No. 661,595.

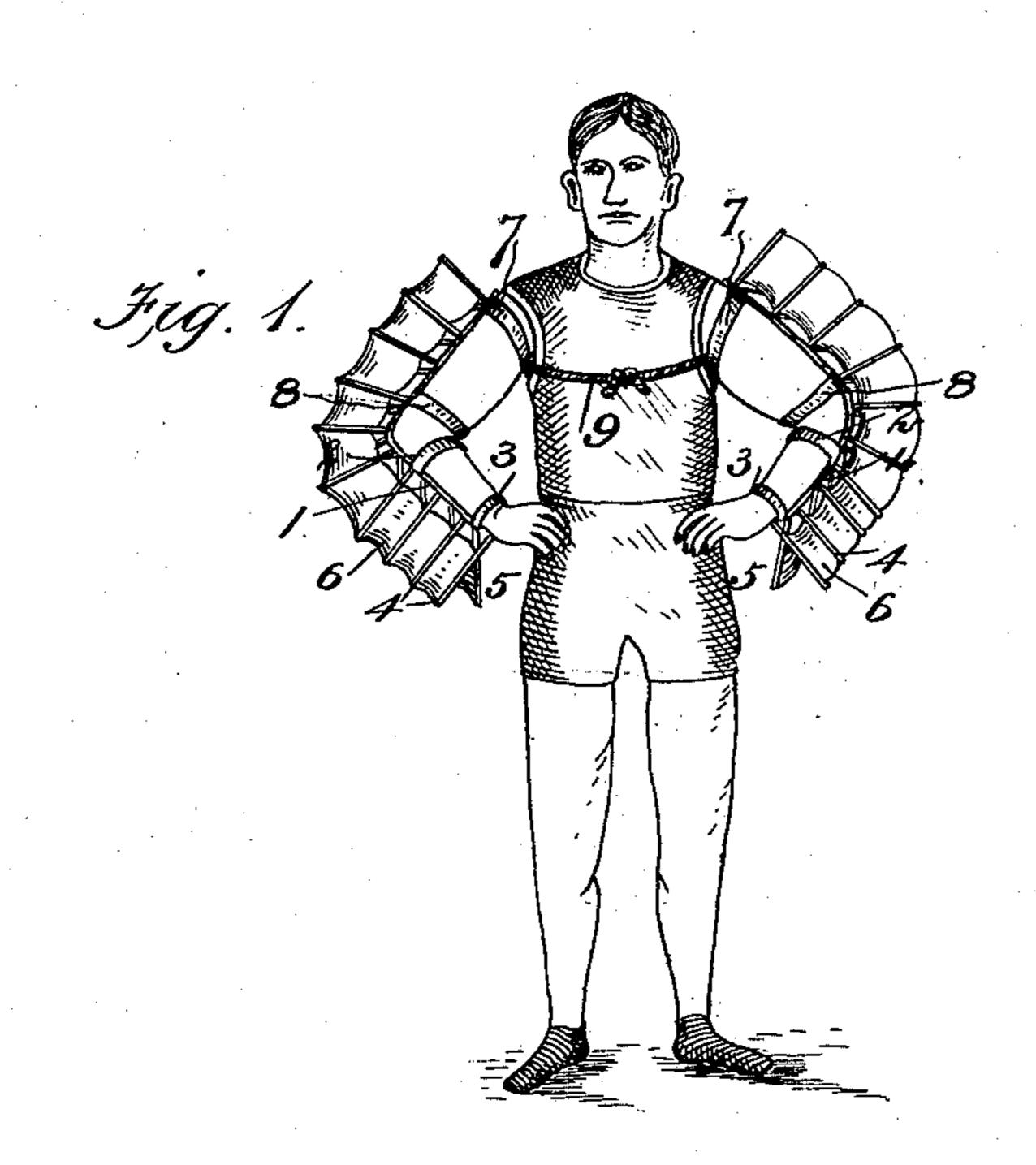
Patented Nov. 13, 1900.

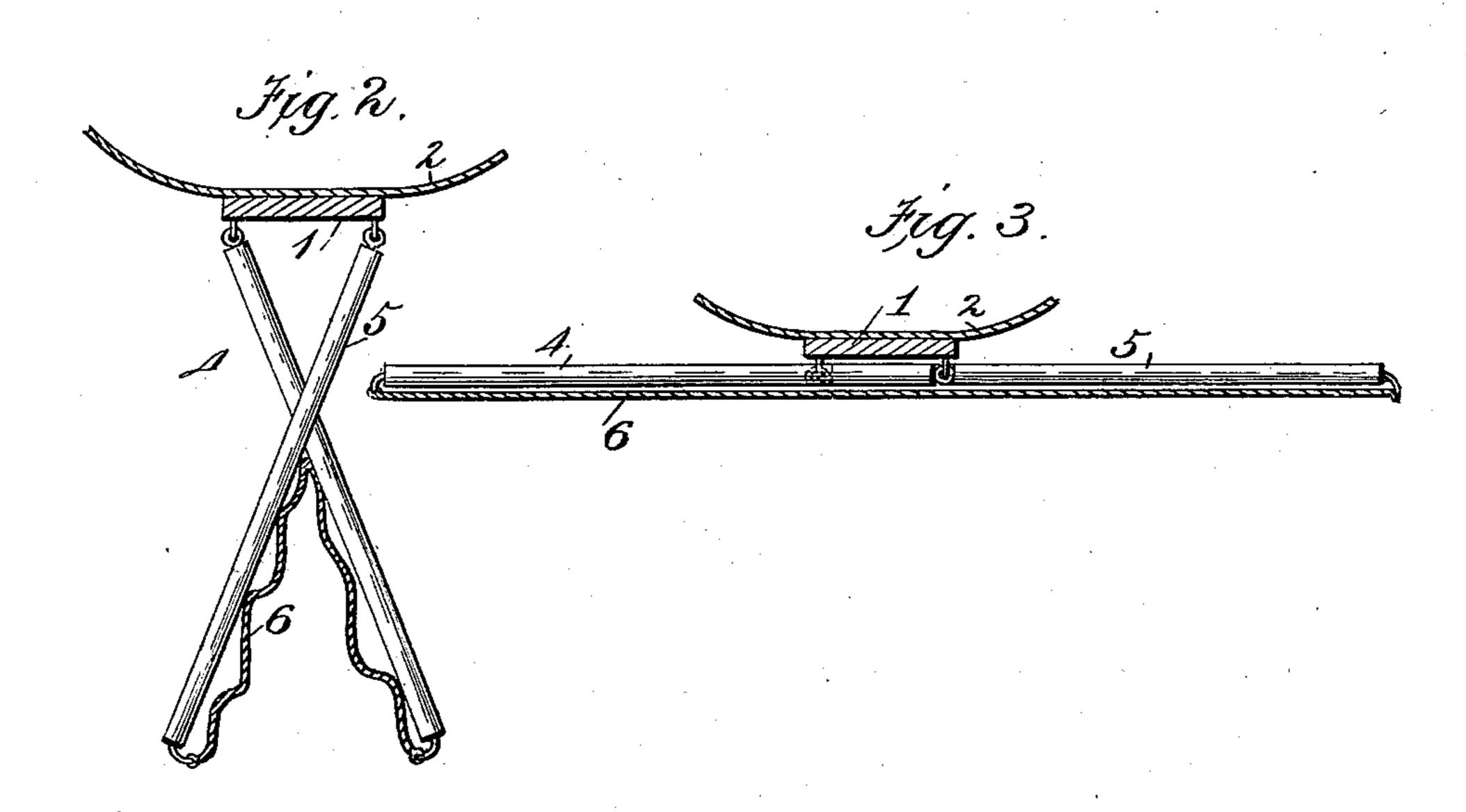
J. S. BARTHOLOMEW.
SWIMMING APPARATUS.

(Application filed Feb. 21, 1900.)

(No Model.)

2 Sheets—Sheet 1.





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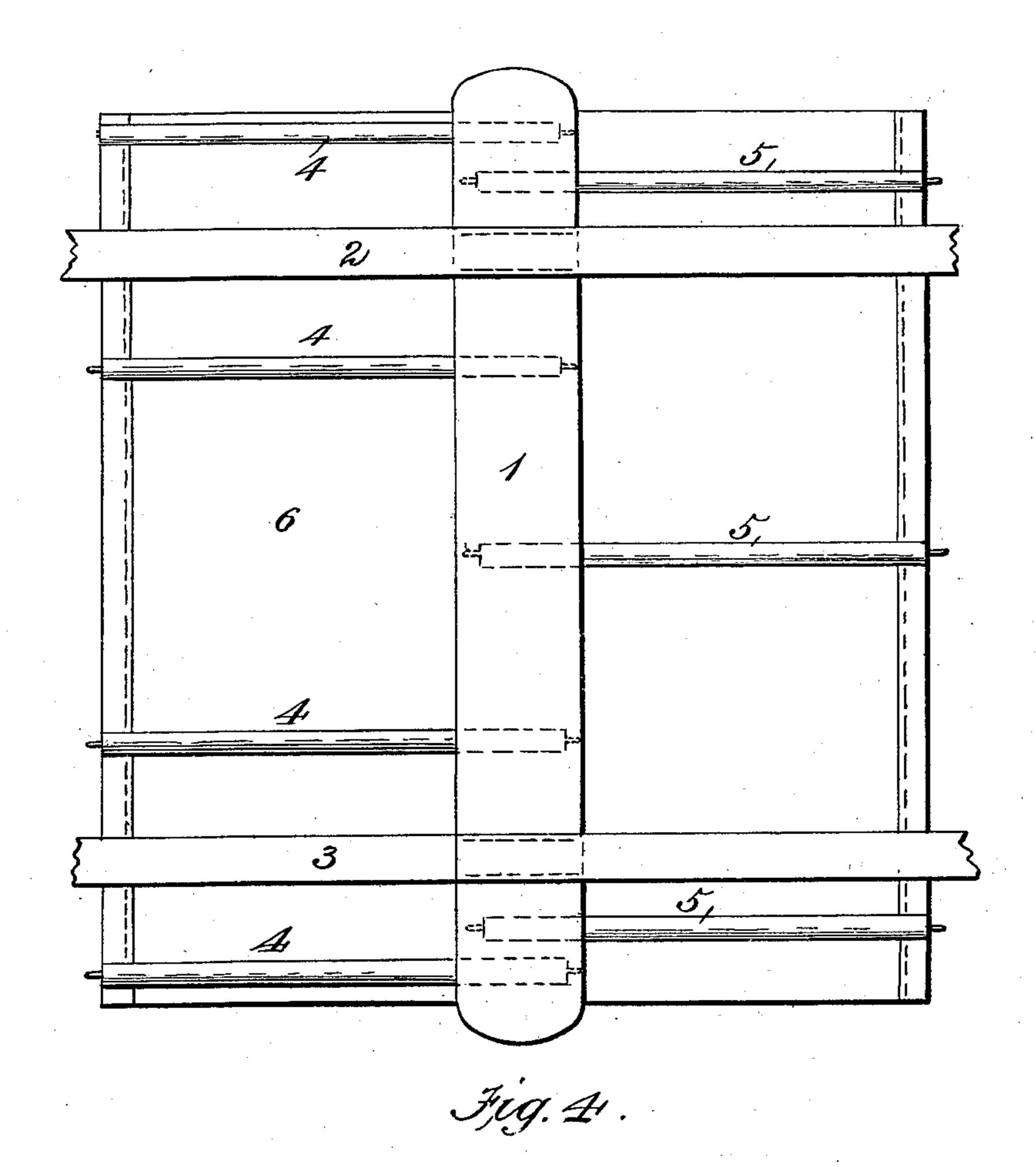
Patented Nov. 13, 1900.

## J. S. BARTHOLOMEW. SWIMMING APPARATUS.

(Application filed Feb. 21, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses F. L. Ourand. T. S. Bartholomew. F. L. Ourand. Chiozneys

## United States Patent Office.

JAMES S. BARTHOLOMEW, OF GUERNEVILLE, CALIFORNIA.

## SWIMMING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 661,595, dated November 13, 1900.

Application filed February 21, 1900. Serial No. 6,075. (No model.)

To all whom it may concern:

Be it known that I, James S. Bartholomew, a citizen of the United States, residing at Guerneville, in the county of Sonoma and State of California, have invented certain new and useful Improvements in Swimming Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to certain hovel improvements in floating and swimming apparatus.

The object of the invention is to provide a simple and effective attachment to float the swimmer and assist in propelling the body through the water.

To this end the invention consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved floating and swimming apparatus as it appears when adjusted to the operator's arms. Fig. 2 is a transverse section through the arm-fins as they appear when closed. Fig. 3 is a similar view of the same as they appear when open, and Fig. 4 is an enlarged plan view of one of the set of fins.

In the drawings the same reference characters indicate the same parts of the invention.

The arms or fins are similar in construc-35 tion, and each consists of a flexible hinged floatable strip provided with retaining-straps 2, 3, 7, and 8, by means of which the device is suitably secured to the arm, as shown.

4 and 5 denote a series of alternately-arranged buoyant and sinkable lateral arms having their inner ends overlapping and pivoted to the strip 1 on opposite sides of the central line drawn longitudinally through the center of the strip 1, as shown in Fig. 4. The

The arms 5 are heavy enough to sink into place. The arms 4 are extremely buoyant. This arrangement gives each arm a bearing across the face of the strip when extended under the water. The outer ends of the arms are connected to the flexible fabric 6, which forms

a web or fin to assist in propulsion, and each

fin is closed on the return stroke, as shown in Fig. 2, the arms 4 and 5 crossing each other in the form of an X, as shown, and returning in the wake of the operator's arms.

The arms 4 and 5 are preferably made of light bamboo, hollow wood, india-rubber, or thin sheet-metal tubes, such as aluminium or the like, and the arms 4 are filled with hydrogen or other light gas to give the requisite 60 strength and flotation or buoyancy to the fins, thereby acting as a life-preserver or swimming-balloon in supporting the person of the operator. The cord 9, running through under the arms, keeps the flexible strips in place. 65

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of my improved swimming apparatus will be readily appreciated without requiring an extended explanation. It will be seen that the device is simple of construction, that said construction permits of its manufacture at small cost, and that it is exceedingly well adapted for the purposes for which it is designed.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of 80 this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

A buoyant, floating and swimming apparatus of the class described comprising the floatable flexible strip 1, the alternately-arranged arms 4 and 5, the arms 4 being charged with light gas and pivoted at their inner ends to said strip, the arms 5 being similarly pivoted, but weighted to sink, the flexible fabric 6 fixed at its outer end to the contiguous ends of said pivoted arms, and the application of gas for flotation in water, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES S. BARTHOLOMEW.

Witnesses:

W. S. COULTER, W. H. POOL.