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MAIL LOADER.

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925,493.

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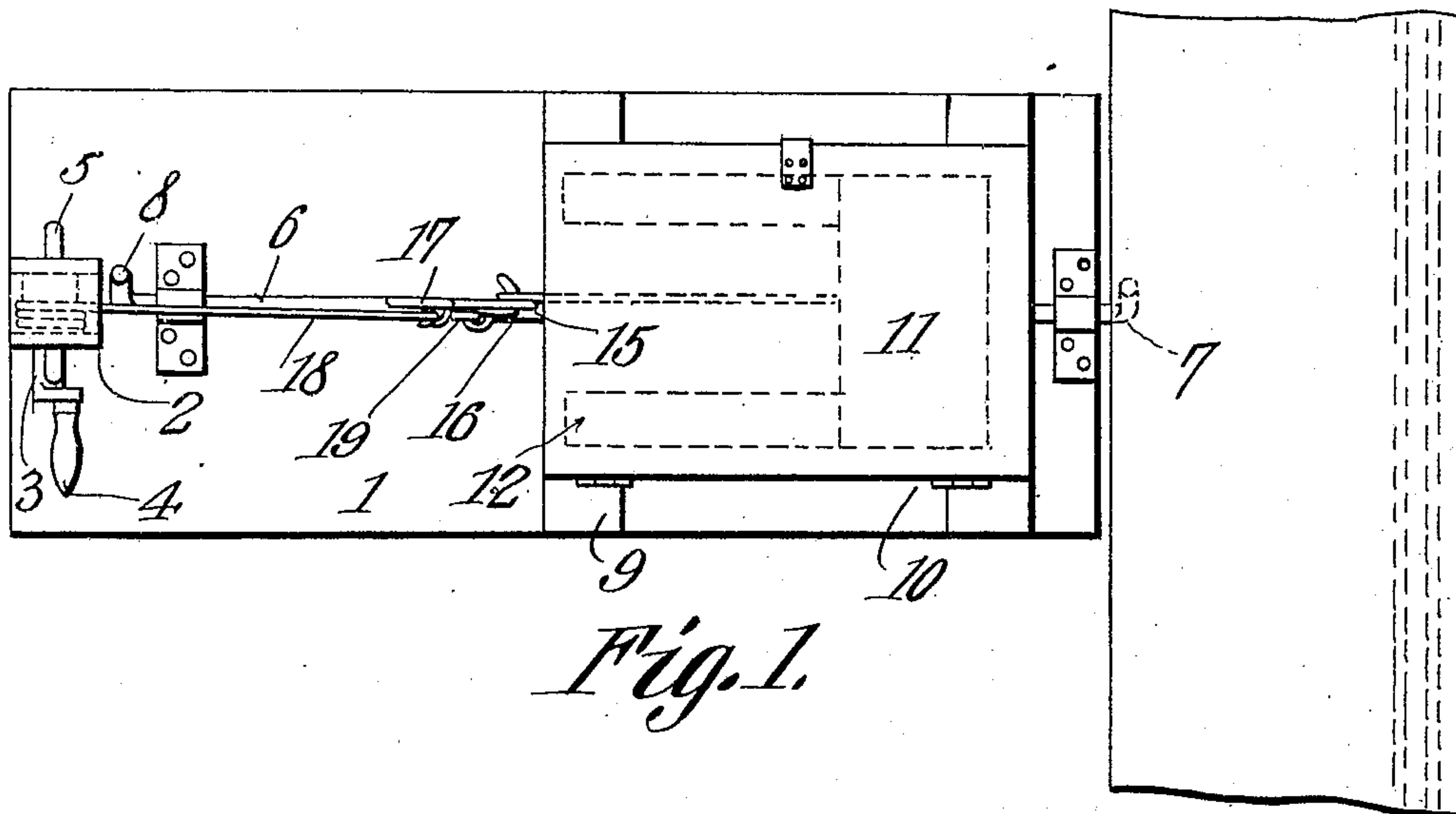


Fig. 1.

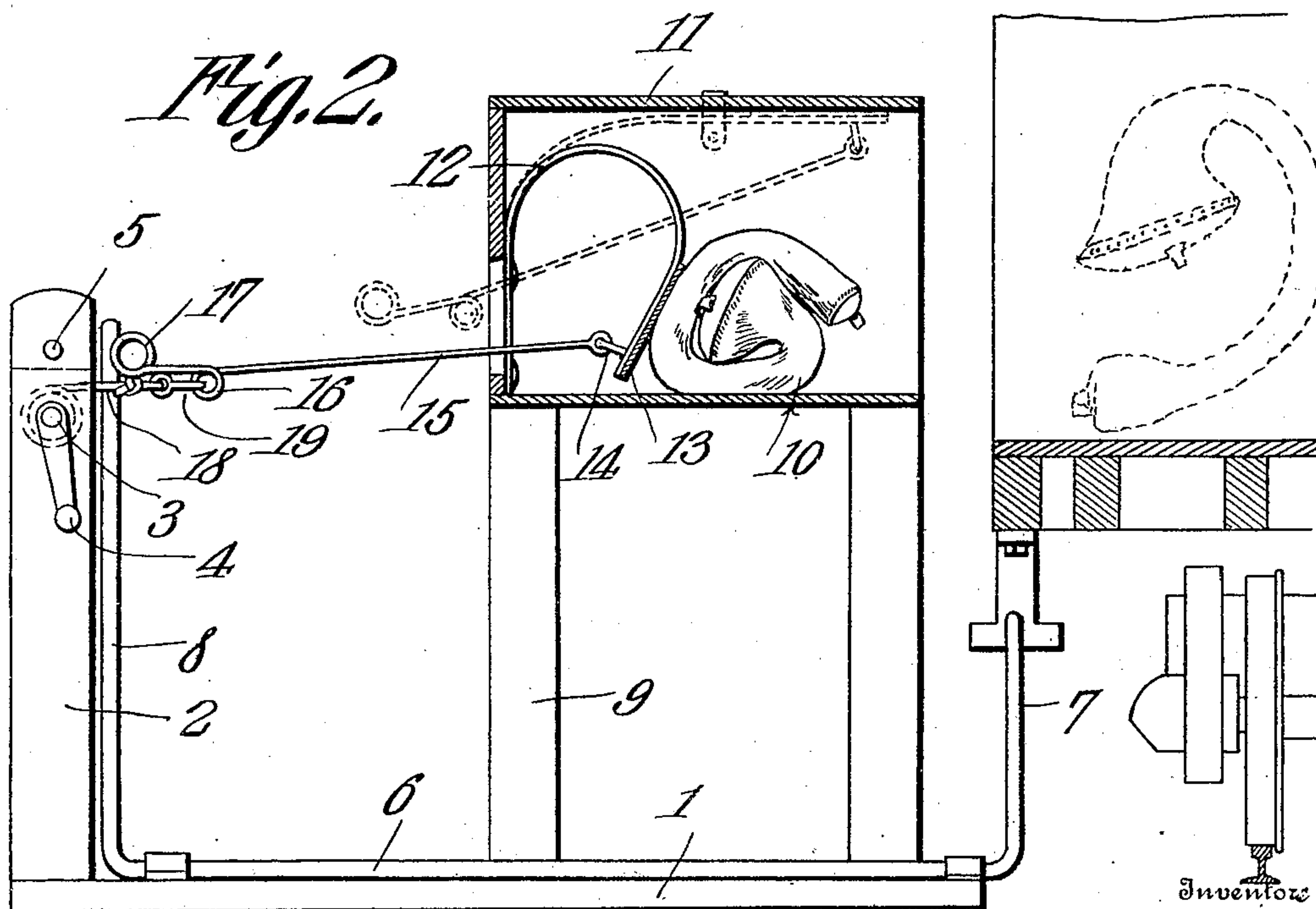


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS B. MODLIN, LEM C. SCHENIMANN, WILLIAM H. BUHL, ALBERT BUHL, AND HOMER BLACK, OF HURDLAND, MISSOURI.

MAIL-LOADER.

No. 925,493.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, THOMAS B. MODLIN, LEM C. SCHENIMANN, WILLIAM H. BUHL, ALBERT BUHL, and HOMER BLACK, citizens of the United States, residing at Hurdland, in the county of Knox, State of Missouri, have invented a new and useful Mail-Loader, of which the following is a specification.

This invention has relation to mail loaders, and it consists in the novel construction and arrangement of its parts, as hereinafter shown and described.

The object of the invention is to provide an apparatus or device which is adapted to project a bag of mail or other commodity from a receptacle into the door of a moving car as the car is passing said receptacle, and with this object in view the loader consists of a casing or housing which is open at one end (that end adjacent a track) and is provided with a hinged top. A spring-actuated projecting means is located in the said casing, and means is provided for retracting the said spring and holding it in such position until the proper moment of discharge. A trip mechanism is mounted adjacent the parts above enumerated, and is adapted to be actuated by a moving car or vehicle to release the retracted spring so that its tension may come into play, whereby the bag is projected or thrust from the receptacle into the said traveling vehicle.

In the accompanying drawings:—Figure 1 is a top plan view of the said loader. Fig. 2 is a sectional view of the same.

The device for loading bags upon moving cars consists of a base or foundation 1, which is adapted to be located adjacent a track and approximately at right angles to the line thereof. A standard 2 is erected upon that end of the base 1 remote from the end thereof adjacent the said track, and a winding shaft 3 is journaled for rotation upon the said standard. The said shaft is provided with an operating handle 4. A retaining pin is transversely disposed in the upper portion of the standard 2, said pin being indicated at 5, and has its ends projecting beyond the sides of the said standard 2.

A trip shaft 6 is journaled in suitable bearings provided upon the base 1, and has an inner upstanding end portion 7 and an outer upstanding end portion 8.

Posts or uprights 9 are mounted upon the base 1, and a box or casing 10 is mounted

upon the upper ends of said posts 9. Said casing is open at that end which is disposed toward the track above referred to. The casing 10 is provided with a hinged top 11. Springs 12 are fixed at one end to the end of the casing 10 opposite the open end thereof, and the opposite ends of the said springs are connected together by a cross-piece 13. An eye 14 is attached to the inner or under side of the said cross-piece 13, and one end of a rod 15 is pivotally connected with the said eye 14. The intermediate portion of the said rod 15 passes through an opening provided in the closed end of the casing 10, and the said rod, at a point beyond the end of the said casing, is provided with a laterally disposed eye 16. The rear extremity of the said rod 15 terminates in the loop 17. A cable or rope 18 winds at one end upon the shaft 13 and is provided at its opposite end with a hook 19, which is adapted to be engaged with the eye 16 of the rod 15.

The operation of the mail-loader is as follows:—The hook 19 is engaged with the eye 16 of the rod 15, and, by turning the shaft 3, through the instrumentality of the handle 4, the cable or rope 18 is wound upon the said shaft, whereby the said rod 15 is moved longitudinally, and the cross-piece 13 is brought back or retracted against the tension of the springs 12. As soon as the loop 17 is brought back in the vicinity of the pin 5, the said loop is engaged with one of the ends of the said pin. When this is done the hook 19 is disengaged from the eye 16, and the springs 12 and held in retracted position, as described, by the engagement of the loop 17 with the end of the said pin 5. A bag or sack containing the mail is then deposited within the casing 10 in front of the cross-piece 13, and the trip shaft 6 is so turned that its end portion 7 stands approximately vertical while the end portion 8 bears laterally against the rod 15, but in a direction opposite from the side against which the loop 17 bears against the standard 2. Thus the parts are arranged and positioned for the discharge of the sack or bag of mail from the casing 10 into the vehicle as it passes. Upon the approach of the vehicle from the direction the same as that against which the end portion 8 of the trip shaft 6 bears against the rod 15, a depending member, such, for instance, as a tappet, carried by the car or other vehicle, comes in contact with

the upstanding inner portion 7 of the said trip shaft, and the said shaft is partially rotated, and, through the instrumentality of the end portion 8, the rod 15 is pushed away from the standard 2, so that the loop 17 carried by the said rod 15 disengages the end of the pin 5, whereby the tension of the springs 12 comes into play, and the cross-piece 13 is projected toward the moving vehicle, and the parts are so timed and arranged that when this occurs an open door of the vehicle is opposite the open end of the casing 10. Thus, as the cross-piece 13 moves toward the vehicle the mail pouch or receptacle located in the front thereof is projected from the casing 10 through the open end thereof into the open door of the passing vehicle.

By this arrangement it will be seen that means is provided for projecting a mail pouch or receptacle from a stationary point into a moving vehicle without excessive damage or hard usage incident to the transportation or loading of the mail pouch or bag.

Having thus described the invention, what is claimed is:—

1. A mail-bag loader comprising a receptacle having an open end, a spring mounted at one end at the end of the receptacle opposite the open end thereof, and having an opposite free end, a rod pivotally connected at one end with the said spring and passing through an opening provided in that end of the receptacle to which the said spring is attached, a standard located adjacent the said receptacle and having a laterally projecting pin, said rod having a looped end adapted to receive the projecting portion of the pin, a winding device mounted upon the standard, means for operatively connecting the said device with the said rod, and a tripping mechanism adapted to be actuated by a moving vehicle to release the rod from the said pin.

2. A mail loader comprising a receptacle having an open end, a spring attached to the receptacle at that end thereof opposite the open end, a rod passing through the closed end of the receptacle and being pivotally connected with the said spring, and having

at its opposite extremity a loop, and at an intermediate point an eye, a standard located adjacent the said receptacle, a winding shaft mounted upon the standard, means for operatively connecting the said shaft with the eye of the rod, a pin having a projecting end mounted upon the standard, said pin being adapted to enter the loop at the end of the rod when the said rod is moved toward the standard, and a tripping means adapted to be actuated by a passing vehicle to release the loop of the said rod from the projecting end of the said pin.

3. A mail-bag loader comprising a receptacle having an open end, a spring mounted at one end at that end of the receptacle opposite the open end thereof, a rod pivotally connected at its inner end with said spring and passing through an opening provided in the end of the receptacle at which the said spring is attached, said rod having at a point outside the said receptacle an eye, the rear extremity of the said rod being formed into a loop, a standard located adjacent the said receptacle and having upon opposite sides the projecting ends of a pin, means mounted upon the standard for moving the said rod longitudinally, and for engaging the loop thereof with one of the projecting ends of the pin, and a trip means adapted to be actuated by a passing vehicle to remove the loop from the pin.

In testimony that we claim the foregoing as our own, we have hereunto affixed our signatures in the presence of two witnesses.

THOMAS B. MODLIN.
LEM C. SCHENIMANN.
WILLIAM H. BUHL.
ALBERT BUHL.
HOMER BLACK.

Witnesses to Thos. B. Modlin's, Lem C. Schenimann's, Albert Buhl's and Homer Black's signatures:

THOS. JEFFRIES,
W. T. SMITH.

Witnesses to W. H. Buhl's signature:

PETER S. IRWIN,
FRANK SMITH.