

(No Model.)

J. LUNDGREN.

SWIMMING LEGGIN.

No. 349,256.

Patented Sept. 14, 1886.

Fig. 1.

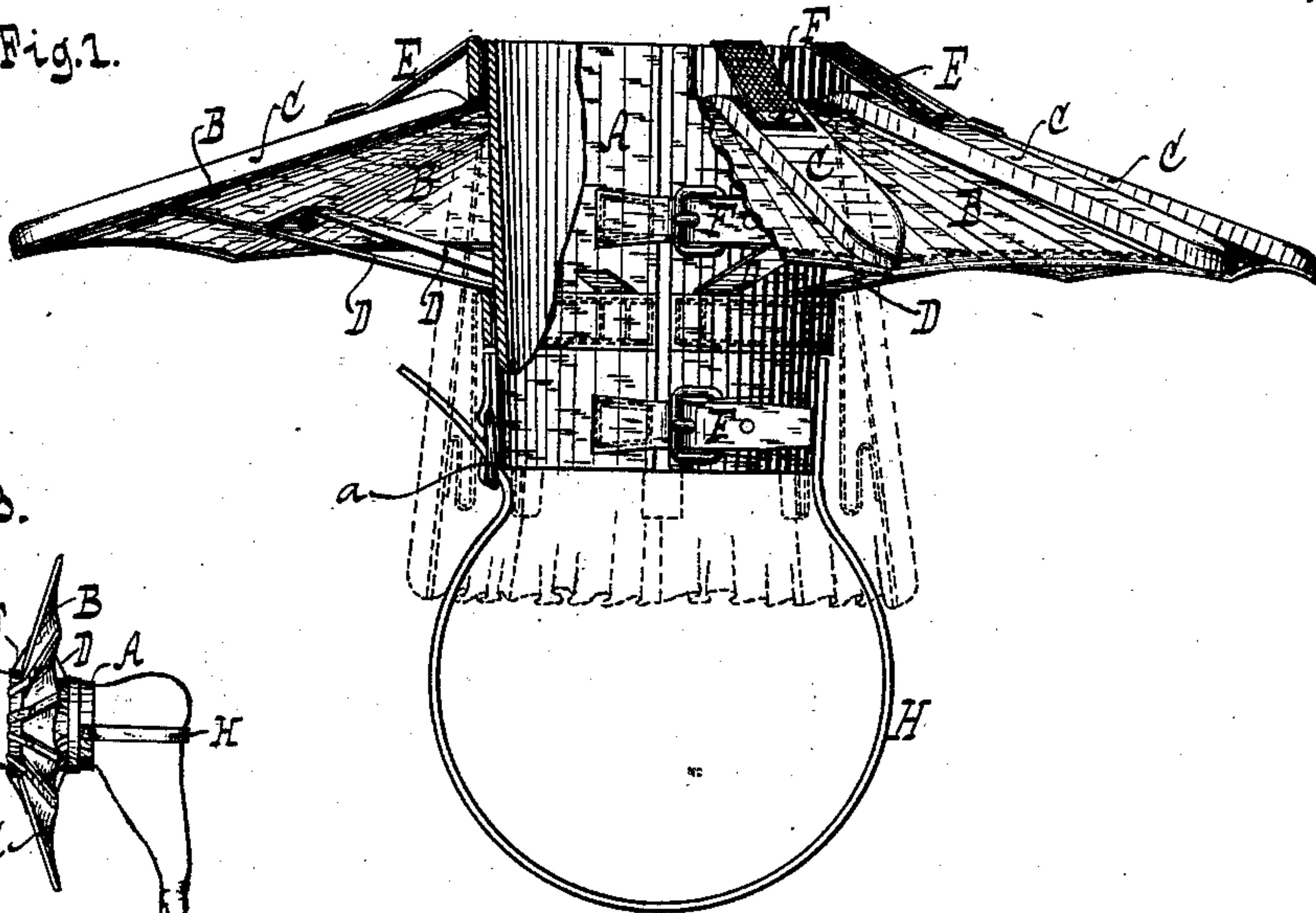


Fig. 3.

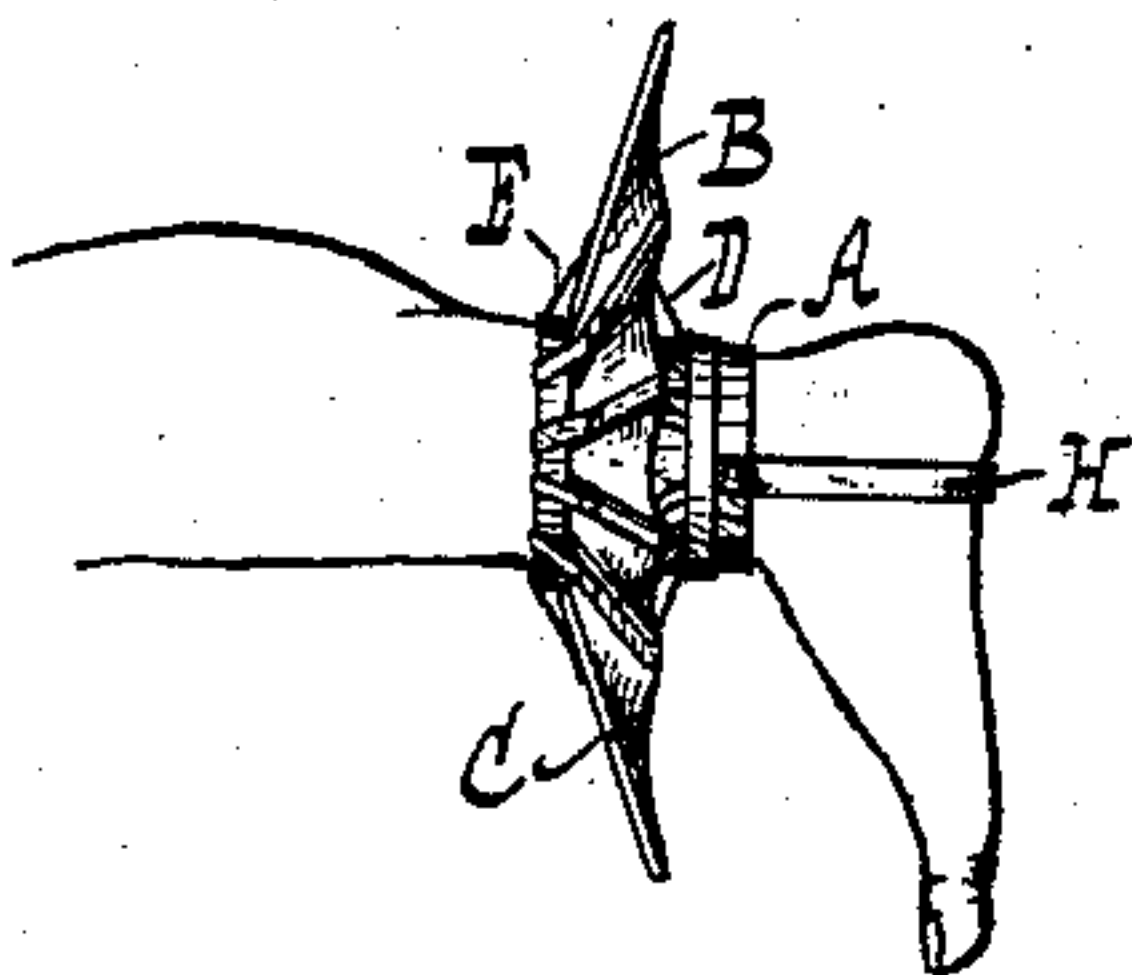
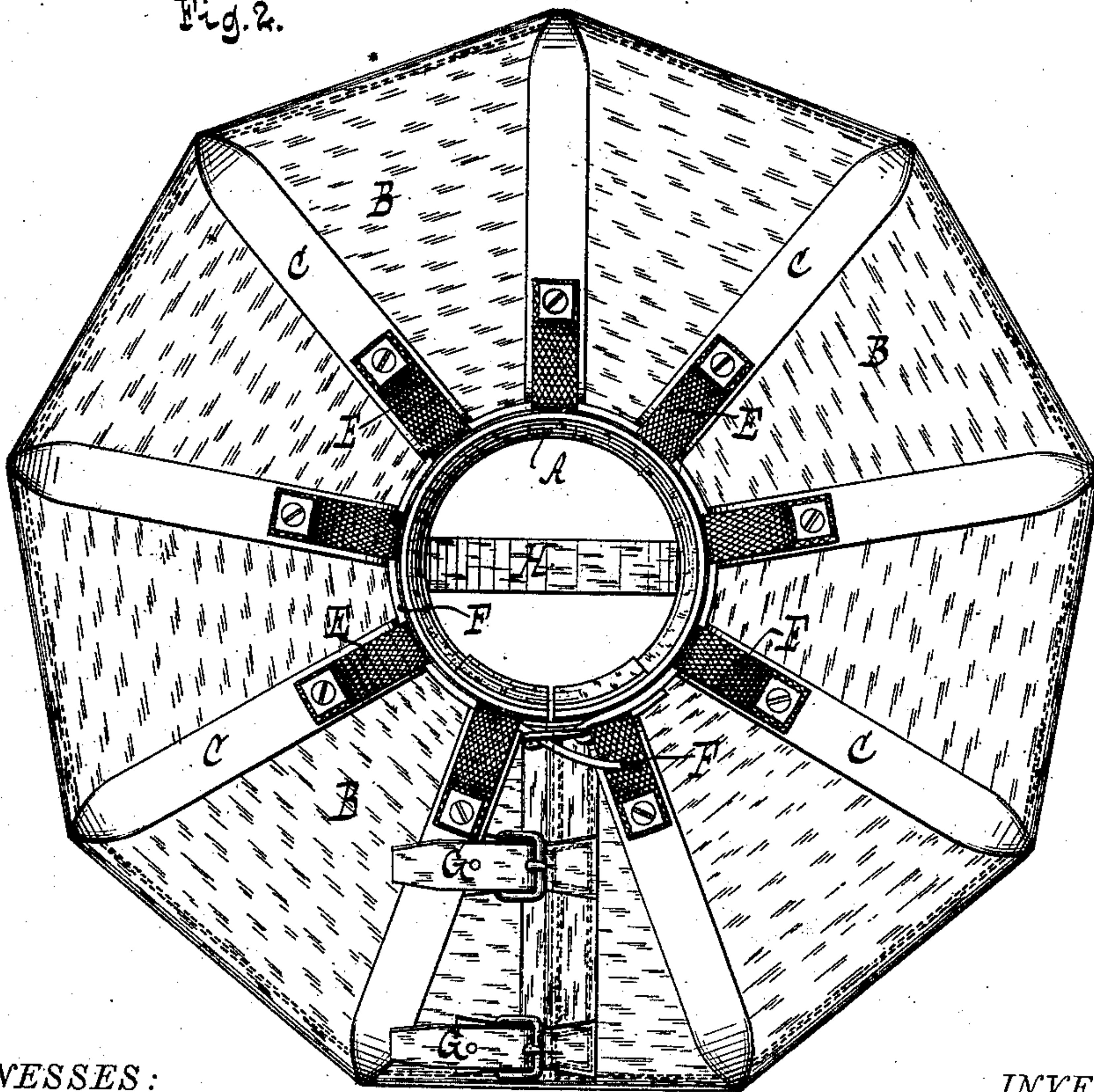


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN LUNDGREN, OF NEW YORK, N. Y.

SWIMMING-LEGGIN.

SPECIFICATION forming part of Letters Patent No. 349,256, dated September 14, 1886.

Application filed May 20, 1886. Serial No. 202,762. (No model.)

To all whom it may concern:

Be it known that I, JOHN LUNDGREN, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Swimming-Leggins, of which the following is a specification.

This invention relates to a device which, when attached to the legs, will aid a person while swimming; and it consists in certain novel features of construction, which are fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional side view of my invention when it is expanded. Fig. 2 is a plan or top view thereof. Fig. 3 shows my device attached to the leg, ready for use.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the leggin proper, which, by preference, is made of leather, but may be made of any other suitable material.

B is a flexible web attached to the leggin A at its inner edge, and provided with a series of ribs, C, which serve to stiffen the web and to hold it extended when in use. A series of stays or braces, D, made of flexible material, one end of which is attached to the leggin A, while the other end is secured to the inner surface of the web under the ribs C, limit the outward movement of the web. To the outer surface of each rib, near its inner end, is attached an elastic stay or brace, E, the inner end of which is secured to the leggin A, the purpose of these stays being to control the movement of the web as the same collapses, (indicated in dotted lines in Fig. 1,) and to aid in its "recovery" when it is desired to again expand the same. The leggin A and the web B are both open on one side, to permit the same to be passed around the leg, to which the leggin is then secured by the straps F, while the ends of the web are closed by the straps G. To prevent the leggin from slipping upward a strap, H, is secured to one side of the leggin and extends below it in such a way that this strap may be passed under the foot, as shown in Fig. 3, and drawn up and fastened by means of the buckle a, secured to the lower edge of the leggin, opposite to the strap F. This method of securing the leggin is preferred, as it does

not inconvenience the user; but any other means for fastening my device may be employed.

The operation of my device is somewhat like that of an umbrella or parachute. As the swimmer draws in his legs the web will collapse and offer but very slight resistance to the water; but as soon as he begins the outward stroke it will expand and offer a great resistance to the water, thereby materially adding to the effectiveness of the stroke by its increased bearing-surface, causing the swimmer to move forward at a largely-increased speed.

My invention can also be used to advantage in what is known as "treading water," as it will expand at each downward motion of the foot, thereby aiding the user in keeping the upper portion of his body above the surface of the water.

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

1. The combination of the leggin A, for encircling the ankle, the web B, secured to and surrounding the leggin, the radial ribs C, attached to the web for stiffening and keeping it extended, the flexible stays D, secured at one of their ends to the leggin and at their other ends to the web directly under the ribs, and elastic stays E, secured to the upper end of the leggin and to the radial ribs, substantially as and for the purpose described.

2. The combination of the leggin A, for encircling the ankle, the web B, secured to and surrounding the leggin, the radial ribs C, attached to the web for stiffening and keeping it extended, the flexible stays D, secured at one of their ends to the leggin and at their other ends to the web directly under the ribs, the elastic stays E, attached at one end to the leggin and at the other end to the ribs, the strap H, attached at one end to the lower part of one side of the leggin, for passing under the foot and connecting with the opposite side of the leggin, and the straps F and G, for securing the leggin and web around the ankle, substantially as described.

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

Witnesses: JOHN LUNDGREN. [L. S.]

W. HAUFF,

E. F. KASTENHUBER.