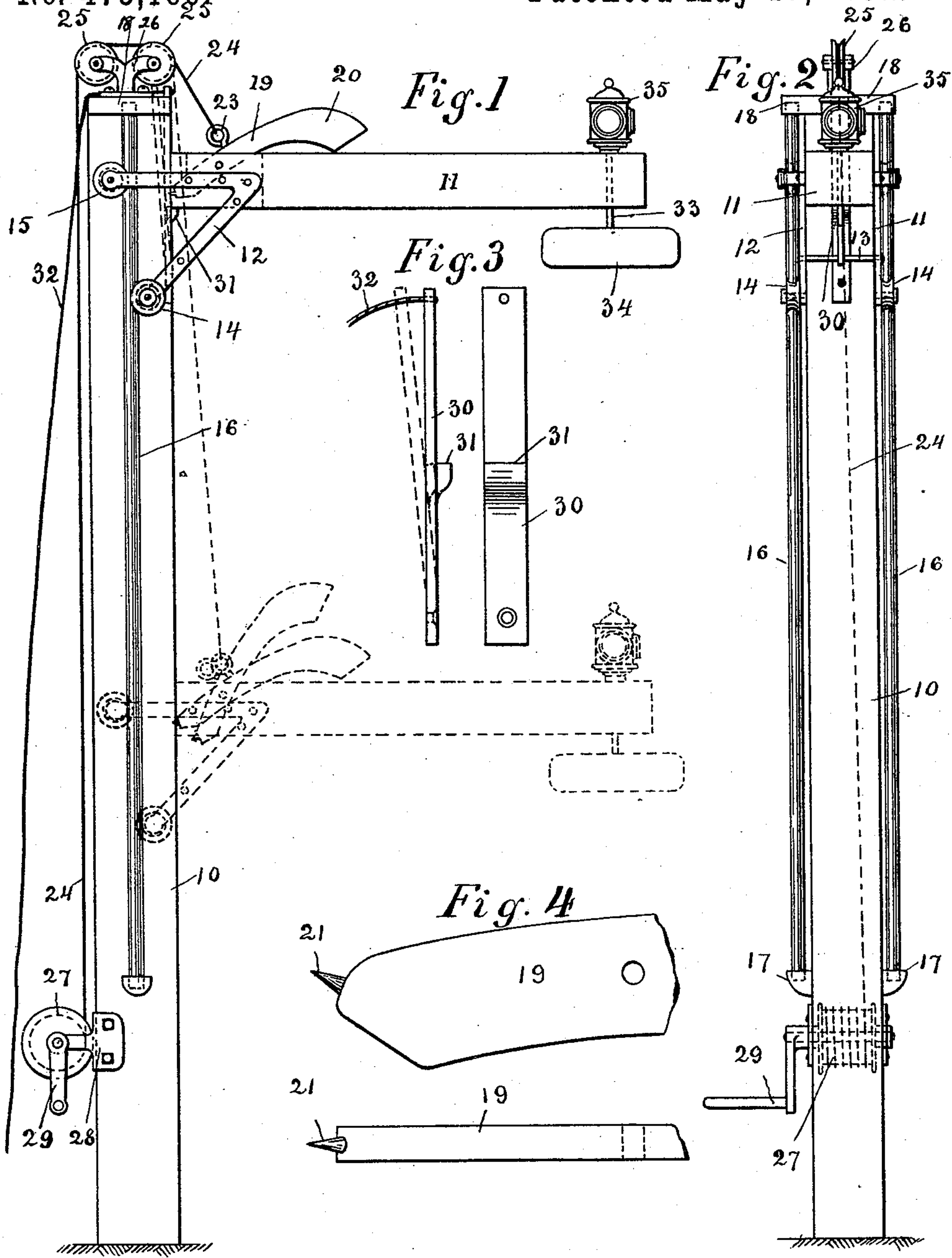


(No Model.)

C. M. STANLEY.
RAILWAY SIGNAL.

No. 475,166

Patented May 17, 1892.



WITNESSES:
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COLON M. STANLEY, OF MONTEZUMA, GEORGIA.

RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 475,166, dated May 17, 1892.

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To all whom it may concern:

Be it known that I, COLON M. STANLEY, of Montezuma, in the county of Macon and State of Georgia, have invented a new and Improved Railroad-Signal, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of railroad-signals in which a signal-arm is secured to a vertical post, so as to display the signal in the manner to have it readily seen by the engineer of a passing train. Where these arms are held in a fixed position it necessitates a certain amount of climbing to fill the signal-lamp and adjust the mechanism on the signal, and sometimes the signal-man neglects to do this, owing to the amount of labor involved, and the lamps burn out and an accident ensues.

The object of my invention is to obviate these difficulties and provide means for easily raising and lowering the signal-arm, so that the lantern may be filled without difficulty; and a further object of my invention is to construct the device in such a way that the arm cannot be accidentally dropped.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

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

Figure 1 is a side elevation of the entire device, showing the signal-arm in a raised position. Fig. 2 is a front elevation of the apparatus. Fig. 3 is a detail front and side elevation of the spring-catch which holds the signal-arm in place, and Fig. 4 is a broken side elevation and plan of the safety-latch which prevents the accidental dropping of the arm.

The vertical signal-post 10 is erected alongside of the track, and on this post is a projecting arm 11, which extends over the track, so that the signal which it carries may be easily seen by the engineer. The inner end of this arm is secured in an angular frame having similar side pieces 12, which are securely fastened to the arm on opposite sides thereof, so that the free ends of the frame will be on opposite sides of the post 10, and the

side pieces of the frame are braced by a cross-rod 13.

Mounted on the free ends of the angular frame are grooved wheels 14 and 15, which are arranged in pairs, as shown in Figs. 1 and 2, and in different vertical planes, the wheels being adapted to run upon the vertical track-rods 16, and the lower wheels 14 press upon the front sides of the rods, while the upper wheels 15 press upon the back sides of the rods, and consequently they serve to hold the arm 11 in a perfectly level position. The track-rods 16 on which the wheels run are arranged in a parallel position, the lower ends of the rods being supported in brackets 17, which are secured to the post 10 near the base of the same, and the upper ends of the rods are secured to the top plate 18 of the post. The inner end of the arm 11 is recessed, and pivoted in this recess is a safety-catch 19, which consists of the lever having a weighted end 20, which extends outward over the arm 11, and the weighted end of the lever will normally drop and cause the lower end to impinge against the front of the post 10, and this lower end is provided with a projecting brad 21, adapted to enter the post.

On the upper side of the catch 19 is an eye 23, to which a cable 24 is secured, and the cable passes upward and outward over guide-pulleys 25, which are secured in a bracket 26 on the top of the post, and from thence the cable extends downward along the back of post and is secured to a revoluble drum 27, which is mounted in a bracket 28 and turned by a crank 29. It will thus be seen that by turning the drum so as to wind the cable thereon the catch 19 and arm 11 will be raised, and by allowing the drum to unwind the arm will drop by gravity.

On the front side of the post 10 and near the top is a flat spring 30, which is adapted to spring back into a recess in the post, as indicated by dotted lines in Fig. 1, and this spring has on its front side a shoulder 31, which is adapted to spring beneath the arm 11, and thus hold the arm in an elevated position. The spring has a cord or cable 32 secured to its upper or free end, which cable extends outward over the top of the post and downward to a point where it may be con-

veniently reached, and by pulling on this cord the spring is retracted, so as to draw the shoulder 31 from beneath the arm 11 and permit the arm to drop.

5 In the outer end of the arm 11 is a vertical rod 33, having the usual signal-board 34 at the lower end and the signal-lantern 35 at the upper end, the lantern and board serving to indicate "danger" or "safety," according to
10 their position on the arm, and any sort of a signaling apparatus may be supported on the arm. When the arm is to be lowered for any reason, the operator pulls upon the cord 32, so as to release the arm, and he permits the
15 drum 27 to turn in order that the cable 24 may be unwound, and the arm will drop by gravity, the grooved wheels 14 and 15, in connection with the track-rods 16, serving to guide the arm on an even course to the ground.
20 If the cable 24 should break, however, the weighted end 20 of the catch 19 would cause the inner end of the catch to be thrown inward, so that the spur or brad 21 would engage the front of the post 10 and the arm
25 would be stopped, so that neither it nor the apparatus upon it would be injured. To raise the arm, one merely turns the drum 27, so as to wind the cable 24 thereon, and this pulls the arm upward, and when the arm passes
30 the shoulder 31 the spring 30 will cause the shoulder to immediately spring out beneath the arm and thus support it in a raised position.

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

40 1. A railroad-signal comprising a vertical post, a projecting arm mounted on the post and held to move vertically thereon, a signaling device carried by the arm, and a drum-and-cable mechanism for hoisting the arm, substantially as described.

2. A railroad-signal comprising a vertical post, a projecting arm held to move vertically on the post and adapted to carry a signaling device, a drum-and-cable mechanism for raising the arm, a spring-catch for supporting the arm, and a device for releasing the catch, substantially as described.

3. A railroad-signal comprising a vertical post having vertical track-rods thereon, a projecting arm mounted on the post and adapted to carry a signaling device, a frame secured to the arm and having wheels adapted to run upon the track-rods, a crank-operated drum mounted on the post near the base, and a cable connecting with the drum and arm and extending over guide-pulleys on the top of the post, substantially as described.

4. The combination, with the post and the sliding arm held to move vertically thereon, of a spring secured in the recess of the post and provided with a shoulder to slip beneath the arm, and a cord secured to the free end of the spring and extending downward to the ground, substantially as described.

5. The combination, with the post and the sliding arm thereon, of a weighted lever pivoted in the arm and having a brad at one end adapted to enter the post, substantially as described.

6. The combination, with the vertical post, the sliding arm thereon, and the crank-operated drum mounted on the post, of a weighted lever pivoted in the arm and having at one end a brad to engage the post, and a cable connecting the drum and weighted lever, said cable extending over the guide-pulleys on the top of the post, substantially as described.

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Witnesses:

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