J. H. BARR.

LABEL FOLDING AND MARKING MACHINE.

APPLICATION FILED FEB. 21, 1916.

1,243,032.

Patented Oct. 16, 1917.

4 SHEETS—SHEET 1.

Fig. 1.

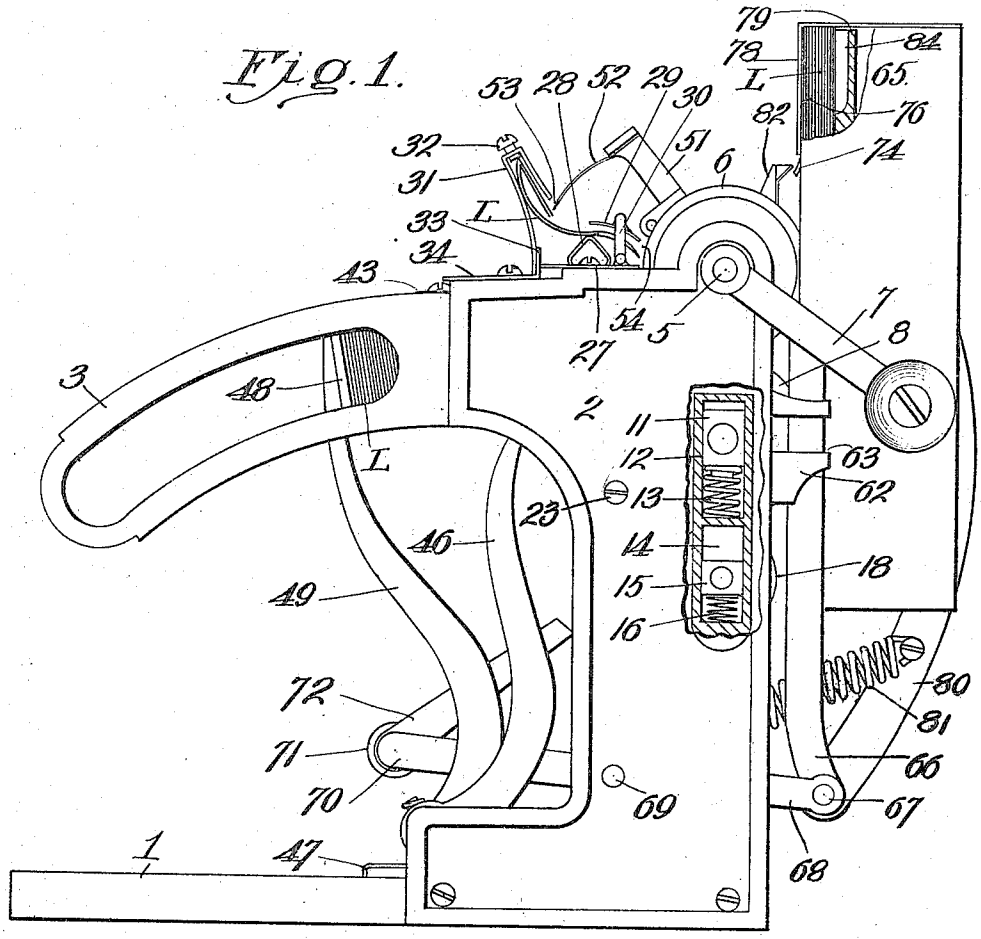


Fig. 8.

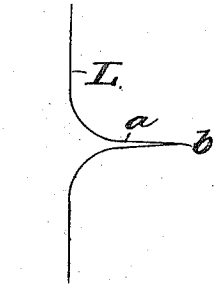


Fig. 9.

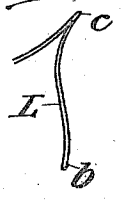


Fig. 11.

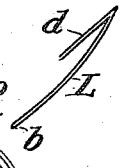


Fig. 10.

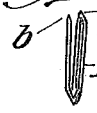
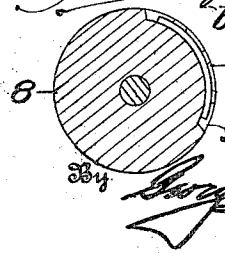


Fig. 12.



Witness

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4 SHEETS—SHEET 2.

Fig. 2.

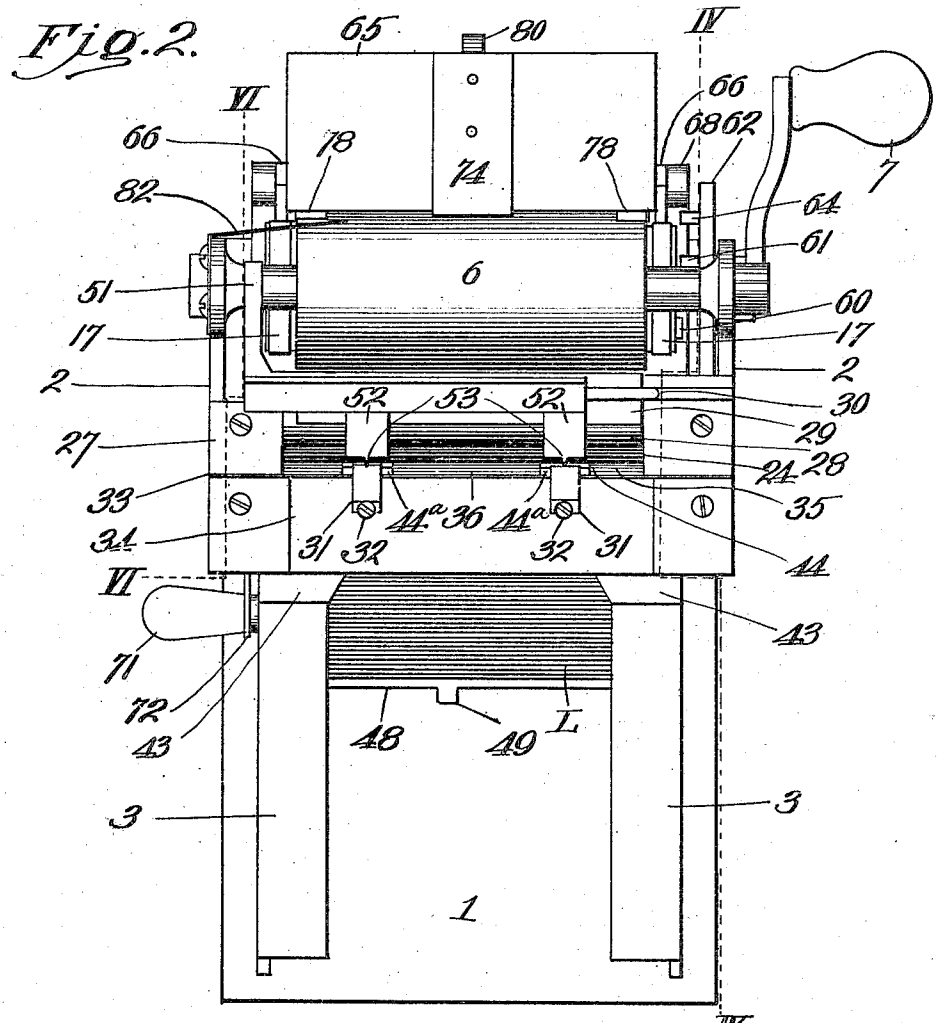
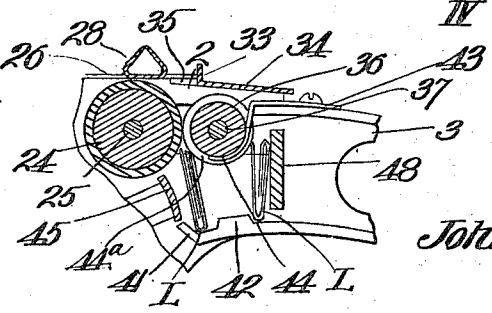


Fig. 7.



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4 SHEETS—SHEET 3.

Fig. 3.

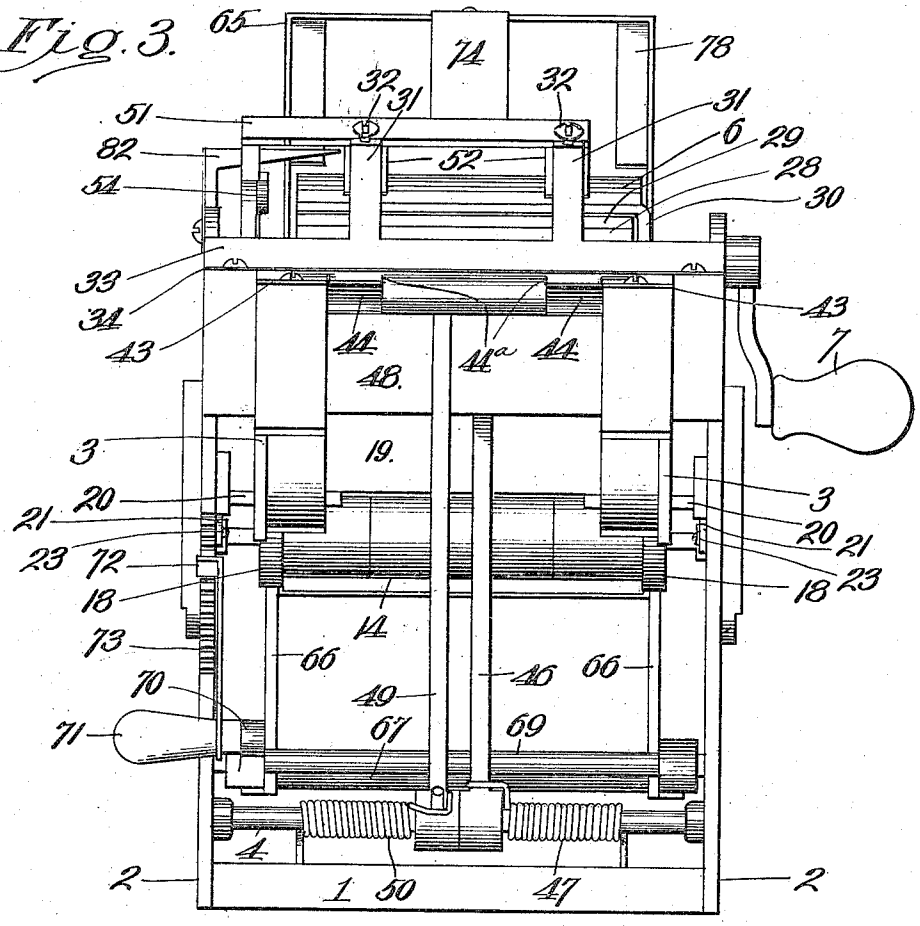
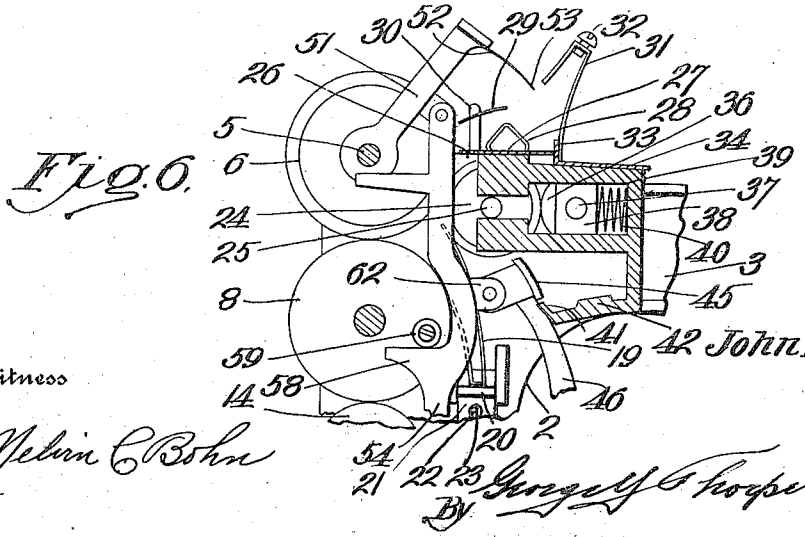


Fig. 6.



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4 SHEETS—SHEET 4.

Fig. 4.

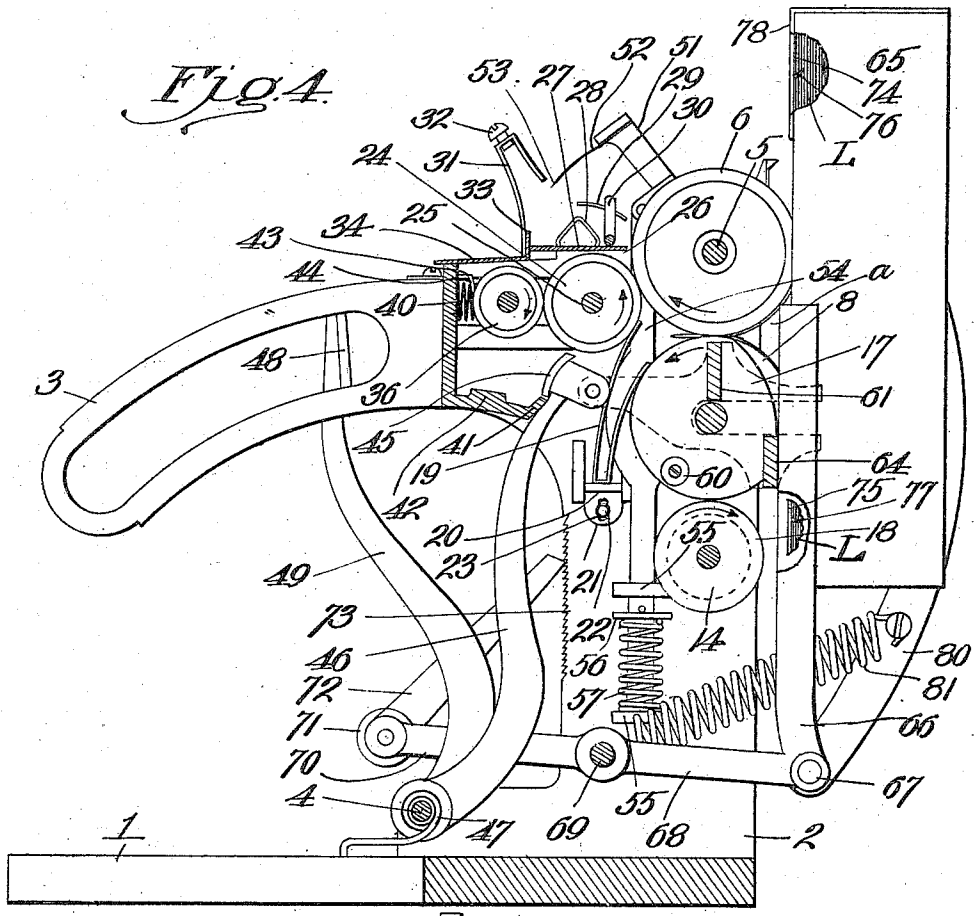
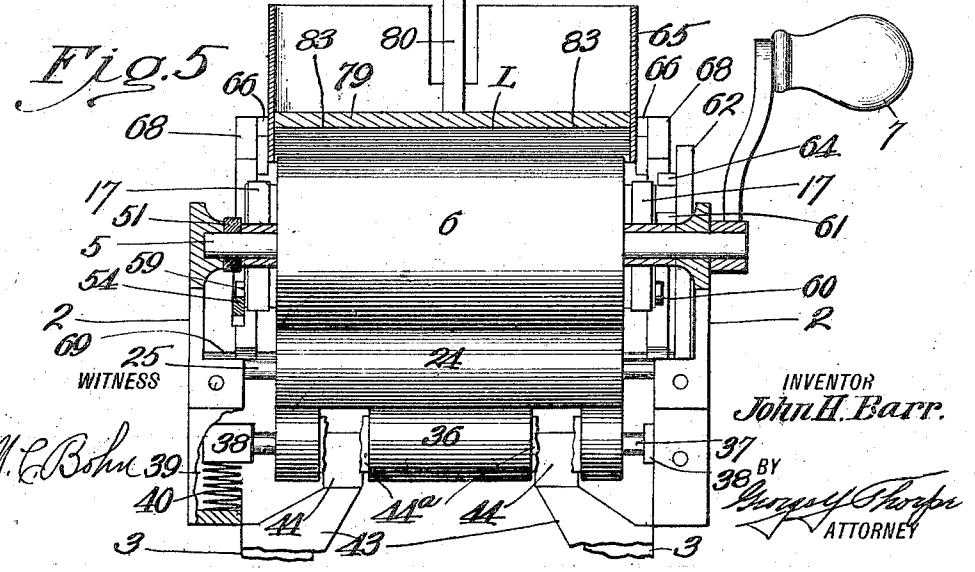


Fig. 5.



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LABEL FOLDING AND MARKING MACHINE.

1,243,032. Specification of Letters Patent. Patented Oct. 16, 1917.

Application filed February 21, 1916. Serial No. 79,612.

To all whom it may concern:

Be it known that I, JOHN H. BARR, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Label Folding and Marking Machines, of which the following is a specification.

This invention relates to paper folding and dating machines and has for its object to produce a machine for folding slips for use in label holders on mail pouches, tie sacks and the like.

A further object is to produce a machine of this character which will perform the operation of folding and dating such slips efficiently and rapidly.

With these general objects in view, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1, is a partly broken side elevation of a label slip folding and dating machine embodying the invention.

Fig. 2, is a top plan view.

Fig. 3, is a front view.

Fig. 4, is a vertical section taken on the line IV—IV of Fig. 2.

Fig. 5, is a broken and fragmentary view partly in elevation and partly in horizontal section in the plane of the axis of the driving feed roller.

Fig. 6, is a fragmentary vertical section on the line VI—VI of Fig. 2.

Fig. 7, is a fragmentary section taken centrally of the machine.

Figs. 8, 9, and 10 are views showing a label slip in its successively folded positions, and Fig. 11, is a view of the slip in substantially the position it occupies preliminary to the third or final folding operation.

Fig. 12, is a cross section through a roller which feeds, folds and marks the label slips.

In the said drawings, 1 indicates the base of the machine and 2 a pair of parallel sides rising from the base, 3 is a pair of arcuate channel guides projecting forward from the upper ends of the sides and disposed in parallel vertical planes just inward of their respective sides; said guides extending concentrically of a transverse shaft 4. 5 is a transverse shaft journaled in the sides at the upper rear corners of the same, and secured rigidly on said shaft between the sides is a rubber tired feed roller 6 and upon one end of the shaft is an operating handle or crank 7. The roller 6 frictionally engages an underlying roller 8 provided with a recess 9, wherein is suitably secured a printing form or plate 10. The ends of the shaft of the roller 8 are journaled in bearing boxes 11 fitting in vertical channel guides 12 in the sides 2, springs 13 in said channel guides exerting upward pressure on said bearing boxes to hold the roller 8 pressed yieldingly against roller 6, and underlying the roller 8, is an inking pad 14. The ends of the shaft of said roller are journaled in bearing boxes 15 engaging said channel guides and pressed lightly upwardly by spring 16.

The roller 8 is provided with cams 17 on its ends, and said cams are engaged by end flanges 18 of the inking roller, the arrangement being such that once in each revolution of the roller 8 the flattened sides of the cams 17 are opposed to the flanges of the inking roller so that the latter may approach roller 8 and ink the printing form or plate thereof.

Arranged forward of the roller 8 is a slip receiving pocket 19, the same being of substantially U-shape and mounted upon a transverse supporting bar 20 provided with depending arms 21 fitting against the sides 2, and secured thereto by clamping screws 22, the said arms having vertical slots 23 through which said clamping screws extend to permit of vertical adjustment of the pocket. The rear wall of the pocket terminates above the plane of the upper side of roller 8, and said wall of the pocket curves or inclines slightly rearward and bears at its upper edge against said roller. The front wall of the said pocket extends upwardly and rearwardly to a plane above the lower side of the roller 6 and terminates about vertically over the upper edge of the rear wall, the arrangement being such that when a slip is folded and fed forwardly by and between rollers 6 and 8, it will abut against and be deflected downwardly by the front wall of said pocket and thus compelled to move downwardly in the latter until it reaches the lower end of the same.

24 is a rubber-tired feed roller extending transversely with its axis above the plane of the upper edge of the front wall of the pocket and in contact at its rear side with

the upper edge of said wall. The shaft 25 of said roller is journaled in the sides 2, and said roller frictionally engages roller 5 at a point above the upper end of the front wall of the pocket and just below a slot 26 provided between roller 6 and a transverse top plate 27 secured at its opposite ends to the top of the sides 2. The plate 27 is provided at its rear edge with an inverted-V shaped guide 28 and above and substantially paralleling said guide flange is an overlying plate or guide 29, the same at one extremity having a depending arm 30 secured to the plate 27. The guide passage constituted by guide 28 and overlying plate 29 is adapted to direct the ends of the folded slip upwardly and forwardly into inverted-U shaped pockets 31 provided with depth regulating screws 32 and the front arms of said pockets are secured to an upwardly projecting flange 33 of a top plate 34 secured at its ends upon the sides 2 forward of plate 26, a slot 35 formed between the plates 26 and 34, accommodating downward movement of the slip when again folded and forced downward in a manner hereinafter explained. The slot 35 is disposed in the vertical plane of the front side of folding roller 24 and the rear side of a smaller coöperating folding roller 36 arranged in the horizontal plane of and forward of roller 24, the shaft 37 of the roller 36 being journaled in slidable bearing boxes 38 fitting in horizontal channel guides 39 in the sides 2. Springs 40 fitting in said channel guides, exert yielding pressure rearwardly upon the bearing boxes 38 to hold the roller 36 pressed yieldingly against roller 24.

The channel guides 3 communicate at their rear ends with the space below the roller 36, and the lower walls of said guides are extended rearwardly under said roller and terminate in upwardly and rearwardly extending arms 41, the upper ends of said arms terminating in about the vertical plane of the meeting faces of rollers 24 and 36.

To provide the arcuate channel guides with vertically constricted throats through which the ends of the folded slips must be fed in slightly buckled condition, after being forced downward from between the feed rollers 24 and 36 into what may be termed the mouths of the arcuate guides, the extensions of the guides 3 are provided with upwardly projecting shoulders 42 below the roller 36, and to coöperate with said shoulders in preventing the folded slips from buckling backward and obstructing the constricted throats and thereby perhaps interfering with the paper feed of following slips, a pair of plates 43 are secured to the upper arms of the arcuate guides and terminate in depending U portions 44 which snugly embrace the front and lower sides of the roller 36, (see Fig. 7) said plates also guarding against any possibility of the folded slips adhering to and being carried upwardly by said roller instead of properly entering the front or slip receiving portions of said guides. It will be noted by reference to Figs. 2, 5 and 7, that the friction or rubber cover of roller 36 is cut away at 44^a to receive the depending ends of the plates 43, that such ends may more reliably guard against upward travel of the folded slips on said roller.

To force the folded slips through the constricted throats or passages after they have been fed down into the mouths of the arcuate guides, a transverse presser plate 45 is secured to the upper end of a swing arm 46, pivoted on the transverse shaft 4, a coiled spring 47 upon said shaft bearing at its opposite ends against the base and said swing arm for the purpose of holding the latter in repressed position. An abutment plate 48 fits at its ends in the arcuate guides to hold the folded slips after they have been forced into the front portions of said guides into the constricted throat thereof against shoulder 42 and plate 43. The plate 48 is secured to the upper end of the swing arm 49 pivoted upon shaft 4 and pressed rearwardly by a spring 50 mounted upon said shaft and bearing at its opposite ends against the base and said arm.

Pivoted upon the shaft of the feed roller 6, is a swing frame 51 provided with arcuate folding arms 52 terminating in impaling pins 53. These arms are adapted to move downward and engage each doubled slip when it bridges the space between the guides 28 and 29 and the inverted-U shaped pockets 31 for the purpose of folding the slip between said guides and forcing it downward through the slot 35 and between the folding rollers 24 and 36 and forward of the presser plate 45.

To impart oscillatory movement to the swing frame for the purpose mentioned, an upright pull bar 54 is pivoted at its upper end to the swing frame and extends loosely through a pair of guide lugs 55 projecting from one of the sides 2, said bar having a rigid collar 56 receiving the thrust of a spring 57 fitting around the bar and bearing at its upper end against said collar and at its lower end against the underlying lug 55. Said bar is provided with an upwardly facing shoulder 58 adapted to be engaged once in each revolution of roller 8 by a roller pin 59 projecting laterally from one of the cams secured to the ends of said roller, and said roller is adapted to force the pull bar downward to effect the operation of the folding arms 52, the spring 57 reëlevating the folding frame as the roller pin passes out of engagement with said thrust shoulder. A roller pin 60 projecting laterally from the other cam 17 of roller 8, is adapted once in each revolution of said roller to engage a laterally projecting shoulder 61 of a plate

62 pivoted at its front end to one end of presser plate 45 (see Fig. 6) to effect forward operation of the latter, said plate 62 having a bifurcation 63 (Fig. 1) through which the shaft of roller 8 extends to form a support for the said plate without interfering with reciprocatory movement thereof. The said plate is provided below the bifurcation with a laterally projecting arm 64 adapted for engagement by the said roller pin 60 as the same travels rearwardly, so that said roller shall effect the return movement of the presser plate in the event the spring 47 fails to perform said function.

65 is a feed box or magazine for paper slips arranged in an upright position, supported upon a pair of vertical bars 66 pivoted on a transverse shaft 67 mounted in the rear ends of a pair of rock arms 68 pivoted on a cross rod 69 secured in the sides 2, one of said arms having a forward extension 70 provided with a handle 71 and with a pivoted pawl 72 for engagement with a toothed front edge 73 of one of the sides, the engagement of the pawl with a ratchet tooth determining the height of the shaft 67 and hence of the feed box.

The feed box is open at its front and rear sides and is provided centrally of its upper and lower ends with stop arms 74 and 75 respectively, the former having upwardly and rearwardly extending impaling pins 76 and stop arms 75 having downwardly and rearwardly extending impaling pins 77. The feed box is also provided at its upper corners with a pair of retaining flanges 78 and fitting loosely in the box and adapted to press forwardly against a package of the slips to be folded contained in the box is a follower plate 79, the same being pressed forwardly by a curved crank arm 80 pivoted on shaft 67 at its lower end and bearing at its upper end against the follower plate, a retractile spring 81 connected to the crank arm 80 and to cross rod 69 not only holding the follower plate pressed tightly against the slips in the magazine, but also exerting sufficient force to hold the feed box or magazine pressed yieldingly forward with supporting bars 66 bearing against the cams 17 at the opposite ends of the roller 8.

The label slips L are held by the follower 79 against the box arms 74, 75, and 78, and two or more of the foremost ones are impaled on the prongs 76 and 77. The label slips are adapted to contain any suitable printed matter on their faces and as that portion of the printing which must be exposed to view when the label slip is folded and secured in the label holder of a pouch or the like, sometimes is located at different distances from the ends of the slips, it is necessary that there shall be relative vertical adjustment between the feeding rollers 6 and 8 and the box or magazine in order to insure the proper folding of the label slips with reference to the printed matter thereon. To accomplish this purpose the box may be vertically adjusted by manipulation of handle 71, and secured at the desired point of adjustment through the engagement of the pawl 72 with the teeth 73. The printed matter on the slips should occupy a predetermined relation to the folding feed rollers 6 and 8, and to insure accuracy in adjusting the box so that the printed matter referred to shall be disposed at the proper point, a pointer 82 is secured to one of the sides 2 of the frame and extends inwardly so as to overlap the front face of the box in line with the printed matter which must be exposed when the label is folded.

The follower is preferably provided with two or more yielding face strips 83 as a means of providing sufficient friction to prevent the rearmost label strip from being drawn out of the machine with the label strip immediately in front of it through the tendency of the two slips to adhere, and the follower is preferably provided with recesses 84 to accommodate the impaling prongs 76 and 77 when the supply of labels in the box has been almost depleted. By the provision of these recesses the follower is permitted to continue its pressure upon the label slips until all have been withdrawn from the box.

The functions of the various parts have been set forth in detail and a recapitulation thereof is thought unnecessary. It is desirable, however, to state that when the box is charged with label slips and the parts are in operative position, that the rotation of the crank handle 7 turns rollers 6 and 8 in the direction indicated by the arrows Fig. 4. This causes the two rollers to apply frictional pressure on the foremost paper slip to cause the ends of the same to approach and the central portion of the same to buckle horizontally forward as at *a* until caught by and between said rollers which, in their continued operation, fold or double the slip and feed it forward, Fig. 8 indicating approximately the form which the slip assumes as the first fold above referred to is made. The forward movement continues until the folded end *b* comes in contact with the front wall of the pocket 19 which deflects said end downward, the continued rotation of the rollers causing the folded slip to move downward into the pocket until such end is arrested by contact with the bottom of the pocket, this occurring while the folded slip is still being fed forward by the rollers 6 and 8. Under such continued feeding movement by said rollers, the doubled or folded slip is buckled upward until it projects upward from the pocket and is caught between the feed rollers 6 and 24, which serve to withdraw the slip from the pocket and make the second fold *c*, see Fig.

9. The last-named feed rollers coöperate to force the twice-folded slip upward through the slot 26 rearward of the guide 28, and under the continued feeding movement of the said rollers said twice-folded slip engages the guide plate 29 and is deflected thereby forwardly and upwardly over guide 28 and in to the inverted pocket 31 until arrested by the contact of the fold line *c* with the set screws 32, at which time the twice-folded slip stands approximately in the position shown by Figs. 1 and 11, the second folded portion *d* terminating adjacent the plane of travel of the folding arms 52, which at this time are caused through the operation of the pull bar 54 to swing downward. As the swing frame movement begins the pins 53 first impale the twice folded slip to prevent slippage thereof and thereby insure the third and final folding operation at the proper point. This folding operation is started by said arms 52 forcing the engaged point of the folded slip downward through the slot 35 and between the folding rollers 24 and 36 which complete the third and final fold of the slip and feed it downwardly until it enters the mouths of the channel guides 3 and rests upon the rearward extension thereof.

As it assumes this position, it is folded as indicated in Fig. 10, and immediately the presser 45 is moved forward through the operation of the plate 62 under the pressure of the roller pin 60 on lug 61 (see Fig. 4). The forward movement of the presser forces the folded slip forward, its ends buckling in their passage through the constricted throats described, and as the slip attains a position forward of the throats 42 and the depending arms 44 of plates 43, the buckled ends of the slip snap or spring forward and thus prevent the folded slip from adhering to the presser as the latter is swung back to its initial position, the folded slip being prevented from falling forward in the channel guides 3, by engagement with the yielding abutment 48 or previously folded slips between it and said abutment, as will be readily understood by reference to Fig. 1, where a number of the folded slips appear.

To remove the folded slips from between the guides the arm 49 is swung forward until the abutment plate is totally withdrawn from the channel guides. The printed slips can then be slid forward out of the channel guides as will be apparent by reference to Fig. 3, which shows that the front ends of the guides are open. When the slips have been removed the abutment is permitted to be swung back into the guides by the spring 50.

To load the box with slips it can be swung downwardly and rearwardly and the follower can be withdrawn from the box to permit the slips to be placed therein in front of it.

To prevent the slips following in too close sequence, the cams 17 by engagement with the bars 66 repress the box shortly after the first folding operation occurs and hold it repressed sufficiently to prevent frictional engagement between the rollers 6 and 8 and the next slip until shortly after the extremities of the first slip pass between said feed rollers, and at the moment that the flattened sides of the cams 17 are disposed upwardly the printing plate produces the proper marking, such as the date and name of the clerk in charge of the slips. When the flattened portions are disposed downward the inking pad roller applies ink on the printing plate.

From the above description it will be apparent that I have produced a label folding and marking machine embodying the features of advantage enumerated as desirable in the statement of the object of the invention and I wish it to be understood that while I have illustrated and described what now appears to me to be the preferred embodiment of the invention, I reserve the right to make all changes falling within the spirit and scope of the appended claims.

I claim:—

1. In a machine of the character described, a box for holding paper slips, rollers for successively withdrawing the slips from the box and feeding and folding them, channel guides having mouths through which to receive said folded slips and constricted throats forward of said mouths, the throats being narrower than the folded slips, means for coöperating with the rollers in disposing the folded slips within said guides, means to feed the slips forwardly in said guides beyond the constricted throats thereof so that the slips shall be bent in passing through the constricted throats and shall return to normal or straightened condition after reaching a position forward of said throats and means to periodically change the relative positions of the box and feed rollers to disengage the latter from the pack of slips and thereby space the successively fed slips predetermined distances apart without interfering with the operation of the rollers.

2. In a machine of the character described, a box for holding paper slips, rollers for successively withdrawing the slips from the box and feeding and folding them, channel guides having mouths through which to receive said folded slips and constricted throats forward of said mouths, the throats being narrower than the folded slips, means for coöperating with the rollers in disposing the folded slips within said guides, means to feed the slips forwardly in said guides beyond the constricted throats thereof so that the slips shall be bent in passing through

the constricted throats and shall return to normal or straightened condition after reaching a position forward of said throats, a yielding abutment in the channel guides against which the folded slips in said guides shall be stacked after being moved forwardly through said constricted throats, and means to periodically change the relative positions of the box and feed rollers to disengage the latter from the pack of slips and thereby space the successively fed slips predetermined distances apart without interfering with the operation of the rollers.

3. In a machine of the character described, the combination of a guide and a pocket for simultaneous engagement by opposite edges of a slip to be folded, a swinging frame provided with folding pins to engage the slip between said guide and pocket and fold and simultaneously withdraw the slip from said pocket and guide, a pair of feed rollers to receive the folded slip from said pins to continue the feeding operation of the slip, a pair of channel guides to receive the folded slip in a substantially vertical position from said rollers, means coöperating with one of said rollers to reduce the depth of said channel guides to less than the width of the folded slip so that the latter must be bent to pass the constricted portions of the guides, means to press the folded slips while in a substantially vertical position, past said constricted portions of the guides, and a yielding abutment in the guides against which the folded slips are pressed by said last-named means.

4. In a machine of the character described, a suitable frame, a pair of superposed paper feeding and printing rollers, a pointer rigid with the frame, a vertically adjustable box rearward of the rollers and pointer and containing a stack of paper slips, a spring-actuated follower constituting the back of the box and pressing the stack of slips forward against said rollers, and means within the box for impaling a plurality of the foremost slips to prevent the said rollers withdrawing more than one slip at a time from the box.

5. In a machine of the character described, means for holding a label slip, a pair of rollers frictionally engaging the face of the slip and adapted when rotated to buckle the slip forwardly at an intermediate point of its length and then grip the buckled portion between them and fold and feed the folded slip forwardly, a pocket to receive the advanced portion of the folded slip and check the movement of the same before the feed rollers release it, to cause the slip to buckle between said pocket and the rollers, a third feed roller coöperating with one of the first-named feed rollers in gripping the last-named buckled portion and feeding the slip and folding it a second time and withdrawing it from the pocket, a second pocket adapted to receive said folded slip, a guide interposed between the feed rollers and the last-named pocket to direct the folded slip until the last-folded portion thereof enters and is checked by said second pocket, a fourth feed roller cooperatively related to the third feed roller, and means to buckle the twice folded slip between the last-named feed rollers to cause the latter to fold the slip between the first and second folds thereof.

6. In a machine of the character described, means for holding a label slip, a pair of rollers, frictionally engaging the face of the slip and adapted when rotated to buckle the slip forwardly at an intermediate point of its length and then grip the buckled portion between them and fold and feed the folded slip forwardly, a pocket to receive the advanced portion of the folded slip and check the movement of the same before the feed rollers release it, to cause the slip to buckle between said pocket and the rollers, a third feed roller coöperating with one of the first-named feed rollers in gripping the last-named buckled portion and feeding the slip and folding it a second time and withdrawing it from the pocket, a second pocket adapted to receive said folded slip, a guide interposed between the feed rollers and the last-named pocket to direct the folded slip until the last-folded portion thereof enters and is checked by said second pocket, a fourth feed roller cooperatively related to the third feed roller, means to buckle the twice folded slip between the last-named feed rollers to cause the latter to fold the slip between the first and second folds thereof, channel guides having mouths to receive the folded slips from said last-named feed rollers, and means to feed said slips forwardly in said guides.

7. In a machine of the character described, means for holding a label slip, a pair of rollers frictionally engaging the face of the slip and adapted when rotated to buckle the slip forwardly at an intermediate point of its length and then grip the buckled portion between them and fold and feed the folded slip forwardly, a pocket to receive the advanced portion of the folded slip and check the movement of the same before the feed rollers release it, to cause the slip to buckle between said pocket and the rollers, a third feed roller coöperating with one of the first-named feed rollers in gripping the last-named buckled portion and feeding the slip and folding it a second time and withdrawing it from the pocket, a second pocket adapted to receive said folded slip, a guide interposed between the feed rollers and the last-named pocket to direct the folded slip until the last-named portion thereof enters

and is checked by the second pocket, a fourth feed roller coöperatively related to the third feed roller, means to buckle the twice folded slip between the last-named feed rollers to cause the latter to fold the slip between the first and second folds thereof, channel guides having mouths to receive the folded slips, from said last-named feed rollers, means to feed the slips forwardly in said guides, and a yielding abutment in the guides against which the folded slips are pressed by said last-named means.

8. In a machine of the character described, means for holding a label slip, a pair of rollers frictionally engaging the face of the slip and adapted when rotated to buckle the slip forwardly at an intermediate point of its length and then grip the buckled portion between them and fold and feed the folded slip forwardly, a pocket to receive the advanced portion of the folded slip and check the movement of the same before the feed rollers release it, to cause the slip to buckle between said pocket and the rollers, a third feed roller coöperating with one of the first-named feed rollers in gripping the last-named buckled portion and feeding the slip and folding it a second time and withdrawing it from the pocket, a second pocket adapted to receive said folded slip, a guide interposed between the feed rollers and the last-named pocket to direct the folded slip until the last-folded portion thereof enters and is checked by the second pocket, a fourth feed roller coöperatively related to the third feed roller, means to buckle the twice folded slip between the last-named feed rollers to cause the latter to fold the slip between the first and second folds thereof, channel guides having mouths to receive the folded slips from said last named feed rollers and constricted throats forming forwardly facing shoulders, and means to press each folded slip forwardly in said channeled guides from the mouths thereof through the constricted throats.

9. In a machine of the character described, means for holding a label slip, a pair of rollers frictionally engaging the face of the slip and adapted when rotated to buckle the slip forwardly at an intermediate point in its length and then grip the buckled portion between them and fold and feed the folded slip forwardly, a pocket to receive the advanced portion of the folded slip and check the movement of the same before the feed rollers release it, to cause the slip to buckle between said pocket and the rollers, a third feed roller coöperating with one of the first-named feed rollers in gripping the last-named buckled portion and feeding the slip and folding it a second time and withdrawing it from the pocket, a second pocket adapted to receive said folded slip, a guide interposed between the feed rollers and the last-named pocket to direct the folded slip until the last-folded portion thereof enters and is checked by the second pocket, a fourth feed roller coöperatively related to the third feed roller, means to buckle the twice folded slip between the last-named feed rollers to cause the latter to fold the slip between the first and second folds thereof, channel guides having mouths to receive the folded slip from said last-named feed-rollers, means to press the slip forwardly in said guides, from the mouths thereof through the constricted throats, and a yielding abutment for holding the folded slip pressed rearwardly against the shoulders formed by said constricted throats.

10. In a machine of the character described, a suitable frame, a pair of coöperating feed rollers, a box containing a stack of flexible slips for folding, yielding means for holding the box with the foremost slip pressed flatly against said feed rollers so that the latter when operated shall cause the ends of the slip to approach and its intermediate portion to buckle forward between the rollers until the latter grip the buckled portion and fold and feed the slip forward, and means to press the box rearward and hold it thus repressed until the ends of the said slip pass between the rollers, and then release the box to permit it to be readvanced by said yielding means until the next slip is pressed firmly against the rear sides of said rollers.

11. In a machine of the character described, a suitable frame, a pair of coöperating feed rollers, a box containing a stack of flexible slips for folding, yielding means for holding the box with the foremost slip pressed flatly against said feed rollers so that the latter when operated shall cause the ends of the slip to approach and its intermediate portion to buckle forward between the rollers until the latter grip the buckled portion and fold and feed the slip forward, and cams rotatable with said rollers to press the box rearward and hold it thus repressed until the ends of said slip pass between the rollers, and then release the box to permit it to be readvanced by said yielding means until the next slip is pressed firmly against the rear sides of said rollers.

12. In a machine of the character described, a suitable frame, a pair of coöperating feed rollers journaled in said frame for successively withdrawing the slips from the box and feeding and folding them, an indicator mounted on said frame, a box for holding paper slips with the foremost one pressed yieldingly against said pair of rollers and in close relation to said indicator, means for periodically moving said box to

effect withdrawal of the foremost slip thereof from engagement with said rollers, means for effecting vertical adjustment of the box with respect to the indicator and the feed rollers without interfering with the movement of the box in disposing the foremost slip against or withdrawing it from engagement with said feed rollers, channel guides having mouths through which to receive said folded slips, means for coöperating with the rollers in disposing the folded slips within the said guides, and means to feed the slips forwardly in said guides.

13. In a machine of the character described, a box for containing a package of label slips, provided with rearwardly-facing impaling pins, a spring-actuated follower for pressing the package of slips so that two or more of the foremost ones shall be impaled by said pins, and a pair of rollers frictionally engaging the foremost slip between said pins and adapted when rotated to effect approaching movement of the impaled extremities of the foremost slip to tear it from said pins to buckle the slip forwardly at an intermediate point and thus grip the buckled portion and fold and feed the folded slip forwardly.

14. In a machine of the character described, a box for containing a package of label slips, provided with rearwardly-facing impaling pins, a spring-actuated follower for pressing the package of slips so that two or more of the foremost ones shall be impaled by said pins, and a pair of rollers frictionally engaging the foremost slip between said pins and adapted when rotated to effect approaching movement of the impaled extremities of the foremost slip to tear it from said pins to buckle the slip forwardly at an intermediate point and thus grip the buckled portion and fold and feed the folded slip forwardly; said follower having recesses for accommodating said pins.

In testimony whereof, I affix my signature, in presence of two witnesses.

JOHN H. BARR.

Witnesses:
H. C. RODGERS,
G. Y. THORPE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."