



The roller floor

## Mills recently constructed on the Simon System

by Mildred Cookson, The Mills Archive, UK



## Milling journals of the past at The Mills Archive

by Mildred Cookson, Mills Archive Trust, UK

Milling in 1901 (page 409) provided a photograph and comment on seven UK flour mills that had recently been upgraded with Simon machinery and systems. Outputs ranged from 5 – 30 sacks per hour, reinforcing the general view that in 1901 British mill owners were moving to cope with the competition that existed in their several markets. All these mills originally contained complete roller mill plants or combinations of machinery on other systems.

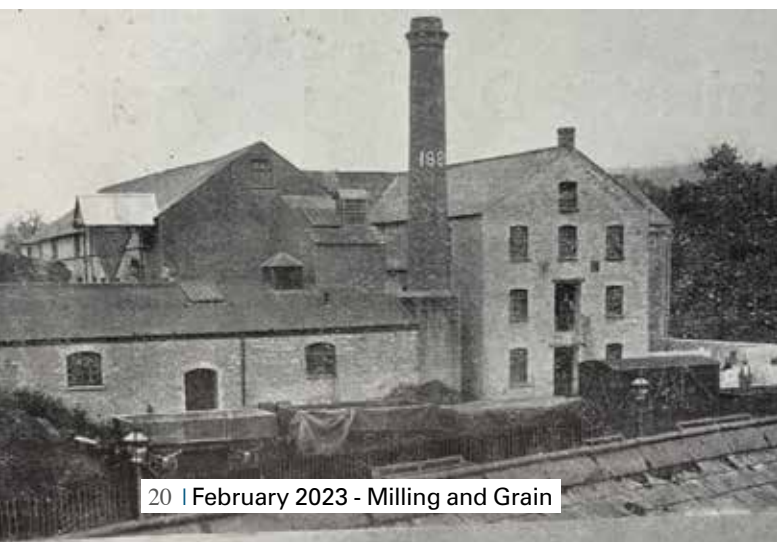
### Messrs. W Marshall and Sons, Grimsby

The Victoria Mills were a fine example of a complete Simon plant to produce 25 sacks per hour. The reconstruction involved the removal of the existing machinery, including roller mills, purifiers, and a full line of plansifters. The new plant consisted of the Simon heavy pattern 4 roller mills, over 40 centrifugal scalping and dressing machines, patent “Reform” detachers, and patent dustless double purifiers. In addition the wheat preparing

plant was improved by the introduction of washing, drying and conditioning machinery. The building with its new machinery arranged was said to be one of the finest in the United Kingdom.

### Messrs. H & R Ainscough, Burscough Bridge

This extensive property, although away from the seaboard, was well situated for canal and railway transport. It had direct water communication with the river Mersey and a fine railway siding with the Lancashire and Yorkshire Railway. The mill when completed would be driven with a new inverted cylinder, vertical engine and contain extensive silo accommodation, a complete new and fine installation of wheat cleaning, washing and drying plant, and a completely new roller mill plant for the production of 30 sacks per hour. In addition to this there was to be a comprehensive, well-arranged system to produce provender with arrangements for delivering it on to railway truck, wagon or barge. In carrying out this work the whole of the previous



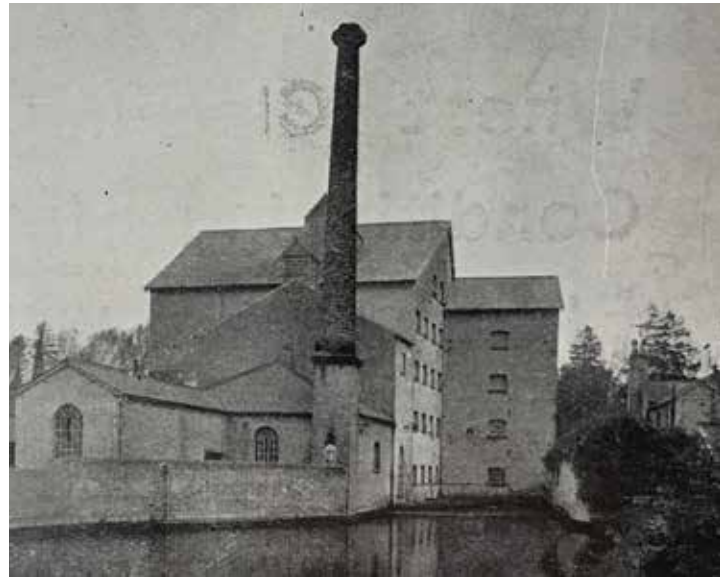
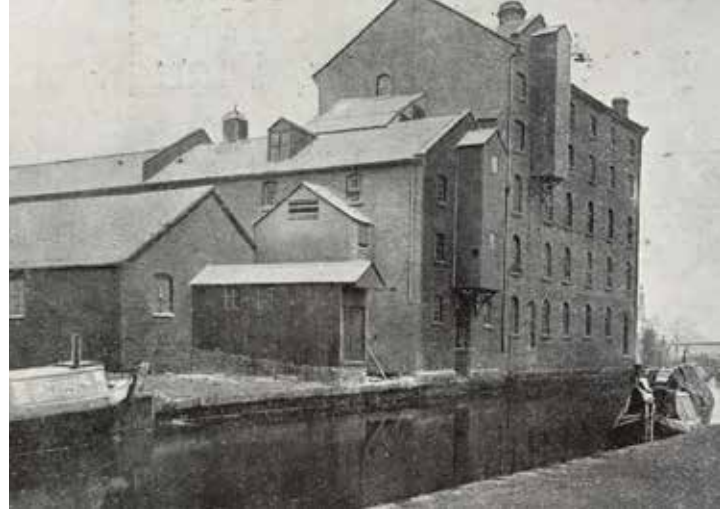
machinery installed was to be replaced.

Messrs. George Ridgway and Sons, Hanley, Staffordshire

This mill was equipped with a Simon automatic roller mill plant to produce 12 sacks of flour per hour, well arranged in a building of convenient form and dimensions. At the same time important modifications were introduced into the wheat preparing plant by improving the washing machinery and the introduction of bins and measuring machinery for the conditioning after drying of the wheat. The plant was driven by a compound horizontal engine installed during this recent reconstruction.

### **Messrs. The Scottish Co-operative Wholesale Society Ltd., Junction Mills Leith**

The Scottish Co-operative Society's Junction Mills were only purchased shortly before the new installations took place. The machinery and equipment to produce oatmeal were excellent. However, the results from the flour mill plant, when compared with those from the two roller mill plants in the Society's Chancelot Mills, emphasised the necessity for immediate reconstruction at the Junction Mills. A new complete automatic roller mill plant for producing 10 sacks per hour was introduced, driven by a new engine supplied by Messrs. Douglas and Grant of Kirkcaldy. It was the compound tandem Corliss type, adapted to give 250 indicated horsepower, with 100 lbs. steam pressure at 500 feet piston speed. Superheated steam was used and the cylinders were 14 inches and 27 inches diameter, with a stroke of 3 feet. The high-pressure cylinder had Corliss valves with Douglas and Grant's special patent gear, with the expansion controlled by a high-speed governor. The crankshaft was 8 inches diameter by 16 inches long in bearings that ran in bronze bushes lined with white metal. The flywheel was 14ft diameter and grooved for nine ropes driving pulleys on two main lines of mill



shafting. The jet condenser and air pump were placed vertically below the engine frame and were driven by side rods and steel bell crank from the main crosshead. The air pump was brass lined and fitted. The boiler feed pump also worked from the bell crank.

### **Messrs. Marsh Mills Flour Milling Co., Plympton, Devon**

This mill was for many years previous to the article in the possession of Mr. Harvey Daw but had recently come into the ownership of a new Company and was entirely reconstructed. The mill was arranged for the production of 5 sacks of flour per hour. A wheat washing, drying and conditioning plant was also introduced. In 1901 Henry Simon Ltd., were also erecting a silo granary for the storage of around 20,000 bushels of wheat. The mill had railway siding accommodation. Grain could be shot from the railway trucks or from farmers' carts directly into the main elevator in the new silo granary.

### **Messrs. T.H. Smith & Sons, Harston Mills, Near Cambridge**

The reconstruction of this mill had only just taken place in 1901 with, so it was said, marked success in the improvement of the milling results, the alteration consisting in the entire remodeling



of the plant on the "Simon System" for the production of 5 to 6 sacks per hour.

### **Messrs. John Jackson and Son, Spa Road Mills Bolton Lancashire**

The mill contained a complete 15 sack roller mill plant on the Simon System. It was one of the two large mills in Bolton owned by this firm. The roller mills throughout were of the Simon heavy 4 roller mill pattern and the scalping and dressing machines were all Simon's well-known centrifugal type. The first steps taken towards the complete overhaul of the mill were carried out earlier in 1901 when the roller mills then working were entirely replaced. Since then, the reconstruction had been carried through to completion and the mills were just back working again at the time of this article.