Sept. 30, 1930. E. P. QUAIN 1,777,050

SWIMMING DEVICE

Filed Nov. 2, 1929

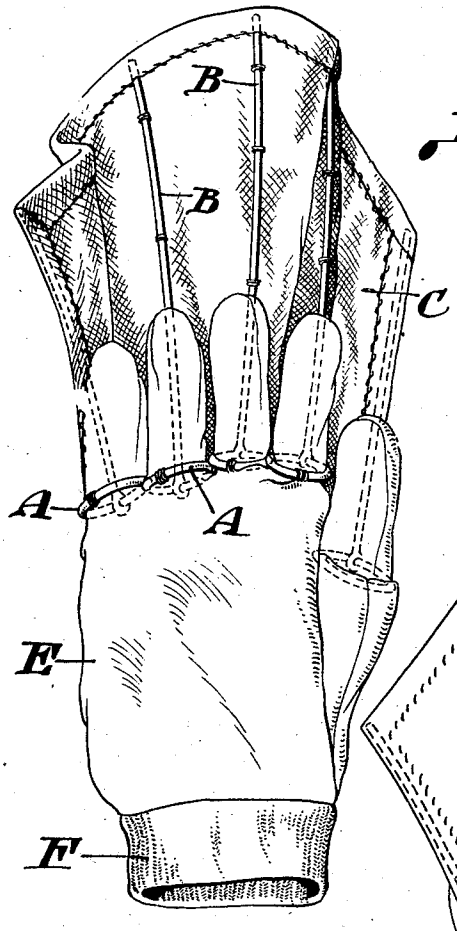


Fig. 1.

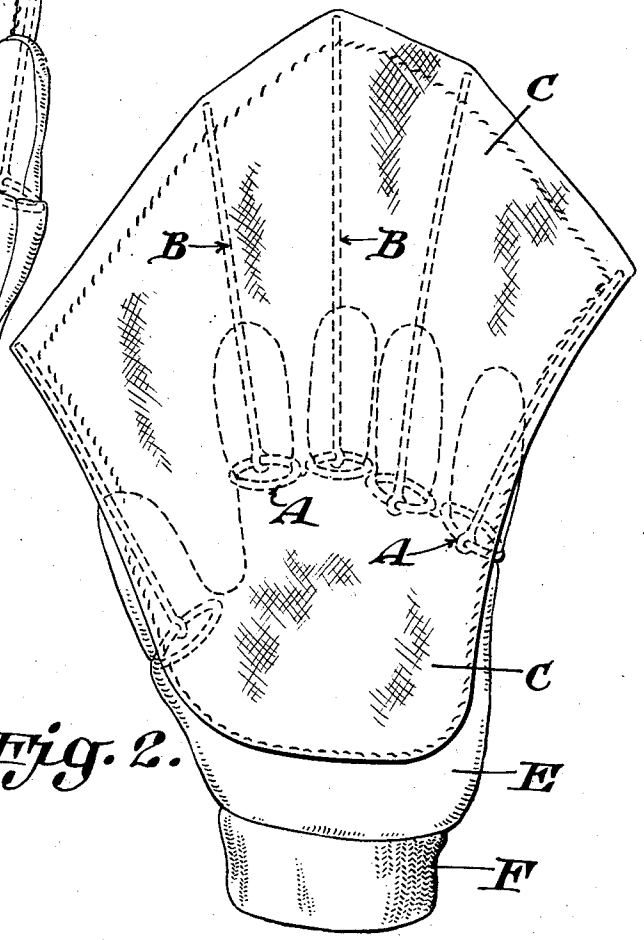


Fig. 2.

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UNITED STATES PATENT OFFICE

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SWIMMING DEVICE

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This invention relates to devices for facilitating swimming by means of collapsible webb structures that may be adapted and fastened to either the feet or hands by means of a shoe or glove or other device fastened with buckle, spring, elastic or other means, the webb being supported by ribs of wood or metal, or other hard substance, which ribs are attached at their proximal ends in a converging manner to rings, hinges, bracelets or anklets, the diverging ends of the ribs supporting the webb to be curved, forming a concave surface of the expanded webb, such expanded concave surface of the webb to be exposed against the water in the backward thrust of the foot or hand when used in swimming.

The object of this invention is to provide a swimming device of the kind described which may be constructed of any light material, such as cloth or rubber, for the webbing, supported by metallic or stiff ribs of other material so arranged that it folds or collapses while the hand or foot is recovering from the backward stroke and expands, affording resistance to the hand and foot in the backward stroke while swimming. Different lengths and sizes are contemplated, the jointed areas at the base of each rib to be fitted in either a ring, hinge, ferrule, bracelet or anklet. The metal or rubber parts may be hollow with air-tight compartments to lessen the specific gravity of these parts.

The objects of my invention are accomplished and the invention consists of new construction, combination and arrangement of parts shown in the accompanying drawings adapted to the hand, and described in the following specifications.

In the drawings, Figure 1 is a view of the palmar surface of a glove to which is fastened the webbing of linen, rubber or other suitable material supported by the ribs or staves. Figure 2 is a view of the dorsal surface of the glove as applied to the hand with the webbing attached in an expanded position.

In Figure 1, A represents the rings or hinges to which the staves (B) are attached, which in turn support the webbing (C) fastened to the glove (E) supported at the wrist by either a band of leather strap with buckle or an adjustable wristlet or other device (F) for securing the glove or webbing to the hand. Figure 2 represents the dorsal surface of the same glove (E) with the ribs (B) and the webbing (C) in an expanded position for the backward thrust of the hand.

The same collapsible webbing may be secured to the foot by fastening the proximal ends of the ribs or staves to rings or hinges in an anklet around the lower portion of the leg and by means of a strap around the instep of the foot in such manner that flexion of the leg or pulling the leg and foot through the water causes the webbing to collapse, and the backward thrust of the foot causes the webbing which is fastened to the anklet and instep to expand by resistance of the water against the concave surface.

By the foregoing combination and arrangements of parts adapted to either the hand or the foot in similar fashion, by modifying the supporting structure as described above, or other device supported by straps or anklets to the foot and leg or wristlet, rings, gloves or other means to the hands, a novel and useful swimming device is afforded, giving the swimmer greatly increased power in his propulsive movements in the water.

What I claim as my invention and desire to secure by Letters Patent is:

In a swimming device a glove member with ferrules attached to the stalls thereof fiexible members pivotally secured to said ferrules said flexible members being normally curved toward the palm of said glove when said device is not in use and a web member secured to said flexible members.

In testimony whereof I have signed my name to this specification.

ERIC P. QUAIN.