

(No Model.)

J. DEUEL.

ATTACHMENT FOR TORPEDO RAILWAY SIGNALS.

No. 345,774.

Patented July 20, 1886.

Fig. 2.

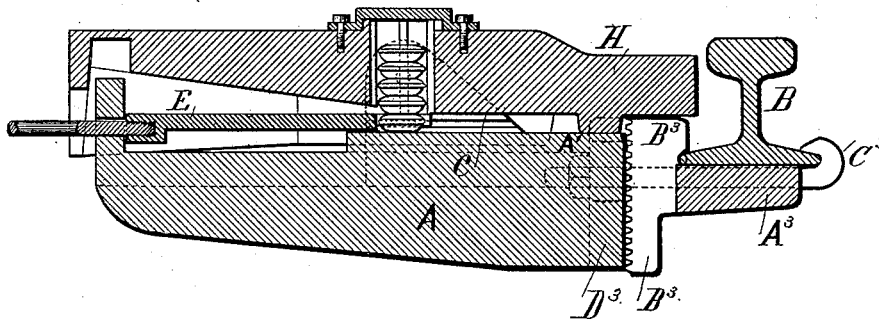


Fig. 1.

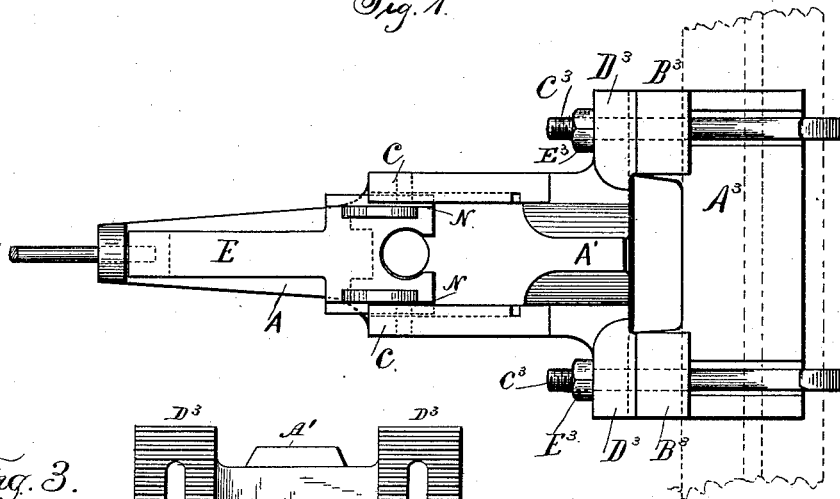
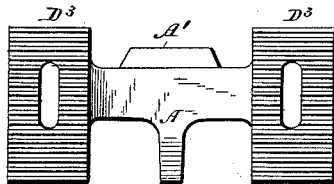


Fig. 3.



Witnesses
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att'y

UNITED STATES PATENT OFFICE.

JACOB DEUEL, OF POUGHKEEPSIE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PALMER TORPEDO RAILWAY SIGNAL COMPANY, OF PLAINFIELD, NEW JERSEY.

ATTACHMENT FOR TOPEDO RAILWAY-SIGNALS.

SPECIFICATION forming part of Letters Patent No. 345,774, dated July 20, 1886.

Application filed November 21, 1885. Serial No. 183,496. (No model.)

To all whom it may concern:

Be it known that I, JACOB DEUEL, of Poughkeepsie, in the county of Dutchess and State of New York, have invented an Improvement in Attachments for Torpedo Railway-Signals, of which the following is a specification.

In my application, No. 179,292, filed October 8, 1885, I have shown a torpedo-signal apparatus in which there is a rocking lever adjacent to the rail, and beneath which the cartridge is introduced upon an anvil connected to the rail.

My present invention relates to the means for attaching the anvil and the base of the signal-instrument to the rail, so that the same may be firmly held in place, and also to means whereby the device may be raised or lowered to accommodate the height of the railway-rail, so that the wheels of a train may act properly in operating the exploder-lever.

My invention also relates to a means for guiding the slide that operates the torpedo and preventing it rising during the endwise movement.

In the drawings, Figure 1 is a plan view of the base of the exploder with the lever removed. Fig. 2 is a vertical section showing the parts in their relation to the rail; and Fig. 3 is a face view endwise of the main body of the torpedo-exploder, showing the slots in the grooved faces.

The anvil A' is upon the base A, and the vertical flanges C, forming the pivots for the rocking lever H, are substantially the same as represented in my aforesaid application, and a reference is hereby made to the same for a description of the other parts of the torpedo-signal apparatus and for their mode of operation, as my present invention only relates to the means of attaching the base A and anvil A' adjustably to the rail B of the railway, and to the means for guiding the torpedo-slide. The base-piece A' is to pass along beneath the rail B. It is provided with vertical jaws B' near each end, that extend up above the flange of the rail B and below the base-piece A', and are grooved in their faces next to the flange of the rail, so that such flange sets into the grooves;

and there are transverse recesses in the base-piece A', and holes through the vertical jaws B', for the passage of the clamping-bolts C', which bolts also pass through slotted holes in the vertical flanges D', that project laterally from the base A at each side of the anvil A', and the faces of the jaws B' and of the flanges D' that come into contact with each other are scored horizontally by V-shaped channels and corresponding intermediate ribs or teeth, those on one face being adapted to receive those upon the other. The bolts C' pass across beneath the flanges of the rail B, and terminate with hooked ends that grasp the rail-flange, and at the other ends, where they pass through the flanges D', there are screw-threads receiving nuts E'.

It will now be understood that the base A and anvil A' of the torpedo apparatus can be raised or lowered in relation to the rail B by loosening the nuts E', and then interlocking other of the V-shaped grooves and ribs in the respective faces of the flanges D' and jaws B', and when the nuts E' are tightened up the parts are held immovable, because of the interlocking of the respective ribs and grooves.

The slotted holes in the flanges D' allow the parts of the torpedo-signal to be raised or lowered, so that the end of the exploder-lever H will occupy its proper relation to the track, and the wheels passing over the track and operating the torpedo-signal.

This attachment is simple, and by it the torpedo apparatus is easily connected to the rail or removed therefrom when necessary. Besides this, there is an open space between the jaws B', and between the end of the anvil and the base of the rail and base-piece A, for the torpedo-cases and refuse material to fall down and pass away without producing any obstruction, and said space also serves as a passage-way for the escape of the gases resulting from the explosion, so that the force of the same does not injure the machine.

The flanges C are grooved horizontally along their inner faces, as shown by dotted lines, Fig. 1, and the slide E, that operates the torpedo, is made with guide-ribs N upon its edges,

which ribs are within the grooves in the flanges C, and hold the slide E in its proper position as it is moved backward and forward.

I claim as my invention—

- 5 1. The combination, with the base and anvil in a torpedo-exploding apparatus, of the flanges D³ at the sides of the anvil, having roughened faces, the base-piece A³, beneath the rail, the vertical jaws B³, the base-piece A³, and the
10 screw-bolts passing through the flanges and jaws, and having hook-shaped ends to catch the flange of the rail, and nuts to clamp the respective parts, substantially as set forth.
- 15 2. The combination, with the base, flanges, and anvil in a torpedo-exploding apparatus, of the base-piece A³, beneath the rail, and jaws B³, projecting at one side of the rail, with an

open space between said jaws and between the anvil and base-piece, into and through which the spent torpedo-shells and explosive gases 20 are received and discharged, substantially as specified.

3. The combination, in a torpedo-exploding apparatus, of the base, anvil, and the flanges C, grooved along their inner faces, and the 25 slide E, and the ribs N upon the slide E, within said grooves, substantially as and for the purposes set forth.

Signed by me this 3d day of November, A. D. 1885.

JACOB DEUEL.

Witnesses:

GEO. H. SHERMAN,
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