

W. ENDERS.
SWIMMER'S APPLIANCE.
APPLICATION FILED JUNE 10, 1910.

1,004,394.

Patented Sept. 26, 1911.

Fig. 1.

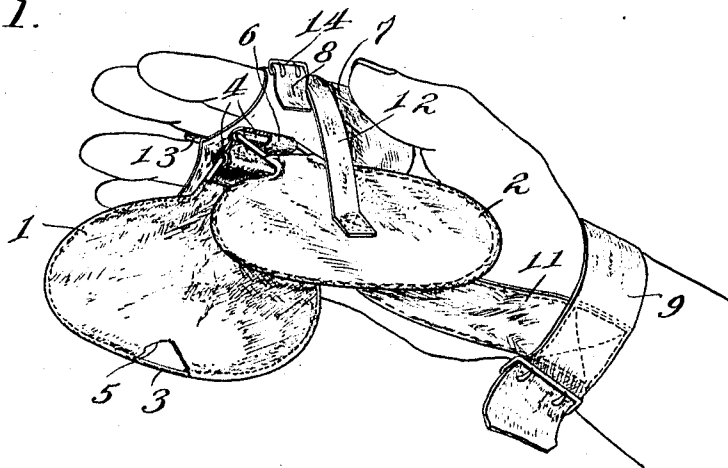


Fig. 2.

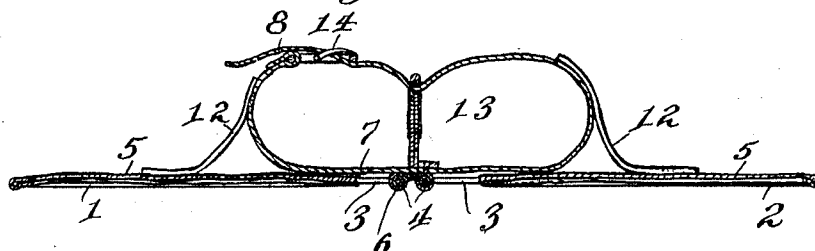
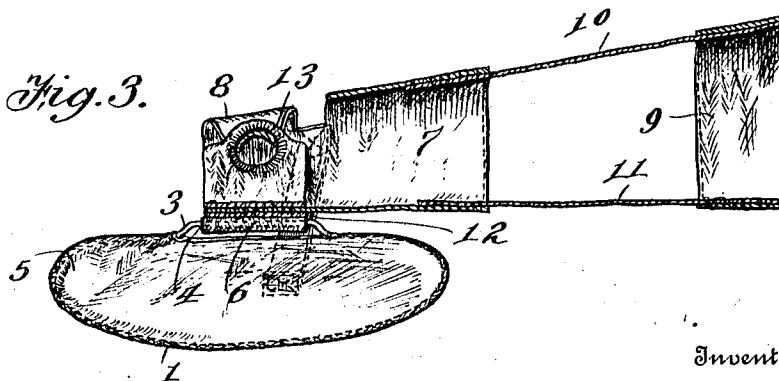


Fig. 3.



Witnesses

H. H. Lybrand

E. Edmonstoun

Inventor

William Enders

By *Victor J. Evans*

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM ENDERS, OF NORTH KAUKAUNA, WISCONSIN.

SWIMMER'S APPLIANCE.

1,004,394.

Specification of Letters Patent. Patented Sept. 26, 1911.

Application filed June 10, 1910. Serial No. 566,197.

To all whom it may concern:

Be it known that I, WILLIAM ENDERS, a citizen of the United States, residing at North Kaukauna, in the county of Outagamie and State of Wisconsin, have invented new and useful Improvements in Swimmers' Appliances, of which the following is a specification.

This invention relates to swimming appliance and the object of the invention is to provide a device which may be applied or attached to the swimmer's hand so as to enhance the value of each stroke and will be of great assistance in obtaining great speed.

A further object of the invention is the provision of novel means for limiting the movement of the device upon the hand in one direction so as to prevent shearing off of the water and obtaining the greatest possible engaging surface at each stroke.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which:

Figure 1 is a perspective view showing the device applied to a swimmer's hand. Fig. 2 is a transverse section therethrough. Fig. 3 is a detail longitudinal section.

Referring more particularly to the drawing 1 and 2 represent the separate wings which are each constructed of a suitable frame 3 preferably of wire or other similar material and connected at their inner ends by tubes 4. Over the frames is secured the fabric 5 which may be of rubber or cloth or any material having sufficient lightness and stability to perform the functions desired. The inner ends of the wings are connected by a flexible loop 6 which is sewed or otherwise secured to the palm band 7. This palm band is adapted to extend around the palm of the hand and is split circumferentially to form the finger straps 8.

A wrist band 9 of flexible material is connected to the palm band by a pair of straps 10 and 11, one for the front of the hand and the other for the back.

The device is positioned upon the hand in the manner shown in Fig. 1 with the wings extending on either side of the palm and are

limited in their movement in one direction by suitable straps 12 which are connected to the center of the wings and to the palm band 7. In the forward or inactive movement of the stroke, the wings pivot upon the loop 6 and lie close together, their inward movement being limited by the straps 12 so as to prevent their engagement which might act to hold them from spreading in the active movement of the stroke. The wings are shown in full lines in Fig. 2 in proper position in the active movement of the stroke and in order to prevent them from bending backward too far a loop 13 is provided through which the strap 8 is adapted to pass. This loop is arranged between the middle and ring fingers of the swimmer and is of such dimensions as to pull the strap 8 between the fingers when the strap is tightened by the buckle 14. It will be noticed that if the wings were bent back out of alinement the loop would pull upon the strap 8 and prevent any further movement of the wings.

Having thus described the invention, what is claimed is—

1. In a device of the class described, the combination with an adjustable wrist band, of a continuous palm band held in position by said wrist band, a pair of wings pivoted to the inner side of the palm band, flexible means connecting the wings to the palm band for limiting the inward movement of the wings, and means for limiting the spreading movement of the wings.

2. In a device of the class described, the combination with a palm band, of a wrist band, flexible connections between the palm band and the wrist band, a pair of wings pivoted to the palm band, straps connecting the wings and the palm band for limiting the inward movement of the wings, a loop connected to the palm band at the pivotal point of the wings, and a strap passing through the loop and connected to the palm band.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM ENDERS.

Witnesses:

C. H. L. HAMER,

S. C. GABLER.