from these farinaceous foods, such as Dr. Barry's *Revalenta*, &c., is enormous, the cost of the ingredients in a packet of 2s. 9d. would not amount to 6d. In this manner the inquiry of the Analytical Commission is now proceeding, and is likely to be always attended with most useful practical effects, by the exposure of the frauds to which the purchasers of articles like the above are subject.

It is to be hoped the whole class of foods and drinks will be investigated in the same accurate manner. The effect will be, it is to be hoped, that such adulterations will become much more rare, and that our food will be rendered more wholesome. All honest tradesmen dealing in genuine articles, should unite to expose and prevent the fraudulent dealer, then the public would have no excuse (with such facts proving the deception and roguery,) for encouraging cheap shops, falsely so called, but would be content, and prefer to pay a remunerative price for a genuine article.

A recent hygienic measure of some importance, and one that the fearful extension of the crime of secret poisoning had called for, is the Act of Parliament regulating the sale of arsenic. The main provisions of this bill are as follows:—On every sale of arsenic the particulars of the sale are to be entered by the seller. No person shall sell less than ten pounds weight of arsenic

* *Tea and its adulterations*.—The *Lancet*, in three of its late numbers, has devoted a portion of its space to an exposure of the adulterations to which green tea is subjected before it reaches the hands, or rather the tea-pots of the consumer, a topic, it is to be feared, on which the "greenness" of the public is in proportion to its want of precise facts and information. The disclosures made by the "sanitary commission" of the Journal will be anything but gratifying to those who prefer "hyson," "young hyson," and "gunpowder," to congou or souchong; for while the principal black teas are declared to arrive in this country in a genuine state, every sample of green tea subjected to the microscopical test was found to be adulterated—that is to say, glazed with colouring matters of different kinds, which are employed to give a "facing" to the tea, and consist in general of Prussian blue, turmeric powder, and China clay. Not the least curious conclusion arrived at by the commission is, that in this country there is really no such thing as green tea—that is, one which possesses the natural green hue considered to characterise that kind of tea, that colour being invariably artificially produced by the materials above mentioned. Out of thirty samples to which chemical and microscopical tests were applied, not one was found possessed of the natural green colour; whereas, out of several samples of Assam teas, of British and Dutch growth and manufacture, and unquestionably genuine and entirely free from any "facing" whatever, the teas were of a dull yellowish colour, without the slightest tinge of green—resembling, in fact, the leaves of the adulterated samples of green tea imported from China, when deprived of the colouring so much patronised and admired. We are further informed that the British fabricators of spurious tea are but little behind them in the manufacture of imitation green tea, which they prepare from exhausted tea leaves, or from any other leaves which may be picked up by the hedge side, or in the wood, faced with ingredients of a still more poisonous description than are used by the Chinese themselves, the home adulterators thus contriving to "better the instruction" derived from the example of the foreign manufacturer. Directing their attention next from green tea as imported, to the same article as commonly sold, the commission state that of 20 samples purchased of various tea dealers in different parts of the metropolis, all were found to be adulterated. Whether any genuine green tea exists in China is held to admit of some doubt; but there is none at all as to the artificial colouring of all that is imported into this country, and consequently of all that is sold. We speak now of the respectable dealers, for it appears that those of the unscrupulous class are in the habit of mixing what is termed "lie tea" (an article most fitly named) with the choice "gunpowder" they retail to the public, and which is thus made to undergo a further deterioration after leaving the honest hands of the Chinese. The "lie tea" in question is a compound of sand, tea-dust, and clay, and is worth, exclusive of duty, only 6d. or 3d. a-pound, and, therefore, offers the temptation of large profits to those who are unprincipled enough to employ it for the adulteration of the superior kinds of tea.

at any one time, to any person who is unknown to the person selling, unless the sale be made in the presence of a witness known to the party selling, and to whom the purchaser is known, and who signs his name, together with his place of abode, to such entries, before the delivery of the arsenic to the purchaser; and no person shall sell less than ten pounds weight of arsenic to any person under age. Arsenic, before sold, to be mixed with soot or indigo, in the proportion of one ounce of soot or half an ounce of indigo to one pound of arsenic. The penalty of offending against the act is £20. It will not, however, interfere with the sale of Arsenic in medicine, under a medicinal prescription. The bill proposed for the regulation of the practice of chemists and druggists will, it is to be hoped, check the indiscriminate sale of laudanum, Prussic acid, &c. In order to extend and reap the benefits of the numerous recommendations contained in the Parliamentary and other publications referred to in this paper, and in order to promote the health and happiness of the community, and reduce the heavy mortality of our large towns, the public must not rest satisfied with calmly looking on or indifferently waiting for the adoption of measures from which they must derive the greatest benefit, but, they must co-operate with their advisers, and be willing to pay for such measures, as in all cases prevention is better than cure. Prudent expenditure in the promotion of sanitary measures will never have to be regretted, for the good effects, if not immediate, will be permanent, and our large towns will, by degrees, become healthier, cleaner, and improved in moral condition as well; for we know, from the highest authority, how closely akin cleanliness and Godliness are to each other. To promote this improved condition, we must have pure air, plenty of light, (now, fortunately, to be had without paying for), and this light we must not lose the benefit of, as we are apt to do, by the inroads of smoke and dirt upon our glass windows. Smoke must be consumed much more generally than it is at present, for the practicability of its consumption is now admitted. A good supply of water must be had at any price, and all the poorer classes of cottages should be supplied free of cost by the landlord. All streets, passages, courts, &c., should be furnished with pipes and taps, for the purpose of cleansing the pathways, and jets of gutta percha tubing employed for washing the fronts of houses and windows, &c. The dismal, dingy, dirty appearance of our streets and houses might thus be to some extent removed. Adequate drainage and sewerage for all towns, are of course amongst the first grand measures to be adopted, and these must be done before any other improvements can be effectual. Public baths should be more generally supported in different localities; public washhouses for the poor, are found in London to be very convenient and useful, as well, I believe, as profitable; they should be erected in all our large towns and populous places. As to public parks, gardens, walks, and promenades, we are a century behind our continental neighbours; they are beneficial not only to the health, but they conduce to good feeling and social intercourse as well; our rigid habits of do-

mestic privacy amongst the middle classes are often carried into extreme, and really at times prove injurious to health and mental vigour. Public dinners tend to promote good feeling, and as a nation we have the credit of enjoying them, and there is no reason why the public promenade, or rooms for well-ordered public amusements, should not be much more frequently resorted to, and found connected with every city and town in the kingdom. Manly exercises, games and pastimes, and innocent amusements, should be more generally encouraged. Timid mothers should be taught that cricket and other healthy games are more beneficial than injurious, and that the boisterous plays and exercises of boys at our large schools are infinitely superior to what may be considered as the more refined amusements at home; and after all, it would be doubtful policy to supersede or shun the national sports of old England, though they may, and often do, directly or indirectly, lead to folly, intemperance and gambling, but they are not so *abused* by those who really seek to *enjoy* them for the sake of the sport itself; and because parties are foolish enough to *abuse* them, that is no reason why they should be totally avoided; the fine manly character of the British yeoman would soon disappear, if their amusements had always to be sought in towns or at some insipid watering place. On the subject of the education and recreation of the physical powers, I have read papers here and elsewhere on previous occasions. Public opinion is now more alive to the importance of this question, and we are now beginning to adopt several salutary regulations in this respect; the shortening of the hours of business in our offices, warehouses, shops, and mills, is a step in the right direction.

The free admission to public museums and their establishment at the public expense, and the opening of cheap reading-rooms and libraries will in the course of time become much more general throughout the country, and thus the inducements to frequent the haunts of vice and intemperance will be less. These institutions cannot exist long without producing their good effects, and accompanying them, we shall find the public taste rapidly improving, our streets, squares, and houses will be constructed in better taste, and with more uniformity and architectural beauty. Our public buildings will be of a superior class to what they are at present, the close unhealthy courts removed, our common lodging houses much improved in accordance with the views of Lord Shaftesbury's bill, which arose from the able report of Mr. Grainger, "On the present state of certain parts of the metropolis, and on the model lodging houses of London." According to his Lordship's statement in the House of Lords, "The operation of the bill would, in the first instance, be limited to boroughs and parishes not having less than a population of 10,000 persons; and it was provided that the Council of any borough might adopt the Act, the expense to be charged on the borough fund; that, on the requisition of ten ratepayers, churchwardens might convene a vestry to determine whether the Act should be adopted; but the resolutions were not to be

deemed carried unless two-thirds voted for them; that, when the Act was adopted, the vestry should appoint Commissioners for carrying the same into effect, and that the overseers should levy, as part of the poor-rate, such sums as the vestry should deem necessary; that vestries of two or more parishes might concur; that Town Councils and Commissioners might erect lodging-houses, or adapt buildings, or purchase existing houses; that if lodging-houses were considered unnecessary, or too expensive, they might be sold with the approval of the Treasury; that the Council and Commissioners might make bye-laws, subject to the approval of the Secretary of State. Then came a provision which was necessary to prevent abuse, and it was to the effect that no person receiving parochial relief should be a tenant of these lodging-houses, except the relief was given on account of accident or temporary illness. The bill was guarded in every respect against the probability of jobbing, and against its being converted into eleemosynary uses, which would entirely destroy the object in view. A too rapid and too general adoption of the bill was also guarded against; and it had this advantage—that if faulty it could not be widely spread, as one or two failures would utterly check its operation. The bill violated no principle, but merely enabled a locality to provide what a labouring man could not provide for himself. There were reasons why this undertaking should not be left to private speculators. First of all, they shrank very much from it, because it required a great deal more care and supervision than any private individual was inclined to bestow on it, and, moreover, private speculators had a tendency to have recourse to small, narrow, and confined houses; for there was no doubt that such houses, without having any arrangements for decency and comfort, gave a much larger profit than constructions on the plan such as he proposed, and such as were, in his opinion, indispensable for the comfort and decency of the population. In proof of the enormous profits yielded by very small houses, he mentioned an instance of a house belonging to a society with which he was connected, and which they now kept as a mere curiosity. That house, notwithstanding every means of comfort and decency were afforded in it, compared with other houses of the same size, returned thirty per cent. on the outlay. What, then, must be the profit made by those who, having a large number of these small houses, took from the inmates the same amount of rent without giving anything like the same accommodation as the society he belonged to? There were at present a vast number of schemes for the improvement of the working classes, and he felt assured that those classes would, if the opportunity was afforded them, also improve themselves. The concurrent testimony of all persons conversant with the habits of the people went to show that the improvement of their domiciliary condition reversed all those frightful pictures which he had felt it his duty to present to their Lordships. On this subject also he might bring to bear the testimony of foreign nations. He knew no one subject which had so much excited the interest of foreign nations as that of the erection and

management of lodging-houses for the people. Their Lordships would be surprised to hear of the amount of correspondence which had proceeded from all parts of Europe—from Paris, Germany, Spain, Italy, and also from the United States—asking for plans. He could assure their Lordships that not a few of the foreigners who arrived here to see the Crystal Palace came to him desiring to be taken round to those establishments formed for the benefit of the working classes, and they expressed their opinion that nothing was more satisfactory or more full of promise for the wellbeing of this country than the efforts made for the advantage of the working people, more particularly in that particular direction to which he now called their Lordships' attention. The present really was a measure by which they would give to the working man that which he had a right to possess—a full and free opportunity for the development of his energies."

Prince Albert's model lodging-houses are models in their way, and we have now an establishment in Leeds of the kind provided at the expense of Mr. E. B. Dennison. I append a short account of Prince Albert's model house, erected by His Royal Highness near the Cavalry Barracks, Hyde Park:—"The subject is one of great importance, and a visit to the building, which is now completed, will be found very instructive. For some time past a lively interest has been taken in this matter by the most philanthropic men of the age, for both in town and country the sanitary defects of the dwellings of the poor were felt to be a reproach upon our civilization. There were obstacles, however, in the way which it was found extremely difficult to overcome. In the first place the question of expense presented itself. Cottages were erected very pretty to look at, and a vast improvement in their internal arrangements on the old forms of dwellings in use, but when they were completed it was found that the cost, as compared with the ordinary rates of wages, precluded the idea of their extensive adoption, and that as trade speculations they would not answer. Considerate landlords have, nevertheless, provided in many instances convenient and comfortable accommodation for their work-people, actuated by a laudable desire to see them comfortable; and the Society for Improving the Condition of the Labouring Classes has erected model lodging-houses in different parts of the metropolis, which, being constructed on a large scale, have returned a fair profit on the money invested in them. So far success has been achieved, but it was necessary to carry the experiments made much further before any permanent or extensive effect could be produced in the objects contemplated. It was requisite to show that at a cost, if not smaller certainly not larger than that at present incurred for building the very inadequate houses which workmen and their families inhabit, houses could be erected giving them the benefit of sanitary arrangements, and providing for their increased comfort, cleanliness, and domestic decency. The rate of wages in this country, whether in the rural or town districts, leaves but a small margin over, after the purchase of food and clothing, for rent and the other expenses

attached to it. This sets limits to the outlay in building labourers' tenements which cannot be transgressed, and the consequence has hitherto been that they have been compelled to live in abodes totally unfit for human habitation, and which have led to an immense amount of preventible mortality among them. Damp walls and floors did one part of the work of destruction, and overcrowded rooms, where cleanliness, decency, and comfort were impossible, the rest. At this stage in the sanitary movements it is superfluous to say more on these subjects, as their evil influences are admitted on all hands. The question remained,—How were they to be dealt with? how was the working man to be provided with a suitable home at a rent which his wages permitted him to pay? It was found that the inferior bricks of which his humble tenement was constructed held water like a sponge, and that from one of them as much as a pint of moisture could be extracted. He and his family, therefore, were constantly undergoing, night and day, a species of hydropathic treatment which doomed them to inhale damp air, wear damp clothes, sleep in damp beds, and suffer all the complicated miseries which arise from walls streaming with water, and absorbing the rain from without, and the heat of the fire from within. That was one great difficulty to be overcome, and it has been accomplished in a very successful and ingenious manner. The bricks used in the construction of the Prince's model houses are hollow, whereby their strength is preserved, at the same time that the necessity for lath and plaster is removed, and perfect dryness secured. Their form renders them applicable, not only for side and partition walls, but for floors and roofing, and by glazing their surfaces the most ample facilities are given for cleanliness. Each room can be washed out as thoroughly when thus constructed as an earthenware dish, and fuel is not uselessly expended in warming a solid mass of material saturated with moisture. By this species of wall ventilation, which, singularly enough, appears to have been practised among the ancient Romans, the close fetid smell so offensively present in apartments that have been overcrowded for some time after they are vacated is entirely got rid of. Other advantages also present themselves, for buildings thus constructed obviously become fire-proof, and hollow bricks are found to be excellent non-conductors of sound. In small confined tenements there is no greater source of discomfort than that which arises from the manner in which the slightest noise penetrates through partitions and floorings, and a simple inexpensive arrangement, which protects the quiet and privacy of the poor man's family, is a boon of immense value to him. The use of hollow bricks is thus recommended by a variety of considerations, but the chief benefit which it confers remain to be stated. By its saving of at least one-third is effected in the expense of ordinary construction, and quite as much in fuel and annual repairs and insurance. We shall revert to this point again, and in the meantime proceed to other matters worthy of special notice in the arrangements of the model houses. One peculiarity which strikes the visitor is the avoidance of expensive woodwork and the

employment of few and cheap materials to do all that is required. The plasterer and the carpenter are almost entirely dispensed with, and mineral manufactures, in one shape or other, are resorted to. Everything is of durable material, and little liable to go out of repair. There are some obvious improvements which might be made in the construction, and some economies that might be effected, for the building is, of course, experimental in its character, and does not claim perfection, being undertaken by His Royal Highness principally to stimulate the efforts of those whose position and circumstances enable them to carry out similar undertakings. Viewing it as a whole, however, the visitor will not fail to observe that it is a good working model, not a mere prettiness expensively got up and inapplicable to practice, but a sincere, honest, and sensible attempt to supply a design for the style of architecture suitable to the labouring classes and within their means to command and pay for. It is adapted for the occupation of four families of the class of manufacturing or mechanical operatives residing in town or near it. Each tenement is arranged on precisely the same plan, having a well-lighted lobby or porch, a living room, a scullery, a watercloset, and three sleeping apartments, all simply but effectually provided with convenient fittings for domestic comfort. The separation of the sexes and of parent and child is complete. Closets, dust-bins, sinks, safes, shelves, &c., are included in the plan. The ventilation is carefully attended to, and, above all, the water-supply is not neglected. Some varieties exist in the manner of finishing the different rooms, and the public will form a better conception of the care with which the whole has been got up when we mention that nearly a dozen well-known manufacturers and makers have been laid under contribution for suitable materials. We now come to the questions of expense and profit, from rent, upon which, of course, the success of the experiment turns. The calculation on this subject is, that a building of the kind can be erected for £400, or about £100 for each tenement, and that a payment of 1s. per week for each room, or about 3s. by each family, would pay 7 per cent., and cover all contingencies. Now, any one who knows what the house-rent of the labouring classes in London is must regard this as a very successful result. In Church Lane, St. Giles's, 3s., 4s., and 5s. per week are paid for single rooms of the same size; and in these abodes of vice and misery malignant fevers, and every form of epidemic disease, are constantly at work, doing frightful havoc. Let any one who wishes to understand, in its true significance, the importance of that movement for improving the condition of the labouring classes, over which Prince Albert so appropriately presides, after paying a visit to the model houses at the Knightsford barracks, go direct to Carrier Street, or Church Lane, or Kennedy Court, St. Giles's, and he will learn an instructive lesson from the contrast thus presented to him. He will be moved with compassion at the spectacle of such squalid misery, and with gratitude that at the Great Exhibition of the world's industry the hard lot

of those who toil in the lowest grades of labour is not forgotten. At present the model houses are only accessible by order,* but we trust soon to see them unreservedly thrown open to all comers. It is only in that way that those whose comfort they chiefly provide for can see them properly, and until the humbler classes themselves enter into the schemes and plans for their social improvement, entertained by those above them in station, little real progress can be made."

As to infant schools, they are very useful, and should be planted in different localities; but as to the suggestions of public nurseries, the plan, to my mind, is objectionable, and would withdraw tender infants too much from their natural guardians, who, it is to be regretted, are now too much in the habit of leaving them, (often, it is true,) to procure a maintenance for them by working in mills, hence the temptation to dose their infants with anodynes to keep them still during their absence.

Another important improvement in a sanitary point of view, is providing, as much as possible, our new houses with adequate areas and spaces, both front and back, in order to procure due ventilation. Cottages of the working classes should be built with some respect to the health of the inmates, and should be liable to inspection by the public authorities, and never erected upon undrained plots of ground. Cellar-kitchens, perhaps, cannot be altogether dispensed with, but they are objectionable. Mills, manfactories, butchers' and chandlers' shops should not be allowed to abut upon, or be continuous with, the main streets, as they are sources of nuisance, and great eye-sores as well. Cattle markets, shambles, fish-markets, and slaughter-houses, should be isolated, and never seen or allowed in the thoroughfares of a town. London, at last, is to be freed from the nuisance of its cattle market in Smithfield, the existence of which so long in the midst of a great city, has been a standing disgrace to it. Paris and other continental cities, though behind us in many sanitary regulations, have long had their cattle markets and slaughter yards at a distance from the heart of the city. Public waiting rooms are also at last to be established in London, the want of them has long been felt by all strangers. The lighting of our towns might be much improved, as well as the modes of paving the streets; the use of ashes might easily be dispensed with, and gravel substituted. To carry these and similar improvements into practice, the public mind must be constantly stimulated and roused, and the local authorities having the power to carry these into effect, supported and aided in every possible way, as we know how tardy we all are individually to cast away old habits, and so we find public bodies loath to adopt improvements, until compelled from circumstances or the force of public opinion to do so. The officers of health to be appointed under the Health of Towns' Bill should be men of standing and acquisitions, able to write reports and suggest remedies, and thus have some influence over the public mind. Many

of the improvements now alluded to are proposed to be effected by the carrying out of the Health of Towns' Bill, but as yet this Bill is comparatively a dead letter, and few towns have availed themselves of its powers, and fewer still placed themselves in the position to render its operation useless or unnecessary.* Towns having their own improvement Acts, move slowly on with sanitary measures, though when an epidemic happens to appear, a great talk and stir is made at the time about the want of them. We should act the sure and prudent part of adopting preventive measures whilst we have the leisure and opportunity for so doing. No longer contenting ourselves with hearing of such improvements being desirable, but carry them efficiently into operation by using the scientific researches placed at our disposal, and benefitting by, and carrying into practice, the recommendations of the eminent men whose labours I have had occasion thus imperfectly to bring before your notice.

My trouble in preparing this paper will be amply repaid, if I shall have succeeded in advancing one iota, or given the slightest impetus to, the progress and extension of preventive or hygienic science. In seeking to use the means, and enjoy the blessings and advantages a kind Providence has so abundantly placed at our disposal, in marching forward in the path of improvement—mental, moral, and physical—by improving the habits and condition, as well as cultivating the minds, of the masses, and lagging not behind in this age of enterprise, invention, and competition, we shall not fail to reap the advantage in our own times, but we shall hand down the benefits to a grateful posterity.

Hospital Reports.

MARYLEBONE INSTITUTION FOR DISEASES OF WOMEN.

CASES UNDER THE CARE OF DR. S. EDWARDS, ACCOUCHEUR TO THE ABOVE INSTITUTION, AND LATELY PHYSICIAN TO THE EASTERN DISPENSARY OF BATH, ETC., ETC.

CASE I.—*Dysmenorrhœa from Mechanical Obstruction of a Tumour.*

S. PARKES, aged 34, unmarried, a maid-servant, was admitted May 21st, 1851. Is of dark complexion and bilious temperament; has been declining in health for

* *Board of Health.*—Some returns were presented before Parliament, from which it appears that the number of towns from which petitions have been received for the application of the Public Health Act since it has passed is 215. The total number of towns in relation to which examinations and reports have been made by inspectors, and provisional orders have been applied with the sanction of Parliament, is 46, and by order in Council, 52. That the total number of places in relation to which reports and examinations have been made by inspectors is 34, for orders in Council 12, and towns or places awaiting second inquiries or not yet reported upon to the Board is 55, and places in which the application of the Act is suspended is 12. The average expense of the local examination, the printing and publication of the reports (of which 342 copies is the average number of copies locally circulated), and of the application of the Act by provisional order, is £121, and by order in Council, £83. The average expense of passing Towns' Improvement Acts during the years 1849 and 1850 was £2,042 each Act. The total number of applications made to the General Board of Health for assistance under the Diseases Prevention Act was 1,925; of which the application as to public nuisances, 1,279; of letters received, 18,581; of letters transmitted, from September, 1848 to May, 1851, 56,742; of Board meetings, 617; of claims to compensation examined and awarded under the Metropolitan Interments' Act, 169 parishes.

* Afterwards they were thrown open, and were so when I visited them.—I.