

(No Model.)

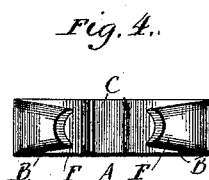
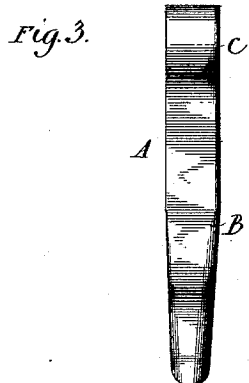
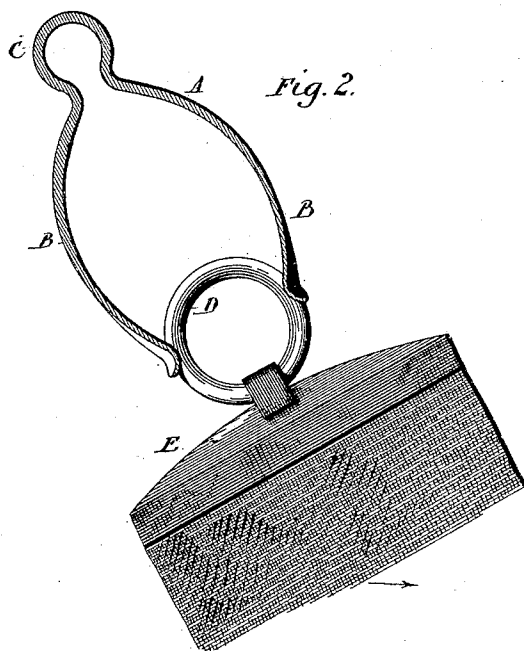
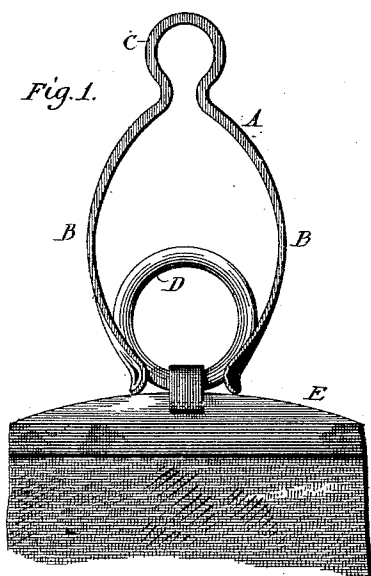
2 Sheets—Sheet 1.

J. F. MAINS.

SACK HOLDER FOR MAIL SACK CRANES.

No. 463,158.

Patented Nov. 17, 1891.



Witnesses:

Wm. Norton
M. E. Quade

Inventor:

John F. Mains
By *W. W. Austin*
his Attorney.

(No Model.)

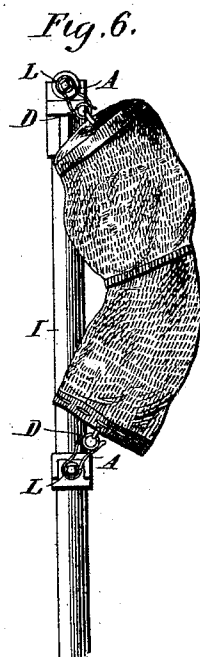
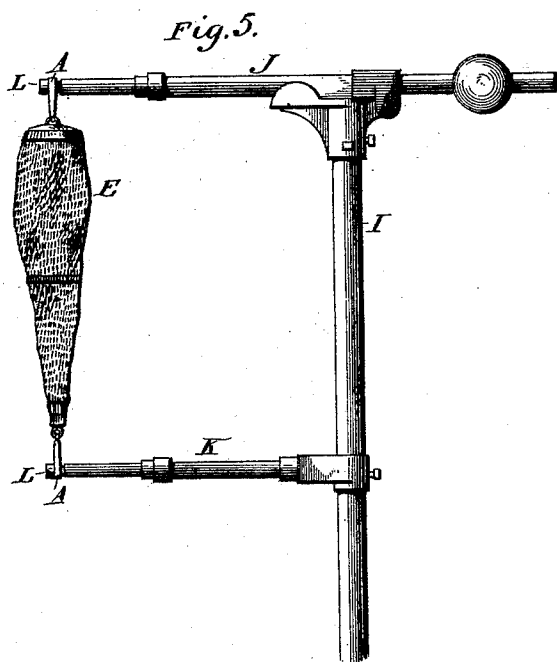
2 Sheets—Sheet 2.

J. F. MAINS.

SACK HOLDER FOR MAIL SACK CRANES.

No. 463,158.

Patented Nov. 17, 1891.



Witnesses:
Will S. Norton
H. E. Brundage

Inventor
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By W. W. Muesley
his Attorney

UNITED STATES PATENT OFFICE.

JOHN F. MAINS, OF INDIANAPOLIS, INDIANA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE MAINS PATENT MAIL CATCHER AND DELIVERER COMPANY.

SACK-HOLDER FOR MAIL-SACK CRANES.

SPECIFICATION forming part of Letters Patent No. 463,158, dated November 17, 1891.

Application filed May 11, 1891. Serial No. 392,404. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. MAINS, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Sack-Holders for Mail-Sack Cranes, of which the following is a specification.

My invention relates to an improved device for detachably connecting a mail-sack to the arms of a crane from which the mail-sack is suspended in the path of a sack-catcher device on a moving railway-train.

The object of my improvement is to provide in connection with the arms of the crane a holder to which the mail-sack may be easily attached, which holder shall sustain the sack with a yielding force, amply sufficient to sustain the weight of the sack, but yielding readily to the impact of the sack-catcher on a moving train, and thus avoiding the tearing of the sacks or their ring-straps, all as hereinafter fully set forth.

The accompanying drawings illustrate my invention.

Figure 1 represents a side elevation of the sack-holder with the ring of the mail-sack engaged therewith. Fig. 2 is a similar side elevation showing the position of the parts at the instant of the discharge of the mail-sack. Fig. 3 represents an edge view of the holder. Fig. 4 represents a view of the open end of the holder. Fig. 5 represents a side elevation of a mail-sack crane with the mail-sack in position. Fig. 6 represents a front elevation of the same.

In the drawings, A designates the sack-holder, which consists, essentially, of a pair of spring-fingers B B, which are connected at one end by an eye C, and are adapted at the opposite ends to retain between them, when in their normal position, the ring D, which is attached to the mail-sack E. The fingers B B and the eye C are formed, preferably, from a single piece of flat steel bar bent to form the eye C, and then curved first outward and then inward to form the fingers B a ring of larger diameter than the ring of a mail-sack, but having on one side at the free ends of the fingers an opening which is of less width than the diameter of the mail-sack

ring, the inner sides of said fingers being provided with grooves F F, adapted to receive and support the periphery and sides of the mail-sack ring, so as to hold it in the same plane as the fingers and to resist its lateral and longitudinal displacement. The distance between the free ends of the fingers B when in their normal position is about one-fourth less than the outside diameter of the sack-ring D, and they are sufficiently elastic and of such a shape as to allow the ring to be withdrawn by a strong pull thereon in the direction of the length of the fingers.

A mail-sack crane consists, essentially, of a mast I and a pair of laterally-projecting arms J and K, which are usually pivoted to the mast, so as to swing thereon in a vertical plane, the free ends of the arms being arranged to support a mail-sack extended between them in the path of a sack-catcher attached to a moving railway-train. For the purpose of detachably securing the sack to the arms of the crane, I secure one of the above-described sack-holders to the free end of each of the crane-arms by passing a bolt or stud L through the eye of the holder and into the end of the arm, the arrangement being such that the holder is free to swing on the stud in a path substantially parallel with the line of movement of the train.

The mail-sack is provided at each end with a ring D, and in securing the sack to the crane-arms it is only necessary to insert the rings laterally into the larger part of the opening formed by the fingers of the opposed holders and then allow it to fall into the grooved opening between the ends of the fingers, the rings standing in the same plane with the plane of the holders. The weight of the sack and the lower crane-arm holds the rings securely in the grooved ends of the holders until the sack is seized by the sack-catcher on the train, when the fingers of the holders first yielding to the movement of the sack, as illustrated in Figs. 2 and 6, are then forced apart, as in Fig. 2, by the inclined sides of the rings, and the sack is released without excessive strain on the sack or the ring-fastenings.

I claim as my invention—

In a mail-sack holder, the combination, with
a crane having an arm extending outwardly
therefrom, of a bar bent to form an eye for
connection with the said arm and an open-
5 mouthed ring of larger diameter than the
ring of the mail-sack, said mouth being of
less width than the diameter of the mail-sack
ring, the ends of the portions of the bar form-

ing said mouth being outturned and bent to
form grooves to sustain the mail-sack ring, so
as described, and for the purposes set forth.

JOHN F. MAINS.

Witnesses:

H. P. HOOD,

H. M. LA FOLLETTE.