Sept. 27, 1932. B. S. OLES 1,879,990

ENVELOPE MAKING MACHINE

Filed Dec. 3, 1931 3 Sheets-Sheet 1

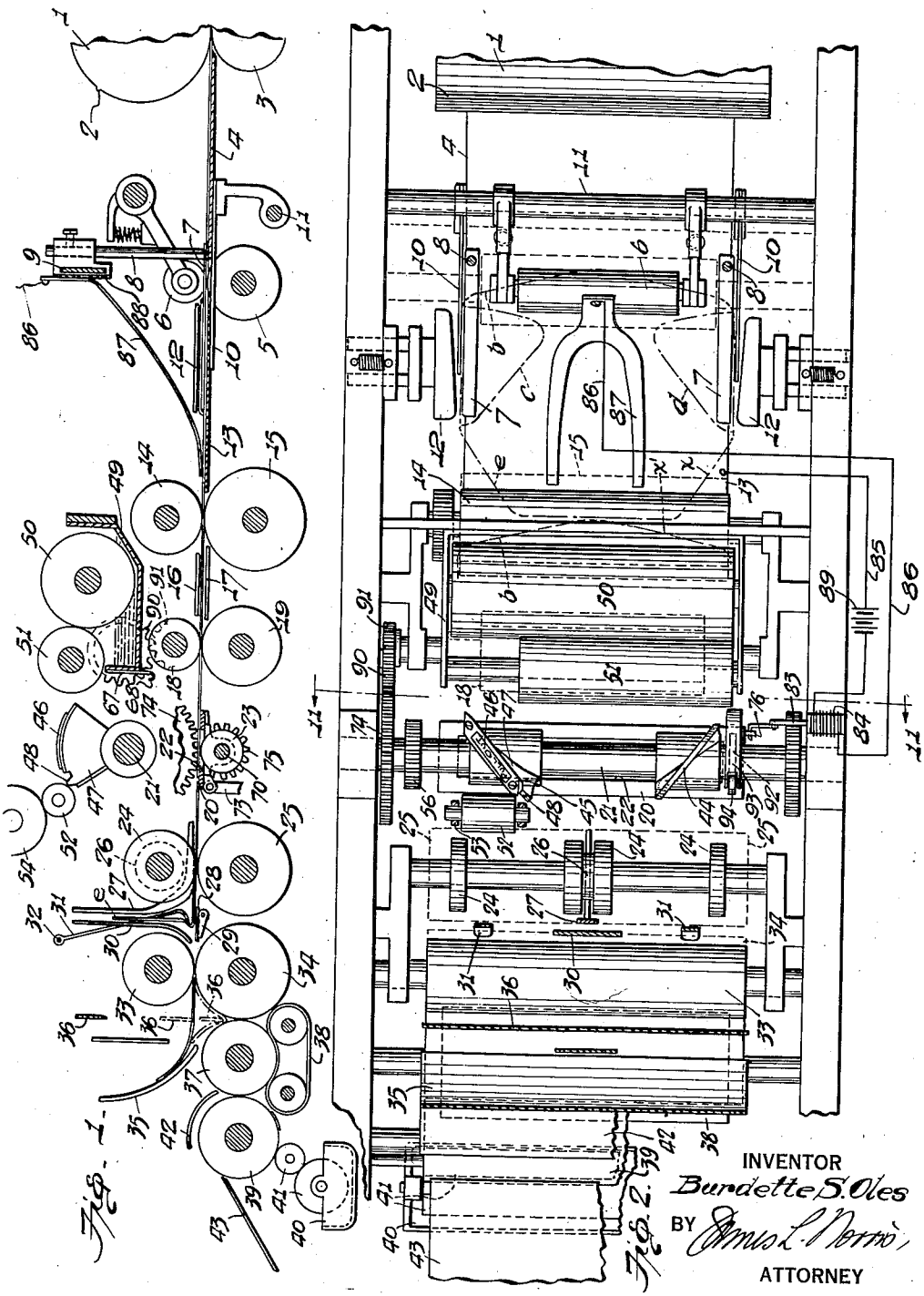


Fig. 1.

Fig. 2.

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ENVELOPE MAKING MACHINE

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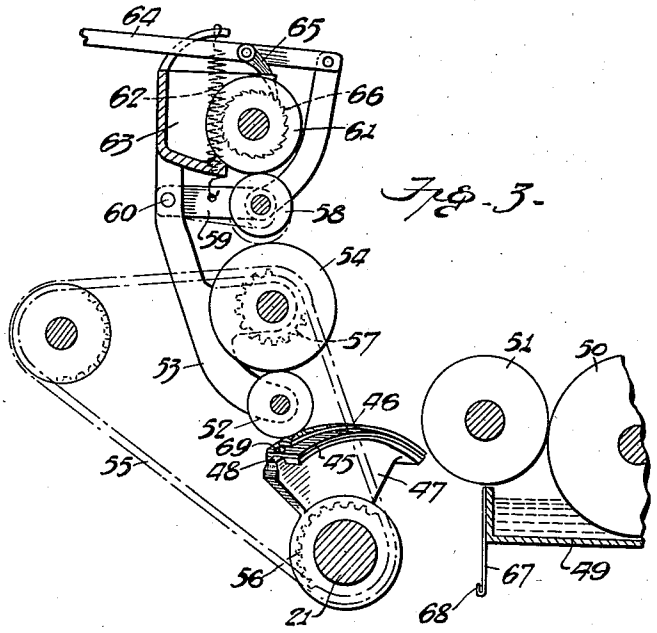


Fig. 3.

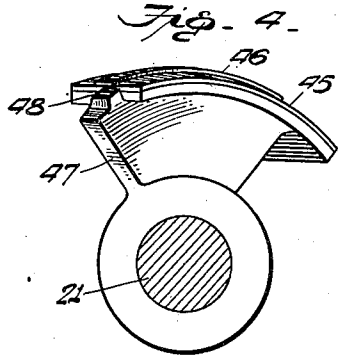


Fig. 4.

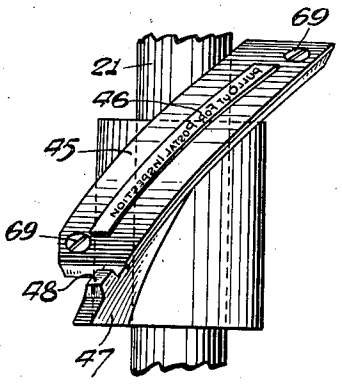


Fig. 5.

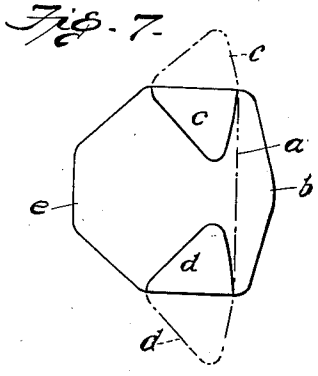


Fig. 7.

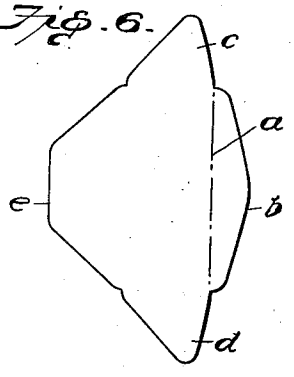


Fig. 6.

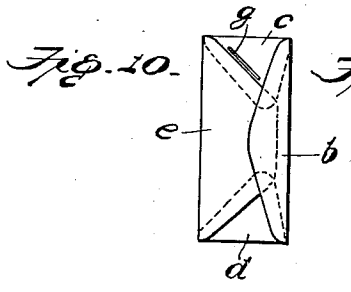


Fig. 10.

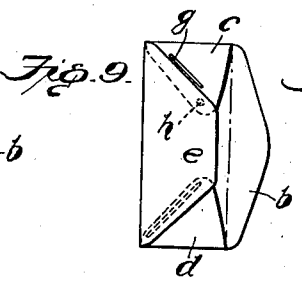


Fig. 9.

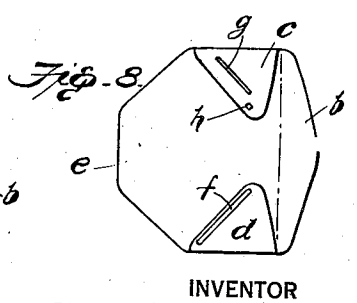


Fig. 8.

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ENVELOPE MAKING MACHINE

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Fig. 11.

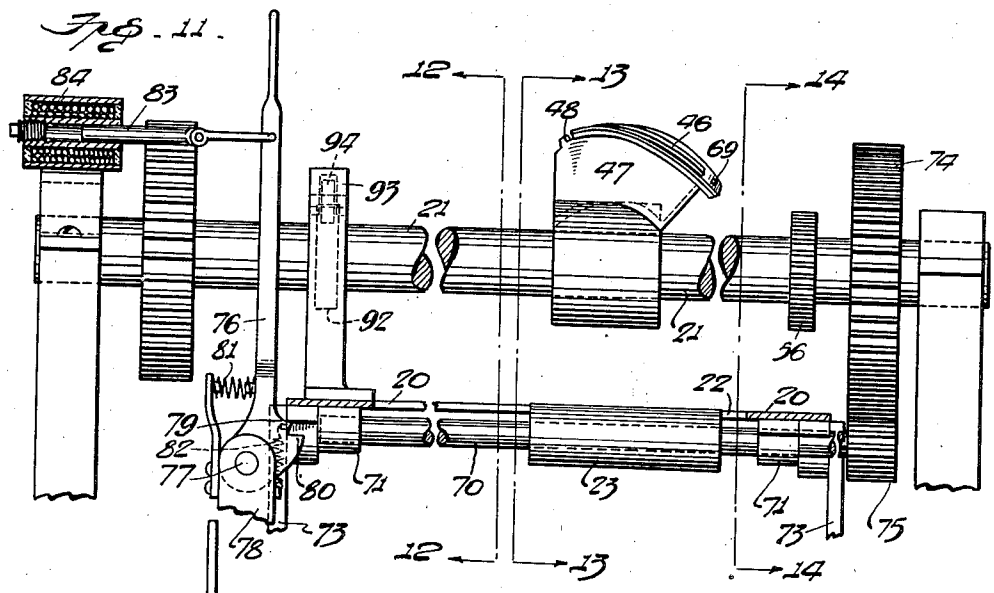


Fig. 12.

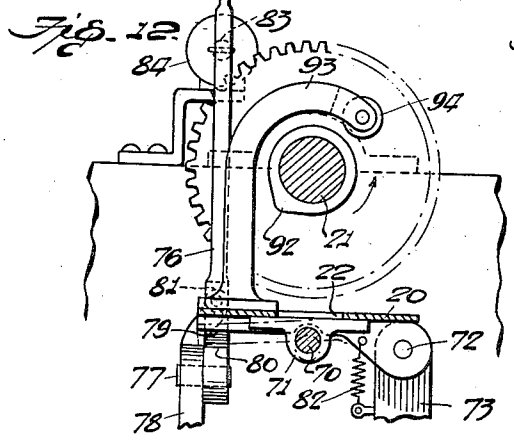


Fig. 13.

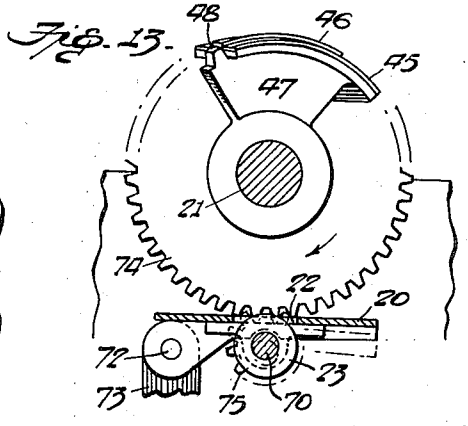
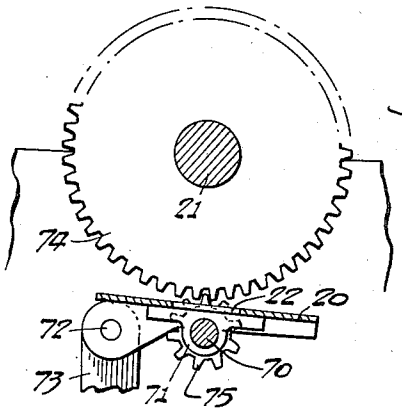


Fig. 14.



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Patented Sept. 27, 1932 1,879,990

UNITED STATES PATENT OFFICE

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ENVELOPE MAKING MACHINE

Application filed December 3, 1931. Serial No. 578,828.

The present invention relates to improvements in envelope making machines, and more especially to those of the class adapted to make envelopes of the diagonally seamed type, and the primary object of the invention is to provide an improvement in or attachment for such machines whereby the latter may produce envelopes of said type wherein one of the side folds is unpasted or is held in place by a small spot of gum or adhesive which enables it to be easily pulled open for postal inspection and said side fold is printed with a postal inspection notice or other appropriate inscription, the improvement enabling the printing of said inscription on said flap to be done at the same time any desired matter is printed on the face of the envelope by the usual printing means commonly employed in such machines for this purpose or, in other words, both of such printing operations may be performed while each envelope blank is passing once through the machine for formation thereof into the finished envelope.

In the preferred form of the invention, the gum picker shaft of the machine is provided with a gummer of the usual form toward one end for applying gum or adhesive to the side flap of the envelope which is to be permanently closed and is provided toward its other end with a gum applying projection to apply merely a spot or small area of gum or adhesive to the other side flap so that this flap may be easily pulled open by detachment from the small gum or adhesive spot, and the picker shaft also carries, adjacent to said gum applying projection, a printing plate or type form for printing the postal inspection notice on the lightly secured side flap, gum applying and ink applying rolls being provided which are arranged to so cooperate with the gumming and printing devices on the picker shaft as to apply gum and ink respectively thereto, so that during each rotation of said shaft and the travel of an envelope blank past it, the folded side flaps thereof will appropriately receive the gum and the postal inspection inscription, preparatory to the folding of the bottom flap against the side flaps of the envelope.

Another object of the invention is to provide means for automatically separating the gumming and printing devices and the cooperating impression roll if, for any reason, an envelope blank fails to pass between the gumming and printing devices and said roll at the appropriate time, thereby avoiding the objectionable application of printed impressions or impressions of gum or adhesive to the impression roll.

To these and other ends, the invention consists in certain improvements and combinations and arrangement of parts all as will hereinafter appear, the features of novelty being pointed out particularly in the claims at the end of this specification.

In the accompanying drawings:—

Fig. 1 is a conventional illustration of a portion of an envelope making machine of well known form provided with the improvement or attachment according to the present invention, this figure representing a vertical section taken longitudinally through the machine;

Fig. 2 is a top plan view of the portion of the machine shown in Fig. 1;

Fig. 3 is a detail vertical section, on an enlarged scale, of the envelop side flap gumming and printing means provided by the present invention;

Fig. 4 is a detail view, on an enlarged scale, of the printing device and the gumming device for one of the envelope side flaps as viewed in side elevation;

Fig. 5 is a top plan view of the printing and gumming devices shown in Fig. 4;

Fig. 6 is a view of the envelope blank in flat form, after the crease has been formed for the closing flap;

Fig. 7 is a view of the envelope blank, showing the manner in which the side flaps are folded;

Fig. 8 shows the envelope blank after the side flaps have been folded and gummed and printed;

Fig. 9 shows the envelope after the bottom flap has been folded against the side flaps;

Fig. 10 is a view of the completed envelope;

Fig. 11 is an enlarged transverse vertical section taken on the line 11—11 of Fig. 2,

showing a portion of the automatic throw-off device for the gumming and printing means; and

Figs. 12, 13 and 14 are detail vertical sections taken on the lines 12—12, 13—13 and 14—14 respectively of Fig. 11.

Similar parts are designated by the same reference characters in the several figures.

The present invention is applicable generally to envelope making machines of the class adapted to make envelopes of the so-called diagonal seam type, and the preferred embodiment of the invention is shown in the drawings and will be hereinafter described in detail, but it is to be understood that the invention is not restricted to the precise construction shown, as equivalent constructions are contemplated and such will be included within the scope of the claims.

In the present instance, the invention is shown applied to an envelope making machine of a well-known construction, substantially as shown and described in U. S. Letters Patent No. 1,153,293, granted September 14, 1915 to Dunnebier & Winkler, it being deemed sufficient for a disclosure of the present invention to show and describe such machine as including a creaser roll 1 having a creasing bar or rib 2 extending longitudinally thereof and projecting from its periphery, and a cooperative rubber or other yielding roll 3 arranged below it, the envelope blanks in the form shown in Fig. 6 being fed by any suitable means successively between these rolls and the creaser bar or rib 2 forming the crease *a* across the blank to define the line on which the closing flap *b* of the envelope is to be folded. The creased blank is advanced by the rolls 1 and 3 over a plate 4 so that it enters between a feed roll 5 and a cooperative idler roll 6, and the blank is advanced by these latter rolls beneath a pair of fingers 7 which are supported above the path of travel of the blanks by posts 8 mounted on a suitable cross bar 9, and the blank at this time overlies a pair of lifting fingers 10 which are mounted on a rock shaft 11 so that they will swing upwardly at the appropriate time to lift the side flaps *c* and *d* of the blank, immediately following which a pair of side folders 12 suitably guided in the sides of the machine frame are moved inwardly by suitable means to fold the flaps *c* and *d* inwardly over the fingers 7 so that they overlie the back of the envelope blank, as shown in Fig. 7. The envelope blank, with the side flaps thus folded, is advanced by the rolls 5 and 6 over a plate 13 so that it passes between a pair of feed rolls 14 and 15, thence between upper and lower guide strips 16 and 17, and the blank is then received between and advanced by a pair of feed rolls 18 and 19 so that it travels over a plate 20 which is arranged immediately below the usual gum picker shaft 21 of the machine, and the plate 20 has an opening 22 therein immediately below the shaft 21 through which the top of a suitably revoluble impression roll 23 is exposed, the shaft 21, in machines of this class, usually carrying gumming devices which apply diagonal lines of gum or adhesive to the folded side flaps *c* and *d* for the permanent sealing of the bottom flap against the side flap. The pasted blank is advanced from the gumming means to upper and lower rolls 24 and 25 between which it passes, the middle upper roll being grooved circumferentially as at 26 and into which groove extends a finger 27 which is supported in stationary position in the machine, so that its lower end overlies the center of the envelope blank. A plate 28 is mounted immediately beyond the roll 25 so that the forward end of the advancing blank will pass over it, and a series of fingers 29 are pivoted to swing upwardly through the plate 28 and to direct the forward end of the blank upwardly so that the portion *e* of the envelope blank which is to form the bottom flap thereof is directed into a space between the finger 27 and a deflector plate 30, the latter being supported in stationary position in the machine. At the moment the proper length of the blank has been introduced between the finger 27 and the plate 30, a pair of fingers 31, pivoted at 32, are swung forwardly by suitable means, the lower ends of these fingers engaging the blank at the point where the line of fold is to be formed between the bottom flap *e* and the body of the blank, and the forward swing of these fingers 31 tucks the partially folded blank, after descent of the fingers 29, between a pair of feeding and creasing rolls 33 and 34 which effectively crease the blank and fold the bottom flap *e* against the previously folded side flaps *c* and *d*, substantially as shown in Fig. 9. The rolls 33 and 34 advance the envelope thus folded until the body of the envelope is deflected upwardly and rests on a curved plate 35 and the crease *a* is immediately beneath a vertically moving folding bar 36, after which the latter descends to engage the line of crease *a* and tucks the envelope between the lower roll 34 and a cooperating roll 37, the passage of the envelope downwardly between these latter rolls effectively folding the closing flap *b* against the back of the envelope, substantially as shown in Fig. 10. It will be understood that the various rolls and other mechanisms of the machine are driven by appropriate means so that the blanks are fed or advanced continuously through the machine and the different operations described are performed at appropriately timed intervals, in the well known manner. Machines of this class are also commonly provided with a printer for printing return addresses or the like upon the face of the envelopes, such a printer being shown diagrammatically as consisting of a travelling belt or conveyor 38

arranged beneath the roll 37 to deflect and carry the envelope upwardly between the roll 37 and a cooperating printing roll 39 which carries appropriate type for the face printing of the envelopes, the roll 37 acting as an impression roll and the printing roll 39 being inked from an ink trough 40 and cooperating inking rolls 41, the completed and printed envelopes being deflected by a curved guard 42 into a delivery chute or the like 43.

According to the present invention, means is provided for printing a postal inspection notice or other suitable inscription upon one of the side flaps of the envelope while the envelope blank is passing through the machine for formation into the envelope and is being printed on the face thereof, so that the printing on the back and the face of the envelope is accomplished at substantially the same time or during a single passage of the envelope through the machine, thus avoiding separate printing operations or passing the envelope twice through the machine to effect this result. The means shown in the present instance for accomplishing this purpose may be readily applied to envelope making machines of the class hereinbefore referred to. The gum picker shaft 21 is provided toward one end with a gum applying blade 44 the circumference of which is a part of a cylinder and extends helically with respect to the axis of the shaft 21 so that it will apply a line of paste *f* diagonally to the side flap *d* of the envelope blank as the latter is advanced over the plate 20 and the impression roll 23, and the gum picker shaft 21 is provided toward its opposite end with a plate 45 which is provided with a type form or line of type 46 on its outer periphery or circumference, this type form or line of type reading, for example, "Pull out for postal inspection". The line of type 46 has its printing face lying in the surface of a cylinder and it extends helically with respect to the axis of the shaft 21 and in an opposite direction to that of the adhesive applying blade 44, so that this line of type will print an impression or inscription *g* diagonally on the back of the side flap *c* of the envelope beyond the point where the bottom flap *e* overlaps said side flap during the passage of the envelope blank over the plate 20 and the roll 23. It will be understood that the diameters of the adhesive applying blade 44 and printing face of the line of type 46 are equal and such that appropriate pressure will be imposed thereby on the envelope blank as the latter passes between the picker shaft 21 and the roll 23, the latter roll being set sufficiently close to the picker shaft to effect this result. When, as is generally preferred, the side flap *c* of the envelope is to be pasted or held beneath the bottom flap *e* so that said side flap may be easily detached and pulled out for postal inspection or other purposes, a small spot of gum or adhesive is applied to the flap *c* at the same time the side flap *d* receives the permanently sealing line of gum *f*, the segment 47 carrying the printing form or type 46 being provided for this purpose with a small projection 48 the outer surface of which lies in the same surface of the cylinder in which the printing form or type 46 lies, so that gum or adhesive applied to this projection will be transferred to the envelope side flap *c* preferably near its inner end to form the relatively small gum spot *h* over which the bottom flap *e* of the envelope is folded so that the flap *c* will be retained in its closed position but can be readily pulled open for postal inspection or other purposes by the easy detachment of this flap.

Means is provided for applying gum or adhesive to the blade 44 and projection 48 and for applying ink to the printing form or type 46, without interference, one with the other. Preferably and as shown, the gum or adhesive is supplied from a trough 49 in which a gum supply roll 50 is rotatable, and the gum supply roll 50 supplies gum to a roll 51 which contacts with the outer surfaces of the blade 44 and projection 48 as the latter passes it during rotation of the shaft 21, the roll 51 being of a length equal to the axial distance occupied by the blade 44 and projection 48 along the shaft 21 so that the roll 51 will be opposite to these gum applying devices and will apply gum thereto during the rotation of the shaft 21 but the roll 51 will not overlap the path of travel of the type 46. Ink is supplied to the type 46 by an inking roll 52 which is staggered relatively to the gum applying roll 51, that is, it occupies a position opposite to the path in which the type 46 travels during rotation of the shaft 21 but removed from the path in which the gumming devices 44 and 48 travel. The roll 52 may receive ink in any suitable manner, this roll being shown in the present instance as supported on the lower end of a bracket 53 which latter carries an ink transferring roll 54 in contact with the roll 52, the rolls 52 and 54 being driven in appropriate directions by a chain 55 which passes around a sprocket wheel 56 on the shaft 21 and a sprocket wheel 57 on the shaft of the roll 54, and the roll 54 may receive ink from a reciprocating roll 58 carried by an arm 59 pivoted at 60 to the bracket 53, the roll 58 being normally held in contact with an ink supply roll 61 by a tension spring 62. The roll 61 as shown closes one side of an ink trough 63 so that it is supplied with ink therefrom and it is rotated at appropriate intervals by a reciprocatory rod 64 which may be operated from a suitable part of the machine at appropriate times and carries a pawl 65 which cooperates with a ratchet wheel 66 fixed on the shaft of the roll 61, the rod 64 being also connected to the arm 59 so that at each recipro-

cation thereof it will move the roll 58 into contact with the roll 54, as indicated by the dotted lines in Fig. 3, thereby transferring ink from the roll 61 to the roll 54 and the latter transferring ink therefrom to the inking roll 52 which applies the ink to the type 46. A plate 67 provided with an upturned lip 68 may be attached to the gum trough 49 beneath the gum applying roll 51 to catch any surplus gum and thereby prevent dripping thereof upon the envelope blanks.

By the arrangement described, although the shaft 21 carries both gum applying and printing means to which gum or adhesive and ink are supplied during each revolution of said shaft by the rolling contact of the gum applying and printing means with the rolls 51 and 52 respectively, no interference results because of the staggering of the rolls 51 and 52 in a direction lengthwise of the shaft 21 so that they will operate only on the gum applying and printing means thereon respectively. Preferably, the plate 45 carrying the type 46 is removably secured to the segment 47, as by the screws 69, so that different printing plates or plates carrying different printing type may be used interchangeably.

By making the adhesive applying blade 44 and projection 48 and the type face 46 all of the same radial length so that they are segments of or their outer active faces all lie in the surface of the same cylinder which touches the periphery of the roll 23, the latter serves as a common platen for both the adhesive applying and printing devices to insure the proper contact thereof with the envelope blank on the roll 23, it being understood that the roll 23 is of sufficient length to cooperate with the blade 44, projection 48 and type face 46, and the forward rotative movement of the blade 44, projection 48 and type face 46 while in contact with the side flaps of the envelope blank and while the blank is supported on the revoluble roll 23 will insure even feeding or advance of the blank while the adhesive and printed impression are being applied thereto.

It will be understood that the application of the gum or adhesive and the printing of the impression on the side flaps *c* and *d* are effected after these side flaps have been folded at the back of the envelope and before the bottom flap *e* thereof has been folded, the condition of the envelope at this time being as shown in Fig. 8, after which the bottom flap *e* is folded against the folded side flaps as shown in Fig. 9 and the closing flap *b* is folded as shown in Fig. 10 by the usual means in the machine as hereinbefore described, Fig. 10 showing the envelope in its finished form and which will bear a postal return address or other inscription printed on the face thereof when the usual printing mechanism for this purpose is used in the machine.

In order to avoid the application of printed impressions or impressions of gum or adhesive to the impression roll 23 if for any reason such, for example, as failure of the blank feeding means as commonly used on such machines, an envelope blank fails to pass between the printing and gumming devices on the picker shaft and the cooperative impression roll, means is provided for relatively separating the printing and gumming devices and the impression roll, and preferably such throw-off means is governed automatically by the passing of the envelope blanks through the machine. In the present instance, the impression roll 23 is mounted on a shaft 70 which is journaled in bearings 71 secured to the under side of the plate 20, and this plate is pivoted toward one end on an axis parallel to the roll 23, as on the pivots 72 supported by relatively fixed brackets 73 so that the plate 20 and the impression roll 23 carried by it may move upwardly and downwardly into and out of cooperative relation with the gumming and printing devices 44 and 48 and 46 on the picker shaft 21. The impression roll 23 is preferably driven at the same peripheral speed as the gumming and printing devices by meshing gears 74 and 75 of appropriate proportionate diameters fixed on the shafts 21 and 70 respectively, but these gears preferably always remain in mesh, a lever 76 pivoted at 77 on a relatively fixed bracket 78 having an upper step 79 on which the free edge of the plate 20 rests so that it is then supported in its upper operative position as shown in Figs. 11 and 13, and having a lower step 80 on which said plate rests when dislodged from said upper step, this lower step supporting the plate 20 and roll 23 in its lowered inoperative position as represented by the dotted lines in Fig. 12 or the full lines in Fig. 14, so that the roll 23 will not be engaged by the gumming and printing devices on the shaft 21 but the gears 74 and 75 will remain in mesh, as shown in Fig. 14. A spring 81 acts on the lever 76 to normally hold it in a position where the upper step 79 is beneath and supports the plate 20 and roll 23, retraction of this lever against the action of this spring withdrawing the step 79 from beneath the edge of the plate 20 so that the latter may drop onto the lower step 80, thereby removing the roll 23 from operative relation with the gumming and printing devices on the picker shaft. A spring 82 may be attached to the plate 20 to pull it downwardly, thereby insuring the dropping of said plate from the upper to the lower step on the lever 76 when the latter is retracted and preventing oscillation or vibration of the plate 20 while resting on either of said steps.

The controlling lever 76 for the plate 20 and roll 23 may be operated in different ways, but it is preferably controlled automatically according to the presence or absence of an

envelope blank at the entrance of the gumming and printing means. As shown, this lever is operatively connected to the reciprocatory core 83 of a solenoid 84 which latter is suitably mounted in fixed position on the frame of the machine, and the terminals of the winding of this solenoid are connected respectively by wires 85 and 86 to the plate 13 which is metal and over which the envelope blanks pass on their way to the pairs of feed rolls 14 and 15 and 16 and 17, and to a detector 87 which overlies the plate 13 at a distance approximately equal to the length of an envelope blank in advance of the roll 23 and comprises a pair of resilient metal fingers the ends of which are arranged to bear on the upper sides of envelop blanks as they pass over this plate, thus holding these fingers out of electrical contact with the plate 13, or to bear on said plate and make electrical contact therewith when no envelope blank passes over the plate 13, it being understood that the envelope blanks ordinarily pass over the plate 13 with their ends sufficiently close to one another, as indicated by the blanks x, x' in Fig. 2, to be bridged by the flattened ends of the fingers of the detector and thus prevent engagement of these fingers with said plate but that the detector fingers will engage and make electrical contact with the plate 13 when a space exists in the row of envelope blanks passing over this plate, as for example occurs when the feeding of a blank to the machine fails. The detector 87 may be secured to an insulating support 88 on the cross member 9 and the wire 85 includes a battery 89 or other suitable source of electrical energy, so that when the detector fingers engage the plate 13 due to the absence of an envelope blank, the circuit containing the solenoid 84 will be completed and the solenoid energized, the solenoid then drawing its core 83 in a direction to retract the lever 67 and thereby withdraw the upper step 79 thereon from beneath the plate 20. The picker shaft 21 is rotated in timed or synchronized relation with the rolls 18 and 19 and the other rolls which advance the envelope blanks through the machine, through gears 90 and 91 for example which connect the gear 74 on the picker shaft to the feed roll 18 so that the gumming and printing devices on the picker shaft will register with each envelope blank as the same is fed thereto by the pairs of feed rolls 14 and 15 and 18 and 19. The picker shaft carries a cam 92 and the plate 20 has a bracket 93 secured thereto which carries a roller 94 arranged above said cam so that, after the plate 20 has been tripped and has dropped into the lower inoperative position and the gumming and printing devices on the shaft 21 have passed the roll 23, the raised portion of the cam 92 passes beneath the roller 94 and lifts the plate 20 and thereby returns it to its raised operative position, and if the solenoid is then deenergized, the lever 76 will be swung by the spring 81 into position to hold the plate 20 in its raised operative position.

The throw-off device described will therefore maintain the impression roll 23 in cooperative relation with the gumming and printing devices on the shaft 21 while the envelope blanks are fed thereto in the usual close succession, the detector fingers being then held out of electrical contact with the plate 13 so that the solenoid 84 remains deenergized, in consequence of which the upper step 79 on the lever 76 will support the roll 23 and plate 20 in their upper operative position, but when a substantial gap occurs in the row of envelope blanks, and when the machine misses a feed, the detector fingers will descend into electrical contact with the plate 13 before the gumming devices 44 and 48 and the printing device 46 reach the roll 23, thereby causing the solenoid 84 to be energized and the latter, in turn, retracting the lever 76 so that the upper step 79 is withdrawn from beneath the plate 20 and the latter drops on to the lower step 80, thus lowering the plate 20 and roll 23 into inoperative position and supporting them in such position while the gumming and printing devices are passing the roll 23, and hence no gum or printed impression is applied to the roll 23, which would be objectionable. After the gumming and printing devices have passed the roll 23, the cam 92 acts on the roller 94 to lift the plate 20 and roll 23 and thus return them to operative position, in which position they will be held by the upper step 79 of the lever 76 while the next envelope blank passes over the plate 20 and roll 23, assuming such blank to be present, thereby assuring the proper reception of the adhesive and printed impression by such blank and by all succeeding envelopes until another blank is missing in the feed.

I claim as my invention:

1. In an envelope making machine having means for folding side flaps of an envelope and means for folding a bottom flap against the folded side flaps, means for applying adhesive to one of the side flaps and for printing an impression on another of the side flaps after the folding of the side flaps and prior to the folding of the bottom flap.

2. In an envelope making machine having means for feeding an envelope and folding side flaps thereof, means for folding a bottom flap of the envelope against the folded side flaps, and printing means to print on the face of the envelope during its passage through the machine, means for printing an impression on one of the side flaps after the folding thereof.

3. In an envelope making machine having means for feeding an envelope and folding side flaps thereof, means for folding a bottom

flap of the envelope against the folded side flaps, and printing means to print on the face of the envelope during its passage through the machine, coacting means for applying adhesive to one of the side flaps and for printing an impression on another of the side flaps at one operation after the folding of the side flaps and prior to the folding of the bottom flap.

4. In an envelope making machine having means for feeding an envelope and folding side flaps thereof, means for folding a bottom flap of the envelope against the folded side flaps, and printing means to print on the face of the envelope during its passage through the machine, means for applying a line of adhesive to one of the side flaps and a spot of adhesive to the other side flap and for printing an impression on the latter side flap subsequent to the folding of the side flaps and prior to the folding of the bottom flap.

5. In a machine for making diagonal seam envelopes having means for feeding an envelope and folding the side flaps at the back thereof, means for folding the bottom flap of the envelope against the folded side flaps, and means for printing on the face of the envelope, means for applying a diagonal line of adhesive to one of the side flaps and for printing a diagonal inscription on the other side flap at one operation subsequent to the folding of the side flaps and prior to the folding of the bottom flap.

6. In a machine for making diagonal seam envelopes having means for feeding an envelope and folding the side flaps at the back thereof, means for folding the bottom flap of the envelope against the folded side flaps, and means for printing on the face of the envelope, means for applying a diagonal line of adhesive to one of the side flaps and a spot of adhesive to the other side flap and for printing a diagonal inscription on the latter side flap at one operation subsequent to the folding of the side flaps and prior to the folding of the bottom flap.

7. In an envelope making machine having means for feeding an envelope and folding side flaps thereof and means for folding a bottom flap of the envelope against the folded side flaps, a member carrying adhesive applying and printing means operative simultaneously and respectively on the folded side flaps prior to the folding of the bottom flap.

8. In an envelope making machine having means for feeding an envelope and folding side flaps thereof and means for folding a bottom flap of the envelope against the folded side flaps, a rotary member carrying adhesive applying means to act on the folded side flaps and printing means to act on one of the folded side flaps at one operation prior to the folding of the bottom flap.

9. In an envelope making machine having means for feeding an envelope and folding side flaps thereof and means for folding a bottom flap of the envelope against the folded side flaps, a rotary member carrying adhesive applying means to act on the folded side flaps and printing means to act on one of the folded side flaps at one operation prior to the folding of the bottom flap, and means cooperative with the adhesive applying means to supply adhesive thereto during rotation of said member, and means cooperative with the printing means to supply ink thereto during rotation of said member.

10. In an envelope making machine having means for feeding an envelope and folding side flaps thereof and means for folding a bottom flap of the envelope against the folded side flaps, a rotary member having adhesive applying devices mounted thereon in axially spaced relation, printing means mounted on said member beyond and adjacent to one of the adhesive applying devices, an adhesive supply roll of a length corresponding substantially with the axial extent of the adhesive applying devices and arranged opposite to the path of movement thereof to cooperate therewith during rotation of said member, and an inking roll of a length corresponding substantially with the axial extent of the printing device and arranged opposite to the path of movement thereof to cooperate therewith during rotation of said member.

11. A combined adhesive applying and printing attachment for envelope making machines comprising a rotatable shaft carrying radially extending adhesive applying and printing devices having outer active faces which lie in the surface of the same cylinder, means for supplying adhesive and ink respectively to said adhesive applying and printing devices, and a platen member common to and cooperative with said adhesive applying and printing devices for supporting an envelope blank in position for operation thereon by said devices.

12. In an envelope making machine having printing means comprising a printing device and cooperative impression roll to apply printed impressions to envelope blanks, said printing device and impression roll being relatively movable into and out of cooperative relation, and means for feeding the envelope blanks thereto, means governed according to the presence or absence of feed of an envelope blank for holding said printing device and impression roll in cooperative relation and for permitting said device and roll to relatively move out of cooperative relation, and means operative by said printing means for resetting said printing device and impression roll in cooperative relation.

13. In an envelope making machine, gumming means comprising gumming devices

and a cooperative impression roll for applying adhesive to envelope blanks, said devices and roll being relatively movable into and out of cooperative relation, means for feeding envelope blanks to said devices and roll, means governed according to the presence or absence of feed of a blank for holding said devices and roll in cooperative relation or for permitting said devices and roll to relatively move out of cooperative relation, and means operative by the gumming means for resetting said gumming devices and roll in cooperative relation.

14. In an envelope making machine having opposed elements to operate upon envelope blanks, one of said elements being movable into and out of cooperative relation with the other element, and means for feeding envelope blanks in succession thereto, and a member having steps thereon for respectively holding the movable element in and out of cooperative relation with the other element, said member being retractible to permit movement of the movable element out of such cooperative relation.

15. In an envelope making machine, a rotatable shaft carrying printing and gumming devices, a cooperative impression roll movable into and out of operative relation therewith, gears connected to said shaft and roll and meshing to cause rotation of said devices and roll at the same peripheral speed, a member having steps thereon for respectively holding said roll in and out of operative relation with said printing and gumming devices, a cam rotatable with said shaft, and a part connected to said roll and cooperative with said cam for returning said roll to operative relation with said devices.

In testimony whereof I have hereunto set my hand.

BURDETTE S. OLES.