

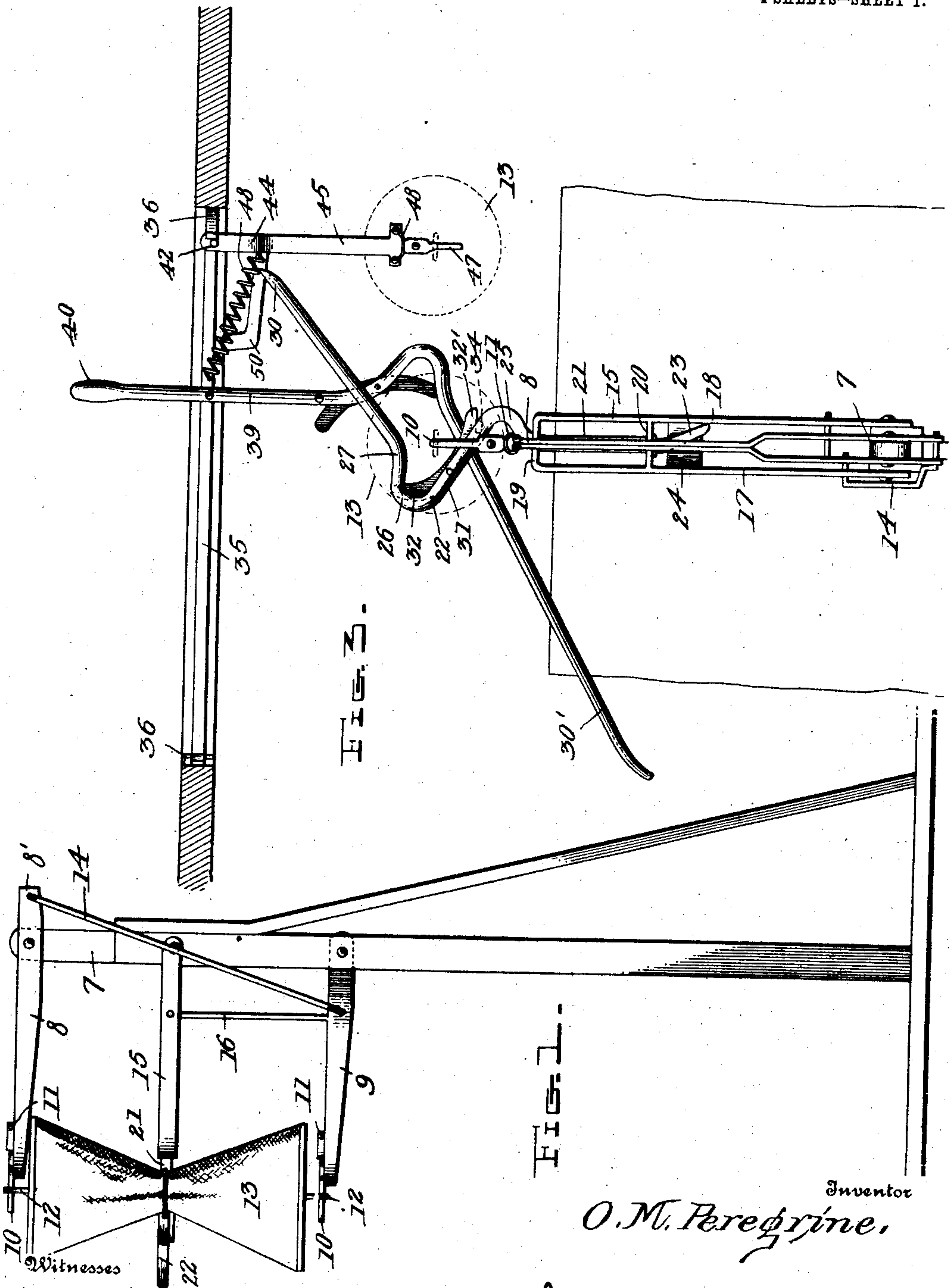
No. 874,116.

PATENTED DEC. 17, 1907.

O. M. PEREGRINE.
MAIL CATCHER AND CRANE.

APPLICATION FILED MAR. 11, 1907.

4 SHEETS—SHEET 1.



Witnesses

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FIG. 1.

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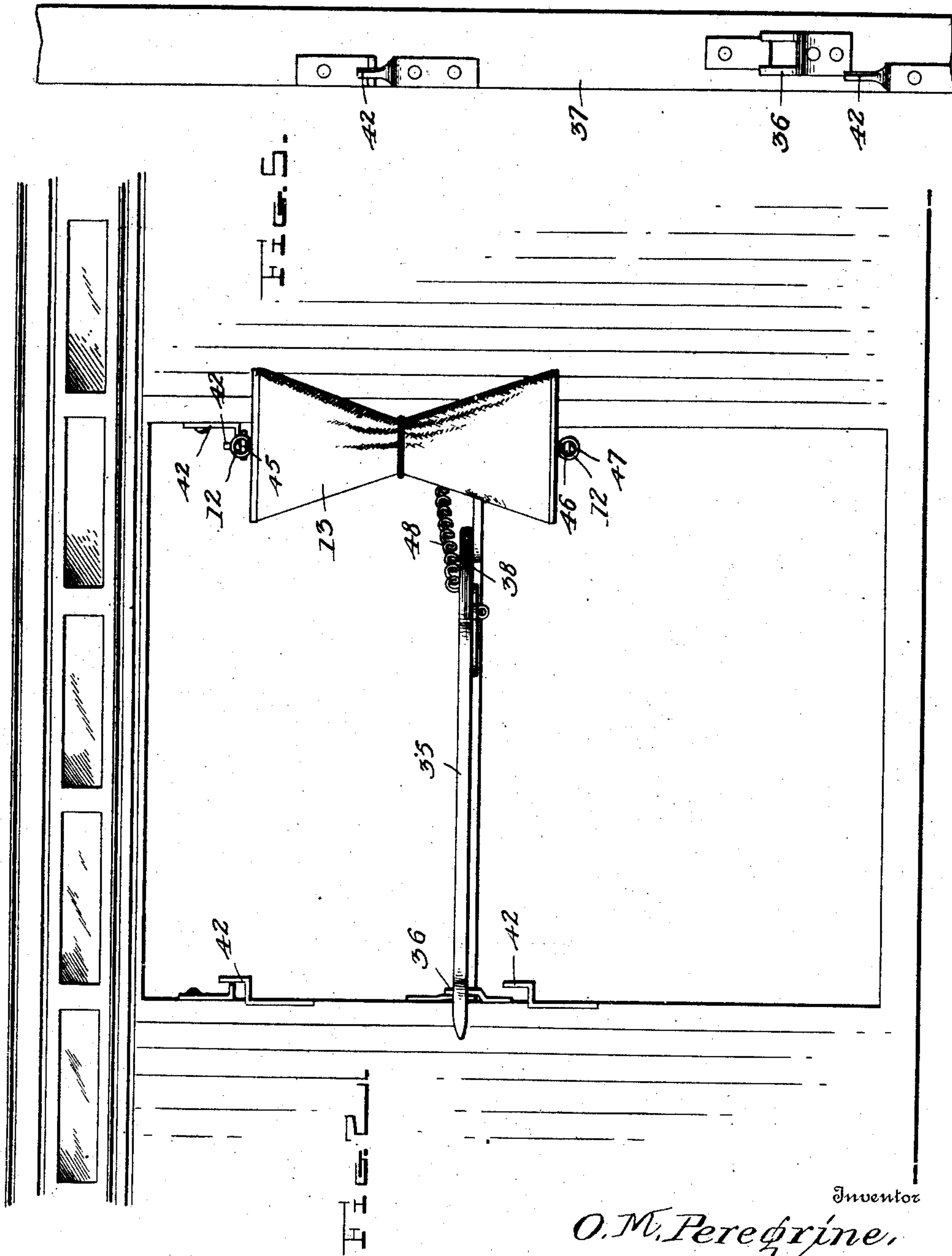
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4 SHEETS—SHEET 2.



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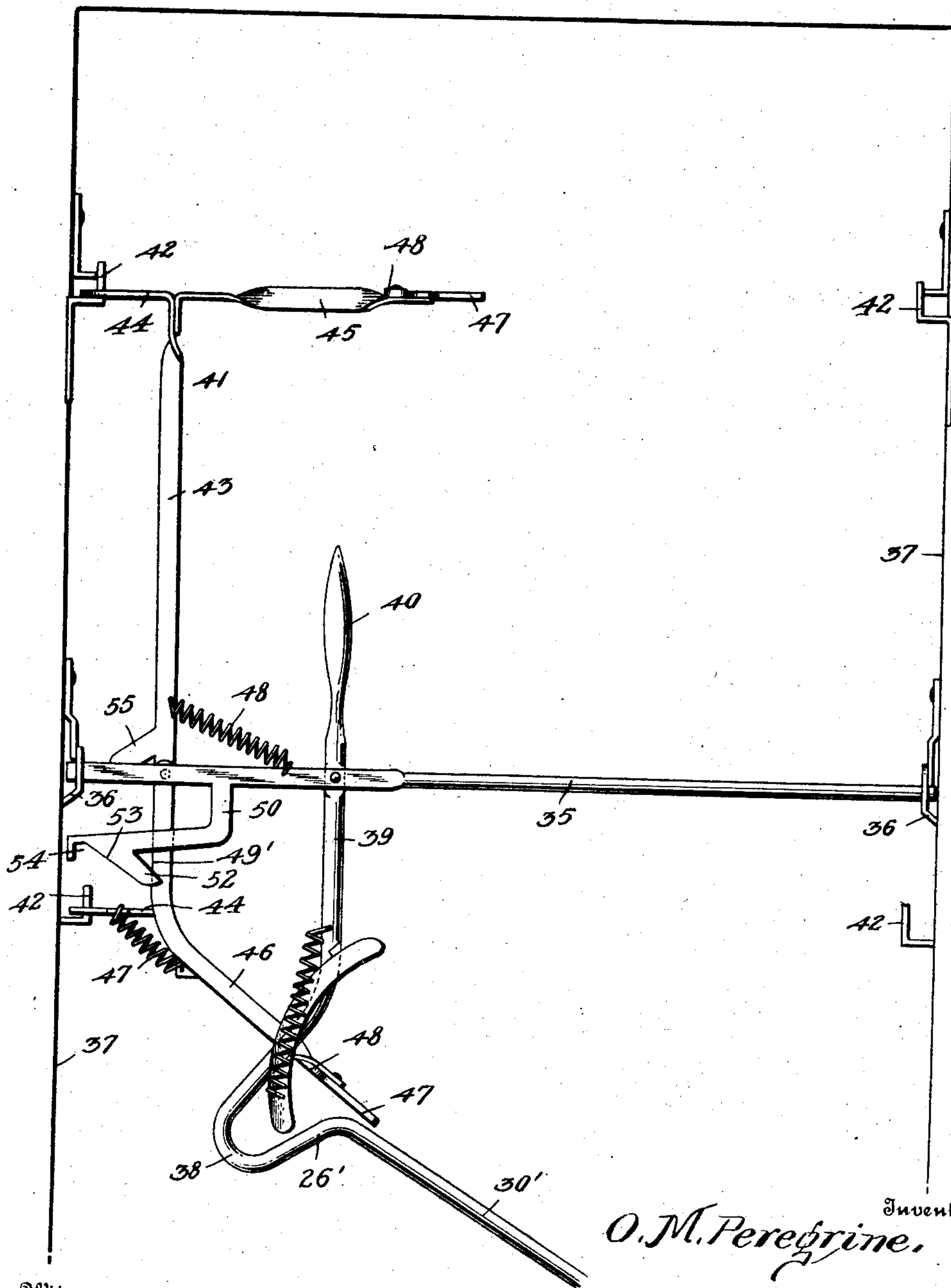
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4 SHEETS—SHEET 3.

Fig. 4.



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4 SHEETS—SHEET 4.

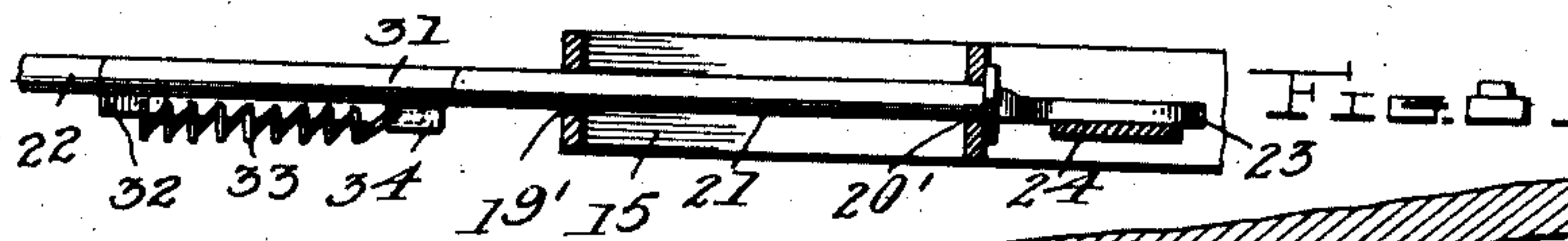


Fig. 7.

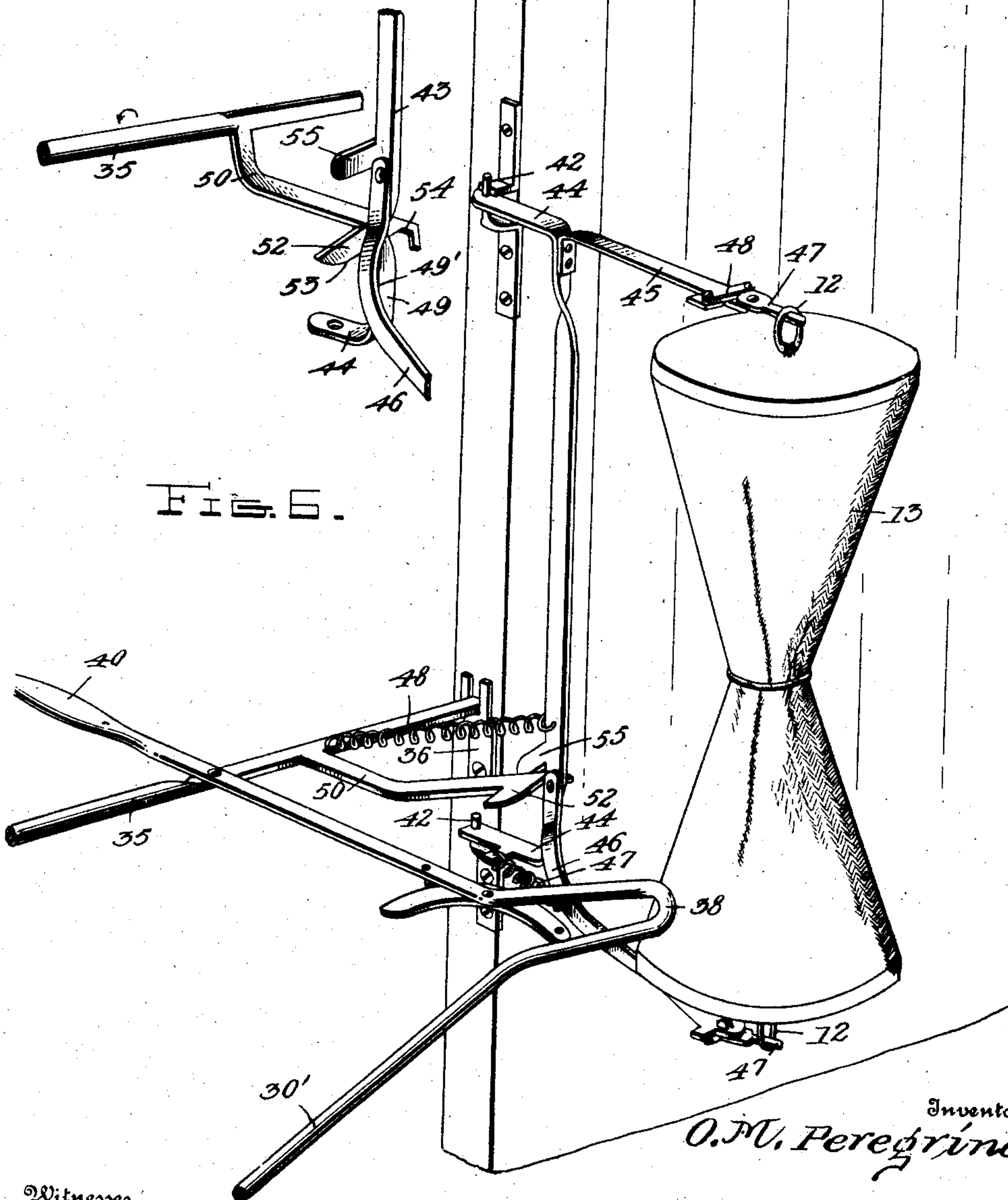


Fig. 6.

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UNITED STATES PATENT OFFICE.

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MAIL CATCHER AND CRANE.

No. 874,116.

Specification of Letters Patent.

Patented Dec. 17, 1907.

Application filed March 11, 1907. Serial No. 361,744.

To all whom it may concern:

Be it known that I, OREN M. PEREGRINE, a citizen of the United States, residing at McCoysburg, in the county of Jasper and State of Indiana, have invented certain new and useful Improvements in Mail Catchers and Cranes, of which the following is a specification.

This invention relates to mail catchers and deliverers and has for its object to provide apparatus of the kind including frame mechanism for location at the side of the track, and car mechanism, each of said mechanisms including individual catching and delivering means.

Another object is to provide catching and delivering mechanism in which one element thereof will be held in operative position by the other.

Another object is to provide car mechanism arranged to be easily shifted for use upon the car when moving in either direction.

Other objects and advantages will be apparent from the following description and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims, without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is an elevational view of the crane with a mail bag in position between the arms, Fig. 2 is an elevational view of a portion of a car provided with the present car mechanism, parts being shown in operative position, Fig. 3 is a top plan showing the correlation of the crane and car mechanism, Fig. 4 is a view of the car mechanism from the interior of the car, parts being shown out of operative position, Fig. 5 is a detail of one side of a door frame showing the arrangement permitting shifting of the car mechanism, Fig. 6 is a detail perspective view of a portion of the car mechanism showing part of the delivering frame and the frame moving arm of the shaft. Fig. 7 is a detail perspective. Fig. 8 is a detail section of the receiving arm of the crane.

Referring now to the drawings, the frame comprises an upright 7, suitably braced and having pivoted thereto a pair of forwardly extending upper and lower delivering arms 8 and 9 respectively arranged for vertical movement. Fingers 10 are pivoted to the forward

ends of these arms for movement into and out of alinement therewith and are held yieldably in such alinement by means of springs 11. These fingers are thus arranged for engagement in end loops 12 carried by a mail bag 13, and it will be seen that when a bag thus engaged is caught by the mechanism of a car, the fingers will move upon their pivots to release the bag. When the bag is disengaged from the arms, the lower arm 9 will fall as will be readily understood and to move the upper arm 8 upwardly at the same time, a rod 14 has one end pivotally engaged in the arm 9 and its other end similarly engaged in a portion 8' of the arm 8 which extends rearwardly beyond the upright 7.

Between the arms 8 and 9, a catching arm 15 is pivoted to the upright for vertical movement and when in operative position extends horizontally. A rod 16 is pivoted to this catching arm 15 and extends downwardly to the arm 9, in which it is pivotally engaged, so that the arms 15 and 9 are moved simultaneously and thus the catching arm is held in operative position by the arm 9 and through engagement of a mail bag with the delivering arms 8 and 9.

The catching arm 15 includes side members 17 and 18, connected at their outer ends by means of a bight 19. A cross brace 20 is secured between the side members 17 and 18 in spaced relation to the bight and this cross brace and the bight are provided with registering openings 20' and 19' respectively, which receive the shank 21 of a catching hook 22. The inner end of this shank is turned laterally as shown at 23 and a stop member 24 is secured between the side members 17 and 18 in position to receive this laterally turned portion 23 thereupon, and while the shank 21 is revolubly engaged in the openings 19' and 20', this stop member and the laterally turned portion 23 cooperate to limit the rotation of the shank to a one-half turn, as will be understood.

For convenience, the term "forwardly" will be used in the description of the crane, to indicate the direction from which a train approaches the crane, and the term "rearwardly" will be used to indicate the opposite direction or that in which such a train is moving.

Outwardly of the bight 19 the catching hook is curved forwardly as shown at 25 and is then bent to form a rearwardly and out-

wardly inclined yoke 26, the outer leg 27 of which is extended and bent to form an outwardly and forwardly extending bag-engaging finger 30. The inner leg of the yoke 26 is indicated at 31 and pivoted thereto between its ends there is a latch 32. This latch includes a forward portion 32' and a rearward portion 32'' and the latch may be moved upon its pivot to bring either of its portions into position to extend across the yoke 26.

A spring 33 is secured to the rearward portion of the latch and to a stop 34 carried by the inner leg 31 of the yoke. The arrangement of this spring is such that when the rearward portion of the latch is moved to extend across the yoke, the spring lies at a side of the pivot point of the latch to hold the latter with its forward portion against the stop 34. When the latch is moved to bring its forward portion across the yoke the spring lies at the opposite side of the pivot point of the latch and holds the latch in position to retain a mail bag within the yoke. As shown, the bag 13 lies within the bend at the union of the forwardly curved portion 25 of the hook and the inner leg 31 of the yoke.

It will be understood that the catching hook is to be used to receive the mail bags from passing trains and it will be seen that a bag entering the yoke 26 when the rearward portion of the latch is in position to extend across the yoke, will engage this portion of the latch and move it sufficiently to bring the spring to the opposite side of the pivot point of the latch, when it will operate to move the forward portion of the latch into position to prevent disengagement of the bag from the yoke.

The car mechanism includes a horizontal shaft 35 revolubly mounted at its ends in brackets 36 secured to the sides of the door frame 37 of the car. The shaft is movably engaged in these brackets so that it may be shifted end for end.

A catching hook 38 has its shank 39 secured to the shaft 35 transversely thereof and extends oppositely therebeyond to form a handle 40 at one side of the shaft. The catching hook is similar to that described in connection with the frame and has the outer leg of its yoke 26' extended to form a bag-engaging finger 30'. This catching hook is also provided with the bag retaining latch as already described. By means of the handle 40, the shaft 35 may be moved to project the catching hook outwardly from the car, though its weight maintains it normally in downwardly extending position.

A delivering frame 41 is hinged to one side of the door frame upon pivots 42, similar pivots being carried by the opposite side of the frame in order that the delivering frame may be shifted from side to side of the door.

The delivering frame includes an upright 43 having its end portions bent at right-an-

gles thereto in a common direction. The upright is formed of a flat metallic bar and adjacent to the laterally bent portions it is given a half-turn to cause its central portion to extend at right angles to its end portions and its laterally bent portions thus occupy horizontal planes and are perforated to receive the pintles 42, the laterally bent portions being indicated at 44. The horizontally extending rigid arm 45 is secured to the upper end of the upright 43 and extends outwardly therefrom, and an arm 46 is pivoted to the lower portion of the upright for movement vertically into and out of parallel relations with the arm 45. A spring 47 is arranged to hold this arm 46 yieldably at the downward limit of its movement, and each arm has a bag receiving finger 47 pivoted to its outer end for horizontal movement into and out of alinement with the arm, springs 48 being arranged to hold these fingers yieldably in such alinement, and it will be understood that the fingers are adapted for engagement in the end loops of a mail bag which will thus extend between the arms, holding the arm 46 against the action of the spring 47.

A spring 48 is secured to the upright 43 and to the shaft 35, this spring being detachably connected with the upright, and the frame 41 is thus held yieldably at the inward limit of its movement and out of operative position. As stated in the foregoing, the end portions of the upright are turned to lie at right angles to the center portion thereof, and the lower of these end portions is indicated at 49, the arrangement being such that when the frame is out of operative position this portion 49 lies with an edge 49' directed inwardly in the direction of the shaft 35.

An angular arm 50 is secured to the shaft 35 in the plane of the hook 38 and includes a portion 51 extending parallel with and in spaced relation to the shaft and transversely of the upright 41. A finger 52 is carried by this portion 51, extending at an acute angle thereto in the direction of the catching hook and this finger thus presents a diagonal outer edge 53 which is disposed for engagement of the edge 49' of the portion 49 of the upright 43, the arrangement being such that when the shaft 35 is moved to bring the catching hook into horizontal position, the finger 52 will engage this portion of the upright to move the delivering frame into operative position. A notch 54 is formed in the free extremity of the arm 50 and is located to receive the edge of the upright 43 therein above the portion 49 of the upright when the frame 41 has been moved into operative position. A stop 55 is carried by the upright 43 and is arranged to limit the upward movement of the arm 50 and thus means is carried by the delivering frame for limiting the

movement of the catching hook and means is connected with the catching hook for limiting the movement of the delivering frame.

It is thought that the co-relation of the crane and car mechanisms will be understood from Fig. 3 of the drawings, without detailed description.

What is claimed is:—

1. A mail crane comprising a support, vertically spaced delivering arms pivoted to the support for vertical movement into and out of operative position, connection between the arms for simultaneous movement thereof out of operative position, catching means pivoted to the support for movement into and out of operative position, and means for moving the catching means into operative position when the delivering arms are moved into operative position.

2. In a mail crane, the combination with delivering means movable into and out of operative position, of catching means movable into and out of operative position, said catching means lying normally out of operative position, and means connected with the delivering means for holding the catching means in operative position when the delivering means is in such position.

3. In a mail catching device, the combination with an arm including spaced members, of spaced connecting pieces for the members, a catching hook having a shank revolubly engaged with the connecting pieces, a lateral projection carried by the shank and a stop

arranged for engagement by the projection to limit the rotation of the shank in both directions.

4. In a mail catching and delivering mechanism, the combination with a delivering frame mounted for movement into and out of operative position, of a revoluble shaft, a catching member carried by the shaft for movement therewith into and out of operative position, means carried by the shaft and arranged for engagement of the frame for movement therewith into operative position when the shaft is moved in one direction, and means for holding the frame yieldably out of operative position.

5. A mail catching hook including a yoke, a latch pivoted between its ends to one of the legs of the yoke for movement to bring either of its end portions into position to extend across the yoke, a stop carried by one leg of the yoke and arranged to receive one end of the latch thereagainst to limit its movement in one direction, and a spring secured to the other end of the latch and the stop, said spring being arranged to lie at times at one side of the pivot point of the latch and at times at the opposite side thereof.

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

OREN M. PEREGRINE.

Witnesses:

C. E. PEREGRINE,

U. M. BAUGHMAN.