

The Sun Flour Mills Bromley by Bow

Milling journals of the past at The Mills Archive

by Mildred Cookson, The Mills Archive, UK



The Sun Flour Mills have been of interest to me since the early days of the Mills Archive when we were given the collection of Guy Cornwell. This included the calligraphic certificate given to his grandfather, William, on his retirement in 1926, expressing appreciation for his work for the company since its foundation

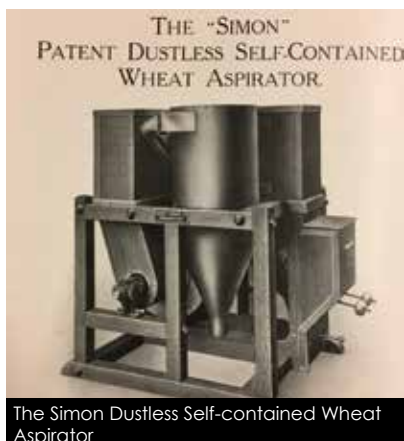
in 1887. The story of company's foundation, written by William, who started as manager in 1887 and ended as Managing Director, can be read in our archive catalogue (search for CORN-08).

The full story of the original owners, the Brown family, has been published by the Mills Archive in our Research Publication series. This impressive series of books is financed by our Research and Education Fund, a Fund that we hope will grow in the future so that we can produce so much more on our milling heritage. We are very grateful to Perendale for helping to get the Fund started; there are more details about the Funds activities and potential here: <http://tinyurl.com/y8j5hden>.

This article concentrates on the Sun Flour Mills at Bromley by Bow, established after a devastating fire at the recently built Sun Flour Mills on Sun Street, Waltham Abbey. The Bromley by Bow mills were described in detail in *The Miller* of December 3, 1894 and February 4, 1895. Situated on the River Lea, the mills were directly connected to the River Thames, one of the world's greatest commercial highways. While the Lea flowed by one side of the walls, the other side was served by another waterway, locally known as the Limehouse New Cut.

The mill was a substantial brick building. Originally a rice mill dating from 1865, by 1895 it was well adapted for the purpose of flour manufacture. In the illustration from the River Lea side the receiving ship elevator occupies the foreground, while in the rear the massive tower supported a 7,640-gallon tank for the Grinnell sprinkler system, which was fitted throughout the mill. The silo house was on the left and the mill on the right with its flour warehouse and wheat-cleaning department. The whole range of buildings was divided into four distinct sections, each separated by fireproof walls and iron doors and galleries.

The tops of the partitioning walls dividing the sections can be clearly seen in the view from the New Cut or land side, where the finished products were loaded into the carts for onwards



The Simon Dustless Self-contained Wheat Aspirator



The Simon Fanless Purifier



Advert for Cyclone dust collector

transport. In this view the mill proper, with the boiler and engine house, lay at the extreme left of the buildings with the second wall on the left dividing the mill from the flour warehouse. Subsequent walls marked the boundary before the wheat-cleaning department and the last partitioned the screening house from the silo installation and the wheat-receiving house.

This mill was fitted out in 1890 with a 12-sack roller plant by Henry Simon, but as trade was increasing very rapidly, Mr Simon was soon commissioned to increase the mill output to 16 sacks. The motive power for the mill was from a 350-hp. horizontal engine built by Pollitt and Wigzell of Sowerby Bridge. The transmission of power from the 16ft fly wheel to the three main shafts of the mill was by 16 ropes of one and a half inches. The engines were fed by two Galloway 30ft by eight ft boilers.

The basement of the mill was occupied by the elevator bottoms and by three lines of shafting from which power was transmitted to the plant on the floors above. On the first, or roller, floor there were five double break mills fitted with 40in by 10in rolls and nine reduction mills fitted with nine inch by 32in rolls. There was also one screening mill, fitted with a double set of lightly corrugated rolls and used for the reduction of screenings. All the sets of rollers were held in the

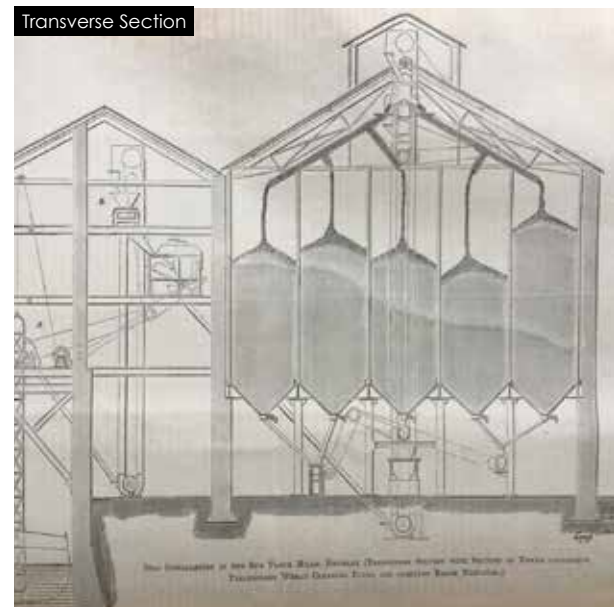


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NEW "REFORM" PURIFIER.

THE SIMON NEW REFORM PURIFIER

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Size of Machine.	Extreme Length.		Extreme Width.		Extreme Height.		Driving Pulley.	Revolutions of Stone, Mill per minute.	PRICE.
	ft.	in.	ft.	in.	ft.	in.			
Single	10	8	3	10	6	6	8 x 3	450	£120
Double	10	8	3	7	6	6	8 x 3	450	150
WITHOUT PATENT TAIL ASPIRATION.									
Single	9	3	3	10	5	6	8 x 3	450	£115
Double	9	3	5	7	5	6	8 x 3	450	140



Milling and Grain supports the aims and objectives of the Mills Archive Trust, based in Reading, England.

The history of milling - no matter where it has taken place - is being archived by the Trust.

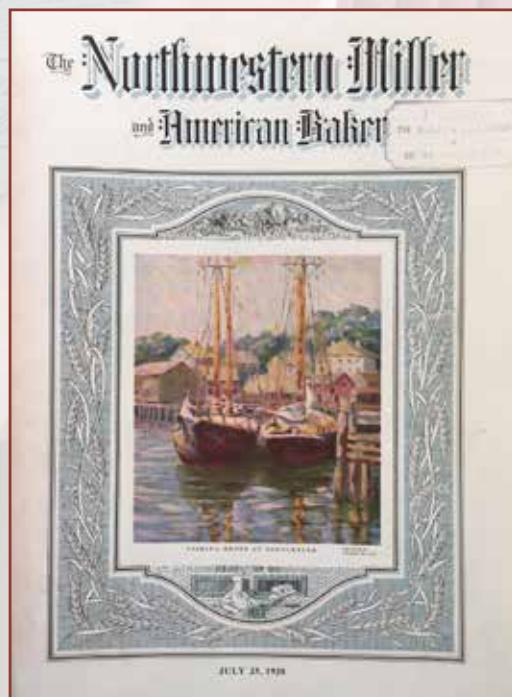
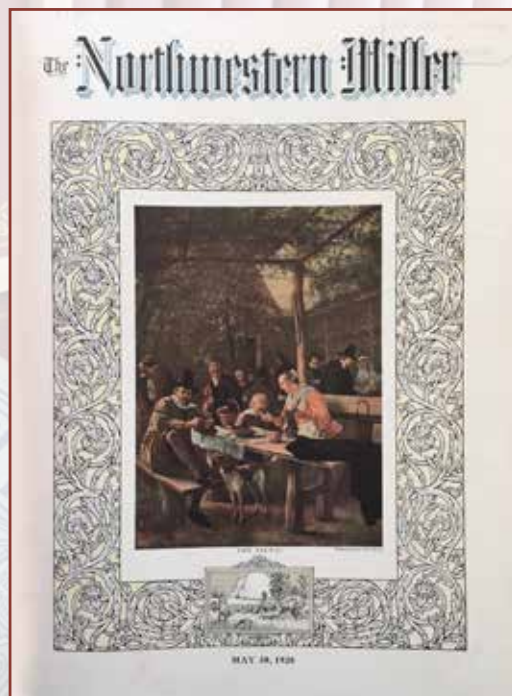
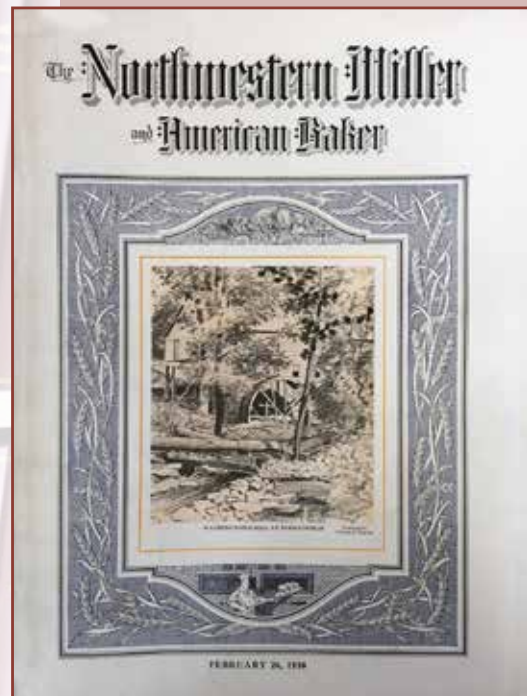
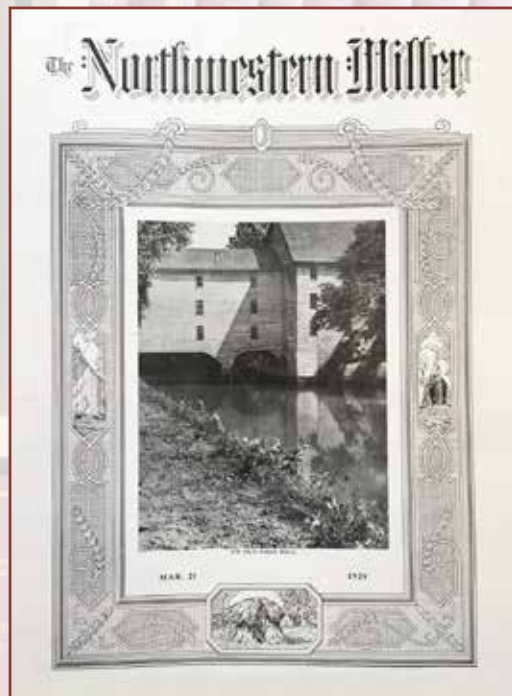
For well over 100 years milling technology has been global with many magazines serving or having served our industry from flour and food to feed and oilseed processing and now to fish feeds.

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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Art in the Archive

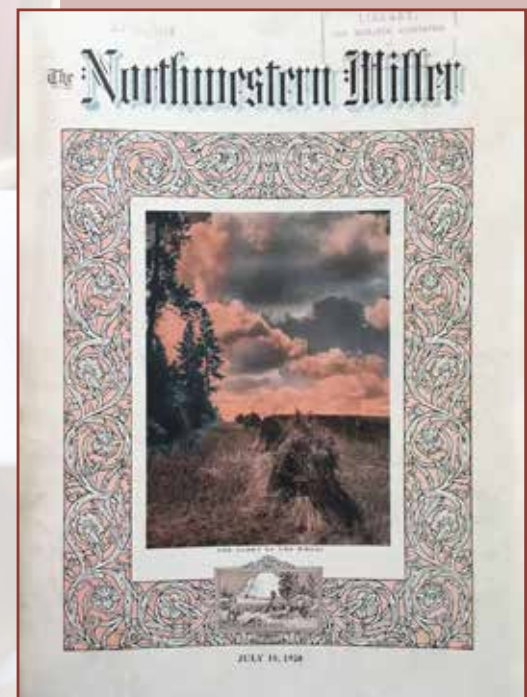
We are a charity that saves the world's milling images and documents and makes them freely available for reference. We have more than two million records. We aim to cover the entire history of milling, from its ancient origins up to the present day. Find out what we have and how you can help us grow.

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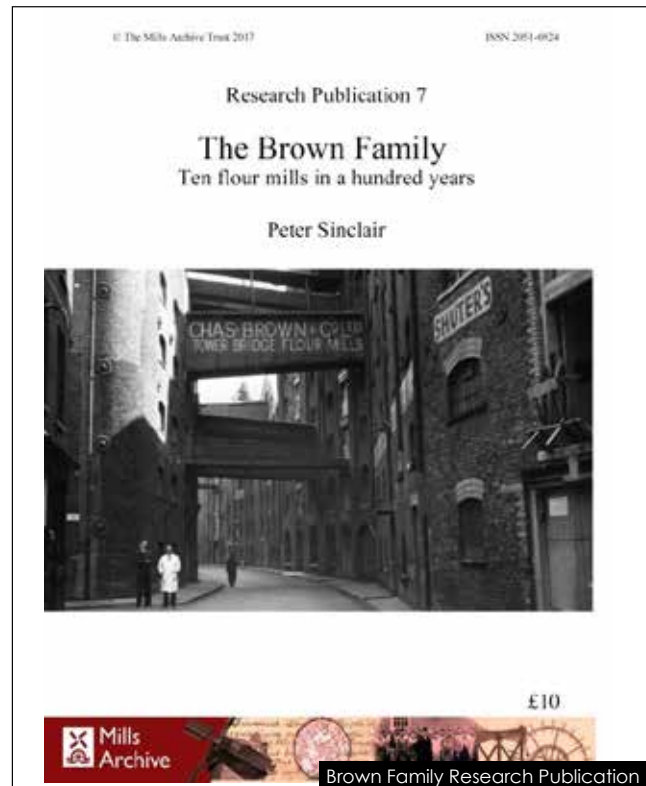


William Cornwell Certificate

strong and rigid frames familiar in Simon plants.

On the second, or purifier, floor there were six double “Reform” purifiers. Two of these machines were of the blanket type, two were connected with ‘Cyclone’ dust collectors and two were of the latest “dustless” pattern. Tail aspirators had been introduced here, and worked well. The third floor was chiefly occupied with a set of rotary sieve scalpers. Four of these machines were for treating the first, second, third, and fourth breaks, while the fifth sieve was used as a semolina grader. It was said that all of the sieves were beautifully balanced, with an even and easy swing. The fitting of the room also included a bran duster, a screenings duster, and a re-dressing reel.

The elaborate wheat cleaning plant was supplemented by a “Simon” dustless aspirator preparing it for the clean wheat bin on the first break. The report emphasised that its action and use in the flow met with the emphatic approval of Mr Cornwell, the mill manager. Apparently at that time no mill in England had the same capacity or possessed a more complete and efficient wheat cleaning plant than the Sun Flour Mills at Bromley. Although the roller plant and wheat cleaning machinery had been erected by Henry Simon, the silos and initial wheat handling system in the adjacent department, separated from the mill by fireproof walls, were the work of Thomas Robinson and Son.



Brown Family Research Publication

The drawing of the transverse section shows how barges brought along the River Lea right under the mill were discharged by the elevator which was 36 ft high with a discharging capacity of 40 tons per hour. The elevator cup chain passed over a deflecting roller and the grain was then tipped into a hopper and ran down a spout to the bottom of the elevator to the automatic scales. The silo installation consisted of 33 silo bins, each 36 ft deep and 9 ft square, built of flat pieces of wood nailed one on top of the other overlapping each other. The mouthpieces of the bins were formed from cast iron plates shaped hopper wise, which rested on girders. The bins fell into three distinct sets, 12 for purely storing, 14 for mixing and six for blending with the final silo serving for the storage of English wheat, which did not arrive by river but was delivered to the mill by wagon.

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.

