

DOWNING'S MALTHOUSES, MERCHANTS ROAD, GLOUCESTER

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Introduction

The brothers George & William E Downing from Smethwick established a malthouse on the corner of Merchants Rd and Baker St in 1876 (Grid Ref. 826179). The family already had malthouses in the West Midlands, and this new site was no doubt chosen because of ready access to imported barley. In the basement of the building was a cistern capable of steeping 100 quarters of grain and a working floor on which the grain was allowed to germinate and start to sprout. Above this was a malt room for storing and bagging malt, two more working floors and an attic for storing barley. Along the eastern end of the building was a kiln where the grain was heated to stop the germination process. The malthouse was designed by Capel N Tripp and built by Joseph Meredith. Direct railway communication was provided by a siding from the Midland Railway running a short way along Merchants Rd (1).

The venture was evidently successful, and a second malthouse was built to the north of the first in 1895. It also had a basement working floor with a steeping tank, a malt room, two more working floors and an attic. The floor levels were the same as in the first malthouse, and the gap between the buildings was bridged at the store floor levels. A range at the north end contained a large malt kiln, with a perforated ceramic tile floor heated underneath by fires, and a smaller barley drying kiln. The eastern end of the kiln range was built up against the wall of an existing warehouse facing High Orchard St, and this was used for cleaning and repairing malt sacks returned after use. A maintenance yard was established at the northern end of the site. The new building was designed by Walter B Wood and built by the Gurney Brothers, and it became known as No 2 malthouse (2).



Figure 1 Downing's malthouse No 1 (right) and No 2 (left) in Merchants Rd shortly before the view was blocked by the construction of malthouses Nos 3 & 4. (Glos. Archives D7942/491)

Two More Maltheuses

A further expansion took place in 1901, when two more maltheuses (known as Nos 3 and 4) were built between Merchants Rd and Bakers Quay with the upper floors on the west side supported on pillars over the canal-side quay. Each maltheuse had a basement working floor, a malt room, two more working floors (with hopper-bottomed steep tanks) and two attics. At the north end of each maltheuse was a double-floored kiln, originally having perforated tile floors (later replaced by wedge wire floors) heated underneath by three fires. In the gap between the two maltheuses was a small engine house with a gas engine that provided power for elevators and conveyors used for moving the grain about. A bridge over Merchants Rd linked the new maltheuses to the earlier ones. The building was designed by Walter B Wood and built by the Gurney Brothers. To provide local accommodation for the men who had to keep the kilns going day and night, four three-storey houses were built adjoining the old warehouse facing High Orchard St, and a single storey mess room was provided in the maintenance yard to the north of the 1895 kiln (3).

In the early 1920s, the Downing family converted their widespread business into a limited liability company, and in 1931 this was taken over by rivals Samuel Thompson & Sons of Smethwick (4). This latter company had recently joined with other long established firms to form Associated British Maltsters Ltd, but they had continued to maintain their own trading name, and they also kept the G & W E Downing name for the Gloucester business (5).



Figure 2 An aerial view of maltheuses Nos 3 & 4 beside the canal with No 1 and No 2 behind. (Glos. Archives D7942/491)

Modernisation

In the early 1950s, a major programme of modifications was carried out. Most of the original No 1 malthouse was demolished and replaced by a concrete building containing silos. The associated kiln to the east was reused to house a barley dryer. The ground floors of Nos 3 & 4 malthouses, originally used for storing malt in garners prior to dispatch, were converted into additional working floors, and the malt was stored in the new silos. The working floors in Nos 3 & 4 malthouses were provided with forced-draught air cooling to remove the heat generated by germination, as it was necessary to keep the temperature of the grain below 60 deg F or it would go sour. Previously, the only means of temperature control was by adjusting wooden shutters in the window openings, and this was not sufficient to allow malt production to continue during the summer months.

By this time, most of the barley used was home-grown and arrived by road from local farms. Before accepting a load, the under-manager inserted a small tube into some of the sacks to take samples, and if these were not up to standard, the whole load was rejected. At one time, sacks were lifted up into the bridge over Merchants Rd, but after the silos were built, the sacks were tipped into a manhole in Baker St. The barley was dried and stored in the silos and in the attic floors of Nos 3 & 4 malthouses.

Malt-making in the 1960s

When fresh grain was needed for processing, it was moved by conveyors and elevators and poured into a tank filled with water from the canal with an additive to encourage germination. After being steeped for 1 to 3 days, the grain was dropped out to form a long pile on an area of a working floor known as the couch. In the nineteenth century, the quantity of grain was measured on the couch as tax had to be paid at this stage. Then it was spread out to a depth of two inches to become the newest piece on the floor, being kept separate from the middle and oldest pieces which had been spread some days earlier. As the grain began to sprout, the depth gradually increased and heat was generated, and so the grain needed to be turned at regular intervals to maintain uniform growth. This was done by hand using a turner (a flat wooden blade about 13 inches wide and 15 inches long mounted on a shovel handle), and sometimes the grain was thrown high in the air to provide additional cooling. Every third day, the oldest piece was transferred to the kilns, and the middle and newest pieces were moved along the floor to make space for another newest piece. This was done by men shovelling the grain into wheelbarrows and tipping it where required. On the other days, the grain on the floor was turned over.

The normal gang on a floor comprised three men who wore canvas shoes with rope soles, and they were also responsible for working another floor - one day out of phase. Thus the gang spent two out of three days filling the kiln, moving pieces along one of their floors and turning the grain on the other floor. These were referred to as hard days, requiring around five hours work. On one day out of three, the gang only had to turn the grain on both floors, and this was referred to as an easy day, requiring only around three hours work. The men were paid piecework, and when the scheduled work was done they could go home. The cycles had to be kept going all the year round (with triple pay on Christmas Day).

At one time the grain in the kiln also had to be turned by hand, but this unpleasant job had been superseded by a long set of rotating paddles, made by H J H King of Nailsworth, which moved along the kiln as the paddles rotated. The kiln was fired by anthracite that at one time came in huge lumps from Pembrokeshire, but later it came in small grains requiring a different design of burner. The kiln was kept going continuously by three firemen working in shifts. The grain



Figure 3

Working
Floor

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was dried in the upper level of the kiln for about one day before being fired off in the hotter lower level for about one day, the time and temperature being adjusted to suit the requirements of the customer. When the firing was complete, the fires were damped down to allow the kiln floors to cool before the men removed the malt. The resulting malt was put through a machine to remove any rootlets (known as malt-coom), and it was then stored in silos before being sent away in railway vans or by road. About once a month, someone had the unpleasant job of clearing the kiln spark plates of dust from the barley roots that had dropped through the kiln floor. Although the fires were let out, the area was still very hot, and so it was usual to put on as many layers as possible (e.g. two or three pairs of trousers) to keep the heat off. The site produced about 13,000 tons of malt per year. For a few years in the 1970s, several coasters a year loaded 600 tons of malt in bulk and took it to Port Erin on the Isle of Islay for the Islay Mist whisky distillery.

Take Over and Closure

In 1972, Associated British Maltsters were taken over by Dalgety (6), and the Downing name which had survived for almost 100 years was replaced by ABM. To improve productivity, the new management arranged for the labour-intensive grain moving to be done on a three-shift system, but this was not enough to compete with new technology. After ABM installed a new plant at Wallingford, in which all the processes were carried out in a Saladin box, the Gloucester operation was closed down circa 1980. The site was later purchased by West Midlands Farmers and used for storing grain.

Acknowledgement

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References

- (1) Gloucester Journal 24 March 1877 p.5 col. 5; Gloucestershire Archives (GA) GBR L20/1875/4.
- (2) GA D7942/415; date on building 1895.
- (3) Glos Arch D2460/4/7/4/22 to 34; D7942/415; date on building 1901.
- (4) GA Rate Books; Suffolk RO. HC461/14/1/3.
- (5) Times 16 July 1928, 29 August 1929.
- (6) Times 21 October 1972, 6 December 1972.