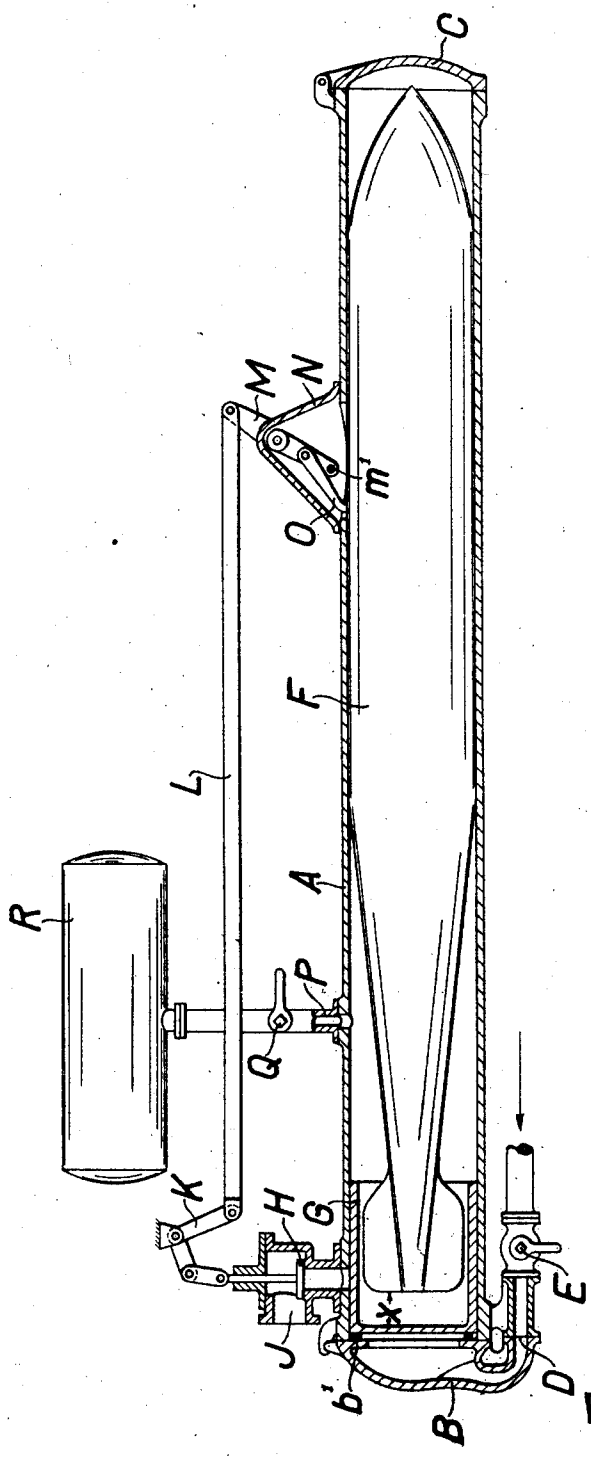
Jan. 17, 1928.

1,656,249

H. TECHEL

UNDERWATER TORPEDO TUBE

Filed Aug. 10, 1926



Inventor
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Patented Jan. 17, 1928. 1,656,249

UNITED STATES PATENT OFFICE.

HANS TECHEL, OF HAAG, NETHERLANDS, ASSIGNOR TO FRIED. KRUPP GERMANIAWERFT AKTIENGESELLSCHAFT, OF KIEL-GAARDEN, GERMANY.

UNDERWATER TORPEDO TUBE.

Application filed August 10, 1926, Serial No. 128,495, and in Germany August 11, 1925.

This invention relates to under-water torpedo tubes of the type disclosed in the Letters-Patent of the United States No. 1,526,256, according to which the torpedo is ejected by means of a freely movable piston which is arranged in the tube in rear of but not in contact with the torpedo and the rear face of which is acted upon by the driving medium.

Now, the invention has for its object to modify the torpedo tube in such a manner that its length is reduced, this being very desirable especially in submarines in view of the restricted conditions of room. This object is essentially attained by forming the driving piston as a hollow body member open at one side and adapted to surround the rear end of the torpedo.

An embodiment of the subject-matter of the invention is illustrated in the accompanying drawing which shows a longitudinal section through a torpedo tube with a piston constructed in accordance with the invention.

The construction of the tube corresponds in general to that of the tube described in the U. S. Patent 1,526,256. A designates the torpedo tube which is closable in a gas- and air-tight manner by means of doors B and C. The supply pipe D for the compressed air which is provided with a cock E, opens into the door B. F is the torpedo. Arranged at a certain distance x from the rear end of the torpedo is the driving piston G which is constructed, according to the invention, as a hollow body member surrounding the rear end of the torpedo. When the piston is in the position of rest, it bears by its head tightly against a rubber ring b^1. K, L, M are the control rods of the compressed air exhaust valve H, J. The double-armed lever M which is provided at its lower end with a stop m^1 and with a pawl-like element O, is mounted in a hollow bearing block N. The tube A and the water tank R are in communication with each other by means of a pipe P which is closable by a cock Q.

The same as in the said Letters-Patent, the torpedo F is arranged in the tube A so that a certain distance x exists between its end carrying the sensitive steering elements and the piston head. The space between the torpedo and the piston fills with the pressure water when same is admitted and forms a water cushion protecting the sensitive steering elements of the torpedo.

The launching of the torpedo is effected as described in the said Letters-Patent by admitting behind the piston G compressed air driving the piston forward which in turn transmits the movement to the torpedo through the intermediary of the surrounding water. In moving forward the piston reverses the lever M and thereby opens the exhaust valve H for the compressed air, whereupon the piston is driven back into its initial position by the pressure of the external water.

I claim:

In an under-water torpedo tube, a freely movable piston for ejecting the torpedo, said piston being arranged wholly within the tube in rear of but not in contact with the torpedo and consisting of a hollow body member open a one side and adapted to surround the rear end of the torpedo.

The foregoing specification signed at Hamburg, Germany, this 27th day of July, 1926.

HANS TECHEL.

CERTIFICATE OF CORRECTION.

Patent No. 1,656,249. Granted January 17, 1928, to

HANS TECHEL.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: In the claim, line 76, for the article "a" read "at"; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of February, A. D. 1928.

Seal.

M. J. Moore,
Acting Commissioner of Patents.