

*C. Perley.*  
*Naval Ram.*

*No 37,769.*  
*No 1,880.*

*Patented Feb 24, 1863.*  
*Reissued Feb 21, 1865.*

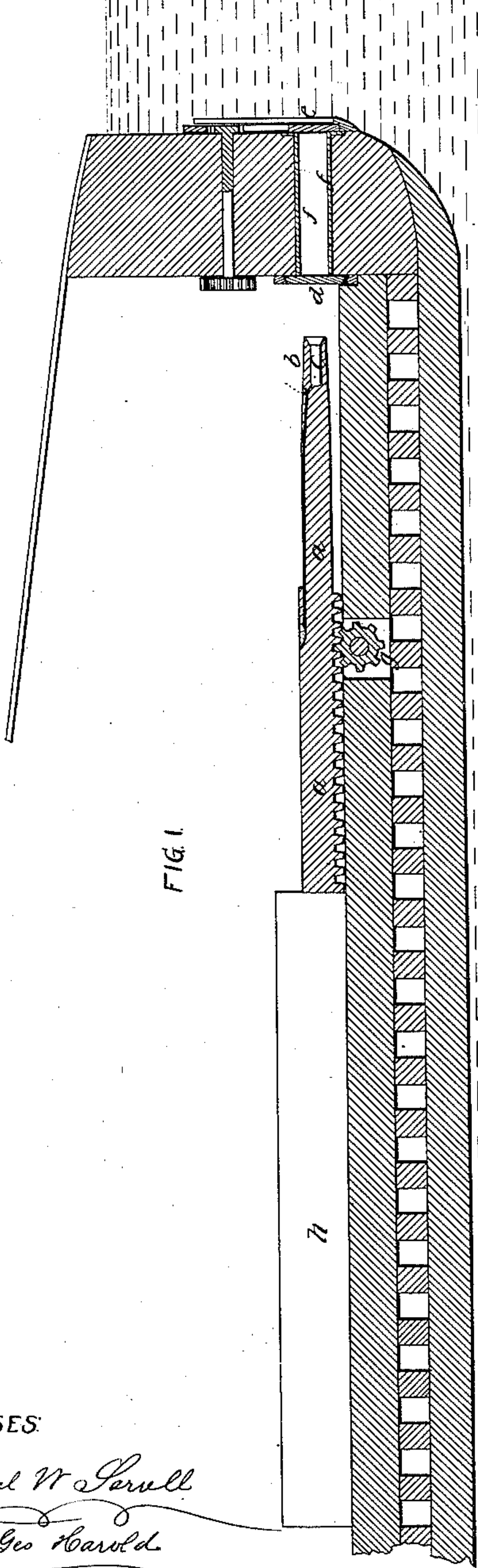


FIG. 1

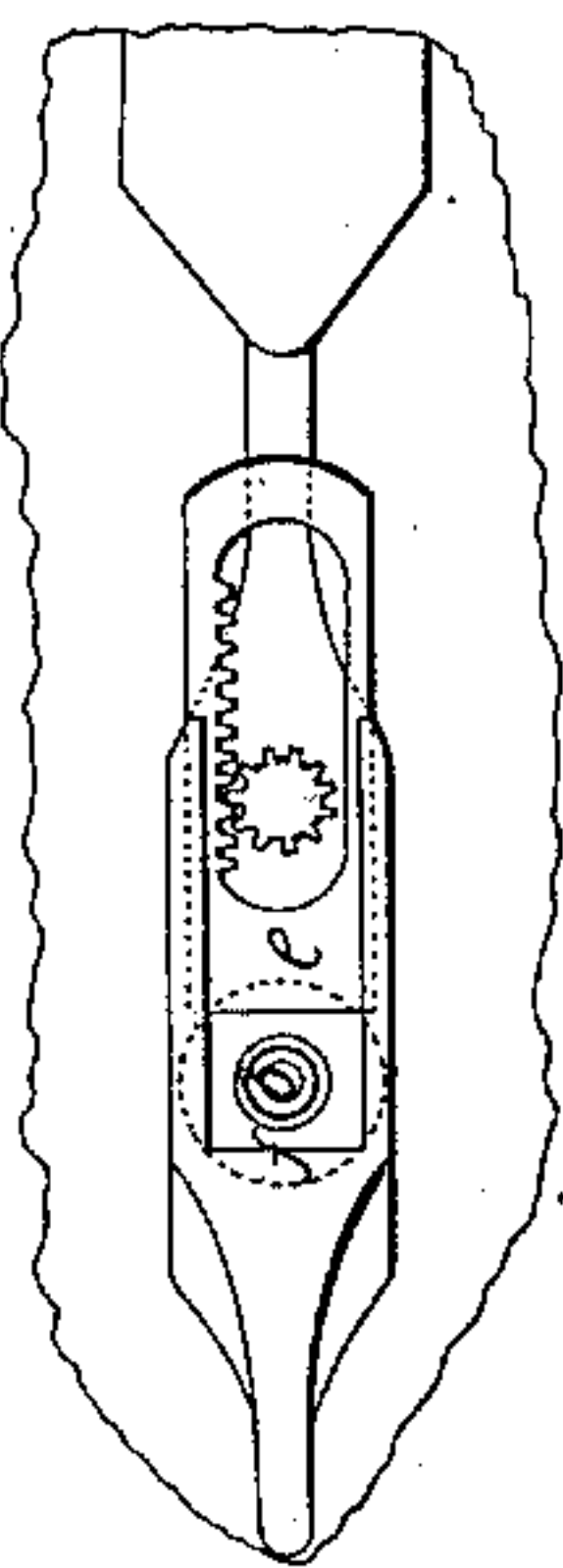


FIG. 2.

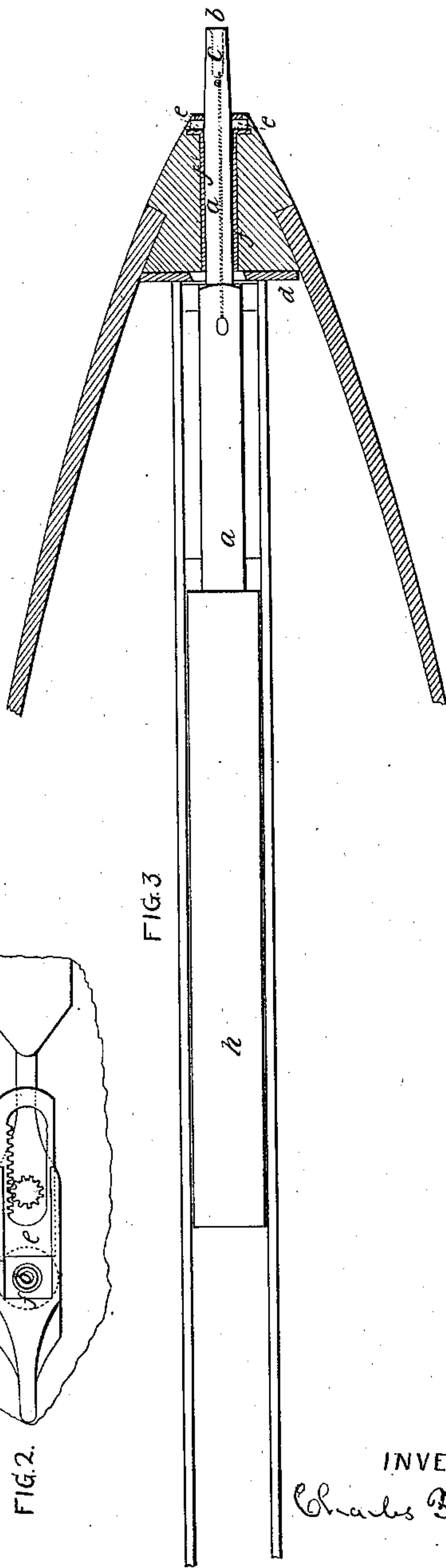


FIG. 3

WITNESSES

*Lemuel W. Scrull*  
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INVENTOR

*Charles Berley*



# UNITED STATES PATENT OFFICE.

CHARLES PERLEY, OF NEW YORK, N. Y.

IMPROVED NAVAL RAM FOR THE DESTRUCTION OF THE ENEMY'S SHIPS.

Specification forming part of Letters Patent No. 37,769, dated February 24, 1863.

*To all whom it may concern:*

Be it known that I, CHARLES PERLEY, of the city and State of New York, have invented and made a certain Improvement in Means for Destroying Vessels of War; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a section of the bows of a vessel with my ram in place for use. Fig. 2 is an end view of said ram, and Fig. 3 is a plan of the same.

Similar marks of reference denote the same parts.

The nature of my said invention consists in the employment of a metallic horn or ram to act under water, and fitted in such a manner that the same can be protruded or withdrawn at pleasure, and when in use will strike the vessel to be destroyed, making a hole in her, and the concussion produced is so relieved as not to injure the vessel. I take a shaft or bar of metal, *a*—say about twenty-five feet long—and at the end thereof introduce a steel perforating-instrument, *b*, that is to be run into the vessel to be destroyed, and said bar is located at a suitable distance below the water-line. This end to the shaft I have shown as an annular or cutting edge, in order that the same may gouge out and cut away anything it may come in contact with, and, as the part that cuts in and perforates, is on the edge, it will not glance off, but will penetrate even when striking at an acute angle. The end of this horn or shaft is to be formed, when desired, as a cannon, *c*, in order that the same may be fired the moment the penetration of the horn into the vessel to be destroyed has taken place, so as to increase the opening for the admission of water and start the horn back should it become wedged in.

In order to actuate the horn and to sustain the same, I employ the following device: I introduce a pipe at the bows or stern, or both, about five or six feet below the ordinary water-line, and this pipe is to be provided with stop-cocks *d* and *e*, one at each end, in order that water may be excluded from the vessel. The horn *a* is to fit the inside of the pipe *f* tightly, or grease or any suitable packing may be employed to keep the vessel from leaking when the horn is protruded through the pipe, as

in Fig. 3, the stop-cocks being opened successively as the horn is shoved or forced forward. The horn should be loaded while in the vessel, and the charge and fuse kept water-tight by a coating of tar or similar material. The fuse or electrical wire to fire the cannon should run in a groove planed in the iron horn. The horn is to be projected out or drawn in by means of a pinion, *g*, driven by suitable power, and when projected may be sustained by a heavy pawl or casting introduced behind it, and sustained by bracings extending through the vessel, so as to distribute the strain produced by running this horn into a vessel's side below the water-line and below the plating of iron now usual. In place of the aforesaid bracing, I, however, prefer to use a heavy body resting on the keelson as a resistance, and relieving the vessel itself from concussion and strain by allowing said body to slide on the keelson. This heavy body should be an iron box, *h*, filled with sections of iron or other ponderous bodies, so as to allow of being moved by detail if desired. This mass, however, can be run back to allow the horn to be withdrawn after a collision by the employment of rollers in the keelson, to be raised by eccentrics or otherwise, and the horn and box drawn back by gearing or other means; or the said box may be forced forward to follow up the horn, and afterward allowed to settle down on the keelson by lowering the supporting-rollers. It will be thus evident that the horn is entirely under control, and can be forced out or drawn in, and, besides this, the edge of the horn is such as not to glance off the part struck, and the explosion of the cannon will complete the perforation and destruction of the vessel struck, and the blow itself is due to the inertia of the mass contained in the vessel, instead of the vessel itself, thus relieving the same from strain.

A vessel constructed as aforesaid can go from place to place among a fleet, performing its work of destruction with comparative ease.

When not in use, the horn or ram is drawn back entirely out of the way.

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

1. The stop cock or cocks *d* and *e*, applied at the end of the vessel below the water-line, in combination with the movable ram *a*, for the purposes and as specified.

2. The circular cutting-edge and the cannon applied to and combined with the movable ram in the manner specified, so that said cannon can be loaded when the ram is drawn into the vessel, or a new cutting-edge substituted, as specified.

3. The ram fitted to slide in the opening in the vessel through which it is projected, in combination with the weighted box *h*, con-

tained in the vessel, but not attached thereto, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 6th day of May, 1862.

CHARLES PERLEY.

Witnesses:

LEMUEL W. SERRELL,  
THOS. GEO. HAROLD.