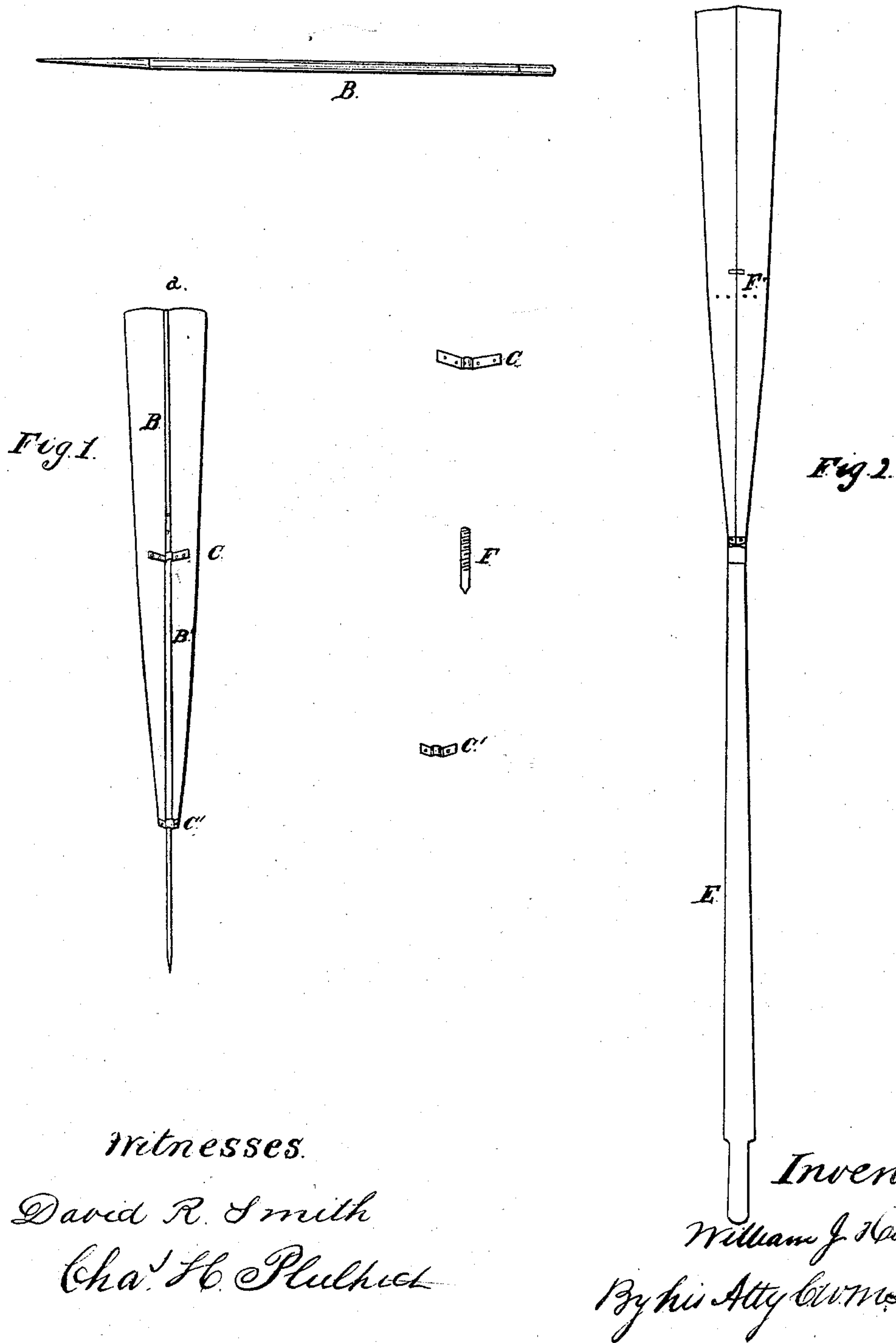


W. J. Hough.
Oar.

N^o 98,868.

Patented Jan. 18, 1870.



Witnesses.

David R. Smith
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Inventor

William J. Hough
By his Atty Geo. M. Smith

United States Patent Office.

WILLIAM J. HOUGH, OF MARTINEZ, CALIFORNIA.

Letters Patent No. 98,868, dated January 18, 1870.

IMPROVED OAR

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM J. HOUGH, of Martinez, in the county of Contra Costa, and State of California, have invented a new and improved "Self-Feathering, Rowing, and Sculling Oar;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and letters marked thereon.

The nature of my invention is to provide a self-feathering-oar for small boats, to be used for rowing or sculling, and consists of a thin blade of wood or galvanized iron, with concave and convex sides, having an adjustable rod which is attached to a wood handle.

In the drawings—

Figure 1 is a plan of the blade, showing the concave surface with handle removed.

Figure 2 is also a plan of blade, showing the convex surface with handle attached.

The remaining figures are parts in detail.

To enable others skilled in the art or science to which it most nearly appertains, to make and use my invention, I will proceed to fully describe its construction and operation.

A represents the blade, which I prefer to construct of galvanized iron, on account of lightness, and to avoid corrosion by the action of salt water, although wood may be employed with perhaps as good success.

The back of the blade is convex, and is provided with a longitudinal rib or ridge to strengthen it, and give to it the desired shape for the object designed.

The opposite side of the blade is provided with a longitudinal groove, B, along which extends a rod, B', which is held to the blade by bands or straps C C', the opposite end of the rod passing into the wood handle E.

The rod is movable in the groove, and the end of it is provided with a pin, F, which passes through a transverse slot, F', in the blade, which admits of its being moved on the rod, in feathering, by the resistance of the water.

In rowing, the stroke is made with the convex surface of the blade bearing against the water. When lifting up, the blade turns slightly edgewise, and easily feathers itself by the action of the water on the concave back, and does not check the momentum of the boat, until another stroke with the oars is made.

In sculling with my oar, it is placed at the stern of the boat in the usual way, and will draw the boat as well, and propel it through the water by changing its position from concave to convex in the stroke.

My oar will be found of great service to hunters of wild game, in lagoons and other places where rowing would be found impossible.

Having thus described my invention,

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

1. The blade *a*, constructed with a convex and concave surface, and providing it with a longitudinal groove, B, in which the rod B' operates, substantially as set forth.

2. The transverse slot F' in the blade, in which the pin F works to turn the edge of the blade, substantially as and for the purpose set forth.

In testimony whereof, I have hereunto set my hand and seal.

WILLIAM J. HOUGH. [L. s.]

Witnesses:

C. W. M. SMITH,
JOHN CORSE.