

(No Model.)

W. C. SCHOOLEY.
RAILWAY TORPEDO.

No. 597,889.

Patented Jan. 25, 1898.

FIG. 1.

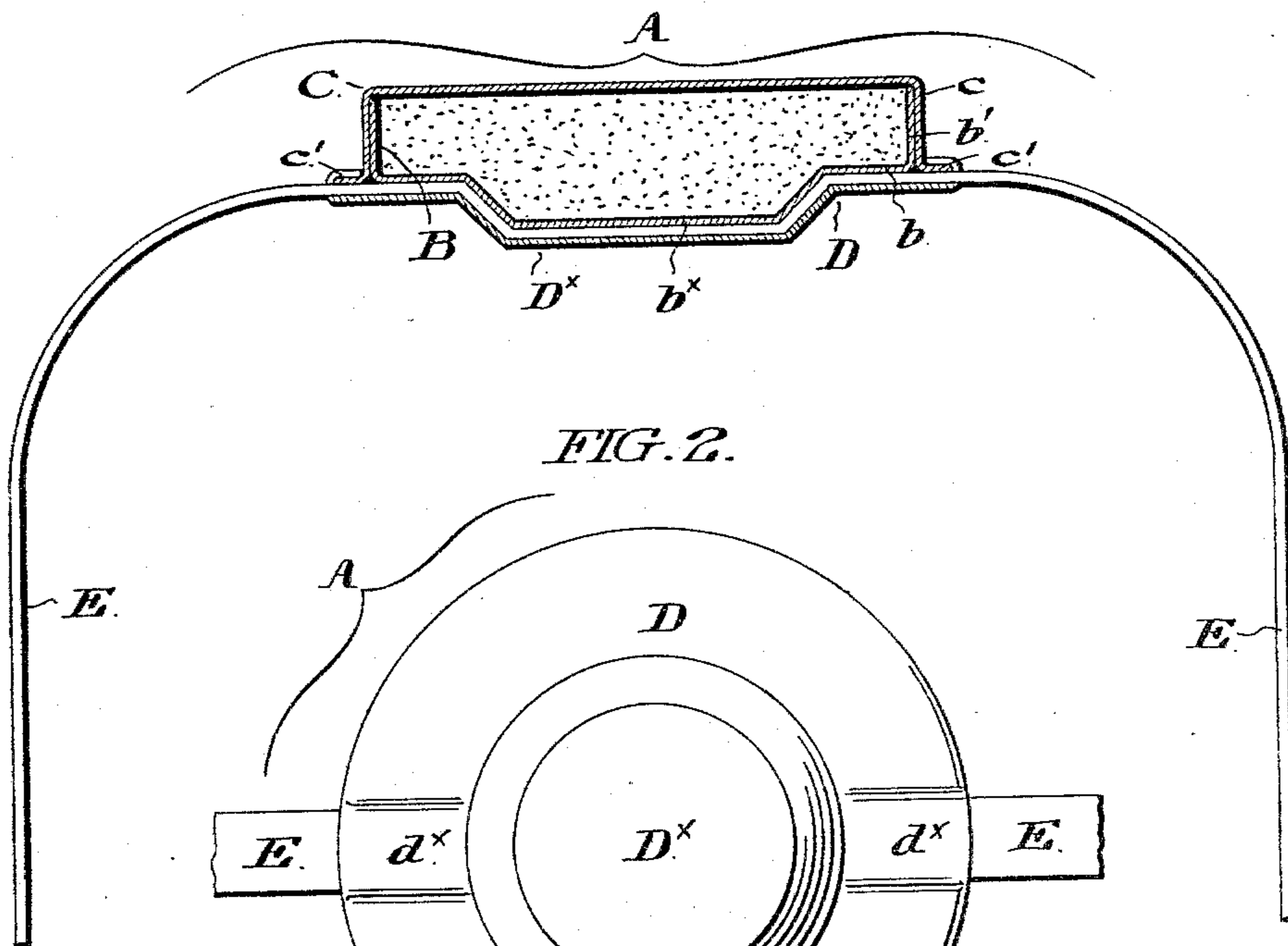


FIG. 2.

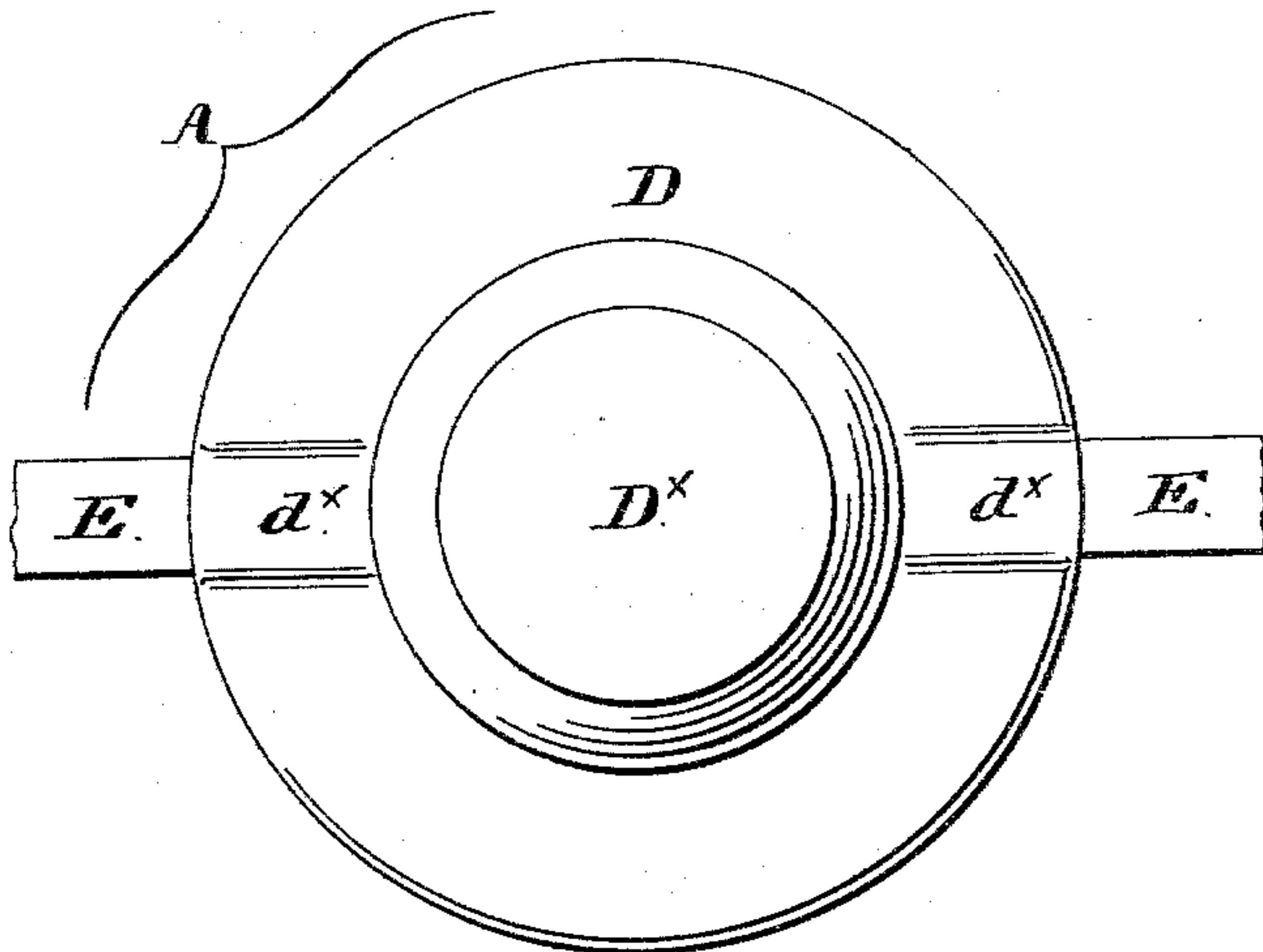
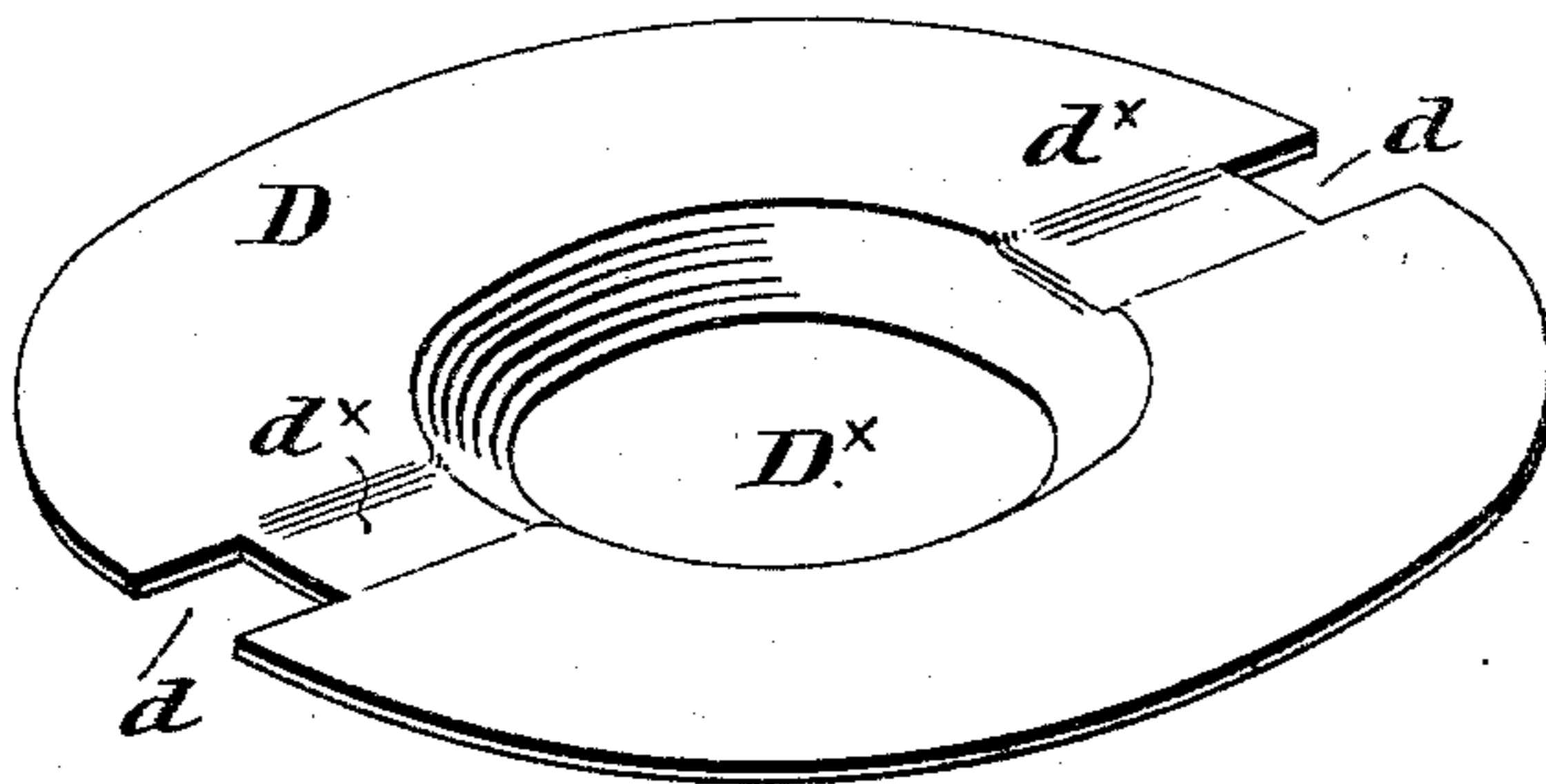


FIG. 3.



WITNESSES:

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RAILWAY-TORPEDO.

SPECIFICATION forming part of Letters Patent No. 597,889, dated January 25, 1898.

Application filed November 6, 1897. Serial No. 657,611. (No model.)

To all whom it may concern:

Be it known that I, WILL C. SCHOOLEY, a citizen of the United States, residing in the city of Braddock, in the county of Allegheny, in the State of Pennsylvania, have invented certain new and useful Improvements in Railway-Torpedoes, of which the following is a specification.

It is the object of my invention to provide a railway torpedo in which shall be combined with other distinctive features of novelty and usefulness, the characteristic that the fastening strip shall, without the use of solder, be permanently attached to the torpedo, with the result that the device as a whole will always be in readiness without adjustment of parts, to be applied to a rail.

In the accompanying drawings I show and herein I describe, a good form of a convenient embodiment of my invention, the particular subject-matter claimed as novel being hereinafter definitely specified.

In the accompanying drawings,

Figure 1 is a central sectional elevational view of a torpedo embodying a preferred form of my invention.

Figure 2 is an under plan view of the same.

Figure 3 is a view in perspective of the inside of the permanently-applied locking or clamping plate removed from the case.

Similar letters of reference indicate corresponding parts.

A indicates a fulminate case, consisting of two shells B and C, of which the shell B constitutes a box, so to speak, while the shell C constitutes a lid for said box.

The base plate *b* of the shell B embodies a central concavo-convex boss *b*^x, which projects below the level of the body of the plate,—while the wall *c* of the shell C, which is of the same depth as the wall *b*['] of the shell B, fits snugly upon the exterior of the same, is provided as to its lower edge with an outwardly extending circumferential flange or lip *c*['].

The boss *b*^x is preferably of circular plan and formed with angular sides, as illustrated, with the result that its sectional profile is that of a truncated cone.

D is a permanently applied locking or clamping plate, the same being a metal disk designed to be applied upon the lower exterior face of the fulminate case, in contact

with the base plate *b* and the lip *c*['], and to be permanently secured to said case by interlocking its rim with the lip *c*['].

With this object in view the locking plate is made of greater diameter than the lip-provided shell C, so that its edge extends beyond the lip *c*['], of said shell, and in the application of the plate its projecting edge is bent up around and then down upon said lip *c*['], with the result that not only are the two shells of the case permanently locked together, but the fastening strip E, of lead or tin, which is disposed between the locking plate and the case is also permanently secured in position.

The locking plate is provided with a concavo-convex boss or recess D^x of form correspondent to that of the boss *b*^x of the shell, and, in the application of said locking plate, its boss D^x is adapted to fit snugly against and inclose said boss *b*^x.

d d are notches or recesses formed in the margin of the locking plate, and *d*^x *d*^x are small depressions leading from the inner edges of said recesses to the central boss of said locking plate, which, in the application of the locking plate to the fulminate case, receive the fastening strip or wire E.

When the locking plate has been applied to the fulminate case, as shown in Figure 1, with the fastening strip E confined between said plate and said case, the inner face of the plate will be forced into close contact with the lower face of the case, with the result that the fastening strip will be tightly confined or clamped in the tortuous angular passage between said bodies and molded to a form corresponding to that of the slight interspace between them, so as to be so securely locked as to be immovable.

The joint between the circumferential margin of the locking plate and the circumferential lip *c*['] of the shell C, constitutes, as shown in Figure 1, a permanent seam of a character usual in securing the meeting edges of tin sheets in the formation of cans and other metal bodies,—and by means of said seam the locking plate is permanently attached to the case and the fastening strip permanently held between the locking plate and the case.

The recesses *d d* of course merely afford clearance for the fastening strip.

My improved torpedo embodies several dis-

distinct advantages, and, among others, the following:—

First: The fastening strip being non-detachable, the torpedo cannot get out of order
5 and is thus rendered exceptionally reliable.

Second: The locking plate which secures the fastening strip in position binds the members of the torpedo case together in such manner as to render it twice as strong as any other
10 torpedo of which I have knowledge,—the increase of strength obviously increasing the resistance to the fulminate and causing it to explode with an exceptionally loud report.

Third: The presence of the boss in the bottom of the structure, in addition to forming
15 shoulders which secure the fastening strip, renders the torpedo a center-firing device,—the instant a car wheel strikes the torpedo the boss being forced up into the torpedo case,
20 and the material caused to ignite from the center and burn instantaneously; and,

Fourth: The presence of the locking plate, by completely covering the joint between the shells of the case, prevents the entrance of
25 moisture to the detonating material, when the torpedo is placed on a rail during wet weather.

Having thus described my invention, I claim—

1. A torpedo case comprising two shells and
30 a locking plate of greater diameter than the case, adapted to be placed against one shell of the case and to be permanently secured to said case by the bending of its margin over upon the other shell of the case, a boss formed
35 in one shell of the case, and a corresponding boss formed in the plate, substantially as set forth.

2. A torpedo case comprising two shells one of which is provided with a circumferential
40 lip, and a locking plate of greater diameter than the case, adapted to be placed against one shell of the case and to be permanently secured to said case by being bent over the lip upon the other shell of the case, a boss
45 formed in the wall of the case, a corresponding boss formed in the plate, and a fastening strip placed between said plate and said shell, substantially as set forth.

3. A torpedo consisting of a fulminate case
50 formed of sheet metal, one face of which is formed into a concavo-convex projecting boss,—and a locking plate of greater diameter than the case, adapted to be placed against the boss-provided face of said case, and em-
55 bodying a concavo-convex boss which snugly fits upon the boss of the case, the marginal portion of said locking plate being bent around and upon a suitable flange projecting from the case, substantially as set forth.

4. A torpedo consisting of a fulminate case
60 formed of sheet metal, one face of which is formed into a concavo-convex projecting boss, a locking plate of greater diameter than the case adapted to be placed against the boss
65 provided face of said case, embodying a con-

cavo-convex boss which snugly fits upon the boss of the case, the marginal portion of said locking plate being bent around and upon a suitable flange projecting from the case, and a fastening strip disposed between said lock-
70 ing plate and said case, substantially as set forth.

5. A railway torpedo comprising a fulminate case consisting of two shells, one of which constitutes a box and the other a lid, the box
75 shell having a central concavo-convex depression, and the lid shell having a circumferential projecting flange, a locking plate, consisting of a disk of metal of greater circumference than said projecting flange, and
80 embodying a concavo-convex boss adapted to fit snugly upon the boss of the box shell, the edges of the locking plate being adapted to be turned up and over the flange of the lid shell, and a fastening strip disposed between
85 said case and said locking plate, substantially as set forth.

6. In combination, a railway torpedo consisting of a fulminate case comprising a box shell and a lid shell, the base of the box shell
90 being provided with a concavo-convex boss, and a locking plate consisting of a disk of metal, provided with a concavo-convex boss, and the edge of which plate is bent over and down upon the lip of the lid shell, substan-
95 tially as set forth.

7. In combination, a railway torpedo consisting of a fulminate case consisting of a box shell and a lid shell, the base of the box shell
100 being provided with a concavo-convex boss, and a locking plate consisting of a disk of metal, provided with the concavo-convex boss, and the edge of which plate is bent over and down upon the lip of the lid shell, and a fastening strip disposed between the fulmi-
105 nate case and the locking plate, substantially as set forth.

8. A torpedo case having a concavo-convex boss formed in its face, a plate extending across said face and provided with a boss con-
110 forming to that of the case, means for securing said plate to said case, and a fastening strip disposed between said plate and said case, substantially as set forth.

9. A torpedo case having a concavo-convex
115 boss of the shape of a truncated cone formed in its face, a plate extending across said face and provided with a boss conforming to that of the case, means for securing said plate to said case, and a fastening strip disposed be-
120 tween said plate, and said case, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 3d day of November, A. D. 1897.

WILL C. SCHOOLEY.

In presence of—

S. HARVEY THOMPSON,
THOS. L. KANE.