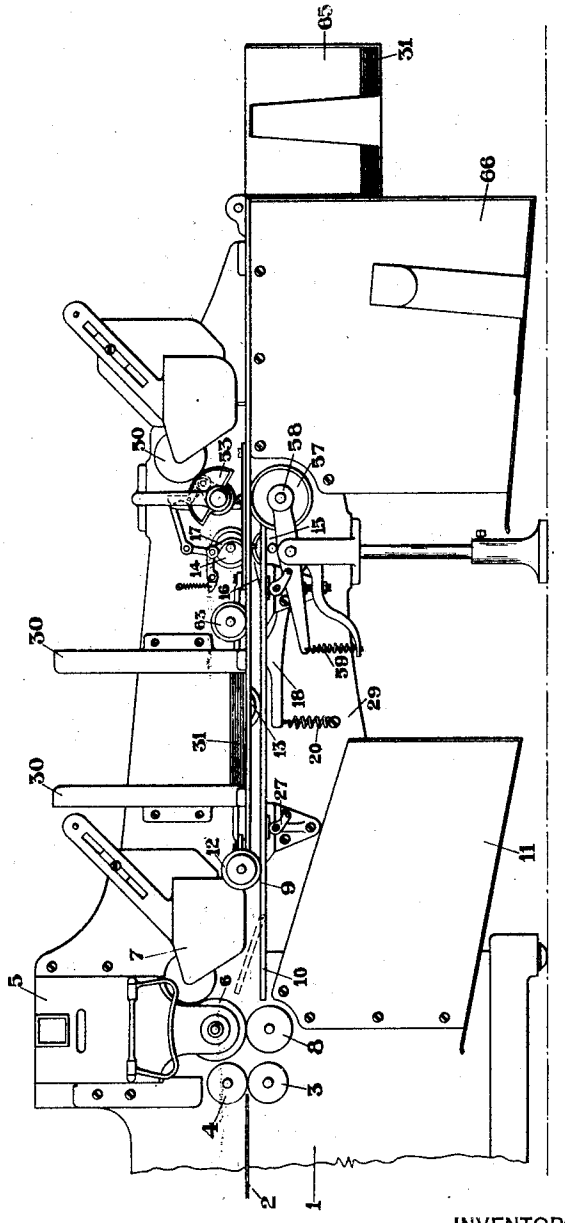
Oct. 25, 1932. J. V. PACHER ET AL 1,884,175

COMBINED MAIL SEALING, POST MARKING, METERING, AND ADDRESSING MACHINE

Filed Oct. 12, 1928 4 Sheets-Sheet 1

Fig. 1



INVENTORS
JOSEF V. PACHER
LAWRENCE J. ZAHN

BY

A. D. T. Libby

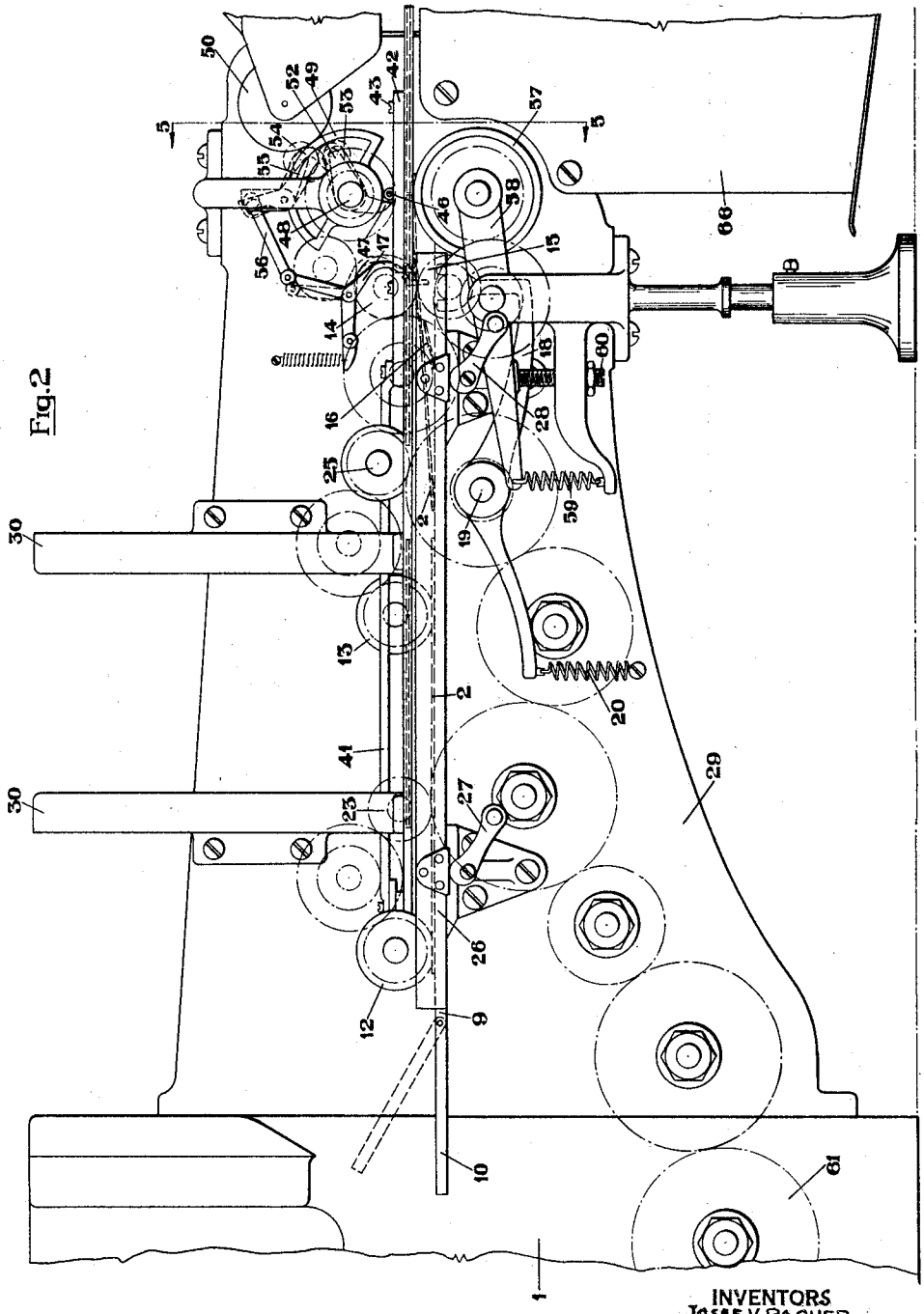
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Fig.2



INVENTORS
JOSEF V. PACHER.
LAWRENCE J. ZAHN.

BY A. D. T. Libby

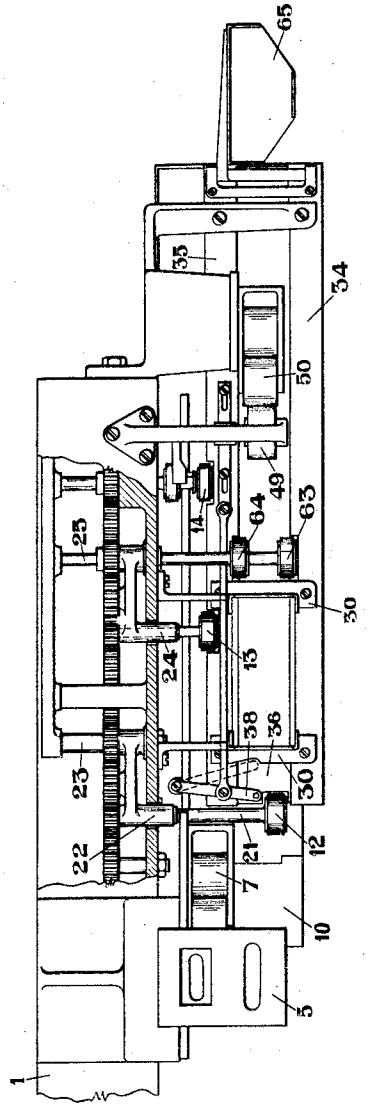
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Fig. 3



INVENTORS
JOSEF V. PACHER.
LAWRENCE J. ZAHN.
BY A. D. T. Libby
ATTORNEY

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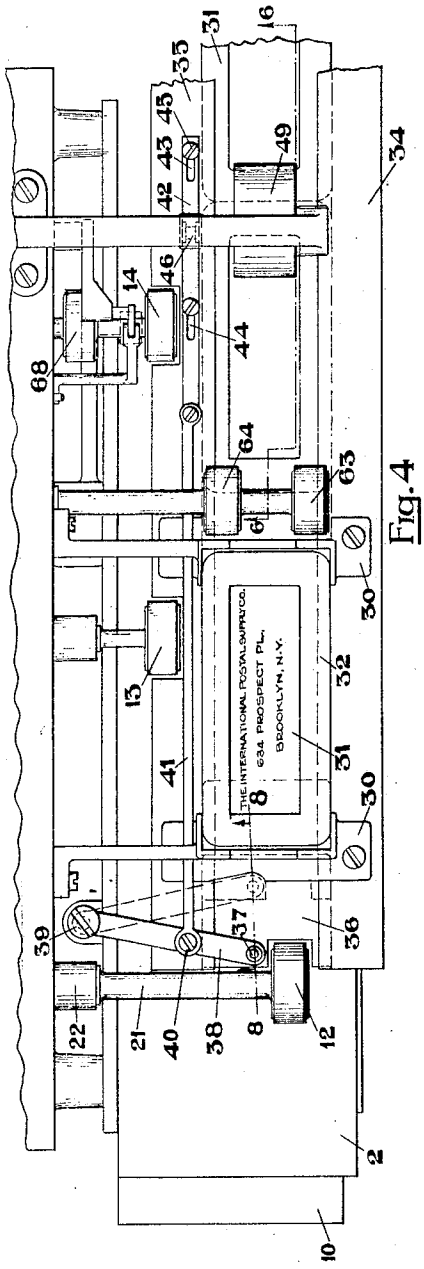


Fig. 4

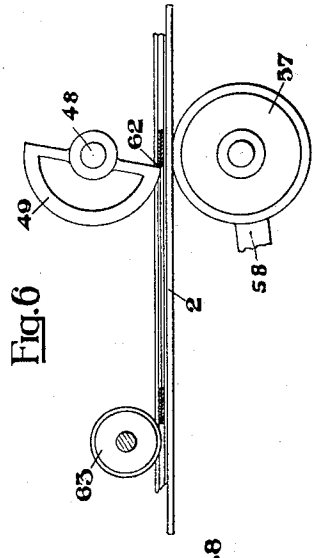


Fig. 6

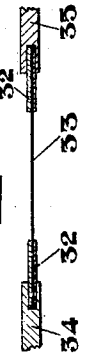


Fig. 7

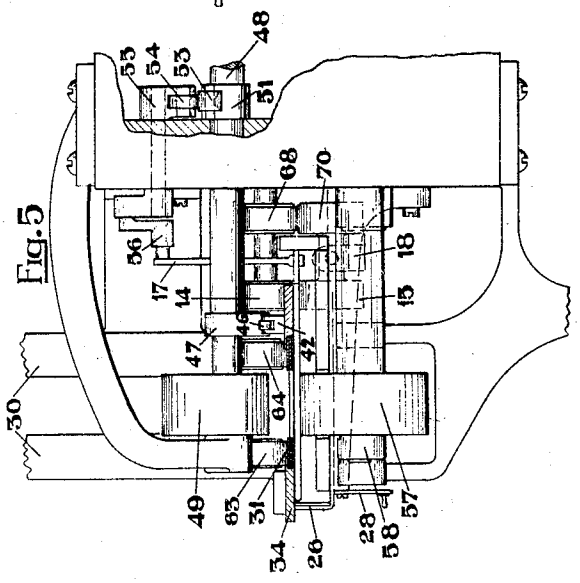


Fig. 5

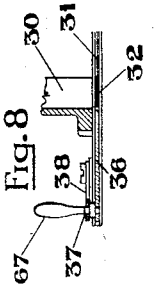


Fig. 8

INVENTORS
JOSEF V. PACHER.
LAWRENCE J. ZAHN.
BY A. D. T. Libby
ATTORNEY

Patented Oct. 25, 1932 1,884,175

UNITED STATES PATENT OFFICE

JOSEF V. PACHER, OF BROOKLYN, AND LAWRENCE J. ZAHN, OF LONG ISLAND CITY, NEW YORK, ASSIGNORS TO INTERNATIONAL POSTAL SUPPLY COMPANY, OF BROOKLYN, NEW YORK

COMBINED MAIL-SEALING, POST-MARKING, METERING AND ADDRESSING MACHINE

Application filed October 12, 1928. Serial No. 312,071.

This invention relates to a machine used in handling letters preparatory to mailing.

Heretofore, different types of machines have been used in connection with mail matter; for example, machines have been proposed and are in use which do sealing, counting, or metering of the number of letters which pass through the machine, and post-marking the letters. Machines have also been proposed and used which seal the envelopes and affix stamps thereto, which stamps are later canceled by a stamp-canceling machine at the post office.

However, so far as we are aware, we believe we are the first to make a complete combination machine, which seals the envelopes, counts or meters the letters passing through the machine, post-marks the same, and addresses the letters. It is therefore the primary object of our invention to provide a complete combination machine which performs the various operations just enumerated and does this in a relatively simple and expeditious manner. Other ancillary objects will be discerned from a study of the specification taken in connection with the annexed drawings, wherein:

Figure 1 is a side elevation of that end of our combination machine having the mechanism for applying the addresses to the mail matter.

Figure 2 is a view of the principal part of the mechanism shown in Figure 1, but on a larger scale, and showing the driving means for operating the various parts of the mechanism.

Figure 3 is a top or plan view of that end of the machine shown in Figure 1, with certain portions broken away to show the parts beneath.

Figure 4 is a plan view of the central portion of the apparatus shown in Figure 3, but on a somewhat enlarged scale.

Figure 5 is a view taken on the line 5—5 of Figure 2.

Figure 6 is a view taken on the line 6—6 of Figure 4.

Figure 7 is an enlarged view of the addressing stencil and the side members of the track which carries the stencil.

Figure 8 is a view on the line 8—8 of Figure 4.

Referring now to the details wherein like numbers refer to the corresponding parts in the various views, 1 illustrates the frame-work of our combination machine. Carried by the frame-work to the left of the part shown, is the usual letter feeding and sealing apparatus; for example, as shown in Mitchell-Zahn Patent 1,621,078, issued March 15, 1927.

After the letters pass through the sealing device, they are brought forward, one such piece being indicated by the numeral 2, to the feed-rollers 3 and 4, which pass them to the metering apparatus 5, which has associated with it a post-marking device of a nature such as described in Mitchell-Zahn Patent 1,659,213, issued February 14, 1928. The post-marking device 6 has an adjustable inker 7 arranged in cooperation with it, and likewise a pressure roller 8.

As the letters 2 leave the metering and post-marking devices 5 and 6 as just stated, they are delivered to a track 9 which has its end 10 adjacent the post-marking device 6, arranged so that it may be tilted up to the position shown by dotted lines, in which case the letters are delivered directly to the receptacle 11, when it is desired to use the machine without the addressing mechanism.

When the addressing mechanism, to be later described, is to be used, the letters after being delivered to the track 9, are engaged by a feed-roller 12 and are carried forward by this roller into engagement with a second feed-roller 13. A letter is shown by dotted lines in Figure 2 as in engagement with both feed-rollers 12 and 13. As the letters move forward by the feed-roller 13, they are brought into engagement with trip feed-rollers 14 and 15, there being an inclined portion 16 on the outer end of the track which carries the letter 2 slightly upward between the rollers 14 and 15. The roller 15 is on the same spindle as roller 70 which gets its drive from roller 68 on the same spindle with roller 14.

As the letter passes between the rollers 14 and 15, it engages the end of a trip-tongue lever 17 which releases the stencil-feeding

mechanism to be later described. It is to be noted that the roller 15 is carried on one end of a lever 18 which is pivoted at 19 and held in yielding position by a spring 20, thus providing movable means for receiving and passing letters of different thicknesses. It may also be noted that the feed-roller 12 is carried on a shaft 21 supported by a bearing arm 22 that is pivotally carried on a stud 23. Likewise, the feed-roller 13 is carried on a bearing arm or bracket 24, pivotally mounted on a stud 25. Thus, both the feed-rollers 12 and 13 are yieldingly held in engagement with the letters as they feed them forward on the track 9. It may also be mentioned at this point, that the track 9 is provided with an adjustable side 26 to accommodate various widths of mail matter. The adjustable side 26 is held in position by the cam levers 27 and 28.

Addressing mechanism

The frame-work 29 is provided with a receptacle formed by brackets 30, and this receptacle is adapted to receive stencils 31 which are preferably made up of a stiff frame 32 of metal or cardboard, and which frame carries within its inner periphery an element 33 of suitable tough material which is capable of receiving impressions bearing the indicia or address that it is desired to transfer to the letters.

The stencils 31 rest on a track immediately adjacent the letter track. As the stencils leave the bottom portion of the receptacle within which they are stacked, they are fed forward in the side members 34 and 35 of the track, the side members 34 and 35 being grooved to provide guide-ways for the sides or frames 32 of the stencils. Positioned on the stencil track, is a slidable plate 36. Pivoted to this plate by pivot pin 37, is an arm 38, pivoted at 39. Attached to the arm 38, as by a pivot-screw 40, is a rod 41 which extends forward in the direction of the stencil track. While the rod 41 may be continuous in one piece, it may be made in two parts, the extreme forward end being indicated by the number 42.

The end 42 is slotted at 43 and 44, within which slots are positioned guide-pins 45. The bar 42 also carries a roller 46 which is adapted to be engaged by a pawl 47 carried on a shaft or spindle 48, which carries an inking-roller 49, having an absorbent surface to take up ink from the inking-roller 50. The spindle 48 bears a stop-bracket 51, having a stop-arm 52, carrying a stop-roller 53 thereon. Associated with the stop-roller 53, is a stop-roller 54 carried on an arm 55, pivotally connected to a lever 56 which in turn is associated with the trip-lever arm 17. The spindle 48 carrying the dog 47 and the inking-roller 49, is prevented from turning by means of the clutch-rollers 53 and 54, a clutch (not shown) being introduced between the driving gears and the spindle 49 in an old and well-known manner; for example, as shown in Mitchell-Zahn Patent 1,659,213, previously referred to.

Associated with the inking-roller 49, is an ink-impression roller 57 that is carried on a lever 58, yieldingly held in position by the spring 59 and adjustable by means of the screw 60.

In operation, as the letters 2 move forward and engage the end of the trip-tongue 17 as previously described, this lever together with the clutch-rollers 53 and 54, is moved to the position indicated by the dotted line, thereby releasing the clutch and allowing the spindle 48 to be turned through the medium of the train of gears operated, for example, by the gear 61. As the inking-roller 49 is turned now by the spindle 48, one corner, 62, (see Fig. 6) engages one end of the frame of the stencil which is being fed forward by the feed-rollers 63 and 64 (see Fig. 3), which engage the side members 32 of the stencil, and the stencil and letter are then brought into position as shown in Figure 6, which indicates the inking-roller 49 just ready to engage the stencil to transfer an impression to the letter 2 which is shown in engagement with the ink-impression roller 57.

While one of the stencils is shown in position in Figure 6, another stencil is being moved forward from the receptacle 30 by means of the dog 47 engaging the roller 46 on the bar 42, thereby moving the bar 42 and the connecting rod 41 forward so that the lever 38 takes the position shown by dotted lines (see Fig. 4). This action moves the slidable plate 36 forward so as to engage the end of the lower stencil in the compartment, moving the same forward into the guide-ways of the track members 34 and 35, and into engagement with the feed-rollers 63 and 64, as previously explained.

After the address has been printed on the letter by means of stencils as described, the stencils 31 are pushed forward and drop into the compartment 65, while the addressed letter drops into the compartment 66. The pin 37 may be provided with an extension 67 for the purpose of operating the slidable plate 36 manually to initially bring the stencil forward out of the stencil compartment 30 to meet the letter coming through the machine at the proper time. The slots 43 and 44 in the end of the bar 42, allow this manual operation to be performed.

It will be clear that the details for carrying our invention into practice may be varied, and we therefore do not want to be unduly limited in the interpretation or the scope of the appended claims.

Having thus described our invention, what we claim is:

1. In a machine having mechanism for

sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil track with means for feeding stencils thereto, means brought into action by the moving piece of mail for moving the stencils forward on the track in the direction being taken by the mail matter, means for bringing a stencil and a piece of mail matter into juxtaposition, means for causing successive stencils to make an impression on successive pieces of mail matter, and means for receiving the mail matter and stencils after the stencil impression operation has been performed.

2. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil track provided with means for automatically receiving stencils thereon, said track being positioned closely adjacent the mail-receiving means and extending substantially parallel thereto, means brought into action by the moving piece of mail for moving the stencils forward on said track, means for bringing a stencil and a piece of mail matter into juxtaposition, means for causing successive stencils to make an impression on successive pieces of mail matter, and means for receiving the mail matter and stencils after the stencil impression operation has been performed.

3. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil track provided with means for automatically receiving stencils thereon, means for moving the stencils forward on said track, means brought into action by the pieces of mail matter for causing the stencil-moving means to act, means for bringing a stencil and a piece of mail matter into juxtaposition, means for causing successive stencils to make an impression on successive pieces of mail matter, and means for receiving the mail matter and stencils after the stencil impression operation has been performed.

4. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; a track for receiving the pieces of mail from the first mechanism, means for moving the pieces of mail forward on its track, a second track provided with means for receiving stencils thereon, means brought into action by the pieces of mail for moving the stencils forward on their track in co-ordination with the pieces of mail, means for bringing a stencil and a piece of mail matter into juxtaposition, means for causing successive stencils to make an impression on successive pieces of mail matter, and means for receiving the mail matter and stencils after the stencil impression operation has been performed.

5. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; a track for receiving the pieces of mail from the first mechanism, means for moving the pieces of mail forward on its track, a second track provided with means for receiving stencils thereon, said second track being spaced above the mail-track and substantially parallel thereto, a trip device actuated by each piece of mail matter, means brought into operation by the trip device for moving a stencil forward on their track into juxtaposition with a piece of mail matter, means for causing the stencil to make an impression on the piece of mail matter, and separate receptacles for receiving the mail matter and stencils following said impression operation.

6. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; a track for receiving the pieces of mail from the first mechanism, means for moving the pieces of mail forward on its track, a second track provided with means for receiving stencils thereon, a pull rod, a slidable plate and a lever connected between the rod and plate for starting the stencils forward on said stencil track, feed-rolls for engaging the stencils after they are moved forward by said rod and plate, means started into operation by a piece of mail matter for actuating said rod at the proper time to bring a stencil over a piece of mail matter, an inking-roller and an impression roller cooperating to cause the stencil to print an address on the piece of mail matter, and means for receiving the mail and stencils after the addressing operation has been performed.

7. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; a track for receiving the pieces of mail from the first mechanism, means for moving the pieces of mail forward on its track, a second track provided with means for receiving stencils thereon, a pull rod, a slidable plate and a lever connected between the rod and plate for starting the stencils forward on said stencil track, feed-rolls for engaging the stencils after they are moved forward by said rod and plate, a spindle carrying a dog and an inking roller, means for normally holding the spindle from turning, a trip lever actuated by a piece of mail matter for releasing said spindle holding means whereby the dog acts on said rod to assist in moving a stencil forward in the track and the inking roller is turned into engagement with a stencil then in juxtaposition with a piece of mail matter for further purposes described.

8. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil receptacle, a trip mechanism operated by each piece of mail matter as it is passed forward, means released by said trip mechanism for moving the stencils successively forward from the receptacle in synchronism with the mail matter so a stencil is brought into juxtaposition with a piece of mail matter, and means for causing the stencil to make an imprint on the piece of mail matter and means for receiving the mail matter and stencils after the imprinting operation.

9. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil receptacle, a trip mechanism operated by each piece of mail matter as it is passed forward, means released by said trip mechanism for moving the stencils successively forward from the receptacle in synchronism with the mail matter so a stencil is brought into juxtaposition with a piece of mail matter, and a mutilated inking roller having an edge brought into engagement with the frame of a stencil for assisting in drawing the same through the mechanism while at the same time causing the stencil to make an imprint on the piece of mail matter.

10. In a machine having mechanism for sealing, post-marking, and metering mail matter, further mechanism including; means for receiving the pieces of mail from the first mechanism and moving them forward, a stencil receptacle, a trip mechanism operated by each piece of mail matter as it is passed forward, means released by said trip mechanism for moving the stencils successively forward from the receptacle in synchronism with the mail matter so a stencil is brought into juxtaposition with a piece of mail matter, manually operable means for moving a stencil from the receptacle when first starting up the machine, and means for causing the stencil to make an imprint of the piece of mail matter.

In testimony whereof, we affix our signatures.

JOSEF V. PACHER.
LAWRENCE J. ZAHN.