

No. 608,020.

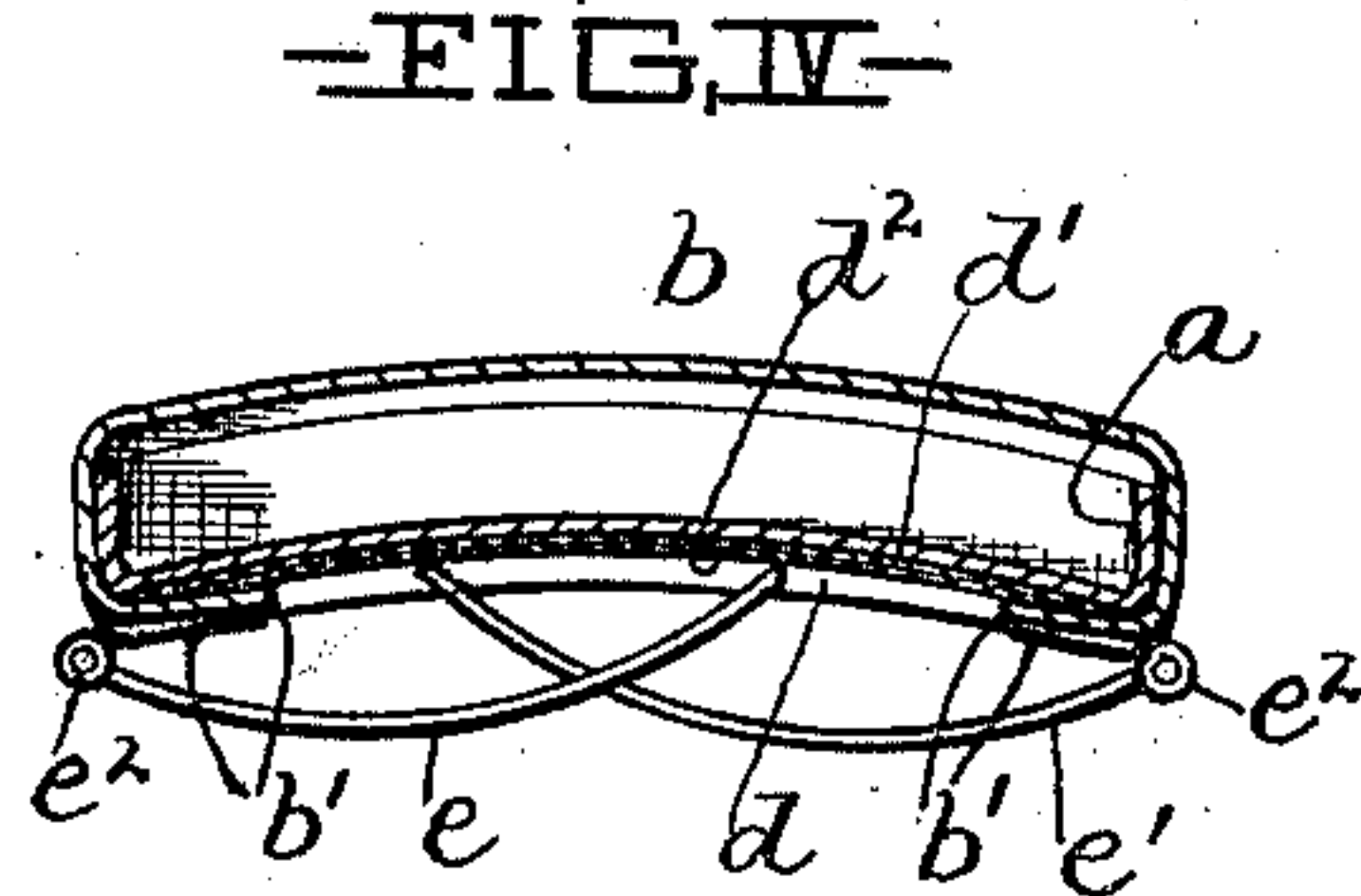
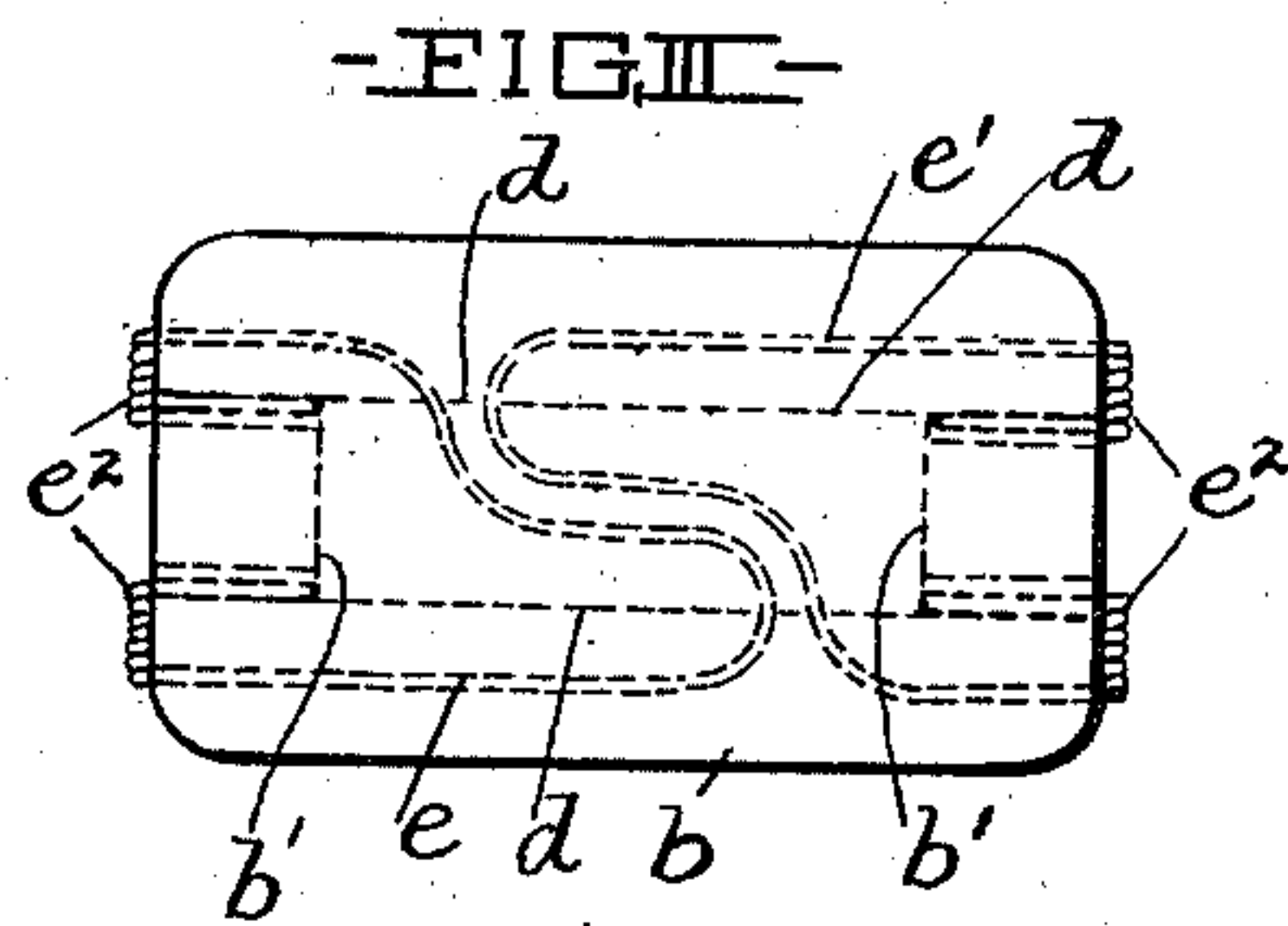
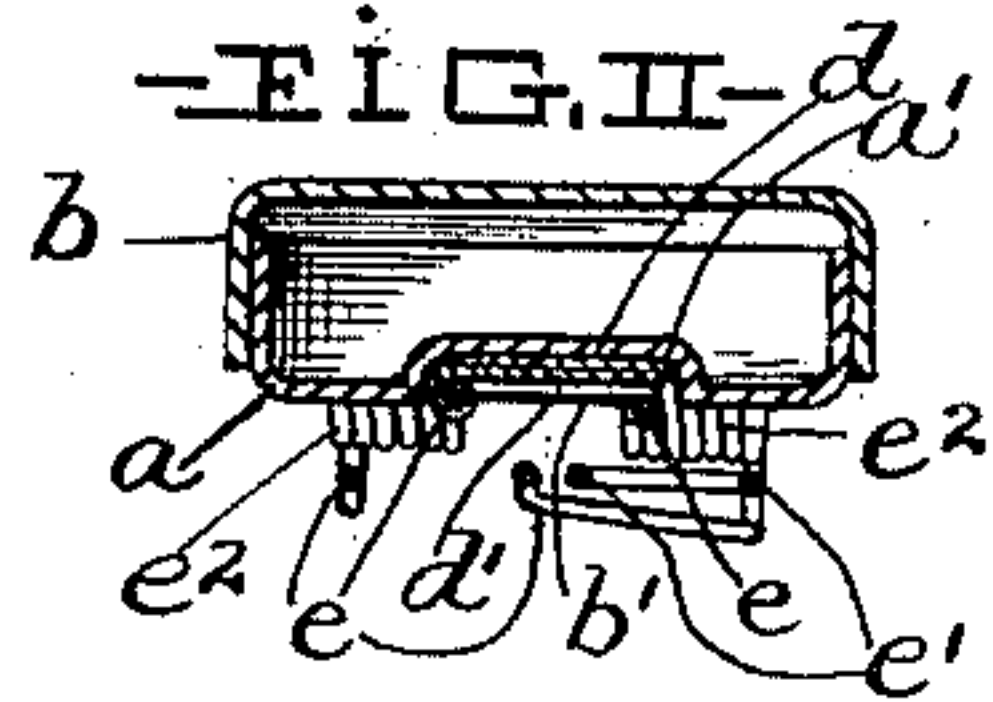
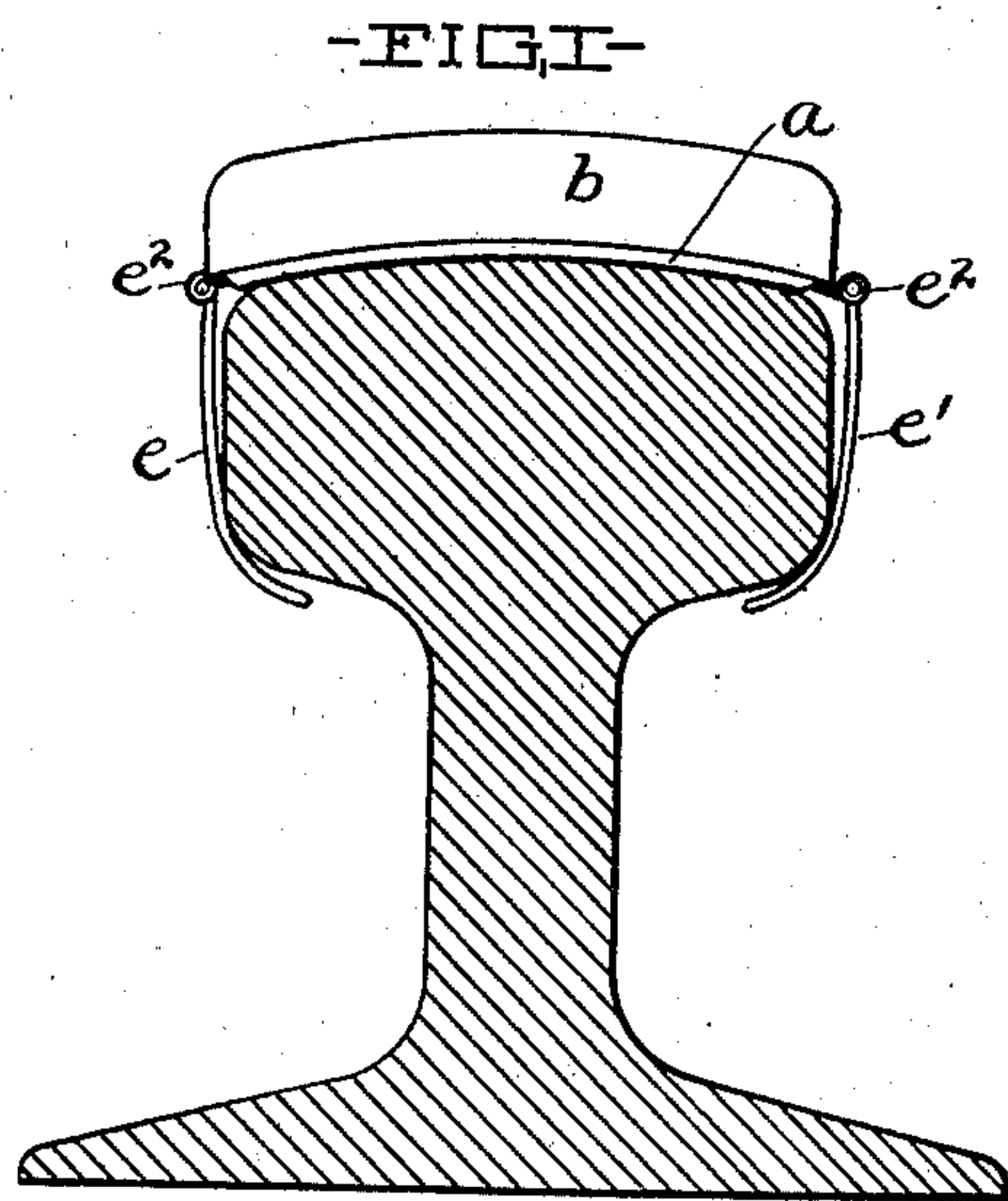
Patented July 26, 1898.

J. H. BEVINGTON & H. M. FISHER.

RAILWAY TORPEDO.

(Application filed Dec. 28, 1897.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

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ASSIGNOR, BY MESNE ASSIGNMENTS, TO GEORGE C. NOTT, OF CLEVELAND, OHIO.

RAILWAY-TORPEDO.

SPECIFICATION forming part of Letters Patent No. 608,020, dated July 26, 1898.

Application filed December 28, 1897. Serial No. 663,872. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. BEVINGTON and HENRY M. FISHER, of Akron, Summit county, Ohio, have invented certain new and
5 useful Improvements in Railway-Torpedoes; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use
10 the same.

Our invention relates to improvements in railway-torpedoes.

The primary object of the invention is to provide a railway-torpedo with a device or substance capable of marking the rail upon the
15 explosion of the torpedo, and thereby leave upon the rail evidence of the fact that the torpedo was placed upon the rail at the place marked.

20 With this object in view and to the end of realizing certain other advantages hereinafter referred to our invention consists in certain features of construction and combination of parts hereinafter described, and pointed out
25 in the claims.

In the accompanying drawings, Figure I is an end elevation of a rail having our improved torpedo placed upon it. Fig. II is a transverse section of a torpedo embodying our
30 invention. Fig. III is a top plan of the torpedo. Fig. IV is a side elevation, mostly in central longitudinal section, of the torpedo.

The torpedo comprises a case composed of an inner section *a* and an outer section *b*.
35 Section *a* constitutes the box proper or receptacle for receiving the explosive, (not shown,) and member *b* constitutes the cover of the said box or receptacle. Cover *b*, in the case illustrated, embraces the receptacle *a* and is
40 composed of vulcanized rubber or other non-metallic, waterproof, and sufficiently stiff and elastic material.

We would here remark that when the cover of the torpedo-case is made of metal the flying metal pieces resulting from the destruction of the cover upon the explosion of the
45 torpedo are liable to commit injury and result in no inconsiderable damage, and hence it will be observed that the making of the cover of a material that possesses elasticity and at
50 the same time is waterproof and sufficiently

stiff is much less liable to do injury or damage upon the torpedo's explosion.

The torpedo-case is preferably oblong, and is curved to nicely fit the head of the rail, and
55 is long enough to extend from side to side of the rail's head.

The torpedo-case upon its under side and central portion is provided with a recess *a'*, that extends from end to end of the case and
60 is supplied with the substance or material capable of marking the rail upon the explosion of the torpedo.

The torpedo's rail-marker consists, preferably, of a tape or ribbon *d*, of cotton or other
65 suitable material, capable of holding coloring-matter *d'*, that is smeared upon the under side of the ribbon or tape. The said marker extends from end to end of the torpedo, and as the torpedo is large enough to extend from
70 side to side of the rail it follows that upon the torpedo's explosion the coloring or marking matter of the marker is not only stamped upon the head of the rail, but is spread over
75 the sides of the rail's head, and thereby furnishes incontrovertible evidence that a torpedo was placed upon the rail at the point
80 marked, and the spreading of the mark over the rail's head causes the rail to be marked where the mark cannot be effaced or obliterated by the wheels of the locomotive or train. The marker, if the latter comprises a ribbon or tape, may be cemented to the torpedo-case or may be held in place at the ends of the
85 torpedo by lugs or flanges *b'*, formed upon the cover of the torpedo-case and bent in under or overlapping the under side of the said ribbon or tape.

The torpedo-case, or rather the box proper or explosive-receiving receptacle of the case,
90 is provided with two spring-jaws *e e'*, supported from the different marker-holding lugs or flanges, respectively, at opposite ends, respectively, of the case. Each of the said spring-jaws is composed, preferably, of a single piece of wire, and each marker-holding
95 lug or flange in the case illustrated has portions thereof bent around the two ends of the piece of wire of the respective jaw, which piece of wire is otherwise suitably bent to
100 form the said jaw and to form a torsional spring or springs *e²*, that act to retain the jaw

in position overlapping or bearing against the under side of the torpedo-case. Of course the jaws are spread apart preparatory to placing the torpedo upon the head of the rail, and the jaws have, preferably, such shape that each jaw will extend, when in its normal position, alongside of the other jaw, and thereby accommodate having the jaws of adequate length.

10 What we claim is—

1. A railway-torpedo provided, externally of its explosive-receptacle, with a substance or matter that will leave an impression or mark upon the rail, upon the explosion of the
15 torpedo, substantially as and for the purpose set forth.

2. A railway-torpedo comprising a closed explosive-receptacle provided, upon its under side, with a substance or matter that will
20 leave an impression or mark upon the rail upon the explosion of the torpedo, substantially as and for the purpose set forth.

3. A railway-torpedo comprising an oblong explosive-receiving case long enough to extend from side to side of the head of the rail and provided, upon its under side, with a substance or matter that will leave an impression or mark upon the rail's head upon the explosion of the torpedo, substantially as and for
25 the purpose set forth.

4. A railway-torpedo comprising an explosive-receiving case having upon its under side a recess that is provided with a marker capable of leaving an impression upon the
30 rail when the torpedo is exploded, substantially as set forth.

5. A railway-torpedo comprising an oblong

explosive-receiving case provided with a marker upon its under side, and comprising an inner receptacle-forming section, and an
40 outer cover-forming section provided with lugs or flanges overlapping the under side of the bottom of the inner section and instrumental in supporting the marker, substantially as set forth.

6. A railway-torpedo comprising an explosive-receiving case provided with spring-jaws supported from opposite ends, respectively, of the case, and composed, respectively, of a single piece of wire suitably bent to form a
50 torsional spring, or springs, acting to hold the respective jaw against the under side of the torpedo, substantially as set forth.

7. A railway-torpedo comprising an explosive-receiving case that consists of an inner
55 receptacle-forming section and an outer cover-forming section having lugs or flanges bent in under the inner section, and two spring-jaws supported from the said flanges or lugs, substantially as set forth.

8. A railway-torpedo having an explosive-receiving case having a non-metallic cover composed of a substance or material that is waterproof and possesses stiffness and elasticity, substantially as and for the purpose
60 set forth.

In testimony whereof we sign this specification, in the presence of two witnesses, this 22d day of December, 1897.

JAMES H. BEVINGTON.
HENRY M. FISHER.

Witnesses:

C. H. DORER,
ELLA E. TILDEN.