

(No Model.)

W. A. DUNLAP.
RAILROAD TORPEDO.

No. 441,830.

Patented Dec. 2, 1890.

FIG. 1.

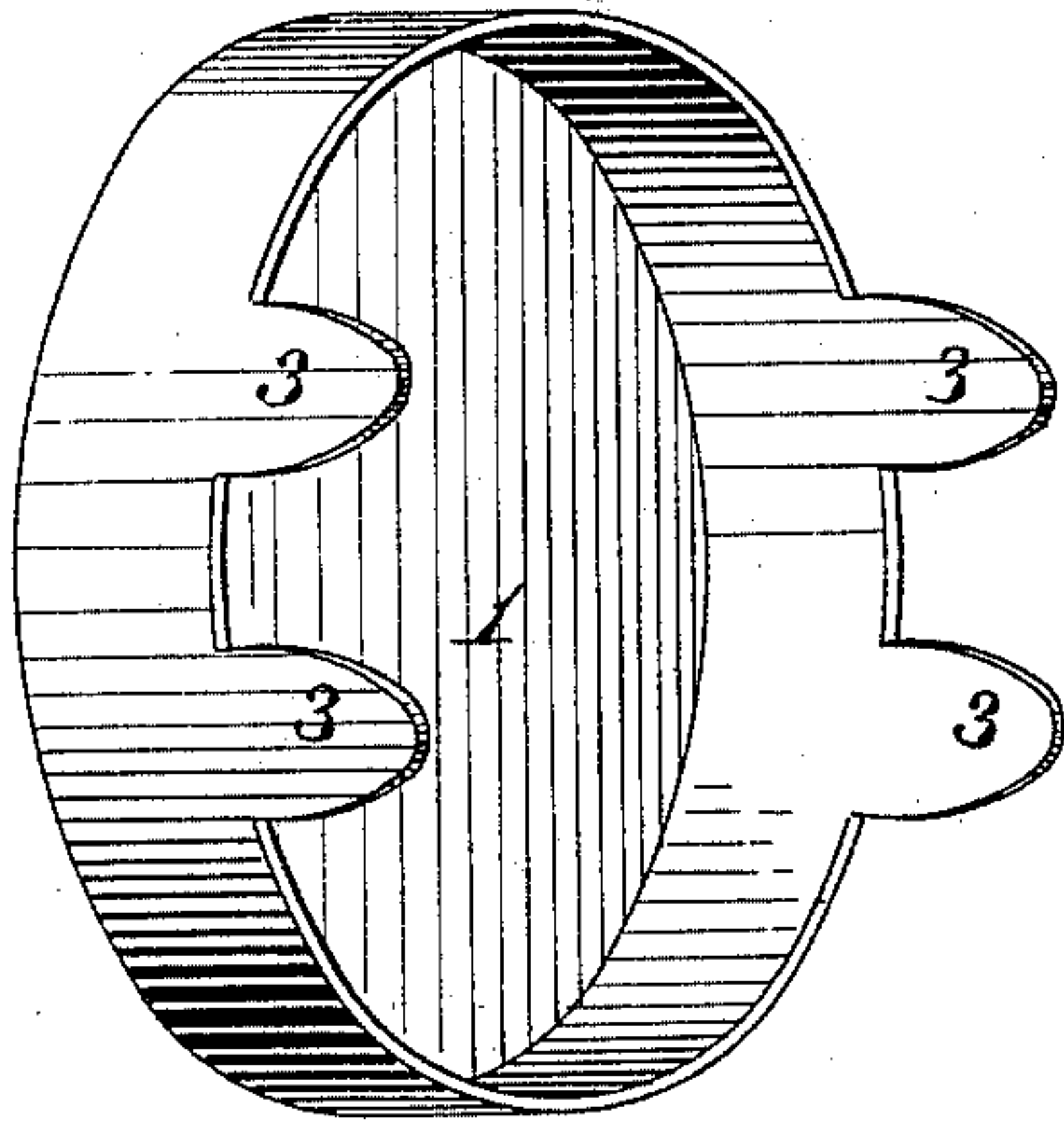


FIG. 4.

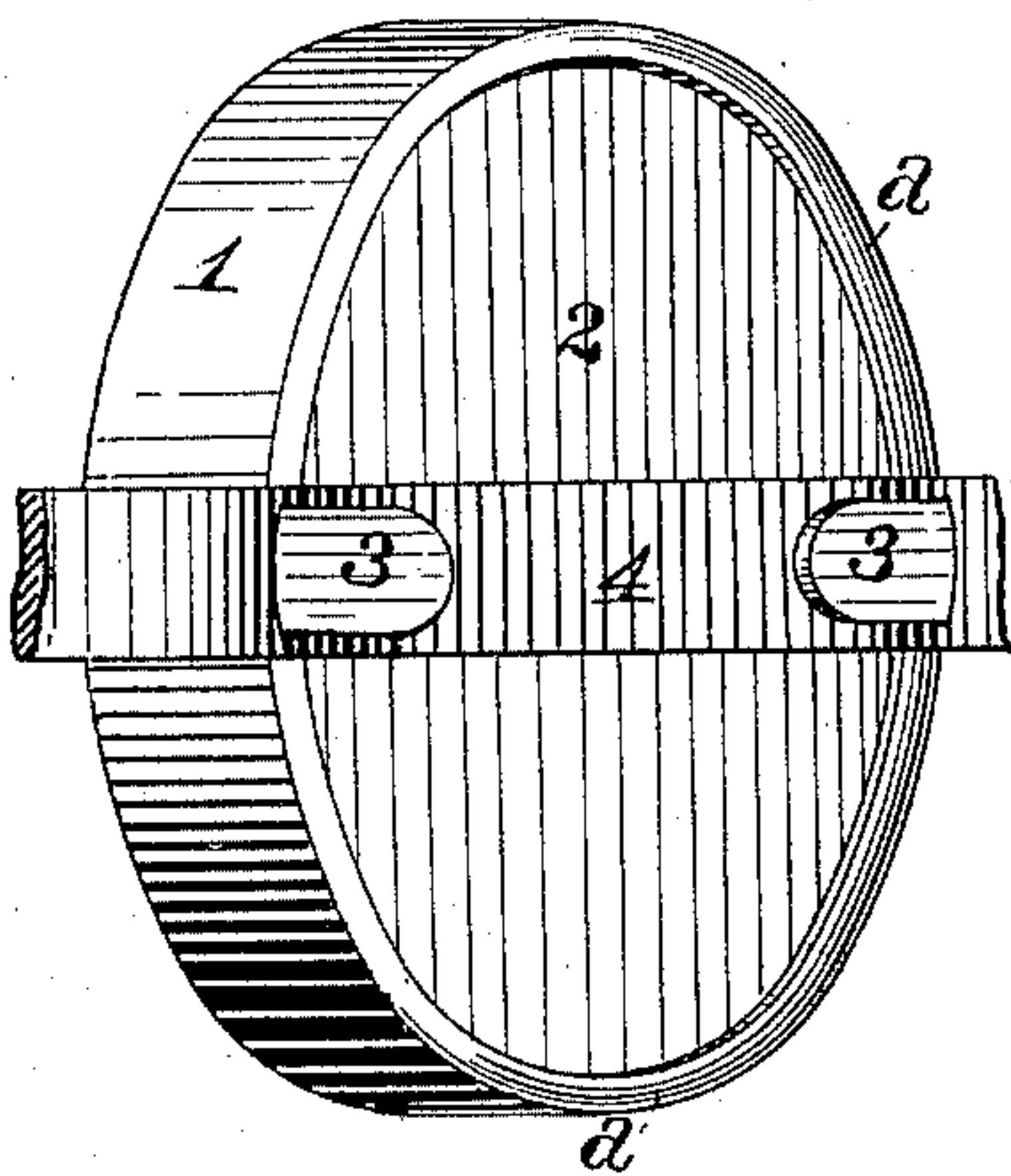


FIG. 2.

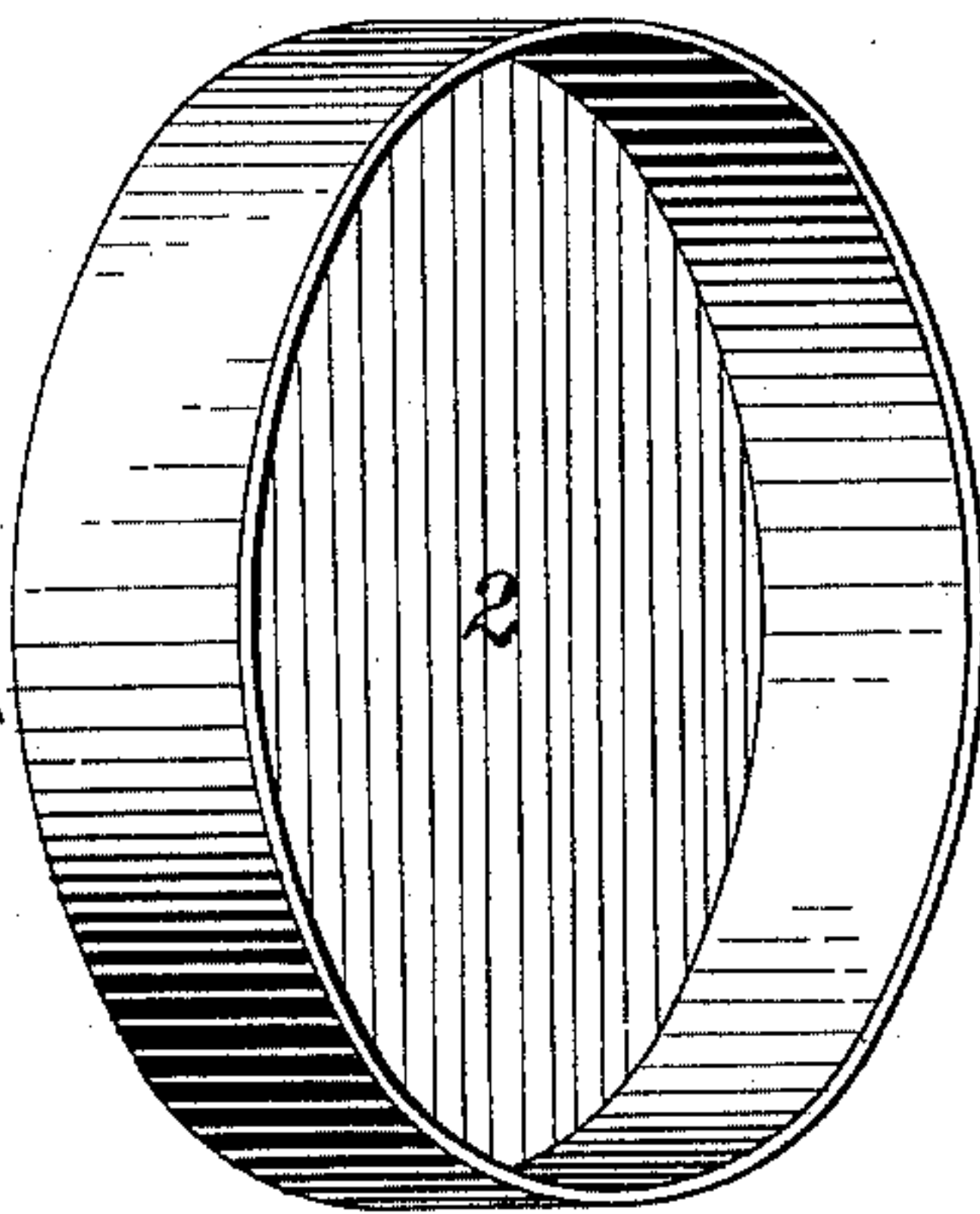


FIG. 5.

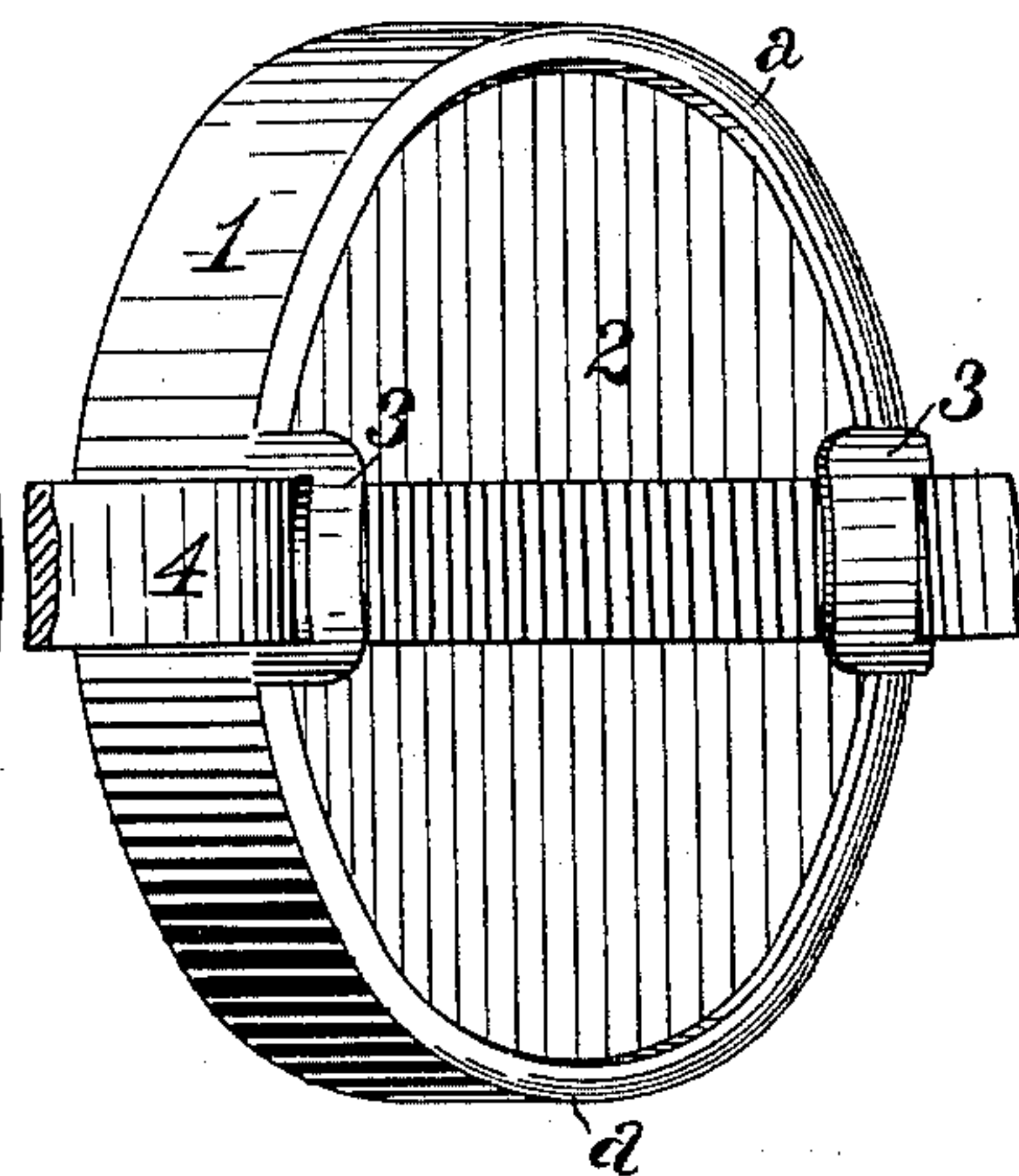
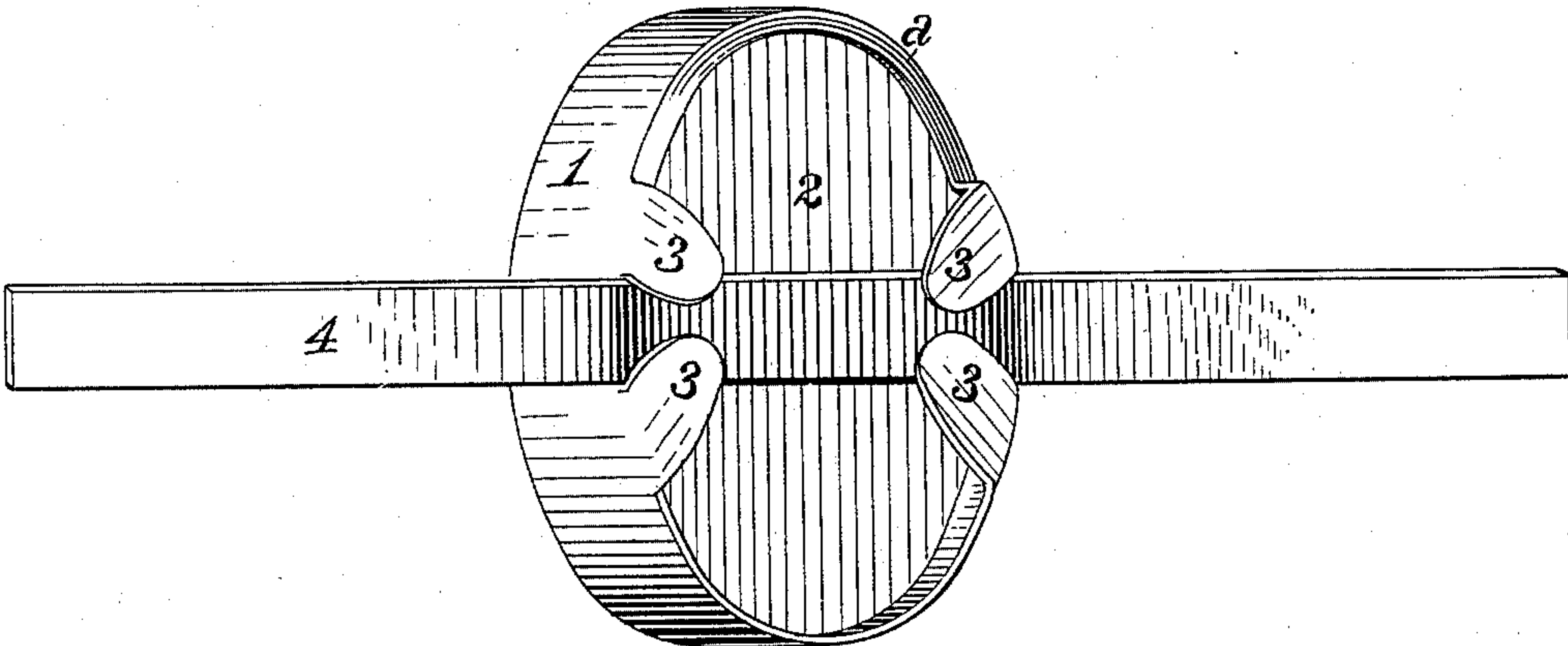


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM A. DUNLAP, OF PITTSBURG, PENNSYLVANIA.

RAILROAD-TORPEDO.

SPECIFICATION forming part of Letters Patent No. 441,830, dated December 2, 1890.

Application filed August 1, 1890. Serial No. 360,644. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. DUNLAP, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Railroad-Torpedoes, of which improvement the following is a specification.

The invention described herein relates to certain improvements in cases or shells for torpedoes for railway service. As heretofore manufactured, the inclosing-cases of these torpedoes consist of two cap-like pieces, one fitting inside of the other and secured together by soldering around the edges, and the flexible strap, whereby the torpedo is fastened to the rail, is secured to the torpedo by solder.

The object of this invention is to provide a simple and efficient means for securing the two parts of the case or shell together and simultaneously fastening the strap thereto; and, in general terms, the invention consists in the construction and combination of mechanical devices or elements, all as more fully hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figures 1 and 2 are perspective views of the two parts of the case or shell. Fig. 3 is a similar view of the completed torpedo. Figs. 4 and 5 are similar views, on a smaller scale, of modifications of my improvement.

In the practice of my invention the cap-shaped parts 1 and 2 are formed from circular disks by means of a suitable press, which, as is customary in the art, is constructed to cut the circular disk from a sheet of tin. The press employed for forming the cap-shaped part 1 is constructed so as, in the disk-cutting operation, to form ears 3, which, when the disk is stamped to shape, project upwardly from the rim of the part 1. The part 2 is similar to the part 1, except as regards the ears 3, and is made slightly smaller than the part 1, so as to fit therein, but not loosely.

In congregating the parts the explosive material is placed in the part 2 and the part 1 is slipped over, as shown in Fig. 3. The flexible strap 4 is then placed between the ears 3, the strap passing diametrically across the part 2. The strap is preferably made of such a width as regards the distance between adjacent ears that the edges of the latter will cut into the edges of the strap, and thereby pre-

vent any longitudinal withdrawal thereof. After the strap has been placed in position the ears 4 are bent down upon the part 2, and as they will when so bent assume a radial position they will overlap the strap and hold the same securely in position.

As shown in Fig. 3, the side wall of the part 1 is made a little deeper than that of the part 2, so that the edge of the wall of the part 1 may be bent inwardly onto the part 2, thereby forming a tight joint, as shown at *a*, Fig. 3, when it is desired to prevent access of moisture to the explosive material inclosed.

The forcing of the strap between the ears, folding them down, and bending in the edge of the wall of the part 1, as described, may be effected in a suitable press at one operation; if desired.

While preferring to employ two pairs of ears in opposite sides of the part 1 in the manner described, a single ear on diametrically-opposite sides of said part may be used, in which case the ears would be forced through the strap and then bent down, as shown in Fig. 4; or the single ears may have an opening formed through them and the strap threaded through said opening, as shown in Fig. 5.

I claim herein as my invention—

1. A torpedo case or shell having, in combination, two cap-like parts fitting one within the other, a flexible strap for securing the torpedo to the rails, and ears located on diametrically-opposite sides of the outer cap and constructed to engage the flexible strap and fold over upon the inner cap, thereby securing the parts of the case or shell together and attaching the strap thereto, substantially as set forth.

2. A torpedo case or shell having, in combination, two cap-like parts fitting one within the other, the outer cap being provided with two pairs of ears, a flexible strap for attaching the torpedo to the rails, said strap passing diametrically across the case and between the ears of each pair, said ears being adapted to be folded down upon the strap and the inner cap, substantially as set forth.

In testimony whereof I have hereunto set my hand.

WILLIAM A. DUNLAP.

Witnesses:

DARWIN S. WOLCOTT,
W. B. CORWIN.