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2,420,281

DIVING MASK

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Fig. 1.

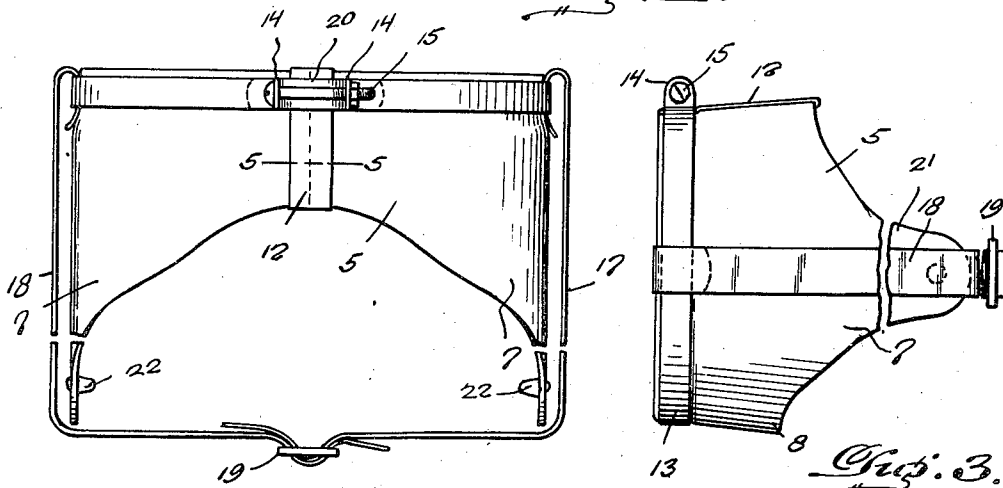


Fig. 2.

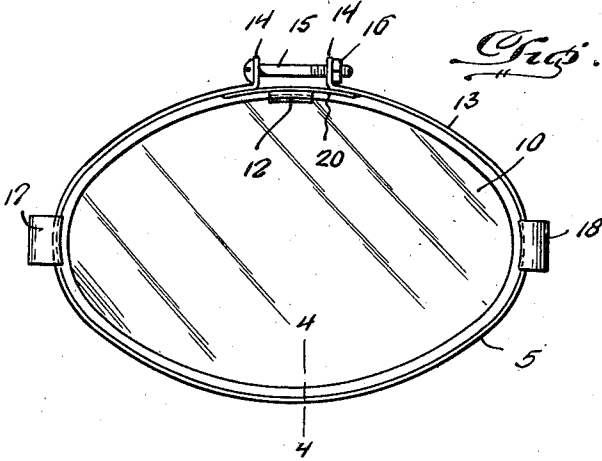


Fig. 3.

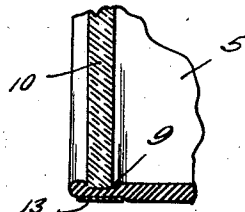


Fig. 5.

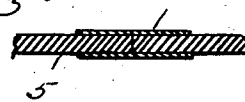
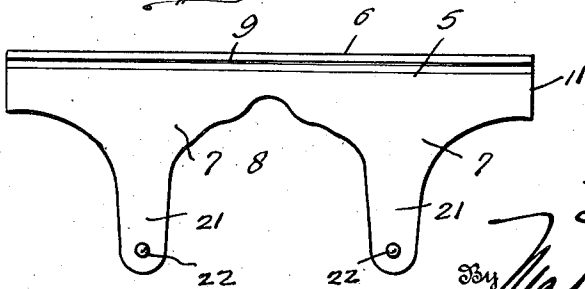


Fig. 6.



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UNITED STATES PATENT OFFICE

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DIVING MASK

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2 Claims. (Cl. 2—14)

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This invention relates to new and useful improvements in masks used by persons diving and especially those who engage in the sport of underwater spearing of fish.

The principal object of the present invention is to provide an underwater mask which will snugly engage the face of the diver and prevent water from reaching the eyes.

Another important object of the invention is to provide a mask which can be readily applied and which because of its resilient construction will snugly fit the contours of various shaped faces.

Still another important object of the invention is to provide a diving mask which can be readily disassembled for the purpose of repair or replacement of parts.

Various other important objects and advantages of the invention shall become apparent to the reader of the following description.

In the drawings:

Figure 1 represents a top plan view of the mask.

Figure 2 is a front elevation.

Figure 3 is a side elevation.

Figure 4 is a fragmentary enlarged detailed sectional view taken on the line 4—4 of Figure 2.

Figure 5 is an enlarged fragmentary detailed sectional view taken on line 5—5 of Figure 1.

Figure 6 is a top plan view showing the pattern of the mask wall.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 denotes a continuous mask wall constructed of resilient material such as rubber.

Figure 6 shows a wall blank and it will be noted that this blank has a straight edge portion 6 and a curved edge portion, this portion having two main outstanding protuberances 7, 7 which are intended to engage the temple portions of a person's face. The indented portion 8 engages the nose of the wearer.

At the inner side of the wall 5 and elongated from end to end, groove 9 is formed to receive an ovate transparent pane 10. The end portions of the blank 5 are buffed, as at 11, and these end portions are bridged by a strip 12 along both the inner and outer sides thereof, this strip 12 being preferably vulcanized in place with the opposed ends of the wall 5.

At the outside of the thus formed wall is a band 13 of metal which is split and has apertured outstanding ears 14 at its end portions through which a bolt 15 is disposed, this bolt being equipped with a nut 16. Obviously, by tightening the nut 16 firmly against the adjacent ear 14,

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the band 13 will have been contracted snugly against the forward edge portion of the wall 5, clamping this portion of the wall snugly against the perimeter of the pane 10.

Before the band is tightened in place, the ends of straps 17, 18 are inserted between the band 13 and the wall 5, so that when the band is contracted to snugly clamp the wall against the edge portion of the pane 10, the straps 17, 18 will also be firmly clamped in place. The straps 17, 18 are provided with a suitable connector 19 whereby the straps may be properly adjusted against the head of the diver.

At the top of the mask is a metal strip 20 which underlies the space between the ears 14 of the clamp band 13. This is to prevent bulging of the mask at this point.

An advantage is to provide ear covering extensions 21, each of which has an ear plug 22 adapted to be inserted into the ears of the wearer in order to exclude water when the mask is being used under water. As can be seen in Figure 1, the straps 17, 18 cross the ear covering extensions 21 and over the plugs 22 to hold the latter firmly in place.

It can now be seen, that with the wall 5 of some suitable flexible material, preferably rubber and the straps 17, 18 snugly engaging the head of the wearer, the wall 5 will be in such firm engagement with the face of the wearer as to preclude the possibility of any water entering within the wall 5, thus affording the diver clear vision.

It will also be noted, that the parts of this mask are readily demountable for the purpose of repair or replacement of parts. The bolt 15 need only be removed and the entire structure will come apart.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. A mask comprising a flexible waterproof wall structure having an irregular rear edge portion adapted to conform with the shape of a human face at the eye area thereof, the forward portion of said wall having a groove adjacent its forward edge said wall being provided with a transparent pane fitted in said groove, means for securing the pane in position in said groove, said means for securing the pane in position consisting of a band circumscribing the forward portion of the wall

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and being contractible to compress the forward portion of the wall snugly against the perimeter of the pane and the ends thereof joining one another at a point removed from the sides of the wall structure, and head straps provided with connecting means, said head straps having the forward ends thereof extended in from the front of the mask and interposed and clamped between the band and the wall, the straps being bent back from the front of the mask for connection with one another behind the ears of a wearer.

2. A mask comprising a flexible waterproof wall structure having an irregular edge portion to the rear thereof adapted to conform with the shape of a human face at the eye area thereof, the peripheral forward portion of said wall structure having a groove on the inside thereof adjacent its forward edge, means for holding the wall structure against the face of the wearer, said wall being provided with a transparent pane at the front thereof received about its edge in said groove, said wall being provided with ear covering extensions, said means for holding the wall in place being disposed over the ear coverings, clamping means for the peripheral forward per-

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tion of said wall structure and the forward portion of said holding means, said clamping means comprising a band removably clamped in fixed position about said pane with its ends joining one another at the top of the mask, a bridging strip for supporting the wall structure extending from the front edge of the wall to the rear thereof and lying beneath the joined ends of the clamped band.

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