to be of sufficient width to enable cattle to enter the slaughter­house without difficulty; and for the poundage to have floor­space sufficient for each animal. These by-laws also provide for water-supply to the slaughter-house for cleansing, and to the pounds for the use of the animals, for the periodical lime­whiting of the premises, and for the observance of care to prevent the blood escaping into the drains. Private slaughter-houses, especially those which were established without licence, are often in too close proximity to inhabited buildings. In towns in which by-laws are not strictly enforced they are often sources of nuisance. Private slaughter-houses are also objectionable on other grounds. They lead to the driving of cattle through the towns on the way to the slaughter-house, sometimes to the danger of the inhabitants, and they render impossible any sys­tematic inspection of meat. It is in connexion with the increasing demand for such meat-inspection that the objections to private slaughter-houses are most manifested; and hence, in countries in which the law provides for the obligatory inspection of meat, private slaughter-houses are ceasing to exist, and public abattoirs are being substituted for them.

Public slaughter-houses are of great antiquity and owe their beginnings to Roman civilization. In 300 b.c. animals were slaughtered in the open air in the Forum in Rome. Later, to meet the convenience of butchers, a house on the river Tiber was given to them for the purposes of their trade. This house had been occupied by a Roman citizen named Macellus. The building appears to have retained his name, and hence the *macellum of* Livy’s time subsequently erected in the Forum, which, *inter alia,* is believed to have con­tained rooms for the slaughter of animals. The rooms actually used for slaughter were *lanienae,* from *laniare,* but the word *macellum* has been preserved in the Italian *maccllare,* to slaughter, and in the German *metzgen* or *metzgeln,* and in the English *massacre.*

Public slaughter-houses existed in many large towns of Germany in medieval times under the name of *Kuttelhöfe;* they were mostly situated on the rivers, which provided an ample supply of water, and afforded means for the removal of blood. Some of these *Kuttelhöfe* continued to exist within recent years. No law other than a town law governed their establishment and management. They were owned or controlled by the butchers’ corporations or gilds, but all butchers were not members of the gilds; and this appears to have led to a ministerial order in Prussia in 1826, which made it inadmissible to require every butcher to slaughter in them. Shortly after the middle of the 19th century the prevalence of trichinosis compelled a return to the use of public slaughter-houses; and the enactment of laws in 1868 and 1881 in Prussia, and similar laws in other German states, empowered urban authorities to require that all animals killed in towns should be slaughtered in public slaughter-houses. (Schwarz, *Bau, Einrichtung und Betrieb öffentlicher Schlacht- und Viehhöfe.)*

In France, in the 15th and 16th centuries, numerous towns were provided with public slaughter-houses. It was required that they should be used by all persons killing animals the flesh of which was to be sold; but their position and the conditions they created were such as urgently to demand amelioration, and some effort was made in this direction in 1567. It was not, however, until the time of Napoleon I. that it was decided that the atrocious nuisance which these slaughter-houses created should be removed. By decrees passed in 1807 and 1810 public slaughter-houses were required to be provided in all large towns in France, the needs of Paris being determined by a Commission, which recommended the establishment of five abattoirs or public slaughter-houses. In 1838 the requirement that public slaughter­houses should be provided in large centres was extended to all towns in France, and it was further required that the slaughter­houses should be situated at a distance from dwelling-houses.

In 1867 the large abattoir of La Villette was constructed to meet the needs of Paris, two of the five constructed under the decrees of Napoleon being closed. In 1898 the additional abattoir of Vaugirard was opened, and the remainder of the five were closed except Villejuif, which was restricted in its use to the slaughter of horses for human food.

In Belgium public slaughter-houses have been provided in all the large and many of the small towns. In Switzerland there are public slaughter-houses in nearly all places having more than two thousand inhabitants. In Italy a law of 1890 required that public slaughter-houses should be erected in all communities of more than six thousand inhabitants. In Austria a law of 1850 required the provision of such places in all the large and medium-sized towns. In Norway and Sweden a law of 1892 required the provision of public slaughter-houses; but it has only partially been fulfilled. In Denmark there are public slaughter­houses in a few towns, including Copenhagen. In the Nether­lands and Rumania a number of public slaughter-houses have been provided. It is in Germany, however, that the greatest progress has been made, and especially in Prussia, where, Pro­fessor Ostertag of Berlin states, they have “ grown out of the ground ” *(Handbuch der Fleischbeschau)* ; so much so that in 1897 there were 321 public slaughter-houses in the kingdom, 40 of which were provided in the period 1895-1897. A later work *(Les Abattoirs publics,* by J. de Loverdo, H. Martel and Mallet, 1906) gives the number of public slaughter-houses as 839 in Germany, 84 in England, 912 in France and nearly 200 in Austria. In some other countries public slaughter-houses have been provided, but they are of a primitive form.

In England the power to provide public slaughter-houses was given by the Public Health Act 1848 to the local authorities of cities, towns, boroughs, &c., to which the Act was applied by Order; and later, was given to all urban sanitary authorities by section 169 of the Public Health Act 1875.

These authorities have, however, suffered from the disadvantage that they have had no power to control the continuance of private slaughter-houses (except in so far as these were annually licensed), and they have therefore been unable to ensure that the public provision would be used by the butchers. In Ireland and Scotland much the same powers exist; but in Scotland, if the burgh com­missioners provide a public slaughter-house, no other slaughter­house can be used. Some English local authorities have obtained in. local acts powers similar to those possessed by the burgh com­missioners in Scotland. The need for still wider control is, however, manifest. Belfast may be cited as an illustration of a town in which a public slaughter-house has been provided, and in which there are no private slaughter-houses, but which receives a quantity of meat from private slaughter-houses erected beyond the boundaries of the city. The outcome of these difficulties is that the power of local authorities to provide public slaughter-houses has been but sparingly used. There is no law requiring that meat shall be inspected before sale for human food, hence there is no obligation upon butchers to make use of public establishments for the slaughter of their cattle. This, indeed, is the position of some of the Continental slaughter­houses; but the increasing strictness of the laws as to meat-in­spection, and especially in requiring that all animals shall be inspected at the time of slaughter, is making the use of public slaughter-houses obligatory. Such a law now exists in Belgium, where it has served as a model to other countries. An Imperial German law of 1900 extends to all parts of that country the same requirement, and enacts that "neat cattle, swine, sheep, goats, horses, and dogs, the meat of which is intended to be used for food for man, shall be subjected to an official inspection both before and after slaughter.” Antecedent to that year it was in force in southern Germany, in Brunswick and Saxony, but only in some parts of northern, western and central Germany. A similar law exists in Norway and Sweden, but, as already stated, provision of public slaughter-houses is still meagre; in Austria-Hungary there is a similar requirement, but Ostertag states that the administration is lacking in uniformity; in Italy, he writes, the regulation of meat-inspection haying been left to provincial authorities, thorough reform is impossible. In the British colonies advance is being made. New Zealand has a number of public slaughter-houses. The Meat Supervision Act of Victoria empowers the Board of Health to make regulations for ensuring the wholesomeness of meat supplies. Regulations have been made for Melbourne. Cattle are killed in public slaughter-houses and the carcases are. stamped, thus showing in which slaughter-house they have been killed.

The planning and construction of public slaughter-houses have been the subject of excellent treatises by German writers, among whom may be mentioned Dr Oscar Schwarz, of Stolp, and Herr Osthoff, a former city architect of Berlin, to whose works the writer of this article is largely indebted for information. After inspection of the public slaughter-houses in England and in a number of Continental cities, the writer considers that those of Germany are most deserving of description.

The slaughter-house should be situated outside the town, or so