

(No Model.)

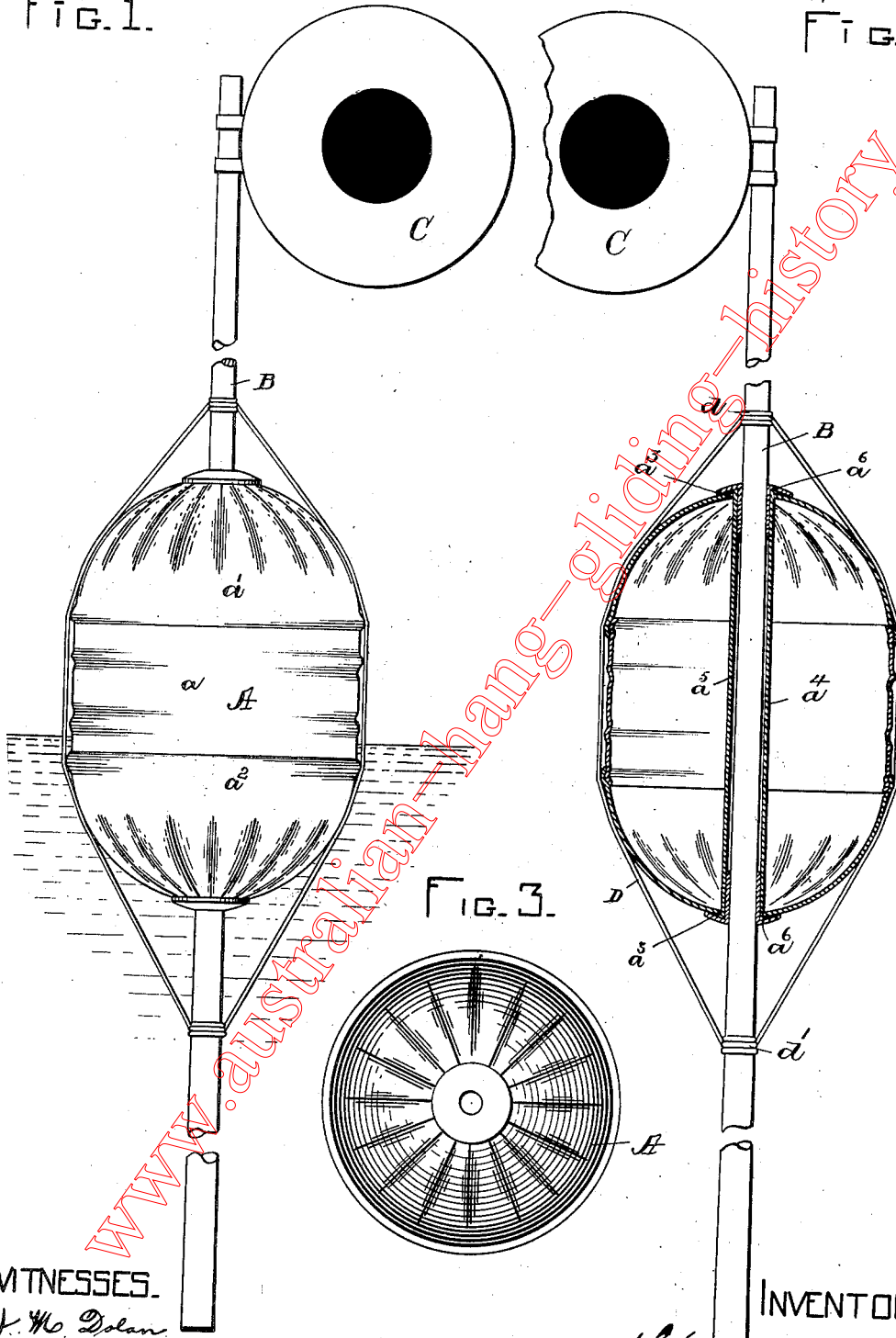
L. HUMBERT.  
BUOY.

No. 462,487.

Patented Nov. 3, 1891.

FIG. 1.

FIG. 2.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

LÉON HUMBERT, OF BIARRITZ, FRANCE.

## BUOY.

SPECIFICATION forming part of Letters Patent No. 462,487, dated November 3, 1891.

Application filed July 22, 1891. Serial No. 400,281. (No model.)

To all whom it may concern:

Be it known that I, LÉON HUMBERT, of Biarritz, in the Department of Basses-Pyrenees, in the Republic of France, have invented a new and useful Improvement in Buoys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to an improved buoy especially adapted for the buoying of trawls and other similar purposes.

In the drawings, Figure 1 is a view in elevation of my improved buoy. Fig. 2 is a view in vertical section thereof. Fig. 3 is a view in plan of the case of the buoy.

The buoy comprises a metallic air-tight case of peculiar shape and construction, which supports a stick or post, to the upper end of which is secured an indicator.

Referring to the drawings, A represents the metallic air-tight case, B the stick or post, and C the indicator.

The case A is made, preferably, in three parts—viz., the central corrugated galvanized section  $a$  and the corrugated galvanized hemispherical sections  $a'$   $a^2$ . These sections preferably are made of sheet-iron. The central section is corrugated horizontally and the end sections radially from the center, and the edges of the end sections are suitably joined to the edges of the central section. In each of the end sections there is a hole  $a^3$ , and the two end sections are tied together by means of a long sleeve or tube  $a^4$ , which extends longitudinally through the cavity of the buoy and the holes  $a^3$  and is headed on the outer surface of each end section. This sleeve or tube  $a^4$  not only securely fastens the end and central sections of the case or shell together, but it also acts to receive and hold the stick or post B, which extends through its hole or bore  $a^5$  and is held therein at each end of the hole by short-headed cylindrical sleeves  $a^6$ , the heads of which extend upon the outer sur-

face of the shell and the sleeves of which extend into the bore  $a^5$ , the post or stick extending through holes in them. The shell and stick are further secured together by means of the rope D, which is fastened at  $d'$  to the stick or post above and below the case, and which extends on each side of the case between said points of fastening.

The indicator or flag C is secured to the upper end of the stick or post in any desired way, and the stick or post is adapted to be connected with the trawl in any suitable manner.

A buoy of this construction is very buoyant, very strong, and also very light.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The improved buoy herein described, comprising the case or shell A, made of the cylindrical section  $a$  and the hemispherical sections  $a'$   $a^2$ , joined at their edges and united by a central connection extending from one hemispherical end to the other, as and for the purpose described.

2. In a buoy of the character specified, the body or shell comprising the cylindrical section  $a$  and the hemispherical end sections  $a'$   $a^2$ , of galvanized sheet metal, corrugated, as described, and united together, all substantially as set forth.

3. In an improved buoy of the character specified, the cylindrical section  $a$  and the hemispherical end sections  $a'$   $a^2$ , of corrugated galvanized sheet metal shaped and united together, substantially as specified, to form an air-tight shell, and having the central longitudinal hole  $a^3$  and the indicator post or stick B extending through said hole and united to the buoy, as and for the purposes described.

LÉON HUMBERT.

In presence of—  
HORACE G. KNOWLES,  
JOHN PRESTON BEECHER.