(No Model.)

J. W. RAYNOR.

TORPEDO SETTER.

No. 537,359. Patented Apr. 9, 1895.

Fig. 1.

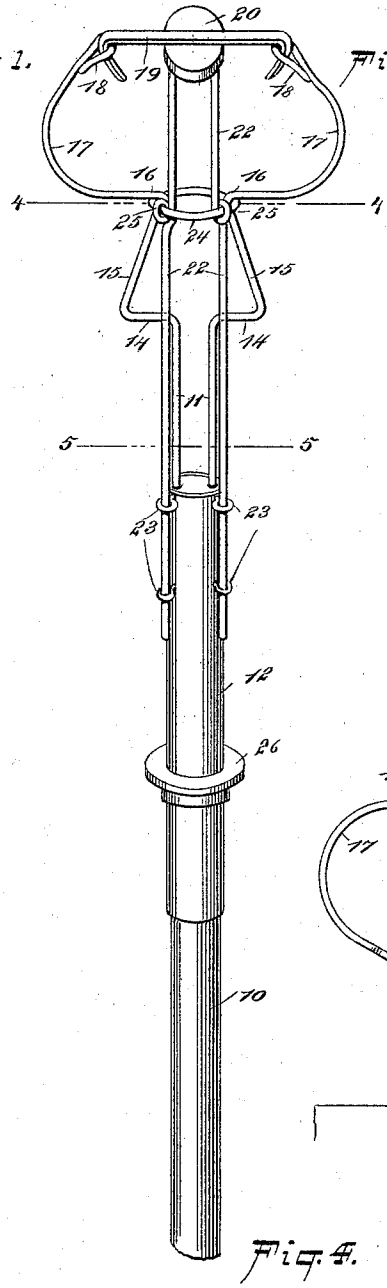


Fig. 2.

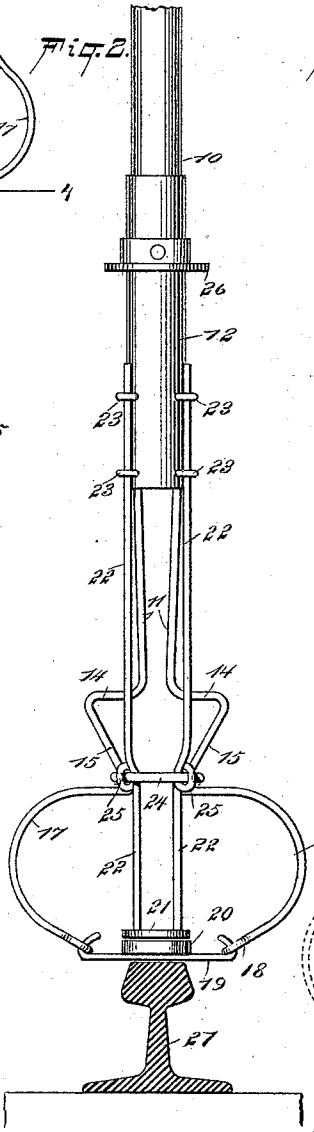


Fig. 3.

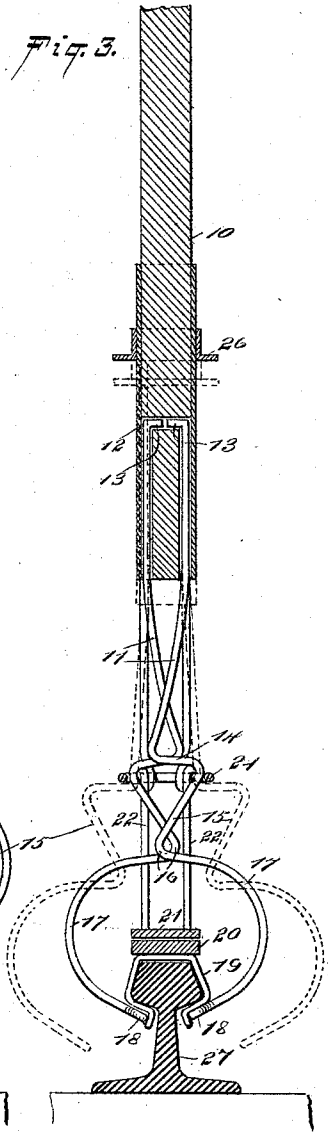


Fig. 4.

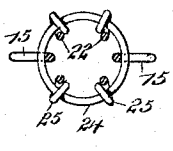
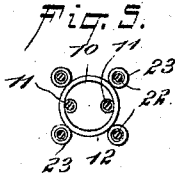


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN W. RAYNOR, OF SEDALIA, MISSOURI, ASSIGNOR TO HIMSELF AND CHARLES E. WHITNEY, OF SAME PLACE.

TORPEDO-SETTER.

SPECIFICATION forming part of Letters Patent No. 537,359, dated April 9, 1895.

Application filed December 5, 1894. Serial No. 530,867. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. RAYNOR, of Sedalia, in the county of Pettis and State of Missouri, have invented a new and Improved Torpedo-Setter, of which the following is a full, clear, and exact description.

My invention relates to improvements in torpedo setters such as are adapted for use in fastening railroad torpedoes to the track rails.

The object of my invention is to produce a device which enables a torpedo of any ordinary construction to be instantly and firmly attached to a rail, and further, to produce a simple and easily operated device which may be operated from a rapidly moving train to fasten a torpedo to the rail, so that in case there is no time to stop the train and work any ordinary signal and fasten a torpedo by hand, or if for any other reason it is desirable to instantly apply the torpedo to the rail for signal purposes, it can be surely and quickly accomplished.

To these ends my invention consists of 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, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the device with a torpedo held therein. Fig. 2 is a broken side elevation of the device with the torpedo placed upon a rail ready to be set. Fig. 3 is a detail sectional view, showing the position of the device in relation to the rail and torpedo strap when the setting arms are moved into position to fasten the said torpedo strap to a rail. Fig. 4 is a cross section on the line 4—4 of Fig. 1; and Fig. 5 is a cross section on the line 5—5 of Fig. 1.

The device is provided with a handle 10 which should be long enough to extend to a rail when held by a person standing on the platform of a car, and projecting from one end of the handle are the spring arms 11 which, at the parts next the handle, are parallel and are adapted to normally spring to the position shown in Fig. 1, and these arms are held to the handle beneath a ferrule 12 and have their inner ends bent at right angles, as shown at 13, to prevent them from being moved endwise in the handle, but it will of course be understood that they may be fastened to the handle in any convenient way and that any suitable handle may be used. These arms 11 are bent oppositely outward at nearly right angles, as shown at 14, and then bent inward to form inclines 15 which at the ends are bent outward again, as shown at 16, so that the wires forming the spring arms, shoulders, and inclines are near their free ends formed into curved arms 17 which are oppositely arranged and terminate in loops 18 adapted to receive the strap 19 of a torpedo 20. These straps are usually of lead or other pliable metal, and hence it will be seen that the strap may be easily bent so as to be retained temporarily in the loops 18 and that, owing to the flexibility of the straps, the loops may be easily pulled off the straps when necessary.

The torpedo is of the usual form and is adapted to rest against a head or push plate 21, which is secured to arms 22, preferably four in number, and these are slidable in keepers 23 on the handle, the keepers being secured to the ferrule 12. The arms 22 carrying the push plate are provided with a ring 24 which embraces the spring arms 11 and is adapted to operate from the inclines 15 which serve the purpose of cams, as will presently appear, and while the ring 24 may be in any suitable manner secured to the arms 22 it is preferably fastened by winding the arms once around it so as to form keepers 25, as this makes a very strong connection. The movement of the arms on the handle is limited by a collar 26.

When a torpedo 20 is to be applied to a rail 27, it is at first fastened to the torpedo setter, this having the push plate 21 moved outward, as in Figs. 1 and 2, so that the torpedo rests upon it, and the strap 19 of the torpedo has its ends inserted in the loops 18 and bent so as to retain the strap. The device is then grasped by the handle and when the torpedo is to be affixed to the rail, the operator brings the torpedo as nearly as possible to the rail and immediately above it, and then gives a quick downward push on the handle which

causes the arms 11 and loops 18 to move downward through the handle, while the rail and torpedo stop the push plate 21 and thus the inclines or cams 15 in passing downward through the ring 24, cause the said spring arms 11 and loops 18 to be forced toward each other and the loops are thus brought together beneath the shoulder of the rail, carrying the strap 19 with them as shown in Fig. 3, and at the point where the bending of the strap is completed the inclines 15 slip through the ring 24 and over the shoulder 14, thus permitting the arms 11 and loops 18 to spring quickly apart to the position shown by dotted lines in Fig. 3, and the torpedo is left fastened to the rail 27. The arms may then be pressed together so as to permit the shoulders to be pushed back through the ring 24, and the device is ready to be used again.

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

1. A torpedo setter, comprising a pair of spring arms having oppositely curved free ends with terminal loops, a push plate held between the arms and movable longitudinally in relation thereto, and a cam mechanism actuated by the push plate to move the arms together, substantially as described.

2. A torpedo setter, comprising a pair of oppositely arranged spring arms having inclines thereon and formed near their free ends into opposite curves having terminal loops, a push plate held between the arms, and a ring connected to the push plate and embracing the arms, substantially as described.

3. A torpedo setter comprising a handle, a pair of spring arms mounted thereon and having opposite inclines and terminal bends, a push plate located between the bends of the arms, a ferrule mounted on the end of the handle and provided with keepers and an abutment, rods connected to the push plate and sliding in the keepers on the ferrule and adapted to engage said abutment and a device carried by said rods to engage the inclines on the spring arms, substantially as set forth.

4. In a torpedo setter, the combination of a handle having at its end spring arms adapted for attachment to the torpedo, a push-plate located between the arms, said push-plate being movable relatively to the arms and adapted to bear against the upper face of the torpedo carried thereby, and means for moving said arms toward and from one another, substantially as set forth.

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