Bread has been called “the staff of life.” It is, at all events, the most universally consumed article of food, and is the staple and essential factor in the dietary of everyone of us. We are all therefore directly concerned in matters relating to the places

**Where Bread is Made.**

A large proportion of it is made in what are practically cellars. At least half the bakehouses in London are situated underground, and in some districts the proportion is much higher, as is shown in the following table:

<table>
<thead>
<tr>
<th>Bakehouse</th>
<th>No. of Bakehouses</th>
<th>No. under-ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulham</td>
<td>82</td>
<td>70</td>
</tr>
<tr>
<td>Chelsea</td>
<td>57</td>
<td>47</td>
</tr>
<tr>
<td>Hammersmith</td>
<td>61</td>
<td>40</td>
</tr>
<tr>
<td>Shoreditch</td>
<td>88</td>
<td>63</td>
</tr>
<tr>
<td>St. James, Westminster</td>
<td>27</td>
<td>25</td>
</tr>
</tbody>
</table>

In many provincial towns the state of things is nearly as bad as in London: Manchester, for instance, has 514 bakehouses, of which 207 are underground. Dr. Waldo, Medical Officer of Health for the Vestry of St. George-the-Martyr, Southwark, has taken a prominent part in drawing attention to the evils of underground bakehouses. In his Annual Report for 1895 he tells us

**How a Cellar becomes a Bakehouse.**

The baker rents a house in a business thoroughfare, furnishes the cellar with a few gas-jets, some kneading-troughs, a water-tap, and a furnace; and he is forthwith the possessor of a bakehouse. From cellars of this type, on a moderate estimate, more than one-half of the daily bread of Londoners is made.

It is difficult to realize without actual inspection how grossly insanitary the average cellar-bakehouse is, and, to a certain extent, must be; but some idea may be gathered from the following quotation from Dr. Waldo’s book, *Bread, Bakehouses, and Bacteria*:

> “On entering this cellar the visitor finds himself plunged into a hot and stifling atmosphere... 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 economizes fuel by closing the damper. Sewer gas may enter through the drain openings in the floor, the more so as the grating traps are often worthless. 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, in times of heavy rainfall, the

*Compiled from the Annual Reports of the Medical Officer of Health to the London County Council.*
sewage may force its way through the drain pipes into the bakehouse.* Ventilation, in any real sense of the term, is absent. In many of these places the unhappy journeyman is shut up for twelve hours or more at a stretch, and adds his quota to the general impurity. Now and then dogs and cats are found in the cellar; other forms of animal life include rats, mice, blackheats, ants, and spiders, the smaller insects often being present in almost incredible numbers. 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.

According to Dr. Walsh—

"The average cellar-bakehouse breaks every law of sanitation, and presents a state of affairs that would not be tolerated for a moment in any other industry. To put the matter in another way: the larger half of the national output of bread-stuff is prepared in premises that would not be passed as fit for slaughterhouses."

It is only fair to state that the above quotations were written in 1894, and that since then certain unusually active sanitary authorities in London and a few provincial centres have succeeded in improving the sanitation of cellar-bakehouses in their districts, particularly in regard to drainage defects; but, on the whole, the state of things is little better now than it was then; and it yet remains to be seen whether such improvements as have been effected will be permanent. In Manchester the sanitary authority has exercised an exceptional vigilance over cellar-bakehouses; yet the Medical Officer of Health, in his Annual Report for 1898, states that "none of the cellar-bakehouses, except, perhaps, some of those improved under our recent procedure, can be said to fulfil sanitary conditions, and these are not satisfactory as regards temperature and ventilation. . . . I am strongly of opinion that the time has come when a period should be put to the existence of cellar-bakehouses."

It often asserted that the evils of insanitary bakehouses are of no consequence to the consumer as the process of baking destroys the microbes in the bread. The loaf, it is said, is purified by the fire. This is a mistake. Drs. Waldo and Walsh have cultivated thirteen different species of microbes from newly-baked London loaves, and Surgeon-Major Rennie has traced two outbreaks of typhoid fever amongst our soldiers in India to the agency of bread baked in the native bazaars. The insanitary bakehouse is, therefore, a source of danger to the consumer.

Conditions of the Workers.

The effects of these injurious conditions upon the workers, who number over 100,000 in England and Wales, are obvious. "Cooped up perhaps for fourteen hours in a hot atmosphere . . . charged with carbonic acid from the process of baking, from the gas-jets, from the breath and from the adjoining soil, they are bound to suffer from lung diseases and anemia. It is not much wonder that many of them drink to excess, and that they are specially prone to suicide." "I have very rarely seen a working baker above 45, and they are mostly young people." (Annual Report of Medical Officer of Health for Manchester; 1868.) Dr. Arlidge, in his work *The Hygiene, Diseases and Mortality of Occupations*, states that "there are many incidents

* In one London bakehouse this occurred three times in five years. (See Report on Bakehouses, by Medical Officer of Health, L.C.C.; 1894.)
in the occupation of baking which reduce vital energy, predispose to lung affections, and shorten life.” Bakers, moreover, specially liable to rheumatism and erysipelas, and to a form of eczema known as “baker’s itch.” They are frequently called upon to lift sacks weighing 280lb., and it is not surprising that flat-foot is common amongst them, and that, according to Prof. Malgaigne, their tendency to rupture is three times greater than that in other trades. The baker works long hours: 72 per week has been a fair average in the better-class trade, while in the poorer districts where “cutting” prevails the hours may range from 84 to 100 weekly. The bulk of the work is done at night, and is therefore especially exhausting. Some improvement has recently been made; in the present year an agreement has been come to between the masters and the union men for a 60 hours week, including meal-times, with payment for overtime and a rise in wages of 3s. or 4s. a week.

“The Pony Loaf.”

Adulteration of bread is comparatively infrequent nowadays, but dishonesty finds its opportunity in short weight, usually in the form of the “pony” or twopenny loaf. Though sold as equivalent to one-half of a 4lb. loaf, the “pony loaf” not uncommonly falls short of this by several ounces. The London County Council obtained 147 convictions in connection with the illegal sale of bread in 1899, and 152 in 1898.

Keeping up Prices.

Strenuous efforts are now being made by the Master Bakers’ Associations to keep up the price of bread. In the trade journals we read of districts being “infected by the 3d. disease,” the ideal being 5d. The boycott is freely applied to stamp out underselling, the millers uniting with the bakers for this purpose. Sometimes the underseller is himself undersold by a specially appointed member of the Association, until he consents to raise his prices. The millers are acquiring a stronger interest in bakehouses, as the “tied-house” system is growing up in the trade. Sometimes, indeed, bread is cheap and nasty because it is made of inferior flour by sweated labor. What we want is the cheap and healthy loaf, but we shall not get it if the bakers and millers can prevent it.

How can we improve our Bakehouses?

Some say by greater vigilance on the part of our sanitary authorities. But the powers of these bodies are inadequate. According to Dr. Waldo, “it is only when the underground room is used as a sleeping place that the Medical Officer of Health is vested with any efficient powers.”

The Factory Act of 1895 forbids the use of any underground bakehouse that was not used as such before Jan. 1st, 1896; but the term “underground” has received no legal definition. Every bakehouse is supposed to be registered and regularly inspected, both by the factory inspector and the local sanitary inspector. As regards the small retail bakeries, it is entirely left to the local sanitary authority to enforce the sanitary requirements, and the local sanitary
authority is very loth to prosecute ratepaying tradesmen. But example is better than precept or prosecution: what we want is our own

Municipal Bakeries.

Our municipalities have already gone into business on a large scale for the supply of water, gas, electricity, trams, markets, etc. The almost invariable result has been: (1) the service has been improved or cheapened, or both; (2) the labor conditions of the employees have been improved, either by higher wages, or shorter hours, or both; and (3) a substantial profit has been made. As it happens, not only is bread already made by several public authorities, but this very bread is the best made bread—often the only good bread to be found in the town. Anyone going from the spacious, airy, clean bread-factory in the workhouse, with its inspection and discipline, its machinery for reducing the handling of the dough to a minimum, to the filthy underground cellars described above, where most of our bread is produced, ought to need no conversion to the municipalization of the entire industry.

The London County Council has a bakehouse attached to each of its five asylums, where in 1898-99 the cost of production per 4lb loaf of good bread was on the average 3/6d.—at Claybury getting as low as 2/4d. All public bodies should adopt this method of supplying bread to institutions under their control.

Municipal bakehouses are strongly desired by the workers. At the Trade Union Congress in 1899, a resolution moved by Mr. Jenkins, the general secretary of the Amalgamated Union of Operative Bakers, pledging the Congress to “further in every possible way the establishment of municipal bakeries,” was carried almost unanimously.

Bread is as much an article of universal consumption as water. A municipality, after all, is but a corporate association of bread-consumers. Why should it not produce what it consumes?

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