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MACHINE FOR ORNAMENTING THE FACES OF BRICKS.

APPLICATION FILED JAN. 2, 1917.

1,283,770. **Patented Nov. 5, 1918.**

Fig. 1.

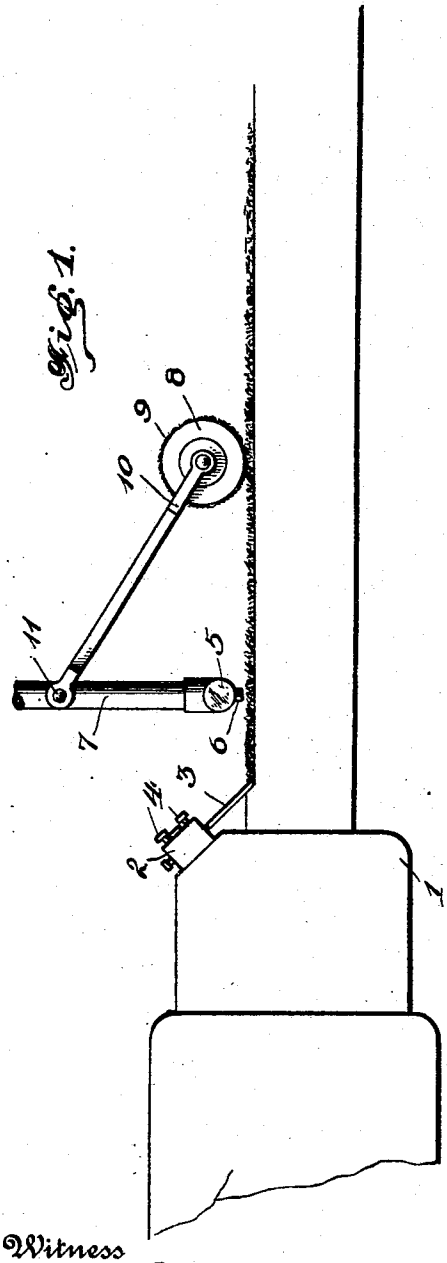
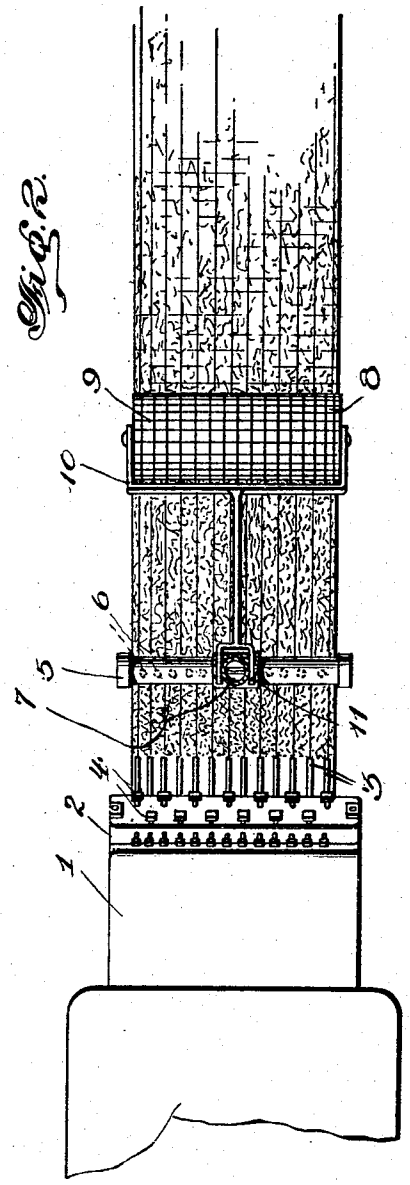


Fig. 2.



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MACHINE FOR ORNAMENTING THE FACES OF BRICKS.

1,283,770. Specification of Letters Patent. Patented Nov. 5, 1918.

Application filed January 2, 1917. Serial No. 140,333.

To all whom it may concern:

Be it known that I, FRANK A. HOILES, a citizen of the United States, residing at Alliance, in the county of Stark and State of Ohio, have invented a new and useful Machine for Ornamenting the Faces of Bricks, of which the following is a specification.

This invention relates to machines for ornamenting the faces of bricks and has more especial reference to means for imparting a woven effect to the faces of building bricks and the like.

The object of this invention is to provide means for roughening the face of the clay column from which the brick are formed, and then imprinting said roughened face with any desired ornamentation or design.

Another object is to provide means for roughening the face of the clay column, means for applying a steam jet to the roughened face and means for ornamenting the steam treated face while still moist.

With these objects in view the invention consists in the novel construction and arrangement of parts, hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of construction may be made within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Figure 1 is a side elevation showing a clay column passing from the die of the usual brick machine, my invention being applied thereto.

Fig. 2 is a top plan view of the same.

Similar numerals of reference indicate corresponding parts throughout the several figures of the drawings.

Referring more especially to the construction illustrated in the accompanying drawings which illustrate the manner in which my invention is carried out, the numeral 1 indicates the die of the usual brick machine to the forward upper edge of which is attached in any suitable and well known manner the bar 2, said bar being provided with the desired number of plowing or furrowing pins 3, which are preferably located in a downwardly inclined position with reference to the clay column for the purpose of better plowing or furrowing the clay column.

As the clay column passes from the die of the brick machine beneath the plowing pins 3, the upper face of said clay column is furrowed or plowed, a plurality of longitudinal, parallel furrows being formed upon the upper face of the clay column, the material turned up or furrows thus formed remaining visible to some extent upon the roughened surface of the column. For the purpose of regulating the depth of the furrows the pins 3 are adjustably attached to the bar 2 by means of set screws 4 or their equivalents.

If it is desired to further soften the roughened face of the clay column and make the same more plastic before the imprinting or ornamenting device is applied thereto, steam may be applied to the furrowed or plowed surface of the clay column. For this purpose I provide the nozzle 5 which is provided with a plurality of steam jets 6, said nozzle being connected to a steam supply pipe 7 and located transversely across the clay column, slightly above the upper surface thereof and at a short distance beyond the plowing or furrowing pins 3.

It will be seen that by subjecting the roughened or plowed face of the clay column to a jet of steam that the roughened surfaces of the column will thus be moistened, owing to the fact that while the clay is still in a plastic state the steam will penetrate to a certain extent the body of the clay column, thereby making it more plastic and pliable and at the same time any loose particles of clay will be caused to adhere to the surface of the column.

In carrying out my invention after the clay column has been plowed and subjected to the steam jet means are provided for imprinting or ornamenting the roughened or plowed and steam treated surface, this means being preferably in the form of a drum 8, the peripheral surface of which is provided with any suitable design for imprinting or ornamenting the surface after the treatment above described. I prefer to use a sheet of heavy wire mesh 9 for this purpose, the sheet of wire mesh being properly connected to the peripheral surface of the drum in any suitable and well known manner. The drum 8 is journaled within a yoke 10, which is pivotally connected at

any suitable point above the surface as for instance to the pipe 7 as shown at 11.

The roughened and steam treated surface as it passes beneath the imprinting or ornamenting drum will rotate said drum thus imprinting upon the roughened and steam treated surface the design or ornamentation which is carried by the drum. Although the wire mesh is shown as covering the drum in the drawings it will be understood that any other desired imprint or ornamentation may be provided upon said drum, but it has been found from experience that the wire mesh acting upon the roughened surface of the clay produces the desired woven effect in the finished brick.

It will be understood that the imprinting drum may be so located that it will act upon the roughened and steam heated surface after the column has been cut into brick as it is obvious that it is immaterial as to whether or not the imprinting is done before the column has been cut into brick or afterward.

It will of course be understood that the process to which this invention pertains has to do with the ornamentation of the brick, but in order to produce brick the clay column has been cut in the usual manner to produce brick of the desired size which must be treated in the usual manner as to drying and burning, but the cutting, drying and burning do not enter into the present invention.

It will of course be understood that where it is desired to ornament the side edges or ends of the brick as well as the face thereof a series of plowing or furrowing teeth and an imprinting roller as well as the steam jet, if desired, may be placed upon one or each side of the clay column to act upon the side edges thereof in the same manner in which the above described mechanism acts upon the top face of the clay column.

I claim:—

1. In a brick machine, the combination with a die for shaping the material into a clay column, means for plowing the face of the clay column, and means for subjecting the plowed face of the clay column to a jet of steam to soften the said face of the clay column, of an imprinting drum for ornamenting the plowed and softened face of the clay column.

2. In a brick machine, the combination with a die for shaping the material into a clay column and means for subjecting the plowed face of the clay column to a jet of steam to soften the said face of the clay column, of an imprinting drum for ornamenting the plowed and softened face of the clay column.

3. In a machine of the character described, the combination with a die for shaping the material into a clay column, means for plowing the face of the clay column and means for softening the said face of the clay column, of an imprinting drum for ornamenting the plowed and softened face of the clay column.

In testimony that I claim the above, I have hereunto subscribed my name.

FRANK A. HOILES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."