

A. JAMINET & H. GREGOIRE.
MOLDING MACHINE.
APPLICATION FILED FEB. 19, 1917.

1,258,338.

Patented Mar. 5, 1918.
2 SHEETS—SHEET 1.

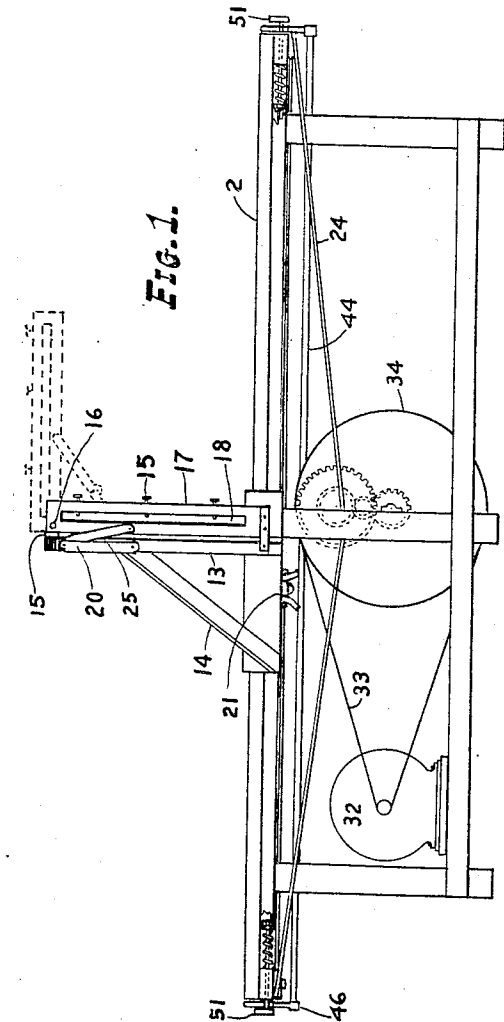


Fig. 1.

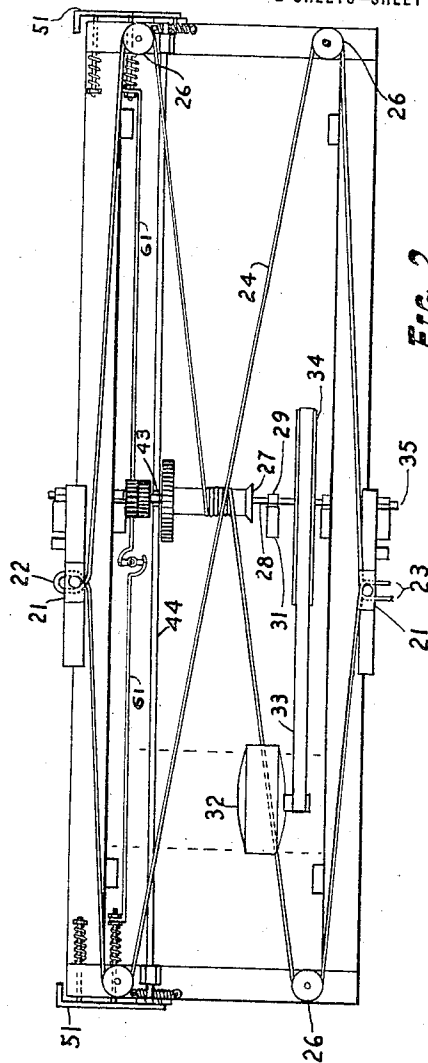


Fig. 2.

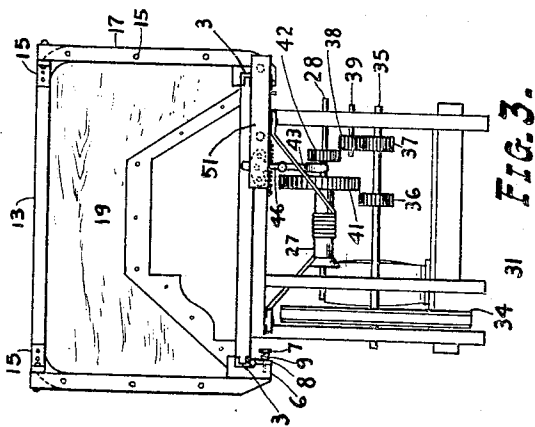


Fig. 3.

INVENTORS
A. JAMINET
HENRY GREGOIRE
By *F. M. Wright*
Attorney

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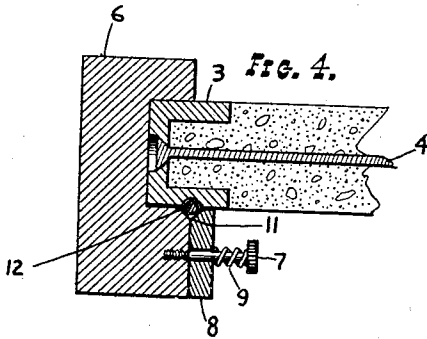


Fig. 4.

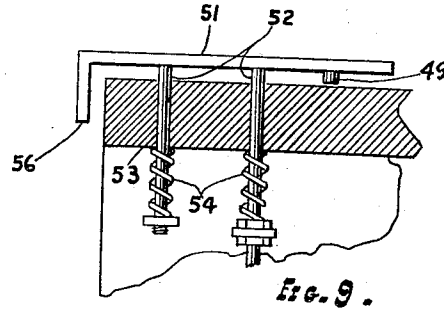


Fig. 9.

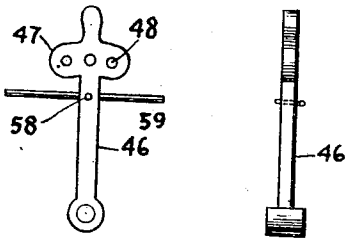


Fig. 5.

Fig. 6.

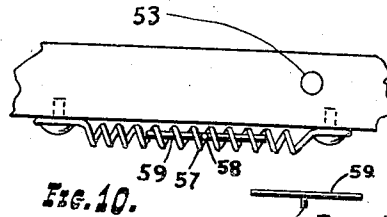


Fig. 10.

Fig. 11.

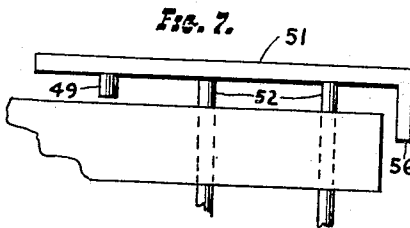


Fig. 7.

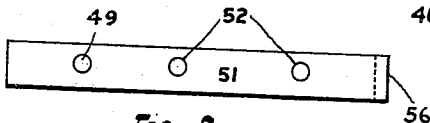


Fig. 8.

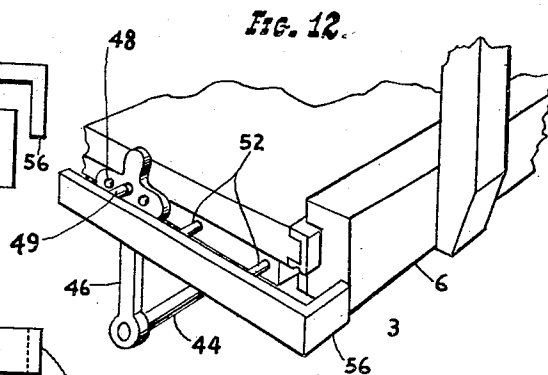


Fig. 12.



Fig. 13.

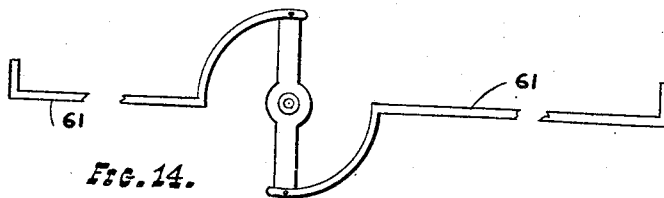


Fig. 14.

INVENTORS
A. JAMINET
HENRY GREGOIRE

By *Wm. Wright*,
Attorney

UNITED STATES PATENT OFFICE.

AUGUSTE JAMINET, OF SAN FRANCISCO, AND HENRY GREGOIRE, OF BURLINGAME, CALIFORNIA.

MOLDING-MACHINE.

1,258,338.

Specification of Letters Patent.

Patented Mar. 5, 1918.

Application filed February 19, 1917. Serial No. 149,460.

To all whom it may concern:

Be it known that we, AUGUSTE JAMINET and HENRY GREGOIRE, subjects, respectively, of the Grand Duchess of Luxemburg and of the Czar of Russia, and residing, respectively, in the city and county of San Francisco, and in the town of Burlingame, in the county of San Mateo, both in the State of California, have invented new and useful Improvements in Molding-Machines, of which the following is a specification.

The object of the present invention is to provide a machine for forming moldings out of plastic material, such as plaster of Paris.

These moldings have heretofore, so far as our knowledge extends, been made by means of a templet, pushed, either by one man if it is a small molding, or by two, three, or sometimes more, men, on opposite sides of a large molding. This work when done by hand has been inaccurate on account of the difficulty of securing the simultaneous coöperation of all of the men, or of both hands of the same man. This difficulty is increased by the swelling of the plaster, which renders it difficult to keep the templet down.

In the accompanying drawing, Figure 1 is a side elevation of our improved molding forming machine; Fig. 2 is a bottom plan view thereof; Fig. 3 is an end view; Fig. 4 is a broken vertical section through a marginal portion of a concrete table; Fig. 5 is a front view of a shifter; Fig. 6 is a side view thereof; Fig. 7 is a plan view of a latch; Fig. 8 is a rear view thereof; Fig. 9 is a sectional view, showing a latch in bottom plan view; Fig. 10 is an end view of a shifter spring; Fig. 11 is a plan view of a pin; Fig. 12 is a perspective view of a corner of a table; Figs. 13 and 14 are respectively an end and a plan view of an automatic shifter releasing device.

Referring to the drawing, 1 indicates a frame which supports a table 2 made of concrete or other suitable material upon which is delivered the plaster to be molded.

Embedded in the longitudinal edges of the concrete table are channel irons 3, which are additionally secured in the concrete by means of transverse bolts 4 extending the whole width of the table. Slidable upon the upper outer surfaces of said channel irons are slide pieces 6, said slide pieces extending also below said channel irons and

having attached thereto, by means of bolts 7, keepers 8, through which said bolts 7 pass loosely. Springs 9, coiled around the bolts, Fig. 4, and compressed between the heads of the bolts and the keepers, press said keepers toward the slide pieces. The adjacent vertical surfaces of the slide pieces and keepers are beveled at the top, as shown at 11, and therebetween are balls 12, which bear against the slide pieces, and the balls against the under surfaces of the channel irons. The spring pressure presses the keepers against the slide pieces, and the balls against the under surfaces of the channel irons. Thus, in case of inequality of the thickness of the margin of the table, the keepers can move away from the slide pieces.

To said slide pieces are secured the lower ends of a frame or yoke 13, having braces 14, and having rounded upper corners, and to the horizontal central member of the yoke are secured at the corners angle pieces 15, to the longitudinally extending members of which are pivoted, as shown at 16, end frames 17, having therein vertically extending slots 18, in which can be secured by screws 15 the ends of a templet 19, said templet thus being removable and replaceable by others of different forms. When the templet is raised to a horizontal position, it is supported by pairs of arms 20, 25, pivoted respectively to the frames 13 and 17.

To the under sides of said slide pieces are clamped, by means of clamps 21, a central portion 22 and ends 23, respectively, of a cable 24. Said cable extends from the clamp 21 at said central portion first around horizontally disposed pulleys 26 at the ends of the table at the other side thereof, and then to the other clamp, the ends being clamped thereby. One of said diagonally extending portions, however, is coiled around a drum 27 on a transverse shaft 28, slidable transversely in bearings 29, supported by posts 31 which support the sides of the table at the middle. This drum is rotated in the following manner: A motor 32, preferably an electric motor, communicates motion by a belt 33 to a large wheel 34 on a transverse shaft 35, on which are two gear wheels 36, 37, one, 37, of which meshes with a gear wheel 38 on a stud shaft 39, so that said gear wheels 36, 38, revolve in opposite directions. They are adapted respectively to

mesh with gear wheels 41 and 42 on the shaft 28 which carries the drum 27. Said shaft is shown in the drawing in its neutral position, but when shifted to the right or left, as the case may be, motion will be communicated to said drum in one direction or the other, and thereby, by the winding of the cable upon the drum, motion will be communicated in one direction or the other to the slide piece 23, so that the templet will move longitudinally over the table in one direction or the other.

To shift the drum 27 and gear wheels 41 and 42, so that one of these gear wheels will be in operative connection, there is provided a shifter 43, Figs. 2, 3, forked to pass on each side of the shaft 28, and which is secured to a shaft 44 extending longitudinally of the machine, so as to rock transversely to one side or the other. On said shaft 44 is secured at each end of the table an arm 46 having a transverse member 47 formed with three holes 48, any one of which is adapted to receive the bent end 49 of a latch 51, Figs. 7, 8, said latch having extending therefrom parallel guide arms 52, which slide in guide-ways 53 in the adjacent end of the table and are pressed inward toward said table by means of springs 54. Said latch has also a finger 56 adapted to be engaged by the slide piece 6, on one side of the table. When said slide piece arrives at the end of the table, it pushes the latch outward from the end of the table against the pressure of the springs and thereby withdraws it from the hole 48 in the member 47 in which it was contained. The result is that, when said slide piece can no longer move forward, on account of its being arrested by said finger 56, the shifter is free to be moved back by a spring 57, the center of which is secured to the shifter, by means of a pin 58 extending from a rod 59 extending longitudinally within the spring 57, by means of which construction the spring 57 tends to bring the shifter to neutral position from either of its two operative positions.

To guide arms 52 at opposite ends of the table are secured ends of rods 61, the other

ends of which are secured to the ends of a lever, the center of which is pivoted in the under side of the table. By this means, when the shifter is released at either end of the table the shifter at the other end is also released.

We claim:

1. In a machine for forming moldings, a table for supporting plaster or like material, a transverse frame slidable upon the table, templet holding means hinged at its upper end to the top of the frame, and means for removably securing a templet in said means.

2. In a machine for forming moldings, a table, slide pieces engaging opposite edges of the table, both above and below the same, a templet supported by said slide pieces having portions in contact with the upper surface of the table, and stationary rotary means beneath the table and reciprocating the slide pieces.

3. In a machine for forming moldings, a table, slide pieces engaging opposite edges of the table, both above and below the same, a templet supported by said slide pieces having portions in contact with the upper surface of the table, stationary rotary means beneath the table and independent connections between said rotary means and slide pieces for reciprocating said slide pieces from the rotation of said means.

4. In a machine for forming moldings, a table, slide pieces engaging opposite edges of the table, both above and below the same, a templet supported by said slide pieces having portions in contact with the upper surface of the table, constantly rotating stationary means beneath the table and independent connections between said rotating means and slide pieces for reciprocating said slide pieces from the rotation of said means, and means for automatically breaking the operative connections between said rotating means and slide pieces upon the arrival of the slide pieces at pre-determined points adjacent to the ends of the table.

AUGUSTE JAMINET.
HENRY GREGOIRE.