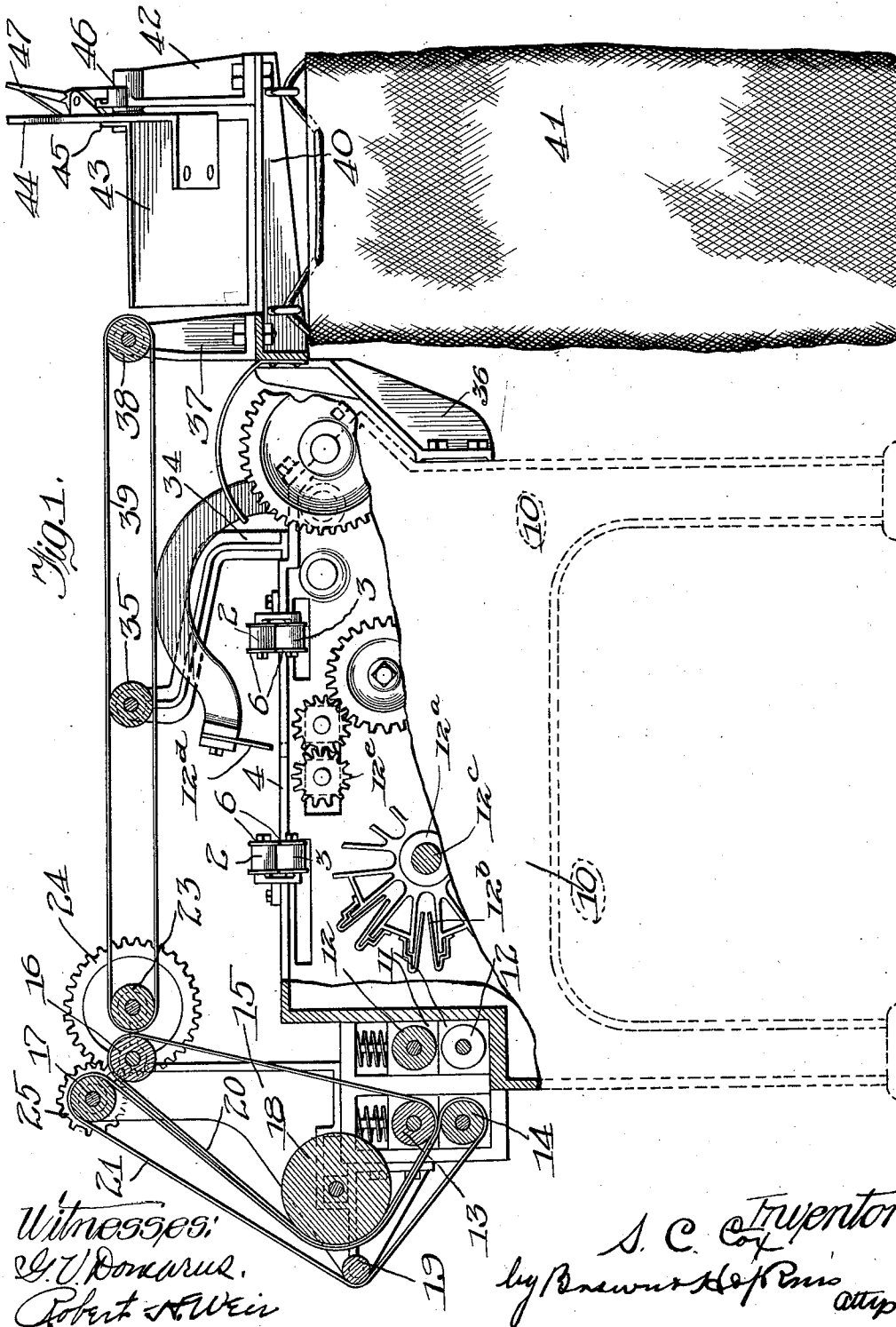


S. C. COX.
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APPLICATION FILED MAR. 4, 1907.

1,000,996.

Patented Aug. 22, 1911.

3 SHEETS—SHEET 1.

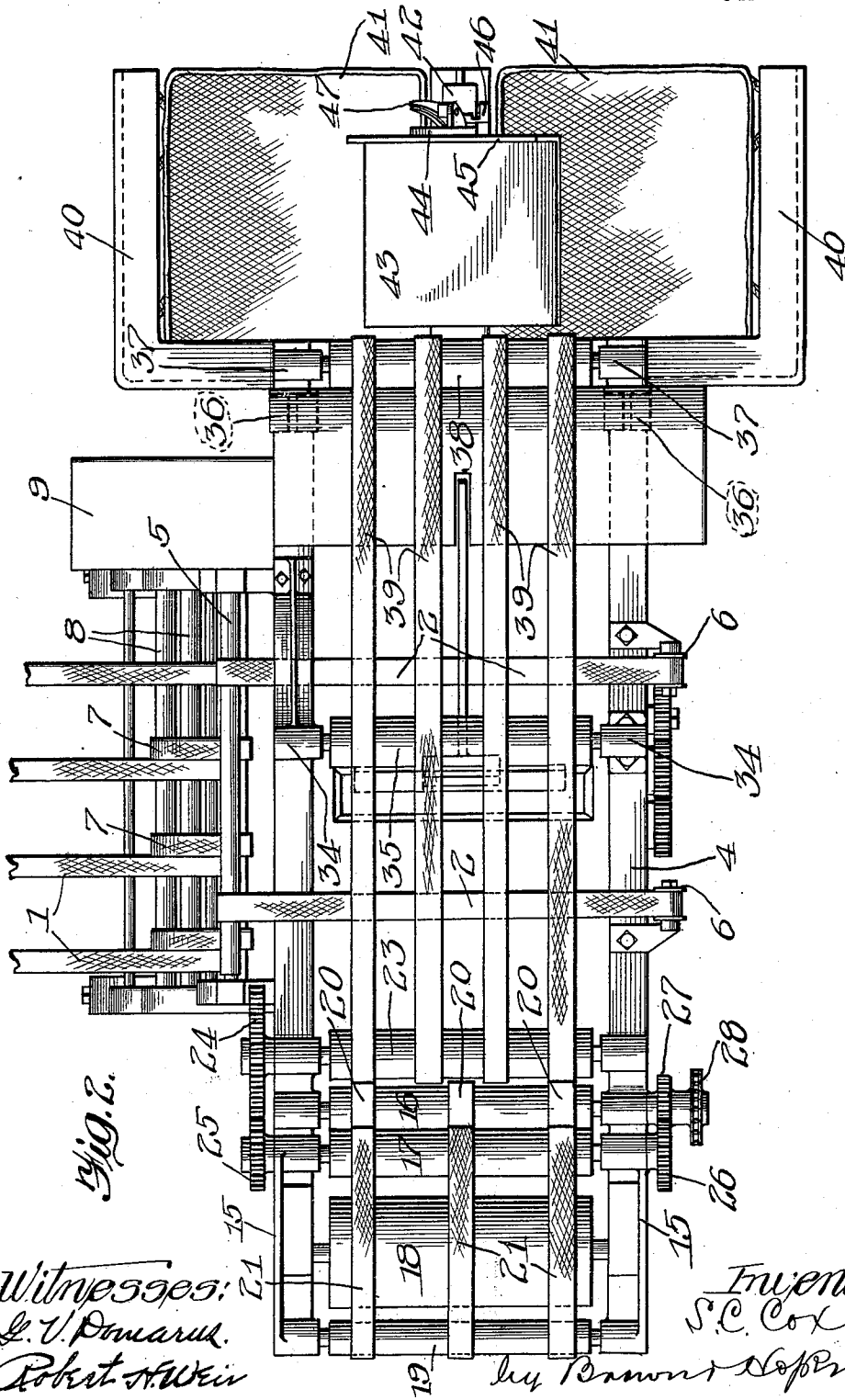


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Witnesses:
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Inventor:
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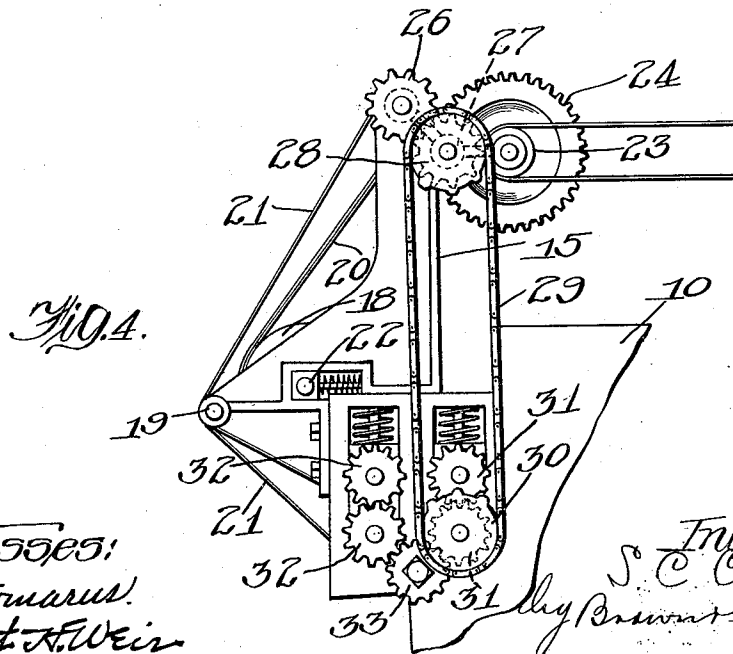
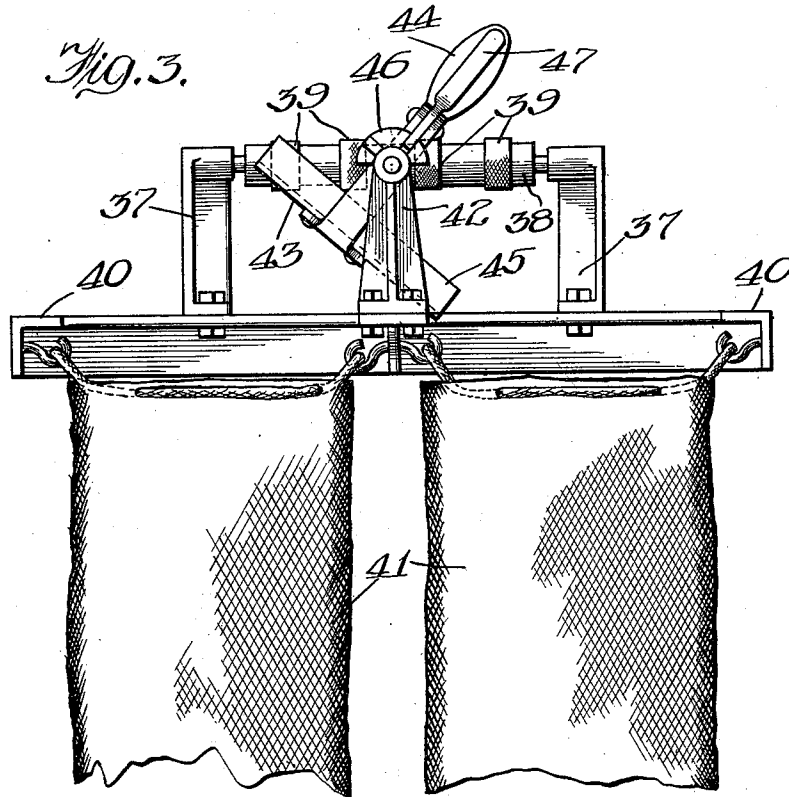
by Bernard Neff
attorney

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3 SHEETS—SHEET 3.



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Attorneys

UNITED STATES PATENT OFFICE.

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

FOLDING AND WRAPPING MACHINE.

1,000,996.

Specification of Letters Patent.

Patented Aug. 22, 1911.

Application filed March 4, 1907. Serial No. 360,386.

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 Attachments for Folding and Wrapping Machines, of which the following is a full, clear, and exact specification.

This invention relates to improvements in attachments for folding and wrapping machines and the like, and it has for its primary object to provide an improved conveyer for receiving and conveying the folded and wrapped articles from the machine.

A further object is to provide an improved device of this character which will be compactly arranged with relation to the machine, thereby necessitating but a minimum amount of floor space.

A further object is to provide an improved means for directing the articles from the conveyer into a receptacle.

A further object is to provide 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 set forth and claimed and shown in the accompanying drawings, illustrating an exemplification of this invention and in which—

Figure 1 is a side elevation, partly in section, of the framework and a portion of a machine having this invention applied thereto. Fig. 2 is a top plan view of Fig. 1 partly in diagram showing the arrangement of the machines and my improvement applied thereto. Fig. 3 is a right hand end elevation of Fig. 1. Fig. 4 is an elevation of the operating mechanism.

Referring more particularly to the drawing the numeral 1 designates the delivery belts of an addressing machine (not shown) suitably related and driven to carry the paper or other article to the receiving end of the upper and lower tapes 2—3 which carry the papers or articles transversely across and deliver them to the table 4 of a folding and wrapping machine, the specific construction of which forms the subject mat-

ter of my application, Serial Number 305050, filed March 9, 1906. These tapes 2—3 pass over suitable rollers 5 and pulleys 6, and cooperate with tapes 7 passing over suitable rollers 8, which may be operated by suitable gearing inclosed within the casing 9, the specific construction and arrangement of which is also specifically set forth in the above referred to application.

The frame work of the folding and wrapping machine is designated generally by the numeral 10 and journaled at one end thereof, in suitable boxes 11, are delivery rollers 12 which are adapted to receive the papers or articles from the machine and deliver them to the conveyer. A second pair of rollers 13—14 are journaled to a suitable support, preferably the framework 10, adjacent the delivery rollers 12 and with the rollers 13—14 respectively in line with the upper and lower delivery rollers.

In the drawings there have been shown only such parts of the folding machine as are necessary for an understanding of the invention. In Fig. 1 of the drawings on the left is shown a part of a rotating paper clamp or carrier 12^a which constitutes the subject matter of a co-pending application filed May 5, 1906, Serial No. 315,389 and the particular construction and operation of which is not material to the present invention. As shown, however, this carrier consists of a number of clamps 12^b mounted like spider arms on a rotary shaft 12^c, which, as described in the said co-pending application, is given a bodily to and fro motion with respect to the sealing and delivery rollers 12 of the folding machine. It is only necessary to understand so far as the present invention is concerned that the partially or substantially folded and wrapped paper is inserted into these clamps by means of the folding blade 12^a which forces the paper between the rollers 12^c from where it passes into the carrier or clamp. The rotating and reciprocary carrier or clamp moves toward the sealing and delivery rolls 12 which receive the projecting end of the wrapped paper and serve to seal the flap firmly in place and finally to deliver the paper into the grasp of the conveyers 20, 21.

Suitable supports 15 are secured to the frame work 10, preferably adjacent the two sets of rollers, and project above the top of the machine. Journaled between these

supports and in suitable bearings located adjacent the upper extremity of the support 15 and above the rollers 12, 13 and 14, are a pair of rollers 16—17, arranged so that 5 their peripheries will be in close proximity to each other. A drum or roller 18 is also journaled between the supports 15, preferably at a point remote from the rollers 16—17 and adjacent the roller 13, and is 10 preferably of a diameter somewhat greater than the diameter of the other rollers. An idler 19 is also journaled between the supports 15 and adjacent the drum or roller 18.

A plurality of endless flexible members 15 20, such as tapes or the like, pass around the rollers 13 and 16 with one of their runs passing around the drum or roller 18. A series of similar endless flexible members 21 are also provided, and these members are 20 somewhat longer than the members 20 to permit them to pass around the roller 17 and the roller 14, which latter is located beneath the roller 13. One of the runs of these members 21 pass over a portion of the pe- 25 riphery of the drum or roller 18 and in contact with the respective coöperating run of the member 20. The other run of each member passes over the idler 19. If desired the drum or roller 18 may be mounted 30 in adjustable bearings 22 for regulating the tension of the members 20—21. A roller 23 is rotatably supported, preferably by the standards 15, below the roller 17 and in line with the roller 16. Secured to the shaft of 35 this roller 23 is a gear 24 which meshes with a gear 25 on the roller 17, and secured to the other end of the roller 17 is a similar gear 26, which meshes with a gear 27 on the end of the roller 16. A suitable gear 28, such as 40 a sprocket wheel, is also secured to the roller 16, preferably adjacent the gear 27 and passing over this sprocket is a chain 29 which passes around a sprocket wheel 30 secured to one of the rollers 12. The rollers 45 12, and the rollers 13—14 are respectively geared together by suitable gear wheels 31—32, and arranged between and meshing into one of the gears 31 and 32 is a gear 33. All of the gearing is preferably located on 50 the outside of the framework.

Secured to the top of the frame 10, preferably at a point remote from the roller 23, are uprights or standards 34 and journaled between these standards and in line with 55 the rollers 23 and 38 is a similar roller 35. A suitable bracket or extension 36 is secured to the opposite side of the frame 10 and supported thereby are uprights or standards 37 journaled between which is a roller 38 60 which is also located in line with the rollers 23 and 35, and passing around these rollers 23, 35 and 38 are a plurality of spaced endless flexible members 39.

In operation motion is transmitted to the 65 delivery rollers from the machine in any

suitable manner. The rotation of these rollers will, through the medium of the sprocket 29, transmit motion to the roller 16 which in turn will rotate the rollers 17 and 23 through the connecting gear, thereby setting 70 in motion the endless flexible members 20, 21 and 39.

The papers or articles to be folded are carried from the addressing machine by means of the delivery mechanism 1 and 2 and 3 75 and are fed transversely to the table 4 of the folding and wrapping machine 10. After passing through this latter machine they are caught by the delivery rollers 12 and delivered therefrom, between the rollers 80 13—14 and flexible members 20—21, by means of which they are carried upward between these members and over the drum or roller 18 to the rollers 16—17, from where they will be discharged upon the flexible 85 members 39, which are spaced above the top of the machine, and will be carried across the top of the machine, and delivered into a suitable receptacle. It will be thus seen that after the papers are addressed for mailing 90 they are brought back over the machine, thereby disposing of the papers and necessitating but a minimum amount of floor space.

The bracket or extension 36 may be of 95 any suitable construction and is preferably provided with arms 40 to which are removably secured in any desired manner, suitable receptacles 41, preferably two in number, such as bags or the like. These bags are 100 located below and project beyond the roller 38 and are so placed in relation thereto as to receive the papers as they drop from the members 39. A suitable support 42 is secured to the bracket or extension 36, and piv- 105 otally secured to this support is a deflector plate or member 43 provided with an operating handle 44. This plate or member 43 stands somewhat above the tops of the bags or receptacles 41 and projects over each bag. 110 When the papers fall from the tapes or members 39, they drop upon the deflector or member 43 and are prevented from passing over the front edge thereof by means of a suitable flange 45. The papers may be di- 115 rected into either one of the bags by moving the deflector or member 43 about its pivot so as to incline the same in the desired direction.

Any suitable means may be employed for 120 retaining the deflector in its adjusted position such as a notched segment 46 on the support 42, and a spring controlled dog or latch 47 pivotally supported by the operating handle 44, adapted to enter the notches. 125 It will be noted that one run of each of the members 20—21, between which the papers pass, are in close proximity to each other for a considerable distance, which is particularly advantageous when applied to 130

a wrapping machine, as these runs serve to hold the wrapper together after having been pasted, to permit the same to dry before being deposited into the bag or receptacle 41.

5 With such an arrangement it will be noted that the delivery mechanism of the addressing machine is arranged transversely of the folding and wrapping machine and the delivery mechanism of the latter machine is
10 arranged and passes transversely across the first delivery mechanism, thereby producing a very compact arrangement which necessitates but a very small amount of floor space.

It is thought that the operation of this
15 improvement will be clear but in order that the invention might be fully understood, the details of an embodiment thereof have been thus specifically described.

What I claim is:—

20 1. In a device of the class described, the combination of means for delivering the articles from an addressing machine to a folding machine arranged transversely of the addressing machine, means for deliver-
25 ing the folded article from said folding machine, and means for receiving said folded articles and conveying them transversely across the first said means, the last two said means being supported by the folding ma-
30 chine.

2. In a device of the class described, the combination of the delivery means of an addressing machine arranged transversely of a folding machine, delivery means for the
35 folding machine, and conveying means arranged adjacent the last said means supported by and extending transversely across the first said means.

3. In a device of the class described, the combination of delivery rollers, means
40 adapted to receive the articles from the rollers and convey them across the top of the machine, a receptacle, a deflector, said deflector comprising a pivotally supported plate or member adapted to receive and di-
45 rect the articles into the receptacle, a handle for adjusting the deflector about its pivot, a stationary notched segment, and a pawl operatively related to the handle and adapted to engage the segment for retaining the
50 deflector in its adjusted position.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 28th day of February A. D. 1907.

SANDFORD C. COX.

Witnesses:

FRANCIS A. HOPKINS,
CHAS. H. SEEM.