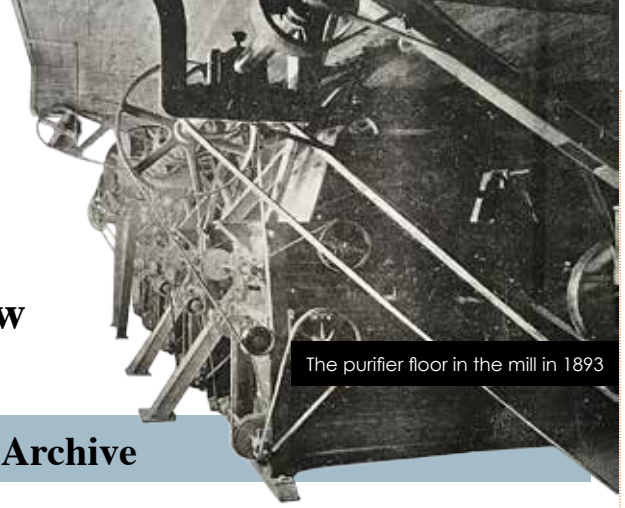
British and Irish Flour Mills

No1 Messrs F Skurray & Son's New Roller Mill at Swindon, Wiltshire



The purifier floor in the mill in 1893

Milling journals of the past at The Mills Archive

by Mildred Cookson, The Mills Archive, UK

My last two articles in Milling and Grain featured material from the start of the 20th century on "British Empire Mills", culled from one of the three major milling journals held at the Mills Archive. Another common theme followed visits to British and Irish mills, so I have chosen an account in that series from The Miller (1 May 1893), supplemented by a second, shorter article, published in Milling (Dec 24 1904).

In 1893, a visit by the milling trade celebrated the opening of Mr Skurray's new roller mill in Swindon, west of London on the banks of the Berkshire and Wiltshire canal. The mill was built close to the Great Western Railway so, along with the canal, it had the advantage of using both railway and water carriage. Captain Marsh started up the engine of the mill on the visitors' arrival, and the feed started by Mr F Skurray himself. The mill was built in 1892 and fitted out by ER & F Turner. The site was chosen as Swindon was a large industrial centre with no mill nearer than Cirencester, and it was in the middle of probably the finest red wheat district in the south of England. The first plant was about 6 sacks and this with yearly improvements served until 1903, when a completely new Turner plant of 8 sacks capacity was installed. The buildings that were specially built for holding the six sack plant were enlarged to accommodate the larger plant.

Mr EC Skurray in 1904

Mr EC Skurray's Mill, Swindon as extended in 1904

Mr F Skurray's Mill, Swindon as built in 1893

The mill was built of red brick with four storeys divided into three distinct sections. The warehouse, which ran alongside the canal, was separated from the roller mill proper and the wheat cleaning department by a party wall running longitudinally, which extended above the apex of the roof. The wheat cleaning department and the roller mill were themselves separated by a brick wall, which extended above the roof and helped to support the tank, clearly visible in both the exterior photographs. The roller mill plant itself was situated in the opposite half of the building to the warehouse, and had four floors and a basement.

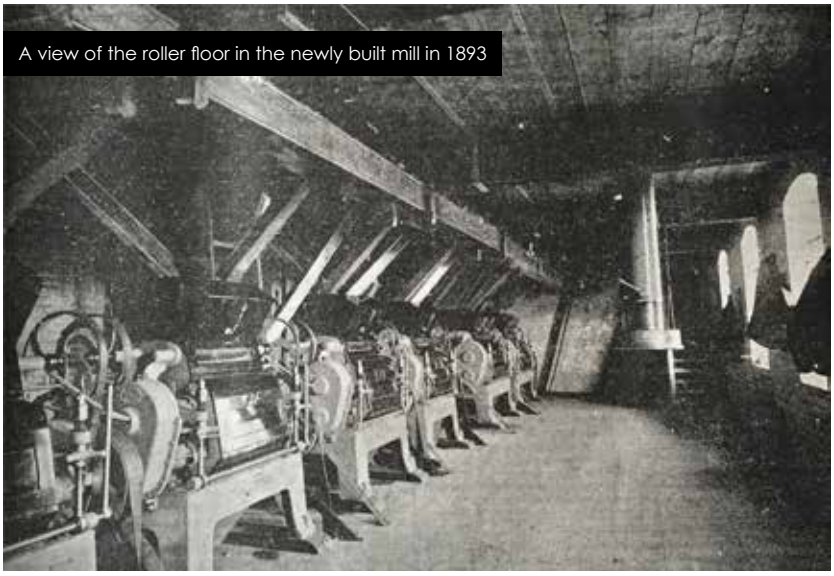
The basement had the main line of shafting from which the roller mills on the first floor and the other machinery on the floors above were set in motion. These included the dickey sieve, and 14 elevator bottoms. The main shaft, which extended into the engine house, was supported on bearings bolted to the cast iron pillars that supported the weight of the floors above. On the first floor were six double roller mills, placed in one line for breaking down the wheat on the four break system and reducing the semolina and flouring the middlings in eight reductions. The four breaks were accomplished on two double roller mills, fitted with four grooved chilled iron rolls, 49ins by 10ins and the eight reductions were effected on six double roller mills fitted with smooth chilled iron rolls, 25ins by 9ins.

The second floor was devoted to the purification part of the system, and held five Turner's No 2 sieve purifiers for purifying the semolina and middlings. There were three pneumatic sorters for treating the first, second and third break products, and an Avery automatic weigher for weighing the cleaned wheat on its passage to the first break roller mill.

The third floor had a fourth break centrifugal and two scalpers for the second and third breaks. The second break scalper was covered with perforated steel and the third break scalper was covered with wire. There were two centrifugals, a dickey sieve, a "Unique' dust collector as well as a fan for exhausting the rolls and pneumatic sorters. The bottom of the clean wheat bin was sited on this floor and was capable of holding "160 qrs" of wheat. One qr or quarter was 28lb or a quarter of a hundredweight.

The fourth and top floor contained three centrifugals, a long silk reel, four sheets long, the first break scalper covered with perforated steel, two silk reels and 14 elevator heads. The warehouse had ten bins capable of


The third floor of Mr Skurray's Mill in 1893


A view of the roller floor in the newly built mill in 1893

holding 160 qrs each and in order to discharge the wheat brought to the mill by the farmer's wagon there was a floor hopper attached to an elevator which carried the wheat to the top floor from where it could be discharged by means of a worm into any one of the ten bins. There was also a lucam so that wheat arriving canal could be hoisted directly from the barge on to this floor.

Under the bins were Dell's wheat mixers, one attached to each bin and a "Eureka" separator for cleaning the wheat if necessary before it is taken to the storage bins.

The wheat cleaning department was sited over the engine house and the process effected by an "Eureka" milling separator and a "Eureka" horizontal scourer, and a Coleman and Morten's wheat grader which sized the wheat into three sizes. There were three aspirating legs, for aspirating the three grades of wheat before they passed to the barley and cockle cylinders.

For collecting the dust from this area a "Tornado" dust collector was used. In the wheat cleaning department there were also two pairs of millstones for making wholemeal flour with two wheat bins holding 110qrs each. The tank above this department was capable of holding 5 000 gallons of water.

The motive power for the mill and its components came from a tandem condensing compound engine built by Messrs Turner of 30 nominal horsepower. The engine was fitted with a 20inch and a 12inch cylinder and had a 2ft stroke. The flywheel which was grooved to take five ropes, was 9ft 6 inches in diameter and made 100 revolutions per minute. The steam to drive the engine was provided by a Lancashire boiler 26ft long and 6ft 6ins diameter and fitted with two internal flues each having four Galloway tubes. The whole of the mill was lit by electricity, doing away with oil lamps and candles.

By the time of the later report Mr F Skurray had retired and passed on the full control of the plant to Ernest Skurray. Apparently, he was an ardent motorist, not for the exhilaration it imparted, but for its convenience for travelling among his customers! This later report emphasised the fireproof sections in the building and mentioned the introduction in the engine room beside the horizontal compound condensing type of a "John Bull" engine for driving the dynamo to light the premises.

The new arrangement now included 12 sets of double roller mills on the first floor, a line of double purifiers on the second, ten centrifuges and two sieves on the third and seven centrifuges and two reels on the top floor.

The whole plant was designed for the production of high-grade flours from English wheat for blending and other purposes. At the recent Bakers' Exhibition, Messrs Skurray had obtained the gold medal for the best pure English wheat flour. The firm used a "Coulthard" steam wagon for deliveries.

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