R. B. PUMPHREY.

SWIMMING APPARATUS.

No. 176,444. Patented April 25, 1876.

Fig. 4.

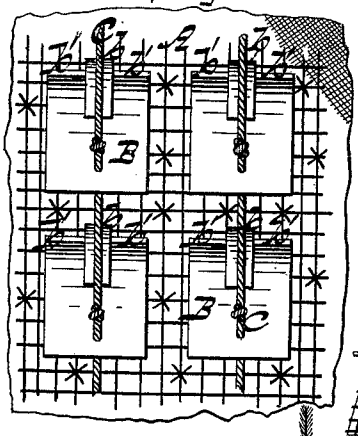


Fig. 1.

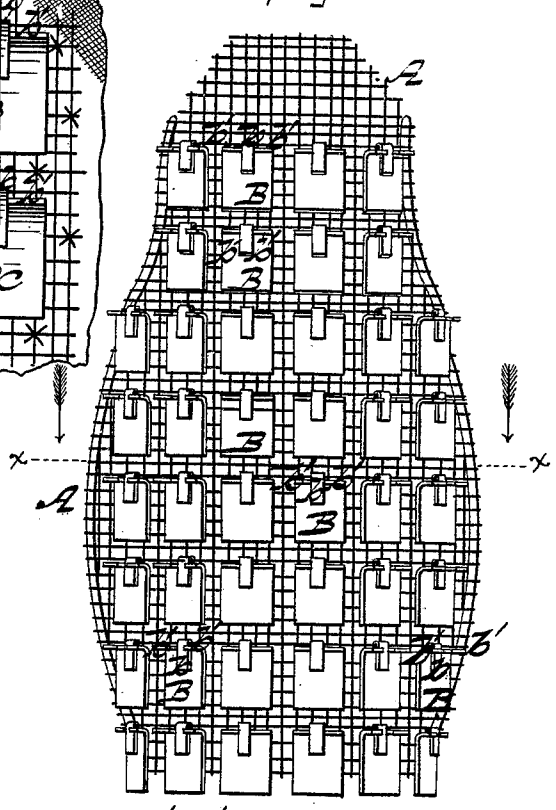


Fig. 5.

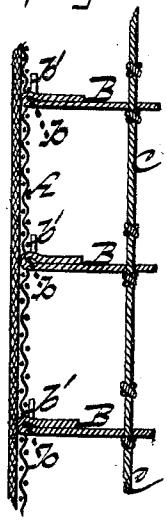


Fig. 2.

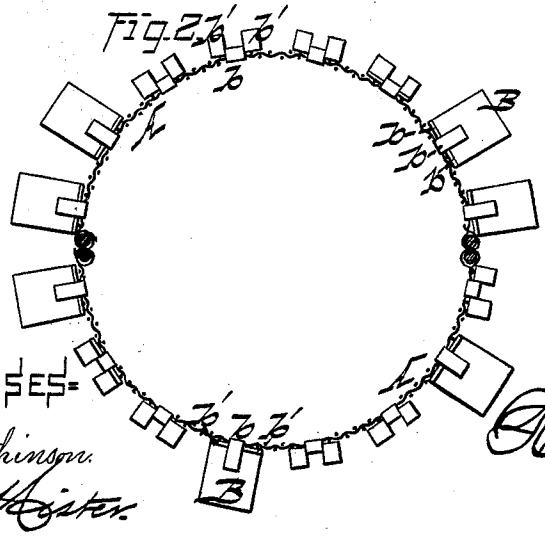
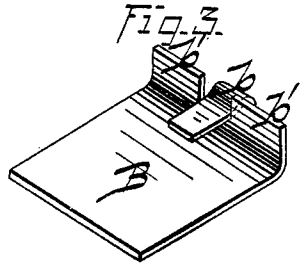


Fig. 3.



WITNESSES:

Jas. R. Hutchinson.

J. Wm. Hister.

INVENTOR.

Robert B. Pumphrey

Edson Brothers

Attorneys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT B. PUMPHREY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SWIMMING APPARATUS.

Specification forming part of Letters Patent No. **176,444**, dated April 25, 1876; application filed January 15, 1876.

To all whom it may concern:

Be it known that I, ROBERT B. PUMPHREY, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Swimming Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side view of my improved swimming apparatus. Fig. 2 is a transverse section. Fig. 3 is a detached perspective view of one of the propellers, and Figs. 4 and 5 are modifications thereof.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to a certain improvement in swimming apparatus; and it consists of a textile or net-work receptacle for the legs and arms of the swimmer, provided with propellers, which may or may not be connected together to insure their co-operation, having eyes or other means of attachment to the receptacle, and stops to limit their upward movement, substantially as hereinafter more fully set forth.

In the annexed drawing, A refers to a reticulated or net-work receptacle, one of which being applied to each leg and arm of the swimmer, to which may be attached, at proper intervals, propellers B B B, by means of eyes *b b b*, or other suitable medium. The propellers B B B are also provided with stops *b′ b′ b′*, to limit their forward movement to an angle transversely with the longitudinal axis of the receptacle A, by which the swimmer will be impelled forward at each stroke.

The modification, Figs. 4 and 5, shows the net-work A secured over a textile material, which is placed next to the arms, &c., of the swimmer, and the propellers B B B connected together in longitudinal rows by cords *c c c*, or other suitable means, to insure their joint action and the movement of each propeller.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination with the wire-cloth or net-work A, the propellers B B B, hinged thereto by the eyes *b b b*, or other suitable medium, and provided with the angular stops *b′ b′ b′*, substantially as and for the purpose set forth.

2. In combination with the propellers B B B *b′ b′ b′*, hinged to the wire-cloth or net-work A, the cords or other medium *c c c*, connecting the said propellers together in longitudinal rows, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

R. B. PUMPHREY.

Witnesses:

JOSEPH R. EDSON,

J. WM. MISTER.