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E. E. SAPPENFIELD.

TRAIN ORDER DELIVERY APPARATUS.

APPLICATION FILED NOV. 14, 1907.

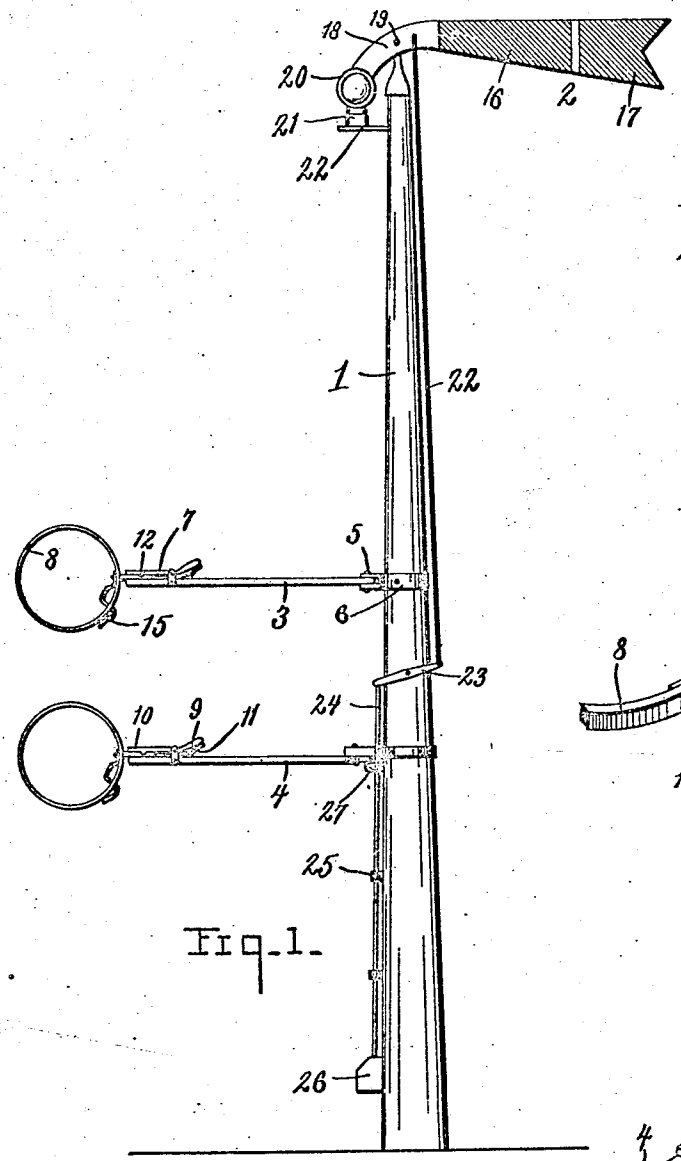

Fig. 1.

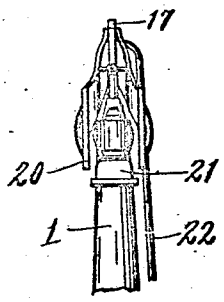

Fig. 3.

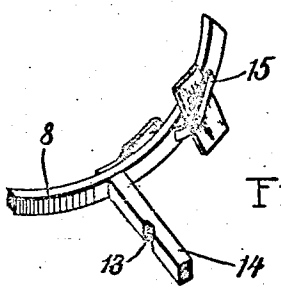

Fig. 4.

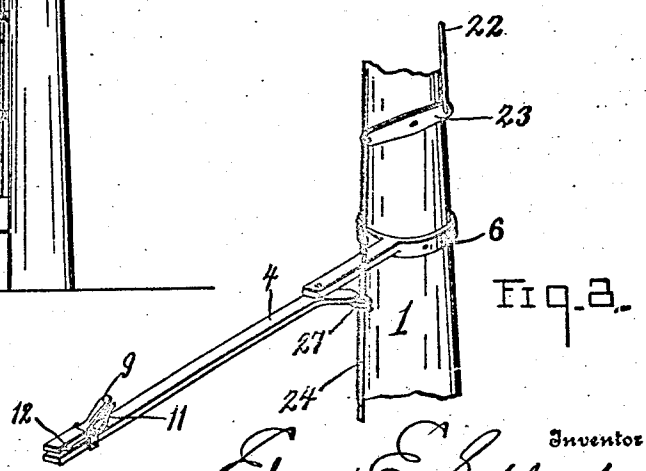

Fig. 2.

Witnesses

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EDGAR E. SAPPENFIELD, OF WAVELAND, INDIANA.

TRAIN-ORDER-DELIVERY APPARATUS.

No. 895,307. Specification of Letters Patent. Patented Aug. 4, 1908.

Application filed November 14, 1907. Serial No. 402,166.

To all whom it may concern:

Be it known that I, EDGAR E. SAPPENFIELD, a citizen of the United States, residing at Waveland, in the county of Montgomery and State of Indiana, have invented certain new and useful Improvements in Train-Order-Delivery Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to apparatus for delivering orders to moving trains and consists of the novel features of construction and the combination and arrangement of devices hereinafter described and claimed.

One object of the invention is to provide a simple, practical and inexpensive apparatus of this character by means of which train orders may be delivered to the engineers and conductors of rapidly moving trains without danger of injury to the train men or telegraph operators.

Another object of the invention is to provide a delivery apparatus of this character with an indicating mechanism that will notify the train men that an order is in readiness for them and also indicate to the engineer that the order or orders have been received.

The above and other objects which will appear as the nature of the invention is better understood, are attained in the preferred embodiment of the same illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of my improved train order delivery apparatus; Fig. 2 is a perspective view of one of the train order supporting arms and its co-acting parts; Fig. 3 is a front elevation of the upper end of the post showing the signaling or indicating device; and Fig. 4 is a detail perspective of the train order holder.

The invention comprises an upright or post 1 adapted to be mounted a suitable distance from the track and adapted to carry at its top a signaling or indicating device 2 and adjacent to its lower portion one or more arms 3, 4, from which may be supported the train orders. I preferably employ two of said arms as shown and arrange them at different elevations so that on the upper one may be supported the orders for the engineer and on the lower one the orders for the conductor. These arms are similar in construction and are mounted for horizontal swinging movement in either direction, being arranged upon vertical pivots 5 in brackets or supports 6 upon the post 1. At the outer end of each arm is provided a spring catch 7 adapted to retain a train order holder 8 upon it. Each of the catches 7 comprises a lever pivoted intermediate its ends and having a finger piece 9 at one end and a jaw 10 at its opposite end. A spring 11 actuates the lever to cause the jaw 10 to be pressed downwardly upon the outer end of the arm and upon the jaw is a rib 12 adapted to enter a seat or notch 13 formed in an arm or projection 14 on the train order holder 8. The latter is in the form of a ring or loop of resilient wire or metal and has the arm 14 projecting radially from it. The train order is attached to the ring by inserting it beneath a spring clasp 15 which may be of any suitable form and construction but which, as clearly shown in Fig. 4, is in the form of a resilient metal strip or spring having its central portion passed through and slidable in a transverse aperture in the ring, the inner end of the spring being bent as shown and attached to the inner face of the ring and the outer end of said spring being shaped to provide a spring jaw which presses against the outer face of the ring and is adapted to receive a train order or message as seen in Fig. 4. It will be seen that when the holders 8 have their arms 14 placed upon the top of the ends of the arms 3, 4, and beneath the jaws 10 of the spring catches 7, the rings will be supported in a vertical position so that they may be readily picked up by hooks or other suitable catching devices arranged upon the locomotive and cars or manipulated by the engineer or conductor in any suitable manner. As the rings or holders 8 are caught the arms 14 slip from beneath the catches 7 and the arms 3, 4, swing around to one side of the post and out of the way.

In order to indicate to the engineer, conductor or train crew that a train order is to be delivered to them and also to indicate to the engineer that the train order or orders have been received I provide the indicating device 2 which is preferably in the form of a semaphore arm 16 consisting of a blade 17 projecting from one end of a head 18 which is pivoted intermediate its ends at 19 upon the top of the post 1 and has its other end forked to provide two arms 20 in which are arranged colored glasses or lenses adapted to be moved into and out of alinement with the lenses of a lamp 21. This lamp may be of any suitable form and construction and is preferably

mounted on a support 22 on the post, being so positioned that when the blade or arm 17 is horizontal the colored glasses in the arms 20 are in alinement with the lenses in the opposite sides of the lamp and when said blade drops to a vertical position by gravity said glasses will be elevated to uncover the lenses of the lamp. The blade 17 and the glasses in the arms 20 are preferably colored green. This indicating or signaling device is operated by a rod 22 connected at its upper end to the head 18 and having its lower end connected to a lever 23 pivoted intermediate its ends upon the post 1 and having its other end connected by a rod 24 mounted for sliding movement in suitable guides 25 upon the lower portion of the post. Upon the lower end of the rod 24 is a foot piece 26 which when depressed will actuate the lever 23 and cause the rod 22 to swing the semaphore signaling arm upwardly to a horizontal position. In order to retain the signal in its horizontal set position I provide a shoulder 27 upon the rod 26 in such position as to permit the inner end of the arm 4 to be swung into its path and to hold the rod 24 in a depressed position. These parts are so constructed that when the arm 4 projects at right angles to the track its inner end is disposed above the shoulder 27 and serves to support the signal in its set position, and when the train order holder 8 is pulled off of the arm 4 and the latter swings in either direction its inner end disengages the shoulder 27 and permits the signaling or indicating arm to drop by gravity to its inoperative or vertical position.

In operation the telegraph operator or person at the station places the orders for the engineer and conductor in the clasps 15 of the holders 8 and then places the latter on the arms 3, 4, as above explained. The arm 3 which supports the orders for the engineer is then swung at right angles to the track so that the holder which it supports will be in the path of the hook or catching device upon the locomotive. The foot piece 26 is then depressed to swing the indicating arm 16 to a horizontal or operative position and the arm 4 is then swung at right angles to the track so that its inner end engages the shoulder 27 and serves to retain the rod 24 in its lowered position. As the train passes the holders are caught by the hooks or devices upon the locomotive and car and the arms 3, 4, are swung around to one side, the arm 4 in being thus operated releases the rod 24 and the signaling or indicating arm 16 drops to a vertical position and notifies the engineer that the train orders have been received by the conductor. It will be understood that the blade 17 serves as a signal or indicator during the day and when in a horizontal position notifies the train crew that there is a train order for them. The lamp 2 is used at night and a green light indicates that there is a train order to be delivered.

Having thus described my invention what I claim is:

1. A train order delivery apparatus comprising a post or support, an indicating device adapted to drop by gravity to an inoperative position, a rod for operating said device and provided with a shoulder, and a horizontally swinging train order supporting arm adapted to engage said shoulder to retain the indicating device in an operative or set position.

2. A train order delivery apparatus comprising a post, an indicating arm pivoted thereon and having a blade and a lens, a light in the path of said lens, a lever pivoted intermediate its ends to the post, a rod connecting the lever and the indicating device, a slidably mounted operating rod connected to the other end of the lever and provided with a shoulder, and a horizontally swinging train order supporting arm movable into and out of the path of said shoulder, substantially as described.

3. A train order delivery apparatus comprising a post or support, an indicating arm pivoted thereon and having a blade and a lens, said arm being adapted to drop by gravity to an inoperative position, a light in the path of said lens and a swinging train order supporting arm or member for holding the indicating arm in a set position.

4. A train order delivery apparatus comprising a post or support, an indicating device gravity actuated to an inoperative position and a horizontally swinging train order supporting arm or member arranged upon a vertical pivot for holding the indicating device in an operative or set position.

5. A train order delivery apparatus comprising a post or support, a horizontally swinging arm thereon, a longitudinally extending spring actuated catch pivoted upon said arm and formed upon its inner face with a rib, and a train order carrying ring provided with a projection to enter between said arm and said catch and formed with a groove to receive the rib on the catch.

6. A train order carrying ring formed with an aperture, and a train order holding spring passed through said aperture and slidable therein, one end of the spring being secured to the ring and its other end being free to provide a spring jaw.

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

EDGAR E. SAPPENFIELD.

Witnesses:
J. V. GARLAND,
G. W. SAPPENFIELD.