

No. 747,714.

PATENTED DEC. 22, 1903.

J. M. HOUGH.
MAIL CRANE.

APPLICATION FILED AUG. 15, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

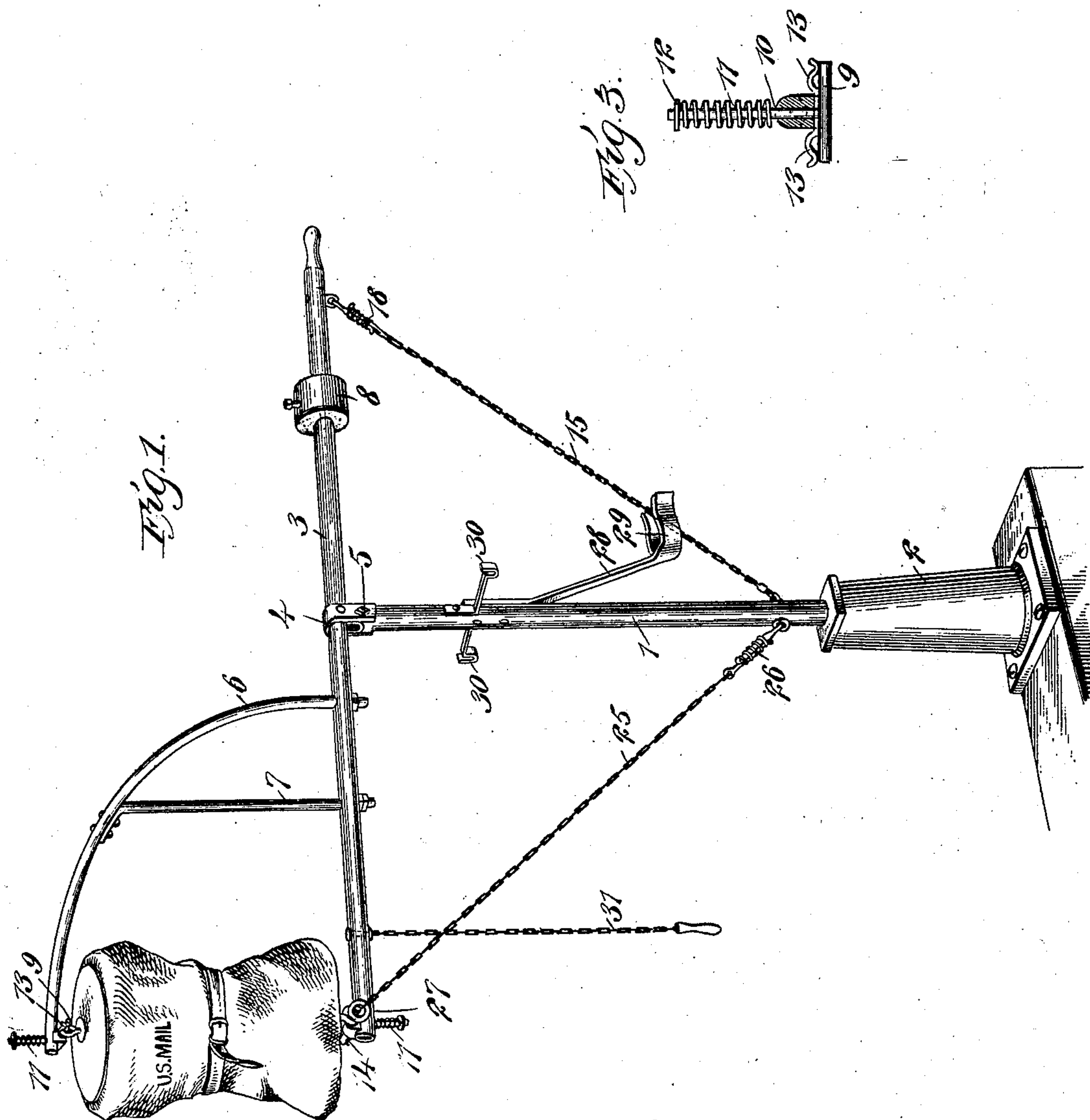


Fig. 3.

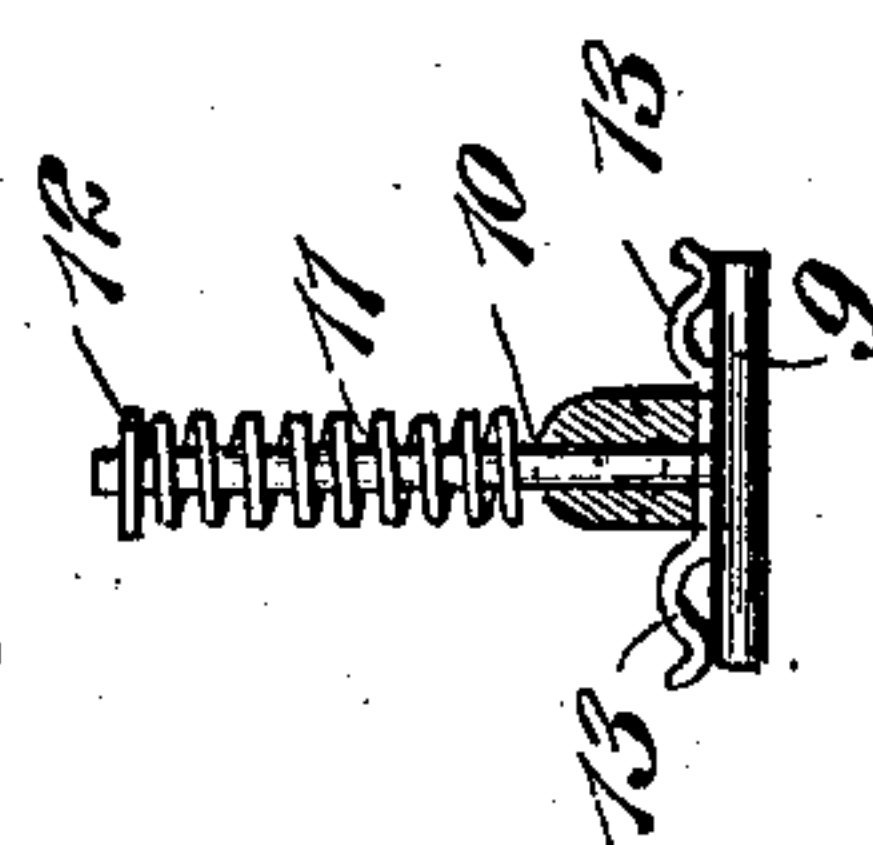
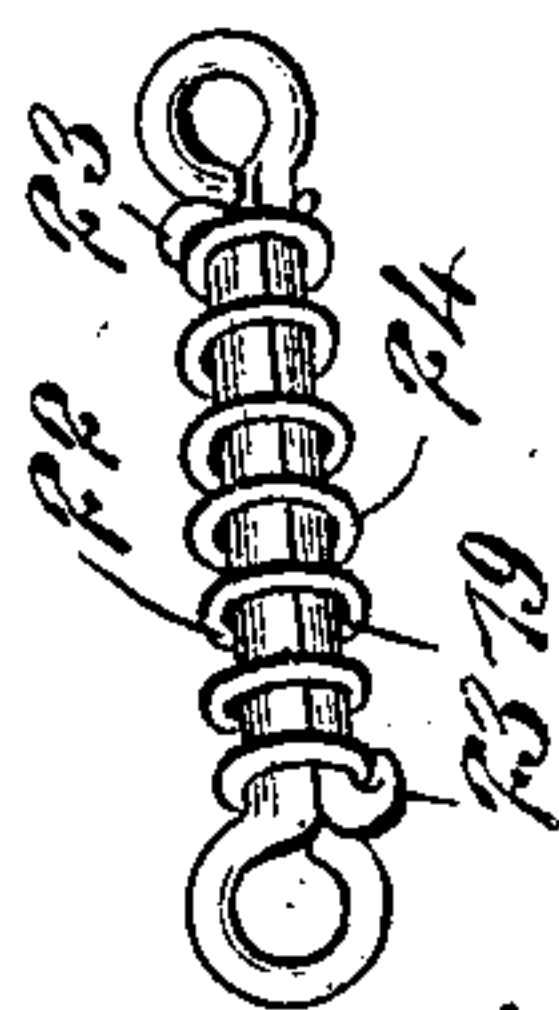


Fig. 2.



WITNESSES:

G. P. Kingsbury.
C. R. Ferguson.

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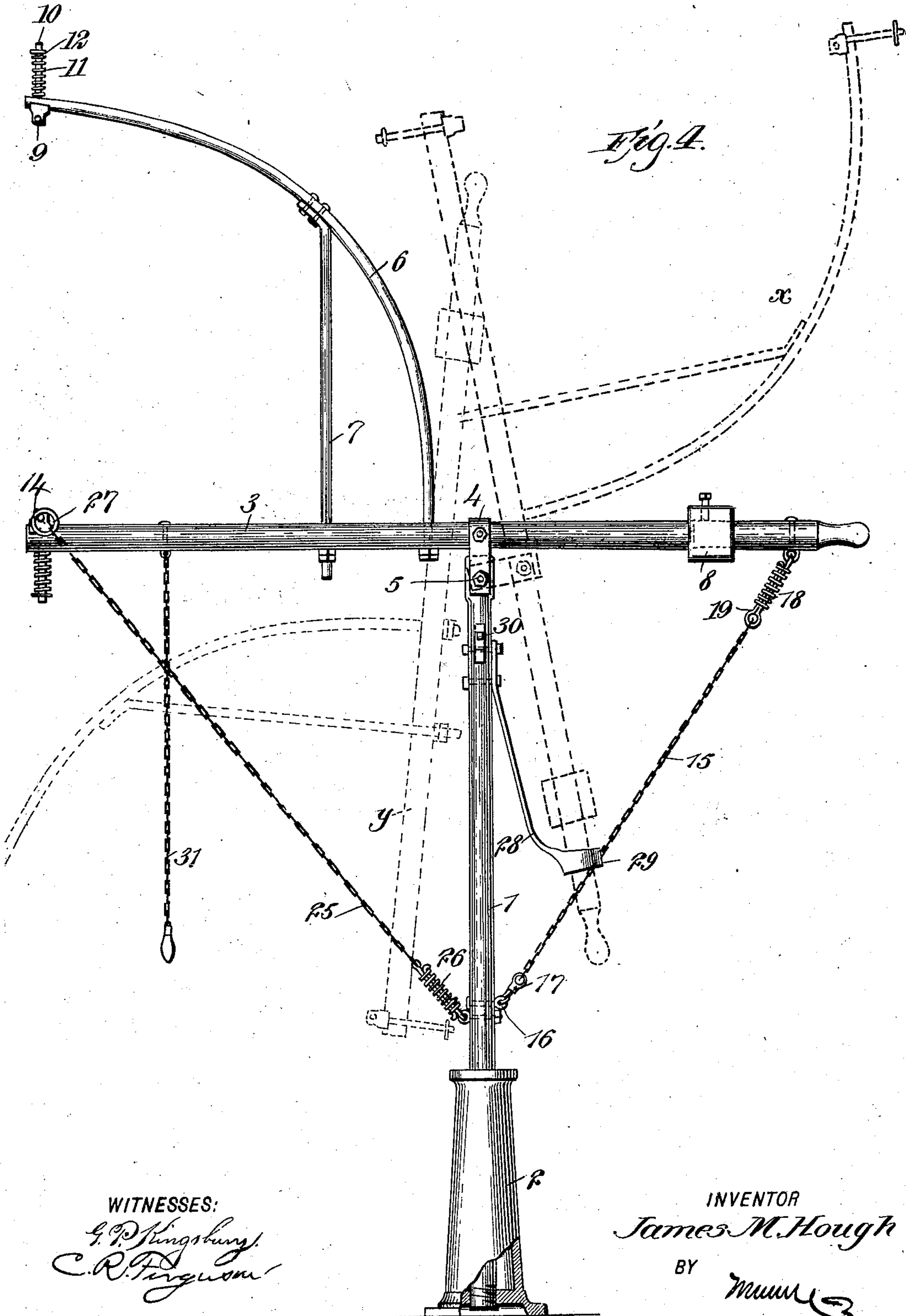
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UNITED STATES PATENT OFFICE.

JAMES M. HOUGH, OF WOODBINE, IOWA.

MAIL-CRANE.

SPECIFICATION forming part of Letters Patent No. 747,714, dated December 22, 1903.

Application filed August 15, 1903. Serial No. 169,613. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HOUGH, a citizen of the United States, and a resident of Woodbine, in the county of Harrison and State of Iowa, have invented a new and Improved Mail-Crane, of which the following is a full, clear, and exact description.

This invention relates to improvements in cranes for holding mail-bags in position to be taken up by catches carried by passing trains, an object being to provide a crane of simple construction that will be light, yet strong, having no parts liable to get out of order, and that may be constructed and sold at a comparatively small cost.

Other objects of the invention will appear in the general description.

I will describe a mail-crane embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a mail-crane embodying my invention. Fig. 2 shows a yielding coupling employed. Fig. 3 shows one of the bag-holding clips employed, and Fig. 4 is an elevation showing the different positions in which the crane may be placed.

The crane comprises a standard or mast 1, which consists, preferably, of tubular metal, and this mast is supported in a tubular post 2, the top of said post being provided with an opening through which the mast passes, and an opening in the lower end has its wall screw-threaded to engage a thread on the lower end of the mast. Mounted to swing on the mast is an arm 3, the swinging connection being in the center. As here shown the arm is secured to a yoke 4, pivoted to the mast by means of a bolt 5. By this arrangement the yoke carrying the arm may swing to either the front or rear side of the mast, as will be hereinafter described.

Extended upward and forward from the arm 3 is a supplemental arm 6, designed to support the upper end of the mail-bag, and this supplemental arm has a brace connection 7 with the arm 3. Both the arms 3 and 6 may consist of tubular metal, which will give sufficient strength, but will be very light

to operate. On the arm 3 at the side of its pivotal point opposite the arm 6 is a counter-balance-weight 8, said weight being adjustable on the arm.

Attached to the supplemental arm 6 is a bag-engaging clip comprising a horizontally-disposed bar 9, connected to a shank 10, passing through an opening in said arm 6, and a spring 11 is arranged between the upper side of the arm and a stop 12 on the shank. The bar 9 extends in opposite directions from the arm 6, and at each side it is provided with a spring-latch 13. A similar clip 14 is mounted on the arm 3. A chain 15 is attached to the rear end of the arm 3 and is designed for engagement with an eye 16 on the mast. As here shown the chain is provided with a spring-clip 17 for engaging with said eye, and it is connected to the arm through the medium of a spring-yielding coupling 18. This coupling consists of two bars 19 20, mounted to slide longitudinally one upon the other and each provided with an eye at its end. The opposite end of each bar is turned outward, as at 23, and a spring 24, surrounding the coupling-bars, abuts against these outwardly-turned ends. This construction is plainly shown in Fig. 2.

At the opposite side of the mast 1 is a chain 25, which is connected with the mast through the medium of a spring-yielding coupling 26, similar to the coupling 18. At the free end of the chain 25 is a ring 27 for engaging with either one of the ends of the bar on the clip 14. These spring-couplings will prevent jar or rattling of the parts in setting the arm or when a bag is carried from the crane by a passing train, and the springs on the clips by yielding will prevent possible tearing out of the rings from the bag.

Attached to the rear side of the mast 1 is a buffer for receiving the arm 3 as it swings downward under the influence of the weight 8. This buffer consists of a spring-arm 28, having fingers 29, which will spring outward sufficiently to permit the arm to pass between the same. These fingers are curved, so as to engage slightly around the arm to prevent its outward accidental movement after once passing between the fingers. At its opposite sides the mast is provided with hooks 30, on which a mail-bag may be temporarily hung.

While supporting a bag the parts will be in the position indicated in Fig. 1. Of course the ring on the upper end of the bag will engage with one end of the bar of the upper clip, 5 while the ring on the lower end engages with the bar on the lower clip. Of course this engagement will be made at the side opposite to that in which the train approaches. The ring 27 engages the bar of the lower clip at 10 the outer side of the ring on the mail-bag. As the catcher on the mail-car engages the bag it will be released from the crane, and during this releasing the ring 27 will be forced off the clip, thus permitting the arm to swing, 15 under the influence of the weight 8, to the position indicated by the dotted lines x in Fig. 4. If it is desired to place the mail-bag in position, the arm is to be drawn downward by pulling on a draw line or chain 31 to the position indicated by the dotted lines y in Fig. 4. Before moving it to the position y the snap hook or spring 17 must be released from the eye 16, and after placing the ring 27 the arm is to be drawn to its horizontal position by pulling on 25 the chain 15, and the snap-hook may be again engaged with the eye.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

30 1. A mail-crane comprising a mast, an arm mounted to slide to opposite sides of said mast, mail-bag-engaging devices carried by the arm, and means for holding the arm in operative position.

35 2. A mail-crane comprising a mast, an arm mounted to swing on said mast and to move to opposite sides thereof, a supplemental arm extended upward and forward from the first-named arm, and spring-yielding bag-engaging 40 clips carried by two said arms.

3. A mail-crane comprising a mast, an arm mounted to swing on said mast, means for anchoring or engaging the opposite ends of

the arm with the mast, spring-yielding couplings comprised in said anchoring devices, 45 and bag-engaging devices carried by the arm.

4. A mail-crane comprising a mast, a yoke having swinging connection with the upper end of the mast and adapted to move to either side thereof, an arm connected to said yoke, 50 a counterbalance on said arm, a supplemental arm extended upward and forward from the first-named arm, and bag-engaging devices carried by said two arms.

5. A mail-crane comprising a mast, a counterbalanced arm mounted to swing thereon 55 and to opposite sides thereof, means for holding the said arm in operative position, and a buffer on the mast for receiving said arm when swung in one direction. 60

6. A mail-crane comprising a mast, an arm mounted to swing on the mast, a counterbalance on the arm, bag-engaging devices carried by the arm, means for holding the arm in horizontal position, and a buffer comprising a 65 spring-plate attached to the mast and having spring-fingers for receiving the arm.

7. A mail-crane comprising a mast, an arm mounted to swing thereon, a yielding connection between the rear end of said arm and 70 the mast, a supplemental arm extended upward and forward from the first-named arm, and a bag-engaging clip carried by each of said arms, each clip comprising a horizontally-disposed bar, a shank extended there- 75 from loosely through an opening in the arm, a spring arranged between the arm and a stop on the shank, and spring-fingers on the opposite ends of the bar.

In testimony whereof I have signed my 80 name to this specification in the presence of two subscribing witnesses.

JAMES M. HOUGH.

Witnesses:

H. M. BOSTWICK,
R. J. MORSE.