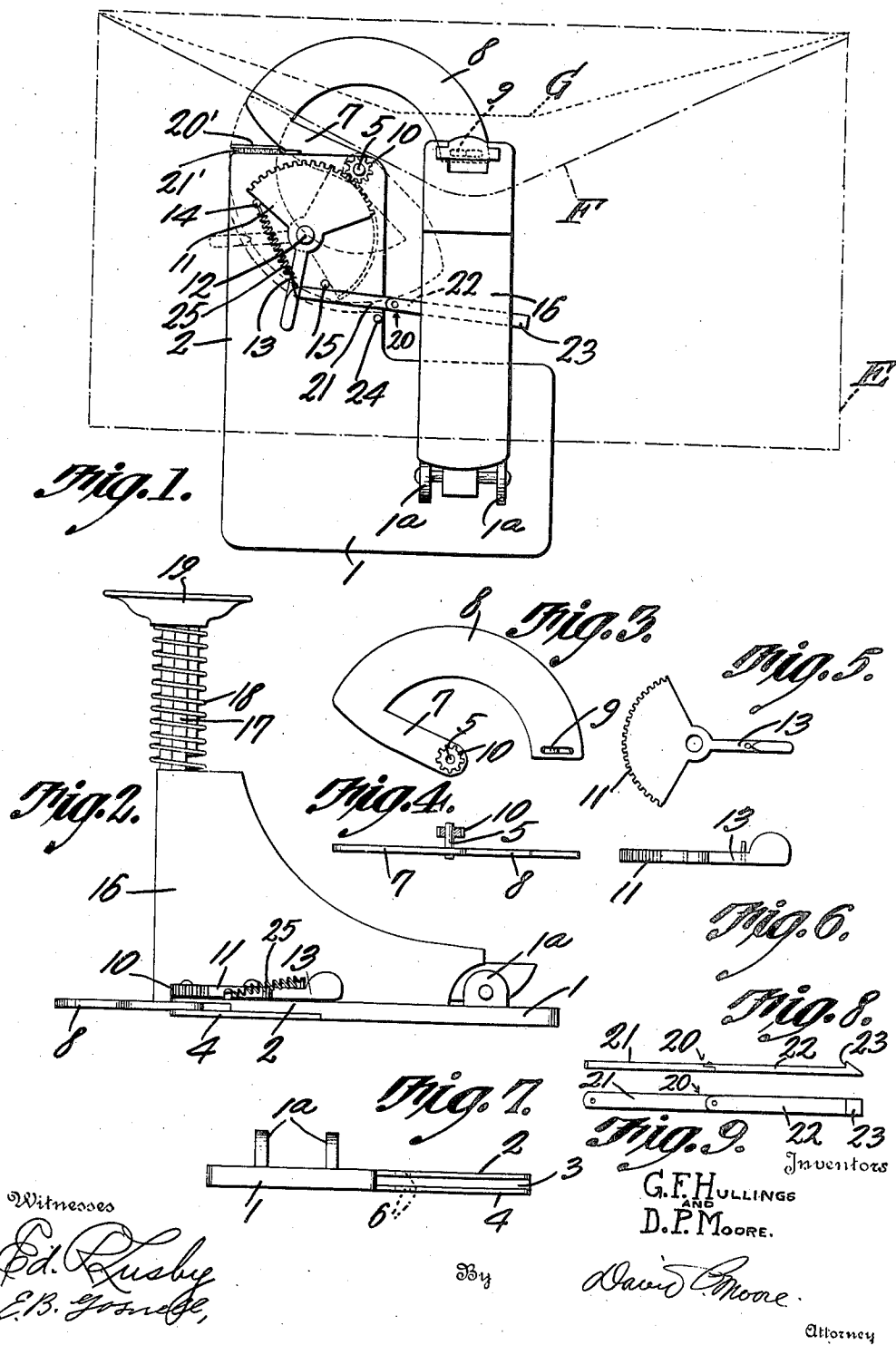


G. F. HULLINGS & D. P. MOORE.
 STAPLE AFFIXING MACHINE.
 APPLICATION FILED NOV. 4, 1913.

1,136,807.

Patented Apr. 20, 1915.



UNITED STATES PATENT OFFICE.

GEORGE F. HULLINGS AND DAVID P. MOORE, OF WASHINGTON, DISTRICT OF COLUMBIA.

STAPLE-AFFIXING MACHINE.

1,136,807.

Specification of Letters Patent.

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Application filed November 4, 1913. Serial No. 799,136.

To all whom it may concern:

Be it known that we, GEORGE F. HULLINGS and DAVID P. MOORE, citizens of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Staple-Affixing Machines, (Case B,) of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to improvements in staple affixing machines, one object of the invention being the provision of a machine especially designed for affixing a metal staple to seal envelopes, and thus preventing the tampering with the envelope to observe the contents without entirely breaking the seal or so defacing the envelope as to leave evidence as to such tampering.

A further object of the invention is the adaptation of the well known Hotchkiss staple setter, including the delivering or detaching plunger and the feeding mechanism for a strip of attached metal staples, to a sliding or swinging blade anvil that is provided with a clenching recess for presentation to receive the staple to be clenched, there being means provided for projecting and retracting the blade anvil so that an envelope may have its flap sealed with a metal staple without the staple damaging the contents.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawings—Figure 1 is a top plan view of the present machine, the hand knob of the plunger being removed and an envelope operated upon being illustrated in dash lines. Fig. 2 is a side elevation of the complete machine taken from the blade anvil actuator side thereof. Fig. 3 is a top plan view of the blade anvil *per se*. Fig. 4 is a rear edge view thereof. Fig. 5 is a plan view of the segmental gear for projecting and retracting the anvil. Fig. 6 is an edge view thereof. Fig. 7 is a front edge view of the base of the machine without the anvil

and magazine. Figs. 8 and 9 are detail views of the anvil lock.

Referring to the drawings, the numeral 1 designates the base of the machine having the two apertured lugs 1^a and having the recessed portion 2, cut underneath to provide with the detachable plate 4, a receptacle 3, a pin 5 being journaled in the apertures 6 and having fixed thereto, the arm 7. This arm 7 is made integral with the curved blade, anvil 8, which is provided with the clenching recess 9. A small gear or pinion 10 is fixed upon the pin 5 above the upper surface of the base, and meshes with the toothed segment 11, mounted for oscillation upon the pin 12 carried by the base. The finger 13 for manipulating the segment 11 and consequently the blade anvil from dotted to full line position, Fig. 1, is attached to the segment and being above the base is readily accessible to the operator. The two small pins 14 and 15 carried by the base form limiting means for the movement of the segment 11.

The staple magazine 16 is pivoted between the lugs 1^a, so that its free end will be directly above the recess 9 of the blade anvil when in staple delivering and driving position, and as is usual carries the delivering and driving plunger 17, which is normally held elevated by the spring 18, the flattened knob 19 being provided to form a surface to receive a blow necessary to sever and clench the staple.

In order to provide a means for holding the anvil 8 in the position as shown in Fig. 1, and when the magazine 16 is in its lowermost position, or during the staple delivering, driving and clenching operation, the locking device 20, composed of the two rods 21 and 22 is connected to the handle or finger 13, being guided in its movement by the pins 15 and 24, so that the catch end 23 of the rod 22 will pass below and engage the outer edge of the magazine when down. Thus the elevation of the magazine will release the catch and the locking device to the spring 25, and the anvil will then automatically assume the dotted line, or retracted position, Fig. 1.

In order to provide a means to wipe moisture or moist adhesive from the upper surface of a blade anvil during its retraction and before entry within the recess 3 of the

base, a metal clip 20' for receiving the strip 21' of felt or other material, is attached to the front edge of the base as shown in Fig. 1.

In using this machine for attaching the sealing flap F of the envelop E to the inner portion G so as to clench the terminals of the staple upon the underside of the portion G after passing from without through the flap F, the blade anvil 8 is projected to its extreme position. The free end carrying the recess 9 is now placed within the envelop, and the flap F is then folded down upon the anvil, the magazine 16 being slightly elevated to permit this. The magazine is now lowered and as the recess 9 will then align with the staple delivering end of the magazine, the plunger 17 is given a blow and the staple is driven through the flap F and portion G of the envelop therebelow, the recess 9 turning or clenching the terminals of the staple below the underside of the portion G. When the magazine 16 is raised, the finger 13 is now pulled forwardly by the spring 25 and through its segment 11 rotates the gear 10 and retracts the blade anvil 8 to dotted position Fig. 1, and thus out from below the edge of the flap F, so that the machine can now be removed and made ready for the next envelop.

In many cases the adhesive side of the flap F will be moistened before pressing it down upon the portion G, but as the driving of the staple is done so quickly, the adhesive does not prevent the easy withdrawal of the blade anvil as just described. In some cases the portion G of the envelop to receive the adhesive of the flap F, is moistened so that when the flap is placed to receive the staple, the adhesive part above the blade anvil will not receive the moisture, and thus no adhesive will adhere to the blade during its withdrawal.

What we claim as new is:—

1. A staple affixing machine, including a flat base, a staple magazine having a severing and delivering plunger and mounted upon the base, an anvil slidably mounted in the base and having a clenching recess for movement into and out of registration with the plunger, and manually operated means for actuating the anvil.

2. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a slidable anvil mounted within the base and provided with a staple clenching means, and means for sliding the anvil to place the clenching means into and out of registration with the plunger and for retracting the anvil within or projecting it without the base.

3. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a flat curved anvil pivoted to the base

for sliding movement, whereby the free end is capable of describing the arc of a circle with the pivoted point its center, said anvil being provided with a clenching means adjacent its free end, and means carried by the base and operably engaging the anvil to impart movement thereto to place the clenching means into and out of registration with the plunger.

4. A staple affixing machine, including a base, a staple driving mechanism, a slidable anvil mounted for movement into and out of staple receiving and clenching position, manually controlled means for moving the anvil to one position, means for locking the anvil in such position, and means for automatically moving the anvil to the opposite position.

5. A staple affixing machine, including a flat base, a staple magazine having a severing and delivering plunger and mounted upon the base, an anvil slidably mounted in the base and having a clenching recess for movement into and out of registration with the plunger, manually operated means for actuating the anvil, means connected to the operating means and engageable with the magazine to lock the anvil in clenching position, and means for automatically moving the anvil to the opposite position when the magazine releases the same.

6. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a slidable anvil also carried by the base and provided with a staple clenching means, means for sliding the anvil to place the clenching means into and out of registration with the plunger, means connected to the operating means and engageable with the magazine to lock the anvil in clenching position, and means for automatically moving the anvil to the opposite position when the magazine releases the same.

7. A staple affixing machine, including a base, a staple magazine having a severing and delivering plunger and carried by the base, a curved anvil carried by the base and mounted for sliding movement, said anvil being provided with a clenching means adjacent its free end, means carried by the base and operably engaging the anvil to impart movement thereto to place the clenching means into and out of registration with the plunger, means connected to the operating means and engageable with the magazine to lock the anvil in clenching position, and means for automatically moving the anvil to the opposite position when the magazine releases the same.

8. A staple affixing machine, including a flat base, a staple holding, delivering and driving mechanism having a plunger and mounted upon the base, an anvil slidably mounted in the base and having a staple

clenching means for movement into and out of registration with the plunger, a spring for moving the anvil in one direction, and manually operated means for moving the

5 anvil in opposition to the spring.

9. A staple affixing machine, including a support, a staple magazine having a delivering and driving plunger, said magazine being mounted upon the support, a curved

10 plate mounted for sliding movement upon the support and having a staple clenching means, a spring for moving the plate in one direction, and manually operated means for moving the plate in opposition to the spring.

15 10. A staple affixing machine, including a

support, a staple magazine having a delivering and driving plunger, said magazine being mounted upon the support, a curved plate mounted for sliding movement upon the support and having a staple clenching 20 means, and manually operated means for actuating the curved plate.

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

GEORGE F. HULLINGS.
DAVID P. MOORE.

Witnesses:

SELINA WILLSON,
ED. R. LUSBY.