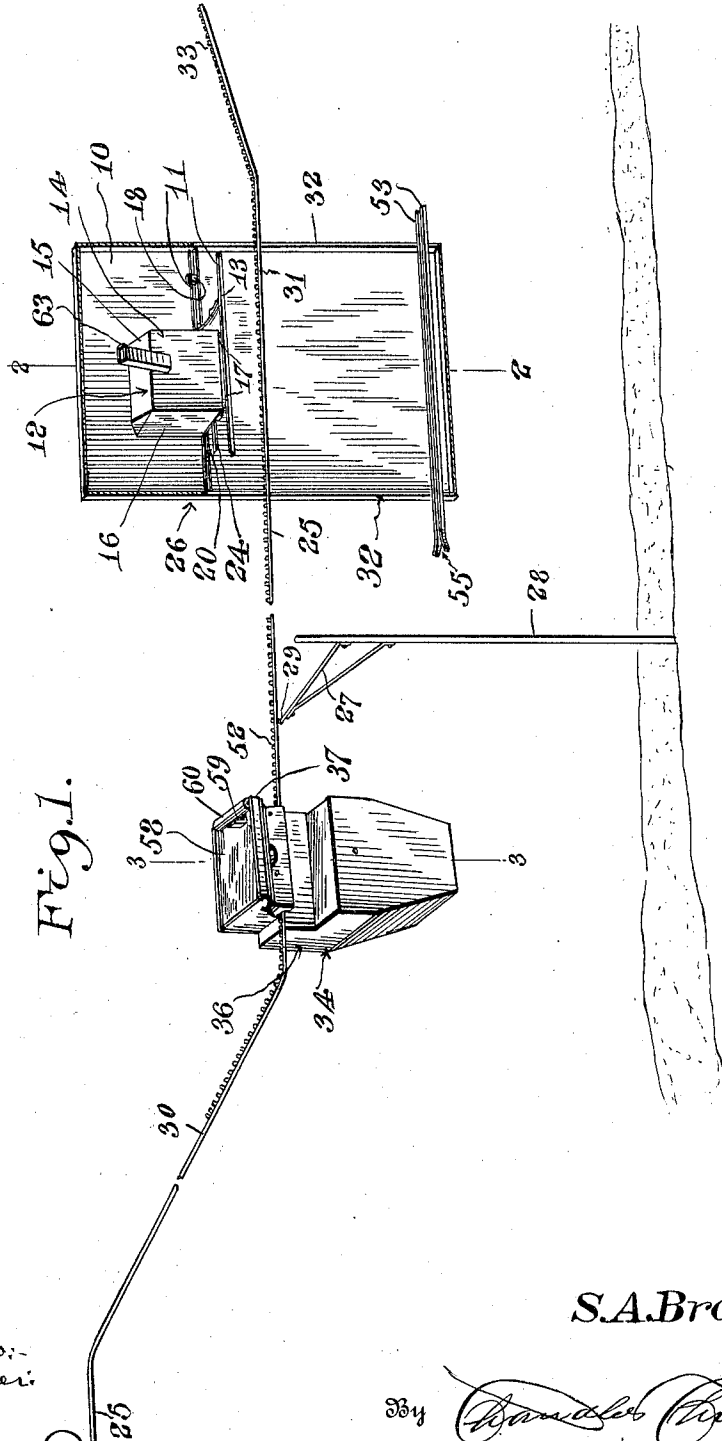


S. A. BRANDT.
ELECTRIC MAIL CARRIER.
APPLICATION FILED FEB. 8, 1912.

1,039,019.

Patented Sept. 17, 1912.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

Fig. 2.

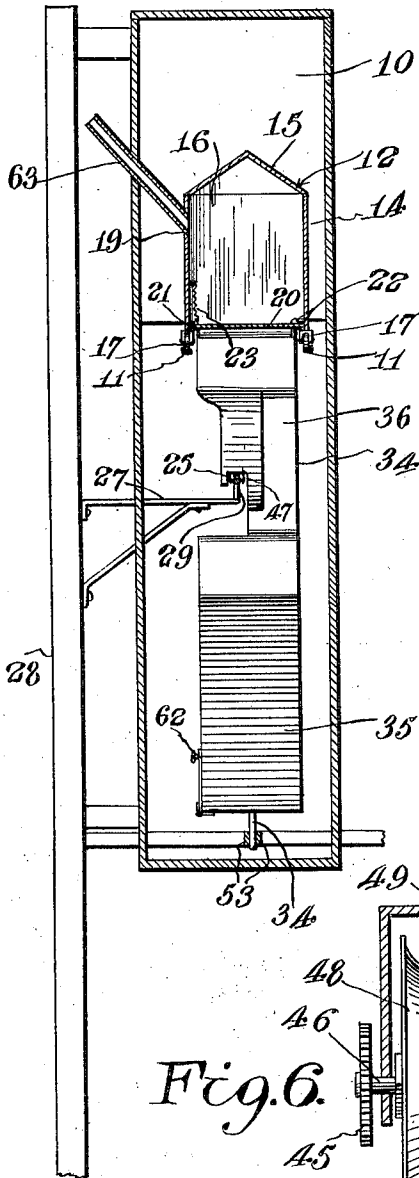


Fig. 3.

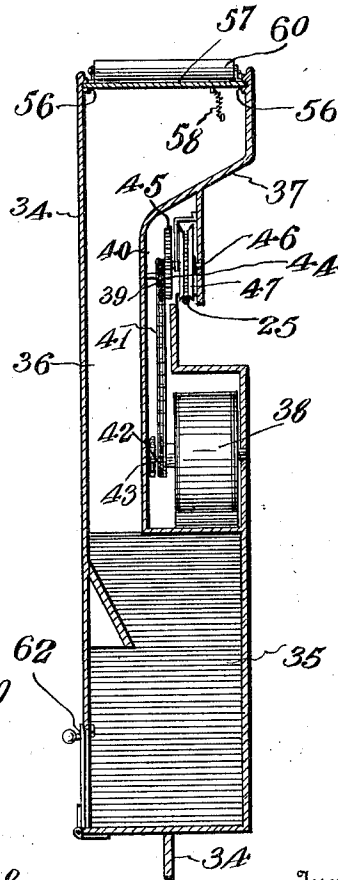
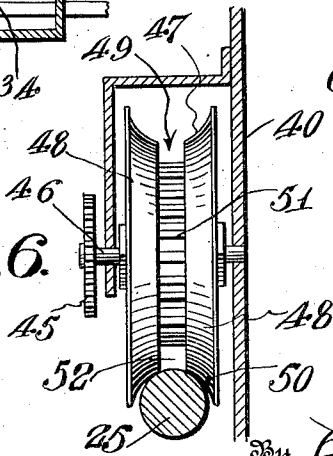


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 4.

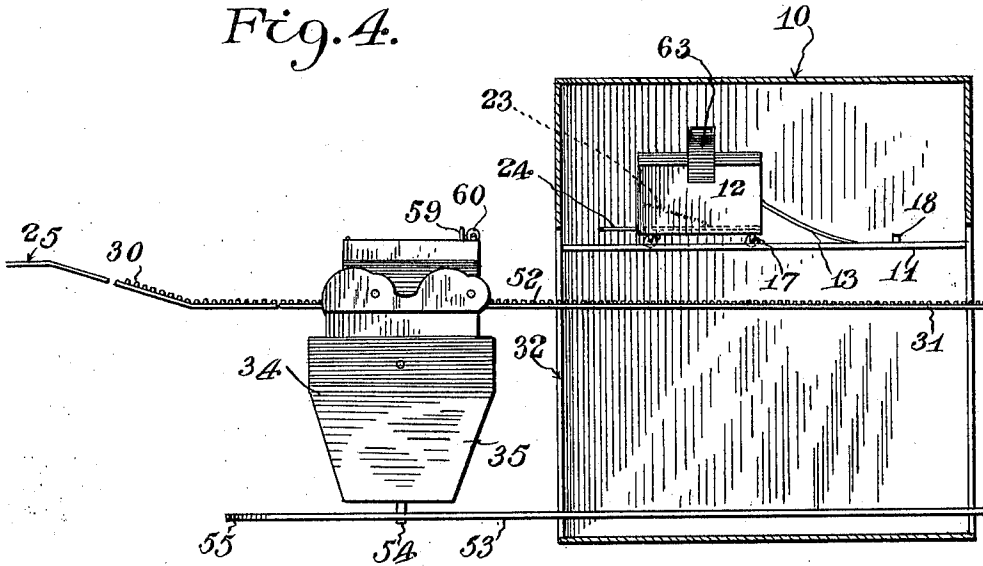
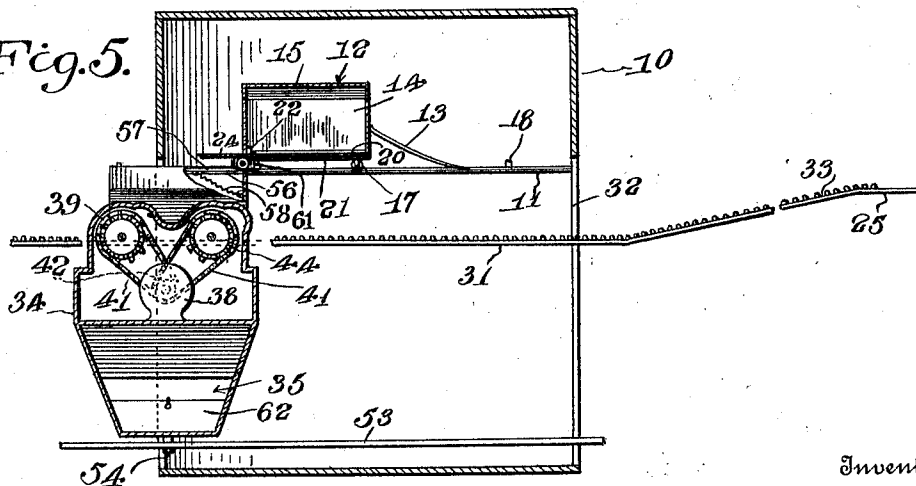


Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL A. BRANDT, OF TREMONT, ILLINOIS.

ELECTRIC MAIL-CARRIER.

1,039,019.

Specification of Letters Patent.

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Application filed February 8, 1912. Serial No. 676,328.

To all whom it may concern:

Be it known that I, SAMUEL A. BRANDT, a citizen of the United States, residing at Tremont, in the county of Tazewell, State of Illinois, have invented certain new and useful Improvements in Electric Mail-Carriers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in electric mail conveyers.

An object of this invention is the provision of an apparatus such as described which will convey mail from the stations along a mail route to the main station or post-office.

Another object of this invention is the provision of a mail carrier so constructed that the same will remove the contents of a mail box and convey the same to the main station or post-office.

Still another object of this invention is the provision of a mail carrier so constructed that its movement will be retarded upon its approach to a mail box thus permitting the successful operation of its various parts used in removing mail from the mail box.

A further object of this invention is the provision of a mail box and conveyer so constructed as to quickly remove the mail therefrom, the said conveyer being mounted upon a track which slants from the said mail box thus providing a means for disconnecting the operating parts of the mail box and conveyer which will be returned to their initial positions.

A still further object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of my invention. Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a similar view taken on the line 3—3 of

Fig. 1. Fig. 4 is a longitudinal sectional view of my invention, with the conveyer approaching the mail box, and Fig. 5 is a similar view to Fig. 4 showing the mail box and conveyer in operative engagement. Fig. 6 is a detailed sectional view taken through one of the rollers.

Referring to the drawings by similar characters of reference, the numeral 10 designates generally a housing in which is located a pair of spaced tracks 11 upon which is slidably mounted a mail box 12, the said box being normally held adjacent the extremities of the tracks at one end of the housing by a plurality of springs 13.

The mail box 12 consists of the usual side walls 14 connected at their upper ends by a top 15 and at their vertical edges by end closures 16.

A pair of rollers 17 are secured to each of the sides 14 adjacent the ends thereof for engagement with the tracks 11 whereby the said mail box 12 will be slidably supported thereon.

A stop 18 connects the rails 11 and limits the longitudinal movement of the mail box thereon.

The before mentioned mail box 12 is provided in one side thereof with the usual letter slot 19 by means of which the mail may be deposited therein to rest upon the sliding bottom 20.

The inner edges of the sides 14 of the mail box 12 are formed with longitudinally extending horizontally disposed channels 21 for engagement with the opposite edges of the sliding bottom 20. The upper side of the bottom 20 is formed with a lug or projection 22 arranged for contact with one end of the mail box 12 into engagement with which it is forced by means of a tension spring 23 connected to the said end 16 and sliding bottom 20. It will thus be seen that the mail box 12 is normally closed at its lower side by the sliding bottom 20 which retains the mail therein.

A longitudinally extending arm 24 is secured to the bottom 20 and extends from one end of the mail box as clearly illustrated in Fig. 1 of the drawings for a purpose to be later disclosed. A cable or track 25 leads from the main station or post-office not shown in the drawings to the collecting stations, one of which is shown and designated by the numeral 26. This cable or track 25 is supported by a plurality of brackets 27

secured to posts 28 and attached to the cable at intervals throughout its length as indicated by the numerals 29. Adjacent the station 26 the cable is extended downwardly as indicated by the numeral 30 and then inclined at a slight angle to the tracks 11 as at 31, which inclined portion 31 of the cable extends longitudinally through the housing or shelter 10 passing through openings 32 formed in the opposite ends thereof. After passing through the housing 10 the cable 25 is then extended upwardly at an angle as at 33 in the same plane as its opposite end adjacent the extension 30 and then continues to the next station not shown in the drawings.

A conveyer 34 is mounted for longitudinal movement upon the cable 25 and its extensions and comprises a mail receptacle 35 formed at one side with a longitudinal reduced portion 36 which terminates at its upper end in a mail chute 37. A motor 38 is mounted upon the top of the receptacle 35 intermediate the ends thereof and is connected to a pair of sprocket wheels 39 journaled upon the adjacent side of the chute 37 in depressions 40 formed therein by a pair of chains 41 which extend over pinions 42 keyed to the motor shaft 43. The sprocket wheels 39 are formed with peripheral gear teeth 44 for engagement with the pinions 45 carried by shafts 46 to which are keyed the drive pulleys 47 arranged for engagement with the said track 25 whereby the conveyer 34 will be supported thereon for longitudinal movement. The pulleys 47 each comprise a pair of sections 48 held in spaced relation to each other to produce a groove 49 less in diameter than the groove 50 of the said pulley 47, and each of the said pulleys has interposed between its sections 48 within the channel 49 a gear wheel 51 arranged with its opposite sides contacting with the inner sides of the sections 48 and its teeth extending for engagement with the teeth 52 provided upon the portions 30, 31 and 33 of the track 25 whereby the said conveyer 34 will be retarded in its passage through the housing 10 and openings 32 formed therein.

A pair of guide rails 53 are mounted below the track 25 or extension 31 thereof for engagement with a projection or lug 54 which depends from the central portion of the bottom of a conveyer 34. The forward ends of the rails 53 are spread outwardly as at 55 to insure the passage of the lug 54 between the said rails 53 thereby preventing any undesired lateral swinging of the conveyer 34 upon the track. A pair of longitudinal guides 56 are formed upon the upper side edges of the chute 37 and has slidably located therein a closure 57 which is normally held in its closed position by means of a spring 58 connected to the under

side thereof and to one end of the chute 37. A rib 59 is formed transversely of the forward end of the closure 57 while located adjacent this rib is a roller 60 for engagement with a rib 61 formed upon the bottom 20 of the mail box 12.

The operation of the device is as follows: The conveyer is started from one end of the track 25 when the motor 38 is set in motion and proceeds to one of the stations 26. Before reaching the station 26, the conveyer 34 passes down the incline 30 of the track 25 until reaching the teeth 52 formed thereon which will be engaged by the gear wheels 51 consequently retarding the movement of the said conveyer, but making its movement more positive. As the conveyer 34 enters the opening 32 of the housing 10 the arm 24 will engage the stop or rib 59 of the closure 57 and upon the forward movement of the conveyer 34 this closure 57 will be moved rearwardly to its open position. Upon the continued forward movement of the conveyer, the arm 24 which is beveled at its terminal will pass over the rib 59 owing to the inclined portion 31 of the track which increases the distance between the mail box and the conveyer upon the movement of the latter, until the said roller 60 engages the rib 61 which causes the forward movement of the bottom 20 which is so constructed that it will be in its open position when the open end of the chute 37 is disposed thereunder. This obviously permits the contents of the mail box to be dropped into the chute 37 and to pass through the passage 36 into the receptacle 35 from whence it can be removed from the hinged closure 62. As the propulsion of the conveyer 34 is continued the roller 60 will pass below the rib 61 owing to the continued incline of the tracks which permits the closures 20 and 57 to assume their normal positions through the assistance of the springs 23 and 58.

Owing to the sliding movement of the mail box 12 upon the tracks 11 all injury to the operating parts will be prevented by its contact with the conveyer.

It should be noted that the openings 32 of the housing 10 are of a sufficient size to permit the conveyer to pass through the said housing but are small enough to prevent any unauthorized person from tampering with the mail box 12.

A suitable chute 63 is connected to the letter slot 19 and passes through one side of the housing 10 providing a means whereby a person may deposit mail into the mail box.

The inclined portions 30 and 33 of the track are sufficient to retain the conveyer 34 at a height sufficient to prevent injury to pedestrians.

From the foregoing disclosures taken in

connection with the accompanying drawings, it will be manifest that an electric mail conveyer is provided for which will fulfil all of the necessary requirements of such a device. It should be understood in this connection that various minor changes in the details of construction, may be resorted to within the scope of the appended claims without departing from or sacrificing any of the advantages of the invention.

Having thus fully described this invention what I claim as new and desire to protect by Letters Patent, is:

1. The combination in a device such as described with a mail box, having a sliding closure, a track disposed at an incline below the mail box, the conveyer movable upon the track, a sliding closure for the mail box, and an operative connection between said closures.

2. The combination with a mail box of a sliding closure therefor, an inclined track disposed adjacent the mail box, a conveyer movable upon said track, a sliding closure for said conveyer, ribs formed upon said closures, an arm carried by one closure for engagement with the rib of the other closure and a roller journaled upon the other closure for engagement with the rib of the first closure.

3. The combination with a mail box of an inclined cable located adjacent the mail box, a sliding closure for said mail box, a conveyer, pulleys carried by the conveyer for engagement with said track, means for ro-

tating the pulleys, a sliding closure for the conveyer, ribs formed upon the closures, an arm formed upon one closure and a roller journaled upon the outer closure for engaging the ribs, and means for slidably supporting the mail box.

4. The combination with a mail box, of a conveyer, an operative connection between the mail box and the conveyer and an inclined track supporting the conveyer to break the operative connection.

5. The combination with a mail box, of a sliding closure therefor, a track, said track being extended downwardly and inclined below said mail box, teeth formed upon the inclined portion of the track, pulleys engaging said track, means carried by the pulleys for engagement with the teeth, a conveyer supporting said pulleys, means for rotating the pulleys, a sliding closure upon the conveyer, means for yieldingly holding the closures in their normal positions, ribs formed upon the opposite sides of the closures, an arm extending from one closure for engagement with the rib of the other closure, a roller journaled upon the other closure for engagement with the arm and rib of the first mentioned closure, and means for movably supporting the mail box.

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

SAMUEL A. BRANDT.

Witnesses:

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EDWARD COONEY.