Oct. 6, 1925. 1,556,370

J. STIRISS

ENVELOPE MACHINE

Filed Dec. 1, 1922 2 Sheets-Sheet 1

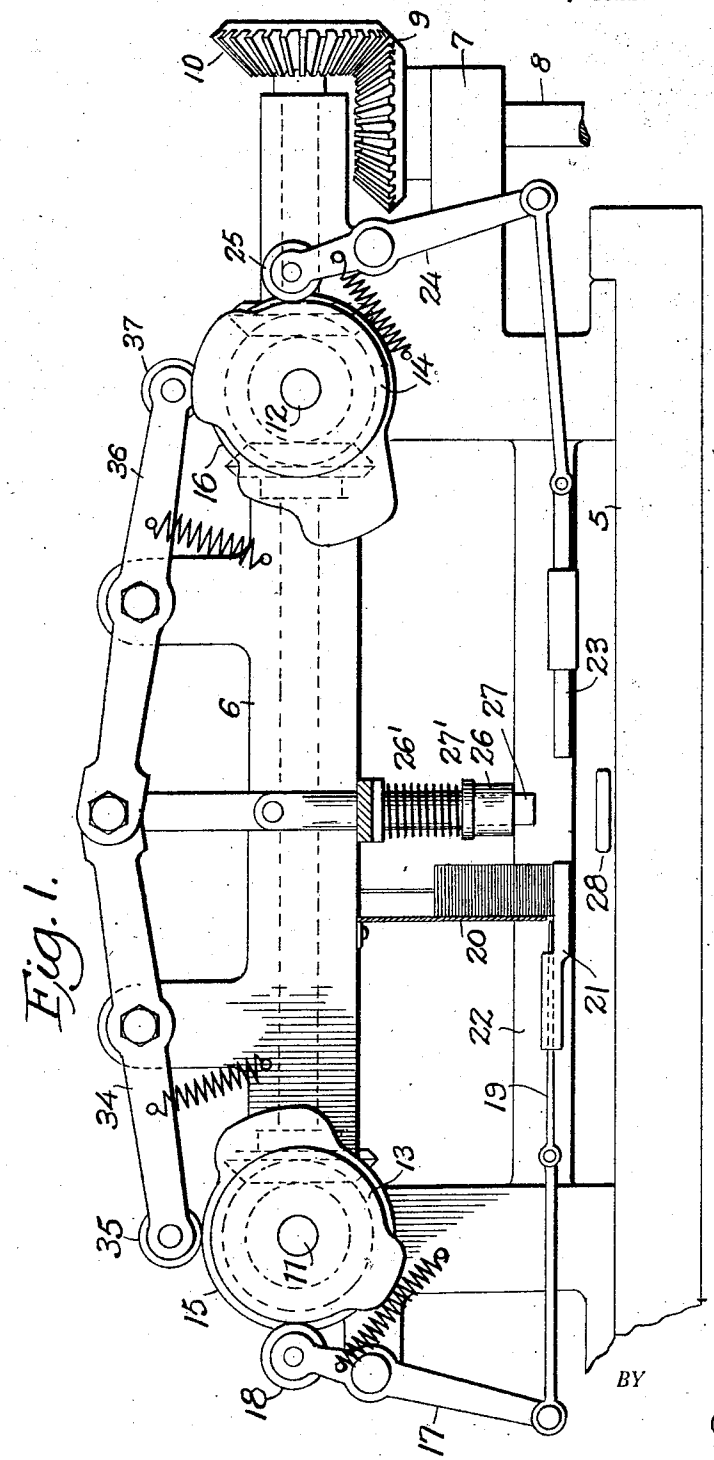


Fig. 1.

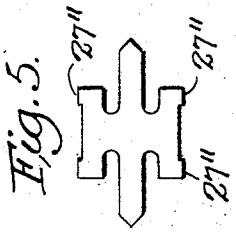


Fig. 5.

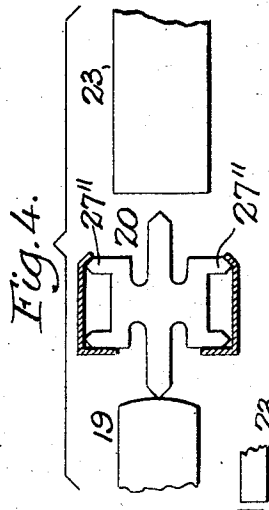


Fig. 4.

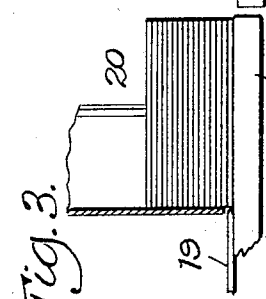


Fig. 3.

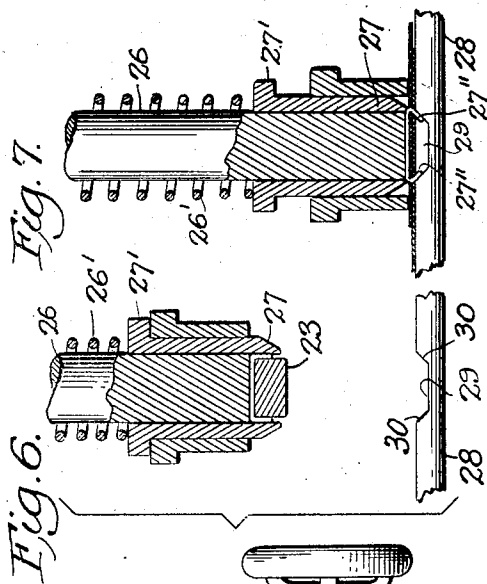
INVENTOR.
Jacob Stiriss.
BY
James F. Duhamel.
ATTORNEY.

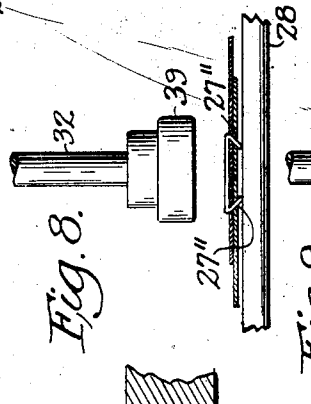
Oct. 6, 1925. 1,556,370

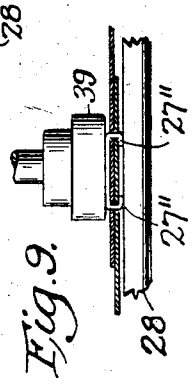
J. STIRISS

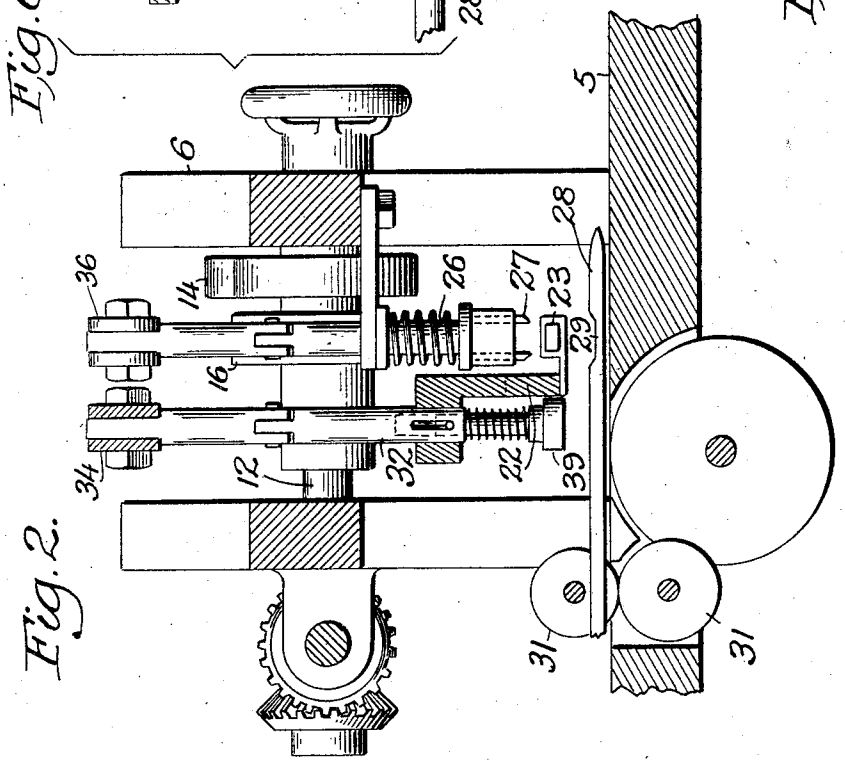
ENVELOPE MACHINE

Filed Dec. 1, 1922 2 Sheets-Sheet 2









INVENTOR.
Jacob Stiriss,
BY James F. Duhamel
ATTORNEY.

Patented Oct. 6, 1925. 1,556,370

UNITED STATES PATENT OFFICE.

JACOB STIRISS, OF NEW YORK, N. Y.

ENVELOPE MACHINE.

Application filed December 1, 1922. Serial No. 604,175.

To all whom it may concern:

Be it known that I, JACOB STIRISS, a resident of the city, county, and State of New York, and a citizen of the United States, have invented certain new and useful Improvements in Envelope Machines, of which the following is a specification.

This invention relates to envelope machines and more especially to machines for applying metal clasps to envelopes and its object is to select a clasp that has been already blanked and polished and deposit the same on an anvil and in the path of a plunger with a die that bends the affixing spurs and secures the prepared clasp to an envelope, and further bends the spurs inward towards each other and leaves it with its envelope on a tongue. After the envelope is moved an appropriate distance a second plunger descends and clinches the spurs of the clasp.

This invention is an improvement on applicant's Patent No. 1,435,509 issued Nov. 14th, 1922 for envelope-clasp punching and affixing machines and on his application, Serial Number 495,611, filed Aug. 26, 1922, also for envelope machines, and where the clasps are made and affixed as the envelope is fed through the machine and completed, but the present invention is adapted for use where the clasps are already made and especially prepared and stacked on the machine for affixing to the envelope.

These and other objects and details of the invention are more fully described in the following specification, set forth in the appended claims, and illustrated in the accompanying drawings, wherein:

Figure 1 is a cross sectional view through an envelope machine showing the invention applied thereto.

Fig. 2 is a fragmentary longitudinal sectional view of the same.

Figs. 3 and 4 show the operation of feeding a blank clasp.

Fig. 5 is a bottom view of a bent clasp.

Figs. 6 and 7 show the operation of affixing a clasp.

Figs. 8 and 9 show the clinching of the clasp in the envelope.

From the bed 5 of an envelope machine rises a frame 6 which spans the said bed and has a lateral bracket 7 in which is journalled the shaft 8 of a bevelled gear wheel 9 that meshes with a similar wheel 10 which drives certain gear wheels that rotate the shafts 11 and 12 of the cams 13 and 14 to actuate the plungers and dies to carry out the objects of this invention.

The shafts 11 and 12 also carry the cams 15 and 16, which will be hereinafter referred to, but the cam 13 is adapted to rock a lever 17 through the medium of a roller 18 and at the lower end of the lever is a thin metal clasp feeding plunger 19 that is reciprocated towards the lower end of a pile of clasps 20 lodged on a bracket 21 on the cross bar 22. As the plunger moves towards the center of the machine it carries with it the lowest clasp, the remainder being retained by a suitable chute.

At the other side of the bed the cam 14 has a short time previous to the above operation moved forward a bar 23, also adapted to slide on the cross bar 22, through the agency of the lever 24 and its roller, 25. The bar 23 is thus advanced towards the center of the machine and under a plunger 26 having jaws 27 that straddle the bar and after the plunger 19 reciprocates and deposits a blank clasp on the bar the plunger 26 descends and bends down the side spurs 27″ of the clasp which at the same time grasp the jaws and the clasp remains suspended in the jaws while the bar 23 recedes with the plunger 19.

The plunger 26 then descends further with the clasp and encounters the back of the envelope on a tongue 28, the latter having a cavity in its upper face and directly beneath the plunger. As will be seen in Figs. 2 and 6 the sides 30 of the cavity 29 are inclined so that the spurs 27 are bent inward after passing through the back of the envelope.

As fully explained in the patent and the application above referred to the envelope with its clasp is now moved forward by rollers 31 until the clasp arrives beneath a plunger 32.

The plungers 26 and 32 are operated from different sides of the machine and by the shafts 11 and 12, the plunger 32 being reciprocated by a cam 15 on the shaft 11 that rocks a lever 34 having a roller 35 at one end and the plunger at the other end, the said plunger and the clasp feeder 21 being moved at appropriate periods.

The plunger 26 is carried at the end of the lever 36 whose other end carries a roller 37 that plays on the face of the cam wheel 16 secured to rotate with the shaft 12.

The jaws 27 are slidable with relation to

the plunger 26 and are forced down to a normal position by the spring 26′ that presses against the collar 27′ and while the spring has sufficient force to bend the spurs the jaws yield and slide upward when the plunger forces the spurs through the envelope and bends them inward.

When the clasp is positioned under the plunger 32 it descends and a hammer 39 forces the clasp down on the tongue and clinches the same on the envelope.

This machine is especially adapted to the use of clasps that are of a special finish, design or metal and the mechanism shown and described may be readily applied to the machines in the patent and application above referred to and replace the parts therein to make the clasp with other operations.

It is obvious that the parts may be otherwise arranged or modified without departing from the essential features above described or from the scope of the appended claims.

What I claim as new is:

1. In an envelope machine, a container for a stack of clasp blanks, a reciprocating anvil, a reciprocating feed plunger adapted to feed a clasp blank from said container and deposit the same upon the anvil, a reciprocating fastener forming and inserting plunger adapted to coact with the blank clasp on the anvil and form spurs thereon and adapted to set said formed clasp in an envelope reciprocating means adapted to clinch the inserted spurs to the envelope, and cam means for actuating the anvil, the feed plunger, the fastener forming and inserting plunger and the reciprocating clinching means.

2. In an envelope machine, a suspended container for a stack of clasp blanks, an anvil adapted to reciprocate to and from the container, a reciprocating feed plunger adapted to feed the bottom clasp blank from said container and deposit same upon said anvil, a reciprocating fastener forming and inserting plunger adapted to co-act with the blank clasp on the anvil and form spurs thereon and adapted to set said formed clasp in an envelope, reciprocating means adjacent the anvil adapted to clinch the inserted spurs to the envelope, and cam means for actuating the anvil, the feed plunger, the fastener forming and inserting plunger and the reciprocating clinching means.

3. In an envelope machine, a container for a stack of clasp blanks, a reciprocating anvil, a reciprocating feed plunger adapted to feed a clasp blank from said container and deposit same upon said anvil, a reciprocating fastener forming and inserting plunger adapted to coact with the blank clasp on the anvil and form spurs thereon and adapted to set said formed clasp in an envelope, a tongue adapted to support the envelope and provided with a recess having inclined sides disposed below said fastener forming and inserting plunger, reciprocating clinching means adapted to clinch the inserted spurs upon the envelope, and cam means for actuating the anvil, the feed plunger, the fastener forming and inserting plunger, and the reciprocating clinching means.

In testimony whereof I hereunto affix my signature.

JACOB STIRISS.