

Aug. 30, 1927.

E. V. POSTON

1,641,047

PROCESS OF TEXTURING BRICK

Filed Aug. 31, 1926

2 Sheets-Sheet 1

Fig. 1.

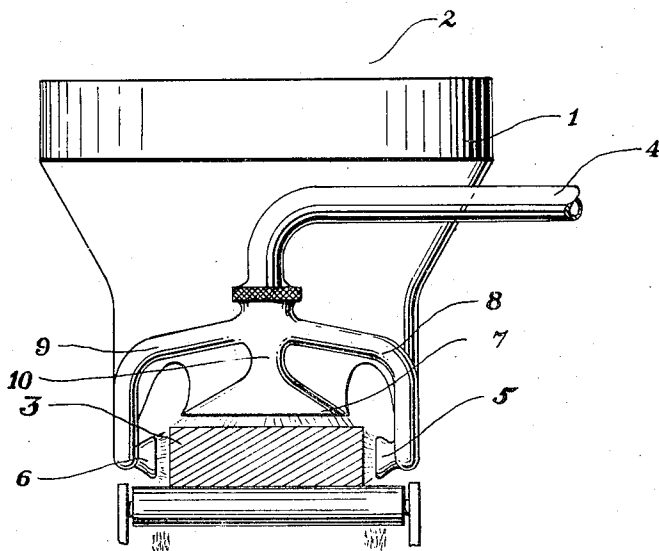
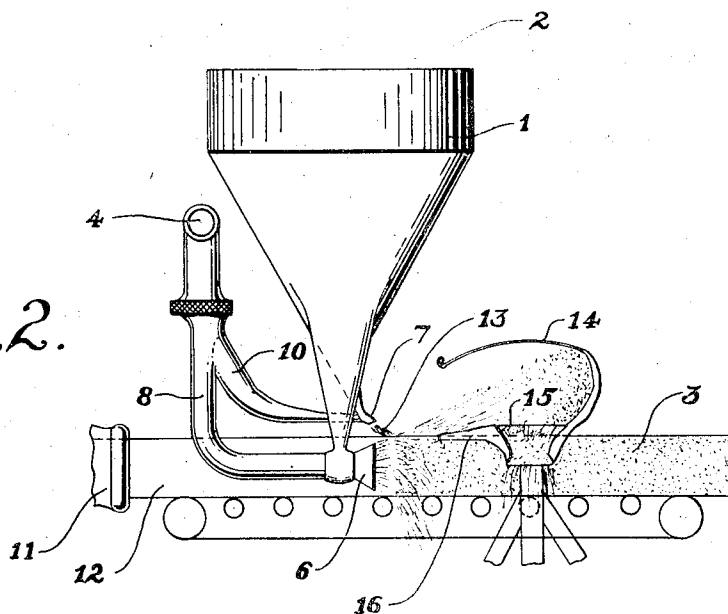


Fig. 2.



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Witnesses:

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2 Sheets-Sheet 2

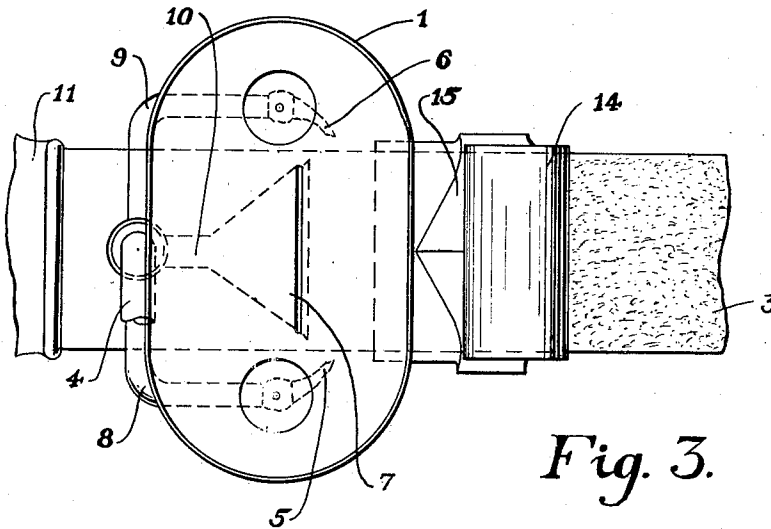


Fig. 3.

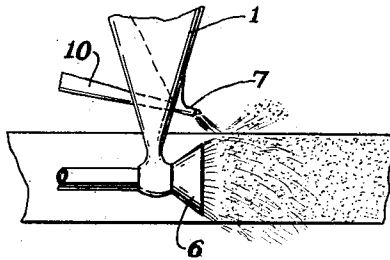


Fig. 4.

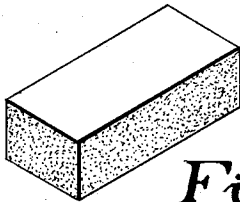


Fig. 6.

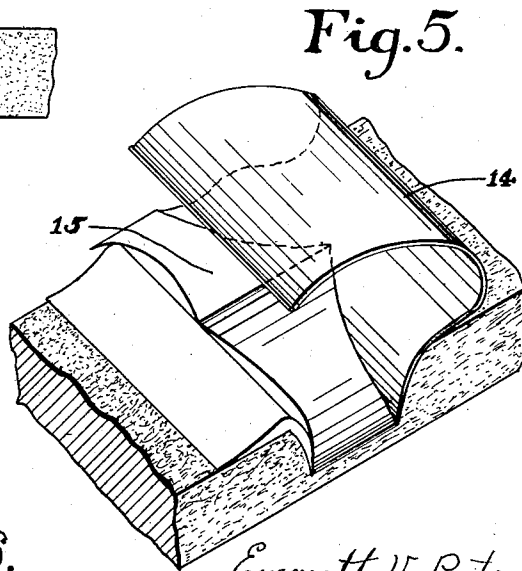


Fig. 5.

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UNITED STATES PATENT OFFICE.

EMMETT V. POSTON, OF SPRINGFIELD, ILLINOIS.

PROCESS OF TEXTURING BRICK.

Application filed August 31, 1926. Serial No. 132,800.

My invention relates to a novel method for producing a face brick and particularly an improvement on the method of getting a beautiful and natural texture on the surface of the brick such as will produce attractive light and shadow effects on the face of the brick or ends.

One of the objects of this invention is to provide a method whereby facing brick may be manufactured economically in great quantities with a simple process and to be able with the method to produce a texture on the exposed brick surfaces somewhat similar to what might be observed on the broken surfaces of a brick when broken in two and not cut and thus giving the general appearance of a brick face untouched by mechanical contact.

A further object of my invention is to provide a method whereby granulated clay or other suitably granular particles may be forcibly blown against the surface of the plastic clay column as the column moves along out of the die causing the granular particles to cut into the smooth surface of the clay column and break up the smoothness in a way that produces a beautiful, natural texture on the brick face.

I attain the objects of my invention described in the annexed specifications recited in the claims and illustrated in the accompanying drawings in which like reference numerals indicate like parts in the several figures.

Referring to the figures:

Figure 1 is an end view of the device of my invention.

Figure 2 is a side elevation of the device of my invention.

Figure 3 is a top view of the device of my invention.

Figure 4 is a detail showing a method of blowing the granulated clay or other granular particles against the plastic clay column.

Figure 5 is a detail of the device of my invention adapted to catch the granular particles after they bounce off of the top surface of the plastic clay column and carry them over the sides of the clay column to fall out of the way.

Figure 6 is a perspective of a brick disclosing the texture obtainable with the process and apparatus of my invention.

Referring in detail to the drawings, I wish to point out the intended relation of the

working parts of the device when in normal operation texturing brick by the method of my invention.

It will be seen that I provide a hopper —1— for containing granulated clay or other granular particles —2— intended to be forcibly blown against the clay column —3— by a force of pressure such as high pressure steam or compressed air and the like applied through pipe —4—.

By observing Figure 1 it will be seen that the granulated particles of clay for instance will come down from the hopper and be forcibly blown against the clay column —3— through nozzles —5—, —6— and —7— where it will be seen that nozzles —5—, —6— and —7— are the outlets for the granular particles coming from the hopper —1—.

Pressure pipe —4— connects with pipes —8—, —9— and —10— for carrying compressed air or steam to the nozzles —5—, —6— and —7— and are so constructed as to be able to blow the granular particles of clay and the like with variable force against the top surface and the two side surfaces of clay column —3— simultaneously so that when such particles strike the plastic column they cut into the smooth surface of the column sufficiently to break up the smoothness thereof and produce a surface that is natural in appearance and which will take on a beautiful effect in light and shadow.

The texture may be varied in coarseness by a variation in the size and design of the particles and the depth of the texture may be varied by a variation in the pressure with which such particles are forced against the clay column.

Referring to Figure 2 it will be seen that when in normal operation during the process of making brick column —3— moves out of die —11— slowly and as it does so the surface of column —3— at point —12— is smooth; but a smooth finish is not usually desired on face brick for the reason that it does not have a texture which produces a beautiful light and shadow effect on the face of the brick when the light of the sun shines on the brick when in a wall and it is to produce the attractive variations in light and shadow and color variations in the face of the brick that efforts have been made to secure an attractive texture on face brick.

Numerous attempts have been made to texture face brick and some pleasing textures have been produced, but among brick

manufacturers there has long been a desire to produce a face brick with a texture that would be delicate and natural and appear on the surface to be untouched by mechanical devices as if the brick face texture were produced by breaking a brick in two as far as the appearance of the surface texture is concerned and it is this result with its possible variations that I obtain with the device and method recited herein. As clay column —3— moves forward out of the die —11— the smooth part —12— of the column passes under nozzle —7— as it passes by nozzles —5— and —6— and at this point, the granulated clay —2— coming out of hopper —1— through nozzles —5—, —6— and —7— is forcibly blown against plastic column —3— by a pressure of air or steam through pipes —8—, —9— and —10— where the compressed air or steam in passing out of nozzles —5—, —6— and —7— suck with it a steady stream of granulated clay and the like with a variable pressure blowing the same forcibly against the plastic surface of the clay column producing a multitude of little irregular depressions pricked into the surface in sizes varying with the size and shape of the granular particles blown and in depth varying with the amount of pressure with which the particles are blown against the plastic surface.

When the powdered particles —13— are blown against the top surface of the clay column —3— they would ordinarily bounce up and fall back down on top of the clay column but I provide a guard —14— and an integral catch member —15— for catching the granular particles and carrying them off to the side of the clay column from which they may fall to the ground.

After the clay column has received the forceful application of the granular particles against the surface thereof it goes on to the cutting machine which cuts the column up into a plurality of brick units as shown in Figure 6.

By referring to Figure 5 in detail, it will be observed that by the shape of guard —14— and pan —15— they are adapted to provide means for quickly and easily carrying the granular particles off to the side of the clay column and it will also be noted that the lower guard —16— normally rests down close to the clay column and when the same is adjusted to the normal operating position it is close enough to the point of application of the granular particles to the clay column that the granular particles will normally bounce over the front edge of guard —16— and alight on pan —15—.

To those skilled in the art of manufacturing brick, it will be evident that the details of structure may be varied somewhat for convenience and economy of manufacture and operation to suit the situation in which

the device is adapted to operate and yet not depart from the spirit and scope of my invention.

Having thus disclosed the nature of my invention, what I claim is:

1. The method of ornamenting plastic surfaces of a clay stream in plastic state comprising projecting against the surfaces granules of material on a fluid current at such velocity whereby said granules will scarify the surface and deflect from the surface.
2. The method of ornamenting plastic surfaces of a clay stream in a plastic state comprising angularly projecting against the surfaces granules of material on a fluid current at a velocity whereby they will score the surfaces and deflect therefrom.
3. The method of ornamenting plastic surfaces in a plastic state comprising angularly projecting against the surfaces granules of material in a fluid current at an angle and velocity whereby said granules will scarify the surface and deflect therefrom.
4. The method of ornamenting plastic surfaces of a clay stream in plastic state comprising angularly projecting scarifying granules on a fluid current against the plastic surface at such velocity and at an angle whereby it will scarify the surfaces and deflect therefrom.
5. The method of scarifying a plastic surface of a clay stream in a plastic state comprising angularly projecting scarifying granules against the surface at such velocity and at an angle whereby the granules will deflect from the surface.
6. The method of scarifying a plastic surface of a moving clay stream in plastic state comprising angularly projecting scarifying granules on a fluid current against the plastic surface during its movement and at such velocity and angle whereby it will scarify the surface and deflect therefrom.
7. The method of scarifying a plastic surface of a clay stream in a plastic state horizontally disposed and comprising projecting angularly downwardly onto the surface on a fluid current granules at such velocity and at an angle whereby it will scarify the surface and deflect angularly upwardly and finally discharging the deflected granules beyond the sides of the clay stream.
8. The method of scarifying a plastic surface of a clay stream in a plastic state horizontally disposed and comprising projecting angularly downwardly onto the surface on a fluid current granules at such velocity and at an angle whereby it will scarify the surface and deflect angularly upwardly and finally discharging the deflected granules beyond the side of the clay stream.

In witness whereof, I hereunto set my hand this 18th day of August A. D. 1926.

EMMETT V. POSTON.