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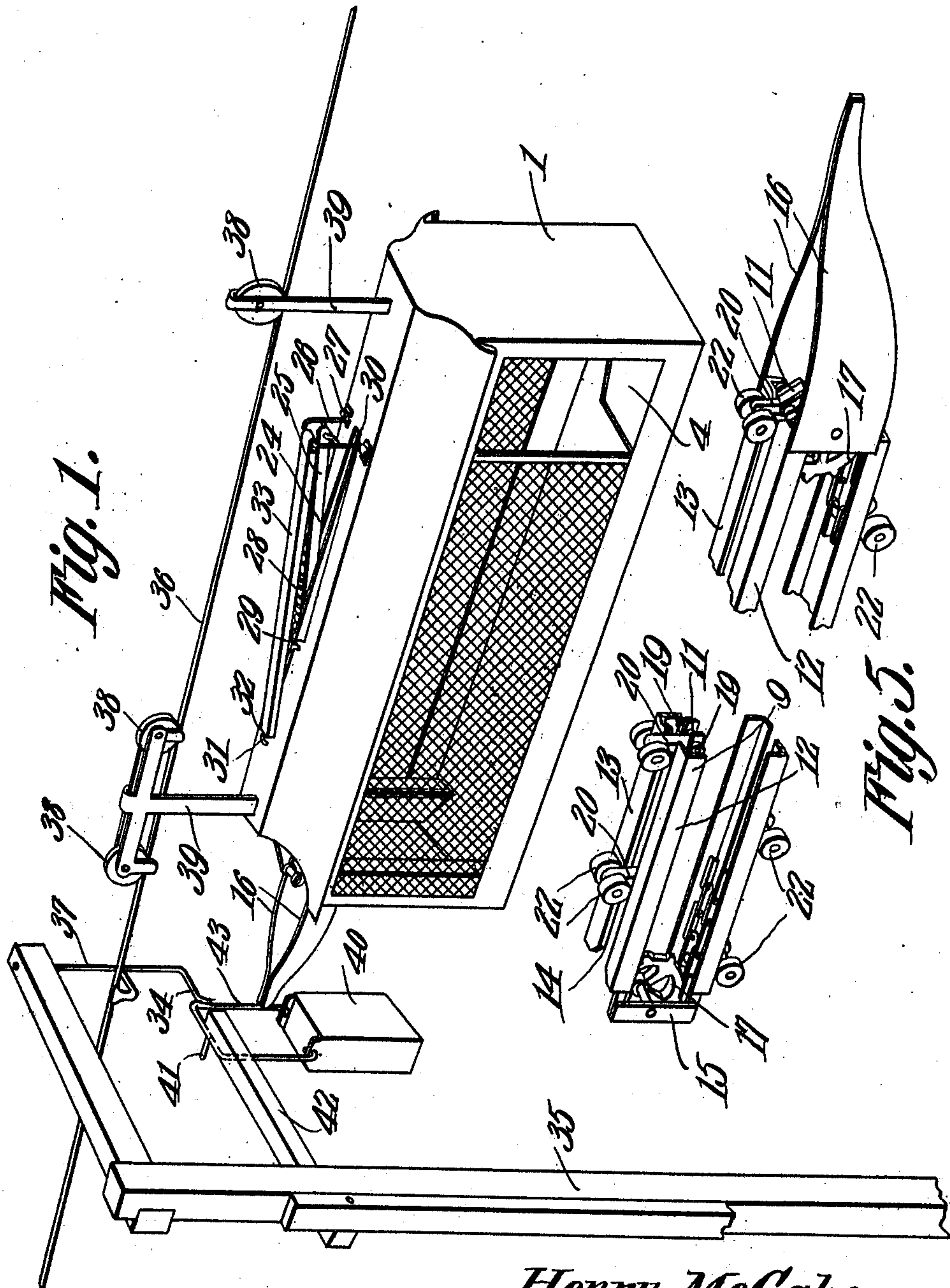
CARRIER.

APPLICATION FILED SEPT. 7, 1910.

990,060.

Patented Apr. 18, 1911.

2 SHEETS-SHEET 1.



Witnesses
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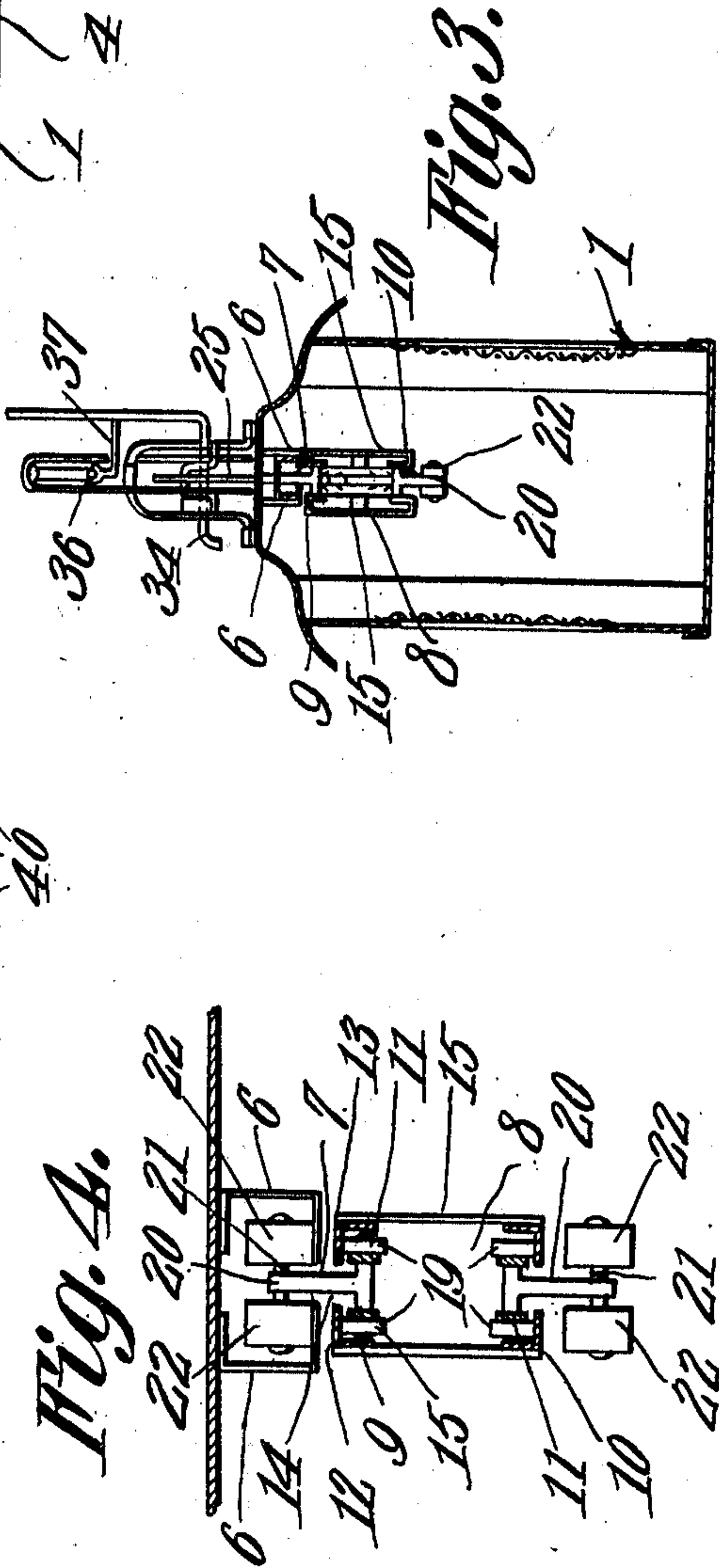
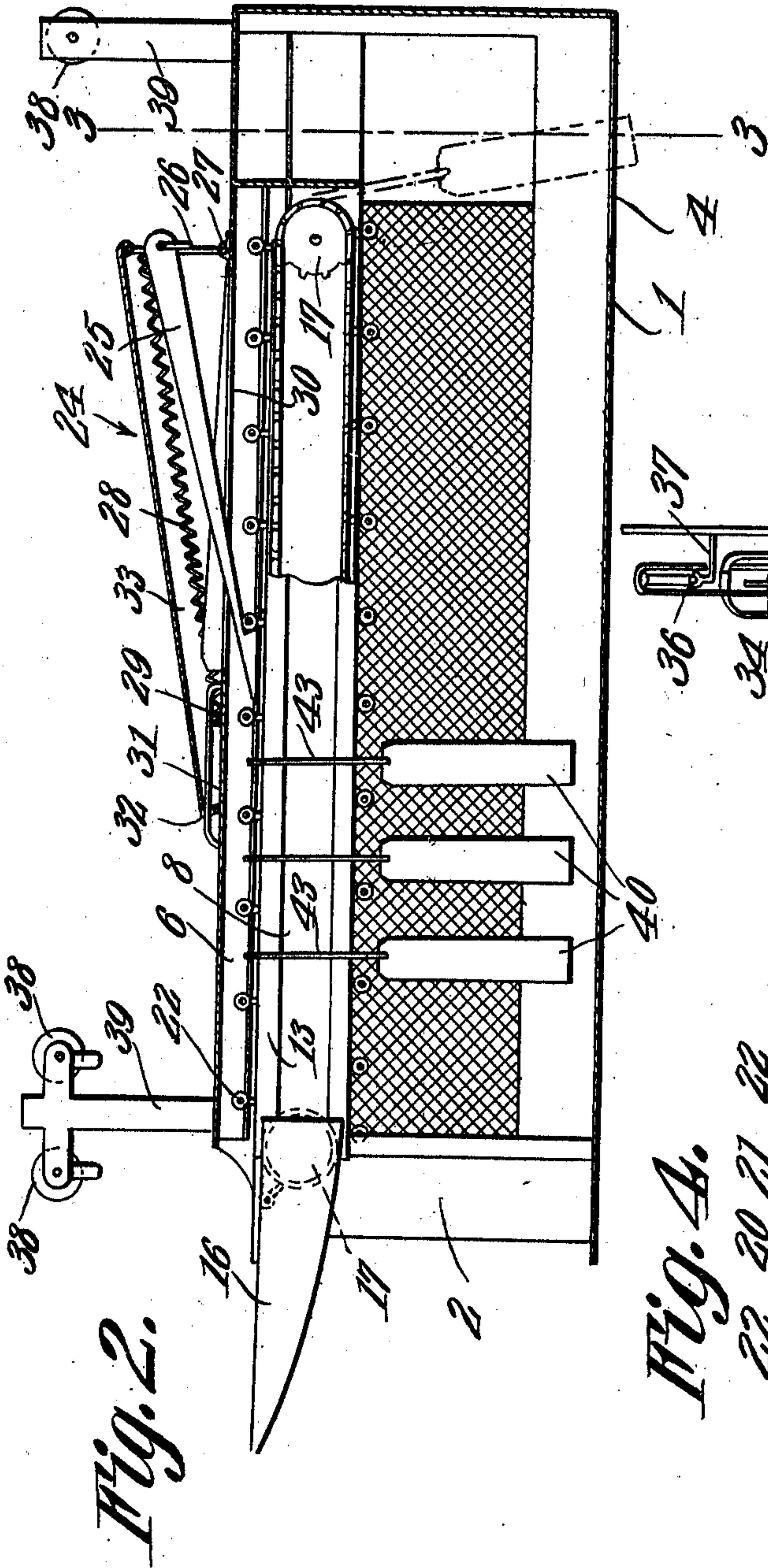
CARRIER.

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2 SHEETS-SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY McCABE, OF ARCOLA, ILLINOIS.

CARRIER.

990,060.

Specification of Letters Patent.

Patented Apr. 18, 1911.

Application filed September 7, 1910. Serial No. 580,868.

To all whom it may concern:

Be it known that I, HENRY McCABE, a citizen of the United States, residing at Arcola, in the county of Douglas and State of Illinois, have invented a new and useful Carrier, of which the following is a specification.

This invention belongs to the art of delivery devices, and it more especially relates to a new and useful mail delivery apparatus, adapted for the transportation of mail matter, parcels and the like, through rural districts, and is so constructed as to receive a mail bag, and deliver one at the successive stations along the route.

The principal object of the invention is to embody the same in the nature of an overhead trolley system, so as to prevent interference therewith by passing vehicles and the like, and to further provide a device of this nature embodying various novel features.

A further feature of the invention is the provision of a carrier chain removably carried within the delivery car, which may be so manipulated as to receive a mail bag and deliver one at the successive stations. The bags arranged between the points where they are received and delivered by the chain, are held from dislocation by suitable members carried by the chain.

A further object of the invention is the production of novel means for feeding this chain intermittently, as the car arrives at each respective station, in order to permit a mail bag to be received and one delivered.

In the drawings, however, there is only illustrated one particular form of the invention, but in practical fields, this form may necessitate slight alterations, and provided the alterations are comprehended by the appended claims, the applicant is entitled to them.

Other features and combinations of parts, will be hereinafter defined, shown in the drawings, and pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a mail delivery car suspended from a trolley wire, and embodying the various features of the invention, and further showing the same in the act of approaching a

station; suspended from a post thereof is a mail bag ready to be received by the car. Fig. 2 is a longitudinal sectional view through the car, clearly illustrating the mechanism for feeding the carrier chain. Fig. 3 is a sectional view on line 3—3 of Fig. 2, clearly showing how the mechanism for feeding the chain is depressed. Fig. 4 is an enlarged detail sectional view of a portion of the structure shown in Fig. 3. Fig. 5 is a detail perspective view of the removable carrier chain and its trough.

Referring to the drawings, 1 denotes a car, having a forward open end 2, through which the mail bags enter as the car passes a station. The bottom of the car, near the end 3 thereof, is provided with an opening 4, through which a mail bag is delivered at the station, at the same time one passes through the opening in the forward portion of the car.

Upon the interior of the car, and depending from the roof thereof, are the longitudinal guide flanges 6, the lower portions of which are spaced apart, thereby forming slots 7.

A double trough member 8 is provided, in the upper and lower troughs 9 and 10 of which, the carrier chain 11 is adapted to be intermittently moved.

The upper trough 9 is composed of the angular elongated guide members 12 and 13, which are spaced apart in order to form a slot 14 between them. The lower trough is similar in construction to the upper one.

The rear ends of the upper and lower troughs are connected together by the metal strips 15, in order to provide rigidity for the structure, and furthermore, to hold the upper and lower troughs properly spaced apart. The forward ends of the upper and lower troughs are connected together, and held rigidly in their places, by means of the plates 16, which in side view taper from their bottom edges upwardly and forwardly to their upper edges. These two plates are joined together at their apexes, as clearly shown in the detail view of the carrier chain and its troughs. At the ends of the troughs there are arranged sprocket wheels 17, about which the carrier chain travels. This carrier chain has laterally extending studs on

each side, and journaled upon these studs are the anti-frictional rollers 19, which engage the flanges of the upper and lower troughs, as motion is imparted to the chain. 5 Extending upwardly and downwardly from the carrier chain are a plurality of standards 20. Projecting from the sides of these standards are the lugs 21. Journaled upon the lugs 21 are anti-frictional rollers 22, 10 which engage the flanges of the troughs arranged adjacent to the roof of the car, the thickness of the said standards being slightly less than the width of the spaces between the flanges of the various troughs, in order that 15 such standards may easily pass through the spaces.

In Fig. 2 the carrier chain and its attendant parts are suspended from the trough in the upper portion of the car, showing the 20 manner in which the mail bags are received and delivered.

To intermittently feed the chain, as the car passes each station, a feed mechanism 24 is provided. This feed mechanism consists 25 of a gravitating feed hook 25, adapted to engage one or the other of the said standards, in order to properly feed the carrier chain. This feed hook 25 is pivotally mounted upon an oscillating frame 26, 30 which is pivoted at 27, to the roof of the car.

28 represents a spring, which is connected between the frame 26 and a portion of the roof of the car, as at 29. By the use of this 35 spring, the frame 26 is restored to its normal position, after the same is oscillated in the manner presently set forth. This hook member 25 passes through a slot 30 in the roof of the car, and the hooked end thereof 40 arranges itself by gravitation in close position with regard to the standards of the chain. To the top of the roof of the car, at a point remote from the frame 26, is a guide rod 31, upon which the end 32 of the bar 33 45 is guided. This bar is pivotally connected to the frame 26, and it will be seen that as the car is in the act of passing a station, a projection 34 of the post 35 engages this bar 33, thus causing the frame 26 to be oscillated, 50 and in so doing the pivoted hook bar co-operates with the carrier chain to feed it.

36 represents a trolley wire, which is connected to the usual form of hanger 37 of the post 35.

55 38 represents grooved wheels which are adapted to engage and run upon the wire 36. These grooved wheels 38 are journaled in bearings of the brackets 39 (which are suitably carried by the roof of the mail car). 60 The mail bags 40 are suspended from a projection 41, of the laterally projecting part 42 of the post 35. The loop 43 of the

bag is so arranged as to readily receive the tapering plates of the forward portion of the trough, as the mail car passes a station. 65

When the mail car passes a station, the tapering plates of the trough pass through the loop 43 of the mail bag, and as the gravitating hook bar is operated, the bag received by the trough is fed within the car, and held 70 in place by the carrier chain. As these operations are being performed, a mail bag is delivered from the trough of the carrier chain, in the manner shown in dotted lines in Fig. 2. This bag, however, passes 75 through the opening in the floor of the car, and is delivered at the station.

The invention having been set forth, what is claimed as new and useful is:

1. An automatic mail delivery apparatus 80 comprising a track-supported car, which is open at its forward end, and provided with a hole in its bottom at the other end, a trough having a carrier chain, a trough suspended from the roof of the car, and means 85 carried by the chain to be received by the trough of the roof of the car, and feeding mechanism for feeding the carrier chain, in combination with a trip device for operating the feeding mechanism. 90

2. A mail delivery apparatus comprising a track-supported car having a forward opening and provided with an opening in its bottom at the rear end, a movable carrier chain suspended from the roof of the car, a 95 feed mechanism for the chain, and a trip device for operating the feed mechanism.

3. An automatic mail delivery apparatus comprising a track-supported car with openings at each end, a carrier chain suspended 100 from the roof of the car, and feed mechanism for the chain, consisting of a spring retained oscillatory frame having a pivoted gravitating feed hook for feeding the chain, a bar pivoted to the frame, and a trip device 105 to engage the bar to cause the frame 26 to be oscillated, whereby a mail bag may be received through the forward end of the car and one delivered at its rear.

4. An automatic mail delivery apparatus 110 comprising a track-supported car with openings at each end, a carrier chain suspended from the roof of the car, and feed mechanism for the chain, consisting of a spring retained oscillatory frame having a pivoted gravi- 115 tating feed hook for feeding the chain, a bar pivoted to the frame, and a trip device to engage the bar to cause the frame 26 to be oscillated, whereby a mail bag may be received through the forward end of the car 120 and one delivered at its rear, and means secured to the roof of the car for guiding the said bar when the frame is oscillated.

5. A mail delivery apparatus comprising

a track-supported car having openings at each end, a removable carrier chain suspended from the roof of the car upon its interior, and feeding mechanism having an oscillatory gravitating rearwardly moving feed hook to engage the carrier chain to feed it and a trip device for actuating the feed mechanism.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature 10 in the presence of two witnesses.

HENRY McCABE.

Witnesses:

J. S. QUIRK,
HARRY E. SCHWARZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
