

C. CHAMBERS, JR.
STAMPING MACHINE.
APPLICATION FILED SEPT. 26, 1907.

960,819.

Patented June 7, 1910.

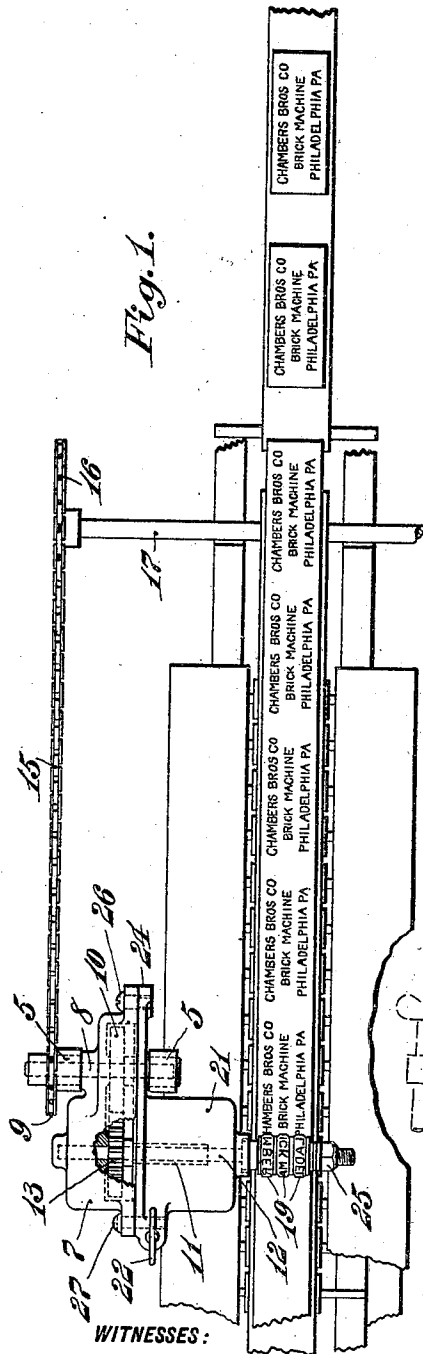


Fig. 1.

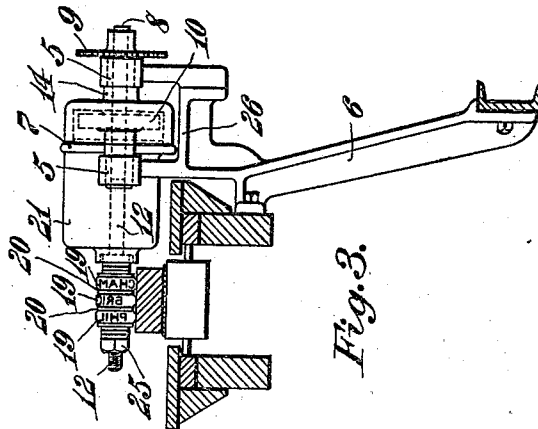


Fig. 3.

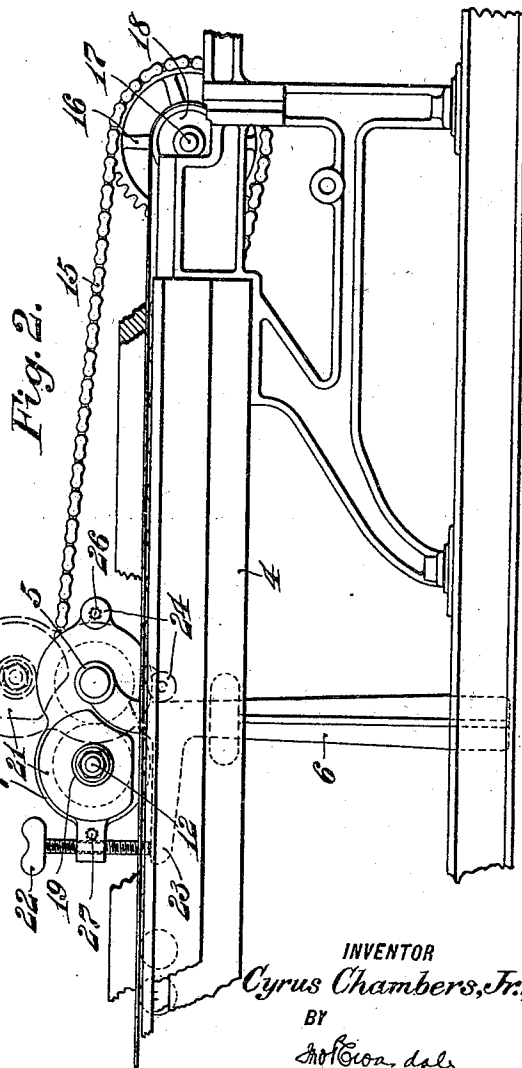


Fig. 2.

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STAMPING-MACHINE.

960,819.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed September 26, 1907. Serial No. 394,625.

To all whom it may concern:

Be it known that I, CYRUS CHAMBERS, JR., a citizen of the United States, residing at Overbrook, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Stamping-Machine, of which the following is a specification.

My invention relates to improvements in stamping machines and is especially adapted for stamping a continuous bar of plastic material, while it is moving and prior to its being severed into lengths.

My invention comprises a rotative element whose circumference is equal to the length of the severed product. Upon the periphery of its rotating element are engraved or otherwise provided the characters, in reverse to be impressed upon the plastic bar.

In order that the stamping may have an exact register with respect to the sides and ends of the severed brick or block, which is located and operated in advance of the severing device, and is adjustable with respect thereto, so that the severing takes place after the stamping, and preferably at equal distances from the beginning and end of the stamped characters, it is consequently important that the movement of the rotating element shall have definite relation with the movement of the moving bar. To accomplish this I provide a connecting mechanism operating between said rotating stamping element and a rotating element similar to that known as the measuring wheel in brick machines of the type known in the art as Chambers-brick machines. For example, where the measuring wheel is constructed to make one-half of a revolution for every brick length run off, the rotating stamping element should be geared so as to make two revolutions for each revolution of the measuring wheel, or for every two brick lengths of the bar measured. In this way is secured the stamping of the bar relatively to the brick lengths. By adjusting the position of the rotating stamping element laterally with respect to the clay bar and also the distance in advance of the severing device, or the relative position of the characters on said rotating element both laterally and with respect to the point at which the bar is severed, I am able to have the brick properly and regularly stamped both from the sides of the brick sidewise and from the ends of the brick lengthwise.

My invention also comprises improved means whereby the rotative stamping element is held in contact with the bar of plastic material by yielding force so that, in the event of striking obstacles such as stones, etc., in the bar, the rotating element may be allowed to rise and roll over the obstacles and thus avoid the injuring to letters or characters thereon.

My invention also comprises means of adjustment whereby the depth of the impression made by the rotating element upon the bar of plastic material may be regulated.

I preferably form the rotative stamping element of a number of separable parts or disks, upon the periphery of which are engraved, or otherwise provided, the characters desired to be impressed on the plastic material. These disks may obviously be interchanged or replaced by other disks at will. Spacing disks may be used between the printing disks and the same may have a horizontal adjustment upon their supporting mandrel.

Referring to the drawings: Figure 1 is a plan view showing my improved mechanism. Fig. 2 is a side elevation of same. Fig. 3 is a front elevation of same.

Similar numerals refer to similar parts throughout the several views.

I show my invention as applied to the type of brick machine known in the art as the Chambers-brick machine, a portion of the stationary framework of which being indicated by the numeral 4. Journaled in the journal boxes 5 at the upper bifurcated end of member 6 which has an adjustable, but normally fixed relationship with the stationary framework 4, is the weighted swinging frame 7 in which are journaled the shaft 8 carrying the sprocket 9 and pinion 10 and the shaft 11 carrying the mandrel 12 and pinion 13 meshing with pinion 10. On mandrel 12 is secured the rotating stamping element, comprising a plurality of disks 19 having characters upon their periphery and separated by the spacing disks 20, see Fig. 3. The framework or member 7 is in the form of a box inclosing the two pinions. The shaft 8 is journaled in hollow trunnions 14 of member 7 which trunnions are in turn journaled in the trunnion boxes 5. By this means member 7 may be swung around the axis of shaft 8 and consequently the axis of sprocket 9 and pin-

ion 10. Power may be positively communicated to shaft 8 in any suitable way such for example, as by the chain 15 connecting sprocket 9 with sprocket 16 on the shaft 17 of the measuring wheel 18. Thus we have a positive coupling of motion from the measuring wheel to the stamping element regardless of the position of the frame 7 about the axis of shaft 8. By this means the rotating stamping element will have a vibrating movement with respect to the axis of shaft 8, and will thus readily adapt itself to the varying heights of the bar of plastic material, or it may be thrown back entirely out of contact therewith, or in the inoperative position, as indicated by broken lines in Fig. 2, without affecting the means of the transmission of power. By such a mechanism it will be seen that the ordinary operations of the brick machine may be carried on, without stamping the product, by simply raising the frame 7 into the said inoperative position. As a part of the structure 7, I provide the extension 21 which is preferably a mass of metal having sufficient weight to insure the pressure of the stamping element sufficient to make the necessary impression in the bar of plastic material. The set screw 22 which is threaded in the outer end of member 7 and adapted to engage with a projection 23 from member 6 serves to limit the downward movement of the said member, and consequently the depth of impression of the stamping elements. The weighted portion 21 also forms a lid or closure for the receptacle or incasing frame or member 7. It has a pivotal connection at 26, and is further secured from pivotal movement by the pin 27.

When it is desirable to throw the member 7 into the inoperative position the weighted portion 21 simply passes over and back of the perpendicular line through the axis of its movement, such movement being limited by a suitable stop such as the engagement of the shoulder 24 with the stationary member 6. The said member being held in such elevated or inoperative position by gravity until arbitrarily moved back to the operative position. The stamping or printing disks 19 are carried by the mandrel 12 and may be suitably separated by the spacing disks 20. Said printing disks may be turned independently for the relative adjustment of each, and are then secured in the desired position by the nut 25. The incasing of the shafts 8 and 11 and the pinions 10 and 13 serves to protect them from dirt and accidents. The use of the two pinions 10 and 13 is to reverse the direction of movement communicated by the sprocket wheel 16 to sprocket wheel 9.

It will be observed that the rotating stamping element engages with the top of the bar, while the measuring wheel engages with the

bottom of the bar, consequently the motion communicated from the measuring wheel to the rotating stamping element must be reversed in direction.

What I claim is:—

1. In a stamping device for a moving bar of plastic material, the combination of a pivoted supporting frame, a rotating mandrel carried thereby, a stamping element carried by the mandrel, a train of gears for communicating motion to the mandrel, one of said gears having an axis corresponding to the axis of the supporting frame, a measuring wheel and means for communicating power from said wheel to the train of gears.

2. In a stamping device for a moving bar of plastic material, the combination of a pivoted supporting frame, a rotative stamping element carried thereby, means for communicating motion to the rotative element, and means for securing the vertical adjustment of the pivoted supporting frame.

3. In a stamping device for a moving bar of plastic material, the combination of a pivoted supporting frame weighted at its free end, a rotative stamping element carried thereby, means for communicating motion to the rotative element, and means for securing the vertical adjustment of the stamping element.

4. In a stamping device for a moving bar of plastic material, the combination of a pivoted supporting and incasing member, a rotative stamping element carried thereby, a train of gears incased in the supporting member for transmitting motion to the stamping element.

5. In a stamping device for a moving bar of plastic material, a rotating stamping element, a trunnioned supporting structure therefor, a shaft journaled in said trunnions and having a common axis therewith, a measuring wheel, means for communicating power from the measuring wheel to said shaft, and means for transmitting power therefrom to the said stamping element.

6. In a stamping device for a moving bar of plastic material, a rotating stamping element, a weighted supporting frame therefor, movable on centers, and an adjustable stop for limiting said pivotal movement.

7. A stamping device for impressing characters upon a moving bar evenly between its longitudinal edges and at desired intervals with respect to the points of severance of the bar into bricks, which comprises a rotating stamping element having a gravity actuated engagement with the bar, means for adjusting the same both vertically and horizontally, and means for communicating power in the desired direction to said rotating stamping element from a rotating shaft having a movement corresponding to the movement of said bar.

8. In a stamping device for a moving bar

of plastic material, a stamping element having a rotative movement, a measuring wheel, means for transmitting to the rotative element power from the measuring wheel, and
5 supporting means for said stamping element adapted to exert a yielding pressure on the bar, to permit the stamping element to rise and roll over hard objects in the bar.
9. In a stamping device for a moving bar
10 of plastic material, a stamping element having a rotative movement controlled by the

moving bar, and supporting means for said stamping element adapted to exert a yielding pressure on the bar, to permit the stamping element to rise and roll over hard objects
15 in the bar, and regulatable means for limiting the depth of impression of the stamping element.

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Witnesses:

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