

Basic Detail Report



00042402

Title

Convict brick mould

Date

1788-1840

Medium

Iron, timber

Dimensions

80 x 140 x 265 mm

Name

Lid

History

Convict potters, stonemasons and metal workers provided the skills for ambitious government building programs from the Swan River Colony (Perth and Fremantle, Western Australia) to Norfolk Island. By the 1840s the importance of penal settlements and convict establishments such as Hyde Park Barracks, Ross Female Probation Station and Port Arthur as industrial manufacturing centres was well known, with convict goods being displayed at the International Exhibition in London in 1862 and the Intercolonial Exhibition in Melbourne in 1866. Over 75 different trades were practised at Port Arthur whilst the convict database at Hyde Park Barracks in Sydney (Historic Houses Trust Convict Database, 2006) records more than 200 trades practised by convict workers employed by the Government. The trades at Port Arthur and Hyde Park Barracks included timber cutters and sawers, bookbinders, carpenters, tinsmiths, shoemakers, blacksmiths, wheelwrights, wood and metal turners, potters, tailors, brick-makers, masons, road and bridge buildings and ship builders. Skilled convict industrial and domestic workers were highly sought by government and free settler alike. Although skilled convicts had better conditions and opportunities, all convicts worked as part of the process of reform through punishment. In 19th century Australia convict work - was seen as serving a sentence, not only working your trade. The convict brick and brick mould are not only symbols of Australia's convict past and the valuable work performed by the convicts in Australian colonial society they are also indicative of changing attitudes amongst prison and convict establishment superintendents of the need to provide work as a method of reforming the criminal class. Early Australian Brick Making Among the First Fleet's cargo were 5000 bricks and brick moulds, wooden boxes used to hand-mould wet clay into bricks ready for firing. A good supply of clay was soon located on what became known as Brickfield Hill and convicts were put to work making bricks. The work was very hard and the colony's most intractable convicts were sent to the Brickfields as punishment. Watkins Tench in his book 'Settlement at Port Jackson' reported " except building, sawing and brickmaking, nothing of consequence is now carried on here. The account which I received a few days ago from the brickmakers of their labours,

was as follows. Wheeler (one of the master brick-makers) with two tile stools and one brick stool, was tasked to make and burn ready for use 30000 tiles and bricks per month. He had twenty-one hands to assist him, who performed every thing; cut wood, dug clay, etc. This continued (during the days of distress excepted, when they did what they could) until June last. From June, with one brick and two tile stools he has been tasked to make 40000 bricks and tiles monthly (as many of each sort as may be), having twenty-two men and two boys to assist him, on the same terms of procuring materials as before. They fetch the clay of which tiles are made, two hundred yards; that for bricks is close at hand. He says that the bricks are such as would be called in England, moderately good, and he judges they would have fetched about 24 shillings per thousand at Kingston-upon-Thames (where he resided) in the year 1784. Their greatest fault is being too brittle. The tiles he thinks not so good as those made about London. The stuff has a rotten quality, and besides wants the advantage of being ground, in lieu of which they tread it. King (another master bricklayer) last year, with the assistance of sixteen men and two boys, made 11,000 bricks weekly, with two stools. During short allowance did what he could. Resumed his old task when put again on full allowance and had his number of assistants augmented to twenty men and two boys, on account of the increased distance of carrying wood for the kilns. He worked at Hammersmith, for Mr. Scot, of that place. He thinks the bricks made here as good as those made near London, and says that in the year 1784, they would have sold for a guinea per thousand and to have picked the kiln at thirty shillings.' There were five steps necessary to make good clay bricks. The first step is called 'Winning', or mining the clay. Because the steam shovel was not invented until the 1870s convict brickmakers dug for the clay with hand shovels and crow bars. In Europe and North America this activity tended to be carried out in autumn. The clay was then exposed to the weather, allowing it to breakdown and soften over the winter months. The second step is the 'Preparation' of the clay. Once the clay was soft enough to work - It was necessary to either grind the clay into a powder and screen it to remove stones or the clay was placed into a soaking pit where it was mixed with water to obtain the right consistency for moulding. It was kneaded with the hands and feet to mix all the elements of the clay together. This step was called tempering or pugging and was the hardest work of all. In the mid-1800's horse driven pug mills were invented. The clay was removed from the soaking pit or pug mill by a temperer who delivered it to the moulding table. The third step was the 'Moulding' of the brick. The assistant convict brick moulder was called the "clot" moulder and they would prepare a lump of clay and give it to the brick moulder. The brickmoulder was the key to the operation and they were usually assigned as the head of the convict team. They would stand at the moulding table for twelve to fourteen hours a day and with the help of their assistants could make 3500 to 5000 bricks in a day. They would take the clot of clay, roll it in sand and "dash" it into the sanded brick mould. The clay was pressed into the mould with the hands and the excess clay removed from the top of the mould with a strike, which was a flat stick that had been soaking in water. This excess clay was returned to the clot moulder to be reformed. Sand was used to prevent the clay from sticking to the mould. Brick moulds could come in singles or as doubles, four's or sixes. The single brick mould had an advantage in that a child could carry it to the drying area. Beech wood was the preferred material for the mould for it was claimed that the clay would not stick to it. The top, bottom and sides of the mould was laminated with iron to prevent wear. The brick slid easily out of the mould because it was sanded and these bricks are referred to as "sand struck" or "sand stock" bricks". Source: <http://www.shol.com/agita/emale.htm> The fourth step in traditional brick making was 'Drying'. The moulded bricks were stacked in a herring bone pattern to dry in

the air and the sun. The moulded bricks were first left to dry for two days at which time they were turned over to facilitate uniform drying and prevent warping. During this time tools called dressers or clappers were used by "edgers" to to straighten the bricks and obtain a smooth surface. After four days of dry hot weather the bricks were sufficiently hard to allow them to be stacked on end in a herringbone pattern with a finger's width between them to allow futher drying. This area was called a hack or a hackstead and the bricks were covered under roof or with straw to protect them from the rain or harsh sun. After two weeks the bricks were ready to be burned The fifth step in final step was "Burning". If fired bricks were on hand they were used to construct the outer walls of the kiln and the surface was daubed with mud to contain the heat. If no fired bricks were availible the kiln was constructed entirely of green or raw bricks which were stacked in such a way as to act as their own kiln. These kilns were called clamps or scove kilns. Wood and coal were used for fuel. Source: <http://www.shol.com/agita/emale.htm> Even after drying in air the green bricks contained 9-15% water. For this reason the fires were kept low for 24-48 hours to finish the drying process and during this time steam could be seen coming from the top of the kiln. This was called "water smoke". Once the gases cleared this was the sign to increase the intensity of the fires. If it was done too soon the steam created in the bricks would cause them to explode. Intense fires were maintained in the fire holes around the clock for a week until temperatures of 1800 degrees F were reached. The knowledge and experience of the brickmaker dictated when the fireholes would be bricked over and the heat was allowed to slowly dissipate over another week. Source: <http://www.shol.com/agita/emale.htm> When the kiln was disassembled the sorting process began. If only raw bricks were used, the bricks from the outermost walls were kept to be burned again in the next kiln. Some bricks which were closest to the fire recieved a natural wood ash glaze from the sand that fell into the fires and became vaporized and deposited on the bricks. These bricks were used in the interior courses of the walls. Bricks that became severely over burned and cracked or warped were called clinkers and were occasionally used for garden walls or garden paths. The best bricks were chosen for use on the exterior walls of the building. Those that were only slightly underfired had a salmon color and early bricklayers knew that the porosity of these bricks would help to insulate the structure and they were placed on the innermost courses of the wall. In Australia the majority of bricks manufactured by convicts were imprinted with a 'Broad Arrow' or "Board of Ordnance" Mark. This mark or arrow marked the brick as government property decreasing the opportunity for theft. For the same reason Government Brick Moulds, such as this one, were also marked with a 'Broad Arrow' and the 'Board of Ordnance' Mark. The Board of Ordnance was incorporated into the British War Office in 1855 as the Department of the Master-General of the Ordnance; and the Board of Ordnance and its 'mark' was effectively abolished. Source: http://en.wikipedia.org/wiki/Board_of_Ordnance Rick Bonomo, Potter 2248 Maple Valley Rd, Berlin, PA 15530