

W. B. FERRIS.  
BRICK MACHINE.  
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**968,140.**

Patented Aug. 23, 1910.

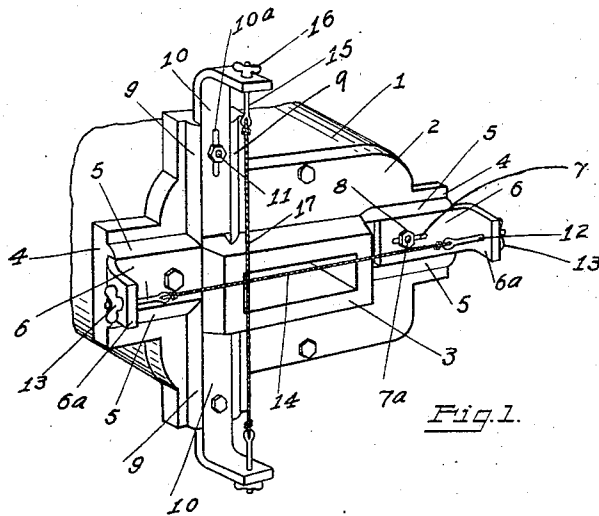


Fig.1.

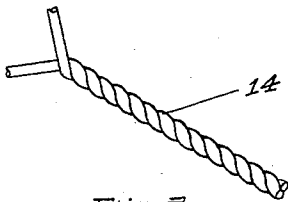


Fig. 2.

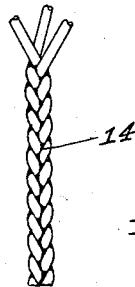


Fig. 3.

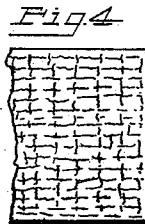


Fig. 4

Witnesses

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# UNITED STATES PATENT OFFICE.

WARREN B. FERRIS, OF COLUMBUS, OHIO.

BRICK-MACHINE.

968,140.

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Application filed December 31, 1909. Serial No. 535,771.

*To all whom it may concern:*

Be it known that I, WARREN B. FERRIS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Brick-Machines, of which the following is a specification.

My invention relates to the improvement of brick machines and the objects of my invention are to provide in conjunction with the discharging head of a brick machine, means for imparting to the surfaces of the body of clay discharged from the machine, an ornamental roughening effect of peculiar pattern; to provide in conjunction with the machine head, means for adjustably supporting the roughening wires which I employ in the manner hereinafter described and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which—

Figure 1 is a view in perspective of the head of a brick machine, showing my improved roughening wires in connection therewith, Fig. 2 is a detail view of a portion of one of the wire members showing the same formed of two twisted strands, Fig. 3 is a similar view, showing a modification in the construction of the roughening wire, and, Fig. 4 is a face view of a portion of a brick showing the roughened ornamental surface which is attained by the employment of my improved wire construction.

Similar numerals refer to similar parts throughout the several views.

1 represents the head or clay discharging end of an ordinary brick machine and 2 the end or die plate thereof, this die plate being formed with a central forwardly projecting oblong nozzle 3 through which the body of clay which is afterward severed at intervals to form brick, passes from the machine. On opposite sides of the nozzle or outlet 3, the die plate is formed with opposing lateral extensions 4 in the outer face of each of which are formed upper and lower parallel guide ribs 5. Between each pair of guide ribs is slidably mounted one arm or member of an angular bar or bracket 6, the remaining arm thereof extending forwardly as shown at 6<sup>a</sup>. These bars are bolted in connection with the die plate 2, the attaching bolt of one of the bars, however, passing loosely through a slotted open-

ing 7 in said bar, on the outer side of which the bolt, which is indicated at 7<sup>a</sup>, receives a nut 8.

Above and below one end of the clay discharging nozzle 3, I provide the face of the die plate and extensions thereof, with parallel guide ribs 9 and within each pair of these ribs is supported the vertical arm or member of an angular bar 10, each of said bars being secured by a bolt against the face of the die plate. One of these bolts which is indicated at 11, passes through a slotted opening 10<sup>a</sup> in one of the bars 10, thereby permitting of a vertical adjustment of the bar between the ribs 9. Extending loosely through an opening in each of the outturned end portions 6<sup>a</sup> of the bars 6, is a screw rod 12 upon the outer threaded end of which is provided a suitable form of nut 13. The inner ends of the rods 12, have connected therewith the opposite ends of a horizontal wire member 14. In a like manner I cause to pass through each of the outturned arms of each of the bars 10 a wire holding rod 15, the outer end of which is engaged by a nut 16. These rods 15 are connected by a vertical wire member 17, the latter extending, as shown, in front of the outlet opening of the nozzle 3 adjacent to one of the outer sides thereof, while the wire member 14 extends in front of said opening adjacent to the upper side thereof. In forming each of the wire members 14 and 17, I employ more than one wire strand, the said strands being either twisted together as indicated in Fig. 2 of the drawing or braided or plaited into engagement with each other as indicated in Fig. 3.

In operation, the clay is forced out through the nozzle 3 in the usual manner and owing to the presence of the wires 14 and 17 the upper face of the clay body thus discharged from the machine head and one of the outer sides thereof, are engaged by said wire members, with the result that the surface clay of the sides with which said wire members contact, is cut or sliced off the body of the clay. Owing to the fact that the wires which produce this cutting or trimming operation, are composed of a plurality of strands twisted or braided together, it is obvious that the outer surface of each of the wire members presents a succession of rounded projections and resultant intervening depressions. As the body of the clay comes into shearing contact with the wire

members thus formed, it will be understood that the projections and intervening depressions which form the surfaces of the wire members, must produce on the face of the clay body, a roughened or corrugated surface, and these lines or markings must of necessity be in the nature of comparatively regular parallel grooves or corrugations in case the clay should be of such uniform composition as to offer a uniform resistance to the cutting action of the wire, but owing to the fact that the mass of clay from which brick are formed, combines both hard and soft particles or unyielding and yielding ingredients, it will be understood that the wire members will be moved outward and inward or vibrated to such an extent as to result in the production of comparatively irregular lines on the face of the clay body, thus imparting to the face of the clay body an ornamental roughness, the general design of which is indicated in Fig. 4 of the drawing.

I am aware that heretofore single wires have been arranged in front of the discharge opening of a brick machine, for the purpose of roughening the surfaces of the clay body and therefore do not claim broadly such construction, my invention residing particularly in the provision of wire members formed of a plurality of strands whereby a desirable pattern or design is imparted to the faces of

the clay body, which body is afterward severed into brick lengths.

It will readily be understood that in order to draw the wire members tighter or loosen the same, the operation consists in turning the nuts 13 or 16.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

What I claim, is:

In a device of the character described, the combination with a brick making machine comprising a die through which clay is discharged, of a wire member supported in front and adjacent to one side of the discharge opening of said machine, said wire member comprising two or more wire strands twisted or interwoven with each other.

In testimony whereof I affix my signature in presence of two witnesses.

WARREN B. FERRIS.

Witnesses:

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