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MAIL BAG CATCHER.

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919,561. Patented Apr. 27, 1909.

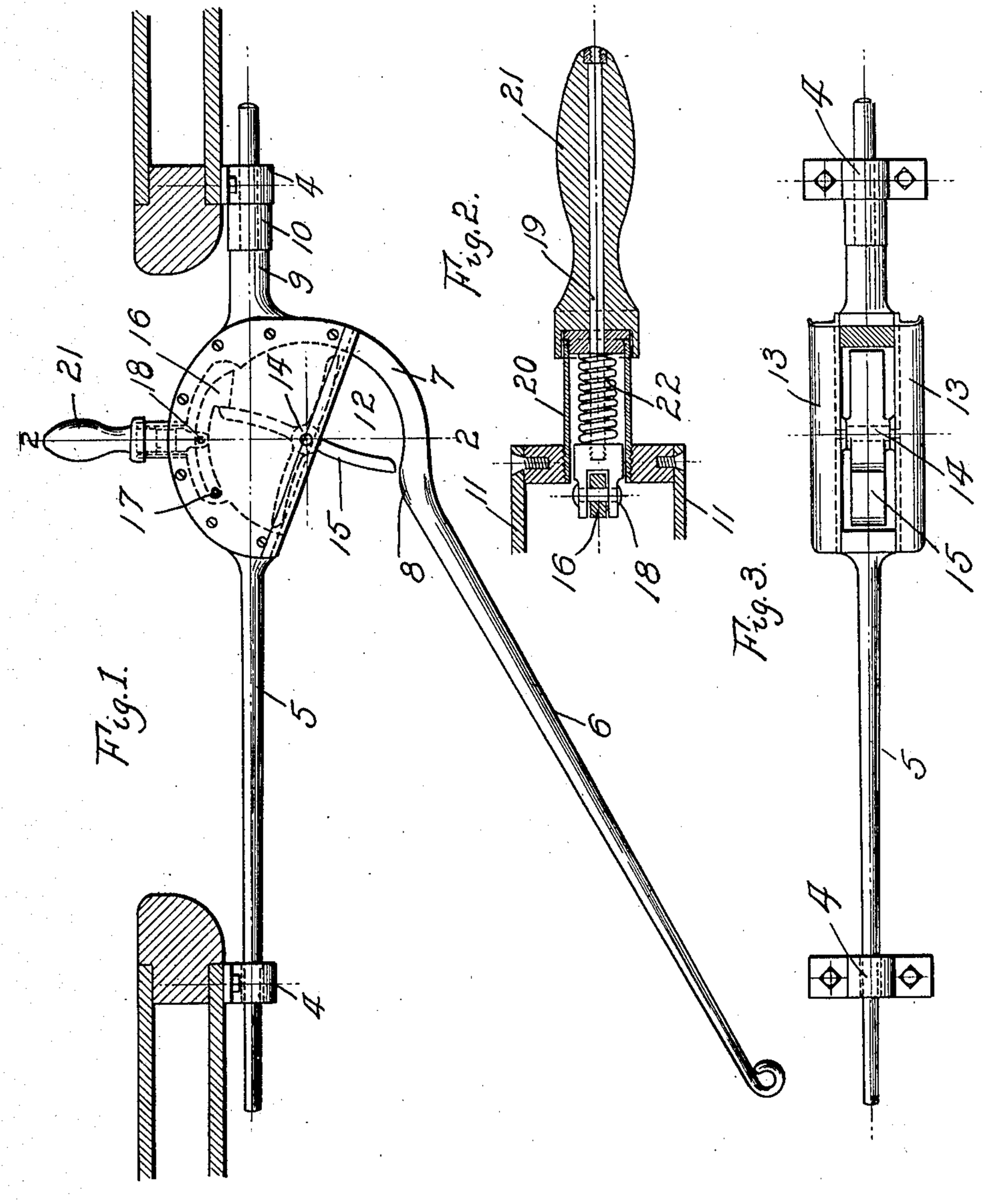

Fig. 1.

Fig. 2.

Fig. 3.

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MAIL-BAG CATCHER.

No. 919,561. Specification of Letters Patent. Patented April 27, 1909.

Application filed December 15, 1908. Serial No. 467,591.

To all whom it may concern:

Be it known that I, ADOLPH C. ERGLER, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Mail-Bag Catchers, of which the following is a specification.

This invention relates to improvements in mail bag exchange mechanism, and more particularly the bag-receiving and holding means that is carried by the car.

The primary object is to provide a novel and simple structure that will catch the mail bags without danger of injuring them, said structure moreover including means that will effectively retain the bag against accidental detachment.

The preferred form of construction is illustrated in the accompanying drawings, wherein:—

Figure 1 is a horizontal sectional view through a portion of a car at the door-way, showing the novel structure in plan. Fig. 2 is a sectional view on the line 2—2 of Fig. 1, and on an enlarged scale. Fig. 3 is a side view of the structure, the bag-directing arm being in section.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, journal boxes 4 are mounted on the car structure on opposite sides of the doorway, and in said boxes is journaled a rock shaft 5. Carried by this rock shaft is a forwardlly and outwardly extending bag-directing arm which comprises an outer tapered and substantially straight portion 6 and an inner or rear curved portion 7, the latter being joined to the rock shaft in any suitable manner. The arm is thickened at the juncture of these two portions to produce a retaining lug or extension 8. The juncture of the arm and shaft includes a rearwardly extending enlarged portion 9 of the rock shaft, which terminates short of the rear journal box 4. Interposed between this enlarged portion and said journal box is a shock-absorbing cushion 10 of rubber or other suitable material.

Secured to the rear portion of the directing arm 7 and the adjacent portion of the rock shaft 5 are upper and lower plates 11, forming a casing. The front edges of said plates are set at an inclination, as shown in Fig. 1, thus producing a confined bag-receiving seat 12. Carried by the front edges or margins of said plates 11, are flanges 13 which extend above and below the line of the rock shaft and arm and form a broad bearing surface to receive the impact of the bags. Injury to said bags is thus prohibited. Journaled in the said casing is a bag-retaining device, consisting of a hub 14 having substantially radial arms 15 that successively swing across the open mouth of the bag-receiving seat, as will be evident by reference to Fig. 1. This retaining device can rotate freely in one direction, but its movement in an opposite direction is prohibited by a latch 16 which successively engages the ends of the fingers 15. The latch is pivoted at one end, as illustrated at 17, and also has a pivotal connection, as shown at 18 with a handle stem 19 passing rearwardly through a sleeve 20 and fastened to an exposed handle grip 21. A spring 22, coiled about the stem 19 within the sleeve, urges the latch into engagement with the fingers, as will be obvious by reference to Figs. 1 and 2.

The manner in which the structure operates will be obvious to those skilled in the art. When a bag is to be caught, the device is arranged in substantially horizontal position, being held by the handle grip 21. The arm 7 engages said bag and directs it into the seat 12. As it passes into said seat, the finger 15, which is across the same, is moved rearwardly, whereupon the succeeding finger swings across the seat in rear of the bag, but effectively retains it in position, inasmuch as the retaining device is held against retrograde movement by the latch. The structure is then turned so that the bag can be removed therefrom, whereupon the grip 21 is moved longitudinally to disengage the latch 16 from the retaining device, and consequently said bag can be readily detached.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is:—

1. In a mail bag exchange mechanism, the combination with a rock shaft, of a forwardly and outwardly extending bag-directing arm carried thereby, the rear portion of said arm being curved to form a bag receiving seat, and a rotatable retaining device having a plurality of arms arranged to swing across said seat.

2. In mail bag exchange mechanism, the combination with a bag-holding device having a bag-receiving seat, of a rotatable retaining device having outstanding arms that successively swing across the seat in rear of the bags engaged therein.

3. In mail bag exchange mechanism, the combination with a bag-holding device having a bag-receiving seat, of a rotatable retaining device having outstanding arms that successively swing across the seat in rear of the bags engaged therein, each arm constituting means for retaining a bag in the seat and being disposed in position to be struck by the succeeding bag and operated thereby to move the succeeding arm into operative retaining position.

4. In mail bag exchange mechanism, the combination with a bag-holding device having a bag-receiving seat, of a rotatable retaining device having outstanding arms that successively swing across the seat in rear of the bags engaged therein, and means for permitting the rotation of the device in one direction and prohibiting its rotation in an opposite direction.

5. In mail bag exchange mechanism, the combination with a bag-holding device having a bag-receiving seat, of a rotatable retaining device having outstanding arms that successively swing across the seat in rear of the bags engaged therein, and means successively engaging the arms to permit the rotation of the device in one direction and prohibiting its rotation in an opposite direction.

6. In mail bag exchange mechanism, the combination with a bag-holding device having a bag-receiving seat, of a rotatable retaining device having outstanding fingers that successively swing across the seat in rear of the bags engaged therein, each finger constituting means for retaining a bag in the seat and being disposed in position to be struck by the succeeding bag and operated thereby to move the succeeding finger into operative retaining position, and a latch successively engaging the fingers for permitting the rotation of the device in one direction and prohibiting its rotation in an opposite direction.

7. In mail bag exchange mechanism, the combination with a rock shaft, and a bag-directing arm connected thereto, of a casing located at the juncture of the rock shaft and arm, and a rotatable bag-retaining device having arms that operate through the casing and successively swing across the space between the same and the arm.

8. In mail bag exchange mechanism, the combination with a rock shaft and a bag-directing arm connected thereto, of a casing located at the juncture of the rock shaft and arm, a rotatable bag-retaining device having fingers that operate through the casing and successively swing across the space between the same and the fingers, a latch located in the casing and successively engaging the fingers, said latch permitting the rotation of the device in one direction and prohibiting its rotation iin an opposite direction, and means for disengaging the latch from the fingers.

9. In mail bag exchange mechanism, the combination with a rock shaft and an outstanding bag-directing arm carried thereby, of a casing located adjacent to the juncture of the arm and shaft, a rotary retaining device journaled in the casing and having radial arms that swing across the space between the directing arm and shaft, a latch pivoted within the casing and engaging said arms to permit the rotation of the device in one direction and prohibit its rotation in an opposite direction, a handle mounted on the casing and capable of a reciprocatory movement, and a connection between the handle and the latch.

10. In mail bag exchange mechanism, the combination with a bag holder having a bag-receiving seat, of a rotatable retaining device having outstanding arms that successively swing across said seat, a latch engaging the device and permitting its rotation in one direction while prohibiting its rotation in an opposite direction, and means connected to the latch for disengaging the same from the device.

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

ADOLPH C. ERGLER.

Witnesses:
N. E. Gee,
D. Lloyd Claycomb.