2 Sheets--Sheet 1.

C. J. VON CORT, dec'd.

CHARLOTTE A. VON CORT, Executrix.

Torpedo-Boats.

No. 156,320. Patented Oct. 27, 1874.

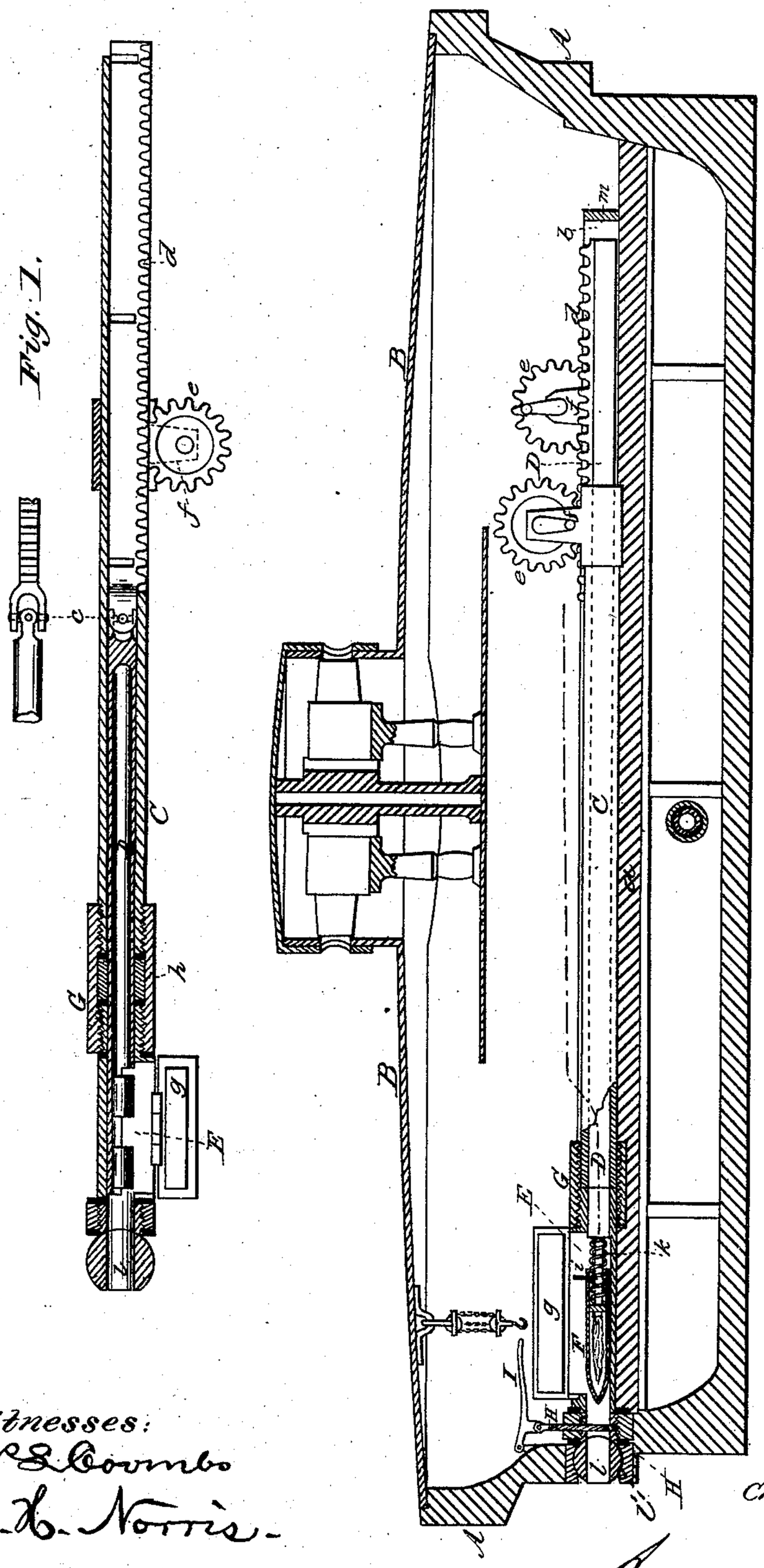

Fig. 1.

Fig. 2.

Witnesses:
D. S. Coombs
A. H. Norris

Inventor:
Chas. J. von Cort,
by Charlotte A. von Cort, Admx
By Atty.
James L. Norris.

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Fig. 5.

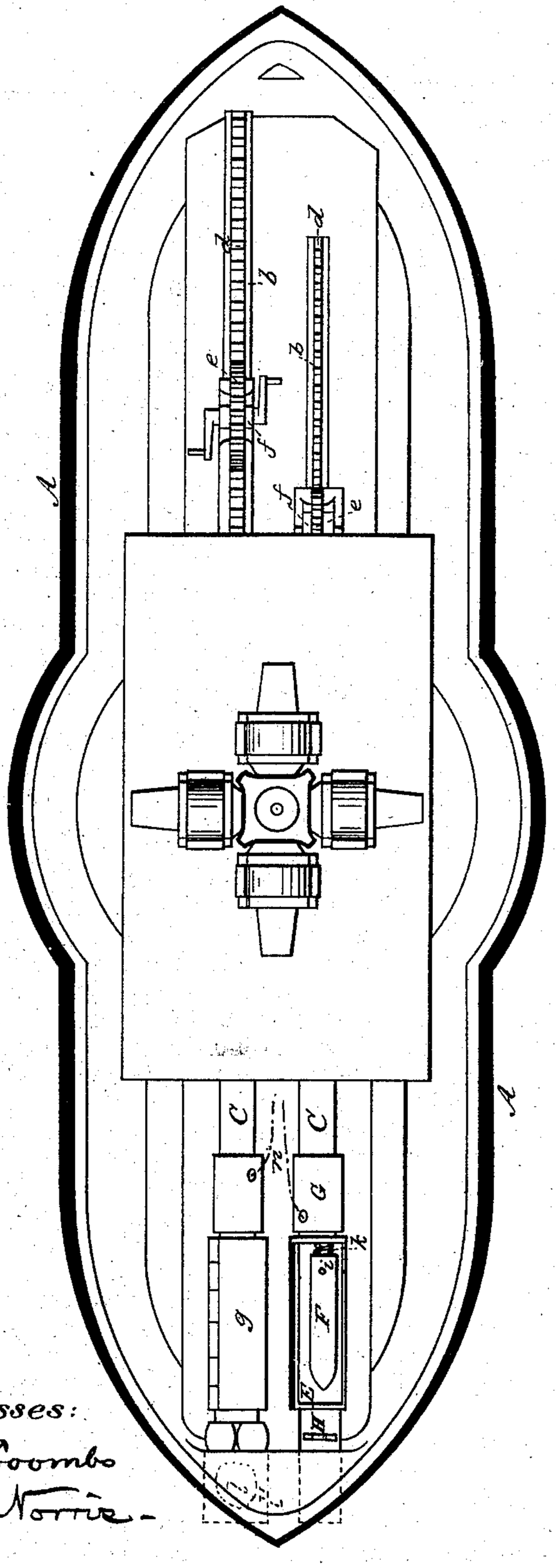
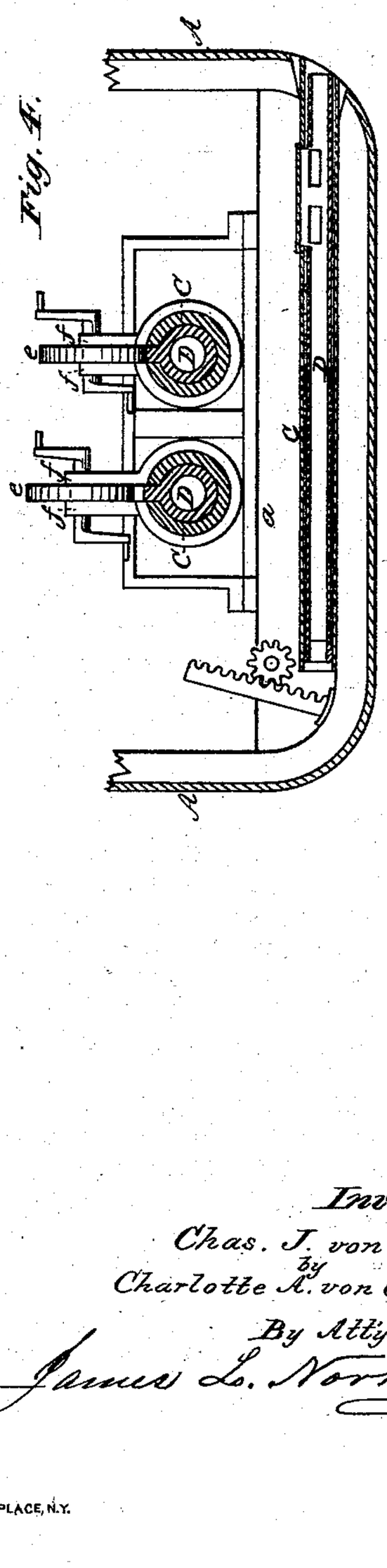


Fig. 4.



Witnesses:

W. G. Coombs

A. H. Norris

Inventor:

Chas. J. von Cort,

by

Charlotte A. von Cort, Adm'x.

By Atty.

James L. Norris.

UNITED STATES PATENT OFFICE.

CHARLOTTE A. VON CORT, OF MORRISANIA, NEW YORK, EXECUTRIX OF CHARLES J. VON CORT, DECEASED.

IMPROVEMENT IN TORPEDO-BOATS.

Specification forming part of Letters Patent No. **156,320**, dated October 27, 1874; application filed June 23, 1874.

To all whom it may concern:

Be it known that CHARLES J. VON CORT, of Morrisania, in the county of Westchester and State of New York, did invent certain new and useful Improvements in Submarine Torpedo-Boats, of which the following is a specification:

This invention has for its object to furnish a torpedo boat or vessel for carrying and delivering a torpedo against an enemy's vessel, after which the torpedo is fired either by concussion, a fusè, or by an electric insulated wire.

The invention consists, first, in a torpedo-carrying rod adapted to move in and out of a vessel, through the medium of a rack and pinion, the said rod being arranged within a guide-tube having a packing to prevent the entrance of water into the said tube, and a box for charging the rod or placing the torpedo on the same, and a gate or valve for closing the opening through which the torpedo-rod passes when it is projected, whereby, when the rod is in its normal position, the entrance of water is prevented through said opening. Second, in a torpedo-carrying rod provided with a joint and adapted to be entirely drawn within the vessel, or projected from the same, to operate in connection with a universal or ball-and-socket joint, whereby a torpedo may be connected with said rod, and projected or run out a distance from the vessel, then manipulated in any desired direction in order to strike the enemy's vessel, and the torpedo may be caused to enter the sides of the vessel, and by such action become detached from the rod and fired by a fuse, or it may be fired by concussion, or by an electric insulated wire. Third, in a combination, with a torpedo-carrying rod, of a pin holding the torpedo on the end of the rod, and a spring for forcing the torpedo therefrom, whereby, when the torpedo strikes an enemy's vessel, it fractures or disengages the pin and compresses the spring, and, by the expansion of the latter, the torpedo is projected with force against the enemy's vessel to be fired by a fuse, concussion, or by an electric insulated wire.

In the drawings, Figure 1 is a detached sectional view of the torpedo-carrying rod, guide-tube, rack and pinion, and charging-box. Fig. 2 is a longitudinal central section of a vessel having my improvements. Fig. 3 is a top or plan view thereof; and Fig. 4, a transverse section thereof.

In the accompanying drawings, A represents a boat or vessel, of any preferred construction, provided with a top covering-plate, B, of metal, which may have a dome in which is arranged a series of guns for defense. To the supplementary bottom *a* of the boat is suitably attached or secured a tube, C, provided with a slot, *b*, and within this tube is arranged the torpedo-carrying-rod D. The latter is constructed, preferably, of two parts pivoted or connected together by means of a universal joint, *c*, the rear end of the rod being provided with a rack, *d*. Above this guide-tube and rack is arranged a pinion, *e*, suitably supported in a bracket, *f*, and meshing with the rack *d*, whereby the torpedo-carrying rod may be moved longitudinally or within and out of the vessel, as hereinafter mentioned. The guide-tube C is provided at its forward end with a box or enlarged head, E, for charging the rod or placing the torpedo in position, and with a hinged door, *g*, to close the said box when the torpedo is in place; and the guide-tube is also provided with a packing, *h*, which bears against the sliding rod, for preventing the entrance of water into the guide-tube beyond the said packing. The torpedo F is secured upon the reduced end of the carrying-rod by means of a small pin, *i*, which passes through the casing of the torpedo into said rod; and, behind the torpedo, and bearing against the same and a shoulder on the carrying-rod, is arranged a spiral or other spring, *k*, whereby, when the rack and pinion are operated to project the rod out of the vessel at a distance from the same, and the torpedo strikes an enemy's vessel, the pin *i* will be fractured or broken, and the force of the blow will compress the spring *k*, which, upon expanding, throws or forces the torpedo from the carrying-rod and against the vessel, and the latter may be caused to enter the sides of the enemy's vessel, and to be fired by a fuse, or it may be fired by concussion, or by an electric insulated wire attached to a reel, and

adapted to play out, in order to permit the torpedo-carrying vessel to propel itself a safe distance before the torpedo is exploded.

The guide-tube C is so constructed and arranged in position on the supplementary floor of the vessel that it may be oscillated or rotated, so that when the torpedo-carrying rod is projected from the vessel, and the universal joint *c* of the same reaches the ball *l* in the socket *l'*, the said guide-tube may be rotated or oscillated, and thereby the projecting end of the rod carrying the torpedo may be manipulated in any desired direction, for the purpose of searching for and striking the enemy's vessel. The torpedo-rod is, in the present instance, constructed hollow, for the purpose of securing lightness and strength; but it may be made solid, as to best suit the purpose.

It is in certain instances essential to lock the torpedo-carrying bar in position when it is projected from the vessel; and in order to accomplish this I preferably arrange a bar or wedge between the rear end of the torpedo-bar and a shoulder, *m*, on the supplementary bottom; but it is evident that this may be otherwise accomplished.

As shown the guide-tube C and charging-box E are formed separate, and united by a screw-threaded coupling, G; but this is not essential, as they may be in one piece, or otherwise.

A sliding gate or valve, H, is provided to shut the opening through which the torpedo-rod passes from the vessel, in order to prevent the entrance of water when the said rod is within the vessel, and when the torpedo-rod is to be projected the gate is raised by a pivoted lever, I, as shown.

The vessel is described as having a single torpedo-carrying-rod; but it is evident that a plurality may be used, and that, instead of the rod passing from the bow of the vessel, it may pass from the side or sides thereof, or both, if required and found necessary.

When the torpedo is to be fired by electricity, the electric insulated wire *n* is simply placed within the hollow carrying-rod, and connected with the torpedo in any suitable manner, the wire being carried by a reel; and the torpedo may be caused to enter the enemy's vessel, to remain there while the torpedo-carrying boat is propelled to a safe distance, and then the torpedo fired; or it may be fired as soon as it arrives beneath the enemy's vessel.

It is evident that the guide-tube may be, in some instances, dispensed with without departing from the spirit of my invention.

Having thus described the invention, what is claimed is—

1. A torpedo-carrying rod adapted to move longitudinally, by means of a rack and pinion, in combination with a guide-tube, a charging-box having a packed cover, and a gate or valve to prevent the entrance of water, the parts being constructed and arranged for operation substantially as described.

2. The combination of a jointed torpedo-carrying rod and a universal socket or joint, substantially as described, whereby a torpedo may be projected from the vessel, then manipulated in any desired direction, and fired by concussion, electricity, or a fuse, substantially as described.

3. The combination, with a torpedo-carrying rod, of a holding-pin and a spring for projecting or forcing the torpedo from the rod when the pin is fractured or disengaged, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

C. A. VON CORT.

Witnesses:

GEO. B. GOLDSCHMIDT,

JAMES A. BIRKETT.