The Baker's new roller mill, Lavenham in 1893

Messrs JW & FW Baker's new Turner System roller mill

by Mildred Cookson, The Mills Archive, UK

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A description of the starting up of this mill appeared in an article in the MILLER on October 2, 1893. The town of Lavenham where the mill is situated lies around 15 miles North West of Ipswich in the centre of a district that was noted for the splendid red wheat it produced.

On this particular occasion, the starting up of the new roller mill plant, the visiting party to the mill were met at the station by a Mr Pierson Turner, a man from the firm who had installed the roller mill plant. On the ten minute walk from the station to the roller mill, Mr Turner pointed out a nearby windmill, still working and producing flour.

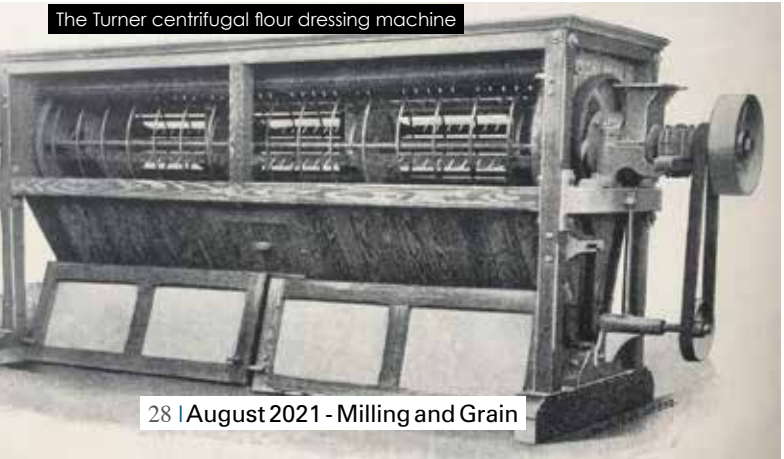
On arrival at the mill, the party was met by the owners, JW & FW Baker, who then gave a conducted tour. The mill had been fitted in a new brick building 31ft x 21ft internally, with 18 inch thick walls of red brick relieved by white brick dressing. This substantial building was designed by Mr JS Corder of Ipswich and was built, as can be seen in the illustration, at right angles to the old mill.

The old mill had been built by the father of Mr Baker in 1865 and contained four pairs of millstones driven by steam that would in future be used for gristing purposes. He worked the steam mill in conjunction with the windmill encountered earlier.

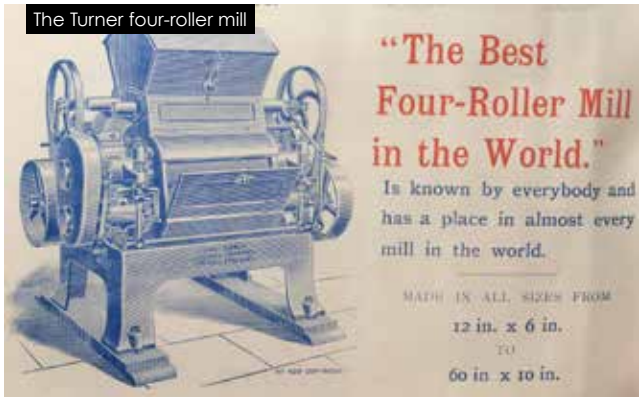
The floors of the new building were supported on heavy beams, with the flooring made from three inch deal, doing away with joists. The roller mill was capable of turning out from two to two and a half sacks of flour per hour.

The roller plant was placed in the handsome new building, and

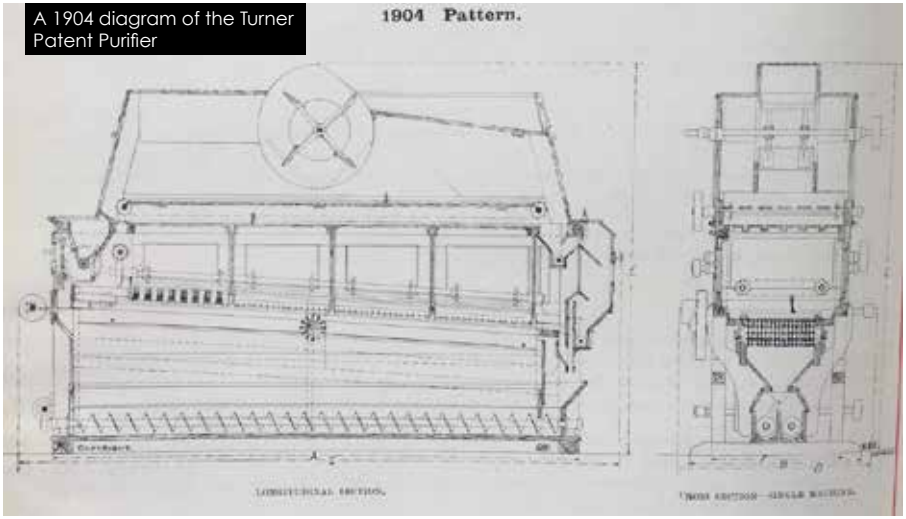
The Turner centrifugal flour dressing machine



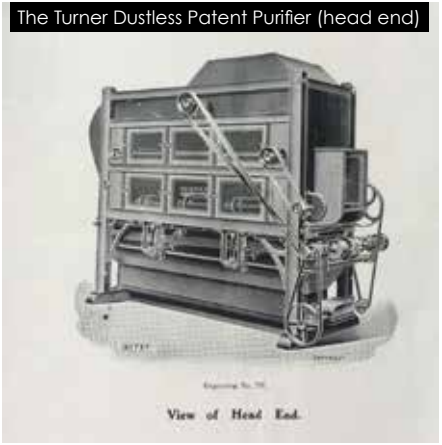
The Turner four-roller mill



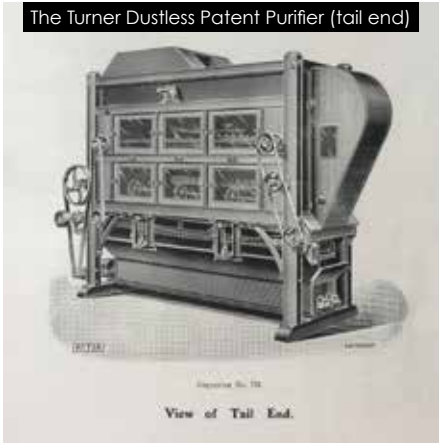
A 1904 diagram of the Turner Patent Purifier



The Turner Dustless Patent Purifier (head end)



The Turner Dustless Patent Purifier (tail end)



the machinery was arranged on three floors, giving ample room to pass or examine any part of each machine. Located in the basement was the first motion shaft that drove the roller mill and all the machinery on the floors above, as well as eleven elevator bottoms. The shaft was supported at suitable intervals by bearings fixed for greater rigidity on large brick pedestals.

On entering the mill on the ground floor, the first thing the group noticed was the arrangement, in one line on a staging about three feet from the ground, of five Turner's double roller mills. These were for breaking down the wheat on the system of four breaks, whilst also reducing the semolina and middlings to flour in six reductions.

The four breaks were done on two roller mills, each fitted with four grooved chilled iron rolls, 15 x 9 inches, two breaks being done on one machine, and the six reductions done on three roller mills, each fitted with four smooth chilled iron rolls 15 x 9 inch, two reductions being done on one roller mill.

There were also three elevator

bottoms, a "leg" aspirating purifier, and the exhaust trunk to which all the roller mills were connected by spouts in order that the hot air generated in the process of grinding could be taken off.

The first floor was given up to the first, second and third break scalpers, which were round reels covered with suitable numbers of punched steel covering, two dickey sieves, a feed mixer, and a Turner's double dustless sieve purifier with aspirating arrangement.

For the overtails there was an Ince "Unique" dust collector which received the exhaust from the roller mills and the "leg" purifier on the floor below. There was also a line shafting by which all the machines on this floor were set in motion. Part of this floor was set aside for packing the two grades of flour into sacks; the offal being taken by a conveyor into an adjoining building where it was divided into bran, pollard and sharps.

The top floor contained the rest of the dressing machinery, including two inter elevator reels, treating the chop meal and the throughs from the product of the first reduction roll.

There were four centrifugals 2 sheets long and 2ft diameter, for the first, second, third and fourth reductions, and one of Turner's latest type of centrifugal, 2 sheets long and 16 inches diameter, for dressing out the flour from the last reduction, together with one centrifugal of the same dimension and type as the last for bran. Thirteen elevator heads, each one driven by a separate belt, and two wheat bins for cleaned wheat were also situated on this floor.

To drive the roller plant, a girder type steam engine of 12 nominal horsepower was used, also built by Turner. The necessary steam to drive the engine was obtained from a Cornish boiler, 20ft long and 5ft. diameter, which worked at a pressure of 75lbs.

West tower mill, Lavenham in 1890

Competing with the largest millers in England

At the luncheon following the visit, both the architect and milling engineer were congratulated with the following words: "The mill we have just seen was a gem, and it was considered that Messrs Turner never put a roller plant in a prettier and more suitable building".

Mr Baker said that changing to roller milling had been a source of anxiety, but with a view to compete with the times, they had, after inspecting other mills, placed themselves in the hands of Turners of Ipswich, who had erected in their mill such machinery, that since its start had worked wonderfully well, there had not even been a hitch, and the second sack of flour made was fit for sale.

He continued to say that in the neighbourhood were some of the best farmers who produced some of the best wheat to be found in England, and he on behalf of his firm, assured them that they would on their part do their best to manufacture an article fit to compete with the largest millers in England.