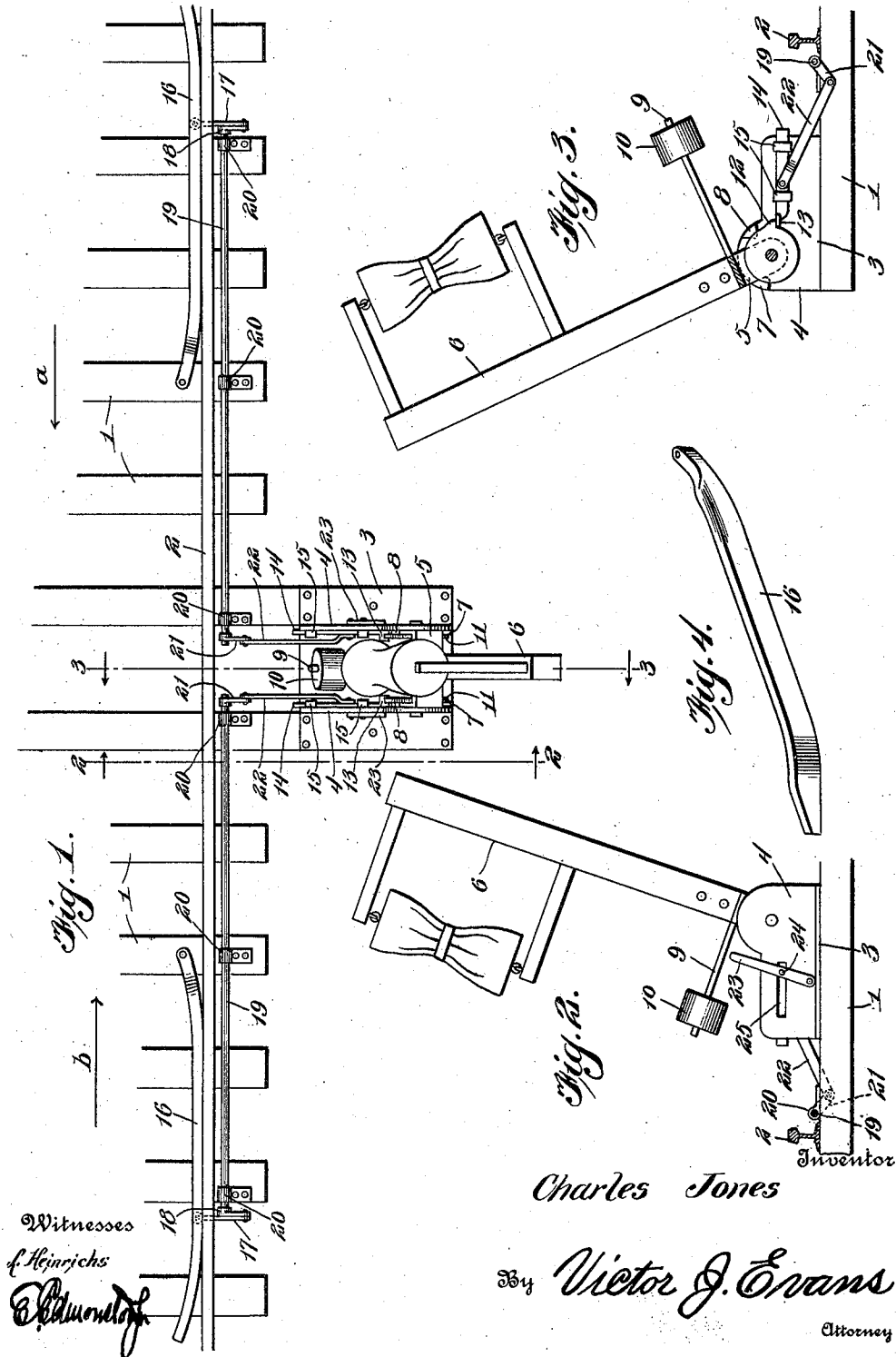


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MAIL CRANE.
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UNITED STATES PATENT OFFICE.

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MAIL-CRANE.

1,062,239.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES JONES, a citizen of the United States, residing at Topeka, in the county of Shawnee and State of Kansas, have invented new and useful Improvements in Mail-Cranes, of which the following is a specification.

This invention relates to mail cranes and the principal object of the invention is to provide a simple and efficient device of this character operated by the train so to project the bag at the proper time into the path of the catcher arm on the mail car. These cranes when stationarily arranged only free the locomotive by about eight or ten inches which makes it extremely dangerous for the engineer or fireman who are liable to have their heads out of the window looking backward while passing a station.

It is the object of this invention therefore to provide a device which will avoid this danger and which is held at an inclination away from the track until after the engine has passed or in other words the crane is projected just in time to have the bag caught by the arm on the mail car.

Further objects of this invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:—

Figure 1 is a top plan view. Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1. Fig. 3 is a similar view on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the operated levers.

Referring more particularly to the drawings 1 represents cross ties upon which the rails 2 are mounted. Immediately adjacent the ties there is secured a support 3 having vertically extending parallel ears or plates 4 between which is pivoted a yoke 5 carrying the mail crane 6 of usual construction. The yoke is limited in its movements by stops 7 and 8 formed on the ears or plates 4 and carries a laterally projecting arm 9 having a weight 10 secured to its outer end. This weight 10 is adapted to bring the yoke member against the stop 8 thereby normally acting to throw the crane to vertical position with its bag holding arms projected toward the train in position for the bag thereon to be caught by the catcher arm. In order to hold the crane with its bag catching arms out of discharging position and at an incline to the vertical there is secured to one of the

legs of the yoke member 5 a circular disk 11 which has a radially extending tooth 12 adapted to be engaged by the offset end 13 of a bolt 14 which is slidably mounted in the clips 15 secured to the ear or plate 4 adjoining the disk 11.

Pivotally mounted to one of the ties and adapted to lie against one of the rails is a curved wheel operated lever 16 whose free end is connected by means of a link 17 to a crank 18 keyed to one end of a shaft 19 journaled in bearings 20 carried by the ties the opposite end of the shaft 19 is also provided with a crank 21 which is connected to the bolt 14 by means of a link 22. This arrangement is duplicated upon the opposite side of the crane as shown so that a train going in the opposite direction will also be able to control the operation of the crane.

Pivoted to one of the ears or plates 4 is a lever 23 which is connected by means of a bolt 24 to the sliding bolt 14, the bolt 24 passing through a slot 25 formed in the plate or ear 4 so as to permit the operation of the bolt 14 through the lever 23. The upper end of the pivoted lever 16 has the edge adjoining the pivot point rounded off so as to permit proper engagement of the same by the wheel flange of a car going in the direction of the arrows *a* and *b*. If the train is going in the direction of the arrow *a* the crane will not be thrown in operative position until the first wheel of the locomotive engages the lever 16 at the left of the crane because in this structure there are two sliding bolts 14 both of them independently locking the crane against movement. The distance between the crane and the point where the lever 16 engages the rail is approximately equal to the length of the locomotive so that the second bolt 14 will be operated only after the locomotive has substantially passed the crane.

What is claimed is:—

1. The combination with track rails, of a mail bag crane pivoted to operate toward and away from the train, means to hold the crane at an incline from the vertical away from the track, means for releasing said holding means and means for returning the crane to vertical position.

2. The combination with track rails, of a crane pivoted adjacent the rails and adapted to move toward and away from the same, means for holding the crane at an incline away from the rail, train operated means

for releasing said holding means and means for returning the crane to vertical position.

3. The combination with track rails, of a crane pivoted adjacent the rails and adapted to move toward and away from the same, means for holding the crane at an incline away from the rail, train operated means for releasing said holding means and a weight for returning the crane to vertical position.

4. The combination with track rails, of a support arranged adjacent the track thereof, a crane pivoted on the support for movement toward and away from the track thereof, means including a sliding bolt for holding the crane at an incline from the vertical away from the track thereof, train operated means for operating the bolt to release the holding means and a weighted arm extending laterally from the crane and adapted to return the same to the vertical.

5. The combination with track rails, of a

support arranged adjacent the same, a crane pivotally mounted in the support and adapted for operation toward and away from the track, a toothed disk carried by the crane, a sliding bolt mounted upon the support and adapted to engage a tooth of said disk to hold the crane in inclined position away from the track, a wheel flange operated lever pivoted to the track, a crank shaft connected to said lever and a link connecting one of the cranks of said shaft with the sliding bolt, together with a laterally extended weighted arm on the crane for returning the same to normal when the locking bolt is released from the tooth.

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

CHARLES JONES.

Witnesses:

O. C. SELTZER,

T. C. MARTIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."