

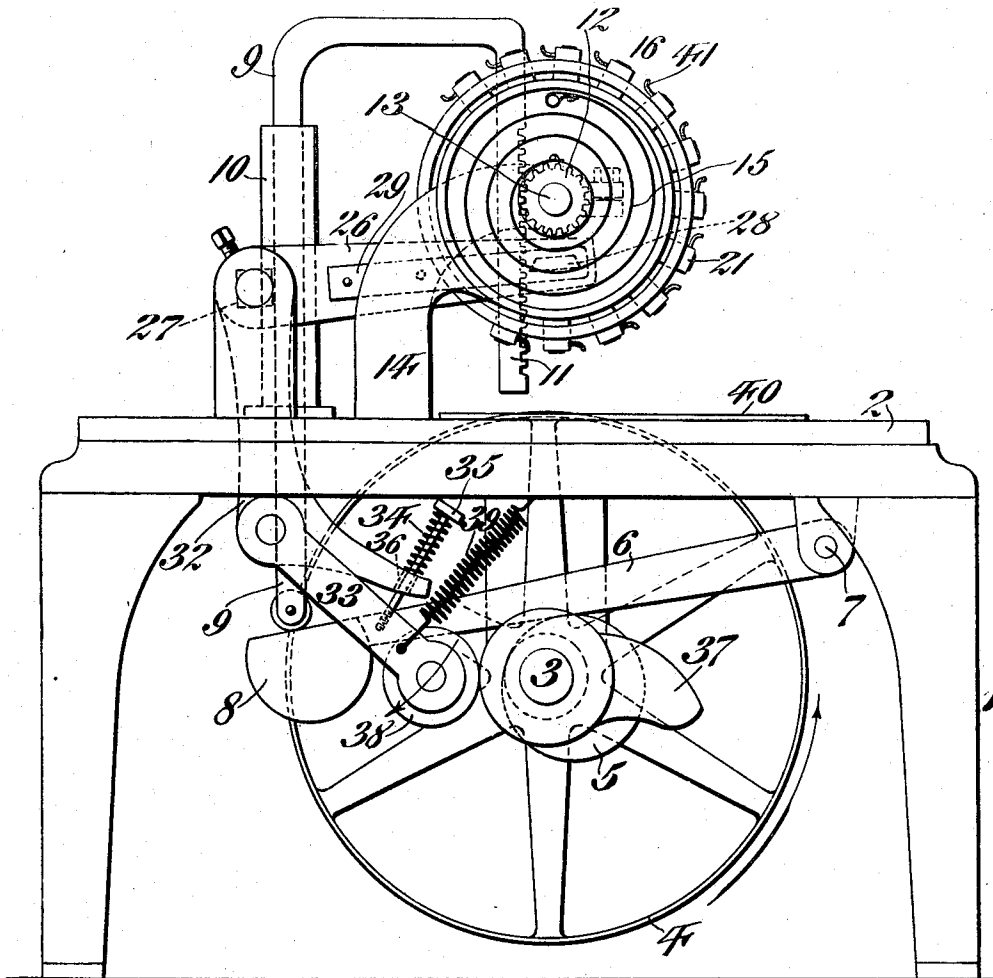
H. C. BROWN.
AUTOMATIC STAMPING MACHINE.
APPLICATION FILED MAR. 6, 1912.

1,061,040.

Patented May 6, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

L. Rouville,
H. G. Dieterich

INVENTOR

BY

Henry C. Brown.
Wiedersheim & Heimbach

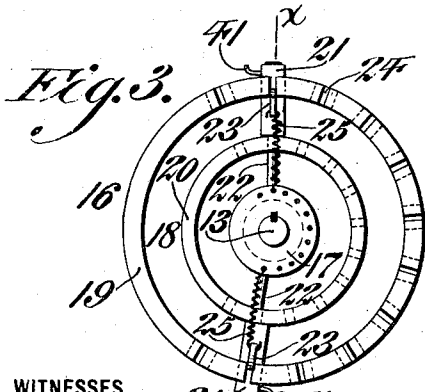
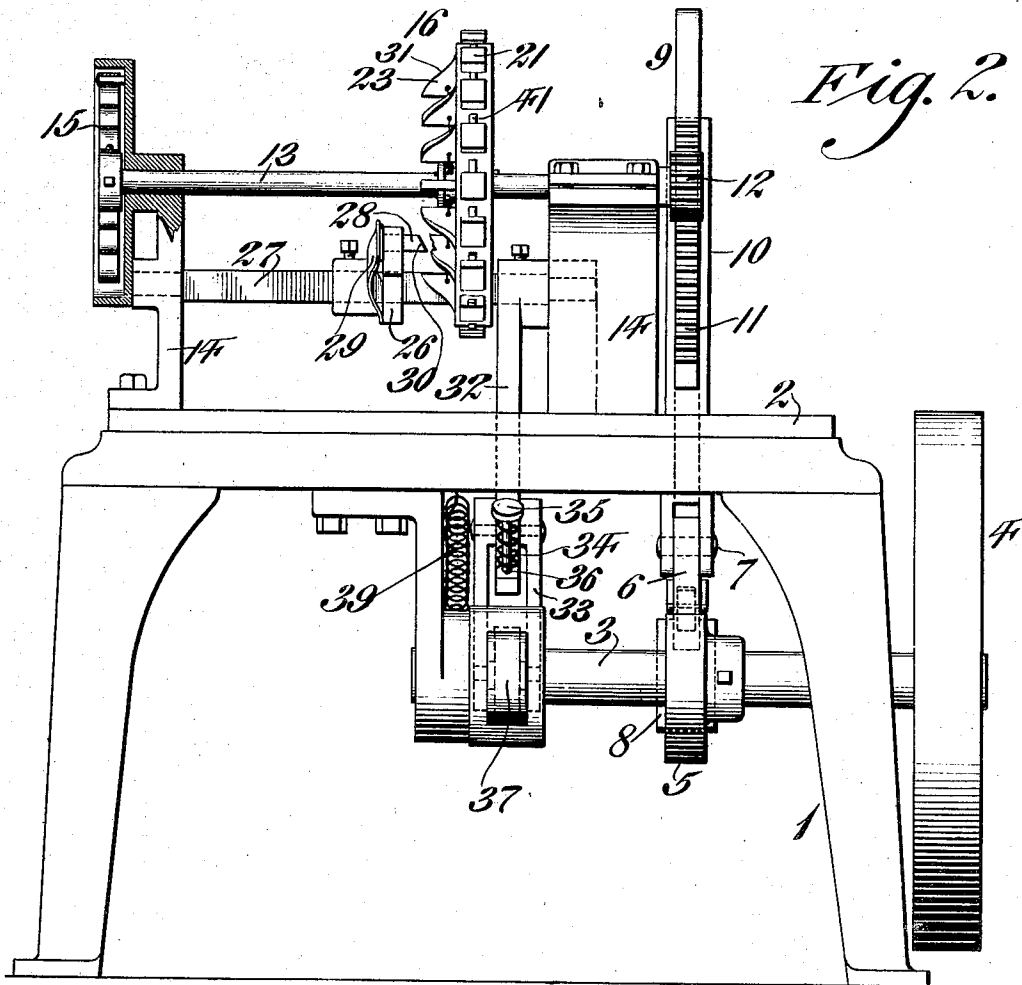
ATTORNEYS

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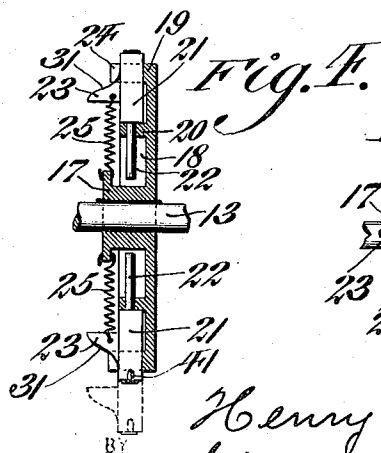


Fig. 4.

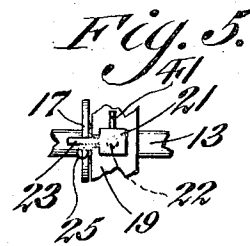


Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY C. BROWN, OF BROOKLYN, NEW YORK, ASSIGNOR TO HENRY STOCKMAN, OF ENGLEWOOD, NEW JERSEY.

AUTOMATIC STAMPING-MACHINE.

1,061,040.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed March 6, 1912. Serial No. 681,992.

To all whom it may concern:

Be it known that I, HENRY C. BROWN, a citizen of the United States, residing in the borough of Brooklyn, county of Kings, State of New York, have invented a new and useful Automatic Stamping-Machine, of which the following is a specification.

My invention relates to a new and useful stamping machine, and consists of means controlled by the material to be stamped for selecting and placing the proper stamp or die in position to apply the impression.

It further consists in providing means for preventing the stamp from injuring the material.

It further consists of means for actuating the stamp at the proper time.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention, such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

Figure 1 represents a side elevation of a stamping machine embodying my invention. Fig. 2 represents an end elevation thereof. Fig. 3 represents a side elevation of the stamp or die holder with two of the stamps in position thereon. Fig. 4 represents a sectional view on line $x-x$ Fig. 3. Fig. 5 represents a plan view of a portion of said holder showing one of the stamps in position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the frame or support of a machine having a suitable table or bed 2. Suitably journaled in the frame 1 is a power-shaft 3, adapted to receive power in any suitable manner, as by having a pulley 4 thereon adapted to receive power from any suitable source.

5 designates an eccentric suitably secured to the shaft 3, which eccentric is in contact with and actuates an arm 6 pivoted to or fulcrumed, at 7, on the frame 1 and provided with the weighted end 8.

9 designates a bar movably mounted in the frame 1, in the present instance, in the sleeve 10, by which it is guided in its movement, said bar being adapted to be engaged by and released from the weighted or free

end of the arm 6, as will be hereafter described, and said bar being provided with a rack 11, which is in mesh with a pinion 12, secured to a shaft 13, which is suitably journaled, in the present instance, in the standards 14, said bar and rack serving as a gaging element and as a selector for the stamps.

15 designates a spring, which, in the present instance, is shown as a coil spring, one end of which is connected with the shaft 13 and the opposite end of which is suitably connected to a rigid point, such as one of the standards 14.

16 designates a stamp holder, which may be of any suitable construction, and, as here shown, consists of a disk case having a hub 17, which is keyed or otherwise secured to the shaft 18 and which carries a plate 18 having the outer flange 19 and an inner flange 20. The outer flange is provided with suitable openings for movably receiving the stamps 21, which, as here shown, are provided with the squared body and with a pin 22, which is movable in an opening in the flange 20 in order to assist in guiding the stamp in its movement.

23 designates an ear on each of the stamps, which projects outwardly beyond the edge of the flange 20 and is movable in a slot 24 provided in the flange 19. A spring 25 is suitably connected with each of the stamps and also with a suitable part of the stamp holder, in the present instance with the hub 17 for yieldingly retaining the stamp in position and returning the same thereto after actuation.

26 designates an arm or hammer which is carried by a bar 27 suitably journaled on the frame 1, said bar being provided with a pawl or latch 28 upon which bears a spring 29, which serves to hold the said pawl 28 in proper position and return the same thereto after it has been moved therefrom. As will be noted, the said pawl is provided with the inclined face 30, which, upon the upward movement of the arm 26, will ride upon the curved or inclined face 31 of any of the ears of the stamps and yield, should the same be in position therefor. Also connected with the bar 27 is a lever 32 which carries a pivotally mounted arm 33, the end of which is held in normal position with respect to the lever 32 by means of a spring 34 acting upon a pin 35, which passes

through a suitable opening 36 in the lever 32 and which is in suitable engagement with the arm 33, whereby it will be understood that said arm 33 is held in suitable position with respect to the lever 32, but will yield at a sufficient pressure. Secured to the power-shaft 3 is a cam 37, which is suitably located in order to actuate at the proper time the arm 33, in the present instance by contact with a roller 38 mounted thereon. A spring 39 is connected with the arm 33 and with a suitable fixed point which normally tends to hold the parts in the path of the said cam 37.

The operation is as follows:—The material to be stamped, which is shown at 40, is placed upon the bed or support 2 of the frame and as the shaft 3 is rotated by the power applied to the pulley 4, the eccentric 5 will raise the lever 6 and weighted end thereof when the larger part of the eccentric reaches the same, which will elevate the bar 9 and rack 11, and will impart rotary movement to the shaft 13 and so to the type disk or holder 16. By the continued rotation of the eccentric 5 the smaller part thereof reaches the lever 6 and the same will lower, permitting the bar 9 to fall and carry with it the rack 11 until the end of the bar comes in contact with the material 40 resting upon the bed 2. No further downward movement of the rack can occur, so that no further rotation of the stamp holder 16 will occur and as the relation of the pinion, rack and point of stoppage of the bar is suitably proportioned, the proper stamp carried by the holder will be selected and located in proper position to be actuated to stamp the material, it being understood that the ear 23 of this selected stamp will be in the path of movement of the latch 28. In the meantime, it will be understood that the rotation of the cam 37 with the shaft 3 is so timed that it will engage the arm 33, moving the same in the direction of the arrow in said figure, and carrying with it the lever 32 since the spring 34 which resiliently holds the arms 33 and the lever 32 in suitable position with respect to each other will be strong enough to cause the said lever 32 to move with the arm 33. This will rock the bar 27 and move the arm or hammer 26 in order to cause the latch 28 to strike the ear 23 of the stamp which is in-line therewith. This will force out the stamp against the tension of its spring 25, actuating the same with sufficient force to press the stamp into the material. It will be understood that the thicker the material the shorter the distance the stamp must travel to make the impression and in order to prevent injury to the material by the continued movement of the cam 37, the spring 34 will be compressed and so the arm 33 may move without moving the lever 32, so that the cam 37 can pass the said arm 33

by overcoming the tension of the spring 34, without further actuation of the lever 32 and hammer 26, thus providing a spring relieving action the effect of which will be evident. As soon as the cam 37 passes the arm 33, the springs 34 and 39 return the parts to their normal position and the material is removed, permitting the arm 9 to return to the proper position to again contact with the weighted end of the lever 6, which through the medium of the rack 11 and pinion 12 will rotate the stamp holder into its normal position. In order to hold the stamps steady in position, I have employed the spring 15, which, as it will be noted, is tightened as the shaft is rotated by being coiled, and will hold the disk firmly while the selected stamp is acted upon by the latch, said spring 15 also assisting in returning the shaft 13 and stamp holder 16 to normal position, as will be evident. By this means it will be seen that the material to be stamped selects the stamp which is to be applied thereto and locates said stamp in proper position for actuation, since it will be understood that the parts are properly arranged and organized and the relative movement of the rack is such that the point at which it is arrested by the material thereunder, will locate the proper stamp in position for actuation, since the stamp and its holder is moved a certain part of a revolution, through the pinion and rack, in order to locate the stamp required, in place, before the hammer is actuated to engage the stamp projection and drive the figure thereon into the material. It will be understood that the shaft carrying the cams and driving pulleys revolves continuously, thus revolving the disk and operating the hammer at each revolution, but when no material is in the machine, the disk carries the stamp into such a position, that no action of the hammer upon any of the ears on the stamp takes place, as will be evident.

The machine is adapted for use upon any suitable material upon which notations or stamping is desired and is particularly adapted for use on cardboard, paper, leather and rubber or any material or stock which is to be graded by its thickness.

It will be understood that any suitable notations or stamps may be employed and in order to indicate fractional sizes, I have provided the arms 41 extending from each stamp so that should the located stamp be positioned somewhat out of a radial line, the said extending arm will be impressed in the material in addition to the notation of the stamp proper, as will be evident.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construc-

tion set forth respectively in the following claims are employed.

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

1. In a device of the character stated, a set of stamps, a holder for said stamps, a gaging element, means operatively connecting said element with said holder for moving the same to control the same to locate a stamp in accordance with the thickness of the material to be stamped, and means independent of the material to move said gaging element out of gaging position, said means being adapted to be actuated to permit said element to move into contact with and rest against the material whereby the said element as well as the stamps are arrested in their movement and the proper stamp thus located and held in operative position.

2. In a device of the character stated, a set of stamps, a holder for carrying said stamps, a gaging element, means operatively connecting said element with said holder to control the same to locate a stamp in accordance with the thickness of the material to be stamped, means independent of the material to move said gaging element out of gaging position, said means being adapted to be actuated to permit the said element to move into contact with and rest against said material, and automatic means operating while the said gaging element is in rest position to effect a proper stamping action.

3. In a device of the character stated, a stamp holder, a series of stamps resiliently supported thereby, a bar, for actuating said stamp holder, means to move said bar out of gaging position, said means being adapted to be actuated to permit said bar to move into contact with and rest against the material for locating a stamp in operative position, a main driving shaft, and means operated by said shaft for actuating said located stamp to make an impression.

4. In a device of the character stated, a stamp holder, a series of stamps resiliently supported thereby, a bar for actuating said stamp holder, means to move said bar out of gaging position, said means being adapted to be actuated to permit said bar to move into contact with and rest against the material, whereby said bar is arrested for locating the proper stamp in operative position, a hammer lever having a spring relieving action, and means for actuating said hammer lever during the rest position of the said located stamp to operate the same to make an impression.

5. In a device of the character stated, a

stamp holder, a series of stamps resiliently supported thereby, a bar for actuating said stamp holder, means to move said bar out of gaging position, said means being adapted to be actuated to permit said bar to move into contact with and rest against the material, whereby the said bar is arrested for locating the proper stamp in operative position, a hammer lever having a spring relieving action, a spring pressed latch on said hammer, and means for actuating said hammer and latch for operating said located stamp to make an impression.

6. In a device of the character stated, a stamp holder, a resilient holding means therefor, a series of stamps each movably mounted and resiliently held in said holder, and each having an engaging means thereon, a bar for actuating said stamp holder, means to move said bar out of gaging position, said means being adapted to be actuated to permit said bar to move into contact with and rest against the material for locating the proper stamp in operative position, a hammer lever having a spring relieving action, a spring pressed latch on said hammer, and yieldable means for actuating said hammer and latch for causing the latter to contact with the engaging means on said located stamps to operate the latter to make the proper impression in the material, depending on the thickness thereof.

7. In a device of the character stated, a set of stamps, a holder for said stamps, a gaging element, means operatively connecting said element with the holder for moving the same, means independent of said material to move said gaging element out of gaging position, said means being adapted to be actuated to permit said element to move into contact with and rest against the material for a predetermined time, whereby the proper stamp is located and held in operative position, and a hammer cooperating with the selected stamp to force the same against the material.

8. In a device of the character stated, a stamp holder, a series of stamps supported thereby, a gaging element, means operatively connecting said gaging element and said holder, means to move said gaging element out of gaging position, said means being adapted to be actuated so as to permit the gaging element to contact with the material for locating a stamp in operative position, and means for actuating said located stamp to make the impression.

HENRY C. BROWN.

Witnesses:

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FRANK E. HOLLOWAY.