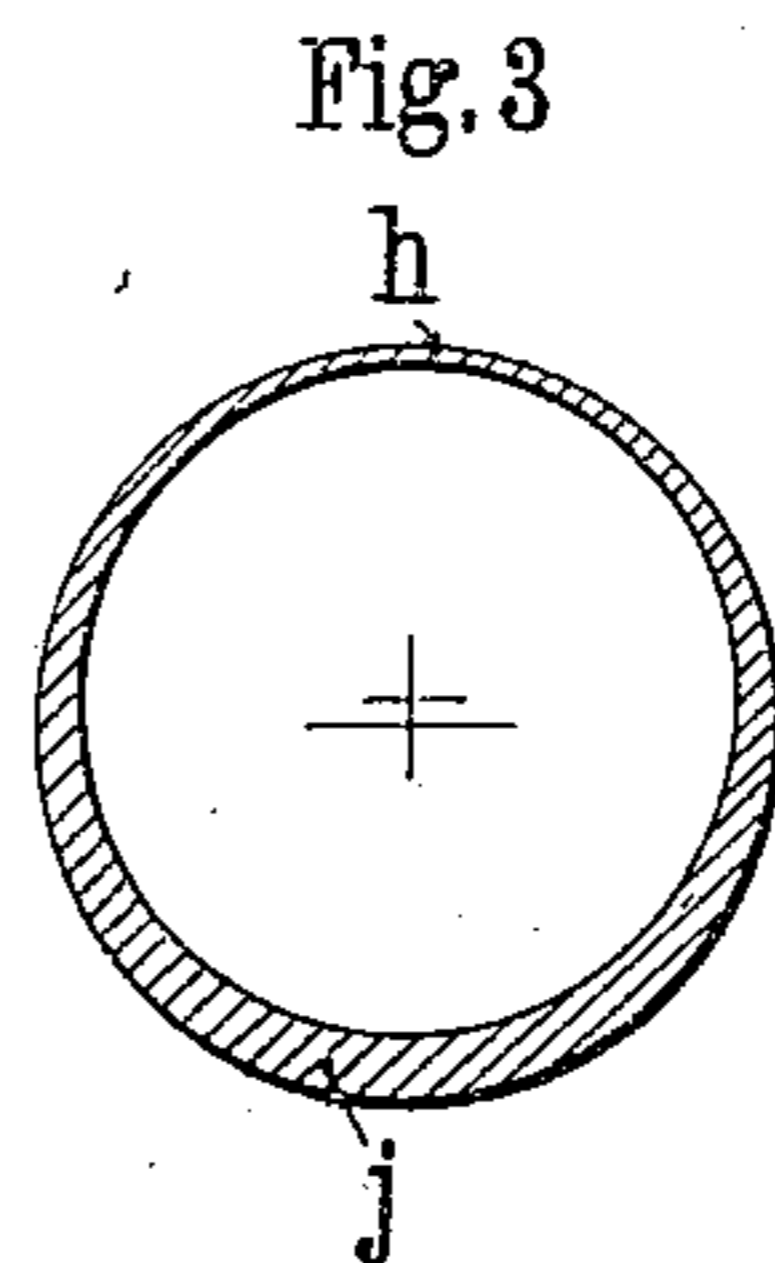
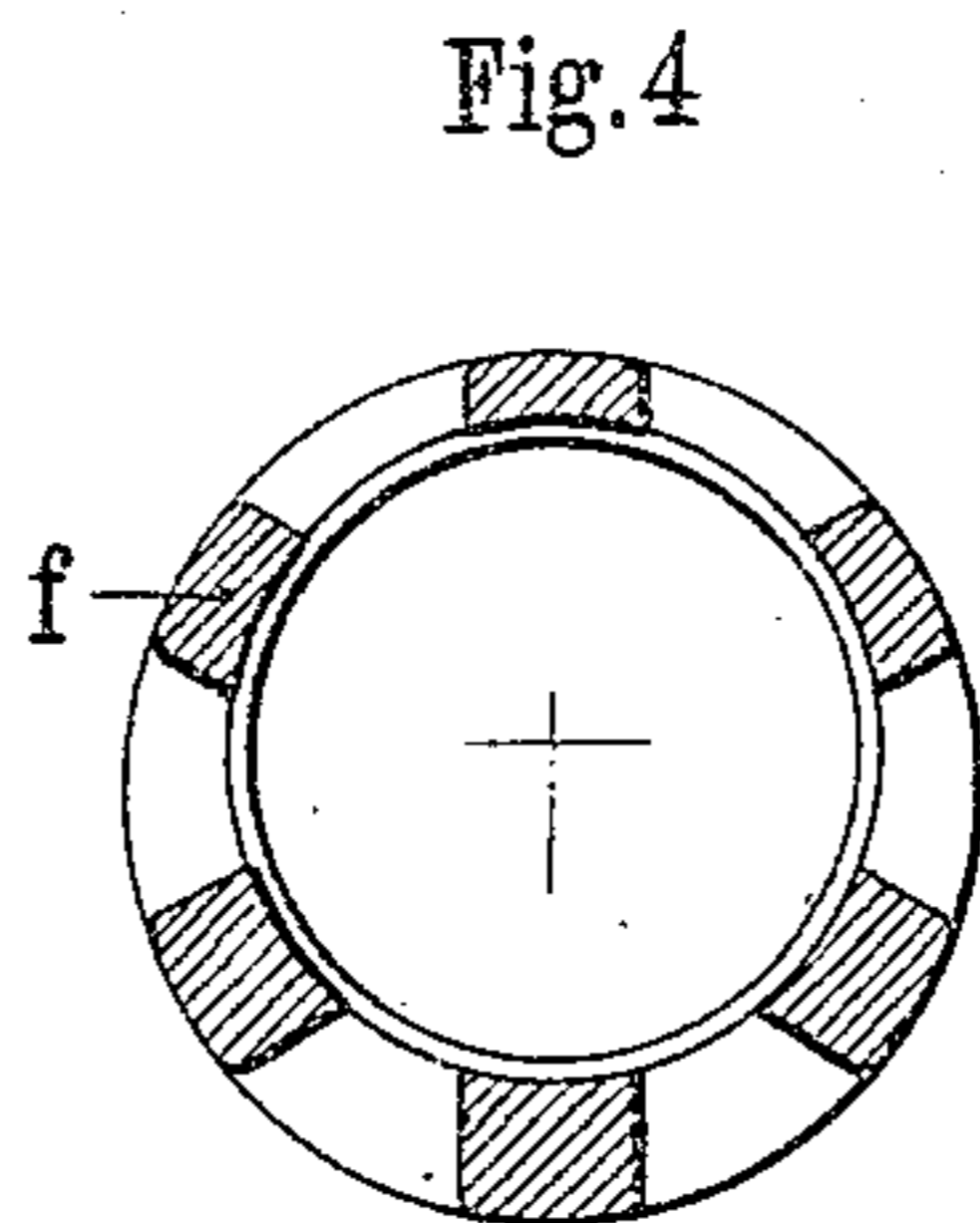
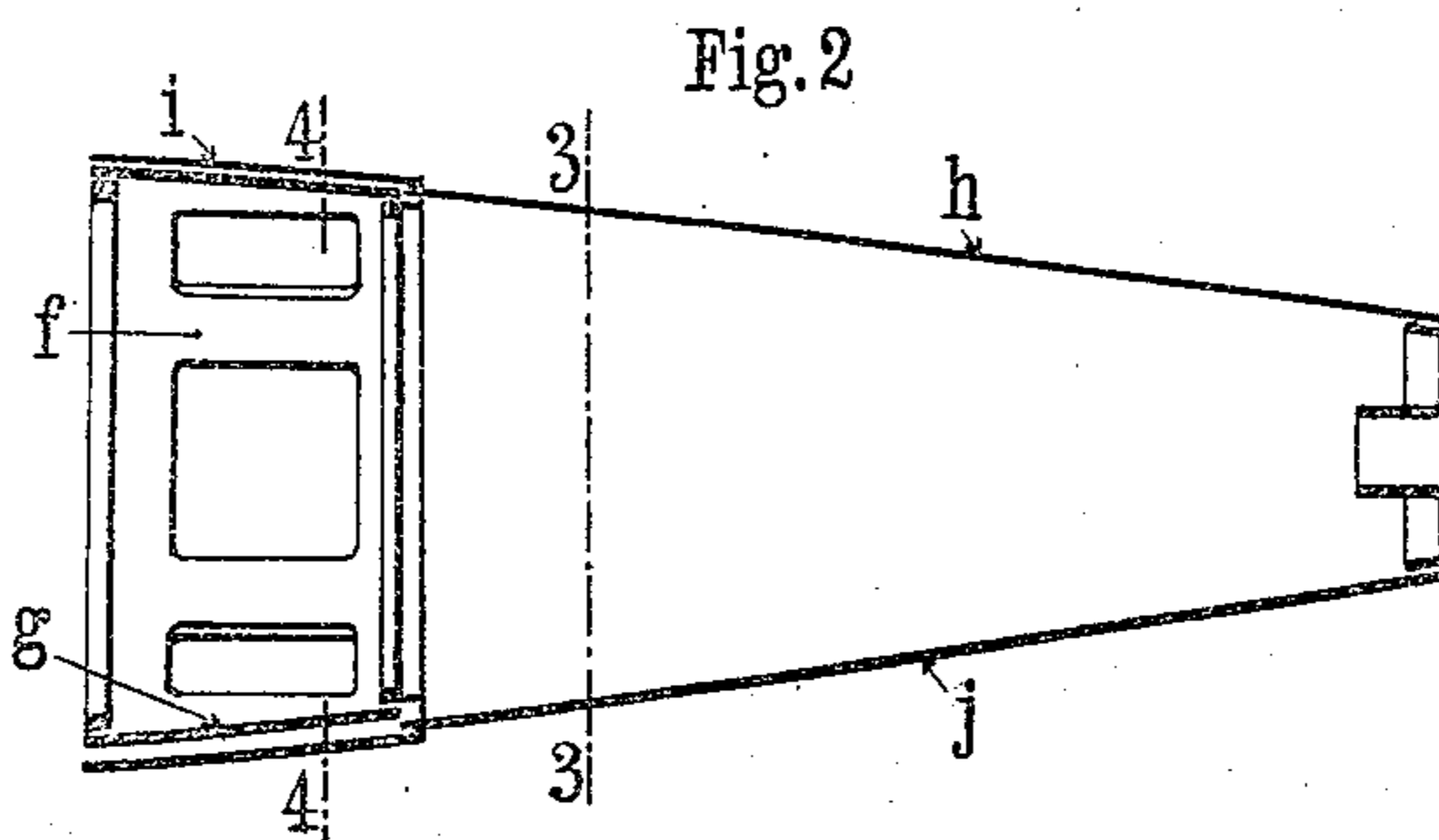
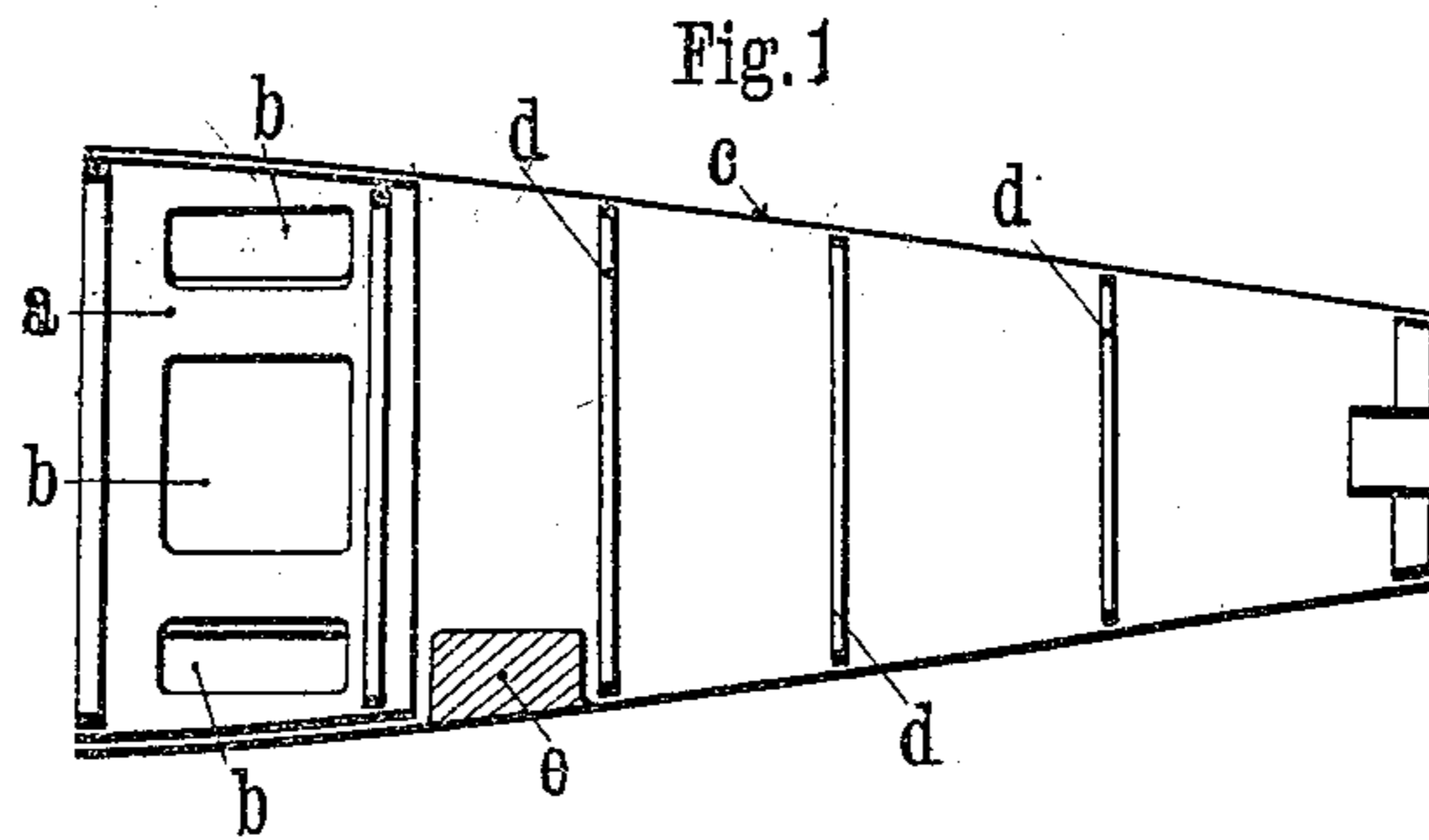


A. E. JONES.
 SELF PROPELLED TORPEDO.
 APPLICATION FILED JULY 10, 1908.

910,823.

Patented Jan. 26, 1909.



WITNESSES
William P. Goebel
J. P. Davis

INVENTOR
Albert Edward Jones
 BY *Mumford*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBERT EDWARD JONES, OF FIUME, AUSTRIA-HUNGARY, ASSIGNOR TO WHITEHEAD & COMPANY, OF FIUME, AUSTRIA-HUNGARY, A CORPORATION.

SELF-PROPELLED TORPEDO.

No. 910,823.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed July 10, 1908. Serial No. 443,004.

To all whom it may concern:

Be it known that I, ALBERT EDWARD JONES, a subject of the King of Great Britain, residing via Volosca, at Fiume, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Self-Propelled Torpedoes, of which the following is a specification.

This invention has for its object an improved rear shell for self-propelled torpedoes.

In accordance with this invention, the metal plate forming the casing, and the cage of the motor, comprises at the lower part an excess thickness extending throughout its entire length, in order that by increasing the stability of the torpedo and the rigidity of its shell in this way, the steadying ballast and the angle irons for reinforcing the casing may be dispensed with either wholly or partially, with the object of diminishing the weight of the torpedo, while rendering this casing capable of resisting corrosion for a longer period. To this end the thickness of the casing of the motor and that of the conical plate forming the rear part of the torpedo increases in section gradually from top to bottom. This construction of the rear shell also imparts greater strength to the latter, increases the stability of the torpedo, and reduces its weight, while better protecting the casing of the rear portion against the harmful influence of salt water which may penetrate.

In the accompanying drawing:—Figure 1 represents in longitudinal section the rear part of a torpedo of known construction, and Fig. 2 is a similar section of a torpedo constructed in accordance with the present invention. Figs. 3 and 4 are respectively cross-sections on lines 3—3 and 4—4 of Fig. 2, in which, for the sake of clearness, the thickness has been purposely exaggerated.

In the known construction, the chamber of the motor is constituted by a cage or lantern *a* (Fig. 1) the walls of which are formed of a metal part of uniform thickness.

The rear cone is constituted by a thin plate *c* of uniform thickness reinforced internally by appropriate angle irons *d* and entirely covering the cage of the motor, to which it is riveted and soldered. At the lower part of this rear cone, for example in proximity to the cage of the motor, there is fixed lead ballast *e* serving to give the torpedo the neces-

sary stability by lowering its center of gravity by an appropriate amount.

In the improved construction of the rear shell represented in Fig. 2 the thickness of the casing *f* of the motor gradually increases from top to bottom and the conical plate *h* is also gradually reinforced from its upper to its lower part *j*. The plate *h* is fixed to the rear edge of the cage *f*, and this cage is covered with a casing of thin metal *i* covering the apertures *b*, and fixed upon it in such a way as to be easily removable.

The excess thickness may be regulated in such a manner as to compensate for the weight of the ballast *e* in Fig. 1 either wholly or partially, thereby enabling this ballast to be dispensed with either wholly or in part. In addition to this, the casing of the rear cone is reinforced and the angle irons *d* of Fig. 1 become unnecessary. The excess thickness given to the part *j* presents the further advantage of enabling the casing to withstand for a longer period the corrosion of salt water which may penetrate within the torpedo.

Owing to the provision of a thin shell covering the cage of the motor, the motor may be inspected without having to dismount the joint between the cage of the motor and the air vessel; it is only necessary to remove the screws which support the thin shell *i* and to draw this shell towards the rear of the torpedo, in order to expose all the parts of the motor for inspection. In this manner errors of adjustment which might occur during the remounting of the mechanisms in the cage can be corrected.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A self-propelled torpedo, having a rear shell formed of a plate which has an excess thickness at the lower part, substantially as described.

2. A self-propelled torpedo, having a cage or lantern for the motor, and a rear cone, each comprised of a plate having a greater thickness at the lower part, substantially as described.

3. In a self-propelled torpedo, a motor cage and a rear cone, each formed of a plate which increases gradually in thickness from top to bottom, substantially as described.

[4. In a self-propelled torpedo; a motor
cage with apertures and a rear cone both in-
creasing gradually in thickness from top to
bottom, in combination with a thin casing
5 covering the apertures of the motor cage,
substantially as described.

In witness whereof I have hereunto placed

my hand, at Weymouth, England this twenty
fourth day of June 1908.

ALBERT EDWARD JONES.

In the presence of—

B. R. LEGG,

PERCY WOODS.