P. FRIEDERICK.

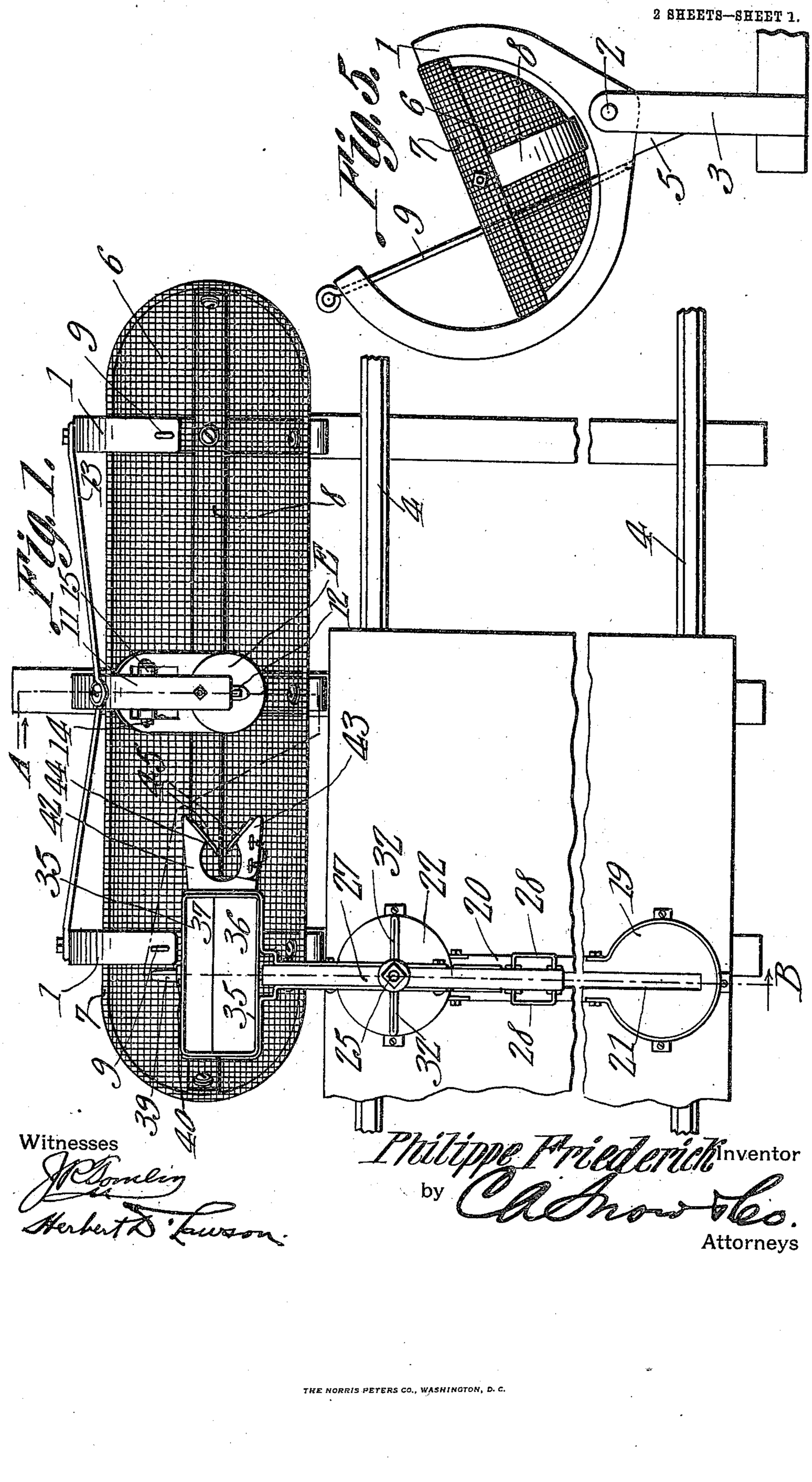
MAIL DELIVERING AND RECEIVING APPARATUS.

APPLICATION FILED APR. 25, 1910.

963,134.

Patented July 5, 1910.

2 SHEETS—SHEET 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

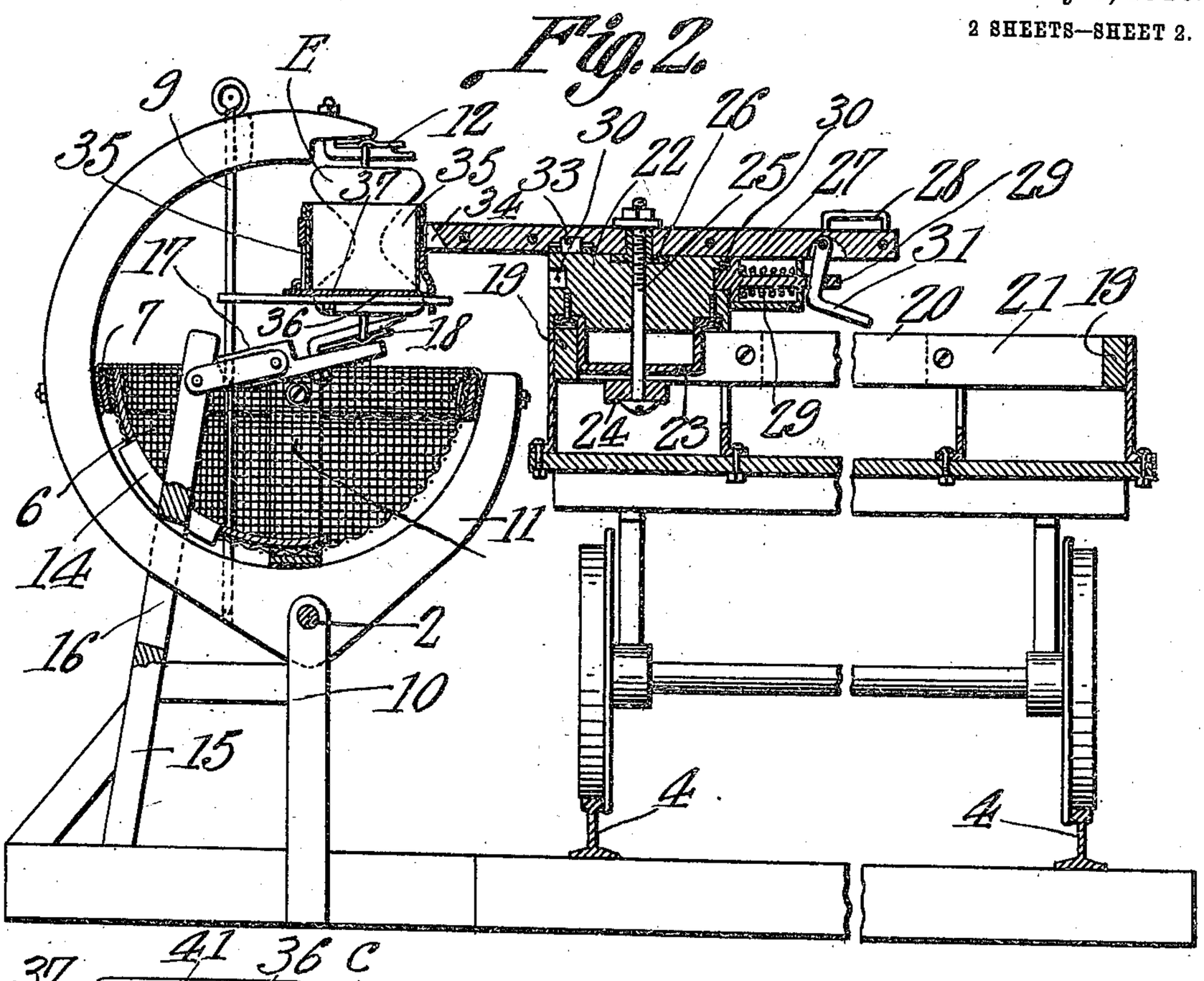

Fig. 3.

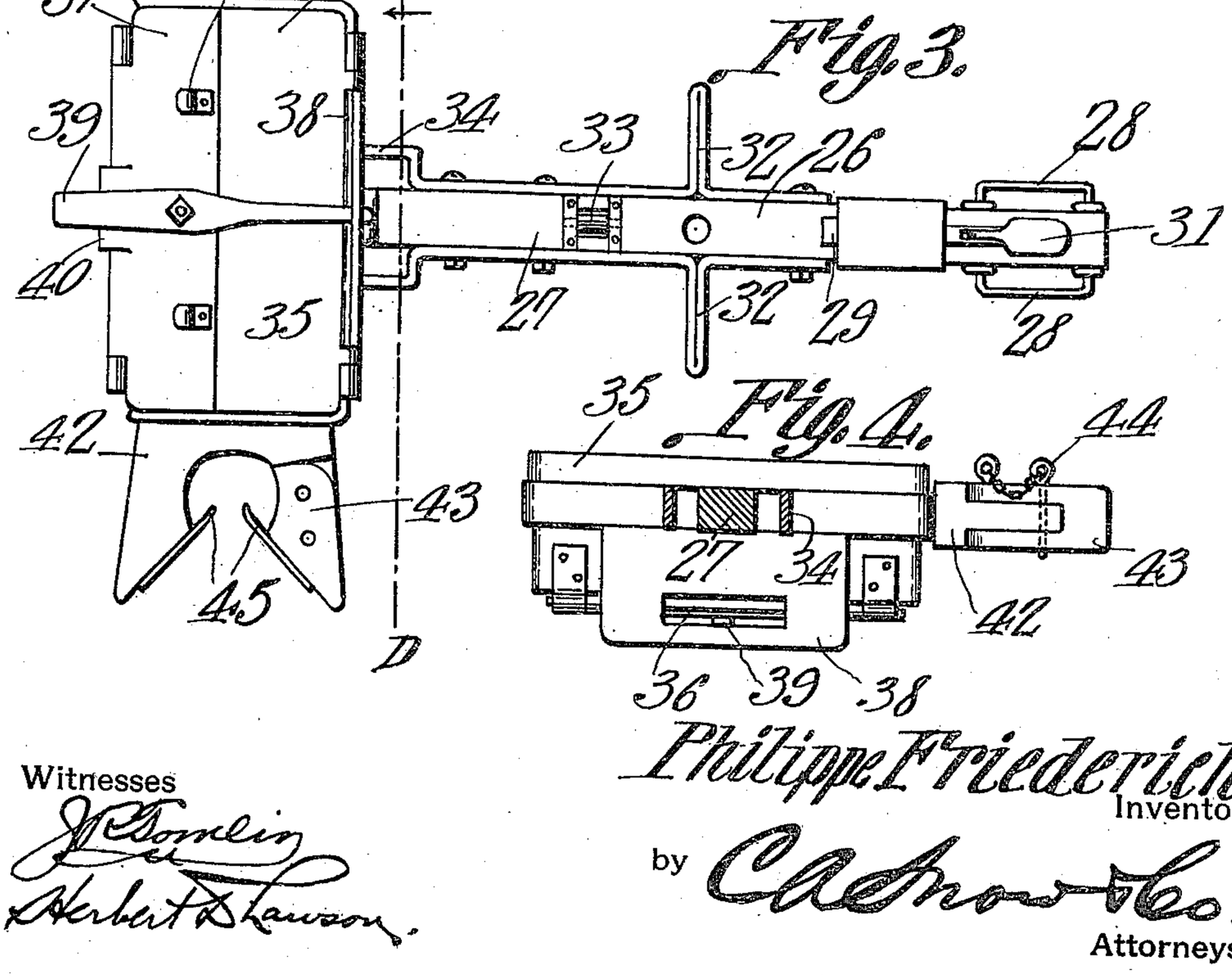

Fig. 4.

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UNITED STATES PATENT OFFICE.

PHILIPPE FRIEDERICK, OF SALINA, KANSAS.

MAIL DELIVERING AND RECEIVING APPARATUS.

963,134. Specification of Letters Patent. **Patented July 5, 1910.**

Application filed April 25, 1910. Serial No. 557,522.

To all whom it may concern:

Be it known that I, PHILIPPE FRIEDERICK, a citizen of the United States, residing at Salina, in the county of Salina and State of Kansas, have invented a new and useful Mail Delivering and Receiving Apparatus, of which the following is a specification.

This invention relates to apparatus for effecting the interchange of mail between stations and moving cars and one of its objects is to provide combined receiving and delivering mechanism of novel form, to be located at a station, said mechanism including means whereby the bag or pouch when delivered thereto, will be securely held and shifted away from the car, said shifting action being produced automatically by gravity, the receiver being held normally in a predetermined position by the bag or pouch to be delivered to the car.

A further object is to provide means whereby, when the bag or pouch is removed from the station, the receiver and the bag delivered thereto, will be released and permitted to shift away from the car.

A still further object is to provide a novel form of delivering and receiving device for use upon the car, said device including a reversible member which can be readily shifted so as to project from either side of the car.

Another object is to provide novel means for locking the car mechanism in the positions to which it may be shifted.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a plan view of the complete apparatus, the parts being shown in the positions assumed by them immediately prior to the delivery of a pouch to and from the car. Fig. 2 is a section on line A—B Fig. 1. Fig. 3 is a bottom plan view of the movable crane carried by the car. Fig. 4 is a section on line C—D Fig. 3. Fig. 5 is an end elevation of the receiver located at the station, the same being shown in its normal, or unlocked position.

Referring to the figures by characters of reference 1 designates substantially semi-circular or arcuate frame members each of which is pivotally mounted, as at 2, upon a standard 3 disposed at one side of the track 4. The pivot 2 is arranged nearer one end of said rib than the other so that, under ordinary conditions, the rib is extended laterally away from the track as shown in Fig. 5 and in contact with a supporting projection or stop 5 mounted upon the standard 3. The two ribs 1 support an elongated trough like receiver 6, preferably formed of heavy metal fabric suitably reinforced, as by means of a marginal strap 7 and an intermediate longitudinally extending strap 8, said straps being formed of metal. The receiver 6 is so arranged within the ribs 1 that the upper ends of the ribs overhang the receiver and are connected to the bottom portion of the receiver by means of tripping rods 9 which assume substantially vertical positions when the receiver is set for use.

An intermediate standard 10 is interposed between the standards 3 and an arcuate rib 11 is pivotally connected to the upper portion thereof and is secured to the middle portion of the trough like receiver 6, the upper end of this rib overhanging the center of the bottom of the receiver and being provided with a clip 12 adapted to swing about a substantially vertical axis, this clip being similar to those ordinarily employed for the purpose of engaging the ring of a mail pouch. The upper portion of this rib 11 may be connected to the end ribs 1 by means of braces 13 or the like.

A slot 14 is formed within the receiver 6 and adjacent the rib 11, there being a standard 15 mounted adjacent the standard 10 and projecting through this slot, the said standard 15 being preferably formed with a longitudinal slot 16 within which the rib 11 is adapted to oscillate. An arm 17 is pivotally connected to the standard 15 and is located within the bottom portion of the receiver 6, this arm being adapted to swing in a vertical plane and being provided at its outer or free end with a clip 18 similar to the clip 12 heretofore described and which is adapted to engage the lower ring of a mail pouch.

That portion of the apparatus to be carried by the mail car, includes two circular

tables 19 located adjacent the side doors of the car and connected by straight parallel rails 20, there being slots 21 extending into the tables 19 and registering and alining with the space between the rails 20. A circular carriage 22 is adapted to travel upon the rails 20 and onto either of the tables 19, this carriage being formed with a depending guide strap 23 adapted to travel between the rails 20 and into the slots 21 so as to hold the carriage at all times against rotation. A retaining strip 24 extends transversely of the rails 20 and is adapted to retain the strap 23 at all times between the rails or within the slots 21, thus preventing the carriage from tilting or becoming otherwise displaced relative to the rails and tables. The strip 24 is preferably connected to the table by means of a pivot bolt 25 extending upwardly through the carriage and through a thimble 26 mounted on said carriage. A sweep 27 is mounted to swing upon the said thimble and has a handle 28 at one end, there being a spring pressed bolt 29 upon the said sweep and which normally engages one of a series of notches 30 formed in the peripheral portion of the carriage 22. This bolt may be operated by means of a lever 31 pivotally connected to the sweep and loosely engaging the bolt, the said lever extending close to the handle 23 as shown in Fig. 2. Obviously, by pulling upon the lever, the bolt can be withdrawn from the recess 30 and the sweep thus permitted to swing about its pivot until it has been brought to a desired position relative to the carriage whereupon the bolt can be released and will become seated within the adjoining notch 30, thus locking the sweep against further movement.

Laterally extending arms 32 are arranged upon the sweep 27 and radiate from the pivot thereof, these arms being adapted to bear upon the carriage 22 and prevent the sweep from tilting laterally. An anti-friction device, such as a roller 33 may be carried by the sweep so as to bear downwardly upon the carriage as shown in Fig. 2. A yoke 34 extends from that end of the sweep farthest removed from the handle 28 and embraces and is secured to a delivering receptacle or box 35, the bottom of which is formed of sections 36 and 37 hingedly connected to opposed longitudinal edges of the receptacle. A longitudinally slotted keeper in the form of a flange 38, extends downwardly from that wall of the receptacle nearest the carriage 22 and is adapted to be engaged by a locking strip 39 which is pivotally connected to the bottom section 37 and is adapted, when engaging the keeper 38, to project beyond the outer side of the receptacle 35, as shown in Fig. 3. A wing 40 is preferably extended from the bottom section 37 so as to limit the downward swinging movement of said section, this wing being adapted to move against the outer side wall of the receptacle as soon as said section assumes a vertical position. Stop brackets 41 may be arranged upon the bottom section 37 for the purpose of limiting the swinging movement of the locking strips 39.

A receiving fork 42 is arranged at the front end of the receptacle 35 and one of the members of said fork is preferably provided with a pivoted extension 43 which can be locked in operative position by means of a pin 44 insertible into registering openings within the adjoining fixed portion of the fork and the said pivoted member 43. Both members of the fork have retaining spring fingers 49 extending inwardly as shown. The inner or adjoining ends of these springs form a reduced opening therebetween.

In using the apparatus, the pouch E to be delivered to the car, is placed with its upper ring in engagement with the clip 12 and with its lower ring in engagement with the clip 18. The said pouch will thus hold the receiver 6 out of its normal position and with the rods 9 substantially vertical. When the rods are thus located, they are disposed in the path of the projecting end of the strip 39. The pouch to be delivered to the station is placed within the receptacle 35 and the carriage 22 is moved along the rails 20 and onto the table 19 at that side of the car from which the mail is to be delivered. When the carriage is brought to this position on the table, the sweep 27 will project through the side door of the car and the said sweep can be locked at right angles to the side of the car, by permitting the bolt 29 to engage one of the notches 30 in the carriage. As the car passes the station the projecting end of the strip 39 strikes the nearest rod 9 and is thus disengaged from the keeper 38. The two hinged sections 36 and 37 constituting the bottom of the receptacle, will therefore swing downwardly by gravity and the pouch lying within said receptacle will fall into the receiver 6. Immediately thereafter the fork 42 will engage the pouch suspended between the upper end of ribs 11 and the arm 17 and will pull it off of the clips 12 and 18. This pouch will pass between the spring retaining fingers 45 and will be firmly held by the fork until the said fork and the receptacle 35 have been drawn back into the car. As soon as the pouch is disengaged from the clips 12 and 18, the receiver 6 will be released and will swing back to its normal position and away from the car so as to cause the ribs 1 to rest upon the stop projections 5 and the rib 11 to bear upon the lower end of the slots 16.

It is to be understood of course that various changes may be made in the construction and arrangement of the parts without de-

parting from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. Apparatus of the class described including a laterally tiltable receiver, means movable therewith for supporting a pouch above the receiver, and means mounted within but separate from the receiver for engaging a supported pouch to hold said receiver in a predetermined position.

2. Apparatus of the class described including a laterally tiltable receiver, means for supporting the receiver normally in a tilted position, pouch supporting means movable with and extending over the receiver, and means extending into and separate from the receiver for engaging a supported pouch to hold the receiver out of its normal position.

3. Apparatus of the class described including a laterally tiltable receiver, means for supporting said receiver normally in tilted position, an arcuate pouch supporting portion movable with the receiver, a relatively fixed member projecting into the receiver, means thereon for detachably engaging the lower portion of a pouch to hold the said arcuate portion and the receiver out of its tilted position.

4. The combination with a laterally tiltable receiver, a pouch supporting member movable with said receiver and overhanging the same, means separate from and projecting into the receiver for engaging the supported pouch to hold the receiver out of tilted position, a tripping member movable with and extending into the receiver, a car supported pouch holding device movable over the receiver, and means upon said device for engaging the tripping element to release a pouch from the device and deliver it to the receiver.

5. Apparatus of the class described including a receiver, a tripping device therein and extending thereabove, a shiftable car supported pouch holder movable over the receiver, said holder including a sectional dumping bottom, and means for locking the sections in closed position, said means being movable against the tripping device to unlock the sections at a point above the receiver.

6. Apparatus of the class described including a carriage, a sweep mounted for swinging movement thereon, means for locking the sweep in a predetermined position relative to the carriage, a pouch holder movable with the sweep and including a sectional dumping bottom, and means for locking said bottom in closed position, said means projecting beyond the pouch holder.

7. Apparatus of the class described including a carriage, a sweep mounted for swinging movement thereon, means for locking the sweep against movement relative to the carriage, a receptacle movable with the sweep and including a hinged bottom, and means for locking the bottom in closed position, said means projecting beyond the receptacle.

8. Apparatus of the class described including a carriage, a sweep mounted for swinging movement thereon, means for locking the sweep against movement relative to the carriage, a receptacle carried by the sweep, said receptacle including a dumping bottom, and means for locking the bottom in closed position, said means extending beyond the receptacle.

9. Apparatus of the class described, including a table, a track extending therefrom, a carriage mounted to travel upon the track and onto the table, a sweep mounted for swinging movement upon the carriage, means for locking the sweep against movement relative to the carriage, a receptacle upon the sweep and having a dumping bottom, and means for locking the bottom in closed position said means extending beyond the receptacle.

10. Apparatus of the class described including spaced slotted tables, a track connecting the same, a carriage movably mounted on the track and onto either of the tables, means for holding the carriage against rotation, a sweep mounted for swinging movement upon the carriage, a receptacle movable with the sweep and having a dumping bottom and means for locking said bottom in closed position, said means extending beyond the receptacle.

11. Apparatus of the class described including a carriage, a sweep mounted for swinging movement thereon, a receptacle movable with the sweep and having a dumping bottom, means for locking the bottom in closed position, said means extending beyond the receptacle, and a receiving fork extending from one end of the receptacle.

12. Apparatus of the class described including a receiver, a tripping device extending thereabove, a car supported structure, a carriage mounted for movement thereon, a sweep mounted for swinging movement upon the carriage, a receptacle movable with the sweep and adapted to travel over the receiver, said receptacle having a dumping bottom, and means for locking the bottom in closed position, said means being movable against the tripping device to discharge the contents of the receptacle into the receiver.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

PHILIPPE FRIEDERICK.

Witnesses:

OLAF ANDERSON,

J. VAUGHN.