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B. B. GIRDEN
SWIMMING DEVICE

1,845,263

Filed Dec. 9, 1929

Fig. 1.

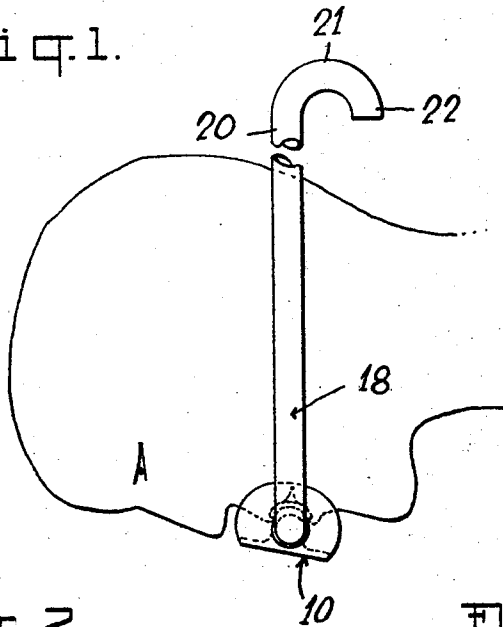


Fig. 2.

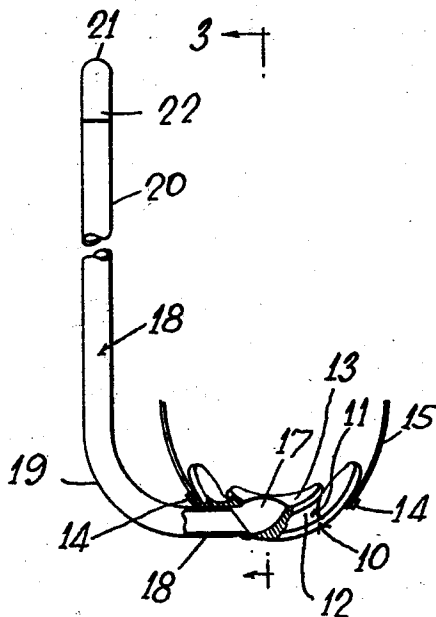
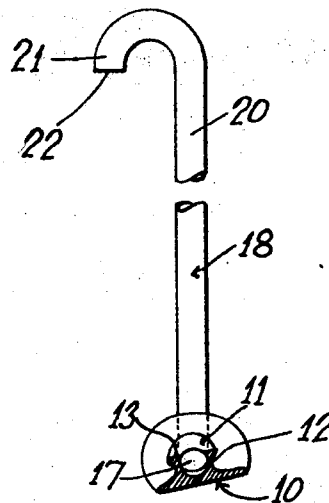


Fig. 3.



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SWIMMING DEVICE

Application filed December 9, 1929. Serial No. 415,559.

This invention relates to devices for use in swimming instruction whereby the wearer may devote his entire time to the mechanics of the stroke being used while obtaining a free supply of air, and simultaneously learning the fundamentals of the method of breathing while swimming.

A general object of the invention is to provide a device of the class described which may be readily and economically manufactured, which is efficient in operation, which is light and compact in form and which may be worn with ease and comfort.

A more specific object is to provide a device adapted to cover the mouth of the wearer and to be held easily and securely by action of the lips, said device being equipped with a substantially rigid or self-supporting air tube passing therefrom to the surface of the water in a manner such that the wearer is unhampered thereby in his swimming activities and being formed at its end with novel means to prevent ingress of water thereinto.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

Figure 1 is a side elevation of one embodiment of the invention applied to a swimmer;

Fig. 2 is an end elevation of the embodiment shown in Fig. 1, a portion of the device being broken away for clearness of disclosure; and

Fig. 3 is a sectional view of the device taken along the line 3—3 of Fig. 2.

Referring more particularly to the drawings the embodiment shown comprises a plate-member 10 of light water-proof material such as celluloid, aluminum, rubber or the like, which is shaped to conform to the

face of the swimmer about the mouth. The plate-member 10 is provided on its inner side with a relatively short projecting member 11 generally elliptical in shape and having bearing surfaces 12 and 13. The bearing surfaces 12 are adapted to be gripped by the lips of the swimmer, and the bearing surfaces 13 are adapted to rest against the teeth of the swimmer, whereby the device can be securely held in the mouth without appreciable effort or discomfort. If desired, the plate may also be equipped with pins 14 to which a strap 15 may be secured to aid in holding the device in proper position.

The projection 11 on the plate 10 is formed with a hole 17 to which is attached a self-supporting tube 18 of thin metal or the like which is bent outwardly and upwardly at 19 to pass by the side of the head, and extends upwardly at 20 a sufficient distance to clear the surface of the water when the swimmer is in swimming position, and is then bent in a U at 21 to form a short downwardly projecting leg 22.

The operation of the device is obvious, the air being drawn down the tube 18 into the mouth of the swimmer and exhaled through the nose directly into the water. The tube 18 is preferably of a diameter of about $\frac{1}{2}$ " and is about 18" to 20" long so that air may be readily drawn therethrough and if the swimmer desires also to exhale through his mouth the residual air in the tube will not be of sufficient volume to make continued breathing troublesome. In case of waves on the surface of the water, or even in case of diving, the downwardly projecting leg 22 forms a seal and prevents the ingress of water into the tube.

It will thus be seen that there has been provided a light, compact and useful device which is adapted to operate efficiently for the purposes aforesaid, and since certain changes may be made in the above construction, and different embodiments of the invention could be made, without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall

be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A device of the class described comprising, in combination, a plate conforming to the portion of the face of the swimmer about the mouth, a relatively short projection on the inside of said plate terminating forward of the teeth of the wearer, and a single self-supporting tube attached to said plate and connecting with an opening in said projection, said projection being generally elliptical in shape and forming a bearing surface for the lips.

2. A device of the class described comprising, in combination, a plate conforming to the portion of the face of the swimmer about the mouth but terminating at a point beneath his nose whereby free discharge of air through the nose is permitted, a relatively short projection on the inside of said plate terminating forward of the teeth of the wearer, and a single self-supporting tube attached to said plate and connecting with an opening in said projection, said projection being generally elliptical in shape and extending outwardly and flaring slightly from said plate to form a bearing surface for the lips.

3. A device of the class described comprising, in combination, a plate conforming to the portion of the face of the swimmer about the mouth, a projection on the inside of said plate, and a self-supporting tube attached to said plate and connecting with an opening in said projection, said projection forming a bearing surface for the lips, said self-supporting tube extending laterally and upwardly from said plate and terminating in a U-bend forming a short rearwardly and downwardly projecting leg.

4. A device of the class described comprising in combination a mouthpiece adapted to be secured against the mouth of the wearer, a self-supporting tube communicating with an opening in said mouthpiece whereby air can be drawn through said tube by the wearer, said tube extending outwardly and upwardly past the surface of the water when the wearer is in swimming position, and terminating in a rearwardly and downwardly projecting leg which forms a seal against the ingress of water when the water rises above the top of the tube.

5. A breathing attachment for swimmers, comprising a mouth-covering plate arranged to leave the nose of a wearer free and formed with a central aperture, a single self-support-

ing tube extending from said aperture transversely of the wearer's head and beyond the same and having an outer end bent to form an arc of approximately 180° and communicating directly with the atmosphere, and a short tubular projection carried on the inside of said plate and terminating short of the wearer's teeth, said tubular projection being formed with a bearing surface for the wearer's lips.

6. A breathing attachment for swimmers, comprising an apertured plate adapted to fit closely about the mouth of the wearer and terminating at a point beneath his nose whereby free discharge of air through the nose is permitted, an inner extension of the apertured portion of the plate providing a bearing surface for the wearer's lips, said extension in its entirety being disposed forwardly of the wearer's teeth, and a single self-supporting tube extending from the aperture in said plate transversely of the wearer's head and bent at its outer end to form an air seal.

7. A breathing attachment for swimmers, comprising an apertured plate adapted to fit closely about the mouth of the wearer and terminating at a point beneath his nose whereby free discharge of air through the nose is permitted, an inner extension of the apertured portion of the plate providing a bearing surface for the wearer's lips and terminating forwardly of his teeth, and a single self-supporting tube extending from the aperture in said plate transversely of the wearer's head and above the same and having a U-shaped outer end adapted to communicate directly with the atmosphere.

8. A breathing attachment for swimmers, comprising a mouth-covering plate arranged to leave the nose of a wearer free and formed with a central aperture, a single self-supporting tube extending from said aperture transversely of the wearer's head and beyond the same and having an outer end bent to form an arc of approximately 180° and communicating directly with the atmosphere, a short tubular projection carried on the inside of said plate and terminating short of the wearer's teeth, said tubular projection being formed with a bearing surface for the wearer's lips, and a strap having its ends secured to said plate and extending about the wearer's head.

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

BARNEY B. GIRDEN.