L. WARSTLER.

DEVICE FOR ORNAMENTING FACES OF TILE.

(Application filed Sept. 5, 1901.)

(No Model.) 7-3-3. 73.9.A. CHWENTOR. LEVI WARSTLER Witnesses

United States Patent Office.

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DEVICE FOR ORNAMENTING FACES OF TILE.

SPECIFICATION forming part of Letters Patent No. 692,744, dated February 4, 1902.

Application filed September 5, 1901. Serial No. 74,441. (No model.)

To all whom it may concern:

Be it known that I, Levi Warstler, a citizen of the United States, residing at Louisville, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Devices for Ornamenting the Faces of Tile; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the figures of reference marked thereon, in which—

Figure 1 is a perspective view showing a portion of a tile-machine and die, also showing a portion of the tile passed through the die. Fig. 2 is a view showing a portion of the die. Fig. 3 is a horizontal section showing a portion of the die, also showing a transverse section of the rollers, together with the band located thereon. Fig. 4 is a detached view of one of the band-carrying rollers.

The present invention has relation to machines designed and calculated to impress upon the face or faces of tile configurations of any desired kind or style while the tile is in a plastic state and during the time it is passed through the forming-die.

Similar numerals of reference indicate corresponding parts in all the figures of the draw30 ings.

In the accompanying drawings, 1 represents a portion of a tile-machine, which is of the ordinary construction and needs no explanation here, as it forms no part of the present invention, except that a machine must be employed.

The outer die or casing 2 is formed of a size and shape to correspond with the size and shape of the tile designed to be formed, and of course its inner sides will correspond in shape 40 and form with the outer sides of the finished tile. Within the outer die or casing is located the usual inner die or core block 3, which is held in place in the ordinary manner and needs no description here, except that it must 45 be formed smaller than the outer die, so that a space will be formed upon all sides between the outer face of the smaller die or core and the inner faces of the outer die, the size of the space corresponding with the thickness of the 50 shell of the hollow die; but as to this construction it is immaterial so far as the present invention is concerned, as it will be seen by the description hereinafter given that my invention can be carried out without any reference to the inner die or core, as the configuration by my improved device can be impressed upon brick or large blocks when they are formed solid.

The outer die 2 is provided with the cut-out portion 4, which cut-out portion is located 60 substantially as shown in Fig. 2. The die 2 is provided with the cross-bar 5, which cross-bar is preferably formed integral with the die; but it may be made separate and attached in any convenient and well-known manner. The 65 bottom or under side of the bar 5 is formed rounding or beveled and is so formed for the purpose hereinafter described.

To the die 2 are securely attached in any convenient and well-known manner the head-70 ed brackets 6, to which headed brackets are connected the bars 7, which bars are located substantially as shown and are for the purpose of holding in proper position the guiderollers 8, which guide-rollers are provided 75 with the end flanges 9, said end flanges being located a distance from each other equal to the width of the band or permanently-figured strip 10. The rollers are so located upon the bars 7 that they are free to revolve upon said 80 bars, or, if desired, said rollers may be provided with fixed shafts and the shafts revolve with the rollers in proper bearing, as the only object designed to be accomplished is to provide guide-rollers that will revolve easily. 85 The permanently-configured band or strip 10 may be formed of any suitable material and has upon its face the configuration designed to be given to the finished tile. This configuration may represent a rock finish, or it 90 may represent any other configuration, reference being had to the purpose to which the finished tile is to be used or put.

The cross-bar 5 is so located that the tile as it is moved through the die will come against 95 the beveled or rounded bottom of said crossbar, and the band or flexible strip 10 when located under the cross-bar 5 will come against the face of the tile, by which arrangement the configuration formed upon the flexible band 100 or strip 10 will be imprinted in the plastic clay. The object and purpose of providing loosely-

rotating rollers 8 is to provide means for allowing the flexible band or strip to be moved with the flow of clay, or, in other words, the contact portion of said flexible band or strip 5 moves with the flow of clay, by which arrangement the exact representation is given to the face of the tile that is permanently placed upon the outer surface of the flexible band or strip. It will be understood that by my pe-10 culiar arrangement the rotation of the rollers is not imparted directly by the flow of clay, or, in other words, the peripheries of the rollers do not come in contact with the flow of clay, but are held entirely away from the sur-15 face of the plastic clay, so that the flexible band or strip is free to follow any irregularity that may be in the face of the tile upon which the configuration is to be imparted.

In the description of my improved device I have shown it applied to a single face of the tile; but it will be understood that it may be applied to all the faces of the tile, as all that is necessary is simply a duplication here shown.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a brick or hollow block die, a crossslot through the shell of said die, an endless so belt, or a sheet or a series of sheets entering

said slot and passing forward contiguous with the inner face of said shell to the mouth of the die, and a mold or matrix formed on or attached to the free face of said belt, or sheet or series of sheets, substantially as specified. 35

2. The combination of a die adapted to form tile, said die provided with an opening, and a bar located adjacent to the opening, and said bar provided with a beveled or rounded part, said beveled or rounded part located adjacent 40 to the face of the plastic clay, and a flexible band or strip movable with the flow of clay between the face thereof, and the rounded portion of the bar, substantially as and for the purpose specified.

3. The combination of a die for forming tile, brackets secured thereto, said brackets provided with guide-rollers and a flexible band guided by said guide-rollers, a bar located adjacent to the face of the plastic tile and a band 50 or strip movable with the flow of the plastic clay, between the face thereof and the bar, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence 55 of two witnesses.

LEVI WARSTLER.

Witnesses:

J. A. JEFFERS,

F. W. BOND.