

S. A. BRIGGS.  
Self-Tamping Torpedoes.

No. 138,373.

Patented April 29, 1873.

Fig. 1.

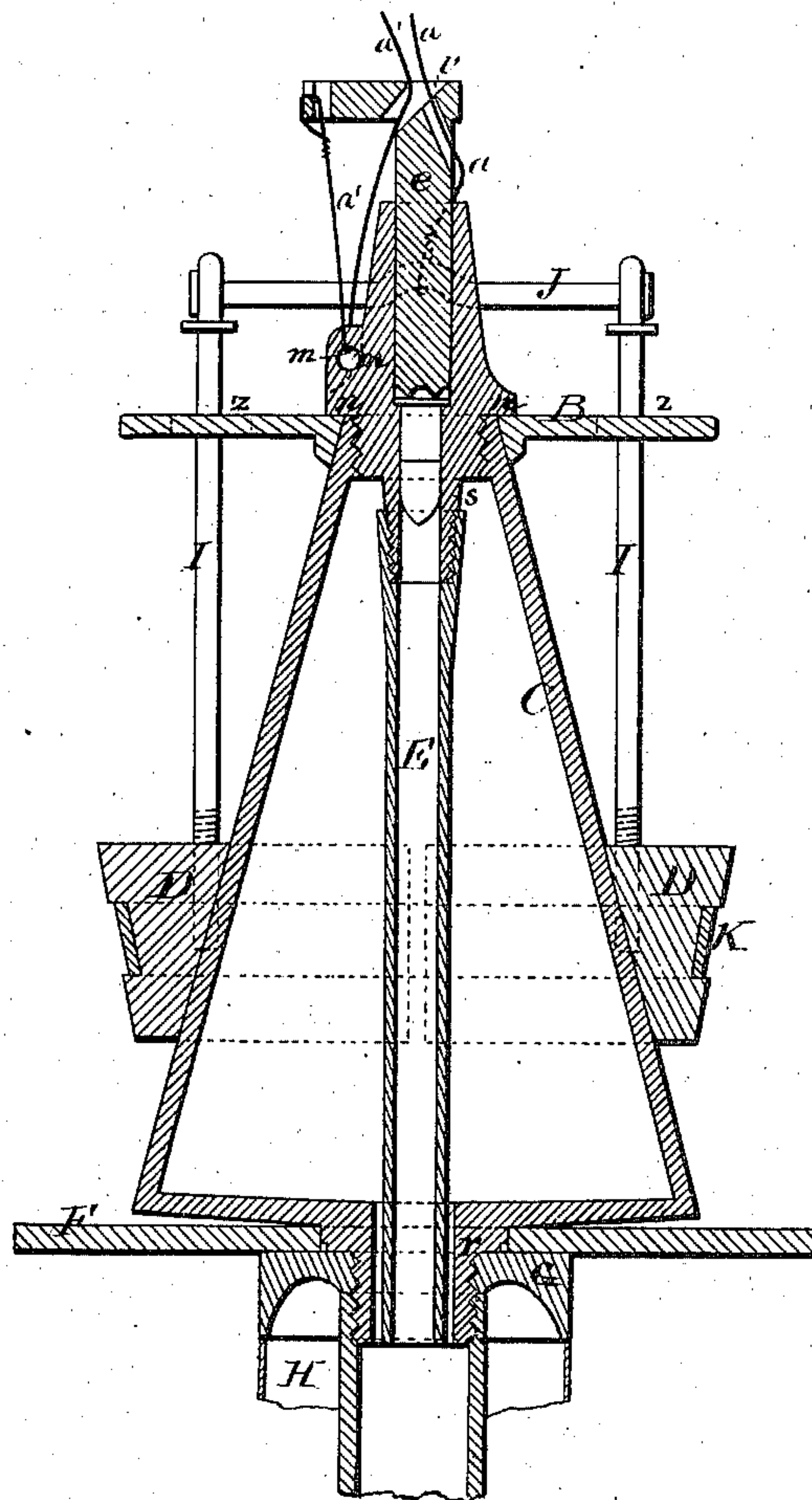
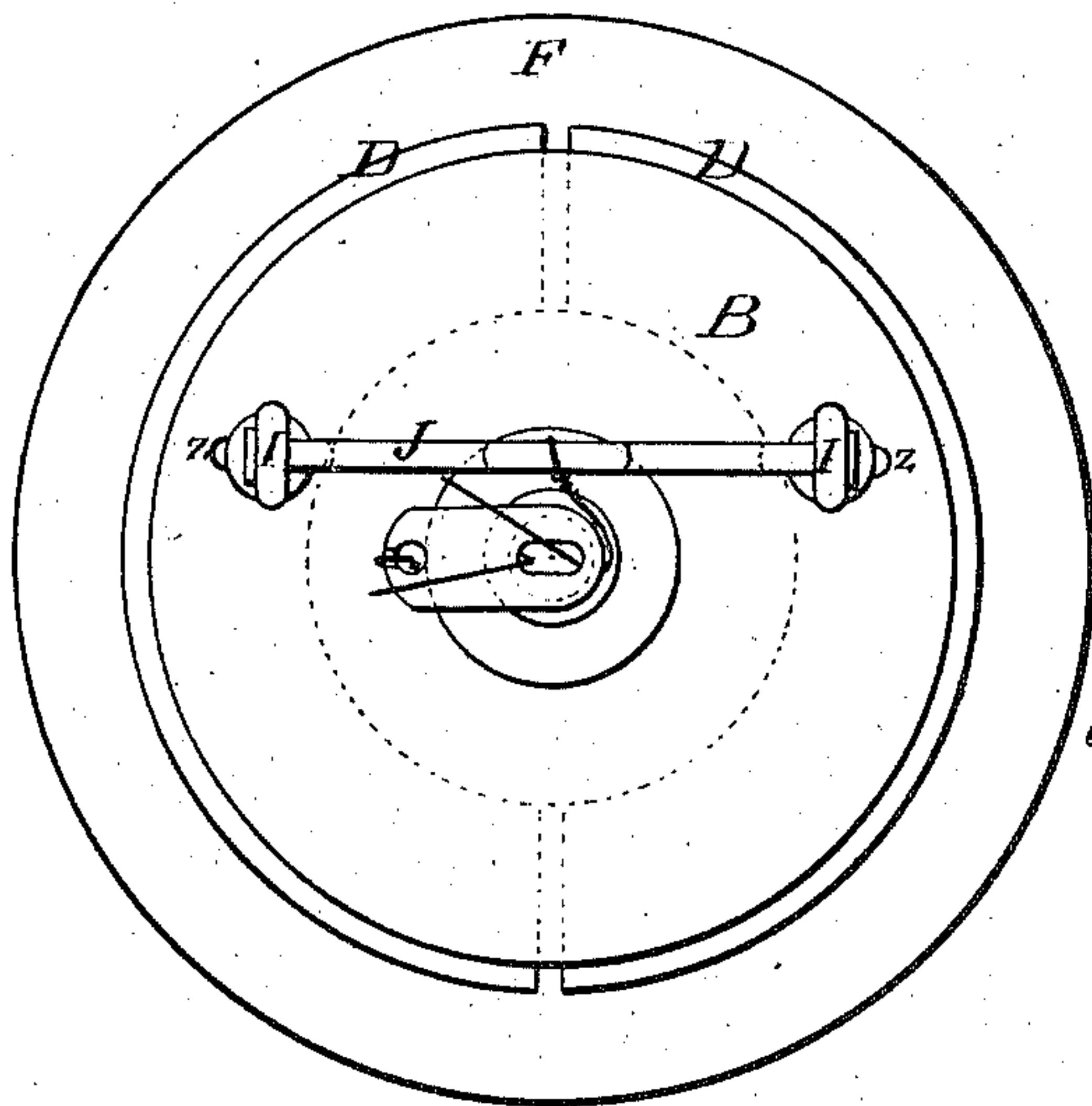


Fig. 2.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

STEPHEN A. BRIGGS, OF TIDIOUTE, PENNSYLVANIA.

## IMPROVEMENT IN SELF-TAMPING TORPEDOES.

Specification forming part of Letters Patent No. 138,373, dated April 29, 1873; application filed February 1, 1873.

*To all whom it may concern:*

Be it known that I, STEPHEN A. BRIGGS, of Tidioute borough, in the county of Warren and State of Pennsylvania, have invented a new and useful Improvement in the Self-Tamping Torpedo-Head, and in the mode of attaching and firing or discharging the torpedo; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the devices, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

This invention has relation to self-tamping torpedo-heads; and it consists in the construction and novel arrangement of the cone and automatic semicircular tamping-jaws, all as hereinafter more particularly described.

In the accompanying drawing, the letter A indicates the chamber extending through the head to the cone; B, the cap or collar at the upper end of the cone. C indicates the cone, cored out and pierced by the directing-tube connected with the chamber A; D, semicircular sliding jaws encircling and playing over the cone C. E designates the directing-tube running through the center of the cone C and forming a direct communication between the chamber A and the torpedo H. F represents the circular explosion or recoil plate at the base of the cone; G, the collar of the torpedo, attached thereto usually, and screwed on the cone at the center of its base. I I are upright rods or eyebolts passing through slots *z* in the collar B, connected at their upper ends with the cross-bar J, and secured at their lower ends, one to each semicircular jaw D. *e* indicates the plunger playing into the chamber A. The upper portion of this plunger should be perforated, as shown at *v*, for the passage of the line *a'* and the line *a*. The former extends from the plunger through the eye *m* in the top of the chamber, and serves to hold the plunger in place. The line *a* is attached to the middle portion of the cross-bar J, and passes through the perforation *v* in the top of the plunger. The torpedo with the head here described is raised and lowered by these lines. Sometimes a wire may be used to connect the plunger with the eye in the top of the cone.

The cone C is of brass or other metal, cored out in the center, and having a screw-thread on the inside of the opening at the top for the reception of the screw at the base of the chamber A, which is also of metal, and provided with an outer flange or shoulder, *n*, which serves to keep in place the collar B. From the center of the base of the cone descends an extension, *r*, which is provided with a screw-thread for the attachment of the collar G of the torpedo. At the base of the extension *r* is formed a shoulder for the adjustment of the central opening of the recoil-plate F, which fits closely against the base of the cone, and is kept in place by the collar of the torpedo. The latter is securely attached to the torpedo by soldering or otherwise. The lower end of the chamber A is provided with a downward extension, *s*, of small diameter, which is externally threaded for connection with the directing-tube E or barrel, which passes through the center of the cone and through the collar G to the torpedo. The cross-bar J, which connects the upper ends of the eyebolts I I, is centrally bent or otherwise arranged to keep the line which is attached to it in place.

The torpedo may be exploded in several ways. A simple mode is to insert, before dropping the head into the well, into the chamber A a common pistol or rifle cartridge. The point of the plunger rests on the head of the cartridge, and a blow on the top of the plunger, by dropping something upon it or otherwise, will drive the point into the cartridge, exploding the same and sending its ball through the directing-tube E into the torpedo. The force of the consequent explosion of the torpedo, acting against the recoil-plate F, drives the cone up between the jaws D, expanding and tightening them in their place in the well.

After the torpedo has been exploded, or if, for any reason, it becomes desirable to remove it without explosion, the jaws are readily raised and loosened by pulling the cord attached to the cross-bar J. An elastic band, K, is arranged to encircle the jaws D D, drawing them together as they are drawn upward.

The torpedo-collar G, screwing to the cone, enables the operator to remove the torpedo when necessary, and is designed to afford a ready and convenient means for attachment.

I am aware that a self-tamping torpedo with inclined plane and wedge-jaws is not new; therefore I do not claim, broadly, such invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the cone C, of the semicircular jaws D D and the elastic band K, substantially as specified.

2. The combination, with the cone C, of the semicircular jaws D D, the rods I I, the cross-bar J, and the plate B, substantially as specified.

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Witnesses:

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