No. 637,442. Patented Nov. 21, 1899.

F. E. BENNETT.

TORPEDO PLACER.

(Application filed Apr. 17, 1899.)

(No Model.)

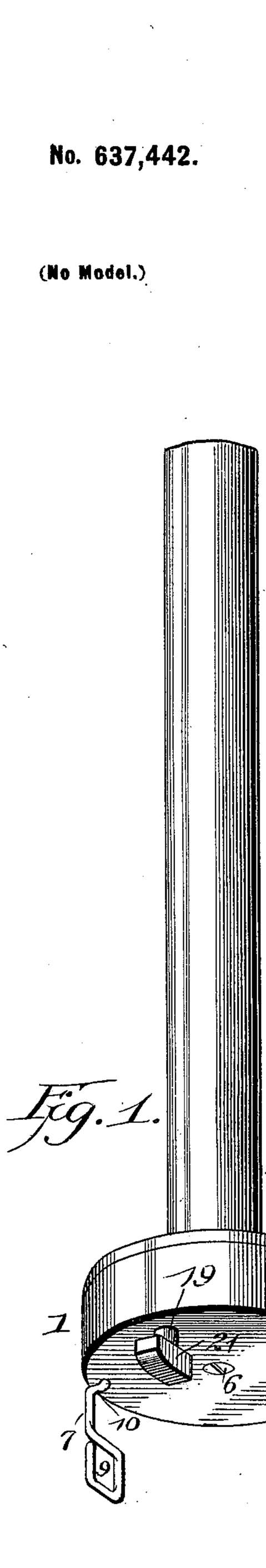

Fig. 1.

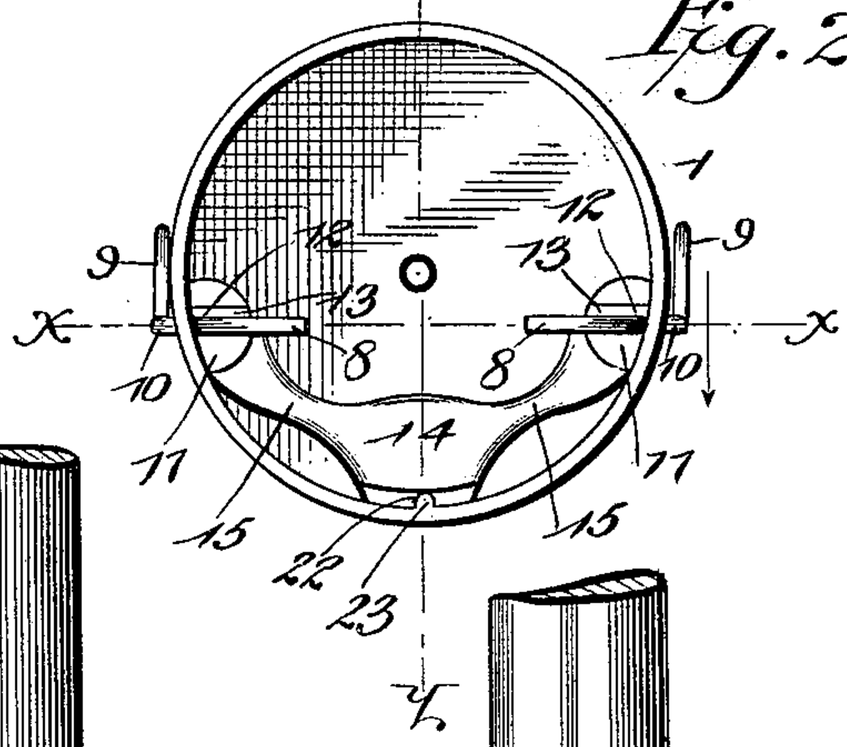

Fig. 2.

Fig. 4.

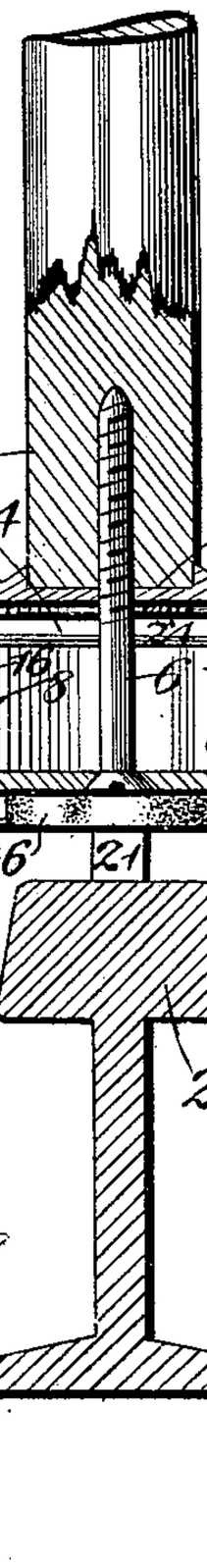

Fig. 3.

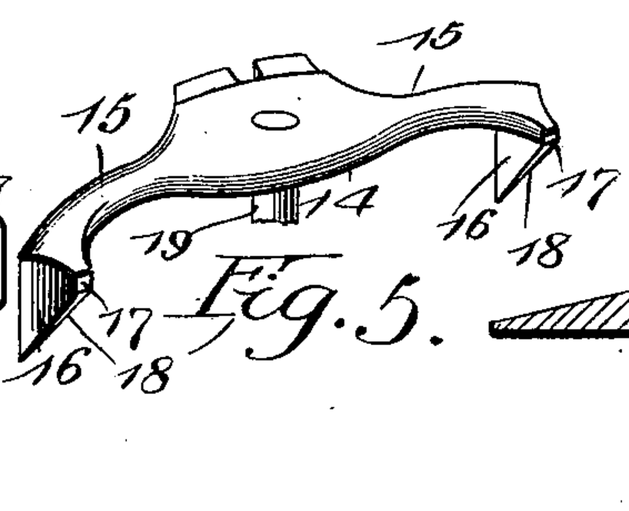

Fig. 5.

Witnesses
A. Roy Appleman
H. B. Sheppard

F. E. Bennett, Inventor.
By his Attorneys.
Cushman & Co.

UNITED STATES PATENT OFFICE.

FERDINAND E. BENNETT, OF HIGHLANDS, INDIANA.

TORPEDO-PLACER.

SPECIFICATION forming part of Letters Patent No. 637,442, dated November 21, 1899.

Application filed April 17, 1899. Serial No. 713,402. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND E. BENNETT, a citizen of the United States, residing at Highlands, in the county of Lake and State of Indiana, have invented a new and useful Torpedo-Placer, of which the following is a specification.

This invention relates to torpedo-placers which are designed to place a torpedo upon a rail of a track while the train is in motion.

The object of the invention is to provide certain improvements in the manner of holding the torpedo upon the device, combined with a locking device and a trip therefor, whereby the torpedo may be released and deposited upon the rail in an easy and effective manner by one of the trainmen from the rear platform of the train while in motion for the purpose of preventing rear-end collisions.

With these objects in view the present invention consists in the combination and arrangement of parts, as will be hereinfter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of the device. Fig. 2 is at top plan view thereof, the cover being removed. Fig. 3 is a sectional view on the line *x x* of Fig. 2 looking toward the rear end of the train and showing the device in the act of placing a torpedo. Fig. 4 is a sectional view on the line *y y*, Fig. 2, showing the head in locked position. Fig. 5 is a perspective view of the locking-head.

Corresponding parts are designated by like reference characters in all the figures of the drawings.

Referring to the accompanying drawings, 1 designates a box or casing preferably circular in shape and adapted to contain and protect the trip mechanism of the device. A removable cover 2 is provided for the top of the casing and has an internal circumferential flange 3, adapted to engage the interior periphery of the walls of the casing to prevent displacement of the cover. Located centrally of the upper face of the cover is a suitable socket 4, in which is adapted to be seated a handle 5 of suitable length to position the device upon the track-rail from the rear platform of a train. The casing, cover, and handle are all firmly connected together by means of a screw-fastening 6, passing upwardly through the bottom of the casing, in which the head of the screw is countersunk to provide a flat flush under face to the bottom of the casing.

Opposite torpedo supports or holders 7 are provided near the opposite sides of the casing and pendent from the bottom thereof. Each support is preferably formed from a single length of heavy wire comprising a central straight shank 7, having the transverse crank-arm 8 at the upper end and the loop 9, forming a flat head, at the opposite end of the shank. The loop is disposed in a vertical plane at right angles to that of the crank-arm and is arranged entirely at one side of the shank, the latter having a bend or elbow 10 formed therein. Within the casing, extending outward from opposite sides and upwardly from the bottom thereof, is a pair of enlargements 11, having a central vertical opening 12 formed therethrough and a transverse stop-shoulder 13 arranged across the top of the enlargement and at one side of the opening 12. Before the crank-arm 8 has been formed the shank of the torpedo-holder is passed upwardly from the exterior of the bottom of the casing through the opening 12 into the interior of the casing until the elbow 10 engages the under side of the bottom, when the crank-arm 8 is bent away from the side of the casing across the top of the enlargement. Thus the elbow 10 prevents an upward displacement of the torpedo-holder, the crank-arm a downward displacement thereof, and the holder is mounted to turn axially.

To normally lock the torpedo-holders against turning, a locking-head 14 is provided within the casing and adapted to engage the crank-arms 8 and hold the same against the respective stop-shoulders 13. The head is provided with oppositely-extending arms 15, having at the ends thereof pendent shoulders 16. The upper outer ends of these shoulders are straight for a suitable distance, as at 17, and are adapted to engage the respective crank-arms 8 and lock the same against the stop-shoulders 13. Below the straight portion each shoulder is beveled, as at 18, so that when the locking-head is raised the crank-arms may turn out beneath the beveled por-

tion of the shoulders. The locking-head is provided with a pendent stem 19, extending loosely through an enlargement or seat 20 and through the bottom of the casing, below which it is provided with a trip-foot 21. It will be understood that the locking-head is capable of a vertical movement in order that it may be disengaged from the crank-arms 8 and is normally seated upon the enlargement or seat 20, whereby the head is normally held in locked position. A notch 22 is formed in the edge of the locking-head, next to the side of the casing, and adapted to engage a rib 23, provided upon the casing, whereby the head is guided in its movement. The head is held in its normally-depressed position by means of a leaf-spring 24, connected to the under side of the cover and having its free end bearing upon the head intermediate of its arms. In order that the cover may be properly positioned and held to engage the spring 24 with the locking-head, a notch 25 is provided in the flange 3 of the cover, and this notch is adapted to engage the rib 23 on the side of the casing.

The torpedo, which is adapted to be held by the holders 7, is in the shape of a disk 26, having a bowed or substantially U-shaped spring 27 connected intermediate of its ends to the under face of the torpedo. The latter is placed against the under side of the bottom of the casing, and the arms of the spring are spread apart and engaged against the outer sides of the respective heads 9 of the holders 7.

In the operation of the device, the parts being assembled, as hereinbefore described, and the train in motion, the device is lowered to one of the rails of the track by means of the handle 5 until the foot 21 of the trip engages the tread of the rail 28, as in Fig. 3. The impact of the foot with the rail forces the stem 19 and the locking-head 14 upward and out of engagement with the cranks 8 of the torpedo-holders. Thus the holders are released, and the tension of the spring upon the heads of the holders turns the same inward, whereby the spring is released, and the torpedo will drop upon the rail, to which it will be clamped by the spring embracing the tread of the rail. As soon as the device is elevated the spring 24 will force the locking-head downward, and the beveled edges of the pendent shoulders 16, engaging the crank-arms 8, will turn the latter against the respective stop-shoulders 13, whereby the holders are thrown into position and locked in readiness for use.

The operating parts of the device are all of substantial form and are inclosed within the casing, thereby being protected against displacement, dirt, and the effects of the weather. The cover may be readily removed to have access to the interior of the casing for positioning the parts and as necessity requires.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the present invention.

Having thus described the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the class described, the combination with a casing having a handle, of torpedo-holders having lower engaging devices rotatable in a horizontal plane, a locking-head for the torpedo-holders, and a trip for the head, substantially as shown and described.

2. In a device of the class described, the combination with a casing having a handle, of torpedo-holders having lower engaging devices rotatable in a horizontal plane, a locking-head having a vertical movement, and a trip comprising a stem and a foot adapted to engage the rail of a track, whereby the locking-head is released to permit movement of the holders, substantially as shown and described.

3. In a device of the class described, the combination with a casing having an operating-handle, of opposite torpedo-holders having lower engaging devices rotatable in a horizontal plane and provided with crank-arms at their upper ends, a vertically-movable locking-head having opposite portions in normal engagement with the crank-arms whereby the holders are immovably positioned, and a trip for the head comprising a pendent stem having a foot adapted to be engaged with a rail of a track to throw the locking-head out of engagement with the crank-arms.

4. In a device of the class described, the combination with a casing having a handle, of opposite torpedo-holders pendent from the casing, pivoted axially thereto and provided with crank-arms located within the casing, stop-shoulders for the crank-arms, a vertically-movable locking-head normally engaging the crank-arms opposite the stop-shoulders, and a trip for the head, comprising a pendent stem and a foot at the lower end thereof, substantially as shown and described.

5. In a device of the class described, the combination with a casing having an operating-handle, of opposite torpedo-holders pendent from, axially pivoted to the bottom of the casing, and having crank-arms located within the casing, stop-shoulders for the crank-arms, and a vertically-movable locking-head having opposite arms provided with shoulders having a beveled or inclined edge, and a trip therefor comprising a pendent stem and a foot at the lower end thereof, substantially as shown and described.

6. In a device of the class described, the combination with a casing having an operating-handle, and opposite enlargements or lugs located within the casing, of opposite torpedo-holders, each holder having a stem pendent from the casing and axially pivoted through one of the enlargements or lugs, a

crank-arm located within the casing and adapted to work across the top of the respective enlargement, and a bend or elbow in the shank and working against the outside of the bottom of the casing, whereby the holders are connected to the casing, a vertically-movable locking-head in normal engagement with the crank-arms, a seat for the head, and a trip for the latter substantially as shown and described.

7. In a device of the class described, the combination with a casing, having a vertical rib on the inner wall thereof and an operating-handle, of opposite torpedo-holders pivoted to the casing and having lower engaging devices rotatable in a horizontal plane, a vertically-movable locking-head having a notch formed therein to engage the rib of the casing and form a guide for the head, and a trip for the latter.

8. In a device of the class described, the combination with a torpedo having a bowed spring, of a casing having an operating-handle, opposite torpedo-holders pendent from and axially pivoted to the casing, each holder being formed from a single length of heavy wire, having a crank-arm provided at its upper end and a loop formed at its lower end and offset to one side thereof forming a head, the ends of the torpedo-spring being adapted to engage the outer faces of the respective loops or heads, a locking-head for the cranks of the holders, and a trip therefor, substantially as shown and described.

9. In a device of the class described, the combination with a box or casing having a removable cover, a handle fitted to the top of the cover and a fastening passing through the bottom of the box, the cover and the handle, whereby the latter and the cover are removably secured to the box, of a torpedo-holder, and means for releasing the same, located within the box or casing, substantially as shown and described.

10. In a device of the class described, the combination of a box or casing having a vertical rib provided upon the inner side wall thereof, a removable cover having a pendent flange adapted to fit within the box and provided with a notch adapted to engage the rib and hold the cover in its proper position, torpedo-holders, and means for locking and releasing the same, located within the box, substantially as shown and described.

11. In a device of the class described, the combination of a box or casing having a cover, torpedo-holders, a vertically-movable locking-head for the holders, a trip for elevating and releasing the head, and a spring carried by the cover engaging the head and adapted to return the same to its normal position, substantially as shown and described.

12. In a device of the class described, the combination of a box or casing having a vertical rib provided upon one of the inner walls thereof, a cover having a pendent flange provided with a notch adapted to engage the upper end of the rib and hold the cover in position, a torpedo-holder, a vertically-movable locking-head therefor having a notch adapted to engage the rib and form a guide for the head, a trip for elevating and releasing the latter, and a spring carried by the cover, engaging the head and adapted to return the same to its normal position, substantially as shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FERDINAND E. BENNETT.

Witnesses:
M. OLMSTED,
L. S. SARGEANT.