(No Model.) 3 Sheets—Sheet 1.

O. D. ROGERS.

RAILWAY MAIL CRANE AND CATCHER.

No. 545,249. Patented Aug. 27, 1895.

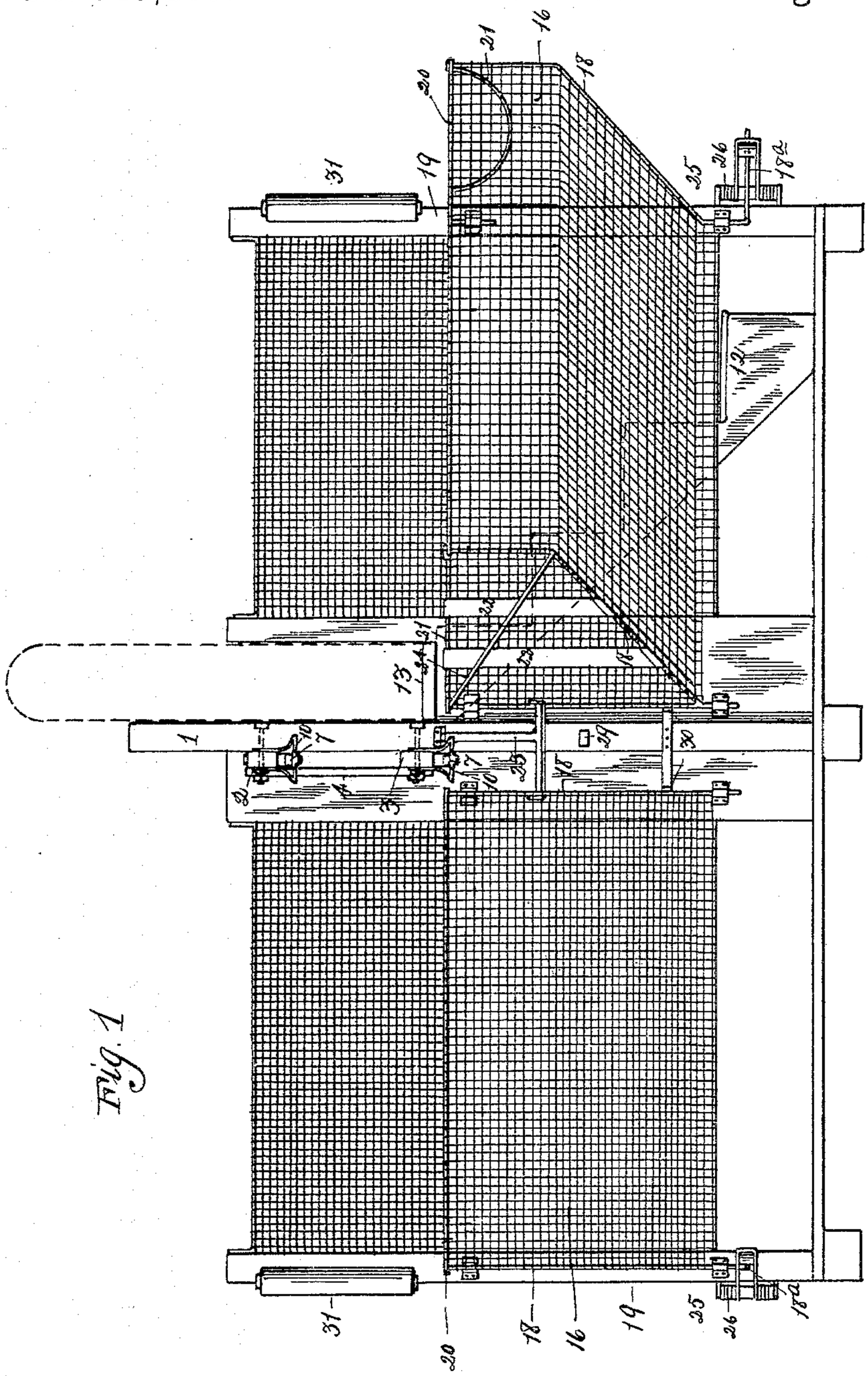

Fig. 1.

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(No Model.)

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Fig. 2.

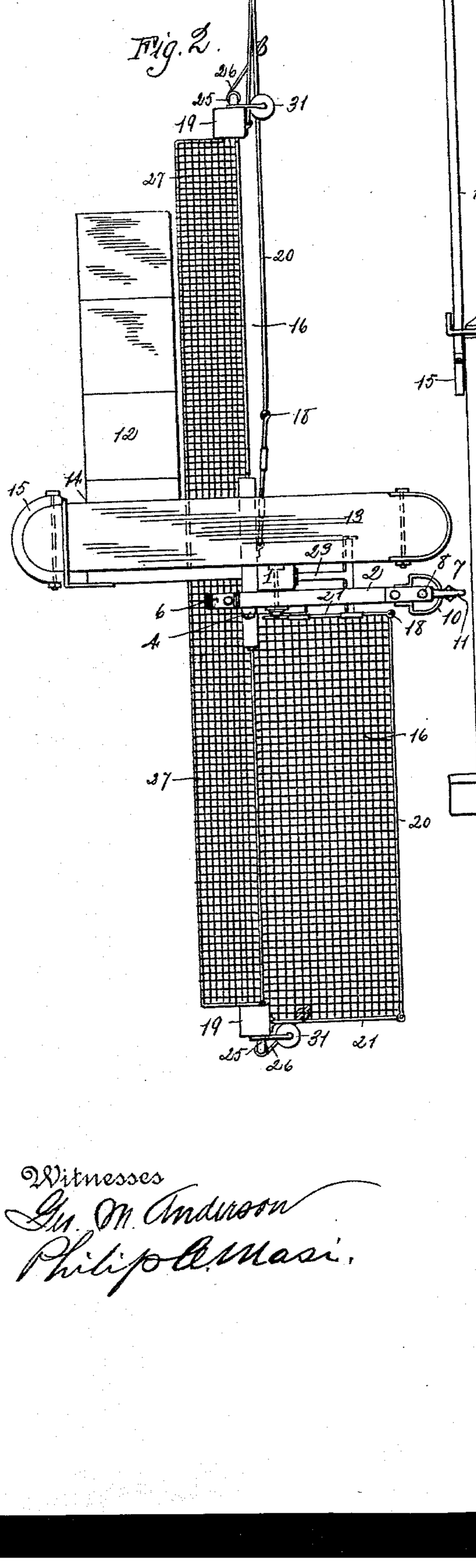
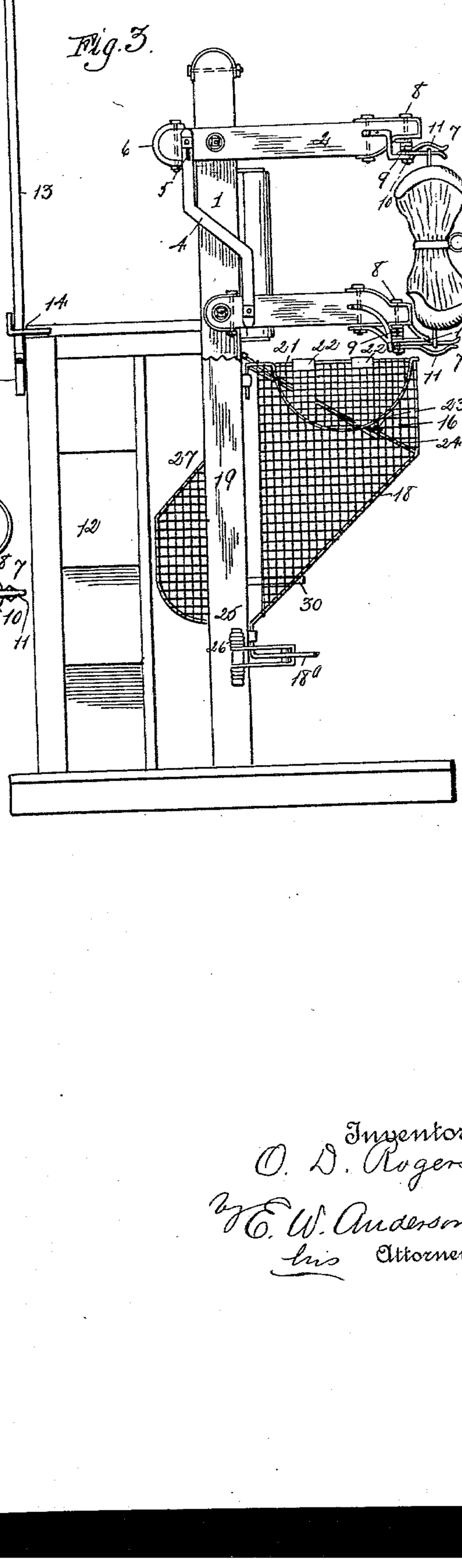


Fig. 3.



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(No Model.) 3 Sheets—Sheet 3

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RAILWAY MAIL CRANE AND CATCHER.

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Fig. 4.

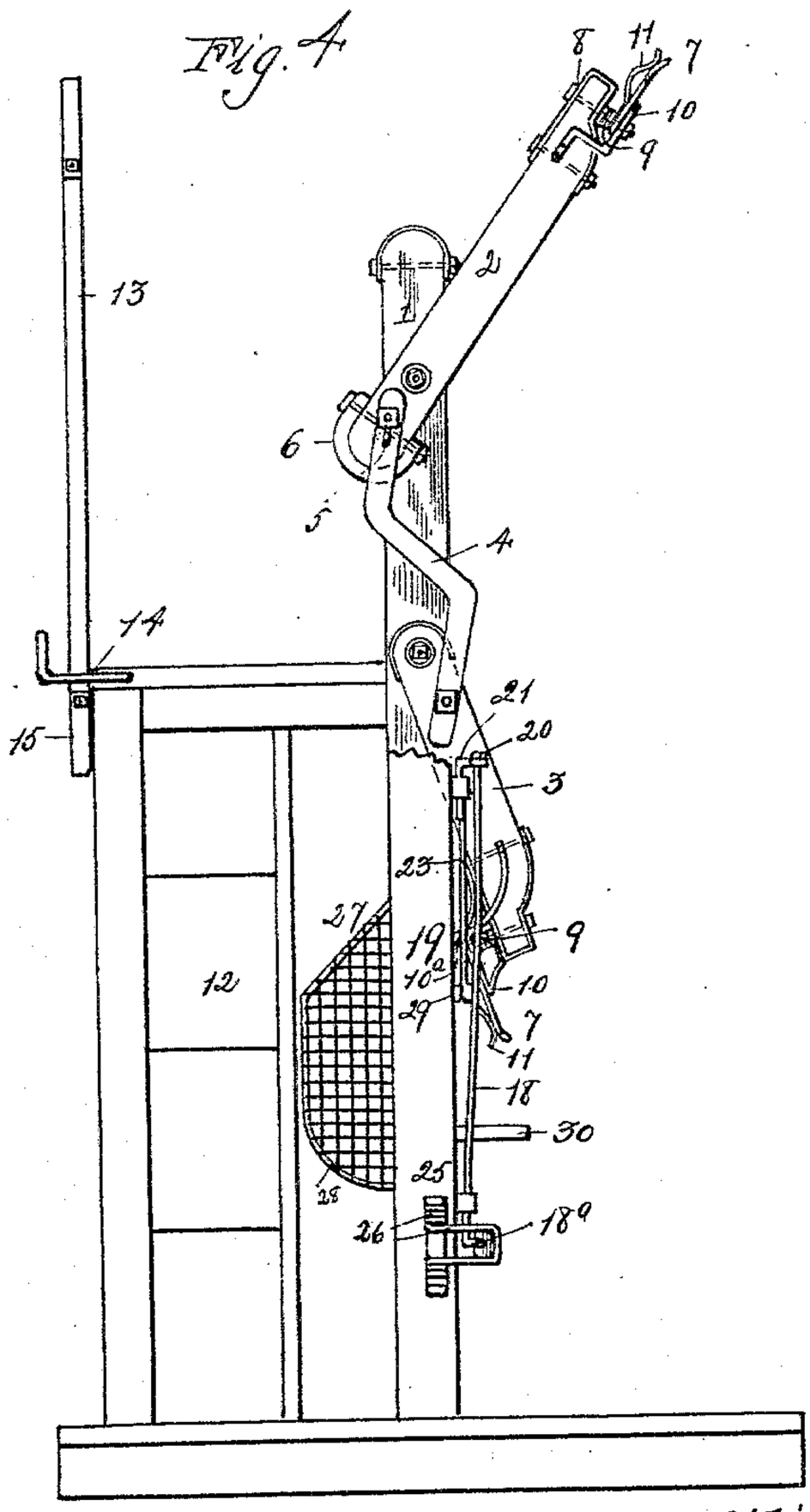


Fig. 5.

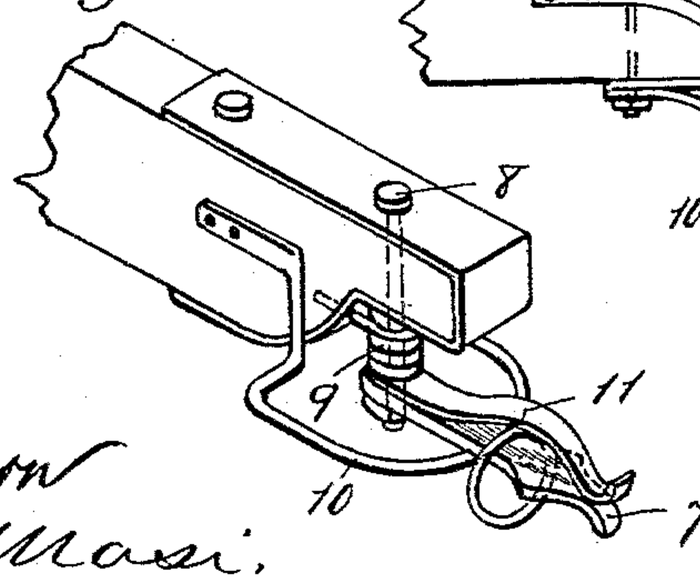
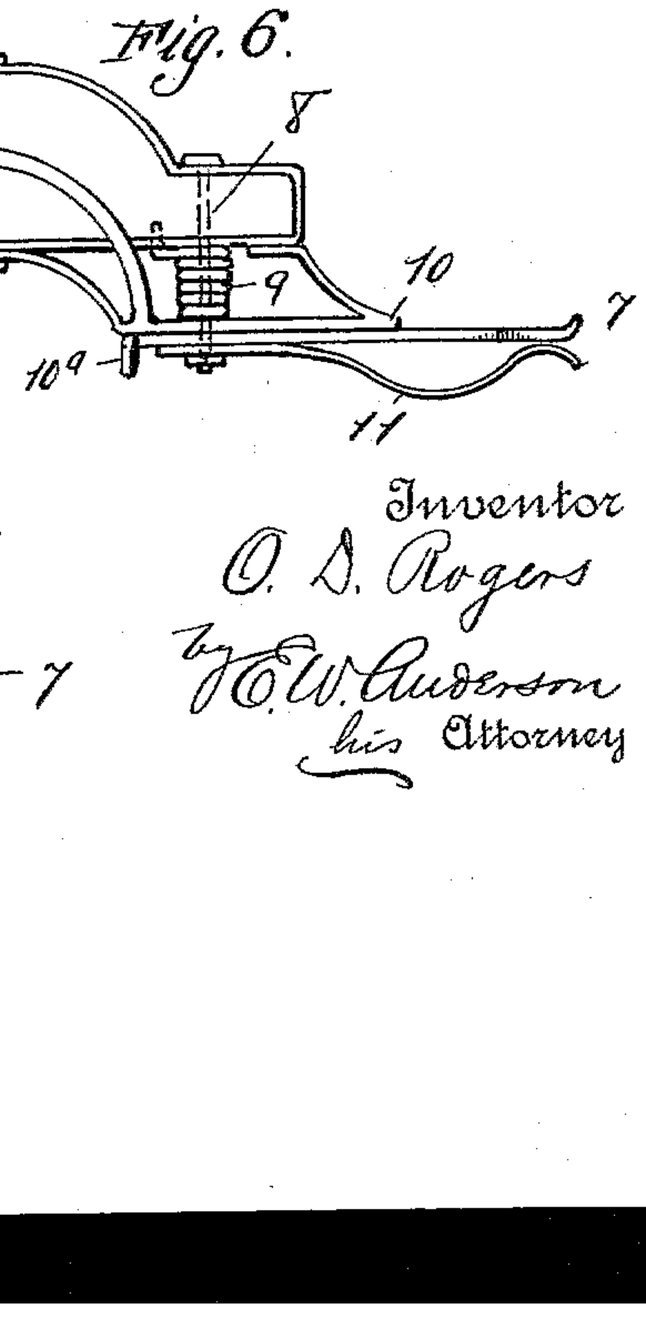


Fig. 6.



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UNITED STATES PATENT OFFICE.

ORVILLE D. ROGERS, OF SHOALS, INDIANA.

RAILWAY MAIL CRANE AND CATCHER.

SPECIFICATION forming part of Letters Patent No. 545,249, dated August 27, 1895.

Application filed March 1, 1895. Serial No. 540,213. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE D. ROGERS, a citizen of the United States, and a resident of Shoals, in the county of Martin and State of Indiana, have invented certain new and useful Improvements in Railway Mail Cranes and Catchers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a front view of the invention with right-hand basket closed and walking-board shown up in dotted lines. Fig. 2 is a plan view of same. Fig. 3 is an end elevation of same with walking-board up and mail-bag in position on hooks, the post 19 being broken away. Fig. 4 is a similar view showing arms 2 and 3 in their released positions and left-hand basket closed. Figs. 5 and 6 are detail views of forward ends of bars 2 and 3.

This invention has relation to railway mail-cranes and catch-baskets, the objects being to provide a crane having means whereby the pouch is prevented from catching too far over the holding-hooks; to provide means for holding such hooks in proper alignment; to provide means in connection with such hooks for preventing the pouch being blown off by high winds, and to insure its being retained on the hooks until the center of the pouch is drawn into the throat of the catcher, and, further, to provide in connection with the crane folding baskets and catch-pockets for receiving pouches delivered by the train at or about the same time the pouch is taken from the crane.

With these objects in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the numeral 1 designates a crane-post, to the upper portion of which are pivotally attached an upper arm 2 and a lower arm 3. 4 is a link, which connects said arms upon opposite sides of their respective pivots, said link having a slot 5 at its upper end portion to permit the necessary play of the pivot.

6 is a counterbalancing-weight for the arm 2.

Said arms at their outer ends have each a hook 7 for engagement with the rings of a mail-pouch, and are preferably of diamond form, as indicated. Each hook is pivotally secured to its arm by means of a bolt or shank 8, and each is normally held in proper alignment by a coil-spring 9 around its shank and fastened to the arm. Above the lower hook and below the upper one are stirrups 10, which act as guards to prevent the rings of the pouch from passing too far onto the hooks, the stirrup of the lower hook having a stop projection 10^a, which, by contact with the crane-post, limits the downward swing of the arm.

To the upper face of the upper hook and the lower face of the lower hook are secured springs 11, which consist of bowed strips whose free ends bear upon the end portions of the hooks. The pouch-rings being slipped under these springs in the manner indicated in Fig. 3, the springs act as guards to prevent the pouch being blown off by the wind, and also to cause the rings to be retained by the hooks until the center of the pouch is securely caught by the catching device on the train.

12 designates steps by means of which the crane is reached to hang the bags, and 13 is a walking-board, pivoted to the step-frame at 14 and counterbalanced at 15, whereby it is held in vertical position when not in use.

16 16 designate net catch-baskets, one of which is usually located upon each side of the crane-post to receive the pouches from trains going each way. Each of said baskets has a frame composed of bent end rods 18 18, whose cranked lower portions are loosely journaled in boxes, one upon the crane-post and the other upon a post 19 to one side of the crane-post, whereby said rods are permitted to swing in a horizontal plane from right to left or left to right. Connecting said rods 18 18 is a longitudinal rod 20.

21 21 are rods which form the upper end portions of the frame of each basket, and which are also formed with cranked arms which are journaled on said posts.

In the drawings, Figs. 1, 2, and 3, I have

shown the left-hand basket 17 swung toward the crane-post or in open position, while the right-hand basket 16 is swung to the right or in closed position.

At the inner end of each basket are spring buffer-strips 22, which yield to the concussion of the pouches as they are delivered.

23 is an arm which is hinged or pivoted to the front face of the crane-post, and which, when extended and the baskets open, is arranged to engage with arms 24 of the basket-frames (see Figs. 1, 2, and 3) and hold said baskets open.

To the lower portion of each of the posts 19 is attached a bracket 25, having a vertical bolt, around which is coiled a spring 26, having a loop which engages an arm 18^a of the outer rod 18 of the basket-frame, the action of the spring being to close the basket when it is released from the arm 23.

27 27 are back guards of netting for the baskets.

28 28 are pockets at the rear of the baskets and into which the pouches fall from the baskets as the latter are closed.

29 is a check-plate for the arm 23, and 30 is a check-plate which limits the opening of the baskets.

It will be seen that as the pouch is taken from the crane and the lower arm 3 thereof falls said arm contacts with the arm 23, knocking it down and releasing the baskets which are closed by the springs 26, and the pouches which are delivered from the train at the same time the pouch is taken from the crane fall out of said baskets and into the pockets 28.

31 31 are vertical rollers of yielding material, supported by the posts 19, and which contact with the tripping-arm which controls the device carried by the train for delivering the bags.

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

1. In a mail bag delivery crane, a pivoted supporting arm for the crane, a diamond shaped hook 7, pivoted to the outer end portion of such arm, a spring coiled around the pivot of said hook and attached to said pivot and to said arm, a guard stirrup 10 for preventing the rings of the bags from passing too far back on said hooks and a bowed spring 11 secured to the inner end portion of said hook and bearing against the same at its free end portion, substantially as specified.

2. In a railway mail crane, the pivotal crane arms 2 and 3, the arm 2 having a counterbalancing weight, the link connecting said arms, the diamond-shaped hooks pivotally secured in said arms, the coil springs for holding said hooks in alignment, the guard stirrups for said hooks, and the guard springs therefor, substantially as specified.

3. The combination with a railway mail crane having pivotal pouch-supporting arms, of one or more folding catch baskets adjacent to said crane and an arm pivoted to the crane post and adapted to hold said baskets in open position, said arm being operated to release the baskets by the falling of the crane arm, substantially as specified.

4. The combination with a railway mail crane, having pivoted pouch supporting arms, of one or more folding net catch baskets adjacent to said crane, an arm attached to the crane post and arranged when extended to hold said basket or baskets in open position, said arm being operated to release the basket or baskets by the falling of the crane arm and a spring for closing each of said baskets when released, substantially as specified.

5. A catch basket for mail pouches comprising a support and back-guard, a frame pivotally attached to said support, and arranged to open away from or close against said support, a flexible covering for said frame, a pouch receiving pocket into which said basket discharges at its lower rear portion, means for holding said basket in open position and a spring for closing the same, substantially as specified.

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

ORVILLE D. ROGERS.

Witnesses:

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WILLARD S. GAREY.