

No. 667,813.

Patented Feb. 12, 1901.

W. W. WEAVER.
RAILROAD TORPEDO.

(Application filed Aug. 3, 1900.)

(No Model.)

Fig. 1.

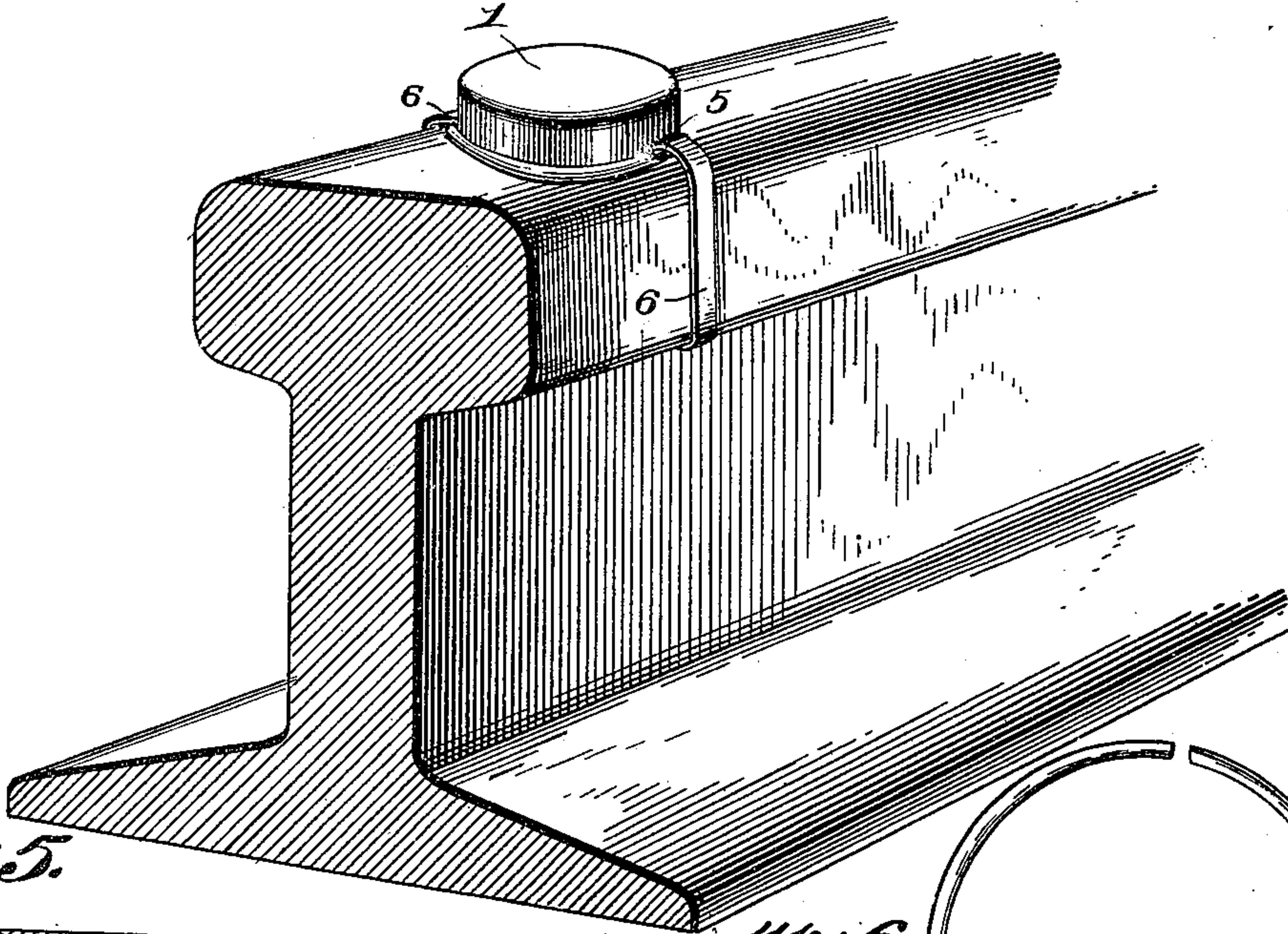


Fig. 5.

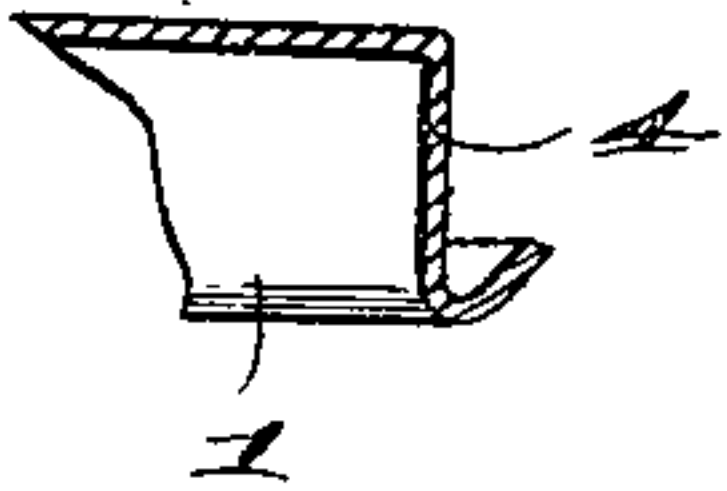


Fig. 6.

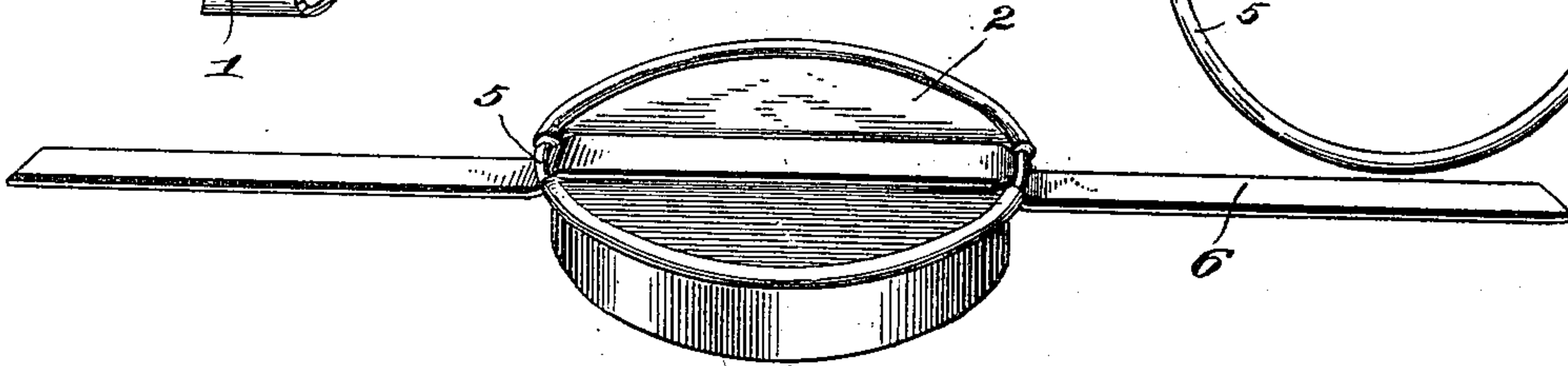
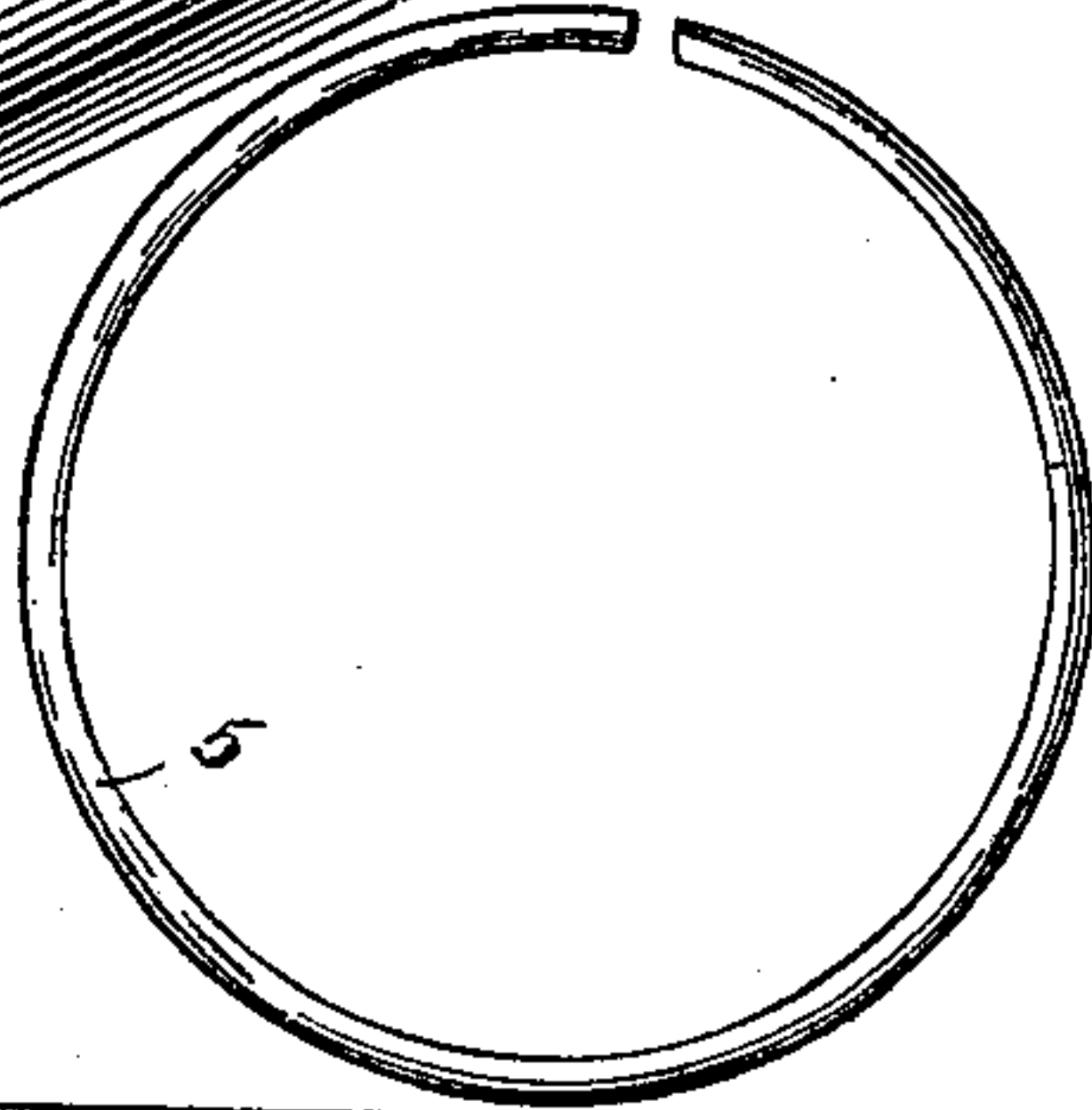


Fig. 2.

Fig. 3.

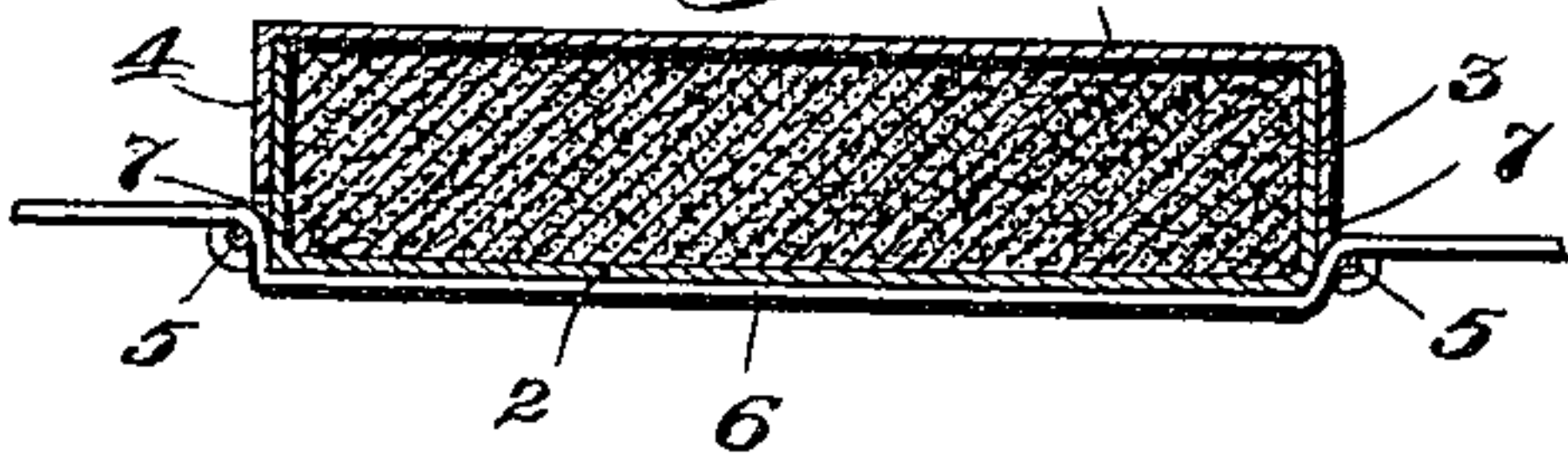
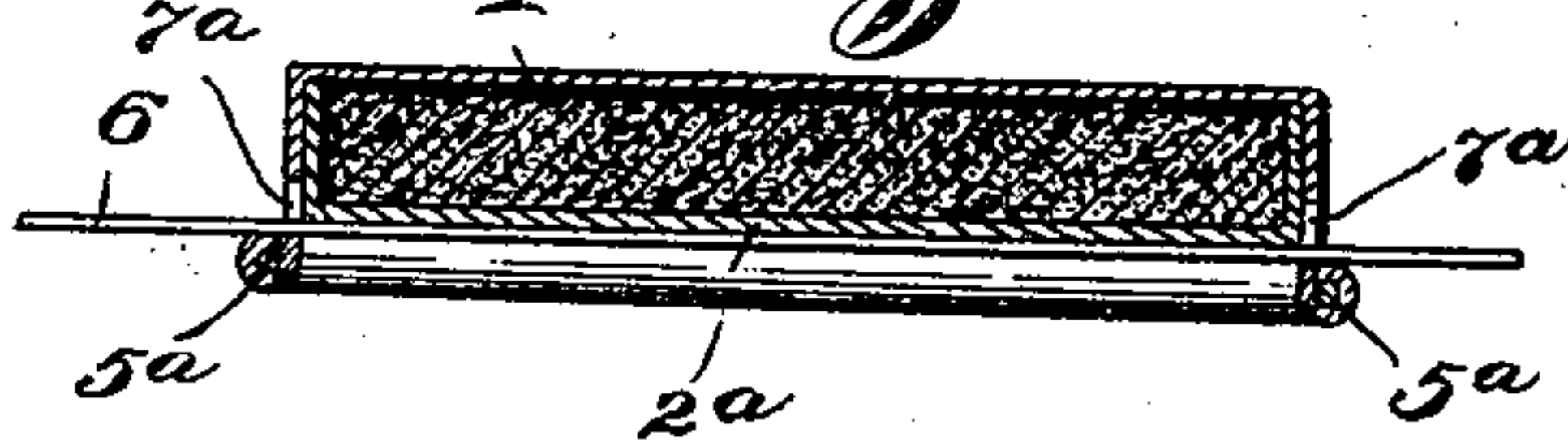


Fig. 4.



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UNITED STATES PATENT OFFICE.

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RAILROAD-TORPEDO.

SPECIFICATION forming part of Letters Patent No. 667,813, dated February 12, 1901.

Application filed August 3, 1900. Serial No. 25,810. (No model.)

To all whom it may concern:

Be it known that I, WYLIE W. WEAVER, a citizen of the United States, residing at Fostoria, in the county of Seneca and State of Ohio, have invented a new and useful Railroad-Torpedo, of which the following is a specification.

My invention relates to detonating railroad-signals, and has for its object to provide a simple, inexpensive, and efficient torpedo which may be applied with facility to the head of a rail, the means for attachment to the rail being utilized as the means for holding the members of the torpedo in their operative relations, and also to provide means for effectively increasing the volume of the detonation without adding to the quantity of the charge.

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

In the drawings, Figure 1 is a perspective view of a torpedo constructed in accordance with my invention applied in the operative position to a rail-head. Fig. 2 is a perspective view of the torpedo inverted. Fig. 3 is a central sectional view of the torpedo. Fig. 4 is a central sectional view of a slightly-modified form of torpedo. Fig. 5 is a detail sectional view of a portion of the shell or cap to show the extension or lip prior to rolling to form the bead. Fig. 6 is a plan view of the girdle or band.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The torpedo embodying my invention consists, essentially, of an exterior shell or cap 1, which is open at its lower side and may be upstruck or stamped from sheet metal; a case or bottom 2, also adapted to be upstruck or stamped from sheet metal and preferably having an annular upstanding flange 3, which telescopes snugly into the shell or cap, the annular side wall or flange 4 of the latter, however, being deeper than that of the case or bottom; an external reinforcing girdle or band 5, arranged in an external bead or crimp formed by an extension or lip at the free edge of the side wall of the shell or cap, and an attaching-strap 6, which transversely spans the

open side or bottom of the shell or cap, bears against the under surface of the case or bottom, and secures the latter in its place within the shell or cap.

In the construction illustrated in Figs. 1 to 3, inclusive, the side wall or flange of the shell or cap 1 is provided with diametrically opposite notches 7, within which diametrically opposite portions of the girdle or band 5 are exposed when the wire ring forming said girdle or band is secured in the rolled sheath formed by said bead or crimp, and through said notches and engaged with the exposed portions of the girdle or band extends the strap 6, as clearly shown, to provide for fastening the torpedo to the head of the rail, the extremities of said strap being folded under the overhanging portions of the rail-head, as in the ordinary practice.

The relatively inverted positions of the shell and case provide for the protection of the detonating charge arranged in the case from moisture, and the transversely-spanning portion of the strap 6 maintains the case snugly in its position. In addition, however, to its function as a means of facilitating the engagement of the strap with the shell the girdle or band 5 has the effect of resisting the spreading or exploding of the shell, and thus adds to the report when the torpedo is discharged. This effect, however, can be obtained even when the ring forming the girdle or band is not utilized as the means of engagement of the strap with the shell. For instance, referring to Fig. 4, the side walls or flanges of the shell instead of being notched, as before described, may be provided with small slots or openings 7^a, set in from the edge of the flange, whereby the entire ring forming the girdle or band 5^a is incased, and in this case the strap is threaded through said openings or slots and bears upon the roll, bead, or crimp with its intermediate portion spanning and in contact with the surface of the case or bottom 2^a. As in the form shown in Figs. 1 to 3, inclusive, the tendency is for the shell to spread at its edge when the explosive material is discharged, and by reinforcing this edge greater resistance is encountered by the explosive charge and hence the volume of the report is increased.

It is preferable to have the reinforcement

arranged externally of the cap or shell, so that the mouth or inner side thereof may be free from projections or obstructions which would interfere with the insertion of the bottom and prevent the marginal wall thereof from fitting snugly the interior of the cap. Also by having the reinforcement embrace the mouth of the shell the latter is made stronger and stiffer than if the reinforcement were upon the inner side of the shell.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, I claim—

1. A signal - torpedo, comprising opposite telescoped members, detonating material held between the members, one of the latter having a marginal stiffening and strengthening reinforcement, and a strap extending transversely across the outer end of the inner member and projecting outwardly in opposite directions through corresponding openings formed in the marginal wall of the outer member, the intermediate portion of the strap forming the sole means for connecting the members, and the opposite ends of the strap forming rail-engaging devices.

2. A signal - torpedo, comprising opposite telescoped members, detonating material held between the members, the outer member having its free edge provided with an external stiffening and strengthening flange, and a strap extending transversely across the outer end of the inner member and projecting outwardly through corresponding openings in the outer member, the intermediate portion of the strap forming means for connecting the members, and the opposite ends of the strap bearing across the upper side of the flange and also forming rail-engaging devices.

3. A signal - torpedo, comprising opposite telescoped members, detonating material held between the same, an external marginal reinforcement for the outer member, and opposite rail-engaging devices connected to the reinforcement.

4. A signal - torpedo, comprising opposite telescoped members, detonating material held

between the same, and the outer member having an external marginal reinforcement located intermediate of the ends of the torpedo.

5. A signal - torpedo having a shell or cap, a peripherally-flanged bottom fitted therein, the free edge of the wall of the shell or cap being beaded, and a strap extending through opposite openings in said wall of the shell or cap, and transversely spanning the exposed surface of said bottom.

6. A signal - torpedo having a shell or cap provided with a beaded or crimped free edge, an annular girdle or band arranged in said bead or crimp and exposed at diametrically-opposite points, a case or bottom fitted in the shell or cap, and a strap engaging said exposed portions of the girdle or band, and transversely spanning said bottom, to maintain the bottom in place in the shell or cap.

7. A signal - torpedo, comprising opposite telescoped members, detonating material held between the same, the outer member having its free edge formed into an external marginal bead, a girdle or band held within the bead, portions of the latter being cut away to expose the girdle, and rail-engaging devices connected to the exposed portions of the girdle.

8. A torpedo, comprising oppositely-disposed cup-shaped case members, which are telescoped, and have an intermediate marginal reinforcement, and detonating material held within the case members.

9. A torpedo, comprising a pair of oppositely-disposed detachably-telescoped cup-shaped case members, of which the outer member has its inner marginal walls free from obstructions for the detachable and snug reception of the inner member, and also has an external intermediate marginal reinforcement, and detonating material held within the members.

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

WYLIE W. WEAVER.

Witnesses:

V. I. MILLER,

A. J. STACKHOUSE.