

# THE SANITATION OF PLACES WHERE FOOD IS STORED AND PREPARED.

## Bakehouses.

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*Read at the Sessional Meeting, February 14th, 1894.*

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THE subject upon which I have been invited to address you covers so much ground that it would be hopeless to attempt to deal with it exhaustively within the limits of time allotted to this paper. I, therefore, propose to confine my remarks more particularly to the consideration of the hygienic aspects of bakehouses. At the same time, it may be broadly stated that many of the objectionable features met with in ill-regulated bakehouses are reproduced in bad kitchens.

After a prolonged consideration of this question, I have been forced to the conclusion that there is urgent need throughout the United Kingdom for enquiry and reform. Under the present system, the health of the workman often suffers, and in some instances the public health is also endangered. To remedy these evils, I would suggest—(1) that inspection under existing statutes should be more systematic and complete; (2) that legislation is needed to extend the powers of local authorities to deal with all aspects of the bakehouse question. Further, I am of opinion that a proper scheme of legislative action could be best initiated by a Select Committee of the House of Commons.

Too little attention has, I think, been devoted in the past to the wholesomeness of places where food is stored and prepared. Most practical sanitarians will agree with me that this neglect is likely to entail consequences more or less serious upon the food consumer, and in a still greater degree upon the food producers.

Turning to that portion of the subject with which I propose to deal more particularly, namely, to the question of bake-houses, this attitude of general apathy is especially remarkable. In bread, we have to deal with an article of prime necessity; it is the staple and essential factor in all dietaries, and every citizen is directly concerned in matters affecting its cost, its purity, and its methods of production. These being the circumstances, it seems hardly credible that, on a moderate estimate, one-half of the bread supplied to Londoners is sent out from cellar bakeries, or, in other words, is manufactured in underground places which violate the first principles of sanitation. This estimate, it may be at once acknowledged, is only approximate, as it is impossible to obtain anything like a comprehensive statement of facts and figures. In my own district of St. George the Martyr, Southwark, I find that out of sixty-seven bakeries, twenty-three are situated altogether, and nine partially in basements; a proportion which is exceeded in other Metropolitan districts. In considering the source of the total output of bread, moreover, the fact must be taken into consideration that some of the above-ground bakeries carry on business on a very extensive scale. On the whole, however, I think we may take it as a fairly correct assumption that about one-half of the Londoners' daily bread is derived from underground bakeries.

According to the Census of 1891 there are no fewer than 18,029 bakers in London, and 84,158 in England and Wales.\* These figures do not include the pastrycooks and confectioners, many of whom work underground, but whom I exclude as they are not directly concerned in the production of bread. The bakers, however, constitute a large and important class, and when we take into consideration the wives and children dependent on their exertions, it will be evident that our present discussion directly affects the interests of a large section of the industrial community.

The lot of the journeyman baker is neither a healthy nor an enviable one. From the nature of his occupation he is placed in an environment that saps his strength and too often makes him prematurely aged. His face is thin and pale, his shoulders are rounded, and his whole look is suggestive of chronic ill-health. Nor is this to be wondered at when we consider the fatiguing nature of his work, which is carried on through the night and far into the next day. He is exposed to damp and to great and sudden changes of temperature, and he

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\* Since the Census of 1881 the bakers have added 13,126 to their number.

habitually breathes an atmosphere which is charged with dust, with the fumes of coal, with the products of respiration, and not infrequently with actual sewage contamination. In consequence of the unhealthiness of the employment the young journeyman changes his occupation whenever he is able, and thus swells the mortality figure of some other trade. His place, however, is quickly filled up by a recruit from the country, or by an apprentice from Scotland or the West of England.

Dr. Ogle's tables of comparative mortality of males between twenty-five and sixty-five years of age, founded upon the Death Registers of 1880-1-2, offer some suggestive figures. From them we learn that in one hundred different occupations bakers occupy the following relative positions: in suicide they come third, in alcoholism seventh, in liver disease eleventh, in diseases of the circulatory system eleventh, and in diseases of the nervous system twelfth. Many of these diseases may be traced to the abuse of alcohol, an evil habit which is doubtless fostered by the fatigue consequent upon the overwork, the long hours, the want of sleep, and the poisonous atmosphere to which the journeyman baker is exposed. It may be remarked that Dr. Ogle's tables do not confirm the high rate of mortality from consumption and diseases of the respiratory organs testified to by other authorities. This apparent anomaly is possibly explained by the fact that a small proportion only of the total number of bakers included in his tables are exposed to the bad environment met with in London. In short, his figures deal with the state of the trade generally, as apart from the Metropolis, and in this way they are diluted, so to speak, with the more favourable results obtained from provincial bakeries.

Among the diseases to which bakers are specially liable may be mentioned rheumatism, colds, erysipelas, and a form of eczema, due to the irritation of the flour, known as "bakers' itch." They are peculiarly liable to rupture; Malgaigne, indeed, states that their tendency to that affection is three times that of other trades. This observation is readily accounted for by the fact that the baker has to lift heavy sacks weighing 280 pounds. Another common affection of bakers is flat-foot, a deformity that produces a peculiar gait, and is also due to long standing, and the habitual lifting of heavy weights.

As to the hours of work, from personal enquiries among the journeymen I find that seventy-two hours' work weekly is a fair average in the better class trade, with Saturday evening and Sunday free. Nor is it easy to see how, with the present system of making bread by hand, this time could be materially

shortened. In the poorer neighbourhoods, where what is known as a "cutting" business is conducted, the baker works from eighty-four to a hundred hours weekly, and, in addition, frequently bakes dinners up till half-past one o'clock on Sunday.

Perhaps the best way to form an idea of the realities of a cellar bakehouse will be to draw a picture of such a place, sketching in the details from facts which have come under my own observation.

First of all we enter a baker's shop from the street, and descending a trap door, climb down a steep ladder into the bakehouse. We then find ourselves in a cellar some twenty or thirty feet in length, and ten or twelve feet in breadth. It is, in fact, an ordinary basement cellar, six or seven feet high, and is lighted by gas jets. Its roof is unceiled, and between the boards covering the warped rafters are many cracks, which open directly into the shop above. A portion of its floor-space is occupied by a slightly-raised wooden platform, on which are ranged a number of sacks of flour. Along one of its sides are placed the kneading troughs, large wooden boxes, which are fixed immovably against the damp and whitewashed wall. The oven stands at one end of the bakehouse, away from the sacks of flour, and consists of a long, deep chamber built of unglazed bricks. Its furnace is fed with coal, a supply of which lies in a loose heap close by. In the darkest corner of this underground bakery stands a kind of open cupboard, in which a water-closet is placed.

In the cellar thus fitted up are carried on all the operations of mixing, kneading and baking the dough, in addition to which it often serves for storing the loaves of bread.

On descending the stairs, the visitor finds himself plunged into a hot and stifling atmosphere. Pursuing his investigations, he will find that the air is vitiated from many sources, for instance, there is the active contamination of the flaring gas-jets, while the furnace fills the place with sulphurous fumes, more especially when the journeyman economises fuel by closing the damper. The air is further charged with moisture and with other products derived directly from the baking of the bread. Sewer gas may enter through the drain openings in the floor, the more so as the grating traps are often worthless. It may enter, moreover, through a defective closet soil-pipe. Further pollution is caused by the ground air and damp which are sucked up into the heated cellar through the faulty flooring. But this is not all, for in low-lying districts there is the danger that in times of heavy rainfall the sewage may force its way through the drain-pipes into the bakehouse. It is easy to see that the introduction of a flood of sewage in

this way may bring the germs of typhoid and other filth diseases into direct contact with the loaves of baked bread.

Ventilation, in any real sense of the term, is absent, and, indeed under the circumstances we have pictured, is impossible. An inlet grating usually exists at the level of the street, but as a rule it is kept carefully closed by the journeyman, who is morbidly susceptible to draughts. In most cases, again, there is another small inlet at the back of the cellar, but the second ventilator is almost invariably covered up by means of a sack. It will be seen therefore that not only is the air systematically poisoned from within, but also, that no provision is made for that constant renewal from without which is essential to health. We may safely assert that no man could habitually work in an atmosphere even approaching that which has been portrayed without sooner or later sustaining serious injury to his health.

Our description, however, has by no means exhausted the evils incident to a bad underground bakehouse. In many of these places the unhappy journeyman is actually shut up for twelve hours or more at a stretch, and during that period adds his quota to the general impurity. At times he smokes, or uses tobacco in the still more objectionable form of chewing. Now and then dogs and cats are found in the cellars. Other forms of animal life include rats, mice, black beetles, cockroaches, ants and spiders, the smaller insects often being present in almost incredible numbers. Then the moist and heated atmosphere is favourable to the rapid decay of vegetable matter, and this takes place in the scraps of dough and refuse flour which collect in the hollow sides of and beneath the kneading troughs. The same conditions act on the coal, and cause it to give off various injurious gases.

Bread, as everyone knows, is peculiarly liable to absorb moisture and gaseous substances. When stored in a badly arranged bakehouse, therefore, it can hardly escape deterioration. Moreover, when prepared under these conditions, it is liable to be injured at every step of its manufacture. The flour becomes damp, musty and sour, the "sponge" and dough contaminated by the sweating arms of the journeyman, while on all sides it is exposed to the risk of sewage and of other noxious emanations. Lastly, the water with which the flour is mixed is often obtained from the same cistern which supplies the water closet, a system which is nothing less than an open invitation for the entrance of sewage matter into an important and universally used article of food.

In London there are between thirty and forty "model bakeries," that is to say, places where baking is carried on

in a cleanly and scientific way, amid wholesome surroundings. This number does not include the wholesale factories, of which there are several of large size. It will be sufficient here if I briefly lay down the principles which should guide the construction and management of a sanitary bakery.

First, the building itself should be specially built for the purpose, with strong walls and a plentiful supply of windows. Separate and lofty rooms should be provided for storing flour, for mixing and kneading the dough, for baking, and for storing the bread. The flour-loft should be placed at the top of the building, and all the sacks should be conveyed thither by means of a lift, so as to spare the workmen as much as possible from the laborious and dangerous work of hauling about heavy weights. The mixing and kneading room should be provided with movable iron troughs, the kneading as well as the mixing to be conducted by means of machinery wherever possible, in order to avoid the handling of dough or flour by the workmen. Then a special provision should be made for thoroughly cleansing the empty sacks before they are returned to the miller.

These various rooms should be light, airy and lofty, and be kept with the most scrupulous regard to cleanliness. Much will depend on the construction of the rooms. The walls, ceiling and floor of each room should be of smooth and non-absorbent material, such as glazed tiles for the walls and roof, and hard wood or tessellated pavement for the floor. The windows should reach to the ceiling, and be kept permanently open at the top. Additional ventilation could be provided by means of Tobin's tubes and other appliances, but in all cases it is imperative that all such apparatus should act automatically and be beyond the control of the workmen. As much daylight as possible should be admitted to every part of the building, and no part of the bakehouse must be below the ground level. Where artificial light is wanted, it would be best obtained from electric lamps. The water used for mixing the dough must be provided from a special and separate cistern, or better still, direct from the main. All sanitary conveniences, including wash-basins and baths, should be placed in a basement, or in some place quite apart from the main building.

The ovens themselves may be heated in various ways. Some of the most cleanly and convenient means are by gas or by wrought iron tubes containing super-heated steam. If coal or coke be used, it is important to insist that the furnace room be freely ventilated, and that on no account is the flue to be closed by a damper.

Let us glance briefly at the state of legislation with regard to bakehouses.

Before 1863 no special legislation existed. In that year, however, the Bakehouse Regulation Act was passed. The measure in question was introduced at a time when public attention had been pointedly drawn to the unhealthy conditions under which baking was carried on. The duty of enforcing this first Act of 1863 was imposed on the local authorities. As a result of the report of a Royal Commission on Factories and Workshops in 1876, the Factory and Workshop Act of 1878 became law, and at the same time the Bakehouse Act was repealed. For some unaccountable reason, and against the advice of the Commission, the regulation of bakehouses was transferred from the local authorities to the already overburdened factory inspectors, who numbered six only for the whole of London. In 1883, on the passing of The Factory and Workshop Amendment Act, the duties were re-transferred from the factory inspectors to the local authorities.

The present law regarding retail bakehouses, as far as London is concerned, is incorporated in Sections 26 and 27 of the Public Health (London) Act, 1891. The provisions of the Act of 1878 are contained in Sections 34, 35 and 81. These Sections repeated in Section 26 of the Public Health (London) Act, apply to such bakehouses only as are situated in any place that contains, according to the last published census, a population of more than 5,000 persons. Section 34 runs as follows: "Where a bakehouse is situate in any city, town, or place containing, according to the last published census for the time being, a population of more than 5,000 persons, all the inside walls of the rooms of such bakehouse and all the ceilings or tops of such rooms (whether such walls, ceilings, or tops be plastered or not) and all the passages and staircases of such bakehouse, shall either be painted with oil or varnished, or be limewashed, or be partly painted, or varnished and partly limewashed; where painted with oil or varnish there shall be three coats of oil or varnish, and the paint or varnish shall be renewed once at least in every seven years and shall be washed with hot water and soap once at least in every six months; where limewashed the limewashing shall be renewed once at least in every six months. A bakehouse in which there is any contravention of this Section shall be deemed not to be kept in conformity with this Act."

Section 35 of the 1878 Act states that a place on the same level with the bakehouse and forming part of the same building shall not be used as a sleeping place, unless it is constructed as follows, that is to say: "It must be effectually separated from

the bakehouse by a partition extending from the floor to the ceiling, and unless there be an external glazed window of at least nine superficial feet in area, of which at least four-and-a-half superficial feet are made to open for ventilation." There is no apparent reason why the operation of this Section should have been confined to urban districts. Surely, in the interests of the sleeper or of the bread consumer—whether rustic or cockney—it is desirable that the Section should be of general application. Section 81 of the 1878 Act provides that if Section 34 be contravened the occupier of the bakehouse shall be liable to a fine not exceeding £10.

The sections of the Act of 1883 applicable to bakehouses, and repeated in Section 26 of the Public Health (Lond.) Act are Sections 15 and 16. Section 15 relates exclusively to places which were not let or occupied as bakehouses before the 1st of June, 1883. This Section provides that it shall not be lawful to let or to suffer to be occupied as a bakehouse, or to occupy as a bakehouse any such place, unless the following regulations are complied with: (1) No water closet, earth closet, privy, or ashpit, shall be within, or communicate directly with the bakehouse; (2) Any cistern for supplying water to the bakehouse shall be separate and distinct from any cistern for supplying water to a water closet; (3) No drain or pipe for carrying off faecal or sewage matter shall have an opening within the bakehouse.

It is to be regretted that this section is not applicable to bakehouses let or occupied as such before, as well as after, the 1st of June, 1883.

Section 16 relates to all bakehouses whatever may be the date of their construction or first occupation. It provides that where a court of summary jurisdiction is satisfied on the prosecution of a Local Authority that any place used as a retail bakehouse is in such a state as to be, on sanitary grounds, unfit for use or occupation as a bakehouse, the occupier of the bakehouse shall be liable, on summary conviction, to a fine not exceeding forty shillings, and on a second or any subsequent conviction, not exceeding £5. The Court, in addition to, or instead of, inflicting such fine, have it in their power to order means to be adopted by the occupier within a time named in the order for the purpose of removing the ground of complaint, and may on application enlarge the time so named; but if after the time so originally named or enlarged by subsequent order, the order is not complied with, the occupier will be liable to a fine not exceeding £1, for every day that such non-compliance continues.

The Vestry of St. George-the-Martyr, Southwark, is the



first Sanitary Authority that has gained a conviction, and this quite recently, under the sixteenth section of the 1883 Act, without asking the Court to order means to be adopted by the occupier for the purpose of removing the ground of complaint. In the case cited, the prosecution did not apply for this order, since the Medical Officer of Health was of opinion that the premises were incapable of being made fit for use as a bakehouse.

The magistrate inflicted the full penalty with costs, and made no order for removing the ground of complaint for the reason stated above.

Sub-sections one and two of the seventeenth Section of the 1883 Act have been repealed—so far as London is concerned—by Section one hundred and forty-two (*vide* fourth Schedule) of the Public Health (Lond.) Act, 1891.

Sub-section three of the same seventeenth Section has been repealed by section thirty-nine (*vide* second Schedule) of the Factory and Workshop Act, 1891.

The present law for the regulation of the metropolitan bakehouses, summarised and reproduced in the following two Sections of the Public Health (London) Act, 1891, reads as follows:—

“Section 26.—(1). Sections thirty-four, thirty-five, and eighty-one of the Factory and Workshop Act, 1878, and Sections fifteen and sixteen of the Factory and Workshop Act Amendment Act, 1883 (which relate to cleanliness, ventilation, and other sanitary conditions), shall, as respects every bakehouse which is a workshop, be enforced by the Sanitary Authority of the district in which the bakehouse is situate, and they shall be the local authority within the meaning of those sections.

“(2). For the purpose of this section, the provisions of this Act with respect to the admission of the Sanitary Authority and their officers into any premises for any purpose in relation to nuisances shall apply in like manner as if they were herein re-enacted and in terms made applicable to this section; and every person refusing or failing to allow the Sanitary Authority or their officer to enter any premises in pursuance of those provisions for the purposes of this section shall be subject to a fine.”

“Section 27.—If any child, young person or woman is employed in a workshop, and the medical officer of the Sanitary Authority becomes aware thereof, he shall forthwith give written notice thereof to the factory inspector for the district.”

By Section ninety-six of the Factory and Workshop Act, 1878, “child” means a person under the age of fourteen years; “young person” signifies a person of the age of fourteen

years and under the age of eighteen years; and "woman" is defined as a female of eighteen years of age and upwards.

The only remaining special legislation affecting retail bakehouses is to be found under Section 26, Sub-sections 1 and 2 of the Factory and Workshop Act, 1891. This Section obliges every person within one month after opening a bakehouse to serve a written notice upon the District Factory Inspector, acquainting him of the fact. The Section further imposes upon the Inspector the duty of forwarding the notice forthwith to the Sanitary Authority of the district in which the bakehouse is situate.

The chief conclusions at which I have arrived may be stated somewhat as follows:—

- (1). That it is advisable by means of a Select Committee of the House of Commons to enquire into the bakehouse question.
- (2). That in case the Committee advise fresh legislation they shall prepare a Bill incorporating their recommendations with the Public Health (London) Act, 1891.
- (3). That it should be rendered an offence to occupy as a bakehouse any cellar or place almost or altogether below the level of the street, unless it had been so occupied before and up to a certain fixed date.
- (4). That all bakehouses be compulsorily licensed, and that such license be renewable annually.
- (5). That the granting of licenses be vested in the London County Council.
- (6). That uniform Metropolitan bye-laws regulating the conduct of the retail bakeries be made by the County Council and be confirmed by the Local Government Board; and that the duty of enforcing these bye-laws devolve upon the various Sanitary Authorities.
- (7). That such bye-laws shall cover: (a) The regulation of the conduct of the business; (b) The regulation of the structure of the premises; (c) The regulation of the mode in which application is to be made for sanction to establish anew the business of a baker in the County of London.
- (8). That the bye-laws relating to structure and comprised under heading (b) do not apply to existing bakeries until after the lapse of a certain number of years.

- (9). That the question of compensation for disturbance of existing right in bakeries be taken into consideration by the Parliamentary Committee.
- (10). That no dealing with the question of the regulation of bakehouses will be complete unless it investigates the relations between the millers and the retail bakers. At present the small tradesmen are often completely under the thumb of the capitalist millers.
- (11). That inspection of bakehouses should be more systematic and thorough. To fulfil this condition an increase of the staff of Sanitary Inspectors is imperative.
- (12). That a more intelligent knowledge of the whole question of their bread supply is desirable on the part of the public.
- (13). That the weight of the sacks of flour should be reduced from 280 to 140 lbs.

To my mind, the ill-health of the baker is, in the main, the result of the bad surroundings in which he works. If baking be carried on in well-ventilated places, with a perfect sanitary environment, there is no reason why it should be a particularly dangerous or unhealthy trade. It is open to question how far the State should be called upon to fix the hours of labour of the journeyman baker. Without entering, however, into the discussion of that difficult and complex economical problem, it may, I think, on the other hand be emphatically asserted that there is much in the present condition of the retail bakehouses which calls for stringent legislative interference.

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Prof. W. H. CORFIELD (London) said that if underground bakehouses were as they had been described, and he knew that many were, everybody would agree that they ought to be abolished. In Dr. Waldo's scheme notice was to be given to bakers to reform their bakehouses within a certain period; but he was of opinion that not too much notice should be given them. As a case in point, he referred to the Act passed for the abolition of private slaughter-houses. This Act allowed a period of forty years for all private slaughter-houses to be abolished. Thirty-eight years after the passing of this Act, as no steps whatever had been taken to abolish private slaughter-houses, a Bill was brought in exempting them from

abolition. So that in this case after forty years' notice things remained just the same as ever. Although the duty of inspecting bakehouses was in the hands of the Home Office, for three years there was, so far as he had been able to ascertain, practically no bakehouses inspection whatever. Many improvements had now been introduced into some underground bakehouses, but he thought it was far better to get rid of them altogether than to try and improve them.

Dr. LOUIS C. PARKES (London) thought that the proportion of underground bakehouses in London was more like seven-eighths than that mentioned by Dr. Waldo, viz., a half. He thought that underground bakehouses were liable to be unhealthy, and although much had been done to remedy their unsanitary conditions still a great deal of dampness and bad ventilation remained. Where food was being prepared it was most important that there should be no dampness, and moreover he thought it impossible to ventilate underground rooms without immediately creating a draught, which bakers very naturally objected to. He expected it would be found that the comparative mortality of lung diseases among bakers would be high. It was impossible to do much with underground bakehouses, and their gradual abolition would probably be the best course. He agreed with Dr. Waldo that bakehouses should be licensed, and that the London County Council should have power to make regulations in regard to them, regulating them similarly to slaughter-houses. The insanitary conditions of bakehouses no doubt affected the public health to a certain extent, but it should not be lost sight of that the process of baking sterilised the bread and, therefore, destroyed all germs of disease. After being baked the crusts of the loaves might become contaminated under unwholesome conditions, and in epidemic times it was advisable to have bread re-baked at home. All bakehouses should be made sanitary, and the work commenced at once and done gradually. Kitchens were also important, as some were in a still worse condition than bakehouses. The audience would recollect the correspondence in the newspapers some time ago about the kitchens of foreign restaurants. At one of the large London exhibitions he went over one of the kitchens, and found in it two bell traps with steam issuing from the drains and a water-closet situated in close proximity to the kitchen. If this was the state of affairs in a high-class establishment, what must it be in a low-class one? He thought it very desirable that there should be a special inspection of all kitchens, and that this was almost more important than that of bakehouses, as the act of baking tended to sterilise or destroy the germs whereas from kitchens many things were served up in a raw state.

Mr. W. G. LAKEMAN (H.M. Superintending Inspector of Workshops for London) thought that Dr. Waldo's paper had been read opportunely, at a time when public thought was being exercised for the good of humanity. County Councils and local authorities were being awakened to a sense of their duties, and were beginning to assist the heads of the Government in carrying out the measures so

wisely introduced. In 1863 a Commission was appointed to enquire into the bakehouse question, and as a result of their report an Act of Parliament was passed appointing the local authorities inspectors of bakehouses. They did nothing, and at the end of twenty years instead of an improvement things were worse. They had no time and no one else had any time, because no one was paid to do the work. In 1879 the inspection of bakehouses was transferred to Factory Inspectors, with the result that in fifteen months from 2,000 to 3,000 bakehouses were inspected and reported to the Government. In some instances the reports showed that large cesspools had been found situated immediately under the kneading troughs. As a result of these reports the Act of 1883 was passed, but he would ask what was the use of this Act and what good had it done? The local authorities found they could not undertake the work as they had too much to do already, so that from 1883 till quite recently no thorough inspection of bakehouses had been made, and now although the Home Office Inspectors work in harmony with the local authorities in carrying out the work of inspection, he was of opinion that until the Act of 1883 had been abolished and a new one passed on the lines suggested by Dr. Waldo the result would not be entirely satisfactory. He pointed out that in Glasgow and Belfast the sanitary condition of bakehouses was all that could be desired, and yet in London there was scarcely any underground bakehouses that could be said to be so. The master of a bakehouse was frequently a representative of the miller or contractor under whose thumb he was. He submitted that the hours were too long. Why should the men work 16, 17, and 18 hours out of the 24? In this matter inspectors had power to prevent young persons being overworked, but they could do nothing for the men, who, if they refused these hours, must in consequence suffer a loss of wages. He hoped that we should soon have such legislation for bakehouses as would ensure their being built on hygienic principles.

Mr. JOHN BLANDY (London) objected to the lecturer's use of the word cellars as applied to underground bakehouses, he considered they should be termed basements. If basement bakehouses were done away with, why not also basement kitchens and basement factories and workshops? And if all basement establishments were abolished, how would the owners manage as to rent, having regard to the great value of land in London? He believed that attention was wisely directed to pure air and good ventilation, but thought it would be a great mistake to abolish basements; far better retain them and make their sanitary condition proper and clean. He could not agree with Dr. Parkes as to germs being killed by being sterilised in the baking. He considered that cleanliness was to be aimed at, whether above ground or below.

Mr. T. A. GORNIOT (London) said that the case mentioned by the lecturer was not the first action under the Act. The Vestry of St. Marylebone closed a bakehouse some time ago for a period of six

weeks, and obtained penalty under the section; and in September last they obtained a closing order under the Public Health (London) Act 1891, until the Vestry's notice to put the premises in a sanitary condition has been carried out. He thought that everybody would agree to the abolition of underground bakehouses, especially if they could see the unhealthy conditions under which the men employed in them had to work, in comparison to the advantages obtained in those built above ground.

Mr. B. A. BRAIEN (London) said that cellar bakehouses, or as he preferred to call them, basement bakehouses, contained the oven and were not damp. He entirely disagreed with the assertion that a great deal of the baking business was in the hands of the millers. He said that in London, want of room was a great difficulty, and that if underground bakehouses were done away with, he failed to see where the necessary ground for the bakehouses was to be obtained. Under the present system of short leases, a baker could not afford to build above ground, as the landlord would in consequence raise the rent after the expiration of the lease. He had done his best to advocate cleanliness, but if underground bakehouses were done away with, the baking trade, except the large factories, would be done away with also.

Mr. THORNTON (London C.C.) asked the lecturer if he had suggested to his local authority to communicate with the Local Government Board urging the amendment of the Law relating to bakehouses, as he knew Dr. Waldo had taken more interest and trouble in the matter than anyone else. The evils were only too apparent, even bakers themselves deplored them. He could not agree with Mr. Lakeman as to the Act of 1883. It was not a matter for surprise that the Vestries had taken no action. They were largely composed of interested property jobbers and those interested in the business, and it was owing to this that nothing was done, and not from want of time. There was not sufficient interest taken in the representation of the Vestries. He did not think the matter should be handed over to the London County Council, but rather that the Local Government Board should provide regulations which should be enforced by District Councils. If this were done thoroughly and properly, and the country possessed more Medical Officers like Dr. Waldo, the bakery business would become as healthy as any other.

Dr. WALSH (London) said that the assertion as to landlords confiscating the leases of bakehouses, was an argument against the law of landlords and not against sanitation. If you reformed the bakehouses, you would no doubt drive out the small baker. The public would gain in the end, but, as a class, the journeyman baker would suffer. He would venture to ask if the conversion of an ordinary house into a bakery increased the value of the property? Also whether Dr. Waldo was aware that many insanitary bakehouses belonged to the City or other Corporations, and whether they were

taking any steps to remedy their condition, and if not, why were they not prosecuted?

Mr. VICKERS (London) said that ordinary people would conclude from the lecture that bakers were the blackest of sinners, and he thought the lecturer had drawn greatly on his imagination. No doubt there were dirty bakehouses, and no trade could show a clean sheet, but bakers had too much at stake to allow their premises to be in such a condition as that described. If such a state of affairs became known, their trade would be ruined. One might conclude from the lecture there was no inspection of bakehouses, but he could say from experience both as the owner of a bakehouse and a member of the Health Committee of a Vestry, that inspection was both systematic and regular. He submitted that inspectors did perform their duty and the trade had no right to be blackballed. The Vestries were quite able to cope with the evils, and he counselled people not to be afraid to eat their bread.

Dr. JAMES PRIESTLEY (London) quite agreed with Dr. Waldo, that there was urgent need for reform in the matter of the sanitary arrangements and condition of bakehouses: need for suitable by-laws and for the licensing of bakehouses. Dr. Waldo's description of the "typical" bakehouse as it occurred in his parish would not apply to the average bakehouse in the parish of Paddington. He had visited all the bakehouses in the latter parish, and only two or three could be passed as requiring no amendment. The average height of the ceilings was about eight feet. He did not see how underground bakehouses were to be done away with, but the erection of any new underground bakehouses could be stopped. He was opposed to the handing over of the control of bakehouses to any other authority; let the supervision remain with the Medical Officer of Health.

Dr. WALDO (London), in reply, said that there was much to answer, but he would endeavour briefly to meet the chief points raised. Dr. Parkes had given seven-eighths as the proportion of underground bakehouses to the total number of bakeries in London. This was an over-estimate, and calculating from data in his possession, he thought three-fifths would fairly express the correct proportion. Ninety-nine per cent. of the master bakers in the metropolis were Germans. With regard to bread made in cellar bakeries not being injurious to the public, he would point out that in various parts of London reflux of sewage accompanied heavy rainfalls. In one day, in October last, he had entered twenty cellars—situated in a main road leading to the Kentish capital—and had found them all flooded with sewage.

He considered that such conditions were highly dangerous. The bread—after it came out of the oven—lay about the filthy bakery and was very liable to be contaminated. Another source of danger was contact with the hands of the men, which were frequently soiled.

There was rarely—if ever—any provision for washing save in the same utensils as used for bread-making.

With regard to kitchens, he had not had time enough to go into the subject. He agreed that kitchens were too often bad or worse than bakehouses, but the work in them was less by night and in length of hours than in bakeries.

Mr. Lakeman had struck at the root of the evil when he charged the millers with sweating and vested interests. The influential millers, so far as legislation was concerned, were masters of the situation, and they could block or pass a Bill by appealing to the owners of the land upon which the corn was raised, who sat in the Houses of Parliament.

He saw no difference between the terms “basement” and “cellar,” as applied to retail underground bakeries. Call them by what name you will it is absolutely impossible to efficiently ventilate or render healthy these places which were never constructed or intended for the manufacture of bread. He did not see why the bakehouse should not be removed to the top of the house—as was the case in so many kitchens—where there was no room to erect one on the ground floor. This would not entail great extra expense, and would besides render the house a much healthier one to live in.

In answer to Mr. Thornton, L.C.C., he had suggested in his reports to the Vestry of St. George-the-Martyr, that there should be more frequent inspection, and on his recommendation their staff of Inspectors had recently been doubled. Inspection was now made once every three months. This was a step in the right direction. He had also suggested legislation to do away with cellar bakeries, but had received little encouragement from the Local Government Board. He believed in the distribution of Local Government. He said the London County Council should make the by-laws, subject to the approval of the Local Government Board, and that the Local Authorities should carry out the work, not the London County Council to do everything.

Dr. Walsh had pertinently asked whether the City Corporation possessed insanitary bakehouses. As a matter of fact, some of the worst bakehouses in Southwark did belong to the City of London. He was of opinion that the establishment of a bakery on any premises raised the value of such property.

More than one gentleman—in the trade, he presumed—had stated their opinion that he had drawn somewhat on his imagination. He could, however, vouch for everything he had said, and all his remarks were made from personal observation, not on mere hearsay. He was not so well acquainted with the West End, but he had lived in the South and East End and visited many of the bakeries. There the state of things was so bad that it called, in his opinion, for immediate attention at the hands of the Legislature.