

No. 646,855.

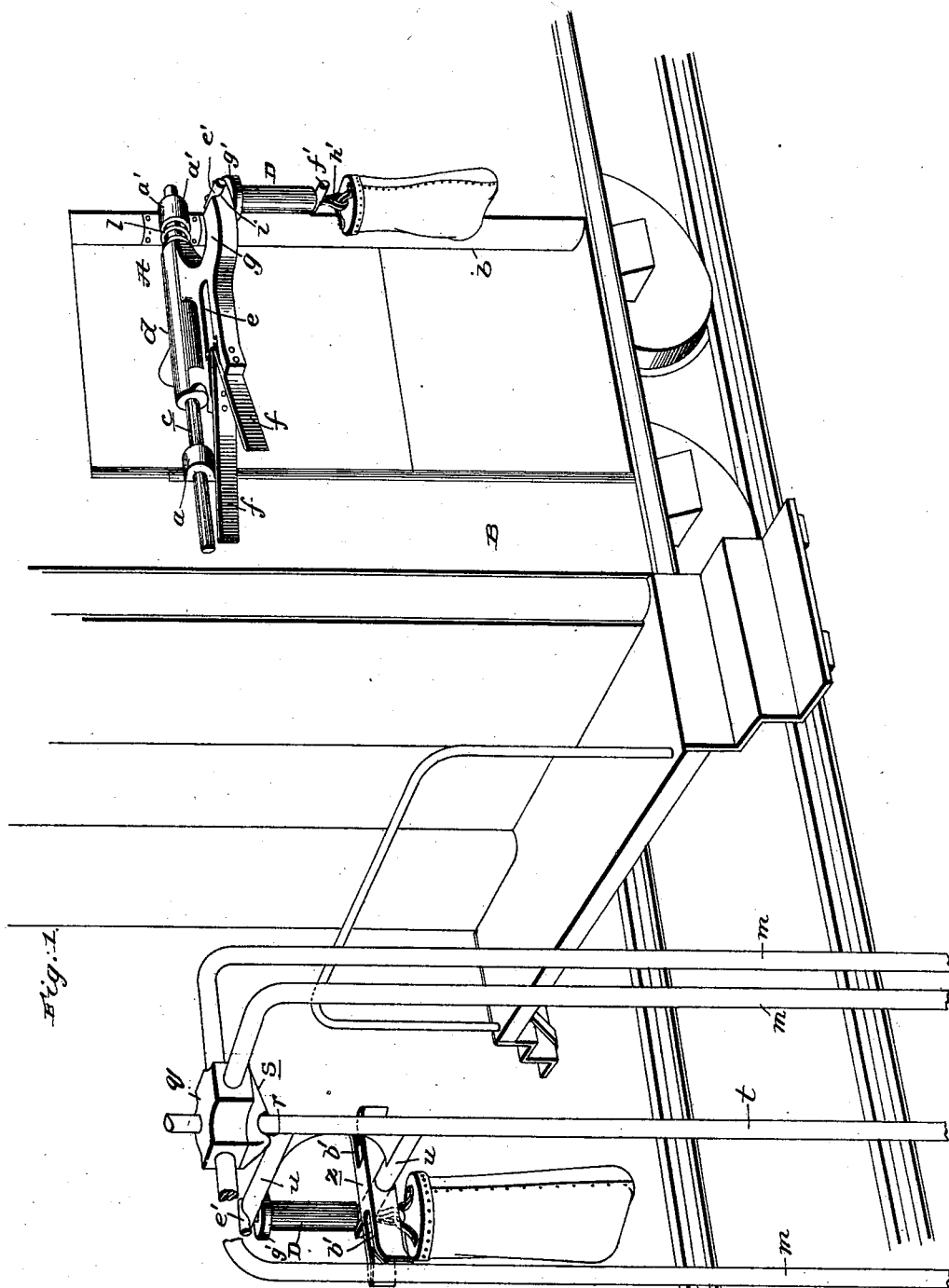
Patented Apr. 3, 1900.

L. L. MATTHEWS.
MAIL CATCHER AND CRANE.

(Application filed Jan. 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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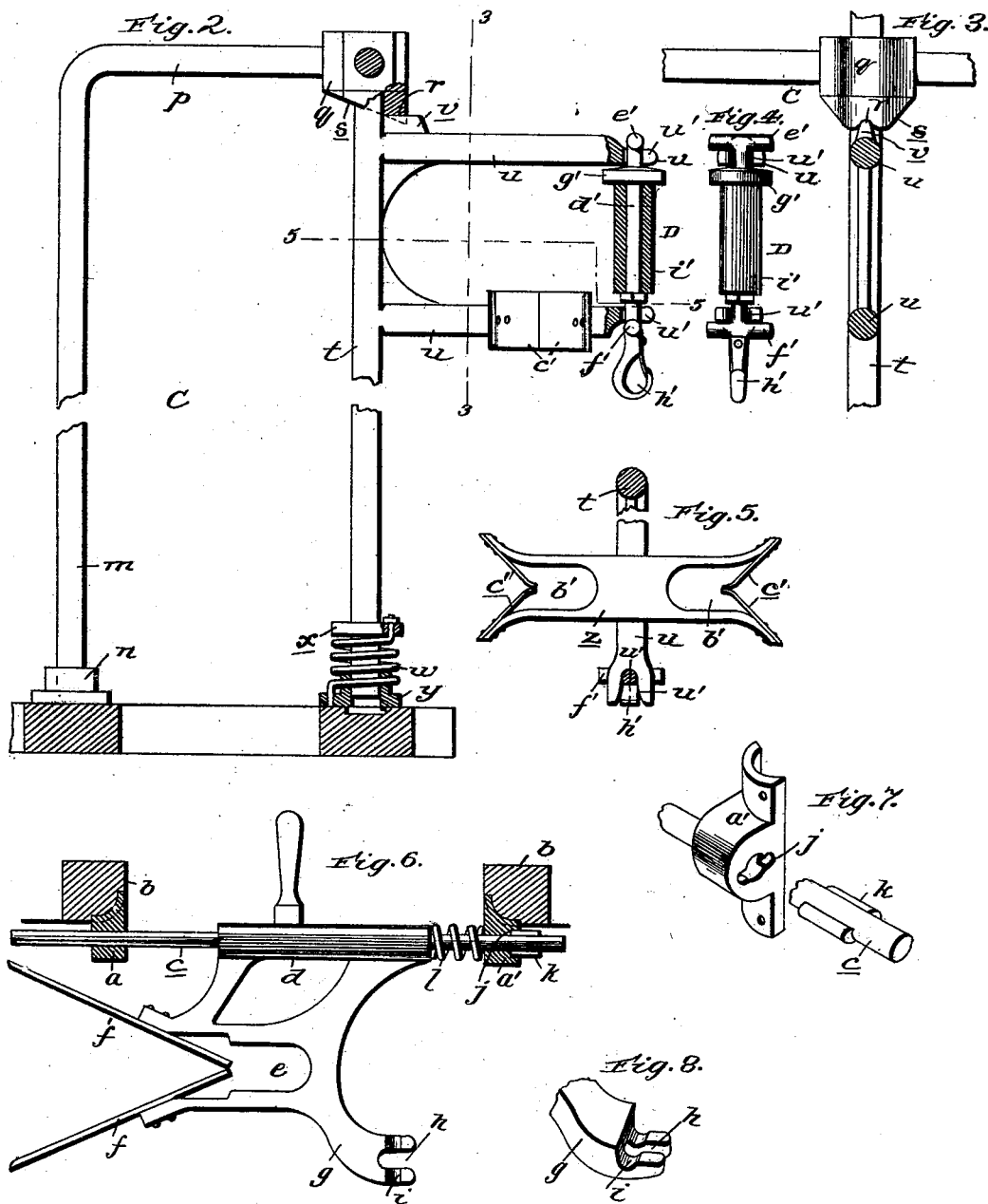
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

LUNSFORD L. MATTHEWS, OF MERIDIAN, MISSISSIPPI.

MAIL CATCHER AND CRANE.

SPECIFICATION forming part of Letters Patent No. 646,855, dated April 3, 1900.

Application filed January 18, 1900. Serial No. 1,919. (No model.)

To all whom it may concern:

Be it known that I, LUNSFORD L. MATTHEWS, a citizen of the United States, residing at Meridian, in the county of Lauderdale and State of Mississippi, have invented new and useful Improvements in Mail Catchers and Cranes, of which the following is a specification.

My invention relates to mail-bag catchers and cranes, and contemplates the provision of a catcher and a crane for use in conjunction therewith, the said catcher and crane being simple and durable in construction, reliable in operation, and calculated to automatically deliver and receive the mail-bags without endangering the life or limb of postal clerks or persons standing near the crane and without injuring the mail-bags or the contents thereof.

With the foregoing in mind the invention will be fully understood from the following description and claims, when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a perspective view illustrating one of my improved cranes and a portion of a car equipped with my improved catcher, said crane and catcher being shown as holding mail-bags and ready to deliver the same each to the other. Fig. 2 is a side elevation of the crane with parts in section. Fig. 3 is a detail section taken in the plane indicated by the broken line 3 3 of Fig. 2. Fig. 4 is a detail view taken at right angles to Fig. 2 and showing the mail-bag hanger on the arms of the crane. Fig. 5 is a detail section taken in the plane indicated by broken line 5 5 of Fig. 2. Fig. 6 is a plan view, partly in section, of the catcher. Fig. 7 is a detail view illustrating one of the brackets and a portion of the rock-shaft of the catcher. Fig. 8 is a detail perspective view of the rear end of the catcher-body.

Similar letters designate corresponding parts in all of the several views.

In the preferred embodiment of my invention the mail-bag catcher A is made up of brackets *a a'*, connected to the door-posts *b* of a car B, a rock-shaft *c*, mounted in said brackets *a a'* and extending in the direction of the length of the car, and a body *d*, fixed on shaft *c* between the brackets *a a'*. The

body *d* is provided with a mouth *e* and forwardly-diverging strips *f* of resilient material, which are connected to the forward portions of the walls of the mouth *e* and have their rear ends arranged adjacent to each other in the said mouth, as shown. Said body *d* is also provided with a rearwardly-extending arm *g*, which has its rear end bifurcated, as indicated by *h*, and provided with a seat *i* to receive the T-head of a mail-bag hanger, presently described. The rear bracket *a'* is provided in its rear side with one or more offsets *j*, communicating with its central bore, while the shaft *c* is provided with one or more lugs *k*, designed to seat in said offsets *j*, and thereby normally hold the shaft *c* against rocking and prevent the body *d* from swinging downwardly. The shaft *c* is normally held against rearward endwise movement by a coiled spring *l*, interposed between the body *d* and the bracket *a'*, with the result that the lugs *k* are retained in the offsets *j* of the bore in the said bracket and the body *d* is held in the position shown in Fig. 1. When, however, the body *d* and shaft *c* are forced rearwardly by the impact of a mail-bag hanger received in the mouth *e* of the body, said body and shaft will be forced rearwardly and the lugs *k* of the latter will be disengaged from the offsets *j*. This will permit the body *d* to gravitate to a pendent position in the door-opening of the car, in which position the postal clerk in the car is enabled to remove the bag from the catcher without in any way subjecting himself to danger.

C is my improved crane, which is placed on the ground or on a suitable support in close proximity to the track on which the car B travels. This crane in the preferred embodiment of the invention comprises a main frame made up of four (more or less) uprights *m*, having feet *n* at their lower ends and inwardly-directed arms *p* at their upper ends, and a head *q* joined to the ends of arms *p* and having a recess *r* in its under side and also having inclined planes *s* leading to said recess, and an upright rock-shaft *t*, which is journaled at its upper end in the head *q* of the said main frame. The rock-shaft is provided with two arms *u*, both of which have their outer ends bifurcated, as indicated by *u'*, and the uppermost one of which has a pro-

jection *v*, designed to be normally held in the seat *r* of head *q* by a coiled spring *w*, interposed between a collar *x* on the rock-shaft and a block *y*, in which the lower end of the shaft is stepped. By virtue of this construction it will be seen that the arms *u* of the rock-shaft will be normally held in a position at right angles to the track on which car B travels; but when the mail-bag hanger in the catcher A on a moving car the projection *v* will be removed from the recess *r* against the action of the spring *w*, and the arms *u* are swung in the direction of movement of the car, thus enabling the mail-bag hanger to readily leave the bifurcations *v'* of said arms.

On the lower arm *u* of the rock-shaft *t* the crane C is provided with a receiver *z* for mail-bag hangers. This receiver *z* has flared mouths *b'* at its opposite ends, so as to enable it to receive from trains traveling in either direction, and is provided with resilient strips *c'*, which are connected to the inner walls of the mouths and have their inner ends arranged quite close to each other within the mouths *b'*. The strips *c'* serve the twofold function of cushioning the mail-bag hangers when they enter the mouths *b'* and of preventing said hangers from rebounding out of the mouths *b'*.

D D are the mail-bag hangers which are used in conjunction with the catcher and crane. These hangers in the preferred embodiment of the invention respectively comprise a metallic body *d'*, in the form of a rod which has a T-head *e'* at its upper end and lateral arms *f'* adjacent to its lower end and also has a collar *g'* adjacent to its upper end and a snap-hook *h'* at its lower end, and a sleeve *i'*, of rubber or other yielding material, surrounding the rod *d'* and interposed between an enlargement thereon and the collar *g'*. The yielding sleeve *i'* has for its purpose to prevent shock and jar incident to the entry of the hanger in the mouth of the body *d'* of the catcher or the mouth of the receiver *z* of the crane.

The operation of my improvements is as follows: A mail-bag is attached to one of the hangers D, and after the body *d* of the catcher A is adjusted to the position shown in Fig. 1 the hanger D is placed in the bifurcation *h* of said body, with its head *e'* resting in the seat *i* thereof. A mail-bag hanger, with a bag attached thereto, is also placed in the bifurcation *u'* in the arms *v* of the crane, and said arms are swung into the position shown in Fig. 1—i. e., at right angles to the track on which the car travels. With the parts arranged as above described, when the car B reaches a position opposite the crane C the mail-bag hanger on the crane will be guided by the strips *f'* of the catcher-body *d* into the mouth thereof. The impact between the catcher and the mail-bag hanger will release the rock-shaft *t* in the manner before described and swing the arm *u* forwardly, thus

enabling the hanger to freely leave the bifurcations of the arms. The impact between the catcher and hanger will also release the rock-shaft *c* of the catcher and enable the body *d* thereof to swing downwardly, so as to permit of the convenient and safe removal of the received hanger and mail-bag. Coincident with the delivery of a mail-bag from the crane to the catcher as described the mail-bag hanger on the catcher is placed in one of the mouths *b'* of the receiver *z* on the crane and is held therein by the resilient strips *c'*.

It will be appreciated from the foregoing that my improved mail-bag catcher and crane are simple and embrace no frail parts such as are likely to get out of order after a short period of use, also that the catcher is susceptible of ready attachment to mail-cars at present in use, while the crane is adapted to be readily placed in position at the side of the car-track.

Having thus described my invention, what I claim is—

1. In a mail-bag catcher, the combination of journal-brackets adapted to be connected to a car, a swinging body mounted in and movable endwise with respect to the brackets and having a mouth adapted to receive a mail-bag hanger, and also having the diverging resilient strips connected at an intermediate point of their length to the walls of the mouth and having their rear ends arranged adjacent to each other in said mouth, a spring for holding the body against casual endwise movement, and means of preventing the body from swinging until after the same is moved endwise, substantially as specified.

2. In a mail-bag catcher, a body having a mouth adapted to receive a mail-bag hanger, and also having the diverging resilient strips connected at an intermediate point of their length to the walls of the mouth and having their rear ends arranged adjacent to each other in said mouth, substantially as specified.

3. In a mail-bag crane, the combination of a main frame having a seat and an inclined plane leading to the same, an upright rock-shaft journaled in the main frame and having arms adapted to receive and hold a mail-bag hanger and also having a projection arranged to engage the seat and inclined plane of the main frame, and a spring for pressing the rock-shaft toward the seat and inclined plane of the main frame, substantially as specified.

4. In a mail-bag crane, the combination with the main frame comprising uprights having inwardly-directed arms at their upper ends, and a head connected to said arms and having a seat in its under side and also having inclined planes leading to said seat; of a vertically-movable rock-shaft journaled in the head of the frame and having arms adapted to receive and hold a mail-bag hanger and also having a projection on one of said arms

adapted to engage the seat and inclined planes of the head, and a spring for pressing the rock-shaft upwardly, substantially as specified.

5 5. In a mail-bag crane, the combination with the main frame comprising uprights having inwardly-directed arms at their upper ends, and a head connected to said arms and having a seat in its under side and also having
10 inclined planes leading to said seat; of a vertically-movable rock-shaft journaled in the head of the frame and having arms adapted to receive and hold a mail-bag hanger and also having a projection on one of said arms
15 adapted to engage the seat and inclined planes of the head, and a receiver on its other arm; the said receiver having a mouth and the 'spring-strips connected to the walls thereof, and a spring for pressing the rock-shaft upwardly, substantially as specified.

6. A mail-bag catcher adapted to be connected to a car and having a body provided with a mouth, and diverging resilient strips connected at an intermediate point of their
25 length to the walls of the mouth; in combination with a crane adapted to be arranged at the side of the car-track and comprising a main frame having a seat and an inclined plane leading to the same, an upright rock-shaft journaled in the main frame and having
30 arms adapted to receive and hold a mail-bag hanger and also having a projection arranged to engage the seat and inclined plane of the main frame, and a spring for pressing the rock-shaft toward the seat and inclined
35 plane of the main frame, substantially as specified.

7. A mail-bag catcher adapted to be connected to a car and having a body provided
40 with a mouth, a rearwardly-extending arm bifurcated at its outer end, and diverging resilient

strips connected at an intermediate point of their length to the walls of the mouth; in combination with a crane adapted to be arranged at the side of the car-track and comprising a main frame having a seat and an
45 inclined plane leading to the same, an upright rock-shaft journaled in the main frame and having arms bifurcated at their outer ends, and also having a projection arranged to engage the seat and inclined plane of the main
50 frame, and a receiver provided with a mouth and resilient strips connected to the walls of the mouth, and a spring for pressing the rock-shaft toward the seat and inclined plane of the main frame, and mail-bag hangers
55 having T-heads at their upper ends and lateral arms adjacent to their lower ends and also having collars below the T-heads, substantially as specified.

8. The combination of a mail-bag catcher adapted to be connected to a car and having a mouth and also having the diverging resilient strips connected to the walls of the mouth, and a rearwardly-extending arm bifurcated
60 at its outer end, a crane adapted to be arranged at the side of the car-track and having arms bifurcated at their outer ends and also having a receiver provided with a mouth and resilient strips connected to the walls of the mouth, and mail-bag hangers having collars and also having sleeves of yielding material arranged below the collars, substantially as specified.

In testimony whereof I have hereunto set
75 my hand in presence of two subscribing witnesses.

LUNSFORD L. MATTHEWS.

Witnesses:

CHARLES J. MILLER,
DERO. M. MATTHEWS.