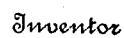


995,577.

2 SHEETS—SHEET 1.



Witnesses

Chas. L. Gristauer.
L. H. Ellis.

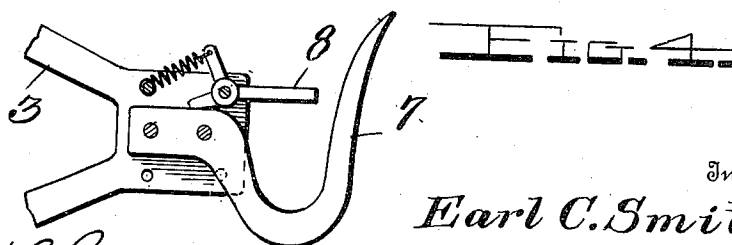
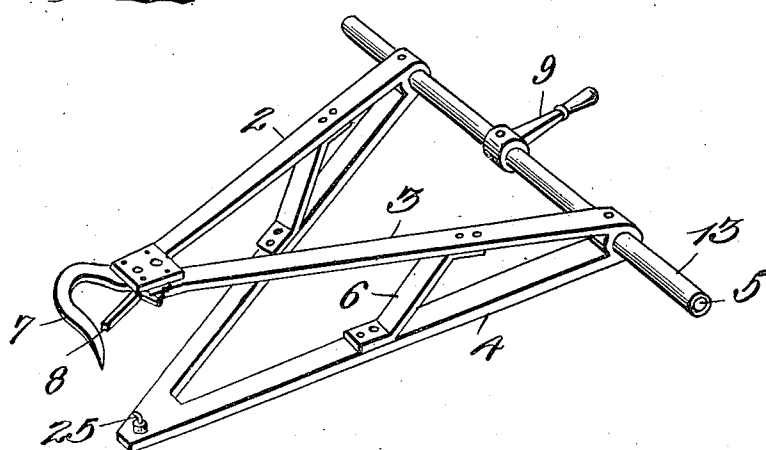
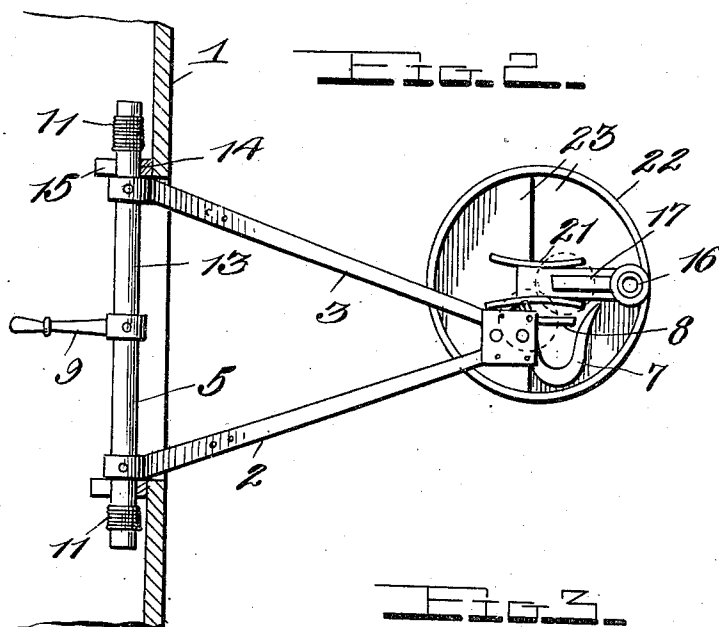
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E. C. SMITH.
RAILWAY MAIL DELIVERER AND RECEIVER.
APPLICATION FILED APR. 26, 1911.

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Patented June 20, 1911.

2 SHEETS—SHEET 2.



Witnesses

Chas. L. Gristauer.
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UNITED STATES PATENT OFFICE.

EARL C. SMITH, OF GREENUP, KENTUCKY.

RAILWAY MAIL DELIVERER AND RECEIVER.

995,577.

Specification of Letters Patent. Patented June 20, 1911.

Application filed April 26, 1911. Serial No. 623,344.

To all whom it may concern:

Be it known that I, EARL C. SMITH, a citizen of the United States, residing at Greenup, in the county of Greenup and State of Kentucky, have invented certain new and useful Improvements in Railway Mail Deliverers and Receivers, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to mail apparatus, and more particularly for mail apparatus which is used in gripping and delivering mail bags to and from railway cars and the like.

The objects of my invention are to provide means whereby the mail can be put off with safety during the night or day and to arrange said apparatus so that it will eliminate entirely the danger of passengers and locomotive drivers being struck by the parts of this apparatus.

Another object of my invention is to arrange the apparatus so as to insure accuracy in delivery of the mail to and from the car.

A further object of my invention is to have the apparatus as simple as consistent with the work and objects for which it is intended.

Many other objects of my invention will become apparent as it is more fully set forth.

It is well known that the present apparatus that is used for the delivery and gripping of railway mail is not satisfactory in many respects. The particular disadvantage which the same seems to have is that it very often causes injury to the mail that is taken or given up and also to the employees of the mail department and of the railroad because of the inaccuracy of the apparatus used for the purpose and requirements of this service. It is further known that an operator has to be on hand when the mail is delivered so that the same can be received and protected, which thereby greatly increases the cost of the mail service. In my invention, I do away with the necessity of an employee being on the ground to receive the mail bag at the station as my apparatus will receive the mail and securely lock it out of the way of any who may wish to tamper with its contents. This is a particular advantage where much night mail is delivered, but even under ordinary circumstances, it is of some consequence and convenience to all concerned.

In the accompanying drawings, which illustrate by way of example, an embodiment of my invention, Figure 1 is a sectional elevation of apparatus embodying my invention used in delivering and gripping mail; Fig. 2 is a plan view of Fig. 1; Fig. 3 is a detail, partly in section, of the crane for gripping and receiving the mail; Fig. 4 is a detail of the clasp that is used on the crane for catching the mail bag; Fig. 5 is a detail of the receiving plates and post; and Fig. 6 is a detail of a catch for holding a mail bag in position.

Similar reference characters refer to similar parts throughout the drawings.

In the drawings, 1 represents a mail car on which is installed a crane 2 which has arms 3 and 4 extending from and secured to a shaft 5. The arms 3 and 4 are preferably of a wedge-shaped form, as clearly shown in the drawings, and are disposed one above the other.

6 are braces which secure the arms 3 and 4 together and serve to hold them rigidly in position. Mounted on the upper arm 4, at its outer end, is a hook or clasp 7, which is provided with an automatic trigger and catch 8 so that it can catch the mail and hold it securely until the operator pulls the crane into the car and removes it. This clasp 7 is so arranged that it can be turned in either direction, that is, in order to catch the mail when the train is moving in either direction along the track.

9 is a handle for operating the shaft 5, and 10 are weights which are used to take up the weight of the crane when the same is in use for catching the mail, being secured to the shaft 5 in any suitable manner, such as by a rope or chain 11. In order to guide each weight 10 a post 12 is provided on which the weights will slide and be guided vertically. Mounted on this shaft 5 is a rubber sleeve 13 which takes up the strain on the crane when the same is receiving or delivering mail. The shaft 5 and its rubber sleeve 13 are supported in a pair of journals 14 which are provided with slots 15 so that the crane can be easily installed therein or removed therefrom. The journals 14 are preferably mounted near the upper portion of the door of the car.

16 is a stationary post for receiving and delivering the mail to the car and is provided at its upper end with a holder 17 and

a spring catch 18 for holding the mail. At a suitable point farther down the post is another holder 19 which has also a catch 20 similar to the catch 18. Mounted on the holder 19 are buffing or receiving plates 21 which are arranged to receive the mail and take it from the crane on the train and guide it into a receiving box 22 which is disposed at the bottom of the post 16. The receiving box 22 is provided with a suitable number of slanting shelves 23 which are so arranged that the mail bag as it falls into the receiving box is guided from one shelf to the next, and so on down, the arrangement of the surfaces being such that the bag can be inserted, but cannot be taken out, which is clearly illustrated in the drawings.

24 and 25 are catches mounted on the crane for holding the mail box to be delivered from the crane between the upper arm 4 and the lower arm 5 of the same.

In operation, the operator first secures the mail bag in the somewhat usual manner to the catches 24 and 25 that are on the crane, which disposes the mail bag or pouch between the upper and lower cranes. After the mail bag is in position the clasp 7 is secured to the end of the upper arm 3 and disposed in the desired direction to receive the mail or to catch the mail bag that is mounted on the stationary post; then the operator actuates the handle 9 and puts the crane into a horizontal position extending from the car, as clearly shown in Fig. 1. As the shaft which holds the crane is rotated the weights help to control it and prevent the same from being lifted too high and at the same time assist in balancing the crane and making its operation easy. In the meantime, a mail bag has been fastened to the catches 18 and 20 in the usual manner. As the train comes along, the mail bag, which is on the crane, strikes the buffing plates 21 which snatch the bag from off of it, at the same time, the clasp 7 grasps the bag that is on the stationary post and the operator then in the car moves the crane inwardly and takes it therefrom. Another bag is quickly placed in position on the crane and similar operations are gone through. The bag that has been delivered to the stationary post, after hitting the plates 21, falls and is guided to the receiving box 22 in which it goes. To take the mail out of the receiving box on the desired occasions, a door 26, with a suitable lock, is provided in the side of the receiver 22. It can be seen that in providing the catches 18, 20, 24 and 25 with springs, that the jar or strain on the parts of this mail apparatus in delivering the mail is reduced to a minimum.

In the construction of my stationary post, I prefer the same to be of a circular or pipe construction in order to reduce the weight of the same and afford a maximum

amount of strength for its weight, and I also prefer the same pipe construction to be used in my crane as far as possible.

The rubber sleeve 13 on the shaft 5 tends to not only take up the strain that is put upon the shaft, but also to reduce the noise caused by the delivery of the mail bag. The inertia of the weights assist in giving to the shaft a more or less solid effect and assists in making its action more positive.

The advantages of my apparatus are many. The crane on the car can be operated by one man and requires but little labor or skill to fasten the mail bag in position on it. Its construction is one of strength as well as simpleness and of a design to act somewhat resiliently. At the same time, the crane is arranged to strike relatively high and eliminate the possibility of striking any one that may be on the platform or other similar location, and without reducing the accuracy of its delivery of the mail. The stationary post has many advantages in that first, it can be cheaply constructed but, at the same time, fully efficient in the amount of work it can do. The advantages of its receiving box are apparent and well known, because it permits the post to receive automatically as it were, without the necessity of an operator being present, when the mail is delivered or soon after, as the mail bag is securely locked within the receiver and out of reach of all trespassers.

While I have shown my invention of one particular design, I do not wish to be limited to that especially, or in any way, otherwise than necessitated by the prior art, as many modifications in the construction of my invention can be made, without departing from the principles thereof.

Having thus described my invention, I claim:—

1. A mail gripping and delivering apparatus comprising in combination a crane arranged to be attached to a car or the like and having a plurality of arms, a shaft for said crane, journals for said shaft, a rubber sleeve disposed on said shaft, a handle on said shaft for actuating said crane, a plurality of weights secured to said shaft and arranged to balance it, a stationary post for receiving and delivering mail, a receiving box secured to said post, shelves in said post arranged to guide the bag therein and to prevent its withdrawal, buffing plates on said post, and a door for said receiver.

2. A mail gripping and delivering apparatus comprising in combination a crane arranged to be attached to a car or the like and having a plurality of arms, a shaft for said crane, journals for said shaft, a rubber sleeve disposed on said shaft, a handle on said shaft for actuating said crane, a plurality of weights secured to said shaft and arranged to balance it, a stationary post for

receiving and delivering mail bags having spring catches for holding the mail, holders for said catches, a plurality of buffing plates on one of said holders and arranged to take the mail from the train, a receiver secured to said post, slanting shelves in said receiver, said shelves being arranged to guide the bag therein and to prevent its withdrawal, and a door for said receiver.

3. A mail gripping and delivering apparatus comprising in combination a crane arranged to be attached to a car or the like and having a plurality of arms, a shaft for said crane, journals for said shaft, a rubber sleeve disposed on said shaft, a handle on said shaft for actuating said crane, a plurality of weights secured to said shaft and arranged to balance it, a stationary post having a plurality of holders thereon, catches on said holders arranged to hold mail bags, a plurality of buffing plates on said holders, a receiving box, a plurality of shelves in said receiving box arranged to guide the mail bag therein and to prevent its withdrawal, and a door for said receiver.

4. A mail gripping and delivering apparatus comprising in combination a crane arranged to be attached to a car or the like and having a plurality of arms, a shaft for said crane, journals for said shaft, a rubber sleeve disposed on said shaft, a handle on said shaft for actuating said crane, a plurality of weights secured to said shaft and arranged to balance it, a stationary post, a receiver secured to the bottom portion of said post, a holder secured to the upper portion of said post, another holder disposed lower down on said post, spring catches on said holders for holding a mail bag, buffing plates on said second holder for receiving the mail from the train in either direction, a plurality of shelves in said receiving box arranged to guide the mail bag therein and to prevent its withdrawal, and a door disposed in the side of said receiver.

5. A mail gripping and delivering apparatus comprising in combination a crane having a plurality of arms, one of said arms having a hook disposed on the outer end thereof, catches on said arms for holding a mail bag in position, a shaft for said crane, journals for said shaft, a rubber sleeve on said shaft arranged to take up the strains thereon, a handle for actuating said shaft, weights, means for securing said weights to said shaft, posts for guiding said weights, a stationary post for receiving and delivering mail bags having spring catches for

holding the mail, holders for said catches, a plurality of buffing plates on one of said holders and arranged to take the mail from the train, a receiver secured to said post, slanting shelves in said receiver, said shelves being arranged to guide the bag therein and to prevent its withdrawal, and a door for said receiver.

6. A mail gripping and delivering apparatus comprising in combination a crane having a plurality of arms, braces between said arms, a removable hook disposed on one of said arms and arranged to catch mail bags, a trigger on said hook for securing the mail bag in position, catches disposed on said arms and arranged to hold mail bags, a shaft for said crane, journals for said shaft, a rubber sleeve for said shaft, a handle for actuating said shaft, weights, ropes securing said weights to said shaft, guides for said weights, a stationary post having a plurality of holders thereon, catches on said holders arranged to hold mail bags, a plurality of buffing plates on said holders, a receiving box, a plurality of shelves in said receiving box arranged to keep the mail bag therein and to prevent its withdrawal, and a door for said receiver.

7. A mail gripping and delivering apparatus comprising in combination a crane having a plurality of V-shaped arms, a hook disposed on the end of one of said arms, arranged to be disposed in either direction in which the train runs, braces between said arms, spring catches disposed on said arms and arranged to hold a mail bag between said arms, weights, ropes secured to said crane and arranged to control its motion, a handle for said crane, a slotted journal for said crane arranged to quickly receive or permit removal of the crane, a stationary post, a receiver secured to the bottom portion of said post, a holder secured to the upper portion of said post, another holder disposed lower down on said post, spring catches on said holders for holding a mail bag, buffing plates on said second holder for receiving the mail from the train in either direction, a plurality of shelves in said receiving box arranged to guide the mail bag therein and to prevent its withdrawal, and a door disposed in the side of said receiver.

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

EARL C. SMITH.

Witnesses:

C. A. BUNNETT,
A. P. MCCOY.