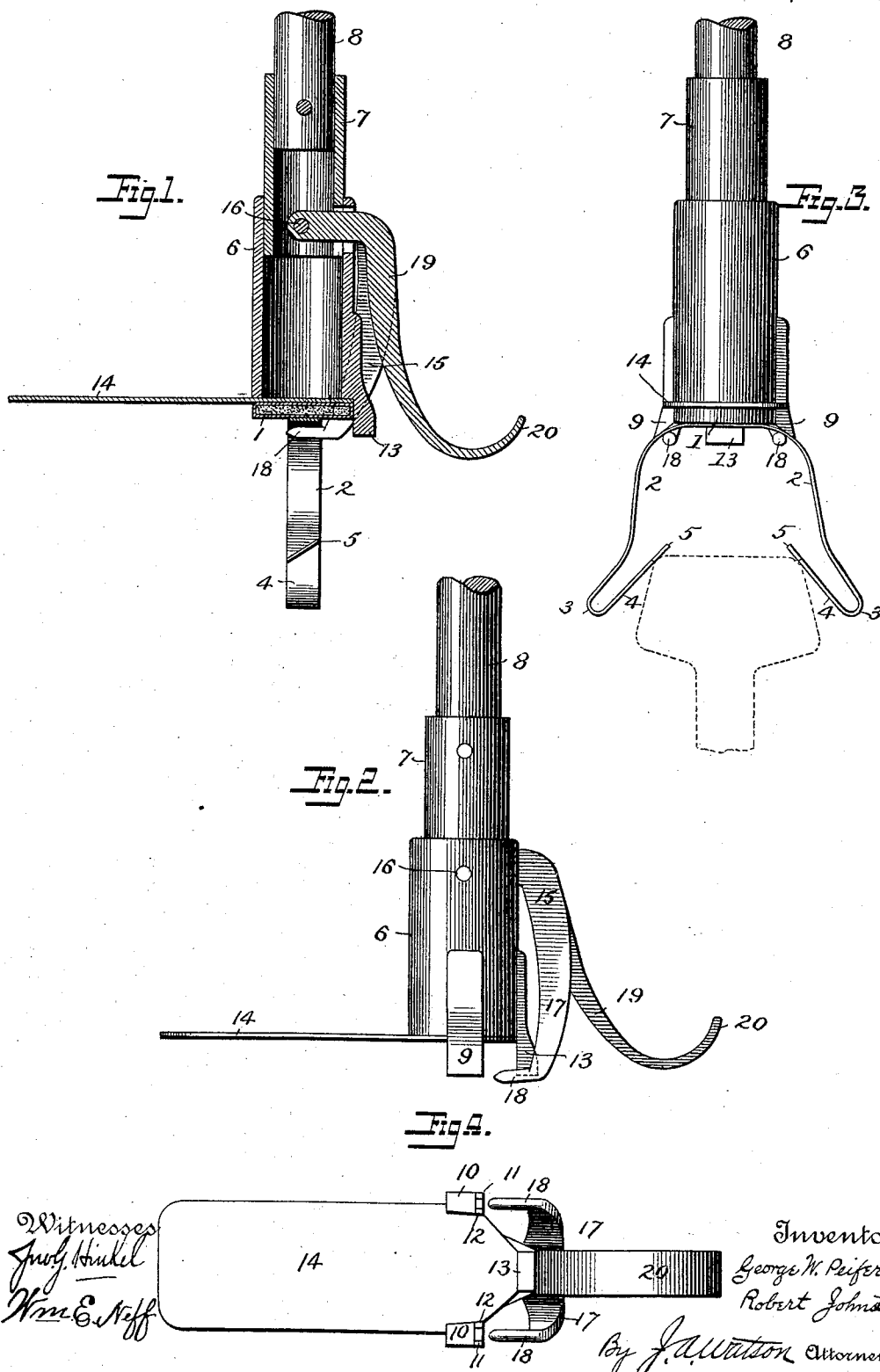


(No Model.)

G. W. PEIFER, Jr. & R. JOHNSTON.
TORPEDO PLACER.

No. 484,864.

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TORPEDO-PLACER.

SPECIFICATION forming part of Letters Patent No. 484,864, dated October 25, 1892.

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To all whom it may concern.

Be it known that we, GEORGE W. PEIFER, JR., and ROBERT JOHNSTON, citizens of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Torpedo-Placers, of which the following is a specification.

The present invention relates to improvements in torpedo-placers; and it has for its object to simplify and strengthen the construction of such devices and to render them more reliable and efficient. It may be added that owing to its simplicity our improved torpedo-placer is less costly to manufacture than those heretofore invented.

A further object is to provide improved means for clamping and holding torpedoes upon railway-rails.

The improved torpedo-placer consists, preferably, of but two parts, which are pivoted together. One of said parts is composed of a frame or head provided with a socket to receive a handle, clamping-lugs against which the spring-arms of the torpedo are held, a trailing leaf or plate rigidly connected to the head at its lower end, and a bumper also rigidly connected to the head or integral therewith and arranged to receive the shock of the contact between the torpedo-placer and the rail, thus preventing the premature explosion of the torpedo. The other part consists of a forked holding-clamp, the prongs of which are arranged to hold the spring-arms of the torpedo against the clamping-lugs, and a releasing-lever extending downward and forward to disengage the prongs of the forked clamp from the torpedo spring-arms when the releasing-lever strikes the rail in placing a torpedo upon the track. The releasing-lever and forked clamp are preferably made integral and pivoted at their upper ends to the body.

In the accompanying drawings, in which like reference-signs indicate similar parts throughout the several views, Figure 1 is a central section showing the torpedo clamped to the torpedo-placer. Fig. 2 is a side view showing the releasing-lever thrown back. Fig. 3 is a rear view showing the device in

the act of placing a torpedo upon a rail. Fig. 4 is a bottom plan view.

Our improved torpedo-placer is intended for use in connection with torpedoes having spring-clamps by which they may be attached to the rails. The preferred form of torpedo-clamp is illustrated in connection with the torpedo-placer.

Referring to the drawings, 1 indicates the torpedo, and 2 a band of spring metal connected at its middle point to the torpedo. The ends or arms of the spring band or clamp 2 are curved outward and downward, so as to fit the head of a rail, and at points 3, considerably lower than the depth of the rail-head, they are bent sharply inward and upward, thus forming detents 4, which project upward into contact with the lower side of the head of the rail when the torpedo is in place. In order to make the spring-clamp take a quicker and better hold upon the rail and in order to cause it to more readily take hold between the rail-head and the splice-bars when the torpedo happens to be placed at a joint, we bevel the ends of the detents, so as to form sharp holding-points 5. It is found that in practice a spring-clamp formed as above described takes hold of the rail in a much more reliable manner than the old forms of spring-clamps which are made with square ends.

The frame or head 6 of the torpedo-placer may be of any desired form. It is shown as a hollow cylinder, which shape is convenient and gives great strength, coupled with lightness. In the upper part of the head is a socket 7 to receive a handle 8. Upon opposite sides of the head at its lower end are downwardly-projecting lugs 9 9, having inwardly-beveled faces 10, against which the spring-arms of the torpedo are clamped and held in a manner to be hereinafter described. These clamping-lugs 9 are provided at their forward ends with small downwardly-projecting points or shoulders 11 12, against which the edge of the torpedo spring-clamp rests. At the forward side of the head is a solid downwardly-projecting bumper 13, which is adapted to sustain the shock of the contact between the torpedo-placer and the rail and

prevent the torpedo from being exploded prematurely.

At the rear of the device is a trailing leaf or plate 14, preferably of sheet-steel. This trailing-plate is connected rigidly to the head and extends at right angles thereto. When the head is tubular, the leaf may be continued across the opening in the tube, as shown in the drawings, thus forming a base against which to clamp the torpedo.

A forked lever 15 is pivoted to the body at its upper end, as at 16. The branches 17 of the fork extend downward nearly parallel with the head and at their lower ends are turned sharply backward, forming prongs 18, adapted to pass between the shoulders 11 12 to clamp the spring-arms of the torpedo against the inclined faces 10 of the clamping-lugs 9. The lever 15 will hereinafter for convenience be termed the "clamping-lever."

In order to withdraw the prongs 18 from the lugs 9 to release the torpedo when the torpedo-placer comes in contact with the rail, we provide a releasing-lever 19. This lever may be attached to or made integral with the clamping-lever 15. Its free end is curved downward, then forward, and then upward, as at 20, the latter curvature being given it to prevent it from catching on splinters in the rails or in the joints between the rails. In our preferred construction the releasing-lever is located between the prongs of the clamping-lever and said levers are united or made integral at their upper ends and connected to the head by means of a single pivot-pin 16.

In operation a torpedo is placed between the lugs and its spring clamping-arms held in contact with their inclined faces and against the projections or shoulders 11 12. The clamping-lever is then swung backward and its prongs pass under the torpedo-spring, the tension of which upon the prongs will hold the forked clamp closed until it is drawn forward by the releasing-lever. The position of the clamping-lugs is such that the torpedo-spring will be spread out, as shown in Fig. 3, so as to readily slip over the head of the rail. When the torpedo is to be placed upon the rail, the device is held over the rail with the releasing-lever upon its forward side—that is, the side in the direction in which the train is going. The trailing-plate will serve to line up the device with the track. The placer is then given a quick downward movement, the result of which is that the spring-arms of the torpedo-clamp are carried over the head of the rail, and almost simultaneously therewith the releasing-lever is struck by the rail and the prongs immediately withdrawn from the lugs and the torpedo re-

leased. The bumper prevents any injury being done to the torpedo in placing it, and the trailing-plate slides over the top of the torpedo and prevents it from rebounding or upsetting.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a torpedo-placer, the combination of the head having side lugs with a clamping-lever pivoted to the head, said lever being arranged to swing in a plane at right angles to the plane of the lugs and having prongs arranged to co-operate with the lugs to hold the torpedo, substantially as described.

2. In a torpedo-placer, the head having opposite projecting lugs with beveled faces and shoulders, in combination with a pivoted clamping-lever having prongs arranged to co-operate with the lugs to hold the torpedo, substantially as described.

3. In a torpedo-placer, the combination, with the head and its downwardly-projecting lugs, of a pivoted clamping-lever and a releasing-lever arranged to act upon the clamping-lever to disengage the torpedo, substantially as described.

4. In a torpedo-placer, the combination, with the head and clamping-lugs, of a forked clamping-lever and a releasing-lever united at their upper ends and connected to the body by a single pivot, substantially as described.

5. In a torpedo-placer, the head having a horizontal trailing-plate rigidly connected thereto, substantially as described.

6. In a torpedo-placer, the head provided with means for holding a torpedo and a bumper at the forward side of the head and extending below the torpedo to protect the same, substantially as described.

7. In a torpedo-placer, the combination of the head having lugs and a bumper extending downwardly therefrom, the forked clamping-lever having two prongs, the releasing-lever, and the rearwardly-extending trailing-plate, substantially as described.

8. In a torpedo-placer, the combination, with the head having lugs and a bumper, of a forked clamping-lever having two prongs extending downward and rearward and a releasing-lever connected to the clamping-lever and curved downward, forward, and then upward, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE W. PEIFER, JR.
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Witnesses:

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