C. F. BECHERER.

SWIMMING DEVICE.

APPLICATION FILED SEPT. 8, 1919.

1,326,471. Patented Dec. 30, 1919.

Fig. 1

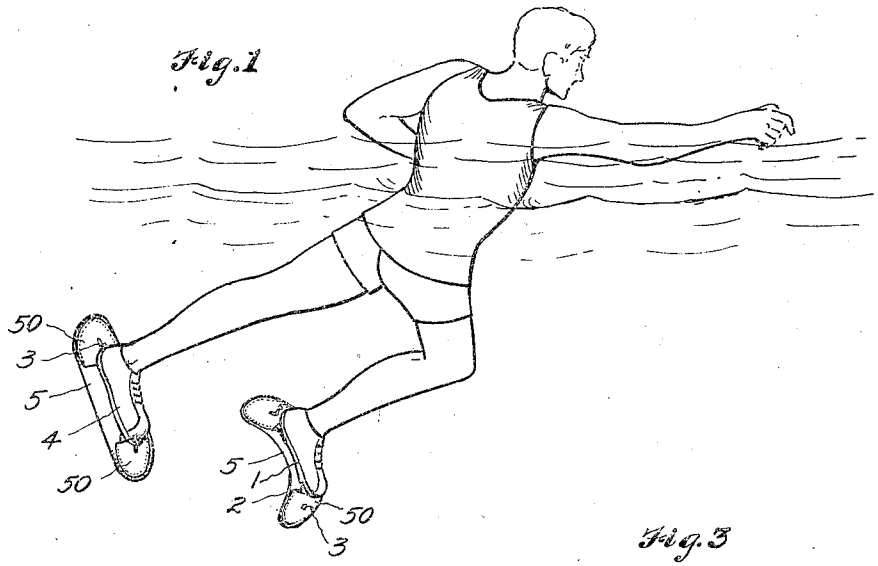


Fig. 3

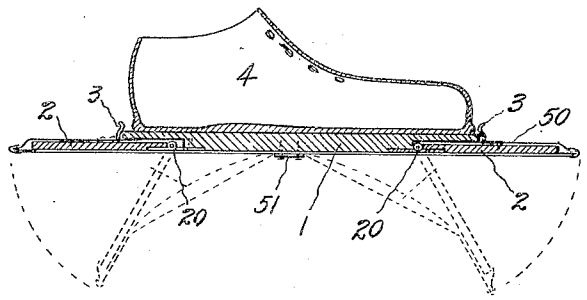
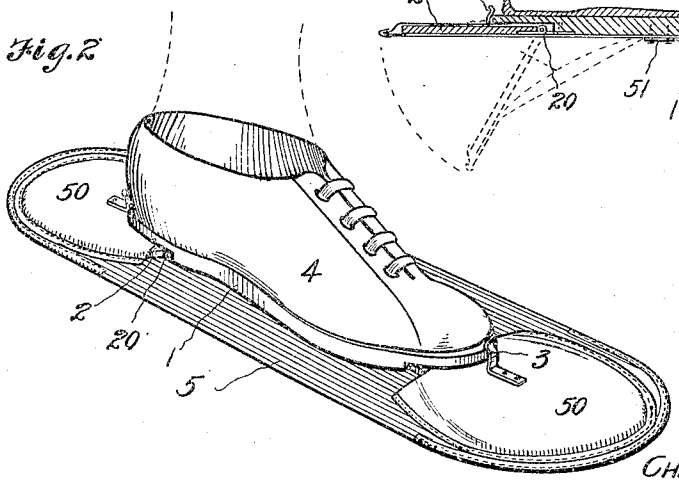


Fig. 2



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SWIMMING DEVICE.

1,326,471. Specification of Letters Patent. Patented Dec. 30, 1919.

Application filed September 8, 1919. Serial No. 322,521.

To all whom it may concern:

Be it known that I, CHARLES F. BECHERER, a citizen of Alsace, and resident of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Swimming Devices, of which the following is a specification.

My invention consists of a swimming shoe, or a device to be placed upon the feet, so as to increase the swimming power of the wearer.

The object of my invention is to provide means which will enable an inexperienced person to swim, and an experienced person to swim with greater strength and one which will enable them to support themselves and others while in the water, more efficiently than would be possible without such additional aid.

One object of my invention is to provide such devices as a safety measure upon vessels, to be used in emergencies in a manner analogous to that of the usual life preservers.

The features of my invention which I consider new and which I wish to protect by a patent, will be first described and then particularly defined by the claims.

The accompanying drawings illustrate my invention in the form of construction which I prefer to employ.

Figure 1 shows my invention as applied and in use.

Fig. 2 is a perspective of my invention.

Fig. 3 is a longitudinal central section through the same.

The foundation member of my device consists of a central bar or a sole piece 1. This is made of a length and width corresponding substantially with that of the bottom of a shoe or foot. Means are provided by which this may be secured to the foot. A convenient way of doing this is to provide a shoe upper, as 4, of canvas, or other cheap material, which may, by lacing, be secured to the foot. Any other suitable means for securing the same to the foot may be employed.

At the front and rear ends of this central bar 1, is hinged an end piece 2; means should be provided whereby these may swing upwardly into a plane which is common to that of the central bar 1 but no farther and such that they may swing downwardly into positions which are substantially perpendicular to the bar 1. A convenient way of doing this is to hinge them at points, as 20, well inward from the ends of the bar 1, so that, as they swing upward, they are stopped by engagement with the bottom of the bar 1.

As a means of facilitating moving about the deck of the vessel, or upon the ground, when having these devices on the feet, it is desirable that the hinged end piece, or wings 2, be recessed into the body of the central bar 1. This construction is clearly shown in Fig. 3. This brings the lower surface of the central bar and the two hinged end pieces 2 into a common plane.

It is also desirable to provide some means which will hold these end pieces when swung upward, or in the position shown by full lines in Fig. 3, while a person wearing the device may be upon a deck. I have shown means for securing this which consists of spring catches 3, which are adapted to engage the end edges of the central bar 1, so as to thereby support the swinging end plates 2. These would be released automatically by raising the feet when in the water.

In conjunction with the above devices I provide a web 5 which is secured to said end plates and also to the central bar 1. A convenient means for doing this is to provide the ends of this web with pockets, as 50, into which the swinging end plates 2 may be inserted. The securing of the web to the central bar 1 may be done by tacks or staples as at the point 51.

The portion of the web connecting the hinging plates 2, is of the same width as the portion carried by said swinging plates. It therefore projects very materially at each side of the foot. Its central portion, between the end pieces 2, is under considerable tension when the device is extended, and it resists a downward pressure of the foot in the water. The surface which may thus be presented to the water, is very much larger than the surface of the foot. When in use, an upward movement of the foot will cause the end plates 2 to collapse, or to swing downwardly; this will also slacken the portion of the web which is at the sides of the foot so that they may collapse downwardly. In consequence of this the area of this which resists upward movement of the foot, is little, if any, larger than the area of the foot. When the foot is given a downward movement, the plates 2 are swung outward and upward, until stopped by engagement with the bottom surface of

the central bar or plate 1. In this position, the area which is presented to the water is the overall extended length of the device, multiplied by its width.

The device is adaptable for use with the ordinary type of belt life preserver. With the life preserver adjusted in place, and with the shoes upon the swimmer's feet, he may propel himself in any direction through the water. The life preserver supports his weight in the water, without effort and his exertions may be directed toward propelling himself through the water. A non-swimmer with both the life preserver and the shoes upon him could in the event of a collision or ship wreck propel himself away from the source of danger or toward a life boat.

I claim:

1. A swimming shoe comprising a center frame forming substantially a sole piece and means for securing it to the foot, end plates hinged to said center piece to permit swinging downwardly only, and catches adapted to hold said end plates raised to permit walking.

2. A swimming shoe having a sole piece provided with means for securing it to the foot, end pieces of a width exceeding that of the sole piece and hinged to the under side of the sole piece inward from each end thereof, and a fabric web provided with pockets adapted to receive said end pieces.

3. A swimming shoe having a sole piece adapted to be secured to the foot, end pieces hinged to the sole piece inward from the ends thereof, said end pieces extending laterally well beyond the sides of the foot, and a web secured to said end pieces and the sole piece, and having its central portion extending laterally well beyond the side edges of the foot.

4. A swimming shoe having a central sole piece provided with means for securing it to the foot, end pieces hinged to the under side of the sole piece inwardly from each end thereof, said end pieces being of a width to extend laterally well beyond the side margins of the foot, a web having pockets to receive the end pieces and secured centrally to the sole piece.

Signed at Seattle, Washington, this 30th day of August, 1919.

CHARLES F. BECHERER.