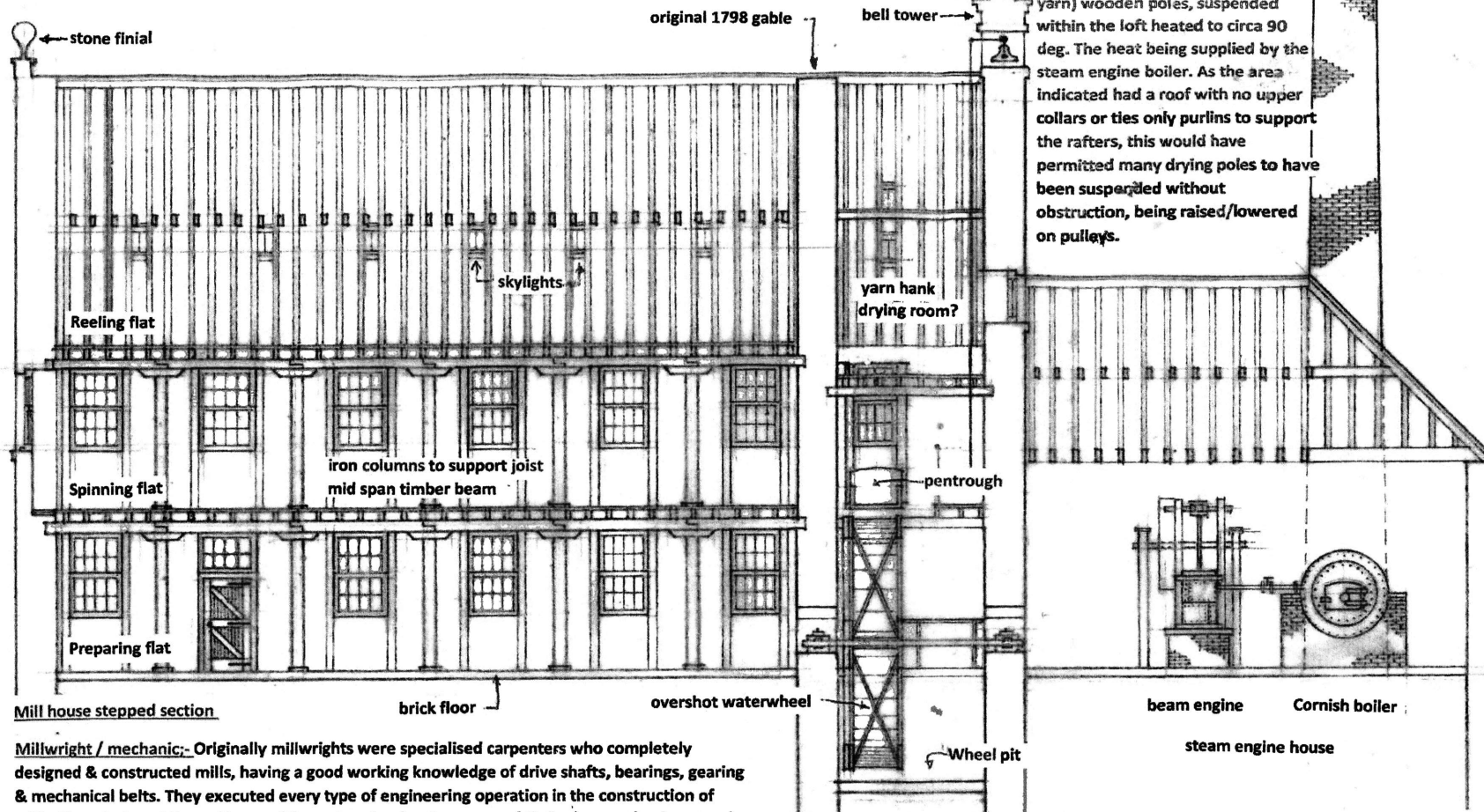


Largo Spinning Mill, drg. no. 6, scale 1:100. John Band. 2019

(machinery, line shafting & drive belts omitted for clarity)



Hank drying:- This was done by hanging the hanks of wet spun yarn on painted (to avoid damaging the yarn) wooden poles, suspended within the loft heated to circa 90 deg. The heat being supplied by the steam engine boiler. As the area indicated had a roof with no upper collars or ties only purlins to support the rafters, this would have permitted many drying poles to have been suspended without obstruction, being raised/lowered on pulleys.

Chimney:- Largo mill brick built chimney was a typical early example, being square in section & of simple construction/design. The chimney head however did not reach much higher than the adjacent viaduct/station area, this would have resulted in the smoke produced being blown across the station and adjoining then empty fields. The upper section was reinforced by several iron bands bolted to the brickwork approx. 10-15 feet (3.0-4.57m) apart. Later developments in mill chimney construction preferred a circular cross section or heavier decorative square section. Both these developments resulted in more stable structures in windy conditions (generally not a problem at Largo due to the mill being sited in a sheltered valley). Circular chimneys also provided a better "draw" of the smoke from the boiler firebox, even square chimneys often contained inner circular flues. The bricks at Largo were hand mad & fairly irregular in shape requiring the lime mortar to regularise the courses. During the construction of Seatoun Place in 1983 many hundreds of the chimney bricks were excavated from the waterwheel pit.

Richard Arkwright (1732-1792:- Arkwright is described as "the father of the factory system". He constructed the worlds first water powered spinning mill, Cromford mill, Derbyshire in 1771. He also assisted in the construction of the huge mills at both New Lanark & Stanley by Perth. Many of his construction principles ie well lit/ventilated spaces, mill bell & large open plan storeys were adopted during the construction of Largo spinning mill albeit on a smaller scale.

Mill bell:- An essential requirement for modern mills in order to call the workforce and accurately record time keeping, due to the lack of watches & clocks amongst the working classes. In 1797 William Pitt introduced a tax on clocks & watches, the tax was very unpopular and was scrapped after 9 months. Starting time, meal breaks & finishing time would have been controlled by the bell. Largo mill is recorded as open at 5.15am for a 5.30am start, 2 breaks of 45mins. & a finishing time of 7.00pm. The bell is clearly visible in photos of Largo Mill.

Millwright / mechanic:- Originally millwrights were specialised carpenters who completely designed & constructed mills, having a good working knowledge of drive shafts, bearings, gearing & mechanical belts. They executed every type of engineering operation in the construction of mills. They designed the patterns of the waterwheel system, carved their gear mechanisms, and finally erected the mill machines. With the development & introduction of complex preparation & spinning machinery along with the steam engine came a new breed of millwright the "mechanic". One or more mechanics were normally employed full time in a spinning mill and were responsible for the maintenance, repair and general running of the machinery, engine, line shafting, belts etc. In order to prevent, minimise expensive stoppages caused by break downs. Mechanics were both highly paid & highly skilled members of the workforce, being able to turn their hand to any problem requiring their attention by either replacing parts or manufacturing parts on site. Mechanics took a great pride in their work, often not allowing a labourer to do the most simplest of daily task such as lubricating bearings etc. Many mill mechanics became rich men as their daily work led many to invent & patent improvements to existing machines or completely re-inventing the machine entirely. From the early 19th century regular mechanics publications became available in order to advise & spread knowledge of new practices & machinery among both mechanics and mill owners. At Largo spinning mill from as early as 1801 a wrights shop existed, later a forge is recorded.

Bobbins:- Bobbins for the various stages in the manufacture of the finished yarn were of different types, depending on the machine they were loaded onto and dispensed from. These bobbins were traditionally made of Ash, Oak or Beech and was probably sourced from local plantings on Largo estate. Largo mill is recorded as employing its own wood turner to manufacture bobbins. The lathe upon which the wood turner manufactured bobbins, certainly in the earliest period would have been of the manually operated "treadle" or "pole" type. Later I would imagine it could have been belt driven from the mill line shaft system.

Wheel shade:- The 1801 advert for the spinning mill to let provides the dimensions of the mill house and the fact that a "wheel shade" existed. This was traditionally a simple lean too structure to enclose the waterwheel in order to provide protection from snow, frost and ice. This was important as any of these winter weather problems would cause considerable problems as snow & ice build up on the wheel would cause an imbalance, resulting in poor & erratic operation & thus poor power transmission to the mill machinery.

Skylights:- Probably cast iron with opening sash, the reeling flat (attic) was also lit by higher level glass pan tiles as seen on several photographs.