

Nov. 1, 1932.

S. J. T. PRICE

1,886,119

ENVELOPE FILLING MECHANISM

Original Filed Jan. 20, 1926 3 Sheets-Sheet 2

Fig. 3.

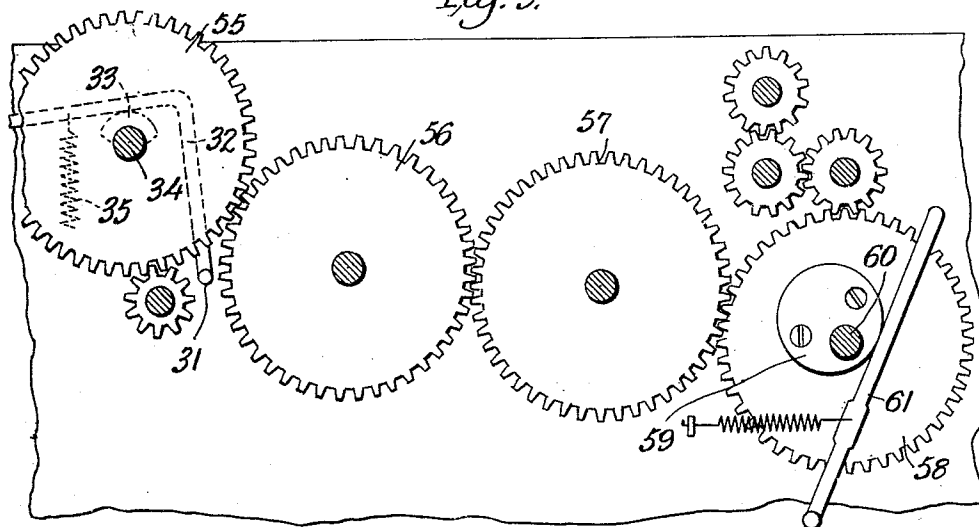


Fig. 4.

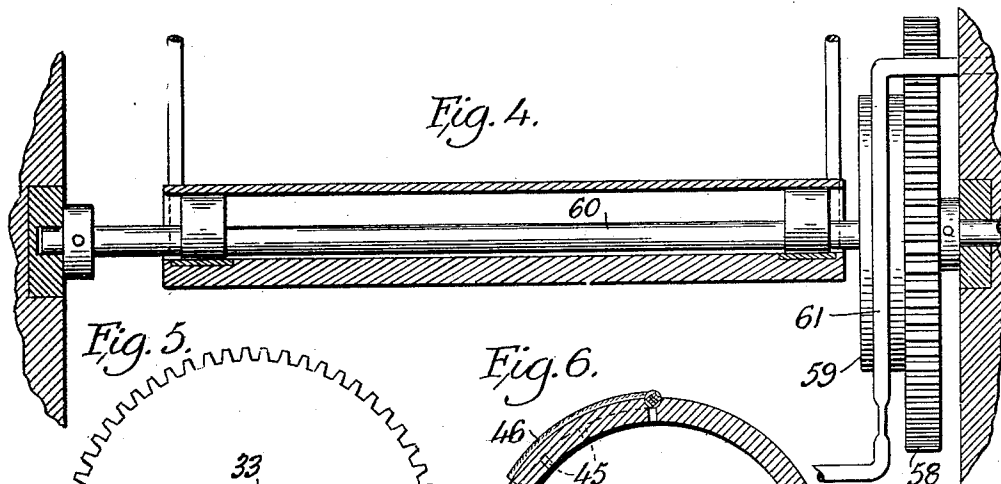


Fig. 5.

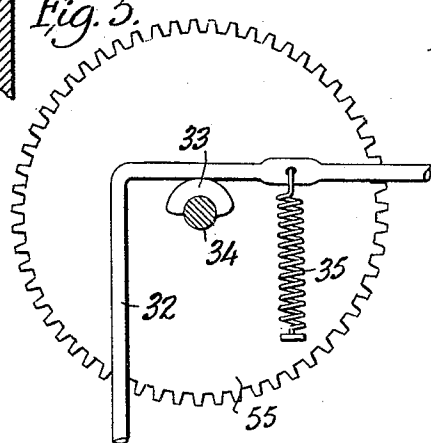
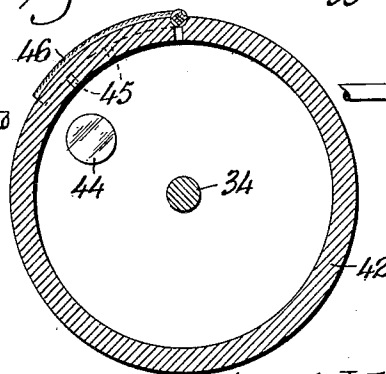


Fig. 6.



Inventor
Samuel J. T. Price.

334

Attest
Dwight D. Dorell
Attorney

Nov. 1, 1932.

S. J. T. PRICE

1,886,119

ENVELOPE FILLING MECHANISM

Original Filed Jan. 20, 1926 3 Sheets-Sheet 3

Fig. 7.

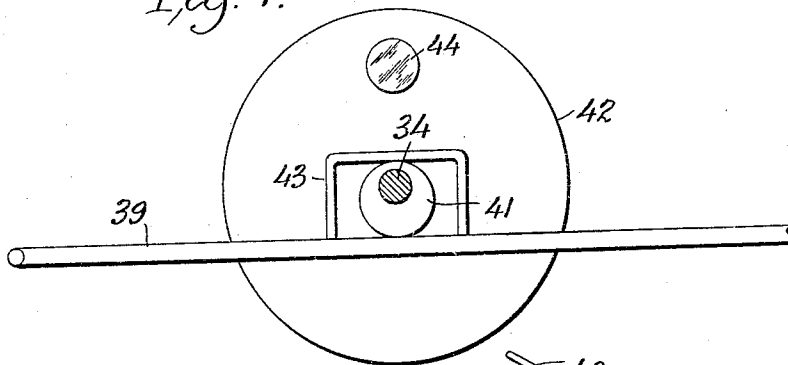


Fig. 8.

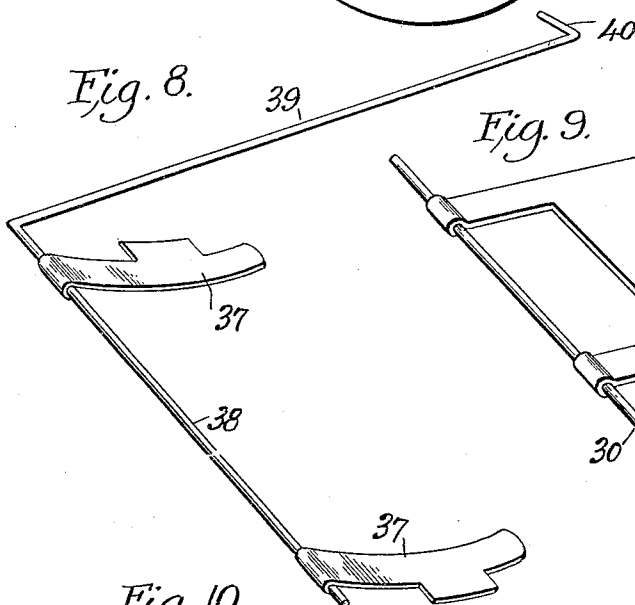


Fig. 9.

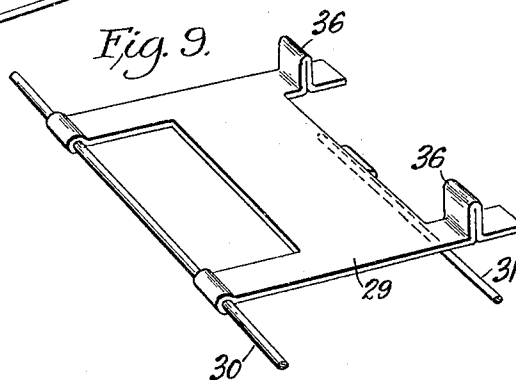
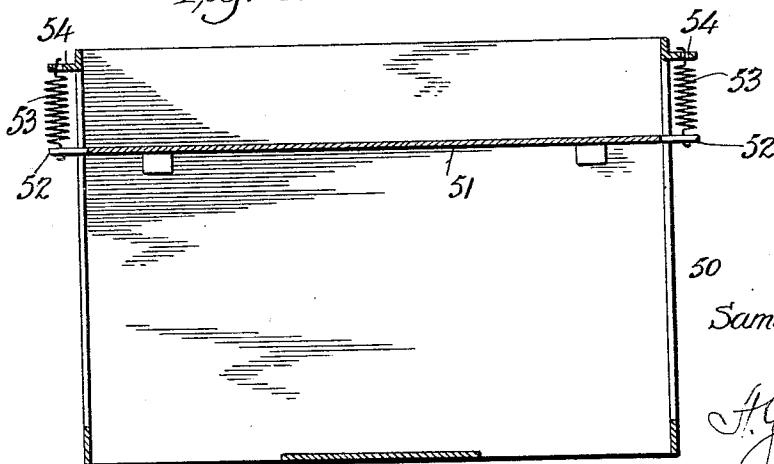


Fig. 10.



Inventor
Samuel J. T. Price.

H. Yates Douse
Attorney

UNITED STATES PATENT OFFICE

SAMUEL J. T. PRICE, OF MACON, GEORGIA

ENVELOPE FILLING MECHANISM

Original application filed January 20, 1926, Serial No. 82,583. Divided and this application filed October 9, 1930. Serial No. 487,564.

This invention relates to envelope filling mechanism, and is a division of my co-pending application Serial No. 82,583, filed January 20, 1926 for "Folding, inclosing and sealing machines".

An object of the invention is to provide a new and improved machine for inserting letters, folded or otherwise, into envelopes, sealing the envelopes and conveying them to a suitable receptacle or stacking them in order, as desired.

A further object is to provide new, simple and efficient means for moistening the flap of the envelope preparatory to sealing.

Other objects and advantages will become apparent as the description proceeds.

Referring to the accompanying drawings, which are made a part hereof and on which similar numerals designate like parts in the several views;

Fig. 1 is a vertical longitudinal section of the machine;

Fig. 2 is a plan view of the machine;

Fig. 3 is a vertical section substantially on line 3—3 of Fig. 2;

Fig. 4 is a section on line 4—4 of Fig. 2 showing the relation of this invention to the folding device of the above referred to application of which this is a division;

Fig. 5 is a section of a detail taken on line 5—5 of Fig. 2;

Fig. 6 is a radial section through the moistening drum;

Fig. 7 is a view of the mechanism for operating the envelope lifting fingers shown in Fig. 8;

Fig. 8 is a detail view of the envelope opening fingers;

Fig. 9 is a detail of the stop plate for holding envelopes in place on the table while letters are being inserted in them; and

Fig. 10 is a view in elevation, partly in section, of the receiving receptacle for the envelopes after they have been filled and sealed, the view being that seen from the right in Fig. 1.

In the drawings numerals 21, 22 and 23 indicate respectively the base, side and cross supports of the frame in which the mechanism is supported.

Indicated as a whole at 24 is a paper folding device such as that shown in my application above referred to, in which sheets of paper are given one or more folds and delivered between conveying belts 25 and 26 by means of which it is carried to a table 27. An envelope has previously been placed on the table by hand or by any suitable mechanism, as for example, that shown in my co-pending application Serial No. 487,563 filed of even date herewith, for "Envelope feeding mechanism". Under the table 27 is a plate 29 which is pivoted on a rod 30. The free end of the plate rests on the bent end 31 of an arm 32. The arm 32 rests on a cam 33 on a shaft 34 and is held in contact with the cam by means of a spring 35. Stops 36 on the plate 29 project above the table. At the proper time the plate 29 moves downward so that the filled envelope may move forward, that is, to the right as shown in Fig. 1.

After an envelope has been placed on the table its back side must be lifted up so that the paper coming down between the belts 25 and 26 may enter the envelope. The back of the envelope is lifted by means of fingers 37 (Fig. 8) on a transverse rod 38 which is a bent over end of an arm 39. This arm is pivoted to the frame of the machine at 40, and is operated by means of a cam 41 on the shaft 34. A loop 43 on the arm 39 is engageable by the cam and provides means by which the cam may give an endwise movement to the arm as well as a vertical movement. This endwise movement causes the fingers first to move into the envelope and then to be lifted to raise the back of the envelope. A roller drum 42 is mounted on the shaft 34. This drum is a water receptacle, having a filling opening 44 in one end, and a series of perforations 45 along one side. A fibrous absorbent material 46 is secured above the perforations to provide means for moistening the flap of the envelope. A small roller 47 is positioned beneath the roller 42 and has its periphery in contact with it. It should be noted that cams 41 and 33 are both on the shaft 34. These cams operate so that as soon as the envelope has been opened and filled the plate 29 is lowered and the envelope passed between

rollers 47 and 42. The envelope moves up into a U-shaped stop 48. When the forward edge of the envelope strikes the end of the stop the roller 42 moves the flap of the envelope forward. The drum 42 is so timed that the moistened portion 46 will engage the edge 9 of the flap to prepare it for sealing. Continued rotation of the rollers 42 and 47 will cause the rear edge of the envelope to travel down until it engages between the lower side of the roller 47 and the top of another roller 49. The envelope is then caused to return from the U-shaped stop and pass back between the rollers 47 and 49 into a receptacle 50. This receptacle is provided with a plate 51 which is swung by ears 52 to springs 53. The springs are suspended from lugs 54 on the sides of the container.

As shown in Fig. 3 a gear 55 on the shaft 34 may drive a gear 58 through gears 56 and 57. The gear 58 is mounted on a shaft 60 on which is mounted a cam 59 engaging a pivoted arm 61. This provides one means for operating means for feeding envelopes into the filling device in proper timed relation with the filling and sealing. Any suitable feeding device may be operated by the arm 61, such for example, as that shown in my co-pending application Serial No. 487,563 filed of even date herewith.

I claim:

1. An envelope filling device comprising a table for receiving envelopes, means for retaining them in letter receiving positions on the table, means for opening the envelopes preparatory to the insertion of the contents, said last named means comprising fingers movable into and upwardly to enter and lift the back of the envelope, and a pair of rollers for moving the envelope from the said table, one of said rollers having means for moistening the flap of the envelope to prepare it for sealing.

2. An envelope filling device comprising a table, a plate pivotally mounted beneath the table and having stops projecting above the bottom of the table for retaining envelopes thereon, means for opening the envelopes, and means operated in timed relation with the last named means for lowering the said plate to permit the envelope to be moved from the table.

3. An envelope filling device comprising a table, a plate pivotally mounted beneath the table and having stops projecting above the bottom of the table for retaining envelopes thereon, means for opening the envelopes, means operated in timed relation with the last named means for lowering the said plate to permit the envelope to be moved from the table, and a moistening drum for receiving the envelope as it leaves the table and moistening the flap, said drum having cams associated therewith for operating the said envelope opening means and the said pivoted plate.

4. An envelope filling device comprising a table to have an envelope fed thereonto with the flap extended and the back disposed upwardly, a movable plate having stops projecting above said table to retain envelopes in predetermined positions thereon, means to move said retaining means into and out of position, a pair of fingers movable forward to enter the envelope above the flap laterally and shiftable upwardly to lift the back of the envelope to separate the same from the front and flap as held by said retaining means sufficiently to allow the contents to be inserted in the envelope.

In testimony whereof I affix my signature.
SAMUEL J. T. PRICE.

85

90

95

100

105

110

115

120

125

130