Dec. 18, 1923. 1,477,663

E. V. POSTON

PROCESS FOR SURFACING CLAY PRODUCTS

Filed May 28, 1921

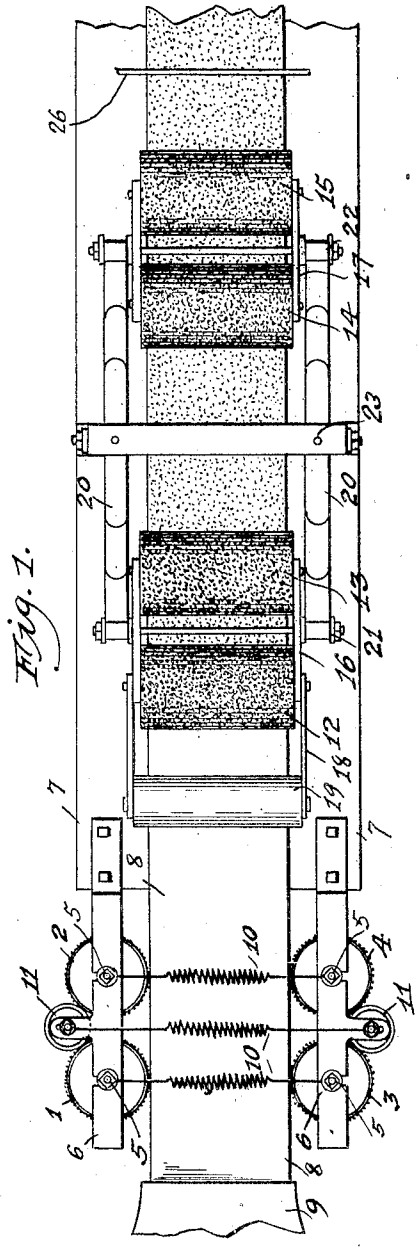


Fig. 1.

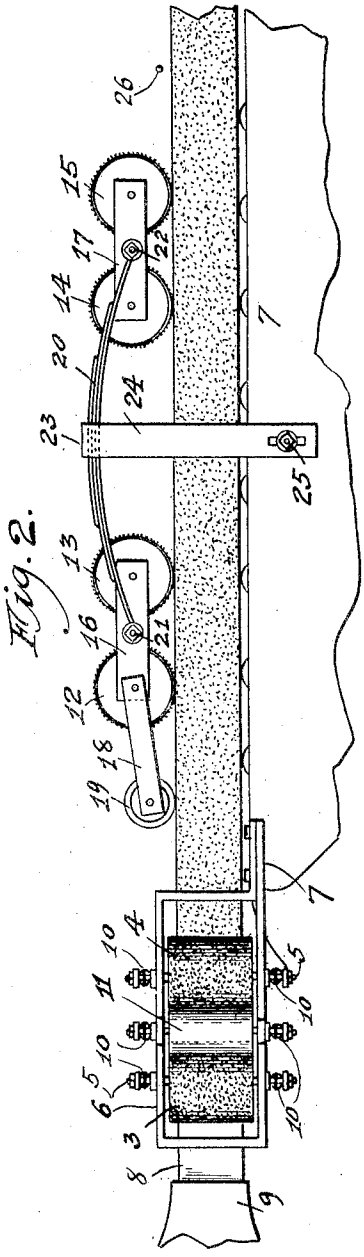


Fig. 2.

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By Frank L. Belknap. Atty.

Patented Dec. 18, 1923. 1,477,663

UNITED STATES PATENT OFFICE.

EMMETT V. POSTON, OF SPRINGFIELD, ILLINOIS, ASSIGNOR TO POSTON BRICK COMPANY, OF SPRINGFIELD, ILLINOIS, A CORPORATION OF ILLINOIS.

PROCESS FOR SURFACING CLAY PRODUCTS.

Application filed May 23, 1921. Serial No. 473,481.

To all whom it may concern:

Be it known that I, EMMETT V. POSTON, a citizen of the United States, residing in the city of Springfield, county of Sangamon, and State of Illinois, have invented certain new and useful Improvements in Processes for Surfacing Clay Products, of which the following is a specification.

This invention relates to improvements in process and apparatus for surfacing clay products and products produced thereby and refers more particularly to a process for surfacing building blocks.

Among the salient objects of the invention are to provide a process for imposing upon the clay bar from which building blocks are produced, a roughened surface and one which gives a roughened appearance to a wall when laid; to provide a process whereby a roughened imprint is imposed on the exposed surfaces of clay products and particularly building materials which improves the general appearance, and especially gives a richer and softer facing by the imprinting of a granular design upon the surface of the building material; to provide a process which is simple in that the roughened appearance is effected by the simple imposition of rollers upon the surface of the brick and effective as the character on the surface of the roll is directly transferred to the clay product.

In the drawings:

Fig. 1 is a plan view of the apparatus.

Fig. 2 is an elevational view of the apparatus shown in Fig. 1.

The machine or apparatus for surfacing a clay bar from which bricks are cut consists primarily of a number of roughened surfaced rollers firmly held against the slowly moving clay bar by means of spring tension, the surface of the rollers being roughened and the surface of the clay bar being smooth as it passes from the die. The softness of the clay bar will permit an imprint to be taken from the roughened surfaced rollers giving the desired surface or texture to the clay bar which, in due course of manufacture, will be cut into brick. This roughened texture will be imposed on the top and sides of the brick or upon those surfaces which are exposed when the bricks are laid.

Referring more particularly to the drawings, the four rollers 1, 2, 3 and 4 are constructed of wood and are covered with a heavy layer of canvas to which is firmly glued a single layer of gravel of different degrees of fineness. These rollers are supported on shafts 5 which are carried by the support members 6, these support members being in turn fastened to the table 7 of the machine. Between the rollers travels the clay bar 8 which is forced from the brick making die 9 by augurs (not shown), the forming of the brick bar taking place in the usual manner common to the art. The rolls 1, 2, 3 and 4 are arranged vertically so that they contact the sides of the brick bar and are supported in slotted bearings so that the rollers 1, 3, 2 and 4 are firmly held against the clay bar by pull springs 10, two above and two below the clay bar. The slots in the supports 6 allow the necessary play in order that the rollers may always be in firm contact with the moving bar. Between the rollers 1 and 2, and the rollers 3 and 4 are positioned the oil rollers 11, which are felt covered rolls saturated with oil which contact the gravel covered rolls and prevent the moist clay from adhering thereto. On the top surfaces of the clay bar are positioned the surfacing rolls 12, 13, 14 and 15. These rolls are arranged in pairs, each pair being supported by the straps 16 and 17. To the straps 16 are attached secondary supporting straps 18, in which bears the oil roller 19. This oil roller is identical in construction to the roller 11 and prevents the adherence of the clay bar to the rollers 12, 13, 14 and 15. These horizontally positioned upper rollers rotating upon the surface of the bar are held in contact with the bar by means of leaf springs 20. The springs are pivoted to the supporting straps at 21 and 22 and are fastened centrally to the support member 23. The member 23 is held in position by vertical members 24 which are adjustably fastened to the table of the machine at 25. The spring tension imposed upon the rolls is regulated by the adjustable vertical members 24.

From the description of the device, the operation thereof is obvious. The clay bar which is forced from the die passes between the rollers positioned at the sides and at the top so that they contact the lateral and upper surfaces of the bar and imprint the roughened texture of the rolls upon the surfaces of the bar. On the surfaces of the

rolls 1 and 3 and 12 and 13, I find that a more uniform and even texture may be transferred to the surface of the clay bar by using a comparatively fine-grain granular surfacing. On the rollers 2 and 4 and rolls 14 and 15, I use a somewhat coarser granular material to give the finishing surface. It has been found that when a brick is broken, the irregular surfaces appearing at the break displays the various colors in the texture of the brick surfaces to better advantage. The roughening process is designed to give the face of the brick as nearly as possible the general texture that would appear upon breaking the brick. The economy, simplicity and efficiency of the process lends itself admirably to the brick making industry. It is understood, of course, that this roughened texture surfacing may be used in various arts other than brick making and the producing of the roughened texture by rolling granular surfaced rolls upon a smooth plastic surface is broadly the novel feature of the invention. The texture of the surfacing may be varied according to the character of the granular material which is carried upon the surface of the rolls. It is only necessary to surface those sides of the brick which are exposed in building, although, if desired, surfacing rolls may be placed in position to impose the roughened texture upon the four surfaces of the bar. The bar may be severed into suitable length units by means of a cutting wire such as that shown at 26. This cutting wire may be supported by a rotary mechanism, not shown, or a reciprocating device which passes the wire through the plastic bar and severs the bar into bricks of a predetermined length.

I claim as my invention:

1. A process of surfacing plastic substances consisting in passing the plastic bar between a series of pressure rolls having granular surfaces of varied degree of coarseness, and subsequently severing the substance into building elements.

2. A process of surfacing plastic substances consisting in forcing the substance through a die of predetermined form, contacting the molded form with rolls having roughened surfaces of varied degrees of coarseness for imposing a coarse textured surface upon the faces of the form and subsequently cutting the form into predetermined shapes.

EMMETT V. POSTON.