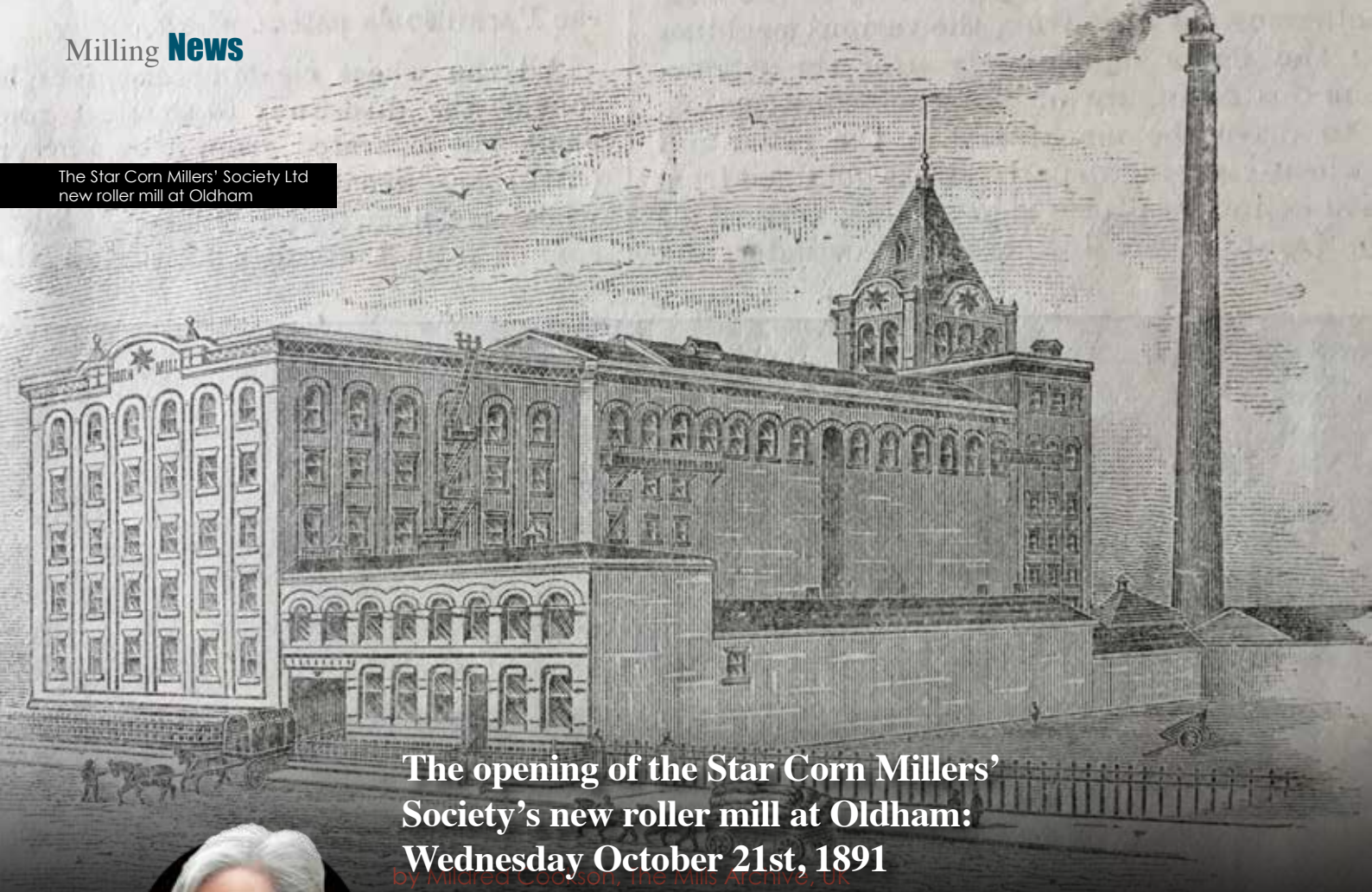


The Star Corn Millers' Society Ltd
new roller mill at Oldham



The opening of the Star Corn Millers' Society's new roller mill at Oldham: Wednesday October 21st, 1891

by Mildred Coocson, The Mills Archive, UK



Milling journals of the past at The Mills Archive

This new roller mill was reviewed in The Miller (December 7th, 1891) after their reporter had been invited with others to the opening ceremony and tour. The 20 sacks-per-hour plant, fitted out by Robinsons, was started up at by James Lownds, Chairman of the Star Corn Millers' Society.

The original Star Mill was erected in 1869 and had done good work for several years. It was remodeled and enlarged with a new plant fitted in one portion of the building when the entire mill was destroyed by fire towards the end of 1889. Early in March the following year, the directors resolved to rebuild the mill on a more extensive scale along with a special maize plant.

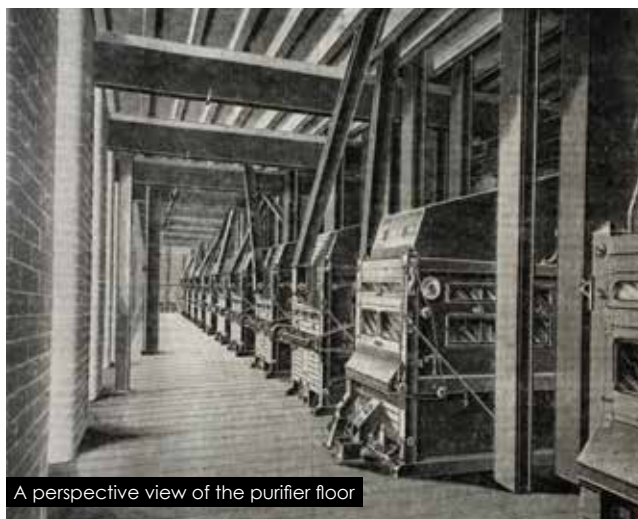
The new mill was a handsome structure; its most prominent architectural feature was the square tower fitted with its large tank for the automatic sprinklers now installed. Mr Spencer the mill manager conducted the tour, highlighting the millwright's excellent work, such as the shafts; the second and third motion shafts were fitted with Mr Breton's automatic oil feeders.

The grain silo building, on the westerly side of the site, featured a strong substantial brick wall dividing off the silo bins (shown as the honeycombed section in the plan). They were six storeys high, including basement and attic, with a floor space of 90x40 feet. 46 large wheat silo bins for the storing and blending of the wheat occupied the centre part for the four floors. Each silo was eight-feet in diameter by 50-feet deep, divided from its neighbour by a nine-inch brick wall of pressed bricks. The whole silo could hold around 2,300 tonnes of wheat, ready to be discharged automatically. In the basement were the appliances

for mixing the wheat, a series of spiral conveying worms, three for moving the dirty wheat, three for blending purposes.

The wheat cleaning was done on several floors with two horizontal brush machines, 16 barley and cockle cylinders and two horizontal wheat scourers. On the first floor were five elevator bottoms, a wheat washer, a whizzer and the lower portion of the dryer and cooler.

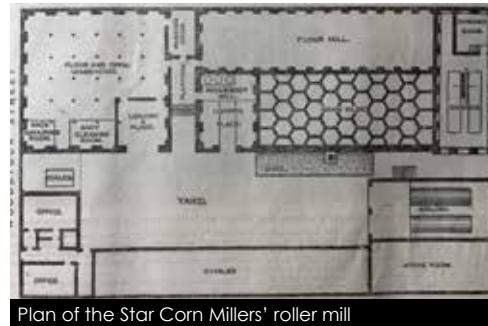
The second floor had two horizontal brush machines, 16 barley and cockle cylinders and the hopped bottom of the two clean wheat bins. The third floor had two horizontal wheat scourers, two horizontal brush machines, a 'Trent' automatic grain weigher,



A perspective view of the purifier floor



The Trent automatic grain scale



Plan of the Star Corn Millers' roller mill

two rotary grading sieves, and an elevator bottom.

The fourth floor had seven elevator heads, a warehouse separator, the top portion of the Mallinson's patent wheat dryer and the Parkinson's patent wheat cooler. All the wheat machines had fans attached to them to convey the dust away to the dust room over the wheat cleaning department.

To clean the wheat thoroughly, it passed over the preliminary sieves, then on to rotary sieves which sized the grains, then onto barley and cockle cylinders to remove oats, barley and small seeds. It was then ready for washing to remove stones and earth. From there it went to the Mallinson's wheat dryers and Parkinson's wheat cooler, which had been recently introduced by Thomas Robinson with the intention of ensuring regularity of the flour and improving the elasticity of the gluten in the wheat.

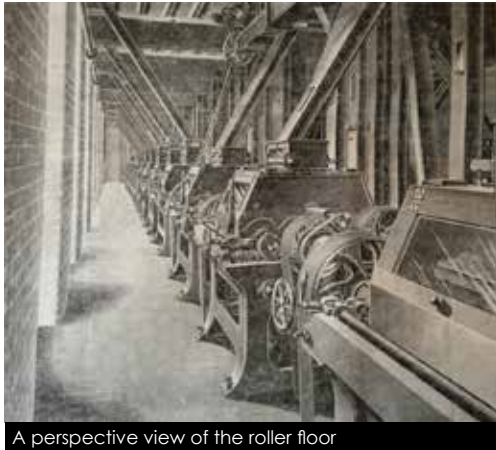
Once the wheat was mixed by the automatic mixers it was then elevated to another silo for blending. The third wheat cleaning process consisted of scourers and brushes with quick revolving beaters rotating inside a serrated conical cylinder of iron that had fine slot holes to allow dust to fall through. The considerable friction scoured off any extraneous dirt that could be adhering to the berry.

The roller floor measured 118-feet long and 29-feet wide. This part of the building had five floors and contained the twenty sack-per-hour roller mill plant. The first floor had 26 double roller mills arranged in two straight lines for the breaking down of the wheat on the system of five breaks, the flouring of the dunst, middlings and semolina etc. The five breaks were done on 10 roller mills, each, each break being accomplished on two double machines.

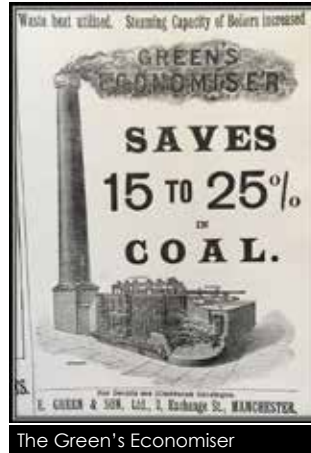
The first break was done on two roller mills each fitted with three grooved chilled iron rolls 30x9 inches. The second and third breaks were done on four roller mills, each fitted with four grooved chilled iron rolls, 36x9 inches. The fourth and fifth break were done on four roller mills with four grooved chilled iron rolls, 30x9 inches.

The flouring of the dunst, middlings and semolina was done on 16 double roller mills of which two had four smooth chilled iron rolls of 36x9 inches, two with rolls 30x9 inches., and the remaining 12 double machines had four smooth chilled rolls of 24x9 inch.

The second floor contained a row of 11 Koh-i-nor purifiers, shown in the perspective view, along with a Trent automatic grain



A perspective view of the roller floor



The Green's Economiser



The Witter automatic sprinkler and fire alarm

weighing machine and a magnetic separator. The third floor had 14 centrifugal flour dressing machines, a long band conveyor and an elevator bottom. On the fourth floor there was a rotary scalper for the first break, two scalpels for the second break and two for the third.

They were all double scalpels. Also here were two scalpels with single sieves for the fourth break, a reel 13-feet long for the fifth break, two bran dusters, four centrifugal flour dressing machines and four long silk reels for dusting sizing and treating the chop. The top floor had 24 elevator heads and the air trunk which carried the dust to the collecting department over the wheat cleaning section. At the north end of this floor was the packing room for the flour and offals.

The small provender mill shown on the floor plans contained three sets of millstones, one oat crusher and one bean and corn splitter, together with the necessary rotary sifters required for

treating Indian corn, oats and barley. They also installed an improved sack hoist for taking up corn etc. Electric light lit the whole premises, including the flour mill, offal mill, warehouse and offices.

Fire prevention was top of the list in requirements after the previous disastrous fire and so the Witter patent sensitive automatic sprinkler system was installed with 1,108 sprinklers fitted throughout the complex. The motive power for the machinery came from a pair of double compound engines. The steam required to drive them came from two boilers 30x8 feet, placed in the boiler house along with a set of Green's economisers.

