W. G. PALMER.

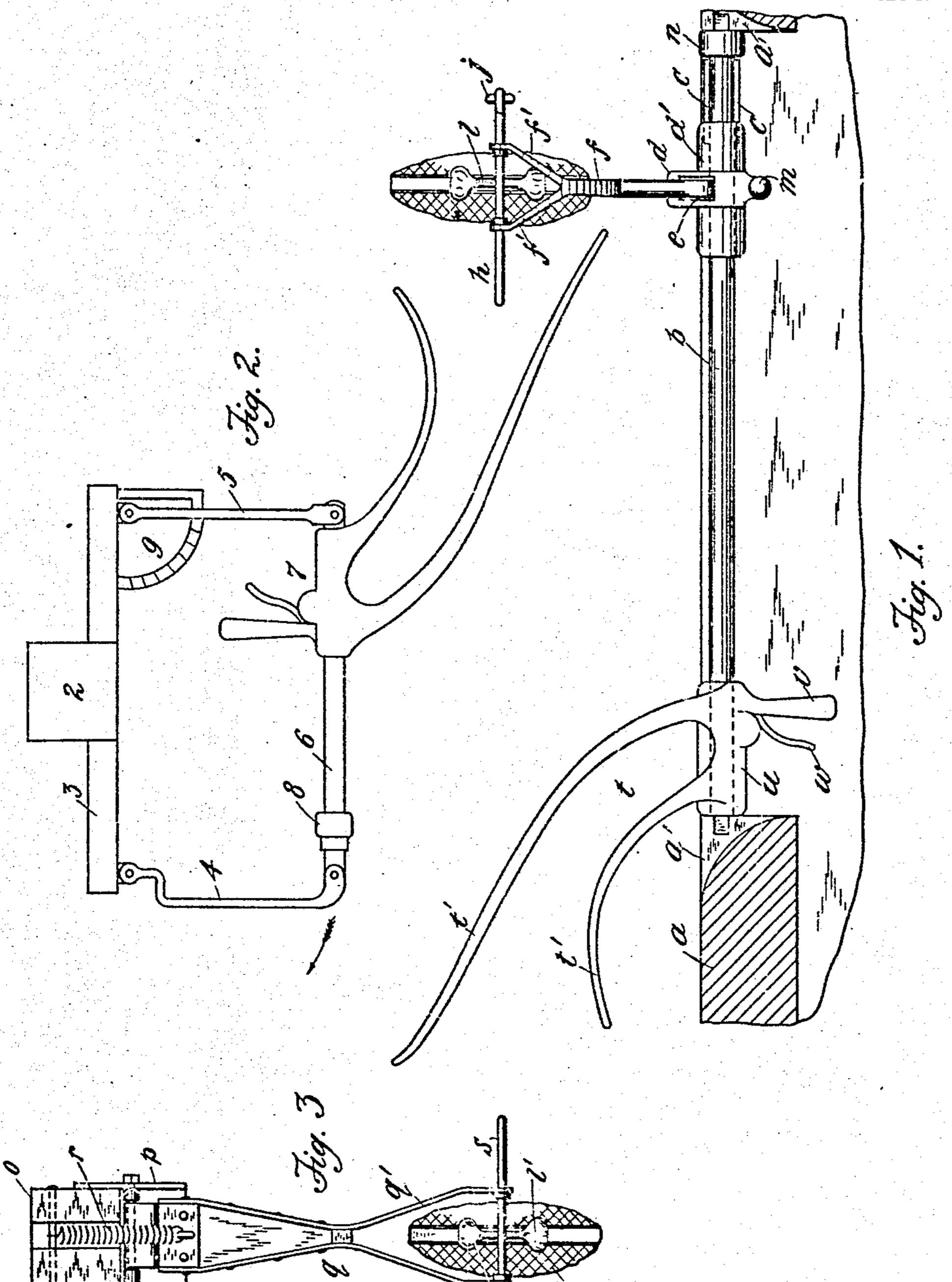
BAILWAY MAIL BAG DELIVERING DEVICE.

APPLICATION FILED SEPT. 3, 1910.

983,514.

Patented Feb. 7, 1911.

3 SHEETS-SHEET 1.



W!TNESSES:

Somartin. I D. Thornburgh. Walter G. Palmer

BY Theisler

THE NORRIS PETERS CO., WASHINGTON, E.C.

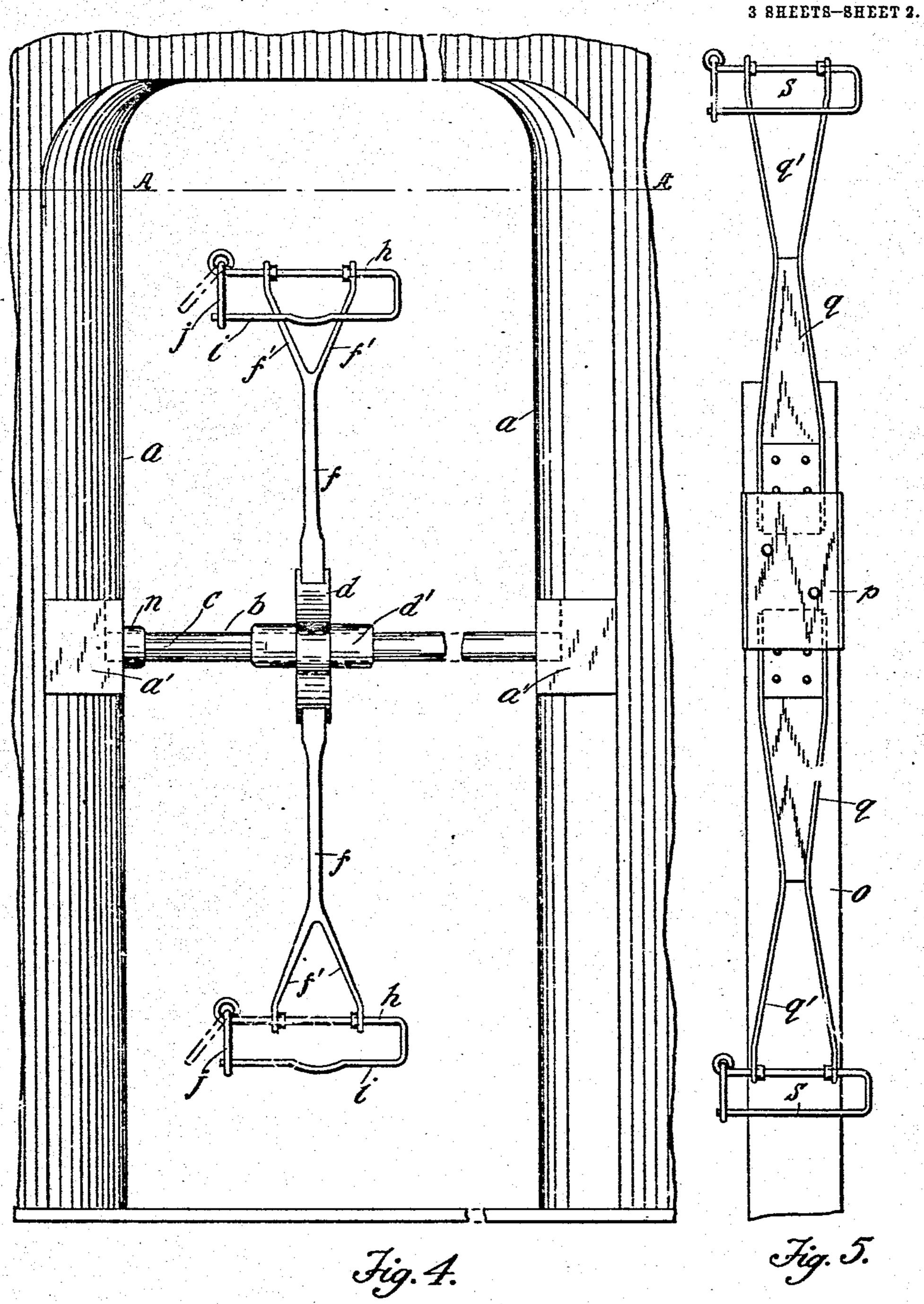
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WITNESSES:

ID. Thomburgh.

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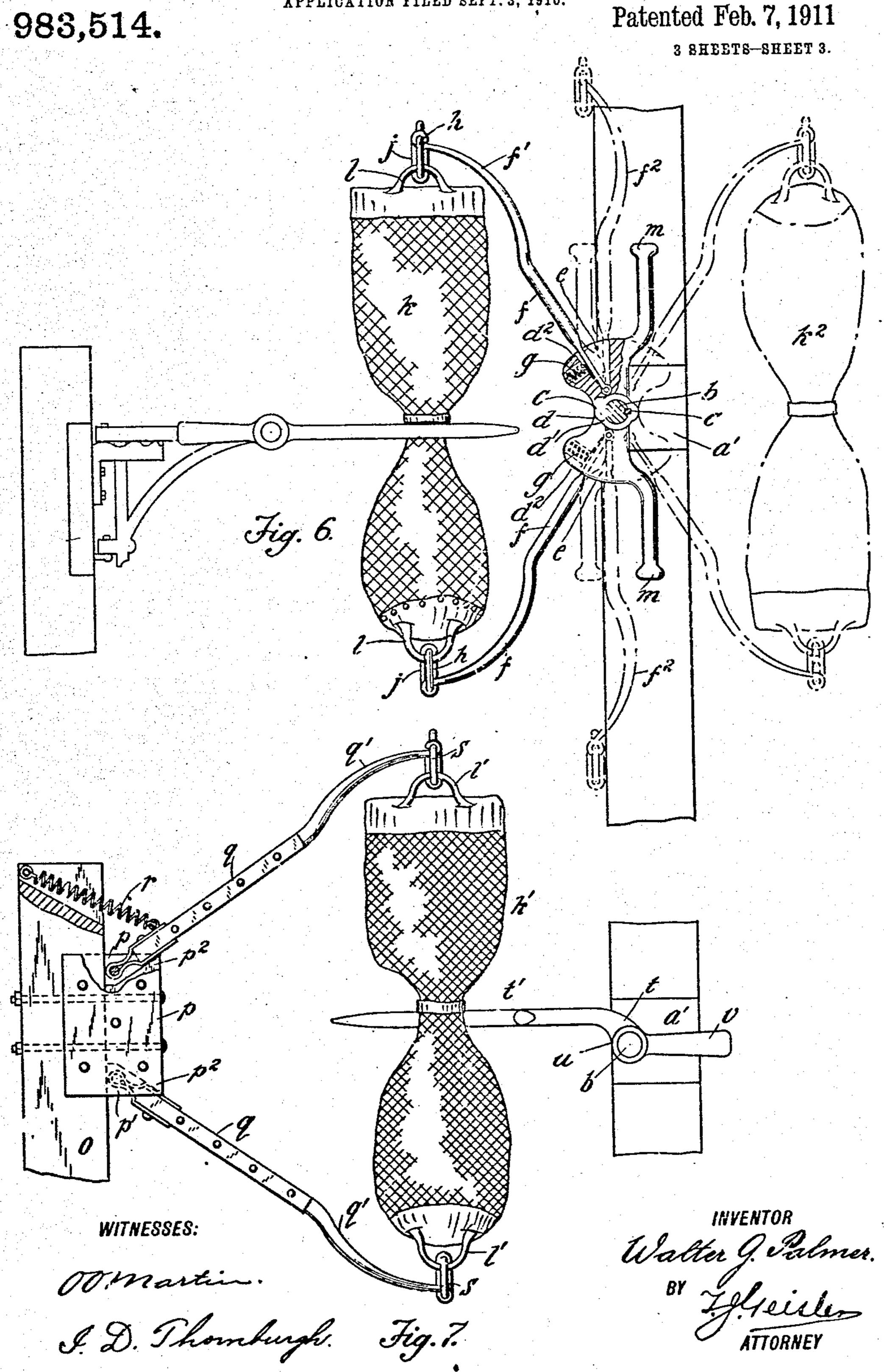
ATTORNEY

THE HORRIS PETERS CO., WASHINGTON, D. C.

W. G. PALMER.

RAILWAY MAIL BAG DELIVERING DEVICE.

APPLICATION FILED SEPT. 3, 1910.



## UNITED STATES PATENT OFFICE.

WALTER G. PALMER, OF MOUNT HOOD, OREGON.

RAILWAY MAIL-BAG-DELIVERING DEVICE.

983,514.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed September 3, 1910. Serial No. 580,452.

To all whom it may concern:

Be it known that I, Walter G. Palmer, a citizen of the United States, and a resident of Moant Hood, county of Hood River, State of Oregon, have invented a new and useful Improvement in Railway Mail-Bag-Delivering Devices, of which the following is a specification.

This invention relates to mail-bag delivering and receiving devices of railway systems, and has for its object the improvement of such devices in certain particulars

as hereinafter set forth.

In my present application I will describe and claim the improvements invented by me in the mail-bag delivering devices, and in my ce-pending application for Letters Patent, filed September 3, 1910, Serial No. 580,451, I have described and claimed the improvements invented by me in the mail-bag receiving devices, and to such application I hereby refer. My improved mail-bag delivering devices may be used on a railway car as well as on the station.

The object of such improvements is to obtain efficient devices, which are inexpensive to manufacture and maintain in good order; which are convenient to use, and embody certain automatic features, hereinafter set 30 forth, facilitating their use and preventing accidental damage, in this that there are no parts left projecting outward of the car, after the mail-bag has been removed by the receiver of the station, and thus in the use 35 of devices of this character on a railway car, there is no danger of any projecting parts striking against posts or other objects alongside of the track, and likewise, in the use of my devices at the station it is desirable to re-40 duce the whole to small compass when not in use.

In the accompanying drawings constituting a part hereof, Figure 1 is a partial horizontal section (taken approximately on the line A—A of Fig. 4) of the door-portion of a mail-car, showing a top view of my mail-bag delivering and receiving devices; the latter being shown when suspending a mail-bag in position to be caught by the receiver at the station; Fig. 2 is a top view, in outline, of the receiver device provided at the station; Fig. 3 is a top view of my mail-bag delivering device as arranged at a station; Fig. 4 is a partial side elevation of the door section of the body of a mail-car, showing a front view of my mail-bag delivering

device in its inactive, out-of-the-way position; Fig. 5 is a partial front elevation of my mail-bag delivering device as arranged at the station, the device being shown in its 60 inactive position; Fig. 6 shows a portion of one side of the door-jamb of a mail-car, and a side elevation of my mail-bag delivering device arranged to suspend the mail-bag in in position to be caught by the receiver at 65 the station, such receiver being shown in outline at the left in this figure so as to illustrate the delivering operation; and Fig. 7 illustrates the same features, and action as shown in the preceding figure, except that 70 the parts are reversed; the mail-bag being shown as suspended from the delivering device provided at the station, and the receiving device shown in connection therewith being that provided on the car.

Figs. 1. 2 and 3, considered together, illustrate the relation of the delivering and receiving devices provided on the mail car and at the station, respectively. The doorjambs, a. a, of the car are provided with 80 slotted boxes, a', a', in which are secured the ends of a round rod, b; such ends being flattened and the parts arranged to hold the rod against rotation. The rod, b, is provided with oppositely projecting ribs, c, c, at one 85 end, and on such end of the rod, b, there is slidably mounted a carrier, d, the hub, d', of which is provided with cavities corresponding with said ribs, c, c, of the rod, b, so that when the carrier, d. is moved over the ribbed 90 portion of the rod, b, the carrier may be supported projected outward of the car, as shown in Fig. 6. In order to inclose the parts I have made the carrier, d, with pockets e, e, in which are hinged the inner ends of the 95 arms, f, f, having bifurcated extremities, f'. Said arms, f, f when released are held in perpendicular position (indicated by the broken outline,  $f^2$ , in Fig. 6) by the action of the springs g, g. The shoulders,  $d^2$ ,  $d^2$ ,  $d^2$ , 100provided on the receiver limited the outward movement of the arms, f, f, to the position required for suspending the mail-bag. The object of this construction is to cause the arms to be automatically moved out of the 105 way, the instant that the mail-bag, k, suspended from the extremities of said arms, is caught and removed by the receiver at the station.

tion; Fig. 4 is a partial side elevation of the door section of the body of a mail-car, showing a front view of my mail-bag delivering of the arms, f, f, are provided with latch

bars, h, (more clearly shown in Fig. 4), including a member, i, free at one end, the outer end of which is locked by a bail, j. In fastening the bag in place, the members, 5 i, i, of the latch bars, h, h, are inserted through the straps, l, l, at the ends of the mail-bag, as illustrated in Figs. 6 and 7. It is to be observed by comparing Figs. 4 and 6 that the arrangement of the latch-bars, 10 h, h, at the extremities of the arms, f, f, is such as to especially facilitate the removal of the mail-bag suspended therefrom. The carrier, d, is provided with arms, m, m, (more clearly shown in Fig. 6), so as to en-15 able the turning of the carrier on the rod, b. This rotatable feature of my device is of great convenience, since it permits the fastening of the mail-bag to the extremities of the arms, f, f, within the car, the carrier, d, 20 having been previously arranged as shown by broken outline,  $k^2$ , in the right-hand portion of Fig. 6, the carrier being locked in perpendicular position by sliding it over the ribbed portion of the rod. b. Just before 25 arriving at the delivering station the carrier, d, is slid off the ribs. c, c, and rotated so as to swing the mail-bag outside, and then the receiver is moved back on the ribs. c. c. of the rod, b, so as to be secured in position. 30 A rubber bumper, n, or equivalent device, is provided on the rod, b, for the carrier to strike against when the mail-bag has impact with the receiver at the station, in the act of the receiver pulling the mail-bag from 35 the latch-bars on the extremities of the arms, f; f.

The arrangement and operation of my delivering devices at the station are substantially the same as described with respect 40 to the mail-car. There is provided at the station a suitable post. o. to which is fastened a bracket, p, provided with pockets, p'. as shown in Fig. 7, or otherwise adapted to have hinged in said bracket arms, q, q; the 45 bracket also being provided with stops or shoulders,  $p^2$  causing the arms, q, q, to be positioned as shown in Fig. 7 when suspending the mail-bag. The extremities, q', q', of the arms, q, q, are bifurcated, and on such ex-50 tremities are hinged latch bars, s, of the same construction as the latch bars, h. above referred to, and adapted to suspend the mailbag by its end straps, l', l', as shown in Fig. 7. The upper arm, q, as will be observed 55 from Fig. 7, is controlled by a spring. r. and when the mail-bag has been removed from the arms, q, q, the lower thereof will drop down and the upper be lifted to perpendicular out-of-the-way position. Adapt-60 ed to cooperate with said suspending means of the described delivering devices, there is mounted on the rod, b, of the mail-car a receiver, t, having a hub, u, handle, v, and

latch, w; said receiver is provided with arms,

65 t', arranged in the forms shown in Figs. 1

and 2; and the latch mechanism of the receiver as well as that part of the rod, b, on which it is mounted, are so arranged as to cause the impact of the receiver with the mail-bag suspended at a station, to disengage 70 the latch of the receiver and cause it to swing inside of the car, throwing the mail-bag on the floor of the car.

The receiver part of the devices provided by me on the mail-car, are omitted from Fig. 75 4. I have only briefly referred to the construction and operation of such receiver. since the details thereof are fully set forth in my said co-pending application for Letters Patent relating thereto. In the devices 80 outlined in Fig. 2, 2 represents a post to which is affixed a bracket, 3, to which are hinged arms, 4, 5, to the extremities of which arms are hinged the ends of a round rod. 6. on which is slidably and rotatably mounted 85 a receiver, 7, constructed and operating like the receiver, t, provided on the car. At one end of the rod. 6, is provided a bumper. 8. for the receiver to strike against. A ribbed quadrant, 9, sufficiently locks the arm. 5. 90 temporarily in place so as to hold the devices in projected position as shown in Fig. 2. The impact of the receiver, 7, with the mailbag suspended from the car causes the receiver to be impelled against the bumper. S. 25 and then it will drop down, out of the way. Simultaneously the entire suspending devices will be moved in the direction pointed by the arrow in Fig. 2, and thus positioned out of the way. It is to be noted that the ac-100 tion of the springs, g, g, of my carrier as applied to a car, and of the spring, r, of my carrier as arranged at the station, contributes to the holding of the arms of the carrier properly spead apart so as to prop- 105 erly hold the mail bag. See Figs. 6 and 7. Of course my delivering devices will also operate with other types of receivers or catching devices, but I prefer my own invention. 1 ciaim:

1. In a railway mail-bag delivering device the combination of, a horizontally supported rod; a carrier rotatably and slidably mounted thereon; means on one end of the rod, and the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the rod; arms hinged to the carrier, said carrier being provided with stops limiting the outward movement of said arms; and latchbars on the extremities of said arms.

2. In a railway mail-bag delivering device the combination of, a horizontally supported rod; a carrier rotatably and slidably mounted thereon; means on one end of the rod, and the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the 130

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rod; arms hinged to the carrier; a spring arranged to lift the upper of said arms into vertical position; said carrier being provided with stops limiting the outward movement 5 of said arms; and latch-bars on the extremities of said arms.

3. In a railway mail-bag delivering device the combination of, a horizontally supported rod; a carrier rotatably and slidably mount-10 ed thereon: means on one end of the rod, and the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the 15 red; aims hinged to the carrier: springs airanged to move said arms into vertical position: said carrier being provided with stops limiting the outward movement of said arms; and latch-bars on the extremities of 20 said arms.

4. In a railway mail-bag delivering device the combination of, a horizontally supported rod: a carrier rotatably and slidably mounted thereon: means on one end of the rod, and 25 the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the rod; arms hinged to the carrier; said carrier pro-30 vided with stops limiting the outward movement of said arms; latch-bars on the extremities of said arms; and a bumper element arranged for the carrier to strike against, in the impact of the mail-bag sus-35 pended from the carrier with the receiving device.

5. In a railway mail-bag delivering device the combination of a horizontally supported rod; a carrier rotatably and slidably mount-40 ed thereon; means on one end of the rod. and the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the 45 rod; arms hinged to the carrier; a spring arranged to lift the upper of said arms into vertical position; said carrier provided with stops limiting the outward movement of said arms: latch-bars on the extremities of said 50 arms; said latch-bars respectively provided with a member having a free end adapted to be inserted in the strap therefor provided at the ends of a mail-bag, and a bail locking said free end, said bail adapted to be released 55 from said free end by the act of pulling the mail-bag off said member of the latch-bars.

6. In a railway mail-bag delivering device the combination of, a horizontally supported rod; a carrier retatably and slidably mount-60 ed thereon: means on one end of the rod, and the carrier, adapted to support the latter in projected position, and said supporting means adapted to be interrupted by the sliding of the carrier from said end of the 65 rod; arms hinged to the carrier; a spring

arranged to lift the upper of said arms into vertical position; said carrier provided with stops limiting the outward movement of said arms: latch-bars on the extremities of said arms; said latch-bars respectively provided 70 with a member having a free end adapted to be inserted in the strap therefor provided at the ends of a mail-bag, and a bail locking said free end, said bail adapted to be released from said free end by the act of pull- 75 ing the mail-bag off said member of the latchbars; and a bumper element arranged for the carrier to strike against, in the impact of the mail-bag suspended from the carrier with the receiving device.

7. In a railway mail-bag delivering device the combination of, a horizontally supported rod: a carrier rotatably and slidably mounted thereon; a longitudinal rib on the rod, and the hub of the carrier provided 85 with a corresponding slot, the parts arranged to support the carrier in projected position when slid over said ribbed part of the rod: arms hinged to the carrier; said carrier provided with stops limiting the out- 90 ward movement of said arms; latch-bars on the extremities of said arms; and a bumper element arranged for the carrier to strike against, in the impact of the mail-bag sus-

device.

8. In a railway mail-bag delivering device the combination of. a horizontally supported rod: a carrier rotatably and slidably mounted thereon: a longitudinal rib on the 100 rod, and the hub of the carrier provided with a corresponding slot, the parts arranged to support the carrier in projected position when slid over said ribbed part of the rod; said carrier provided with pockets; 105 arms hinged to the carrier in said pockets: a spring arranged to lift the upper of said arms into vertical position; said carrier provided with stops limiting the outward movement of said arms; latch-bars on the 110 extremities of said arms: and a bumper element arranged for the carrier to strike against, in the impact of the mail-bag suspended from the carrier with the receiving device.

9. In a railway mail-bag delivering device the combination of, a horizontally supported rod; a carrier rotatably and slidably mounted thereon; a longitudinal rib on the rod, and the hub of the carrier provided 120 with a corresponding slot, the parts arranged to support the carrier in projected position when slid over said ribbed part of the rod; said carrier provided with pockets; arms hinged to the carrier in said pockets: 125 a spring arranged to lift the upper of said arms into vertical position; said carrier provided with stops limiting the outward movement of said arms; latch-bars on the extremities of said arms; said latch-bars re- 130

pended from the carrier with the receiving 95

spectively provided with a member having a free end adapted to be inserted in the strap therefor provided at the ends of a mail-bag, and a bail locking said free end, said bail adapted to be released from said free end by the act of pulling the mail-bag off said member of the latch-bars; and a bumper element arranged for the carrier to strike against, in the impact of the mail-bag suspended from the carrier with the receiving device.

vice the combination of, a horizontally supported rod; a carrier rotatably and slidably mounted thereon: a longitudinal rib on the rod, and the hub of the carrier provided with a corresponding slot, the parts arranged to support the carrier in projected position when slid over said ribbed part of the rod; arms hinged to the carrier; and a spring arranged to lift the upper of said arms into vertical position; said carrier being provided with stops limiting the outward movement of said arms.

25 11. In a railway mail-bag delivering device the combination of, a horizontally supported rod: a carrier rotatably and slidably

mounted thereon; a longitudinal rib on the rod, and the hub of the carrier provided with a corresponding slot, the parts arranged to support the carrier in projected position when slid over said ribbed part of the rod; said carrier provided with pockets; arms hinged to the carrier in said pockets; and a spring arranged to lift the upper of 35 said arms into vertical position; said carrier being provided with stops limiting the outward movement of said arms.

12. In a railway mail-bag delivering device, the combination with a suspending device provided with arms, of latch bars hinged to the extremities of such arms; said latch-bars respectively provided with a member having a free end adapted to be inserted in the strap therefor provided at the 45 ends of a mail-bag, and a bail locking said free end, said bail adapted to be released from said free end by the act of pulling the mail-bag off said member of the latch-bars.

WALTER G. PALMER.

Witnesses:

W. HARDINGER,

O. O. MARTIN-