



WM. GARDNER & SONS,

GLoucester.

Manufacturers of Flour, Milling, Grinding, and Sifting Machinery.

Forty years ago Mr. Wm. Gardner, the present head of the Company to which this brief notice is devoted, established himself in Gloucester as a Milling Engineer. His first premises were in Llanthony Road, where he remained for some years. Although these premises were several times enlarged they became inadequate for his increasing trade, and he erected new works in Southgate Street. Eight years ago still another removal became necessary, and he planned and erected the commodious and conveniently arranged buildings the Company now occupy in Bristol Road.

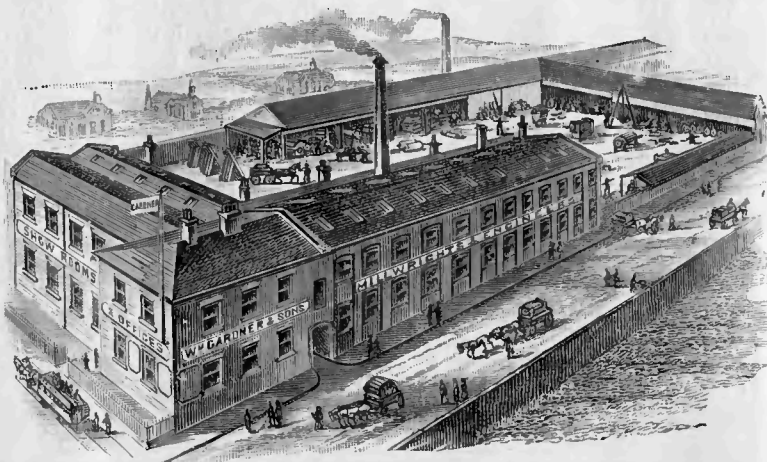
The present factory is an "L" shaped structure, having a frontage in Bristol Road, also Frampton Road, with two floors. The various departments, including the main machine, fitting and erecting shop, the pattern shop, the stores and the pattern ware rooms, are excellently lighted and arranged. The main machine, fitting and erecting shop, which is 150 x 60 feet in dimensions and 17 feet high, is particularly noticeable by reason of both its size and its mechanical equipment. It is provided with a travelling crane running full length of the shop, with a railway extending back to the storage shed in the rear, and contains the most modern tools and appliances. The entire premises are heated with hot water system. Although the size and equipment of the buildings are sufficient for the economical production of a large amount of work, it is

work consisted almost entirely in making Millstones and supplying general Mill Furnishings. When the roller system was introduced, with other complicated machinery, the Company at once embarked in its manufacture, with entire success. They now design and manufacture every kind of machinery required by millers.

the first machine having given perfect satisfaction. During a recent visit to the Forest Mills the writer was much impressed not only with the small space these machines occupy and the absence of the usual elevators and worms, but with their efficiency and economy in operation. The Company will be pleased at any time to show and fully explain the system in operation to Millers.

In recent years Messrs. Gardner and Sons have engaged largely in another branch of engineering, the manufacture of powder grinding, sifting and mixing machinery of every variety, for manufacturing chemists, paint and colour makers, potters, sugar refiners, and others. They have made thousands of these machines, ranging in size from a small hand power machine to those capable of mixing and sifting a ton of powder at a charge. They have made hundreds of different kinds, most of which are their own patents. Their reputation in this branch of manufactures, in which they are pioneers, is almost world-wide. They have filled important orders for the Government, as well as for the largest manufacturers and blenders of powders in this and other countries. In all of their manufactures careful workmanship and selected materials are the invariable rule. The attractive illustrated catalogue published by the Company will give to those interested a conception of the range and character of their work.

In 1894 Mr. Wm. Gardner admitted to the firm his three sons, Messrs. Charles, Alfred and William T. Gardner. All of these gentlemen give their entire time to the business, each of the sons devoting himself to a separate



Bird's Eye View of Works & Stores, Wm. Gardner & Sons, Gloucester.

They also make and erect hand conveyors and elevators for grain warehouses throughout, submitting estimates for either large or small contracts in any part of the Kingdom or abroad.

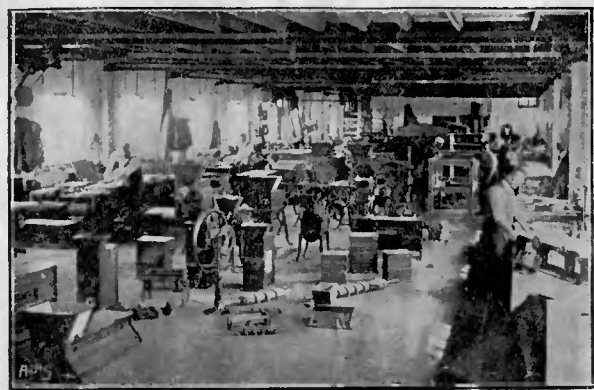
As an evidence of the Company's progressiveness it may be proper to mention a radical departure in milling processes they have recently introduced. We refer to the Geo. T. Smith "Elite" system, for which they hold the exclusive patent rights in Great Britain and Europe. By means of this system flour milling is greatly simplified, and the cost of production is correspondingly lessened.

The distinguishing and essential feature of the "Elite" system consists of a single machine in which are performed four separate operations—scalping, grading, dressing and purifying. The use of this one machine therefore takes the place of two scalping reels, two graders, two reel dressers, one dusting reel, and two single or one double purifier, while it entirely dispenses with worms, three to four elevators, and at least 100 to 300 feet of spouting. It is adapted for making all the separations for the whole of the products of any two breaks, and the dimensions of machines required for an eight-sack plant are but 8 feet 6 inches high, 11 feet long, and 4 feet 3 inches wide.

Plants of larger or smaller capacity occupy proportionately more or less space. The advantages of the "Elite" machine are obvious, as by taking the place of the several special machines above mentioned it saves both room and power. It is exceedingly simple in construction, and removable panels enable the miller to get at any part instantly.

Some months ago Messrs. Gardner & Sons installed one of the "Elite" machines in the Forest Mills, at Cinderford, owned by Mr. Francis Wintle, and soon after installed another,

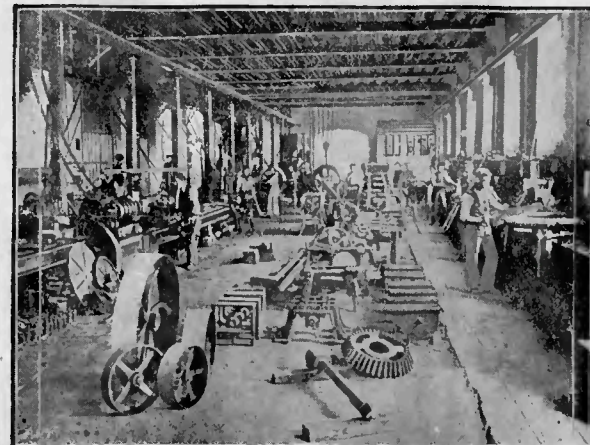
department. It is but just to add that the Company have materially contributed to Gloucestershire's importance as a manufacturing centre both by giving employment to a constantly increasing number of hands, and by creating a favourable impression of the City's manufactures wherever their machines go.



Wood Working Department, Wm. Gardner & Sons.

foreseen that still further extensions must soon be made, ample space having been fortunately reserved for that contingency. The number of hands employed to-day is about 100, as compared with 20 when the business was established—a comparison which sufficiently illustrates its quite remarkable growth.

Messrs. Gardner and Sons owe their success in large part to the readiness with which they have adapted themselves to the rapid and constant changes which modern invention has wrought in milling and milling engineering. When the founder of the business began his career as a Milling Engineer the old "Millstone" system was in universal use, and his



Turning and Fitting Shop Wm. Gardner & Sons.

de-
clined from 45 per cent. to 36.1 per cent. A very marked decrease is also shown in the number of one, two or three-room tenements. In the general housing improvements indicated by the above figures the artisan and the labourer have largely participated, and their condition will certainly compare favourably with that of workpeople in any part of the Kingdom.

Industrial Environment.

IMPROVEMENT IN THE CONDITION OF THE FACTORY OPERATIVES.

In this publication frequent reference is made to the agreeable conditions under which the larger part of our factory operatives live and labour. The improvement which has been made in industrial environment in Gloucestershire in the past decade is illustrated by the increase in the housing accommodation. The number of separate tene-

ments has shown an increase of 9.9 per cent., while the population during the same period shows an increase of but 8.2 per cent. A still further evidence of improvement is the character of the new tenements, those having five or more rooms showing an increase from 55 per cent. of the whole to 63.9 per cent., while the tenements having fewer than five rooms de-

clined from 45 per cent. to 36.1 per cent. A very marked decrease is also shown in the number of one, two or three-room tenements. In the general housing improvements indicated by the above figures the artisan and the labourer have largely participated, and their condition will certainly compare favourably with that of workpeople in any part of the Kingdom.