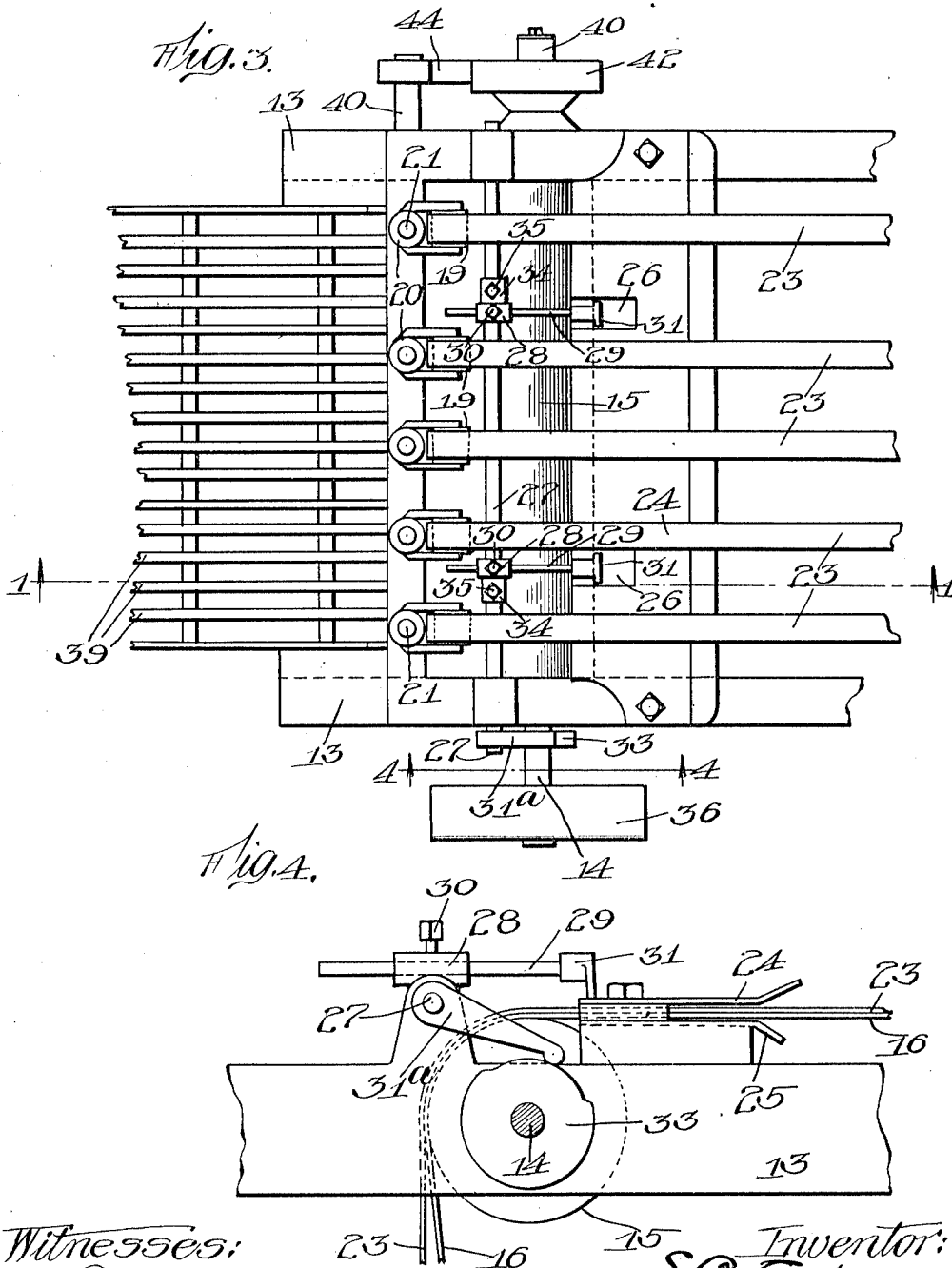


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 DELIVERY MECHANISM FOR ADDRESSING MACHINES.
 APPLICATION FILED JUNE 11, 1906.

1,001,507.

Patented Aug. 22, 1911.

3 SHEETS—SHEET 2.



Witnesses:
 C. V. Domarus.
 J. B. Wei

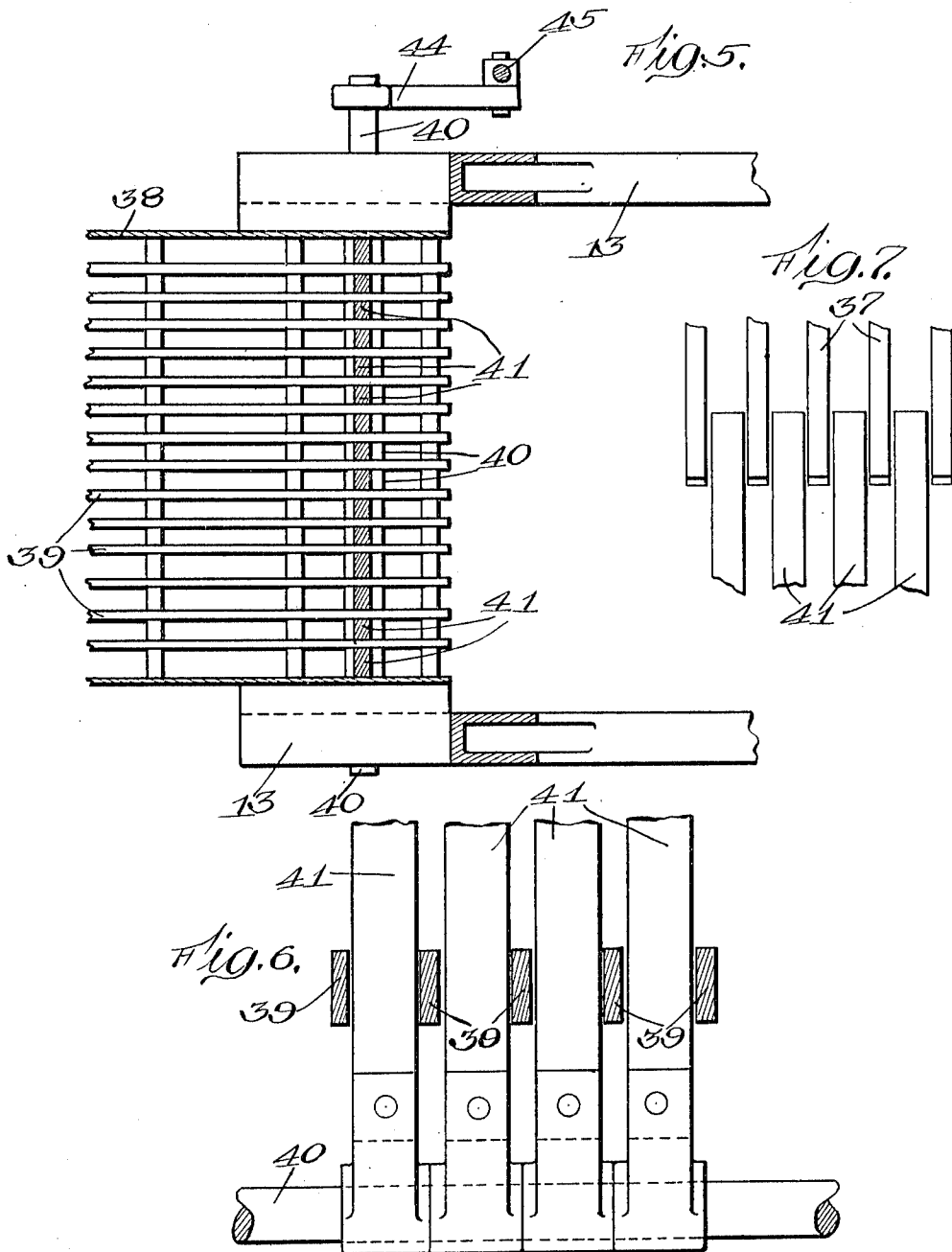
Inventor:
 S. C. Cox
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UNITED STATES PATENT OFFICE.

SANDFORD C. COX, OF EDISON PARK, ILLINOIS, ASSIGNOR TO COX MULTI-MAILER COMPANY, OF AUGUSTA, MAINE, A CORPORATION OF MAINE.

DELIVERY MECHANISM FOR ADDRESSING-MACHINES.

1,001,507.

Specification of Letters Patent. Patented Aug. 22, 1911.

Original application filed February 29, 1904, Serial No. 195,869. Divided and this application filed June 11, 1906. Serial No. 321,175.

To all whom it may concern:

Be it known that I, SANDFORD C. COX, a citizen of the United States, residing at Edison Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Delivery Mechanism for Addressing-Machines, &c., of which the following is a full, clear, and exact specification.

This invention relates to improvements in the mechanism for delivering or conveying paper or the like from an addressing or printing machine, and the object of the same is to provide an improved device of this character which will uniformly convey the paper from the machine after being printed or addressed and to automatically collect them in a compact and orderly form ready for shipment or mailing.

A further object is to construct an improved device of this character which will be simple and cheap in construction and efficient in operation.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear the invention consists in the features of novelty in the construction, combination and arrangement of the several parts, hereinafter more fully described and claimed and shown in the accompanying drawings, illustrating an exemplification of this invention, and in which;—

Figure 1 is a view on line 1—1 of Fig. 3 showing one side of a machine having the improvement constructed in accordance with the principles of this invention applied thereto, and partly in section. Fig. 2 is an elevation of the other side of the machine. Fig. 3 is a top plan view. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a sectional view on line 5—5 of Fig. 1. Fig. 6 is a view on line 6—6 of Fig. 1. Fig. 7 is a detail view of a portion of the receiving rack for the papers and the packer fingers.

In my original application for patent, filed February 29, 1904, Serial Number 195,869, and of which this present application is a division, there is shown and described a particular type of addressing machine, including a rotary type drum, a portion only of which is here shown and indicated by the reference numeral 10, upon

the periphery of which are a plurality of type clamps comprising a stationary member 11 and a movable member 12. This drum is supported in a suitable frame 13, a portion only of which is shown. Journalled in the frame 13, and adjacent the drum 10 is a shaft 14, to which is secured a drum or roller 15, over which passes any suitable number of endless tapes or belts 16, a portion only of which is shown. A belt tightener pulley 17 suitably mounted, is provided for the belts or tapes and the lower run thereof preferably passes over an idler or guide pulley 18. The forward end of the belt or tape passes over an ordinary pulley, not shown.

Arranged opposite and parallel with the roller 15 is an idle roller 19 which may be mounted in brackets 20 adjustably secured to standards 21, so that the roller 19 will also act as a belt tightener. An idler pulley 22 is arranged below the idle roller 19 and in front of the roller or drum 15, and a suitable endless belt or tape 23 passes around the roller 22, the lower run of which is parallel with and preferably on top of the tape or belt 16, and the upper run passes over the idler 19. Any suitable number of these belts or tapes 23 may be provided, as shown in Fig. 3, and are preferably spaced from each other so that one belt or tape will stand directly above each of the belts or tapes 16, with its other end passing over an ordinary pulley or drum, not shown.

Suitable guide plates 24—25 are provided adjacent the roller 15 through which the tapes or belts 16—23 pass, and the forward ends of these plates are preferably bent or flared away from each other, to permit the ready entrance of the papers, presently to be described, and the upper plate 24 is provided with spaced slots 26.

A rocker shaft 27 is suitably supported by the frame 13, and secured to the shaft are any suitable number of sleeves or collars 28, corresponding in number to the number of notches or slots 26 in the plate 24. Slidably mounted in these sleeves or collars 28 are suitable arms or rods 29 which are secured in position in any suitable manner preferably by means of screws or bolts 30, whereby they may be adjusted as desired. The extremities of these rods or arms ad-

adjacent the plates 24—25, are provided with gages or stops 31, which are adapted to enter the slots 26 in the plate 24 and rest upon the plate 25, to form obstructions for a paper carried forward by the tapes or belts 16—23, said slots and gages being located to one side of the belts or tapes, to permit such operation.

An arm 31^a is provided preferably on one end of the shaft 27, the free end of which is adapted to normally engage and rest upon the periphery of a cam 33, which latter is mounted upon and driven by the shaft 14 when the roller 15 rotates. The rotation of this cam will cause the engaging end of the arm 31^a to rise and fall which will rock the shaft 27, to cause the gages or stops 31 to be raised or lowered into and out of the slots 26, as will be understood.

The collars or sleeves 28 may be secured to the shaft 27, in any desired manner and may be prevented from longitudinal displacement by means of collars 34 secured on the shaft 27, by means of bolts or screws 35.

Any suitable means may be employed for rotating the shaft 14, such as a pulley 36 or the like. An inclined rack or deflector 37 is arranged below the roller 15, between the idler 22 and tightener 17, respectively of the belts or tapes 23 and 16, and above and over one end of a receiving trough or receptacle 38. This receiver or trough 38 is supported by the frame 13, and the bottom thereof is preferably composed of slats 39.

Journalled below the trough or receiver 38 is a rock shaft 40, to which is secured in any suitable manner arms or fingers 41, and said fingers are of a length to project into the trough or receptacle through the slats 39. These fingers 41 are also adapted to pass through the rack or deflector 37, when the shaft 40 is rocked in a manner to be set forth.

Secured to the shaft 14, and on the side of the frame, opposite to the cam 33, is a cam 42, preferably in the form of a box cam having its groove 43 in the side thereof. An arm or crank 44 is secured to the rock shaft 40 in any desired manner, and loosely connected to the free end thereof is one end of a rod 45. The free end of this rod is connected to the shaft 14, by means of a strap or yoke 46, which passes over the said shaft 14, and with its free ends secured in any desired manner on the opposite sides of the end of the rod 45. Projecting laterally from this rod is a pin or lug 47 which stands within and is adapted to travel in the groove 43 of the cam 42. Suitable space is left between the extremity of the rod 45 and the shaft 14, to permit the pin or lug 47 to follow the contour of the groove 43, to raise and lower the rod to rock the shaft 40.

In operation the papers are fed between the adjacent runs of the tapes or belts

16—23, which latter are operated in any suitable manner. The papers are brought adjacent the type wheel 10 and printed or marked, in the manner set forth in the original application previously referred to. Before being printed or stamped, a portion of the paper passes between the plates 24—25 and engage the gages 31 which latter straighten or true the paper for marking. The cam 33, is so positioned with relation to the arm 31^a as to cause the gages to be lowered within the path of movement of the paper as it approaches the type wheel 10, and to raise the gages to permit the paper to pass on after being marked or printed, this operation has also been set forth in the previously referred to application. When the gages are raised the paper is carried forward and downwardly past the roller 15 by that portion of the belt or tape 16 which travels around the idler 17 and by one end of the belts or tapes 23, which pass around the idler 22, arranged below the roller 19 and in front of the roller 15, thus delivering the paper downwardly against the slightly inclined rack 37 and into the trough or receptacle 38. When the papers enter this trough or receptacle 38, they are pushed forward by the packing arms or fingers 41, which are oscillated back and forth from a position behind the rack 37 to a position in front thereof, the fingers or arms passing through the rack when moving backwardly, as will be understood, to allow the paper to fall in front of the fingers or arms. These fingers or arms are oscillated in harmony with the operation of the printing mechanism to push each paper forward as described, by the rocker shaft 40 upon which they are mounted, and said shaft is rocked by means of the cam groove 43, and pin or lug 47, which causes the rod 45 to rise and fall as the cam rotates. This rod when raised will hold the fingers or arms 41 behind the rack 37, until the paper has had ample opportunity to fall into the receiver and to then throw the arms or fingers forward for pushing such paper up to its place against the others when the rod is lowered.

In order that the invention might be fully understood, the details of an embodiment thereof have been thus specifically described, but

What I claim is:—

1. In an addressing machine or the like, the combination of means for delivering the addressed papers in a downward direction, edge first, a slotted receiver for the papers, a rock shaft journalled below the receiver, fingers on the shaft and projecting through the slots in the receiver and adapted to engage the papers, a cam operatively related to the delivery mechanism, an arm on the shaft, a rod, one end of which is connected to the arm, the other end terminating short

of the cam shaft, a yoke connected to the end of the rod and passing over the shaft, and a lateral projection on the rod engaging the cam whereby the rod will be raised and lowered to rock the shaft and oscillate the fingers when the cam is operated.

2. In an addressing machine or the like, the combination of means for delivering the papers in a downward direction, edge first, said means comprising endless movable belts, the extremity of one belt being located beyond the extremity of the other belt, and both extremities being deflected with relation to the line of travel of their body portion, and a receiver for catching the papers and a stationary rack separate from the receiver and upon which the papers are delivered for directing them into the receiver.

3. In an addressing machine or the like, the combination of means for delivering the papers in a downward direction edge first, said means comprising a pair of endless belts, arranged one above the other and with the lower run of the upper belt in close proximity to the upper run of the lower belt, the delivery extremity of the lower belt being located beyond the extremity of the upper belt, said extremity of both of the belts being located below the body portion of their respective belt, a receiver for the papers and a stationary inclined rack upon which the papers are adapted to be delivered for directing them into the receiver.

4. In an addressing machine or the like, the combination of means for delivering the papers in a downward direction edge first, said means comprising a pair of endless belts, arranged one above the other and with the lower run of the upper belt in close proximity to the upper run of the lower belt, the delivery end of the lower belt being located beyond the end of the upper belt, said end of both of the belts being located below the body portion of their respective

belt, a rack located at a point between the extremities of the delivery ends of the belts, the lower belt passing through the rack and the upper belt standing adjacent the face of the rack, and a receptacle for the papers, said rack being adapted to receive the papers and direct them into the receptacle.

5. In an addressing machine or the like, the combination of means for delivering the papers in a downward direction, edge first, said means comprising endless movable belts, the extremity of one belt being located beyond the extremity of the other belt, a stationary inclined rack adjacent the belt which has its delivery extremity beyond the extremity of the other belt and having its receiving surface intersecting the line of travel of the delivery run of the said belt, and a receiver for catching the papers, said rack delivering the papers on edge into the receiver.

6. In an addressing machine or the like, the combination of means for delivering the papers in a downward direction, edge first, said means comprising endless movable belts, the extremity of one belt being located beyond the extremity of the other belt, both extremities being deflected with relation to the line of travel of their body portion, a stationary inclined rack adjacent the belt which has its delivery extremity beyond the extremity of the other belt and having its receiving surface intersecting the line of travel of the delivery run of the said belt, and a receiver for catching the papers, said rack delivering the papers on edge into the receiver.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 31st day of May A. D. 1906.

SANDFORD C. COX.

Witnesses:

EDWARD H. SANFORD,
J. TOMLINSON.