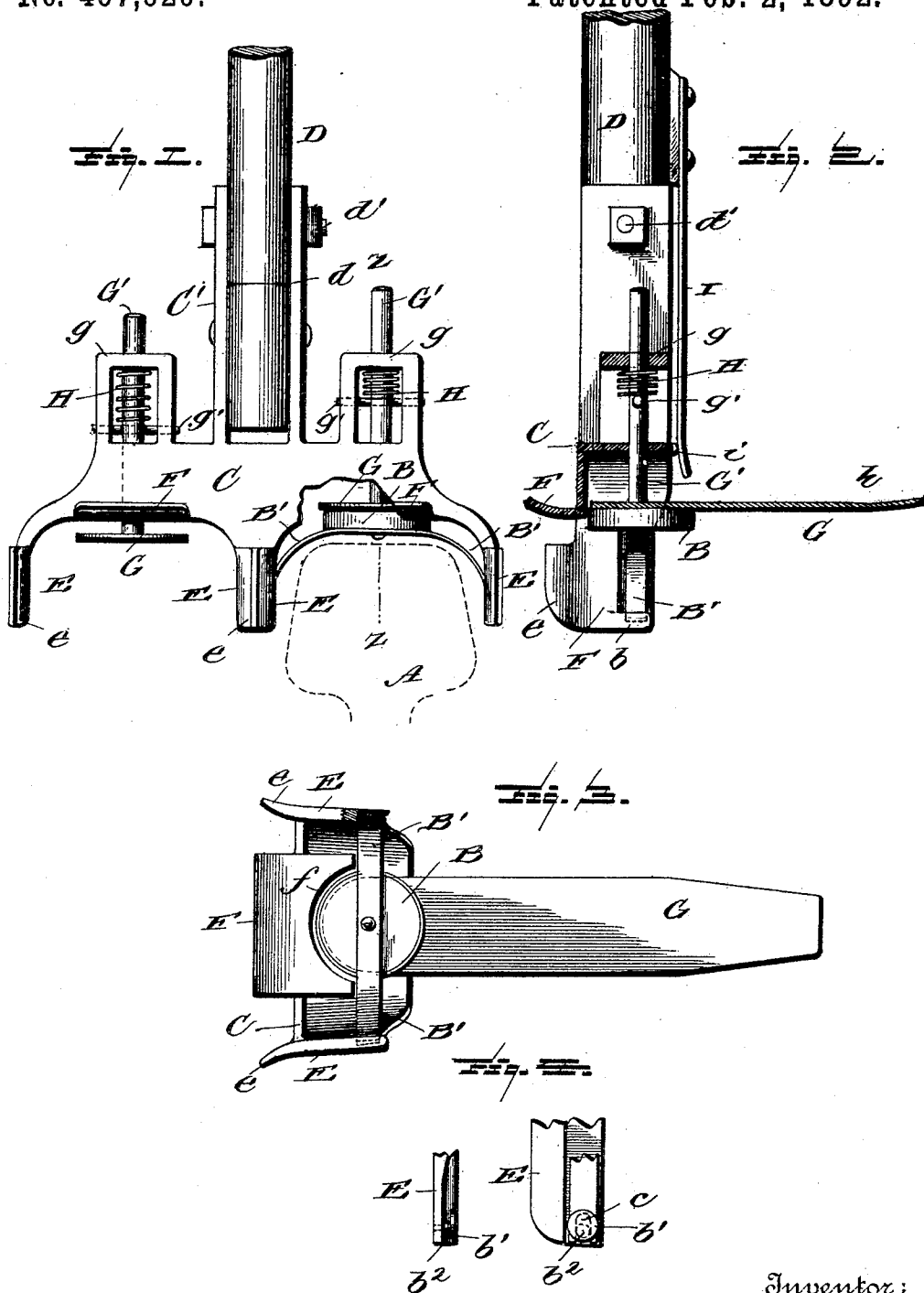


(No Model.)

S. D. EDGAR.
TORPEDO PLACER.

No. 467,926.

Patented Feb. 2, 1892.



Witnesses
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32
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UNITED STATES PATENT OFFICE.

SILAS D. EDGAR, OF WILKES-BARRÉ, PENNSYLVANIA, ASSIGNOR OF ONE-FOURTH TO CHARLES McDONALD, OF SAME PLACE.

TORPEDO-PLACER.

SPECIFICATION forming part of Letters Patent No. 467,926, dated February 2, 1892.

Application filed July 17, 1891. Serial No. 399,811. (No model.)

To all whom it may concern:

Be it known that I, SILAS D. EDGAR, a citizen 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, reference being had therein to the accompanying drawings.

10 This invention has relation to certain new and useful improvements in torpedo-placers; and it has for its objects, among others, to provide an improved, cheap, durable, and efficient device of this character, whereby a torpedo may be quickly, accurately, and successfully placed upon a rail from a moving train while under great speed.

15 It has for a further object to guard against accident to the placer by reason of slivers or other obstructions on the rail.

20 Another object is to protect the user from injury or danger of being thrown from the train in case obstructions should be found upon the rails.

25 Another object is to provide for the ready insertion of a torpedo in the placer.

I provide a trailer designed to move over the top of the torpedo after it has been released from the jaws of the placer to press it upon the rail and prevent cocking up thereof. I provide at the forward end of the placer a guide or flange, the forward end of which is turned up slightly, so as to prevent contact with or injury by slivers or other obstructions on the rail. I turn the forward edges of the jaws outward and taper them for a like purpose, as well as to aid in centering the placer upon the rail. I provide a button eccentrically mounted on the jaws for holding the spring-arms of the torpedo. I construct the jaws of such length as to prevent their contact with the bolts or fish-plates should the latter become loose. I so construct the spring-arms of the torpedo that they will bear upon the sides of the tread of the rail only instead of being extended under the same.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an end elevation with portions broken away, showing my improvement as applied to a double-barreled gun. Fig. 2 is a vertical section on the line *zz* of Fig. 1. Fig. 3 is a bottom plan of a single gun with a portion of one of the jaws broken away. Fig. 4 is an edge and inside side view of a portion of one of the jaws.

Like letters of reference refer to like parts in all the figures of the drawings.

Some of the novel features hereinafter disclosed may be employed without the others. They may be all combined in either a single or a double gun. Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages. In the accompanying drawings I have illustrated what I at present consider the preferable form of construction.

Referring now to the details of the drawings by letter, A designates a portion of a railroad-rail of known construction.

B is a torpedo of known construction or of any other preferred form, and it is provided with the spring-arms B', which may be attached thereto in any suitable manner, but which, instead of being such length as to extend to and engage upon the under face or side of the tread of the rail, as heretofore, are of such length that their ends will impinge against the vertical faces of the tread of the rail, as indicated by dotted lines in Fig. 1, whereby all liability of contact thereof with the fish-plates or the bolts thereof is obviated.

The implement for applying the torpedo is constructed as follows: C is a head or base-piece provided with a socket C' for the reception of the handle D. It is formed with jaws E, which are of such length as not to extend below the tread of the rail, so that there will be no danger of their coming in contact with the fish-plates or their bolts. The forward ends of these jaws are turned outwardly and their inner faces beveled or rounded, as shown best at *e* in Fig. 3. This head may be provided with one or two sets of jaws, according

to whether it is intended for a single or double gun. In Fig. 1 it is shown as provided with two sets, while in Fig. 3 a single gun is shown. The jaws at their lower rear edges
 5 are provided with hooks or analogous provisions for holding the ends of the spring-arms of the torpedo. In Fig. 2 I have shown hooks b , which are of the usual construction in this class of devices. In Fig. 4 I have shown a
 10 different construction, which is, perhaps, preferable in many instances, and it consists of a button b' , eccentrically pivoted on the pivot b^2 , held in said jaw, as clearly shown in said Fig. 4, and designed to be turned down to
 15 permit of the insertion of the ends of the spring-arm, which is provided with a slot c , as indicated in Fig. 4, and after the arm has been inserted the button is turned up, as indicated in the side elevation, Fig. 4, to hold
 20 the arm in place. Either of these or other analogous provision may be employed in connection with the other features of the invention.

The head or base-piece C is provided at its
 25 front edge, at the upper side of the space between the two jaws, with a forwardly-extending plate or flange F , the forward edge of which is turned upwardly slightly, as shown best in Fig. 2, so as to avoid contact with
 30 slivers or other obstructions on the rail. This plate or flange extends rearwardly and its rear edge is cut away upon curved lines, as shown at f in Fig. 3, for the reception of the torpedo, as well as for the forward edge of
 35 the trailer, as seen best in Fig. 2. This trailer G consists of a flat piece of metal, as seen best in Fig. 3, and it serves also as the plunger or presser. It is carried by a shank G' , which in the case of the double gun is designed to work through an opening in the head
 40 or base-piece C and through the cross-piece g of a yoke thereon, as seen in Figs. 1 and 2, being provided with a transverse pin g' , working in slots in the vertical portions of the
 45 yoke and normally held in its lowermost position by a spring H , surrounding the shank and confined between the pin and the upper cross-bar of the yoke. In the single gun the shank of the trailer and presser would be arranged in the socket formed in the lower end
 50 of the handle, the operation being the same in both instances.

In order to prevent injury to the user of the implement and to guard against its being
 55 thrown from the train in case the placer should come in contact with an obstruction, I so form the handle that it will give or yield to permit the head or base-piece of the placer to tilt to pass the obstruction and to immediately assume its normal position. For this
 60 purpose I form the handle in two parts or divide the same within the socket, as seen at d in Fig. 1, pivoting the upper portion between the side bars of the socket, as shown at d' ,
 65 and to this upper portion above its pivot I attach a flat spring I , as seen in Fig. 2, the

lower end of which extends to and bears upon some fixed part of the placer, as against the
 70 teat or projection i at the rear thereof, as seen in Fig. 2. When the placer meets with an obstruction, the handle is separated at its joint and the upper part moved on its pivot against the action of its spring. After the obstruction is passed the spring returns the part to its normal position.

The operation of the device is readily understood from the above description, when
 75 taken in connection with the appended drawings. The torpedo is placed in position and placed upon the rail in the usual manner. The
 80 outwardly-turned ends of the jaws in connection with the upturned guard or plate F insure the proper alignment of the device with relation to the rail and prevent contact with
 85 or injury by slivers or obstructions. After the torpedo has been placed upon the rail the trailer follows in the removal of the implement and serves to press the cap upon the rail and prevent tilting or cocking up of the
 90 cap or torpedo. To insure the removal of the trailer without danger of tilting the cap, the rear end thereof should preferably be slightly turned upward, as indicated in Fig. 2.

I am aware that it has been proposed to
 95 construct a torpedo-placer with a curved spring-arm to bear upon the top of the torpedo and keep it from displacement. I deem it important that the trailer be so constructed as to be moved bodily in a vertical plane and
 100 that its under face be practically horizontal throughout its entire length, whereby it will have a flat and uniform bearing upon the upper face of the torpedo, as will be clearly understood from Fig. 2, so that all tendency to
 105 tip or tilt the torpedo is avoided.

What I claim is—

1. A torpedo-placer provided with a combined presser and trailer bodily movable vertically, as set forth.

2. A torpedo-placer provided with a spring-
 110 actuated combined presser and trailer simultaneously bodily movable vertically, as set forth.

3. A torpedo-placer provided with a horizontal rearwardly-extending trailer, the rear
 115 end of which is turned upwardly, as set forth.

4. A torpedo-placer provided with a spring-actuated combined presser and trailer, the
 120 rear end of which is turned upwardly, as set forth.

5. A torpedo-placer having a horizontal guard-flange, substantially as specified.

6. A torpedo-placer having a horizontal guard-flange at its forward edge, the forward
 125 end of the flange being turned upwardly, as set forth.

7. A torpedo-placer provided with a bodily-movable trailer and a vertically-movable
 130 shank connected therewith, substantially as specified.

8. A torpedo-placer provided with jaws the forward edges of which are turned outwardly

and with a horizontal guard-flange the forward edge of which is turned upwardly, as set forth.

5 9. A torpedo-placer provided with outwardly-turned jaws, a horizontal guard-flange, and a horizontal trailer, as set forth.

10 10. A torpedo-placer provided with a horizontal guard-flange and a spring-actuated combined presser and trailer, as set forth.

11. A torpedo-placer provided with a separated handle, one portion of which is pivoted, and a spring upon one part and bearing upon some fixed part, as set forth.

12 12. A torpedo-placer provided with jaws, combined with an eccentrically-pivoted button at the lower end thereof, as and for the purposes specified.

13 13. A torpedo-placer provided with a vertically-movable spring-actuated shank and a combined horizontal presser and trailer movable with said shank, substantially as specified.

14. A torpedo-placer provided with jaws so

proportioned as to length relatively to the rail as to terminate above the upper edges of the fish-plate and having their forward ends turned outwardly and tapered, as and for the purpose specified. 25

15. In a torpedo-placer, the combination, with the head formed with jaws, of a horizontal guard-flange on the head between the jaws, said flange being extended rearwardly and cut away, as and for the purpose specified. 30

16. In a torpedo-placer, the combination, with the head formed with jaws, of a horizontal guard-flange on the head between the jaws, said flange being extended rearwardly and cut away, and a combined presser and trailer, the forward end of which works in the recess at the rear end of said flange, as set forth. 35

In testimony whereof I affix my signature in presence of two witnesses. 40

SILAS D. EDGAR.

Witnesses:

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L. C. HILLS.