

No. 854,041.

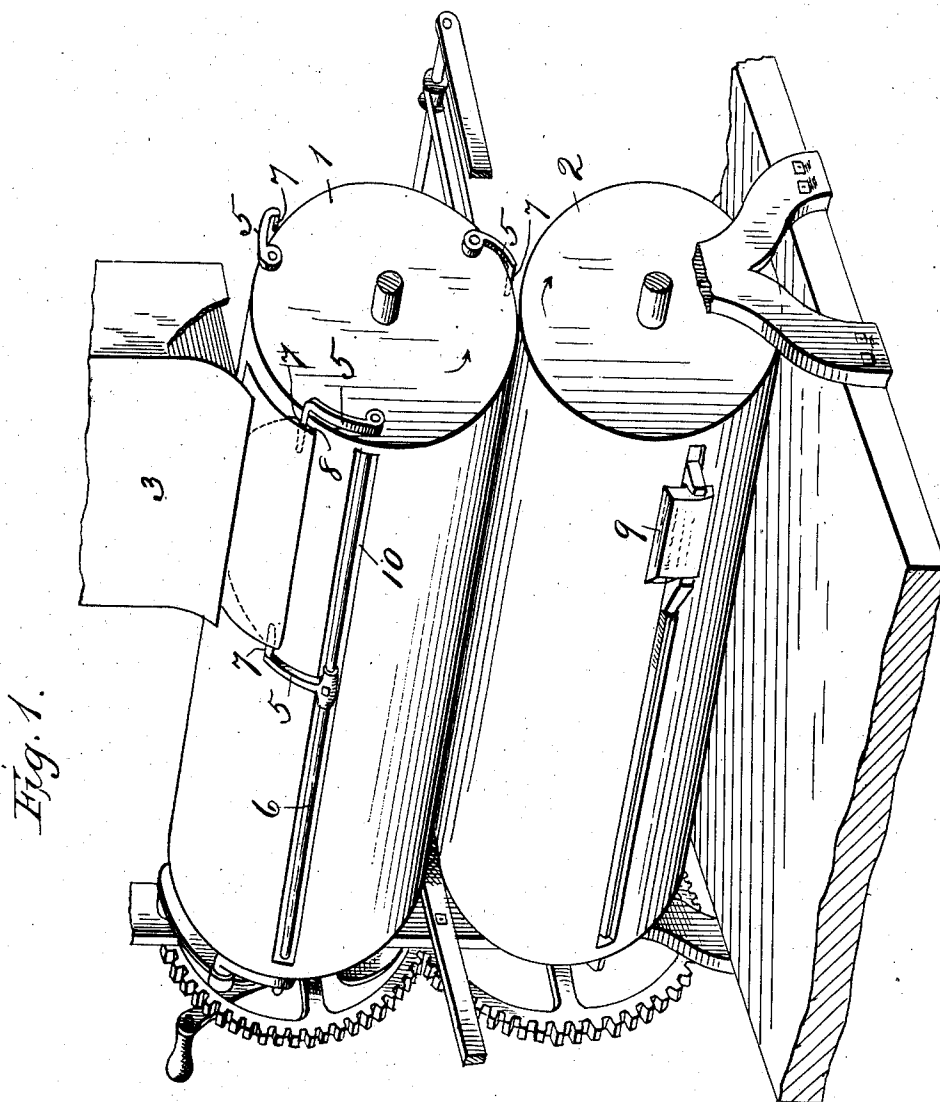
PATENTED MAY 21, 1907.

M. P. KENNA.

ENVELOP ADDRESSING AND PRINTING MACHINE.

APPLICATION FILED MAR. 9, 1906.

2 SHEETS—SHEET 1.



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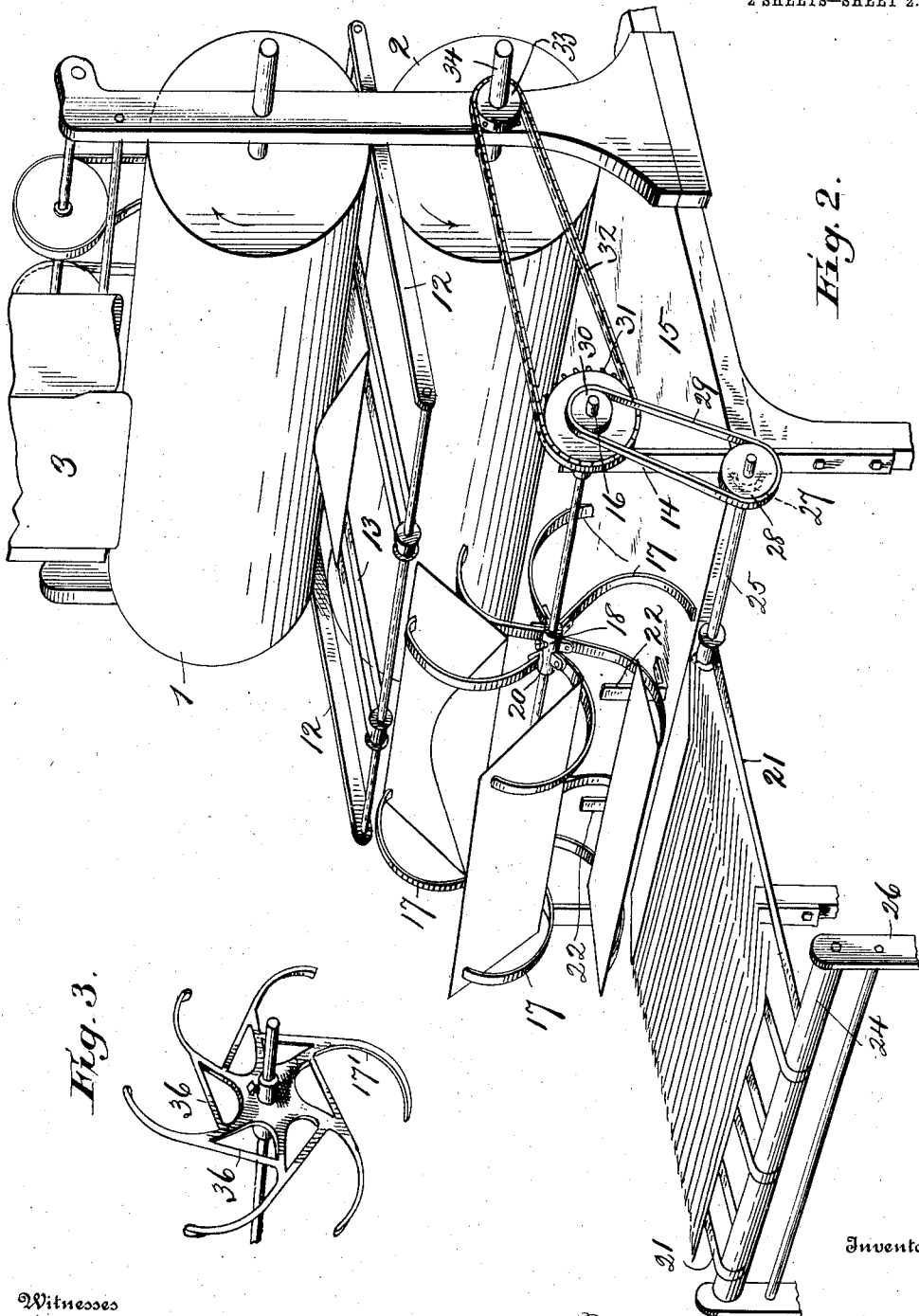
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UNITED STATES PATENT OFFICE.

MICHAEL P. KENNA, OF DUBUQUE, IOWA.

ENVELOP ADDRESSING AND PRINTING MACHINE.

No. 854,041.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed March 9, 1906. Serial No. 305,115.

To all whom it may concern:

Be it known that I, MICHAEL P. KENNA, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Envelop Addressing and Printing Machines; of which the following is a specification.

My invention relates to envelop printing and addressing machines and embodies certain improvements in the construction of machine forming the subject matter of my Patent No. 819763, dated May 8, 1906.

Among the objects in view is to provide an improved construction and arrangements of clips for engaging with and feeding the envelops from their receptacle around to the printing point, whereby I am enabled to obtain a more certain feed of the envelops under all conditions and whereby I avoid any damage to the clips or other parts of the machine such as is liable to occur with the use of the clips seen in my aforesaid patent.

A further object of my present invention is to provide means for receiving the printed envelops from the delivery tapes and massing them, face upward, upon a second set of moving tapes.

The invention consists in the novel construction, arrangement and combination of parts as hereinafter fully described, illustrated in the drawings and pointed out in the appended claim.

In the drawings:—Figure 1 is a perspective view of so much of an envelop printing and addressing machine as is necessary to illustrate a portion of my present improvements. Fig. 2 is a similar view showing further of my improvements. Fig. 3 is a detail perspective view of a portion of the delivery reel, showing a slightly modified construction.

Referring to the drawings and particularly to Fig. 1, 1 and 2 indicate, respectively, the impression and printing rollers of an envelop printing and addressing machine, and particularly of the character seen in my hereinabove mentioned patent. These rollers may be operated by any suitable means, as for instance the means seen in said patent. 3 indicates a suitable envelop receptacle from which the envelops are to be fed. This receptacle may be of the construction seen in my said patent and in the latter I show clips for engaging and feeding the envelops

around to the printing point, comprising arms mounted upon rock shafts carried by the upper roller, said arms having one end bent so as to engage within the fold of the flap of the envelop. One of the arms on each rock shaft projects through a slot formed in the circumferential surface of the upper roller, longitudinally thereof. Owing to the relative arrangement of the clips and the slots in the roller, it happened that when each envelop was brought around opposite to the printing plate or slug, it would be impossible to obtain a firm and solid surface for the imprint upon the envelop owing to the slots formed in the roller being exactly opposite to the printing plate or slug, and consequently a very poor imprint resulted.

According to my present invention I construct the envelop feeding clips so that the arms 5 of each set thereof are so mounted upon the rock shaft or rod 6 that they will extend rearward or in a direction contrary to that of rotation of the upper roller. Thus when the roller 1 is rotated in the direction of the arrow the bent ends 7 of the arms will engage within the fold of the envelop flap as at 8 and exert a dragging action upon the envelop and draw it around to the printing point to receive the imprint from the printing plate or slug as 9, and owing to the fact that the slot 10 will at the latter moment be ahead of the envelop and therefore past the printing point, a solid portion of the roller will be opposite to the printing plate or slug and a good imprint will result.

By the present arrangement should any undue resistance from any cause be encountered during the operation of the machine the tendency of the clips would be to close down still tighter upon the flap and thus prevent damage to the clips or otherwise, whereas in the construction seen in my hereinabove mentioned patent such resistance would sometimes result in the opening of the clips and damage thereto in consequence.

Referring now to Fig. 2 and 3 of the drawings, 12 indicates a supporting frame for the delivery tapes 13 which receive the printed envelops and deliver them to a suitable receptacle, said frame and tapes being of the character seen in my aforesaid patent. Rotatably mounted in bearings on the upper end of short standards 14 carried by the base 15 is a shaft 16 extending transversely of the machine and upon this shaft is mounted a delivery reel comprising two sets of arms

17 which are in practice to be rotatable with the shaft. The arms are secured at one end to sleeves 18 mounted upon the shaft so as to rotate therewith. The arms are curved, being semi-circular or substantially so in shape, though said shape may be varied somewhat and yet be effective in operation. The arms are of such length that they will clear the base when they are rotated and also form a firm support for the envelopes when they drop upon the arms from the tapes 13, and while I have shown six of the arms and prefer to use that number yet a greater or less number may be used.

In order that the reel may be adapted for use with envelopes of varying lengths I mount the arms adjustably upon the shaft in any suitable manner as by using set screws 20 to secure the sleeves upon the shaft, so that by loosening said set screws and adjusting the sleeves and their arms nearer to or farther from each other, as may be desired, and then tightening said set screws the reel will be adapted to receive envelopes of varying lengths. While I preferably make both sets of arms adjustable on the shaft, yet it will be understood that but one set of arms need be made adjustable. The arms are so mounted upon the shaft and in such position relatively to the delivery end of the tapes that the printed envelopes will fall upon the arms of the reel and be carried around thereby until said arms reach a position to enable the envelop to be deposited upon the second set of tapes as 21. In order that the envelopes may in turn be carried off the arms and deposited upon the tapes 21, I provide upright arms 22 secured to the base near the rear edge thereof in such position that the arms of the reel will pass to either side of the arms 22 and the envelopes will in succession strike against the latter arms and be prevented from partaking of further movement of the arms. For the purpose of carrying each envelop deposited on the tapes 21 out of the way of the next succeeding pair of arms of the reel, I impart revolution to the tapes 21 and for this purpose I mount the tapes on shafts 24, 25, the former being supported in bearings in uprights 26 and the shaft 25 being mounted in bearings in 27 carried by the base of the machine. One end of the shaft 25 carries a belt pulley 28 over which runs a belt 29 which also passes over a pulley 30 mounted on one end of the reel shaft which latter also carries a sprocket wheel 31 over which runs a sprocket chain 32 which also runs over sprocket wheel 33 on one end of the shaft 34 of the roller 2. Thus the shaft 25 will be rotated to cause the envelopes, as fast as deposited on the tapes 21, to be moved along by the latter a distance sufficient to permit the proper operation of the reel.

It will be noted that the envelopes will be

deposited on the tapes 21, face upward, and when a sufficient number have accumulated they may be removed by hand.

As shown in Fig. 3 the arms 17' of the delivery reel may each be provided with a brace 36 upon which the envelopes will rest during the turning movement of the reel as will be readily understood.

What I claim is:—

1. In a machine of the character described, the combination with superposed printing and impression rollers, and an envelop receptacle, of means carried by the impression roller adapted to engage with and feed the envelopes successively from the receptacle comprising a rock shaft mounted in the impression roller and arms carried by said shaft and extending in a direction opposite to that in which the impression roller operatively rotates, said arms having bent ends which extend toward each other and engage within the fold of the flap of the lowermost envelop in the receptacle and exert a pulling or dragging action upon said envelop when carrying it around to the printing point.

2. In a machine of the character described, the combination with superposed printing and impression rollers, and an envelop receptacle, of means carried by the impression roller adapted to engage with and feed the envelopes successively from the receptacle comprising a rock shaft mounted in the impression roller and arms extending in a direction opposite to that in which the impression roller operatively rotates, one of said arms being adjustable toward and from the other arm and both arms having bent ends which extend toward each other and engage within the fold of the flap of the lowermost envelop in the receptacle and exert a pulling or dragging action upon said envelop when carrying it around to the printing point.

3. In a machine of the character described, the combination with superposed printing and impression rollers, and an envelop receptacle, of a rock shaft carried by the impression roller, arms carried by said rock shaft, one of said arms projecting through a slot in the impression roller and the other arm being located upon the shaft beyond one end of the impression roller and both arms extending in a direction opposite to that in which the impression roller operatively rotates and having bent ends which extend toward each other and engage within the fold of the flap of the lowermost envelop in the receptacle and exert a pulling or dragging action upon said envelop when carrying it around to the printing point.

4. In a machine of the character described, the combination with superposed printing and impression rollers, and an envelop receptacle, of a rock shaft carried by the impression roller, arms carried by said rock shaft, one of said arms projecting through a

slot in the impression roller and being adjustable upon said shaft, and the other arm being located upon the shaft beyond one end of the impression roller, both arms extending in a direction opposite to that in which the impression roller operatively rotates and having bent ends which extend toward each other and engage within the fold of the flap of the lowermost envelop in the receptacle

and exert a pulling or dragging action upon said envelop when carrying it around to the printing point.

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

MICHAEL P. KENNA.

Witnesses:

WM. QUIGLEY,

ALEX. SIMPLOT.