



The Mills of the Co-operative Wholesale Society

Milling journals of the past at The Mills Archive

by Mildred Cookson, The Mills Archive, UK



Unity is strength, as was demonstrated at the Silvertown Mills in Essex, where the Co-operative Society built one of the best equipped, most perfectly proportioned mills at the start of the 20th century. 'The Miller' of June 2, 1902 describes the mill, fitted by Thomas Robinson and Son of Rochdale, as arranged "to ensure

proficiency, dispatch and finish in every detail of this huge mill's layout". The site occupied about five acres of land, with a river frontage, and a newly built wharf erected for the mill, while at the rear it adjoined the Great Eastern Railway. It boasted what no other London mill could claim, having direct road, rail and water communication.

The building itself was constructed based on impressive designs

and special attention was paid to the foundations to ensure it could withstand the weight of the building, machinery and wheat when complete. The outer face bricks were Leicester pressed brick that would withstand the strong weather they would encounter. The windowsills and window heads were of stone string courses, and along with the keystones were all of Derbyshire stone. The interior was faced with a glazed brick, around four feet from the floor level salt glazed bricks were used and the remainders were ivory white.

The wheat arriving by water was discharged by barge elevator at 40 tonnes per hour to a detached

building on the quayside. The elevator was arranged to rise and fall with the tides. Once received, the wheat passed through a separator for preliminary cleaning. It then fell into an elevator and was lifted to the top of the silo house. A hoist in the receiving building allowed the unloading grain arriving by water in sacks. The silo house had 35 bins around 52 ft. deep and capable of holding 50 tons of wheat. 'Moir' patent automatic wheat mixers were set under each of the silo bins, so any desired quantity or proportion could be obtained for blending purposes. The wheat could be taken from any silo, delivered into an "airing" worm and moved to another silo, rendering safe long storage when necessary. No exhaust was applied at the warehouse separators until after the wheat had passed over the sieves. Apparently adopting this method enabled 90 percent of the dust and other light impurities to be deposited direct into the sack, improving the subsequent aspiration of the wheat.

There were two separate and complete cleaning plants dealing with 350 to 400 bushels per hour. The wheat travelled from the silos to four rotary graders, four separators and other graders



Mr GV Chapman, Mill Manager

through to 31 cockle and barley cylinders, four washers and stoners, then to improved dryers and Parkinson's coolers, and finally through Robinson's scourers and brushes, all fitted with revolving cylinders. Four 'Tornado' dust collectors were used for collecting the dust from the cleaning machinery and wheat dryers. All shafts and bearings throughout the mill were fitted with self-lubricating bearings.

The ground floor had four lines of shafting, used for driving the two plants, with the usual elevator bottoms.

The roller floor ran the length of one side and had two lines of Robinson's horizontal rolls. These



Some of the purifiers



Engine room

were divided into five double 10 x 36 inch for the breaks and six double 9 x 30 and five double 9 x 24 for the smooth side of the plant. On the opposite side of the room were four double 10/13 x 50 rolls for the four breaks and five double 10/13 x 36 and five double 10/13 x 30 rolls for the reductions. All the rolls ran remarkably quietly, cool and true, which “added to the neatness, for finish and all round excellence”.

The purifiers and Sieves were placed on two floors and comprised 40 machines, 23 of which were purifiers of the well-known Koh-i-Nor types and which worked very well. There were none of the concerns, common at that time, about a little uncertainty in the work of scalpers and sifters coupled up to the feed and discharge spouts with flexible material. Robinson & Son had just brought out a greatly improved and simpler method, which was much admired by the reporter. At one end of the third floor were two automatic weighing machines and two magnetic separators immediately preceding the first break. All the drives were well away from gangways, with all machines guarded

by almost artistic wire devices, so that the risk of accident and inconvenience was reduced to a minimum.

On the fourth floor were 38 centrifugals, eight inter elevator reels and separating sieves. The centrifugals were built two high, but each had a separate drive, and were easily accessible all round. The mill throughout was entirely automatic, with suitable elevators, conveyors and spouts arranged to make the necessary connections. The grain and its products were not touched by hand during the whole process. An improved band conveyor was also provided for transporting finished products in sacks to wagons, railway trucks or barges.

Special arrangements were made for dealing with all the offal made at the mill, with roller mills and sieves being used for grinding up the seeds etc., extracted from the grain during the cleaning process. The buildings were lit throughout by electricity and protected against fire by sprinklers, the supply tank being positioned situated in the tower.

Mr G. V. Chapman was the clever and able mill manager who

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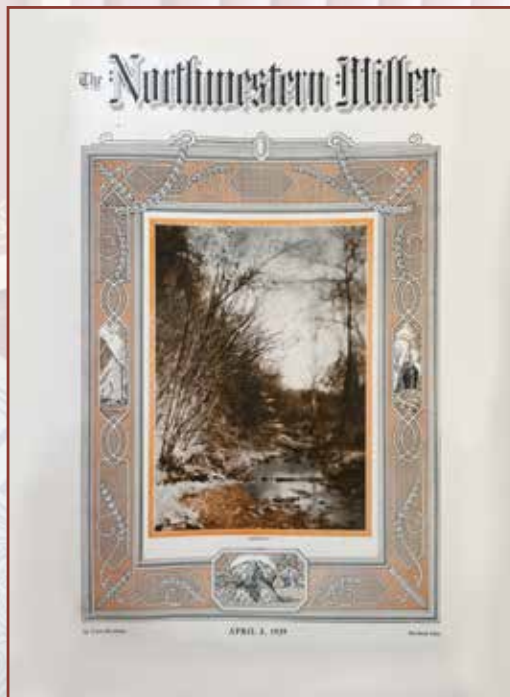
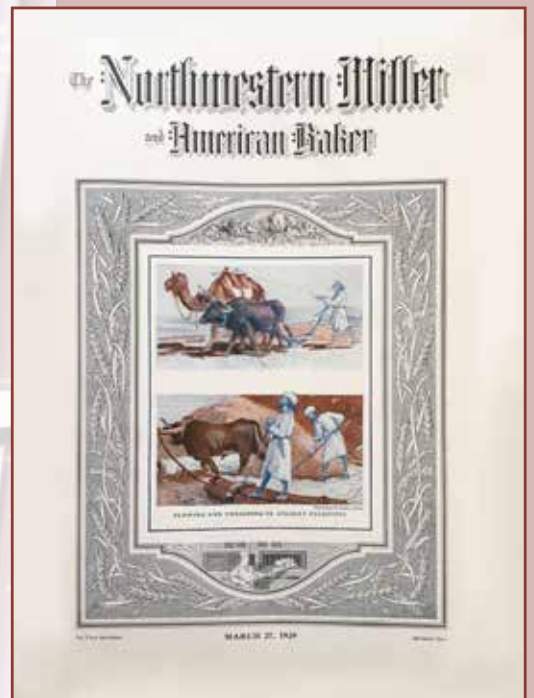
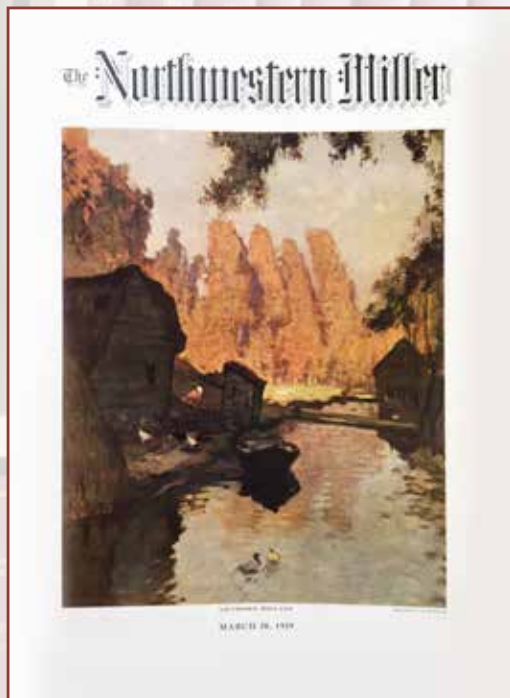
For well over 100 years milling technology has been global with many magazines serving or having served our industry from flour and food to feed and oilseed processing and now to fish feeds.

A most recent contribution to the Trust's collection is a complete century of past edition of the now out-of-print 'North-Western Miller' from the United States.

We are proud to present here, front cover illustrations from this valued and long-serving publication as a visual reminder of the importance contribution past magazines provided to our industry.



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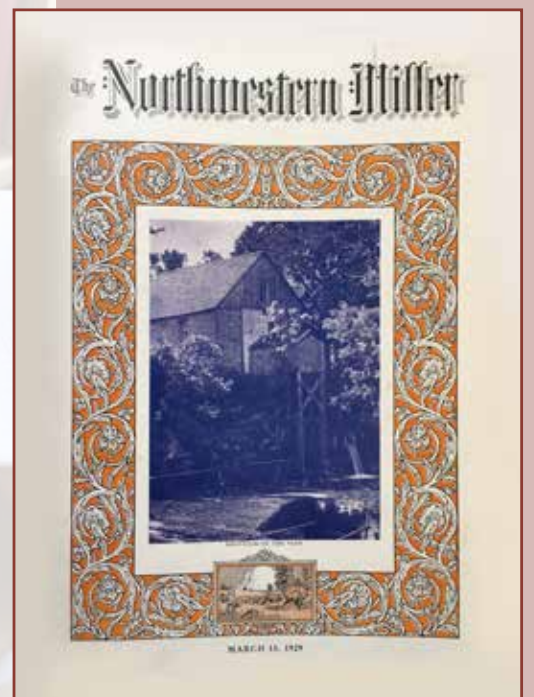
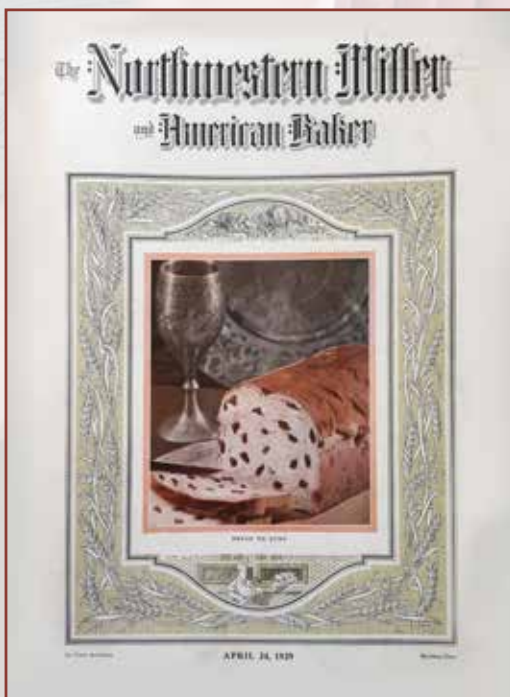
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Members of the Firm Messrs Cannon and Gaze Ltd 1903



View of the roller floor

The Cooperative Wholesale Society
Silvertown Flour Mill in London



SILVERTOWN (LONDON) FLOUR MILL.



Robinson roller mill advert

oversaw all the processes. It was reported that, “what the mill was in capacity and efficiency, the manager was in practice and ability”! Whereas the guaranteed capacity of the two plants was 25 sacks per hour, they were regularly turning out over 40 without in any way crippling or crowding a single machine and are running 144 hours every week without a single stop.

The geographical and historical spread of our holdings at the Mills Archive mean that I can only provide snapshots; if you would like to know more please email me at mills@millsarchive.org

