

March 21, 1944.

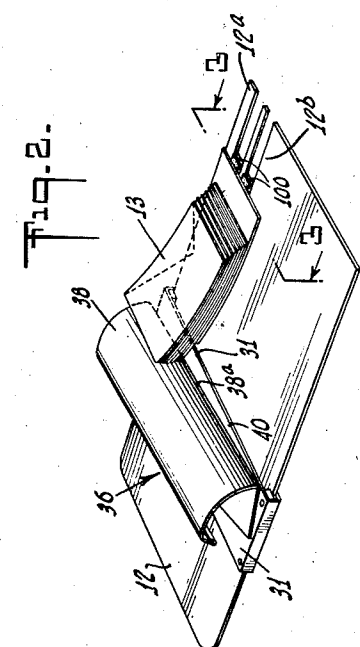
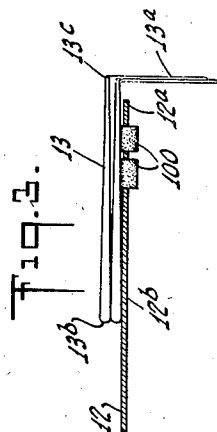
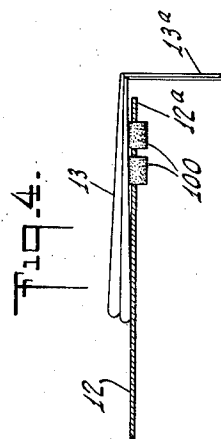
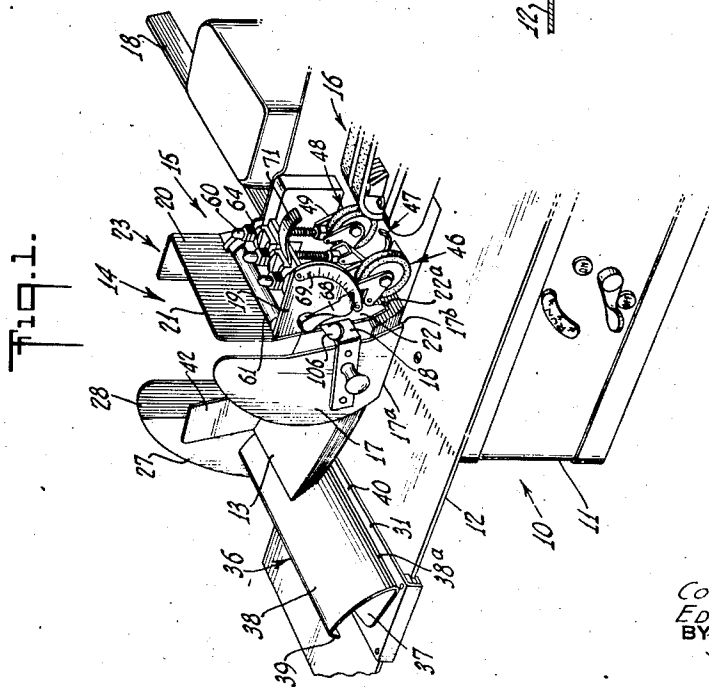
C. D. RYAN ET AL

2,344,643

APPARATUS FOR FEEDING ARTICLES TO MAIL TREATING MACHINES

Filed Oct. 1, 1941

4 Sheets-Sheet 1



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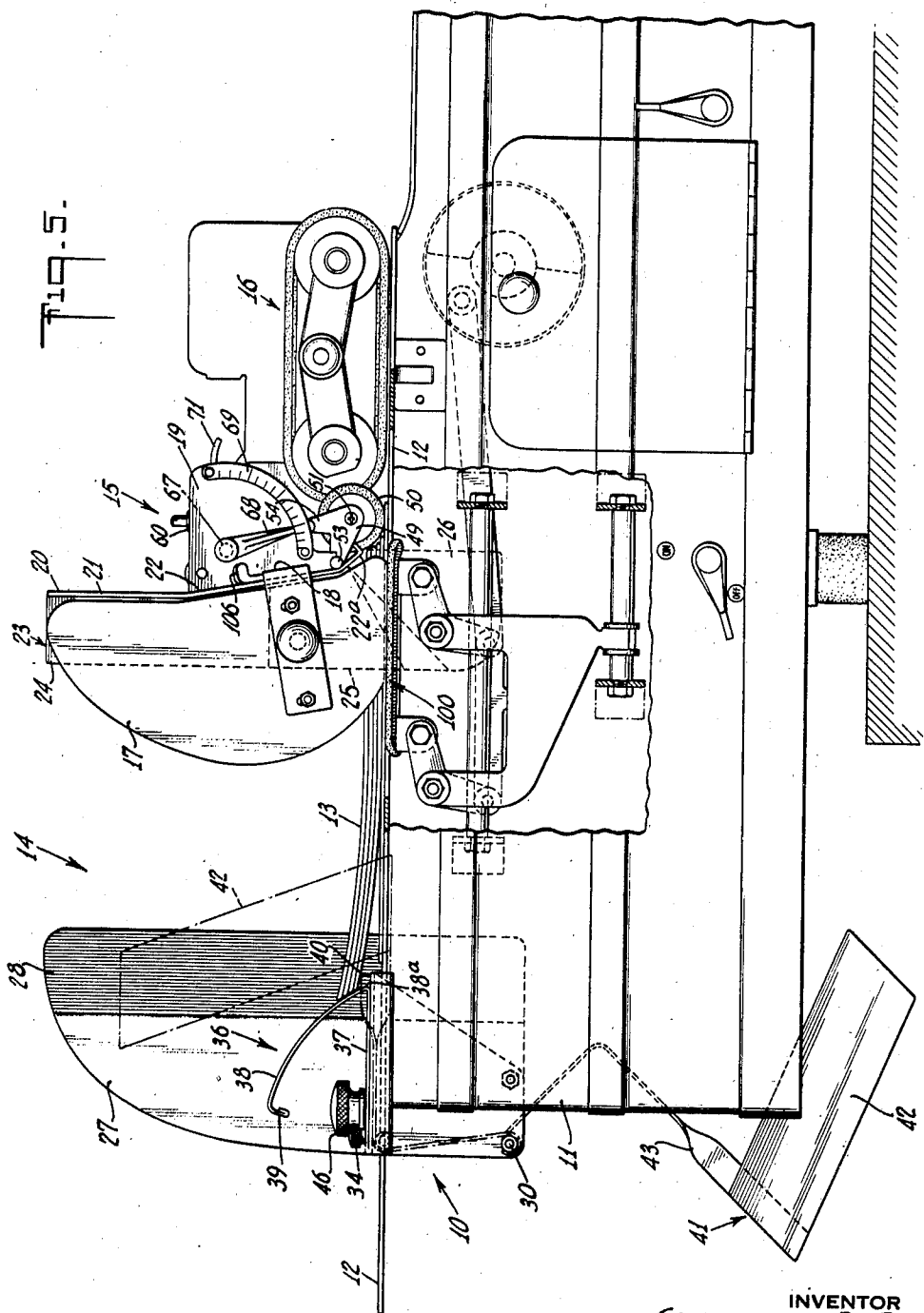
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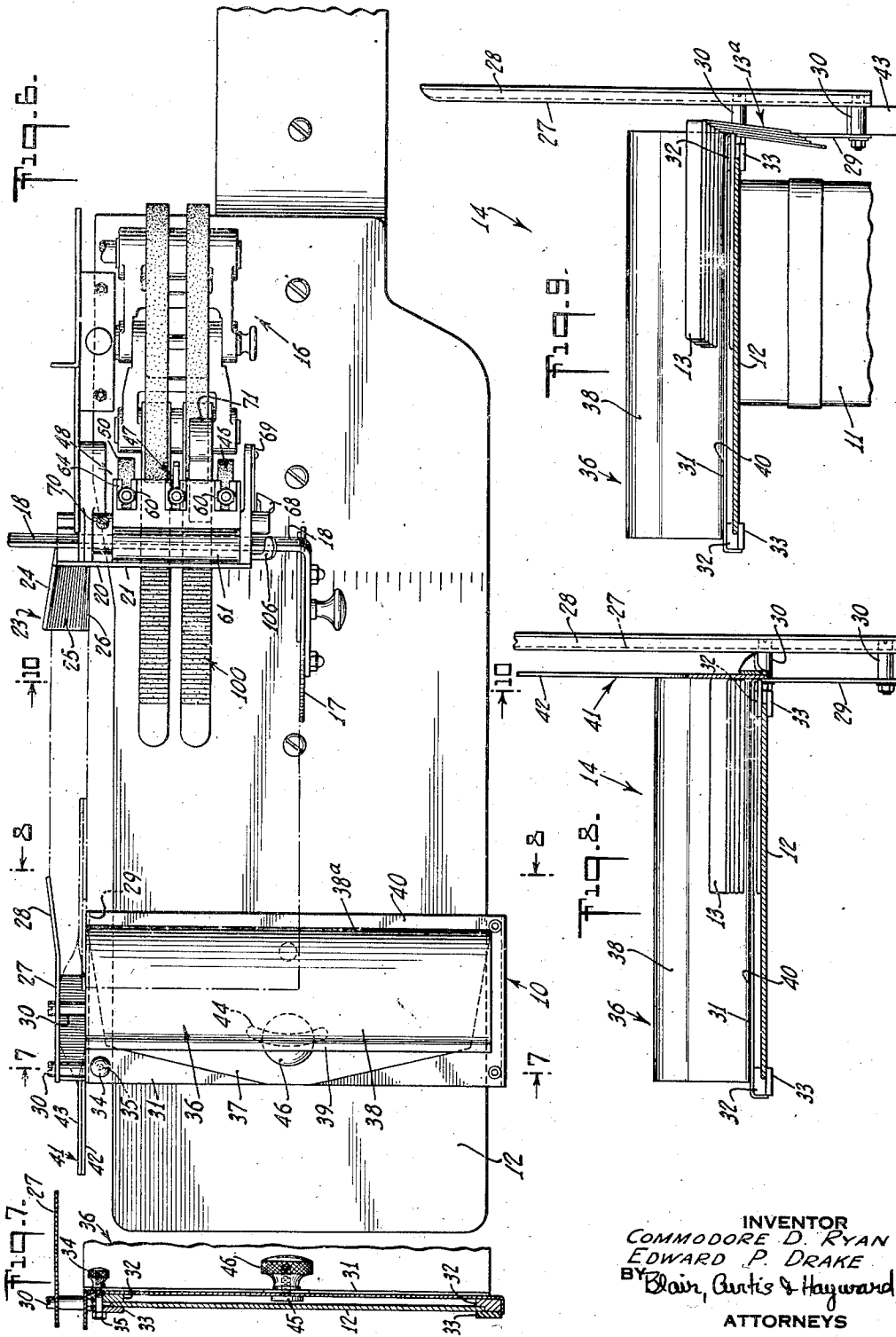
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4 Sheets-Sheet 3



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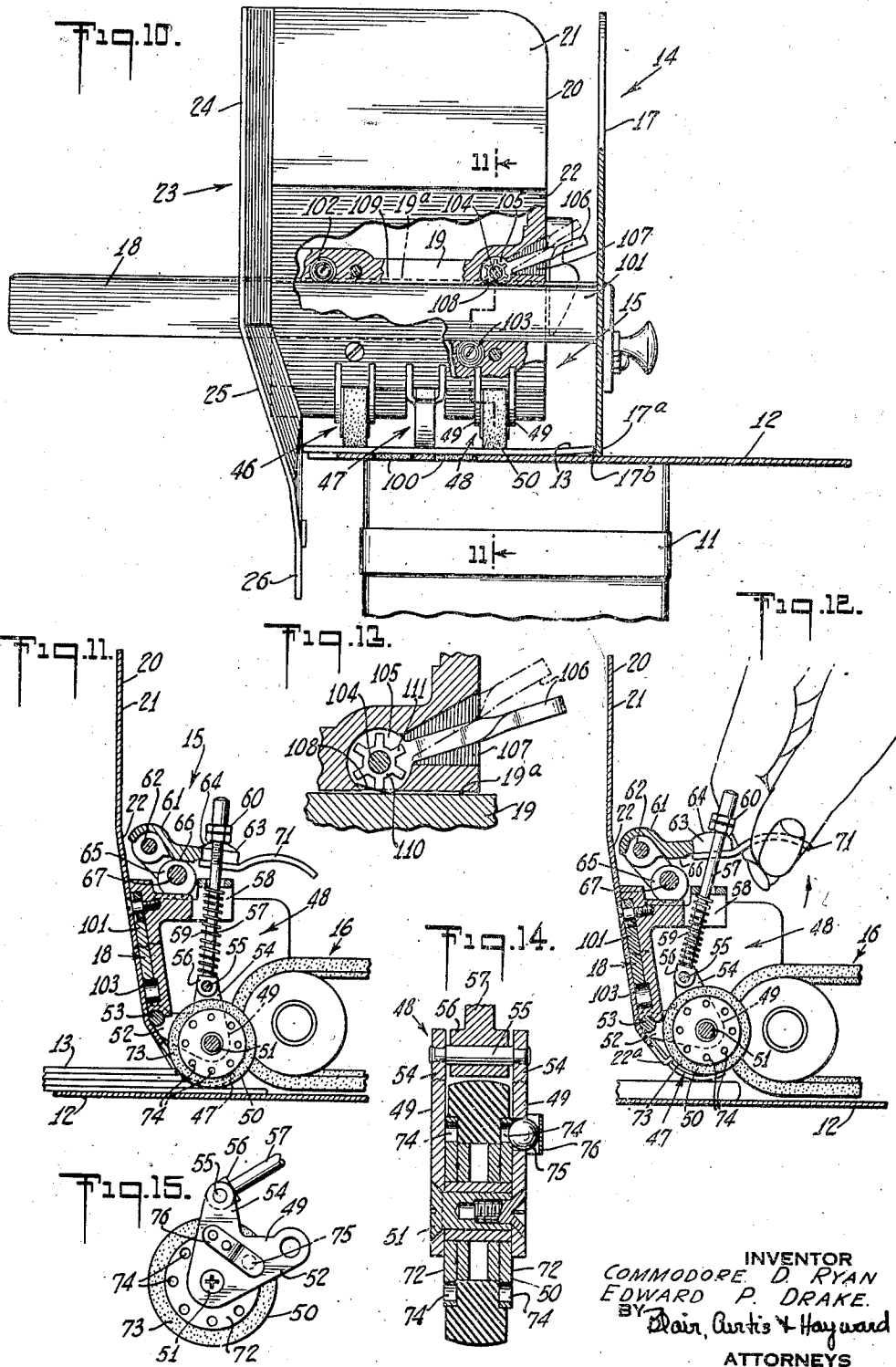
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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

2,344,643

APPARATUS FOR FEEDING ARTICLES TO
MAIL TREATING MACHINES

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Application October 1, 1941, Serial No: 413,122

9 Claims. (Cl. 271-44)

This invention relates to a feeding device for a mail treating machine.

One of the objects of this invention is to provide a feeding device for a mail treating machine which is of simple and sturdy construction, and which is capable of efficiently guiding sealed or unsealed envelopes, cards and the like to the feeding mechanism of the mail treating machine. Another object is to provide a feeding device of the above nature capable of accommodating articles of varying size, shape and thickness in such a manner that such articles are not jammed in the machine, but are successively and rapidly fed thereto for the treatment desired. Another object is to provide a device of the above character by which successive articles of substantial thickness may be rapidly fed into the mail treating machine without such articles, because of their thickness, becoming damaged or jamming the machine. Other objects will be in part apparent and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combination of elements, arrangements of parts, and in the several steps and relation and order of each of the same to one or more of the others, all as will be illustratively described herein, and the scope of the application of which will be indicated in the following claims.

In the drawings wherein there is shown one embodiment of our invention,

Figure 1 is a perspective view of the feed hopper end of a mail treating machine, showing the hopper adjusted for feeding envelopes without sealing them;

Figure 2 is a schematic view of a portion of the machine shown in Figure 1, illustrating one of the adjustments of the feed hopper for directing the pressure of the envelopes on the mechanism which feeds the envelopes into the machine;

Figure 3 is a sectional view taken along the line 3-3 in Figure 2, showing the disposition of the envelopes when they are not uniformly stuffed;

Figure 4 is a view similar to Figure 3, showing how the weight of the envelope stack may be shifted to direct the pressure of the envelopes on the mechanism which feeds them into the machine;

Figure 5 is an enlarged fragmentary front elevation of the machine, certain portions being broken away to show a portion of the mechanism which feeds the envelopes into the machine;

Figure 6 is a top plan view of Figure 5;

Figure 7 is a section taken along the line 7-7 of Figure 6;

Figure 8 is a section taken along the line 8-8 of Figure 6, showing the disposition of envelopes which are not to be sealed;

Figure 9 is a section similar to Figure 8, but showing the inclination of a stack of envelopes with their flaps open and nested for sealing;

Figure 10 is a section taken along the line 10-10 of Figure 6;

Figure 11 is a section taken along the line 11-11 of Figure 10;

Figure 12 is a view similar to Figure 11 showing some of the parts in an adjusted position for accommodating occasional thicker mail;

Figure 13 is an enlarged detail of a portion of the mechanism shown in Figure 10;

Figure 14 is an enlarged fragmentary elevation of a portion of the mechanism shown in Figure 11; and,

Figure 15 is a side elevation of the device shown in Figure 14.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Mail treating machines of the type under consideration are usually provided with a magazine or hopper in which the mail to be treated, i. e., stamped or sealed, or both, is stacked. The machine is also provided with a friction feed device which successively removes the lowermost envelope from the stack and feeds it to conveying apparatus which in turn carries it through the machine. The leading end of the hopper is usually provided with a stripping device which insures the removal of but one envelope at a time from the bottom of the stack.

The friction feeding device referred to above is usually positioned at the bottom of the envelope hopper in such a manner that the elements of the feeding device which engage the envelope are disposed centrally of the narrowest envelope the machine is designed to treat. However, as the machine must be capable of treating envelopes of varying widths, the magazine should be adjustable, and in most cases is adjustable on one side only to receive the envelopes of different widths. Thus, when envelopes of substantial width are placed in the hopper, the friction feeding elements contact such wider envelopes on one side of the longitudinal center thereof, and as the stack of envelopes are supported on the table of the machine, substantial frictional resistance is present between the bottom of the lowermost envelopes and the top of

the table on the side opposite to the feeding elements. This often results in skewing the envelopes during the feeding operations. This condition also prevails when feeding narrow envelopes which are so heavily stuffed that the side along the flap edge is thinner than the opposite side.

As noted above, it is desirable that the envelope hopper be adjustable so as to receive envelopes of varying width. Such hoppers are, accordingly, usually provided with a front plate which is movable toward and away from the friction feeding elements, and usually some sort of frictional device is employed to hold the front plate in its adjusted position. This frictional retention of the front plate, however, is often inconvenient, as the plate can readily be pushed out of adjustment through inadvertence, either causing the envelopes to jam in the hopper, or leaving too much clearance between the envelopes and front plate, with the result that they are improperly guided into the machine.

Still further, it is noted that mailing machines of this type usually employ a stripper device, which device may be adjusted to any letter thickness within a given range. Usually the greater majority of letters are relatively thin and hence are substantially uniform in thickness. Consequently the setting of the stripper device is maintained in the position for mail of average thickness. Occasionally, however, a number of envelopes thicker than average are fed through the magazine and accordingly unless the position of the stripper device is changed, the thicker envelopes are apt to be damaged passing there-through or jam in the hopper unless the adjustment of the stripper device is changed. This is, of course, inconvenient as after the heavier pieces are fed through, it is necessary again to change the adjustment of the stripper so that the thinner envelopes can be fed singly therethrough.

As noted above, these mail treating machines are called on to handle envelopes which are both sealed and unsealed. Where the envelopes are unsealed and with their flaps hanging down, the envelopes are nested in a stack so that the flaps hang downwardly from the bodies of the envelopes. This causes the stack to incline toward the rear of the machine and space must be provided to accommodate the depending flaps. This flap space, however, may be a source of inconvenience or worse, however, when sealed envelopes, or envelopes with their flaps tucked inside, are stacked in the hopper, as under such circumstances it is preferable that the stack be vertical, i. e., if the stack has no inclination toward the rear of the machine.

It is accordingly another object of this invention to provide an envelope feeding device capable of obviating the above difficulties in a thoroughly practical and efficient manner.

The following is a description of certain features, namely the envelope guiding and a part of the envelope feeding mechanism of the mail treating machine, generally indicated at 10 in Figure 1. Other aspects of this machine are particularly described in certain copending applications as follows:

Commodore D. Ryan and Edward P. Drake, Serial No. 399,324, filed June 23, 1941, which is directed to the envelope trip and the mechanism controlled thereby.

Commodore D. Ryan, Serial No. 388,770, filed 75

April 16, 1941, which is directed to apparatus for the handling of envelopes and the like.

Commodore D. Ryan, Serial No. 363,257, filed October 29, 1940, which is directed to mechanism which feeds envelopes and the like one at a time into the mail treating machine for treatment thereof.

Commodore D. Ryan and Edward P. Drake, Serial No. 413,120, filed October 1, 1941, which is directed primarily to the conveyor system of the mail treating machine.

Commodore D. Ryan and Edward P. Drake, Serial No. 413,121, filed October 1, 1941, which is directed primarily to the control system of the mailing machine for adjusting the machine either for stamping postage on envelopes or on tape.

Thus, the several above-noted applications together disclose in its entirety the mailing machine 10, with the exception of the meter (not shown herein) which prints postage on the envelopes or the tape, as the case may be. This meter is described in detail in the application of Frank P. Sager et al., Serial No. 332,305, filed April 29, 1940.

Mail treating machine 10 comprises in general a base 11 having secured at the top edge a table 12 over which envelopes 13 or the like are conveyed for sealing or stamping, as the case may be. At the left-hand end of table 12, as viewed in Figure 1, is a feed hopper generally indicated at 14, in which the envelopes 13 are stacked, and from which these envelopes are individually and successively fed by a feeding device generally indicated at 100 (Figure 2) through a stripping device generally indicated at 15 to a conveyor system generally indicated at 16 which conveys the envelopes for further treatment.

Feed hopper

The feed hopper 14 includes an adjustable front plate 17 secured to a slide bar 18 slidably mounted in a bracket 19 (Figure 11) which releasably holds the slide bar in a manner to be more particularly described hereinafter.

The right-hand side of feed hopper 14, as viewed in Figure 1, is formed by a plate 20 having a vertical upper portion 21 and an inclined portion 22 (Figure 5) the bottom edge 22a of which is provided with an upturned lip or finger guard spaced sufficiently above table 12 so as to provide ample clearance for the thickest piece of mail which will be passed along the table. As is more clearly shown in Figure 10, the rear of feed hopper 14 is formed by a plate generally indicated at 23, comprising a substantially vertical rearwardly inclined portion 24 which is integrally formed with a forwardly extending portion 25 and a lower substantially vertical portion 26.

As shown in Figure 1, the rear side of feed hopper 14 also includes a plate 27 which has a rearwardly flared portion 28 (Figure 6) and which is secured to but spaced from a vertically disposed plate 29 as by screws and spacers 30. Plate 29 is preferably an integral part of a horizontal plate 31 which extends transversely across table 12, and is adjustable longitudinally thereof in a manner to be described.

As shown in Figure 7, plate 31 is provided at each of its opposite edges with a pair of friction strips 32 and 33, these strips being secured to plate 31 in any suitable manner, and being disposed on opposite sides of table 12 so as frictionally to grip the table upon tightening lock

plate 31 in any desired position longitudinally of the table. Plate 31 may be locked in its adjusted position by tightening a knurled nut 34 threaded on the upper end of a machine screw 35 which extends through one pair of friction strips 32 and 33 and through plate 31.

The left-hand side of hopper 14, as viewed in Figure 1, is formed by an elevator generally indicated at 36 which comprises a horizontal portion 37 and an elevator plate 38 which bends upwardly to the left of hopper 14. Preferably elevator plate 38 is provided at its upper end with a downwardly turned lip 39 and the right-hand edge 38a of this plate is spaced from the right-hand edge of plate 31, see Figure 1, to provide a ledge 40. Ledge 40 is provided to support mailing matter, such as relatively stiff cards, the bottommost of a stack of which accordingly is spaced from table 12 by ledge 40 so as to reduce the friction between the card and table, and accordingly facilitate the stripping thereof from the bottom of the stack by the feeding mechanism (Figure 2).

It may now be seen that feed hopper 14 is essentially formed by front plate 17, right-hand or leading guide plate 20, rear plates 23 and 27, and left-hand or elevator plate 36.

As noted above, front plate 17 (Figure 10) is adjustable toward and away from rear plate 23 to accommodate envelopes of different width, and to this end plate 17 is mounted on a slide bar 101 which is slidably disposed in a channel 19a formed in bracket 19 (see also Figure 11). The width of channel 19a exceeds the width of slide bar 101 so that without retention the fit of the bar and channel would be sloppy. This sloppy fit is provided so that when it is desired to adjust the position of front plate 17, the bottom edge 17a of the plate may be raised from table 12 to facilitate adjustment of the plate.

Bracket 19 has formed therein a pair of chambers in which are respectively disposed coiled springs 102 and 103. A third chamber formed in the bracket has a pin 104 extending there-through on which is pivotally mounted a lock lever 105 provided with a handle 106 extending through a slot 107 in bracket 19 exteriorly of the slot to a position where it is accessible for manipulation. The inner portion of lock lever 105 is flattened, as at 108, this flat portion being disposed adjacent the top of slide bar 101. It will now appear that the width of bracket slot 19a, in relation to the width of slide bar 101, provides a space 109 which permits the slide bar to be forced upwardly at its right-hand end, as viewed in Figure 10, by the expansion of coil spring 103, while the left-hand end of the slide bar is held down by reason of the expansion of coil spring 102. This raising of the right-hand end of slide bar 101 spaces the bottom edge of front plate 17 from the top of table 12, and accordingly permits easy adjustment of the front plate toward or away from rear plate 23. When the two plates are properly spaced, lock lever 105 may be forced downwardly by depressing its handle 106, causing the flat face 108 of the lever to rock against the top of slide bar 101 and force the bar downwardly to partially collapse spring 103. As spring 102 is also forcing the slide bar downwardly in slot 19a, the bottom of the bar rests against the bottom of the slot, and the frictional engagement therebetween is substantially increased by the wedging action of lock lever 105. The slide bar 101 is accordingly securely locked in its adjusted posi-

tion from which it is not readily moved through inadvertence.

As shown in Figure 13, a friction disc 110 is mounted on pin 104, this disc being provided with a plurality of fingers 111 which press against the side of locking lever 105 so as to retain the lever in its locked or unlocked position.

At the same time that slide bar 101 is forced downwardly in slot 19a, the bottom edge 17a of front plate 17 is forced against the top of table 12 so that there is no clearance between the plate and the table through which envelope 13 might slip and become jammed. Further to preclude entrance of envelope 13 under front plate 17, we provide a lip 17b extending inwardly from the bottom edge of front plate 17, which lip, when the plate is properly positioned, underlies the bottommost envelope 13 of the stack, and accordingly prevents the envelopes from riding between the bottom edge of the front plate 17 and the top of table 12.

It may now be seen that front plate 17 (Figure 10) is readily adjustable toward or away from back plate 23 so as to suit the size of hopper 14 to the width of the envelopes stacked therein. Furthermore, when the front plate is placed in its adjusted position, it may readily be locked therein against inadvertent displacement through the manipulation of lock lever 105. Furthermore, it will appear that the locking of the plate in position, through the manipulation of the lock lever, forces the plate down against the top of table 12 so as positively to preclude the entrance and possible pinching of a letter between the front plate and the table 12.

To facilitate the feed of a stack of envelopes in mail treating machine 10, the envelopes, at least at the bottom of the stack, in the feed hopper should be shingled so that the envelopes may be individually and successively grasped and fed from the bottom of the stack with a minimum amount of friction with respect to the table under the envelope being fed and the envelope immediately above. Thus as shown in Figure 1, the inclined portion 22 of right-hand plate 20, and the inclination of elevator plate 36 provide this shingling effect; the elevator plate in addition, by reason of the adjustability of its supporting plate 31, raising the bottommost envelope from the surface of table 12 so that only a portion of the envelope engages the table, thus reducing the friction between the table and the envelope as the envelope is fed from the bottom of the stack. As the envelope immediately above the one being fed is in shingled relation thereto, it accordingly is separated from the envelope being fed a certain extent so that its frictional engagement therewith is considerably reduced.

Inasmuch as mailing machine 10, Figure 1, must be capable of handling sealed envelopes, unsealed envelopes with the flaps tucked inside of the envelopes, and unsealed envelopes with the flaps open and depending therefrom, provision is made to accommodate the open flaps when a stack of such unsealed envelopes is disposed in the feed hopper. Where such unsealed envelopes with open flaps are being handled, their flaps 13a (Figure 9) are also in a shingled relation and extend downwardly from table 12 into the space between plates 28 and 29. The natural inclination of a stack of such unsealed envelopes is to the right, as viewed in Figure 9, and to the left, as viewed in Figure 10, and as the stack of envelopes is depleted through operation of the mail treating machine, the descending envelopes

are guided into registry with the stripping mechanism 15, Figure 10, by inclined portion 25 of plate 23 so that when the bottommost envelope is ready to be fed through the machine it is in proper position to be handled by the feeding and stripping devices.

Occasionally the entire stack of envelopes is either sealed or the flaps are tucked into the envelopes so that there is no natural inclination of the stack toward the rear of the machine. Under these circumstances a stack of envelopes is substantially vertical, as shown in Figure 8, in which event there is no need of the space between plates 28 and 29. To maintain the stack of envelopes vertical under these conditions, we provide a filler plate generally indicated at 41, see Figure 5, comprising a supporting blade 42 secured to an angle arm 43 pivotally mounted on one of spacers 30, about which the filler plate may be swung between the full and dotted line positions. Thus, when the filler plate is not required, it may be swung to the full line position beneath table 12, where it is completely out of the way, and when required may be swung to the dotted line position in this figure, wherein its blade portion 42 (Figure 8) extends vertically from table 12, and accordingly holds the stack of envelopes in the desired vertical position. It should be noted, in connection with Figure 5, that when filler blade 42 is in its operative position, i. e., the dotted line position, it is inclined to the left so as to maintain its engagement with the uppermost of the envelopes which, because of their shingled relationship, overlies one another successively, slightly to the left, as viewed in this figure.

It occasionally occurs that a stack of bulky envelopes have to be fed through hopper 14, such envelopes often being, as shown in Figure 3, heavily filled and accordingly thick adjacent their closed edges 13b, and relatively thin at their open edges 13c, with the result that adjacent envelopes at their open edges would normally be spaced from one another. This spacing shifts the pressure of the bottommost envelope from portion 12a of the table adjacent the feeding device 100 to portion 12b of the table where it is not desired, with the result that when the envelopes are particularly bulky or of substantial width, there is not much friction between the bottommost envelope and portion 12a of table 12. Thus, as the feeding device feeds the bottommost envelope, there is a tendency for the envelope to twist from its proper position, and either become jammed in the stripping mechanism 15 or be fed there-through improperly so that the flap is not properly folded against the rear of the envelope. To redistribute this pressure from portion 12b of table 12 to portion 12a, so that the envelopes 13 will assume the position shown in Figure 4, wherein the pressure of the bottommost envelope will be directed against portion 12a of table 12 adjacent the feeding mechanism 100, we have provided plate 37 of elevator 36 with an arcuate slot 44. The threaded portion of a screw 45 (Figure 7) extends upwardly through the slot and is threadably received in a knurled lock nut 46. The head of screw 45 bears against the bottom of plate 31, whereas nut 46 bears against the top of elevator plate 37 so that when the screw and nut are tightened, elevator 36 may be held in any of its adjusted positions. Thus the elevator plate, as shown in Figure 2, may be so swung that its edge 38a forms an angle with the righthand edge of plate 31, with the result that the stack of envelopes 13 is tilted and the pressure thereof on

the bottommost envelope is transferred from portion 12b of table 12 to portion 12a, and the frictional resistance between the bottommost envelope and portion 12b of the table is reduced.

From the above it may be seen that feed hopper 14 has many characteristics of a funnel, i. e., the envelopes being delivered from the bottom of the hopper are so guided by the peculiar shapes and inclinations of the hopper sides that when the bottommost envelope is ready for delivery from the hopper it has been automatically guided into proper registry with the stripping mechanism so that it may be stripped from the bottom of the stack of envelopes without any danger of wrinkling, bulging, or tearing, and this regardless of the size of the envelope or the quantity of its contents.

Stripper

As noted above, we also provide stripper 15 which operates to prevent the feeding of more than one envelope or piece of mail from hopper 14 at any one time. Also, as will be described, the stripper is adjustable so that it can just as effectively strip a thin envelope from the bottom of the stack as a thick one.

The stripper accordingly includes three separate and individually operable stripping units 46, 47 and 48 (Figure 10). Units 46 and 48 are substantially identical, hence it will suffice to describe unit 48 only. It is desirable to provide the central stripper unit 47 with a metallic arcuate strip and to provide units 46 and 48 with rubber-tired stripper discs, for a purpose to be described.

Stripper unit 48 (Figure 10) includes a pair of spaced brackets 49 having a rubber-tired disc 50 pivotally supported therebetween by means of a bolt 51 (Fig. 14) and retained against rotation by means of a ball detent to be described. Each of brackets 49 is provided with an arm 52, Figure 11, and these arms extend to the left, as viewed in this figure, and are pivotally mounted on a pin 53 suitably secured to bracket 19. Brackets 49 are also provided with upwardly directed extensions 54 which are pivotally connected as at 55 to a head 56 of an upwardly extending rod 57 which rod in turn projects through a hole in plate 58 formed as an extension of bracket 19. Disposed between head 56 and plate 58 is a compressed spring 59 which normally urges brackets 49 and accordingly disc 50 downwardly toward table 12. The upper end of rod 59 is provided with adjustable stop nuts 60.

A height regulating bracket 61 is hinged to bracket 19 by a pin 62, and this bracket extends substantially horizontally to the right, as viewed in Figure 11, and is provided with bifurcations, such as bifurcation 63, which straddles the upper end of rod 57 below stop nuts 60. Preferably arcuate pads 64 are provided at the sides of bifurcation 63 to engage the under-side of the lower stop nut 60.

Height regulating bracket 61 is adjusted by means of an eccentric cam 65, which cooperates with a boss 66 on the under-side of bracket 61. The eccentric cam 65 is pinned on a shaft 67, which is journaled at its ends in bracket 19, the forward end of this shaft projecting beyond bracket 19 and having attached thereto a handle 68 (Figure 5) which handle also acts as a pointer for a graduated arcuate dial 69 fastened to the front face of bracket 19. The calibrations on dial 69 are provided to indicate the setting for the stripper discs to a proper adjustment for the thickness of mail to be treated.

To yieldingly maintain eccentric shaft 67 in its

set position, a friction clamp 70 (Figure 6) is provided, the details of which are particularly described in the above-noted application of Sager et al.

As shown in Figure 10, stripping units 46, 47 and 48 are separated so that the elements of feeding device 100 are positioned respectively between units 45 and 47 and units 47 and 48. It should also be noted that center stripping unit 47 is preferably, as shown in Figure 12, an arcuate metal finger which is centrally disposed between the elements of feeding device 100 (Figure 10) so as to press the envelope against the feeding device, but yet not retard the feed of the envelope by reason of excessive frictional engagement between the envelope and the metal finger. As noted above, stripping unit 48 (Figure 11) includes rubber-tired disc 50 which, with a similar disc on stripping unit 46 (Figure 10) yieldingly holds down the bottom envelope 13 of the stack against table 12, and as shown in Figure 11, holds back the remaining envelopes in the stack during the stripping operation. The center stripping unit 47, i. e., the metallic finger, holds down the bottom envelope against feeding device 100, thus providing the frictional contact between the feeding device and the envelope for stripping the envelope from the bottom of the stack. The value of the frictional contact between the envelope and the feeding device is adjusted by setting the stop nuts 60.

All three of the stripping units 45, 47 and 48 are adjustable in unison by manipulation of handle 68 to raise or lower the units to suit the thickness of the particular mail matter to be treated. However, as noted hereinabove, a stack of mail may often include envelopes of greater than average thickness and to preclude the necessity of changing the setting of handle 68 whenever an envelope of unusual thickness is to be stripped from the bottom of the stack, we provide a finger piece 71 (Figure 12) which is attached to the under side of bracket 61. As bracket 61 may be pivoted about pin 62 irrespective of the setting of eccentric cam 65, the bracket may be lifted by handle 71 to raise all of the stripping units, as desired. After the thick envelope has been stripped, handle 71 may then be released so that bracket 61 returns to its initial elevation, thus precluding the necessity of readjusting the entire stripping unit through the manipulation of handle 68 (Figure 5).

As shown in Figure 14, stripping disc 50 includes a pair of metallic plates 72 which clamp between them a rubber tire 73, the plates and tire being clamped as a unit between brackets 49 of the stripping unit. As rubber tire 73 is held against rotation as envelopes pass therebeneath, the tire, after a period of time, might become worn to such an extent as not to exert the desired pressure on the envelope. While the rubber tire is frictionally held in one position, it is rotatable to enable positioning of an unworn portion thereof over the envelopes. To assure uniform wear of the tire, and accordingly preclude the possibility of the tire being repositioned so that a worn spot is placed over the envelope, plates 72 are provided with a series of holes 74 (see also Figure 11) into which a ball 75 is adapted to be forced by leaf spring 76 secured to one of brackets 49 (Figure 15). Thus, disc 50 may be rotated as desired within brackets 49, and the registry of indexing holes 74 with ball 75 assures

proper positioning of the disc to press an unworn portion thereof over the envelope.

It may now be seen that we have provided a feeding device for a mail treating machine which effectively feeds mailing matter into the machine, without damaging the mailing matter or jamming the machine, regardless of the size or shape of the individual pieces of mail.

As many possible embodiments may be made of the above invention and as many changes might be made in the embodiment above set forth, it is to be understood that all matter hereinbefore set forth, or shown in the accompanying drawings, is to be interpreted as illustrative and not in a limiting sense.

We claim:

1. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, side and rear plates immovably mounted adjacent said table for guiding respectively the leading and rear edges of the envelopes, a front plate adjustably mounted adjacent said table for guiding the front edge of the envelopes, the bottom edge of said front plate being spaced from said table during the adjustment of said front plate, and means for simultaneously locking said front plate in its adjusted position and for forcing the bottom edge thereof against said table.
2. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, side and rear plates mounted adjacent said table for guiding respectively the leading and flap edges of the stack of envelopes, a slide bar movably mounted on said side plate, a front plate mounted on said slide bar and movable therewith toward and away from said rear plate to adjust said front plate relative to said rear plate, and means for locking said slide bar in its adjusted position.
3. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, a rear plate immovably mounted adjacent to but spaced from said table for guiding the flap edges of the envelopes, a front plate adjustably mounted with respect to said rear plate adjacent said table and adapted to rest on said table when in its adjusted position, and means forming a lip on the lower edge of said front plate inwardly directed toward said rear plate to underlie the bottommost envelope in the stack to prevent said envelope from entering beneath said bottom edge.
4. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, a side plate extending upwardly from said table for guiding the leading edges of the envelopes, means forming a channel on said plate, a bar slidably mounted in said channel, a front plate mounted on said bar so as to be movable therewith toward and away from said side plate, means for biasing at least one end of said bar upwardly to elevate the bottom edge of said front plate from said table whereby said front plate is freely movable over said table for purposes of adjustment, and means for locking said bar and accordingly said front plate in an adjusted position, said means also acting to force said front plate against the table top to prevent the entrance of an envelope therebetween.
5. An envelope feeding device for a mail treat-

ing machine or the like comprising, in combination, a table adapted to support a stack of envelopes, a rear guide plate adjacent to but spaced from said table for guiding the flap edges of the envelopes whereby the flaps of a stack of unsealed envelopes may pass between said table and said rear plate through said space as said envelopes are fed along said table, and means for closing said space when a stack of sealed envelopes is disposed on said table whereby said stack of sealed envelopes may be supported against rearward inclination.

6. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, a rear guide plate for guiding the flap edges of a stack of envelopes, spacer means for securing said plate to said table in spaced relation thereto to provide a space for the passage of the flaps when the envelopes are sealed and their flaps are depending therefrom, and a filler plate movably secured to said table and movable into position between said table and said rear plate to close said space when sealed envelopes are stacked on said table.

7. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of unsealed envelopes, the flaps of which depend downwardly therefrom in nested shingled relationship, means forming an envelope hopper on said table, one side of said hopper being spaced from one edge of said table to accommodate said depending flaps, and means for filling said space when sealed envelopes are placed in said hopper.

8. An envelope feeding device for a mail treating machine or the like comprising, in combination, a table adapted to support a stack of envelopes, a guide plate extending upwardly from said table for guiding the leading edges of the envelopes, said plate being inclined rearwardly of the direction of travel of said envelopes so as to impart a longitudinal inclination to the stack of envelopes and maintain them in shingled relationship,

an envelope feeding device extending through said table adjacent said guide plate, means forming an abrupt raised ledge extending transversely of said table for supporting the trailing edge of the bottommost envelope in the stack to reduce friction between the envelope and said table, means adjustably securing said ledge forming means to said table, a second guide plate extending upwardly from said ledge forming means from a point spaced from the edge thereof for supporting the trailing edges of the envelopes, and means pivotally connecting said second guide plate to said ledge forming means so that said second guide plate may be pivoted out of parallelism with said first guide plate so as to concentrate the pressure of the stack of envelopes on that corner of the bottommost envelope adjacent said feeding device, thereby to reduce the frictional engagement between the opposite corner of said bottommost envelope and said table.

9. Apparatus of the character described comprising, in combination, a table adapted to support a stack of envelopes, means forming an envelope feed hopper on said table for holding the stack of envelopes, an envelope feeding device extending through said table for engaging and feeding from said stack the bottommost envelope, said hopper including a transverse plate slidably mounted on said table for supporting the trailing edge of the bottommost envelope out of engagement with said table, said hopper also including an upwardly curved plate for supporting the trailing ends of the envelopes in said stack above the bottommost envelope, and means pivotally securing said curved plate to said transverse plate at a point spaced from the edge of said transverse plate whereby said curved plate may be pivoted relative to said transverse plate to concentrate the pressure of the stack of envelopes on that corner of the bottommost envelope adjacent said feeding device.

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