No. 850,427. PATENTED APR. 16, 1907.

A. H. & M. N. GRANT.

DEVICE FOR MAKING ORNAMENTAL BRICK.

APPLICATION FILED JAN. 21, 1907.

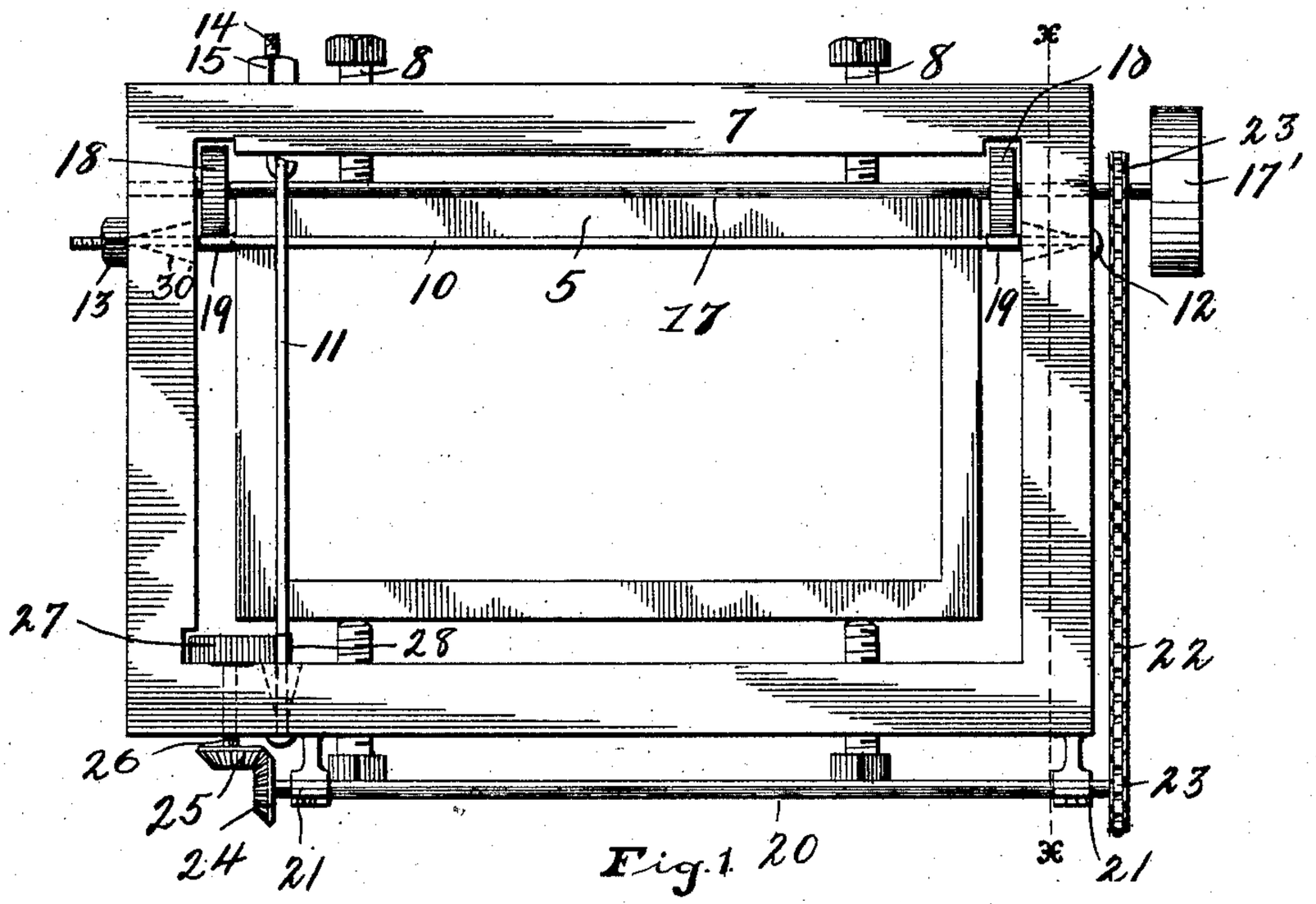

Fig. 1.

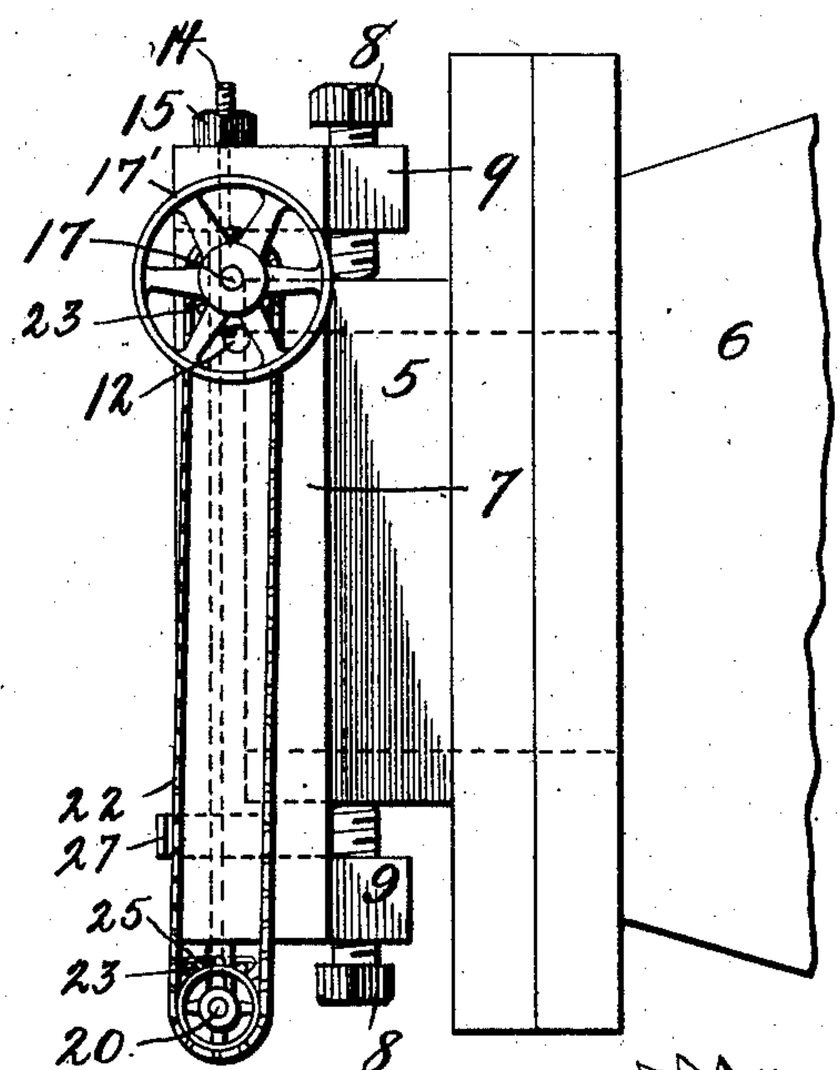

Fig. 2.

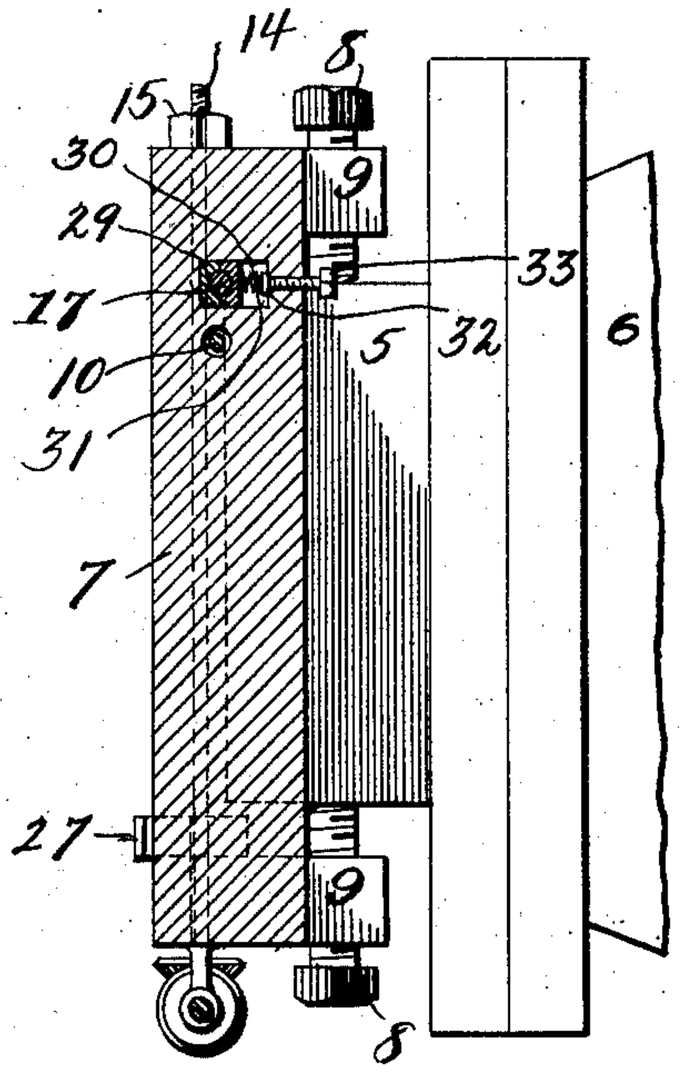

Fig. 3.

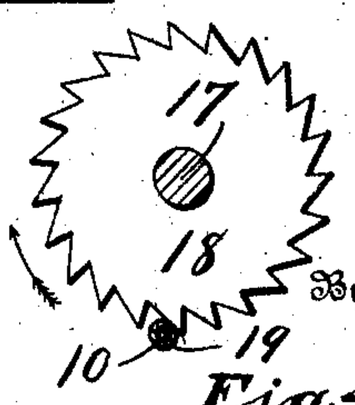

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

ALEX H. GRANT, OF MIDDLEPORT, AND MILTON N. GRANT, OF COLUMBUS, OHIO, ASSIGNORS TO THE COLUMBUS CLAY PRODUCTS COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

DEVICE FOR MAKING ORNAMENTAL BRICK.

No. 850,427. Specification of Letters Patent. Patented April 16, 1907.

Application filed January 21, 1907. Serial No. 353,231.

To all whom it may concern:

Be it known that we, ALEX H. GRANT and MILTON N. GRANT, citizens of the United States, residing, respectively, at Middleport and Columbus, in the counties, respectively, of Meigs and Franklin and State of Ohio, have invented certain new and useful Improvements in Devices for Making Ornamental Brick, of which the following is a specification.

Our invention relates to a device for making ornamental brick, and has for its object the provision of means which may be readily attached to brick-machines already in use, said means being adapted to roughen the face of the clay which forms the brick as said clay is forced from the machine.

The present invention is designed as an improvement upon the roughening means shown in the application of Milton N. Grant, filed April 23, 1906, Serial No. 313,171, the particular means comprising the subject-matter of the present invention being in the provision of positive means for imparting vibration to the roughening-wires shown in the aforesaid application.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawings, Figure 1 is a front elevation of the mouth of the die of a brick-machine, illustrating our improvements applied thereto. Fig. 2 is a side elevation of the mouth of the die of a brick-machine, illustrating the invention applied thereto. Fig. 3 is a detail sectional view upon line *x x* of Fig. 1, and Fig. 4 is a detail view of one of the ratchets hereinafter described.

Like numerals designate corresponding parts in all of the figures of the drawings.

Referring to the drawings, the numeral 5 designates the mouth or die of a brick-making machine 6. In machines of this character the clay is forced in a continuous mass from the mouth of the die. A frame 7, somewhat larger than the mouth of the die, is arranged over the mouth of the die and is held in position by set-screws 8, which pass through lugs 9, carried by the frame 7. The frame 7 supports wires 10 and 11, said wires being headed at one end, as at 12, and being secured at their opposite ends to tensioning devices, said tensioning devices in one instance comprising a nut 13, which is threaded upon one end of the wire 10, and in the other instance comprising a bolt 14 and nut 15, to which bolt one end of the wire 11 is connected.

A horizontal shaft 17 is journaled in the frame 7 and carries a pulley 17′, to which power may be applied from any suitable source. This shaft carries ratchet-wheels 18, the teeth of which bear against collars 19, which are carried by the wire 10. A second horizontal shaft 20 is journaled in bearings 21, which are carried by the lower portion of the frame 7 said shaft being driven by a sprocket-chain 22 and sprocket-wheels 23 from the shaft 17. A bevel-pinion 24 is mounted upon one end of the shaft 20 and meshes with a second bevel-pinion 25. This second bevel-pinion is mounted upon a short shaft 26, which is journaled in the frame 1 and carries upon its upper end a ratchet-wheel 27, the teeth of which bear against a collar 28, which is carried by the wire 11.

By referring to Fig. 3 it will be seen that the shaft 17 is mounted on blocks 29, which are slidably disposed in ways 30 of the frame 7. Springs 31 bear between these blocks and the enlarged ends 32 of set-screws 33. By virtue of this construction the ratchet-wheels 18 may be moved directly over the wire 10 or away from said wire, as desired, to thereby cause the teeth of said ratchet-wheels to bear with varying degrees of force against the collars 19. The frame 7 is preferably cut out, as indicated in dotted lines at 30′, to permit the wire to more fully vibrate. It has been found that the wires 10 and 11 do not vibrate sufficiently of themselves to produce the desired corrugation or roughening of the surface of the clay, and it is to increase this roughened effect that the present invention is particularly designed.

It will be apparent that when power is applied to the pulley 17′ the ratchet-wheels 18 will be rotated with their teeth in contact with the collars 19. This will impart the desired vibration to the wire 10, and like vibration will be imparted to the wire 11 by the teeth of the ratchet-wheel 27, as will be readily understood.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the ob-

jects 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 claims.

What we claim is—

1. In a device of the character described, the combination with a machine having a die through which a mass of clay is discharged, of a wire arranged at the mouth of said die and adapted to engage and roughen the outer face of the mass of clay which passes through said die, and positive means for imparting vibration to said wire.

2. In a device of the character described, the combination with a machine having a die through which a mass of clay is discharged, of wires arranged at the mouth of said die and adapted to engage and roughen the outer face of the mass of clay which passes through said die, and positive means for imparting vibration to said wires.

3. In a device of the character described, the combination with a machine having a die through which a mass of clay is discharged, of wires arranged at the sides of the mouth of said die and adapted to engage and roughen the outer face of the mass of clay which passes through said die, and positive means for imparting vibration to said wires.

4. In a device of the character described, the combination with a machine having a die through which a mass of clay is discharged, of wires arranged at the sides of the mouth of said die and adapted to engage and roughen the outer face of the mass of clay which passes through said die, and rotative members the peripheries of which engage said wires, said rotative members being adapted to impart a positive vibration to said wires.

5. In a device of the character described, the combination with a machine having a die through which a mass of clay is discharged, of wires arranged at the sides of the mouth of said die and adapted to engage and roughen the outer face of the mass of clay which passes through said die, and ratchet-wheels the peripheries of which engage said wires, said ratchet-wheels being adapted to impart a positive vibration to said wires.

In testimony whereof we affix our signatures in presence of two witnesses.

ALEX H. GRANT.
MILTON N. GRANT.

Witnesses:
FRANK G. CAMPBELL,
A. L. PHELPS.