

ers. These must all move on regularly, and keep up with the horse, they will make from eight to fourteen thousand bricks per day, the number depending upon the size of the brick, and the convenience of the works. New moulds should be thoroughly soaked before using. The off-bearers, while the moulds are wet, sand them by dipping sand from the sand box, and shaking it till every part of the inside becomes coated, when each puts an empty mould on the machine directly back of the full one, and between it and the axle, and then takes the full one from the front, in such a manner as to place the side coming last from under the grate, next to him. Carrying it to the drying floor he carefully turns it on the floor bottom up, leaving the brick in rows running from the kiln ground towards the machine. He then immediately returns—re-sands his mould, and repeats the operation.

When the business is carried on to much extent, it should as far as practicable, be arranged into a system; the work should be so arranged that each hand should be kept at the same kind of work, the departments of labor and terms applied are as follows, viz.: the teamster, pit-filler, moulder, temperer, off-bearer and yard hand. The teamster ploughs and scrapes the clay and does all necessary team work, the pit-filler delivers the clay and fills the pit, the temperer shovels it into the grinding mill, the moulder moulds it, making from five to six brick at each impression, and the off-bearers carry the brick and lay them on the floor to dry, the yard hands take care of them from this stage till they are set in the kiln ready to burn. Each man is employed as a suitable hand to do one of the various kinds of work and expects to be kept at that kind work through the season, and each becomes skilful in his particular department. It is found that men will do more work,—do it better—with greater ease and be better satisfied to be kept constantly at one kind of work, than changed from one kind to another; the muscles called into action by a particular kind of work soon become as the common saying is, seasoned to it, so that they are not easily fatigued,—but change the work, and other muscles are called into action, which soon tire.—Brick should not be taken from the yard until dry, and when dry should be taken directly from the yard and set in the kiln. It is very little, if any more work, to set them at once in the kiln, than to carry and bake them (as the practice is at the south) under sheds, and they will dry more thoroughly on the yard, than in hakes under a shed

where they cannot receive the sun, and it is about as much work to take them from the shed and put them in the kiln, as from the yard. If room is wanted to keep the moulding gang at work, the yard hands will hake them on the yard, running the hakes from the kiln towards the pits. Brick are then laid between these hakes to dry; this process saves handling, the brick becomes better dried, and the corners and edges less injured than by the other process.

What is called the burning shed, is constructed by setting two rows of posts to stand on each side of the kiln from 18 to 20 feet apart, ranging so as to accommodate the arches, which will vary according to the length of the brick, leaving five or six arches between the posts; these posts should rise three feet above the kiln; plates should be framed on the top, and connected with iron rods, passing from one plate to the other over the kiln to keep them from spreading by the weight of the roof; rafters placed about six feet apart rests upon these plates, ribs or slats are placed across the rafters on which rests the roof of boards; on either side of these posts, and at a distance of ten or twelve feet therefrom, are set two other rows of posts having plates framed on the top sufficiently high to pass under with teams &c. These form wings to the main shed, and should be covered permanently.—When a kiln is burning, and becomes so hot as to endanger the roof of the main shed, the boards should be slid therefrom on to the wings, and replaced when the kiln is sufficiently cool.

This machine was exhibited at the Fair of the American Institute in 1844, and received the highest premium awarded for brick making machinery; and the opinion of the committee has been fully sustained, as appears from numerous statistics and testimonials now before the Institute, by practiced brickmakers, from numerous sections of the country. These show that nearly two hundred millions of bricks were made with it during the past season. A few of these we have taken liberty to subjoin.

Ambrose Baker of Coxsackie, N. Y., thus remarks: "I have made bricks twenty-two years—nineteen years by hand, and the last three years with Hall's machines. I have six machines—running three alternately each day. I have made this season 3,800,000 in five months, with twenty-seven men—at least one fourth more than I could have made with the same number by hand. They were all moulded by three men, and the quality