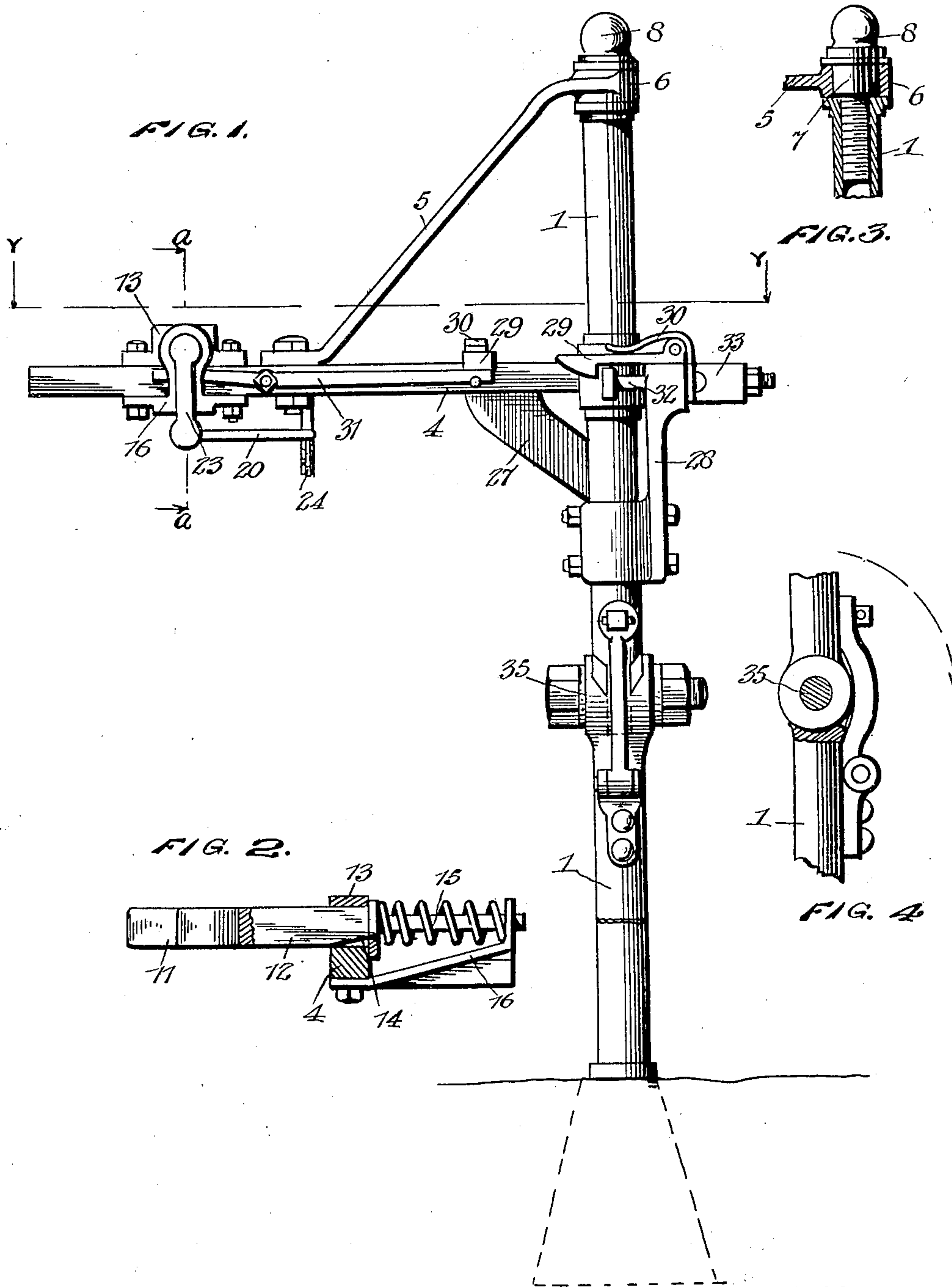


906,546.

H. MOSHIER.
MAIL BAG CATCHING CRANE.
APPLICATION FILED APR. 21, 1908.

Patented Dec. 15, 1908.
2 SHEETS—SHEET 1.



WITNESSES
Chas. H. Davis.
Myron G. Cleary

INVENTOR
Henry Moshier,
By C. L. Parker, Attorney

906,546.

H. MOSHIER.
MAIL BAG CATCHING CRANE.
APPLICATION FILED APR. 21, 1908.

Patented Dec. 15, 1908
2 SHEETS—SHEET 2.

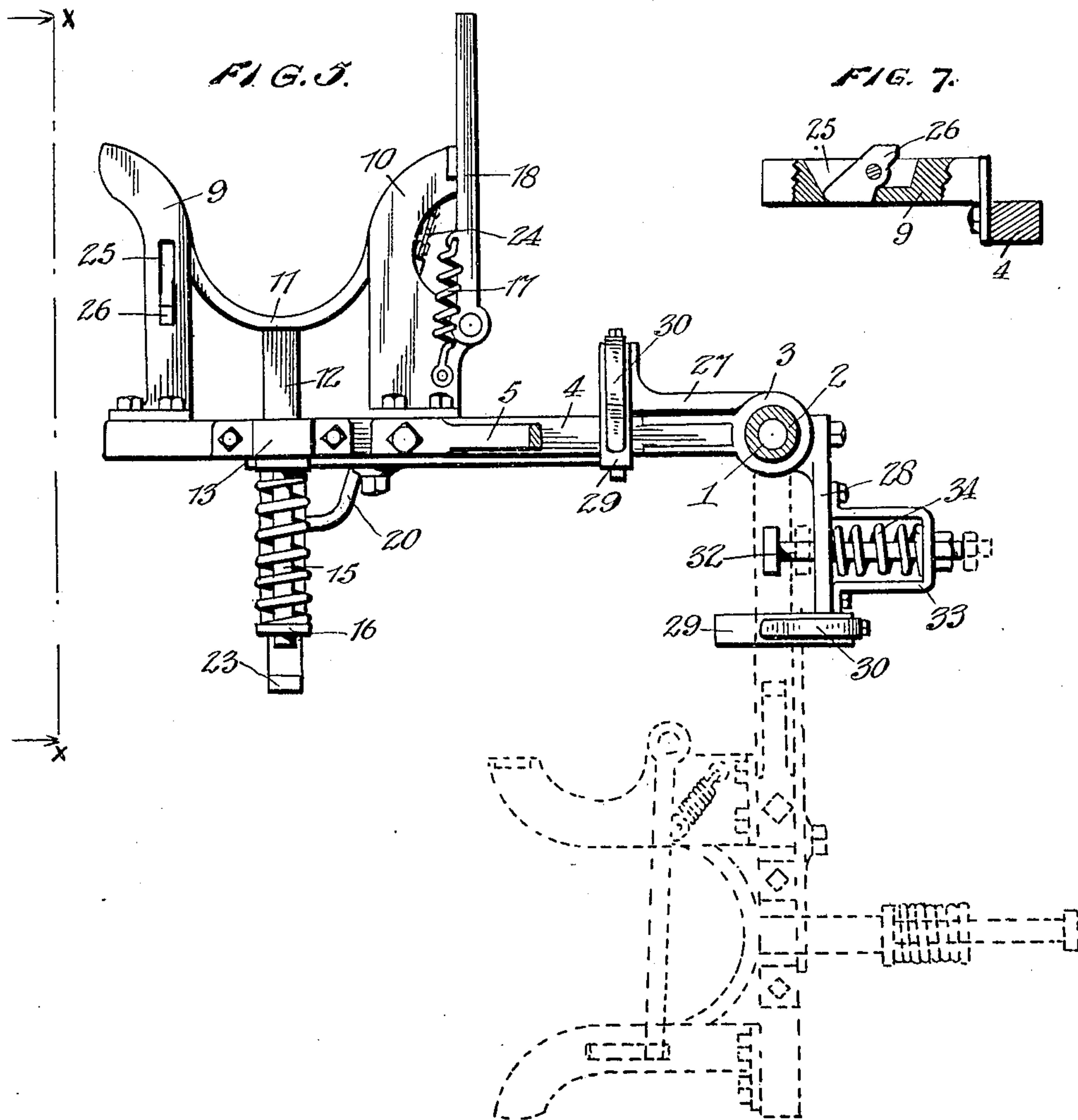
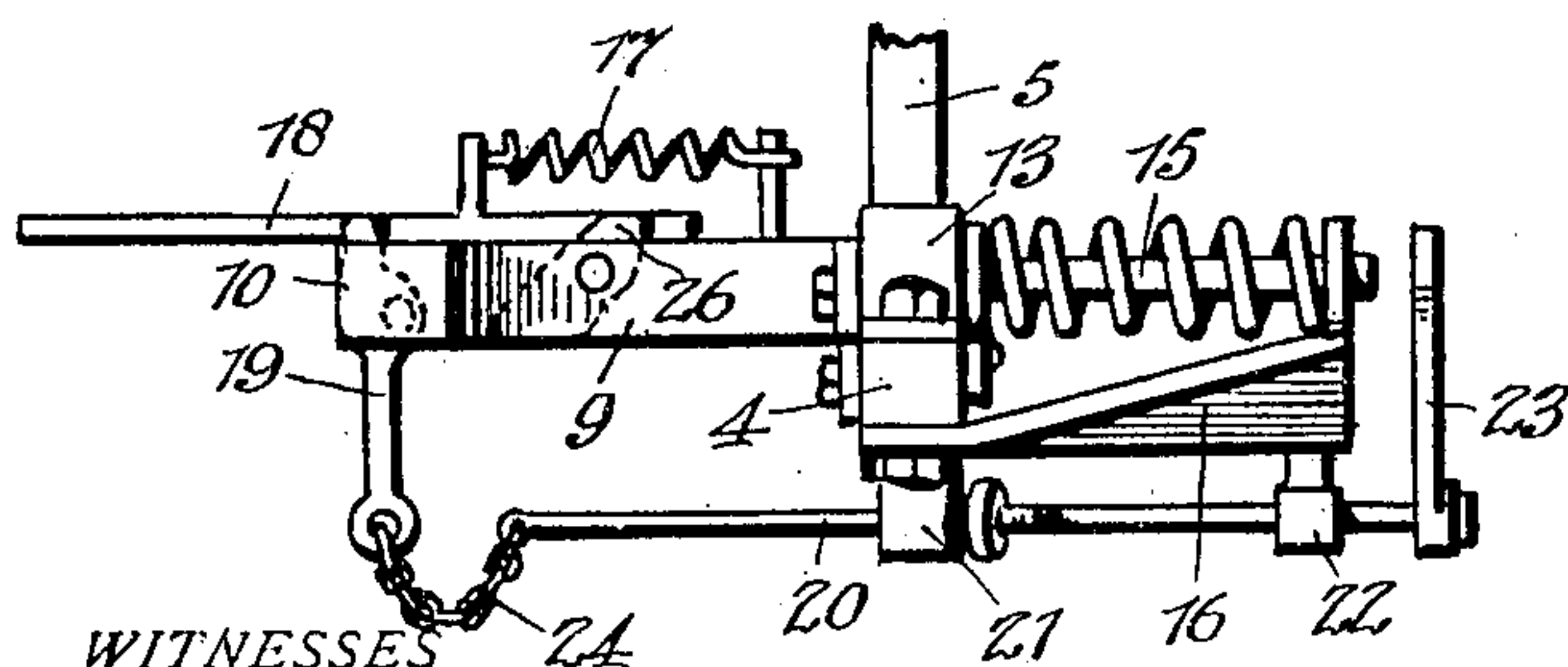


FIG. 6.



WITNESSES
Chas. A. Davis

Myron G. Clear

INVENTOR

Henry Moshier,
By O. L. Parker, Attorney

UNITED STATES PATENT OFFICE.

HENRY MOSHIER, OF LITTLE FALLS, NEW YORK.

MAIL-BAG-CATCHING CRANE.

No. 906,546.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed April 21, 1908. Serial No. 428,396.

To all whom it may concern:

Be it known that I, HENRY MOSHIER, citizen of the United States, residing at Little Falls, in the county of Herkimer and State of New York, have invented certain new and useful Improvements in Mail-Bag-Catching Cranes, of which the following is a specification.

My invention relates to mail bag catching cranes, and particularly to a crane adapted for stationary mounting beside railway tracks to receive the mail bag from a passing train, and the object thereof is to provide an automatically operating crane embodying a novel and simple arrangement of parts which will be unfailing in their practical operation.

Further objects and advantages of my invention will appear in the course of the following description, in which reference is made to the accompanying drawings, forming a part of this specification, in which like numerals are used to designate like parts throughout the several figures thereof, and in which,

Figure 1 is a side elevation of my entire apparatus. Fig. 2 is a fragmentary sectional detail, on an enlarged scale, illustrating the connection of the saddle bar with the latch bar, and taken on the line *a—*a** of Fig. 1. Fig. 3 is a fragmentary vertical sectional view taken through the upper extremity of the supporting post. Fig. 4 is a fragmentary elevation, partly in section, illustrating the hinge joint of the supporting post. Fig. 5 is a horizontal sectional plan view taken on the line *y—y* of Fig. 1. Fig. 6 is an end elevation of the crane arm and indicated by the line *x—x* of Fig. 5. Fig. 7 is a detail longitudinal sectional view taken through the outer one of the fork arms, and illustrating the lock for the clamping arm.

In the practical embodiment of my invention, I provide a hollowed tubular supporting post 1, having a reduced portion 2, shown in Fig. 5, about which a strap 3, extending from the inner end of the crane arm 4, is arranged in order to swingingly mount the said arm 4 upon the said post 1. The arm 4 is further supported by an inclined brace 5, secured thereto at one end and provided at its other end, with a sleeve portion 6, engaging about the bearing portion 7 of a screw plug 8 threaded into a closed upper end of the post 1. Adjacent its outer end, the crane arm 4 is provided with spaced curved arms 9 and 10, forming the bag receiving fork, as ordi-

narily used, and rigidly connected thereto. Mounted between said fork arms 9 and 10, is a semicircularly curved plate 11, constituting the saddle, for the reception of the mail bag thereagainst, and provided with a rearwardly projecting bar 12, slidably mounted through a bearing 13 upon said crane arm 4, at right angles to said arm. The rear end of the saddle bar 12, projecting slidably through the bar 13, is provided with an inclined lower face 14, and with a rearwardly projecting arm 15, extending through an aperture in a bracket 16, secured upon the crane arm 4, said arm 15 being provided with an encircling helical spring extending between the end of the saddle bar 12, and the said bracket 16, whereby the rearward movement of the saddle 11, is cushioned.

Pivotally mounted at its end upon the fork arm 10, to swing rearwardly by means of a coil spring 17, extending between the same and said bracket arm, is a clamping arm 18, normally locked upon said fork arm, by means of a pivot trigger 19, projecting above said arm, and adapted when released, to swing against the saddle 11, to clamp the mail bag therein. In order that the said clamping arm 18 may be released simultaneously with the rearward movement of the saddle 11, caused by the shock of the mail bag, I provide a longitudinal slidable operating arm 20, mounted through bearings 21 and 22, of the crane arm 4, and bracket 16 respectively, and provided rearwardly of said bracket with a vertically extending arm 23 extending in the path of movement of the extension arm 15 of the saddle bar 12, and adapted to be struck by said extension arm 15 in its rearward movement, to move the operating bar 20, connected to said trigger 19, by a chain 24. Thus, upon the longitudinal movement of the operating bar 20 and the actuation of the saddle bar 12, the trigger 19 will be rotated upon its pivot to release the clamping arm 18, which will thereupon swing rearwardly by means of its retractile spring 17, the position then being as shown in dotted lines in Fig. 5. In this position, the clamping bar 18 will lie transversely on and across the fork arms 9 and 10, the fork arm 9 being provided with a cut out portion 25, shown in Fig. 7, in which is eccentrically pivoted a swinging stop 26, maintaining its upper end above the level of said arm 9 by gravity and adapted to receive a hollowed clamping bar 18 in the rear of the

same, upon the swinging movement of said bar.

Below the horizontal level of the crane arm 4, and inclined upwardly and outwardly are latch brackets 27 and 28, rigidly secured to the supporting post 1 at their lower ends, and extending therefrom at right angles to one another. Each of the brackets 27 and 28 are provided with pivoted swinging latches 29, having leaf springs 30 to exert downward pressure upon the same. The crane arm 4 is mounted to swing between the latch brackets 27 and 28, as is plainly shown in Fig. 3, and said arm is adapted to be engaged by the latch 29, of either of the said brackets against which the same is pushed.

Mounted longitudinally along the rear face of the crane arm 4, and centrally pivoted thereon, is a latch bar 31, having its outer end beneath the rear end of the saddle bar 12, and having its inner end in circular alinement with the latches 29 of the brackets 27 and 28. Thus, if the crane arm 4, is locked against the bracket 27, as shown in Fig. 5, and as contemplated in the practical use of the apparatus, the rearward movement of the saddle bar 12, under the impetus of the mail bag, will engage the outer end of the latch bar 31 with its lower inclined face 14, and will oscillate the said latch bar upon its pivot to raise the latch 29 of the bracket 27, and allow the entire arm 4 and its mechanism previously described, to swing rearwardly to a position parallel with the railway tracks and against the bracket 28, to be engaged by its latch 29.

It will be readily understood that the swinging movement of the entire crane arm 4, as well as the rearward movement of the saddle bar 12, is caused by the impetus of the mail bag received thereagainst from a fast moving train.

In order to cushion the shock of the movement of the crane arm 4 against the bracket 28, I provide said bracket with a headed plunger 32, projecting at right angles therefrom, and through a supplemental bracket 33 within which is mounted a coil spring 34 surrounding said plunger 32 and having one end attached thereto and its other end against the said bracket 33.

In order that the foregoing apparatus may be readily set to an operative position to receive a mail bag, I provide the supporting post 1 with a hinge joint 35, at a suitable height, in order that the upper portion of the said supporting post may be swung downwardly upon the ground.

Having described my invention, I claim:
1. In a mail catching device of the character described, a supporting post, brackets extending therefrom, latches carried by said brackets, a crane arm mounted to swing between said brackets and to be engaged by either of said latches, guiding forks carried

by said arm, and a rearwardly movable saddle mounted between said forks to receive the mail bag thereagainst, and having connection with the latch holding said arm, to release the same, substantially as described.

2. In a mail bag catching device of the character described, a supporting frame, a bracket extending therefrom, a latch carried by said bracket, a crane arm mounted upon said supporting post, to swing away from said bracket and adapted to be engaged by said latch, a rearwardly movable bag receiving device carried by said arms, and having connection with said latch to release the same upon the movement thereof, and a second bracket extending from said supporting post to receive said arm thereagainst, and embodying a cushioning device, substantially as described.

3. In a mail bag catching crane of the character described, the combination of a slidable bar, having a curved plate upon one end thereof forming a saddle to receive the bag thereagainst, guiding arms mounted at the sides of said saddle, a swing clamping bar carried by one of said arms, a trigger for normally holding said bar away from said saddle, means actuated by the movement of said saddle to release said trigger and allow said clamping bar to swing thereagainst, substantially as described.

4. In a mail bag catching device of the character described, a supporting post, brackets extending therefrom, latches carried by said brackets, a crane arm mounted to swing between said brackets and to be engaged by said latches, guiding forks carried by said arm, and a rearwardly moving bag receiving device mounted between said forks to receive the mail bag thereagainst and having connection with the latch holding said arm, to release the same, substantially as described.

5. In a mail bag catching device of the character described, a supporting frame, a bracket extending therefrom, a latch carried by said bracket, a crane arm mounted upon said supporting frame to swing away from said bracket and adapted to be initially engaged by said latch, a rearwardly movable saddle mounted upon said arm to receive the mail bag thereagainst, and having connection with said latch to release the same, and a second bracket extending from said supporting frame to receive said arm thereagainst, and embodying a latch for holding said arm thereagainst and a cushioning device against which said arm impinges, substantially as described.

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

HENRY MOSHIER.

Witnesses:

PETER HARRIS,
EUGENE PEELER.