Sept. 13, 1949. N. S. GATES ET AL 2,482,059

INTERLEAVING ATTACHMENT FOR FOLDERS

Filed March 19, 1948 3 Sheets-Sheet 1

Fig. 1

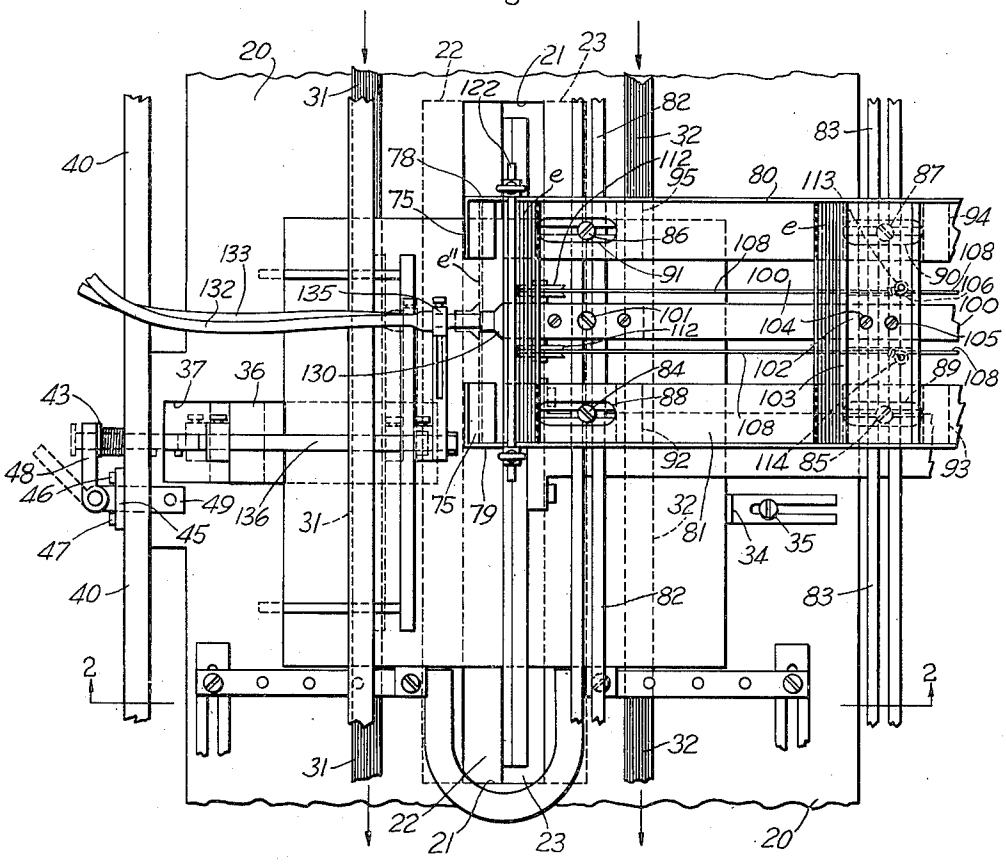
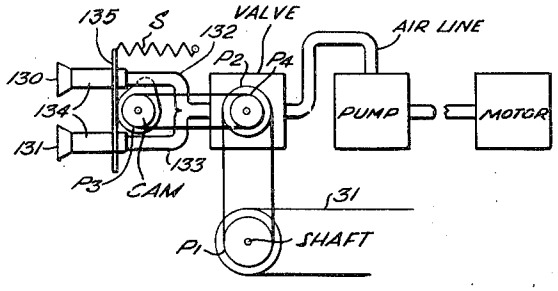


Fig. 6.



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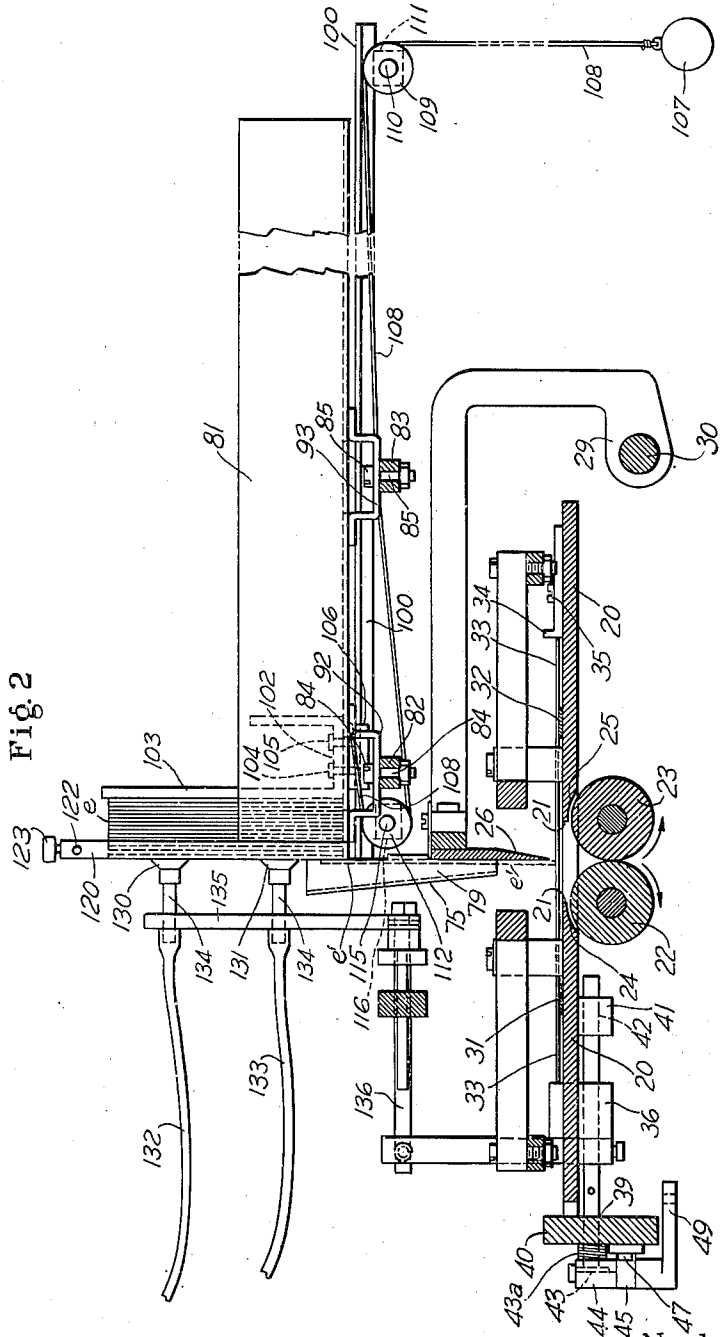
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INTERLEAVING ATTACHMENT FOR FOLDERS

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Fig. 2



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INTERLEAVING ATTACHMENT FOR FOLDERS

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Fig. 3

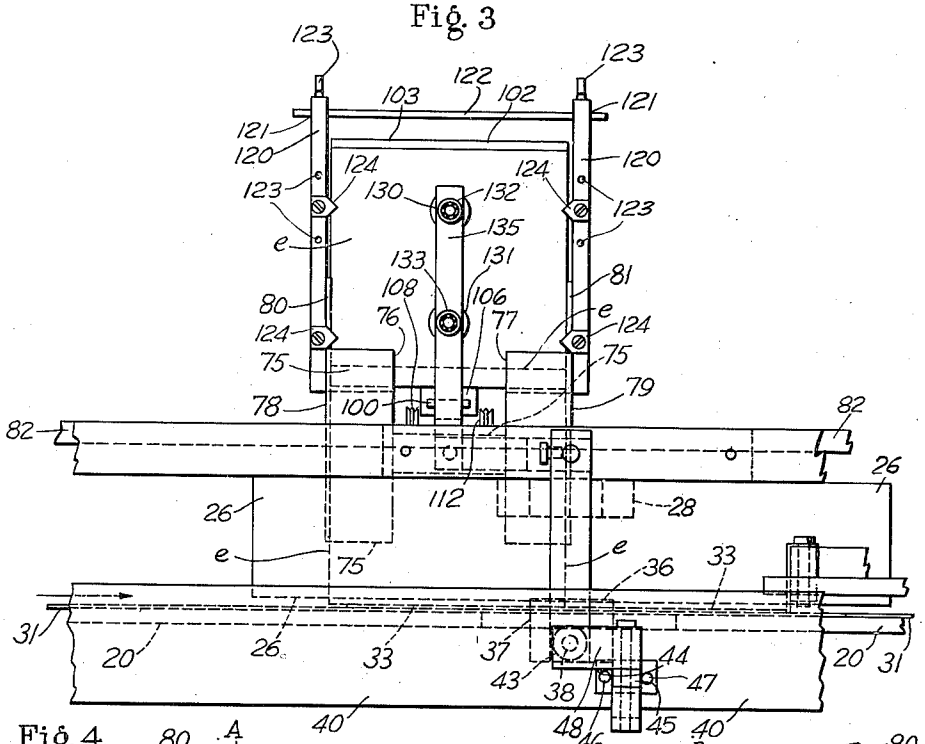


Fig. 4

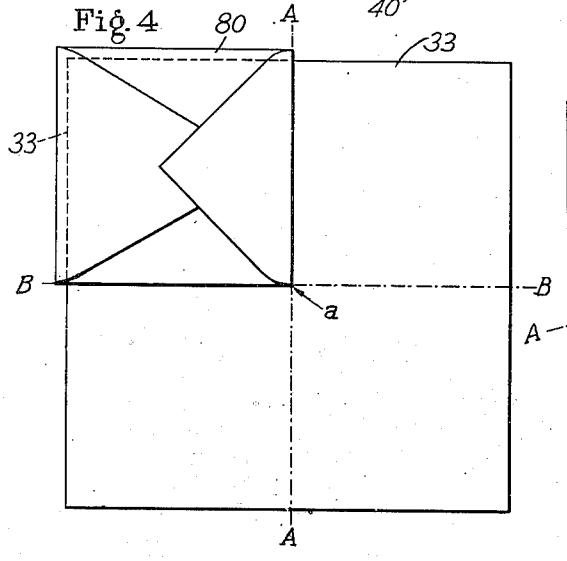
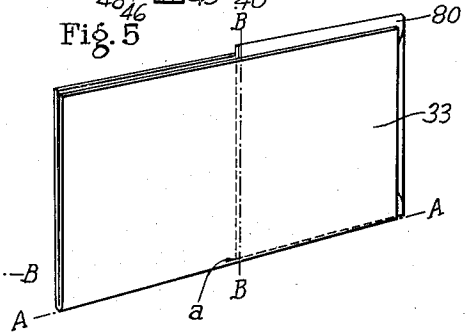


Fig. 5



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INTERLEAVING ATTACHMENT FOR FOLDERS

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4 Claims. (Cl. 270—45)

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The present invention relates to method and apparatus for folding a sheet, e. g., of paper, and for interleaving an insert, such as an envelope, a blotter, or another sheet, inside a fold of the first sheet.

The general object of the invention is to provide a novel, simple, inexpensive, and practical method and apparatus for folding a sheet, e. g. of paper, one or more times, including French-folding the same, and for interleaving an insert inside a fold of the first sheet.

A special object of the invention is to provide simple means for interleaving an envelope inside the first fold of a greeting card or the like while the same is being French-folded, i. e., folded first along a median line normal to two opposite edges and then folded a second time along the median line normal to the other two opposite edges, to form a four-leaf or eight-page product having a facial area substantially equal to one quarter the original facial area.

Many greeting cards and the like, of the French-folded type, are manufactured not from what is generally called card stock but from fairly flexible paper which may be readily folded at high speed. The flat form of the stock upon which the text and illustrations are printed is usually rectangular, sometimes with one or more die-cut edges which are not straight but scalloped or otherwise ornamentally shaped. The trade customarily provides envelopes for enclosing the greeting cards for mailing, the envelopes being slightly larger, of course, than the cards for which they are intended. Lately the trade practice of delivering the greeting card for sale with its related envelope interleaved therein has become quite standard, and, in mass production, apparatus is now generally employed which riffles the French-folded card and interleaves the envelope between two pages thereof. It will be understood that the envelope is desirably interleaved inside part of the first fold of the card, so that one leaf is on one side of the envelope and the other three leaves on the other side of the envelope, for adoption of this practice results in a corner of the envelope being snugly held inside the card at the intersection of the two fold lines thereof, whereas if the envelope were interleaved only inside the second fold it would readily slide or fall out of the card in handling. Counting and packing the cards, and envelopes is obviously facilitated if each card and its envelope form a fairly stable unit.

Thus the present invention contemplates means for interleaving the envelope so as to accomplish the resultant unit product described above, and for performing the operation of interleaving during the French-folding operation and at the time of making the first of the two folds for the purpose of obviating subsequent riffling and interleaving and thereby considerably speeding up production of the finished product.

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It will be plain to those skilled in the art that the invention may be utilized in various applications other than that described above with respect to greeting cards. However, for convenience, an embodiment of the invention specially adapted for French-folding greeting cards and for interleaving the envelopes at the same time has been selected for purposes of illustration in the drawing, and the following description is principally concerned with this embodiment which, in essence, is also illustrative of various modifications avaliable within the scope of the present invention.

In the drawing:

Fig. 1 is a view, in plan, of part of a knife-folding machine combined with one embodiment of the attachment of the present invention.

Fig. 2 is an elevational view of the same, in section on the plane indicated by the line 2—2 of Fig. 1.

Fig. 3 is another elevational view of the same, in section on the planes by the offset line 3—3 of Fig. 2.

Fig. 4 is a plan view of a flat greeting card or the like with its related envelope lying over a diagonal quarter of the same. The lines A—A and B—B are, respectively, the first and second fold lines of the desired French fold.

Fig. 5 is a perspective view of the greeting card or the like after it has been folded once, i. e., along line A—A, showing the envelope inside the righthand half of the fold.

Fig. 6 is a diagrammatic view of an arrangement for feeding sheets and inserts in synchronism.

The principle involved in knife-folding is that flat sheets are fed, usually on a horizontally disposed set of conveyor belts, over a table having a stop disposed transversely with respect to the direction of feed so as to arrest each sheet when it has been delivered beneath a knife, said table also having means thereon for the purpose of shifting the sheet to the right or left of the axis of feed after the sheet has been arrested by said stop for the purpose assuring coincidence of a proposed fold line of the sheet with the edge of the knife when the latter descends; the table is fenestrated beneath the knife, and, beneath the

table and exposed in part due to the fenestration, are a pair of cooperating feed rollers arranged to feed downwardly sheet material inserted between them; and, of course, when the sheet is properly positioned beneath the knife the latter descends, strikes the sheet, forms an arris along the proposed fold line, and inserts the arris between the rollers which engage and withdraw the sheet through the fenestration simultaneously converting the arris into a flat fold.

The knife, of course, reciprocates, and cannot enter between the rollers, suitable stops being provided to arrest descent of the knife when it attains a predetermined position. It has been well-known in the art that no sharp arris is necessary, it being sufficient simply to buckle the sheet until each outer surface of the buckle engages one of the rollers under tension. The surfaces of the rollers are sometimes lightly knurled, where metal rollers are used, to increase the frictional engagement between the sheet and the rollers; where rubber rollers are used the surfaces may be practically smooth.

The rollers, each rotating oppositely with respect to the other, as indicated by arrows in Fig. 2, by engaging the outer surfaces of the buckle of the sheet operate to draw the buckle between them, folding the sheet flat upon itself, feeding the same downwardly, and discharging it below.

Where it is desired to French-fold a more or less rectangular sheet, as in the greeting card trade, the folder involves two practically equivalent assemblies of knives and rollers, such assemblies usually being set normal with respect to each other and that assembly operating to make the first fold usually being above that operating to make the second fold. The sheet, having been engaged by the first knife and having been drawn through the first set of rollers is then commonly deflected beneath these rollers by a concave member which directs the once-folded sheet to the right or the left, as desired in a given case, onto conveyors arranged to carry it horizontally or otherwise into the presence of the second knife and second rollers.

Fig. 4 shows, in plan, a rectangular sheet having an envelope lying over a diagonal quarter thereof, and is illustrative of the relative position of the envelope with respect to that quarter of the sheet after the French fold is complete. The two fold lines of the sheet are represented by line A—A, the first fold line, and line B—B, the second fold line. Fig. 5 shows, in perspective, the card after it has been folded once, i. e., on line A—A, with the envelope in the position relative to the card that actually obtains when the first fold is complete, assuming, of course, that it is elected to interleave on what here, in Fig. 5, is the righthand side of the first fold. It would be immaterial, insofar as the scope of the invention is concerned, that it were elected to interleave the envelope on the lefthand side in Fig. 5; but the apparatus figures indicate a setup which accomplishes a result as shown in Fig. 5 if it be assumed that that half of the card in the fore of the figure is that half to the right in Fig. 4.

Fig. 4 is merely for the purpose of illustrating the relationship between the envelope and that diagonal quarter of the card which it covers. In the folding and interleaving operations no such relationship with respect to the flat card and the envelope actually obtains. However, the end-product sought may be visualized from the following: Let it be assumed that the envelope actually were placed over the upper lefthand diagonal quarter of the card, before the latter had been folded at all, as shown. It is desired to fold the card on lines A—A and B—B, at first on the former, next on the latter. The first fold operation obtains the result shown in Fig. 5. If, then, that lefthand half of the once-folded card, with the envelope inside the righthand half of the fold, as in Fig. 5, is folded counterclockwise on line B—B flat against the righthand half, the envelope is then between one page and three pages of the card, the corner *a* of the envelope snugly held at the intersection of lines A—A and B—B, which follows the usual practice in the greeting card trade.

Figs. 1, 2, and 3 show part of the first assembly of a knife, rollers, conveyors, and other usual parts, of a knife-folder which may be assumed to be arranged to make a French fold. A second assembly to complete the French fold is not illustrated as it will be readily understood from the foregoing and is, further, well understood in the art. These figures also show part of the first assembly combined with one embodiment of the attachment of the present invention. Fig. 1 is a plan view; Figs. 2 and 3 are elevational views, both in section, and respectively determined by the plane designated **2—2**, Fig. 1, and the planes indicated by the offset line **3—3**, Fig. 2.

The table of the machine relating to the first assembly is designated **20**, and is provided with an elongated fenestration **21**, which is seen to be of rectangular shape, its longitudinal median line lying in a vertical plane passing between two horizontally disposed rollers **22** and **23**. Compare Figs. 1 and 2. The under surface of the table near the longitudinal sides of the fenestration **21** is preferably beveled at **24** and **25** so that the rollers may be more nearly positioned at tangency with the upper surface of the table **20**, as shown in Fig. 2. No journals, intergearing, or driving mechanism for the rollers is shown as such are well-known in the folding machine art.

Also, in these figures, the knife blade is designated **26**, a reinforcing member, or bar, along the back of the blade, **27**; and a reciprocating arm, rigidly fixed to both the reinforcing bar and blade, **28**. The arm **28** is conveniently shaped as shown in Fig. 2, and is bent or formed to terminate beneath the table surface at **29** where it is locked upon a shaft **30** which may be caused to oscillate at predetermined times by cam controlled means common to the folder art.

Two conveyor belts **31** and **32** are shown (see Fig. 1, particularly). Such belts are common in folding practice and are usually of fabric so as to present a fairly rough surface to the sheet to be conveyed upon them. In Figs. 1, 2, and 3, the belts are shown as merely dragging over the upper surface of the table **20**. Sometimes more than two belts are used where the smoothness or inertia, or both, of the sheet renders such use desirable. It will be understood that skidding of the belts and sheet relative to each other is undesirable in delivering the sheet beneath the knife in the direction parallel to the belts, as the arrival of the sheet must necessarily accord with the operation of the knife itself. No driving mechanism for the two belts shown has been illustrated. The arrows in Figs. 1 and 3 indicate the direction of feed. Sheets to be folded are delivered one after another onto such belts with an ample interval between the sheets depending upon the speed of operation, and from the direction beyond the top of Fig. 1, or the lefthand erased edge of Fig. 3.

The unfolded sheet is designated 33 (seen in plan in Fig. 1, and in elevation in Figs. 2 and 3—in the latter figure as a thin dotted rectangle). For convenience the sheet selected for purposes of illustration is facially square (cf. Fig. 4); therefore the related envelope may be facially square (cf. Figs. 3, 4, and 5). In Figs. 1, 2, and 3, the sheet is shown in final, properly registered position, which immediately precedes the operation of the knife.

It will be noticed in Fig. 1, the plan view, that the feed belts 31 and 32 have a direction of travel that is parallel to the edge of the knife. In order to make certain that the fold line of the sheet relating to the first knife to strike the sheet is properly registered with respect thereto at the time of the first folding operation, an adjustable stop 34 is usually provided at one side of the table, as shown in Figs. 1 and 2. The stop, here, is shown as a slotted, L-shaped member, secured at a selected position to the upper surface of the table 20 by means of a screw 35. Usually the early feed of the sheets is such that the edge of an advancing sheet nearest such lastnamed stop passes by the same at some slight distance from it; and another member, shown in Figs. 1, 2, and 3, as a block 36 riding in a slot 37 in the table 20 and fixed to a reciprocating rod 38 moving axially in said slot, advances against the sheet after the same has been arrested with respect to the direction of motion of the feed belts and slides the sheet against the stop 34. This last described operation is merely for the purposes of positioning the sheet properly with respect to the knife, and not for the purpose of buckling the sheet.

It will be understood by those versed in the art that the movable member 36 might be dispensed with in favor of an elongated, adjustable stop running alongside a margin of the table, and of feed belts operating at a bias tending to drive the sheet edgewise against such stop while it is also being advanced into position beneath the knife. This structure is not illustrated.

Here, in Figs. 1, 2, and 3, where an adjustor such as block 36 is shown to be part of the machine, the rod 38 is slidably mounted at 39 in a runner 40 edging the table 20 and in a block 41 at 42, the block 41 being fixed beneath the table (see Fig. 2). That end of the rod 38 to the left of runner 40 in Figs. 1 and 2 is headed at 43, and a compression spring 43a surrounds the rod 38 between the head at 43 and the outer vertical surface of the runner 40, so that rod 38 normally tends to assume the position (shown in dotted lines in Fig. 1) corresponding to a retraction of block 36 from the locus of the edge of a positioned sheet.

A bellcrank 44, pivotally mounted on a bracket 45, the latter being fixed by screws 46 and 47 to the outer surface of runner 40, as shown in Fig. 1, operates by means of an arm 48 periodically to force the rod 38 into the position indicated in solid lines in Figs. 1 and 2, another arm 49, being engaged, say, by a link (not shown) operated in any suitable manner in connection with the operation of the driving mechanism of the knife, in accordance with the art.

The object to be achieved by the illustrated embodiment of the invention as an attachment combined with a knife folder is primarily to deliver an envelope, preferably at 90° to the plane of the sheet to be French-folded, into the buckle of the sheet immediately or very shortly after the beginning of the first folding operation; and to deliver such envelope edgewise alongside the knife blade so that the leading edge of the envelope is substantially in register with the first fold line, and one leading corner of the envelope is substantially in register with the intersection of the two fold lines.

In the exemplary structure shown the sheet is fed beneath the knife horizontally. Thus we prefer, here, to deliver the envelope vertically, and have shown attachments arranged to do so. It will be obvious that, as the envelope is facially larger than a quarter of the card, if a corner of the envelope meets the sheet at the exact center thereof and the leading edge of the envelope is registered with one fold line, part of the envelope will project beyond an edge of the card. See, as a theoretical illustration, Fig. 4. If the leading edge of the envelope follows the arris of the buckle between the rollers the resulting appearance of the card and envelope, beyond the rollers, is as shown in Fig. 5.

We provide apparatus which may be supported in any suitable manner over the table of the knife folder for the purpose of carrying a supply of envelopes and feeding said envelopes one after another, here forward and then vertically downward, to the sheet as the same is being folded for the first time.

The apparatus, i. e., the attachment of the present invention, comprises a magazine for envelopes and means connected therewith to feed envelopes one after another from such magazine, and a chute, carried on said knife, and reciprocating with the same, arranged to receive an envelope delivered from said magazine and to discharge the envelope onto the sheet as the same is being folded, and also in proper register with respect to said sheet.

On the front of the knife we provide a chute 75, which is rigidly fixed to the knife, and which may be made of a single sheet of fairly thin material, such as metal, folded in the shape illustrated. The chute 75 is shown to be open at the front thereof, being cut away at 76 and 77 (cf. Figs. 1 and 3). The sides of the chute, which serve to insure a vertical drop of an envelope falling through the chute, and proper registration of the envelope with the sheet beneath, are designated 78 and 79 (cf. Fig. 1, wherein the chute is seen from above; Fig. 2, a side view; and Fig. 3, a front view). Of course the top and bottom of the chute are open (cf. Fig. 1); the bottom, however, is preferably somewhat narrower than the top. The chute, it will be understood, is carried on the knife and is not connected with the magazine for envelopes positioned above said chute.

The assembly comprising a magazine for envelopes is made up, in part, of two lengths of angle stock 80 and 81 (cf. Figs. 1 and 3), each of which is supported on and independently attached to a pair of slotted bridge members 82 and 83 which are horizontally disposed above the table 20 of the knife folder. The bridge members 82 and 83 may be supported in any suitable manner. No supporting means, however, are illustrated, as such means are not part of the present invention; and it will be seen, in Figs. 1 and 3, that the ends of said members are erased. The sole function of the bridge members 82 and 83 is to support the magazine assembly at a suitable height above the table of the folder. Also, as various sizes of envelopes and sheets are met with it is important that the magazine assembly be capable of adjustment to accommodate a variety of stock. Of course it is well known that the knife folder itself

is arranged to handle any of a variety of sizes of sheets. Thus various adjustments must be provided for, and, in Fig. 1, provisions for many adjustments will be recognized in the slotting of various members.

The angles 80 and 81 may be variously positioned with respect to each other upon the bridge members 82 and 83, and independently secured thereto by means of sets of bolts and nuts 84, 85, 86, and 87 (see, particularly, Fig. 1). The horizontal flanges of the angles 80 and 81 are slotted near the front and rear portions of the same, as seen in Fig. 1, the slots being designated 88, 89, 90, and 91. Beneath each angle and in register with a slot therein is a foot member, which is also slotted, as shown in Fig. 1; these foot members, designated 92, 93, 94, and 95, may each be made of a strip of sheet material folded as shown in elevation in Fig. 2, wherein members 92 and 93 are seen, the same obscuring members 94 and 95. The members are attached in any suitable manner to the underside of their respective angles. The purpose of the foot members—apparent in Fig. 2—is to hold the envelope magazine somewhat above the supporting bridge members 82 and 83 so that means for feeding envelopes from the magazine may freely operate beneath the magazine and above the supports.

Disposed horizontally and midway between the angles 80 and 81 and parallel thereto, and also supported by the bridge members 82 and 83, is a rail 100, having an expanded head (cf. Fig. 3, where the front end is seen). The rail 100 may be secured to the bridge members 82 and 83 in any convenient manner. For example a countersunk screw is shown in Fig. 1 at 101, the same serving to secure the forward portion of the rail 100 to bridge member 82. A similar screw securing the rearward portion of the rail 100 to bridge member 83 is not visible in the drawing.

Within the magazine formed by the angles 80 and 81, and slidably mounted on rail 100 so that it may move lengthwise with respect to the magazine, is a member 102, which, in Fig. 2, can be seen to be a piece of sheet material bent twice at 90° to simulate a bookend. The forward portion, which is vertically disposed, is designated 103. The front surface of portion 103 serves as a buffer and bears against the endmost of a group of envelopes carried in the magazine (see Fig. 2). In Fig. 1, the plan view, a few envelopes are seen at the forward end of the magazine, and a few are also seen adjacent to the front portion 103 of member 102. Envelopes which would normally be between those seen in the figure are removed so that the structure of the magazine and the means for feeding envelopes may bem ore clearly illustrated.

With reference to Fig. 1 wherein the relative positions in an exemplary setting of the angles 80 and 81 and the track 100 upon bridge members 82 and 83 is best illustrated, screws 104 and 105 secure a block 106 (indicated in dotted lines; see in solid lines, in elevation, in Fig. 2) to the bottom of member 102. This block is channeled, as indicated in Fig. 3, the front view, to be slidably keyed to the head of rail 100, which, together with the horizontal flanges of the angles 80 and 81 serves as the support for member 102. The member 102 is shown, arbitrarily, to be as wide as the illustrated envelopes.

The member 102 is normally urged toward the front of the magazine assembly by means of a weight 107 (cf. Fig. 2) suspended at the rear of the magazine assembly on a looped cord, or the like, 108, which passes over grooved pulleys 109 (only one visible, and that in Fig. 2), both carried on a stub shaft 110 mounted in a block 111 fixed in any suitable manner to the rear end of the rail 100 (see dotted lines, Fig. 2). The ends of the loop are lead over bridge member 83 and beneath bridge member 82 and up and around two additional grooved pulleys 112 (cf. Figs. 1, 2, and 3) and thence, doubling upon themselves, to the underside of member 102 (between the horizontal flanges of the angles 80 and 81 and the block 106) where the ends of the loop are attached at 113 and 114 (cf. Fig. 1). The pulleys 112 are carried on a stud shaft 115 mounted in a block 116 attached beneath the forward end of the rail 100. See Fig. 2.

Thus when the envelopes are loaded in the magazine assembly, each envelope being disposed vertically on edge, as shown in Fig. 2, the member 102 continuously tends to push the group of envelopes out of the forward end of the magazine assembly. However, at the forward end of each angle (i. e., 80 and 81) is an upright post 120 secured to the outer vertical flange of the angle; see Figs. 1 and 3. These posts extend upwardly higher than the height of the largest envelope to be accomodated within the magazine assembly. Near the upper end of each post 120 is a bore 121 through which is placed an extremity of a rod 122. The rod 122 serves as a tie or brace, as required, to bring together or to expand the vertical flanges of the angles 80 and 81; and the rod is locked in position by means of wing-headed set-screws 123 (cf. Figs. 1, 2, and 3).

Each post 120 is provided on its front surface (cf. Fig. 3) with a plurality of tapped holes 123, the holes 123 of one post 120 being aligned with those of the other post. A plurality, here four, of extremely thin, flexible, and preferably metallic tabs 124 are secured as desired to posts 120 by means of cap screws 125. A preferred shape for the tabs 124 is illustrated in Fig. 3. The tabs extend slightly in front of the most forward envelope of the group carried within the magazine and serve as weak detents to prevent the group of envelopes from being pushed out of the magazine by member 102.

In order that envelopes may be delivered from the front of the magazine and dropped into the chute in synchronism with the operation of the knife 26, we provide simple means for withdrawing the frontmost envelope from the magazine load against the resistance of the tabs 124. Here we have shown (Figs. 1, 2, and 3) a pair of suction cups 130 and 131, connected by hoses 132 and 133 to an air pump (not shown). The cups are arranged to be reciprocated toward and away from the front of the magazine in cooperation with the driving mechanism of the knife, and, also in cooperation such driving mechanism, which is well understood and not illustrated, the air lines of the cups are opened when the cups are positioned adjacent the face of the front envelope, as shown in solid lines in Fig. 1, and closed when the cups are positioned, as indicated in dotted lines in Fig. 1, slightly away from the front of the magazine and over the chute 75. Of course when the suction is terminated the envelope drops vertically into the chute 75 and alongside the front face of the knife 26 as the same strikes the sheet 33, and is thereby carried with the sheet through the folding rollers 22 and 23.

Fig. 6 is a diagrammatic view of an arrangement coupling the sheet feed mechanism (i. e., belts 31, 32) with a vacuum feed mechanism for

inserts. Suction cups 130 and 131 of Figs. 1, 2, and 3 are rigidly connected by means of tubes 134 to an upright member or tie 135. The tie 135 is shown in Figs. 1, 2, and 3 to be rigidly connected with the sheet positioning block 36, but of course this arrangement is only a convenience. The operation of block 36 is ordinarily in timed relationship to the sheet feed mechanism of knife folders, as is well known. However, in Fig. 6, a modification of means for synchronizing the sheet and insert feed mechanism is illustrated. Here the tie 135 is normally retracted from the insert magazine by means of a spring S. A cam, engaging said tie, operates, when rotated, to reciprocate the tie and the suction cups 130 and 131 toward and away from the magazine so that inserts are withdrawn from the magazine, positioned in a particular plane, and released, one after the other. Fig. 6 shows a motor directly coupled to a pump; an air line from said pump to a valve; and, beyond said valve, a pair of flexible hoses 132 and 133 leading respectively to suction cups 130 and 131. A pulley P_1 is mounted on any convenient shaft of the sheet feed mechanism, of which (in Fig. 6) one belt, 31, is indicated, and this pulley is connected by means of a belt with another pulley P_2 mounted on the shaft of the valve, which latter shaft may be adapted to open and close the valve in any well known manner in accordance with rotation of said shaft. A pulley P_3 mounted on the shaft of the cam is connected by a belt with another pulley P_4 also mounted on the valve shaft. It will be obvious that the valve is opened and closed with a periodicity related to the revolutions of the shaft of the sheet feed mechanism. This elementary arrangement is set forth as an illustration of one of many obvious ways in which the delivery of sheets and inserts may be synchronized.

We claim:

1. The method of folding a sheet over an insert which comprises positioning said sheet over a pair of cooperating feed rollers lying in a substantially horizontal plane; positioning said insert above and normal to said sheet in a plane passing between said feed rollers; releasing said insert so that the same falls vertically on edge onto said sheet; and striking said sheet alongside said insert with a blade and thereby forming an arris in said sheet and introducing said arris between said feed rollers.

2. The method of interleaving an insert between a fold of a sheet which comprises positioning said sheet over a pair of cooperating feed rollers lying in a substantially horizontal plane; positioning said insert upon said sheet edgewise and normal thereto in a plane passing between said feed rollers; releasing said insert; and striking said sheet alongside said insert with a blade and thereby forming an arris in said sheet and introducing said arris between said feed rollers.

3. In a knife folder having a pair of cooperating feed rollers lying in a substantially horizontal plane, a reciprocating blade alternately advancing into and withdawing from the nip of said feed rollers, and a mechanism feeding one unfolded sheet at a time beneath said blade and over said feed rollers, the combination therewith of a magazine carrying inserts, another feed mechanism delivering an insert from said magazine and positioning said insert above and normal to said sheet in a plane passing between said feed rollers and releasing said insert so that the same falls vertically on edge onto said sheet in said plane when said sheet is over said feed rollers, said other feed mechanism operating in timed relationship to said firstnamed mechanism, and guide means for holding said insert, when released, in said plane.

4. In a knife folder having a pair of cooperating feed rollers lying in a substantially horizontal plane, a reciprocating blade alternately advancing into and withdrawing from the nip of said feed rollers, and a mechanism feeding one unfolded sheet at a time beneath said blade and over said feed rollers, the combination therewith of a magazine carrying inserts, another feed mechanism delivering an insert from said magazine and positioning said insert upon said sheet edgewise and normal thereto and releasing said insert thereon in a plane passing between said feed rollers when said sheet is over said feed rollers, said other mechanism operating in timed relationship to said firstnamed mechanism, and guide means for holding said insert, when released, in said plane.

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