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W. L. WHEELER
SURF BOARD ATTACHMENT
Filed Sept. 2, 1931

1,865,985

FIG. 1

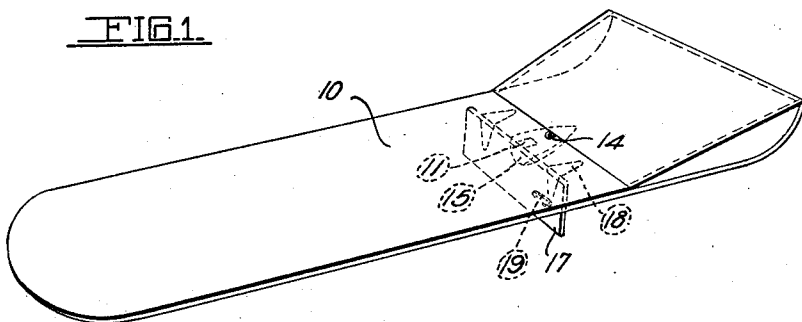


FIG. 2

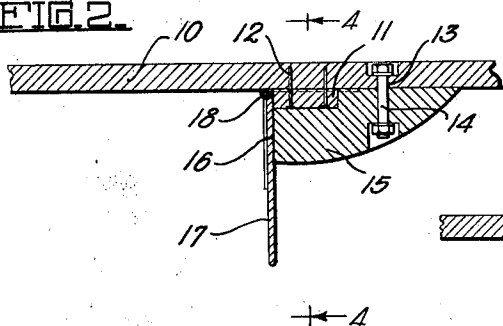


FIG. 3

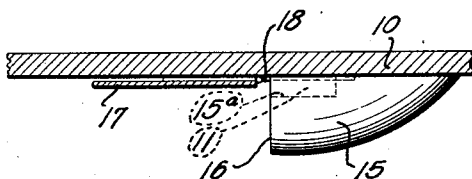


FIG. 4

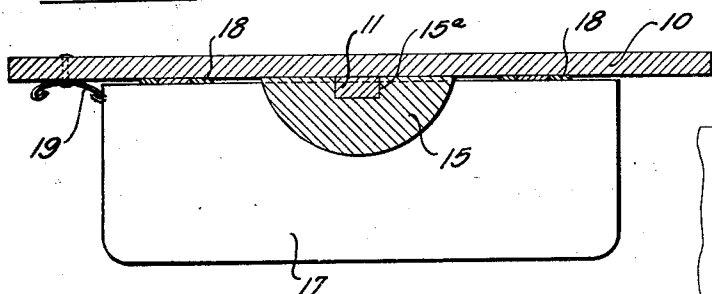


FIG. 5

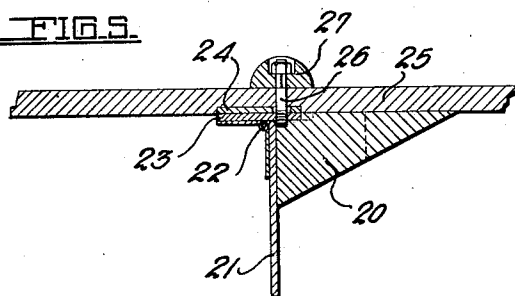
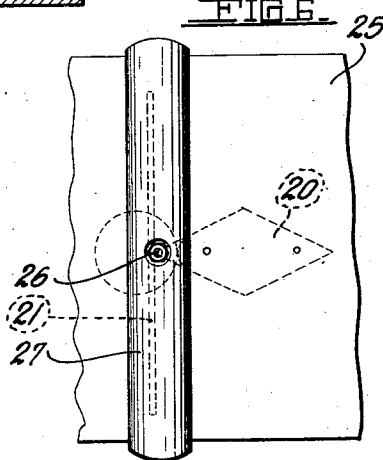


FIG. 6



INVENTOR
W. L. WHEELER
By *Hazard and Miller*
ATTORNEYS.

UNITED STATES PATENT OFFICE

WILLIAM L. WHEELER, OF LOS ANGELES, CALIFORNIA

SURF BOARD ATTACHMENT

Application filed September 2, 1931. Serial No. 560,766.

This invention relates to improvements in surf boards.

An object of the invention is to provide an improved surf board construction having an impeller device secured to the under side of the surf board, which when the water is moving forwardly at a greater speed than the surf board will form an obstacle serving to impell the surf board forwardly at the same rate. The improved impeller construction is so designed as to assume an inoperative or idle position when the surf board is moving against the direction of flow or when the surf board is moving at a greater speed than that of the water.

Another object of the invention is to provide an impeller device for surf boards which can be applied to a conventional surf board with a minimum amount of alteration of the surf board.

Another object of the invention is to provide a surf board construction wherein the impeller device is rotatably adjustable so that by adjusting the position of the impeller the direction of movement of the surf board can be controlled to a limited extent.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, and specifically pointed out in the appended claims, reference is had to the accompanying drawing for an illustrative embodiment of the invention, wherein:

Fig. 1 is a perspective view of a surf board illustrating the invention as having been embodied thereon.

Fig. 2 is a partial view in vertical section through the surf board, illustrating the impeller in operative position.

Fig. 3 is a view similar to Figure 2, illustrating the impeller in inoperative or idle position.

Fig. 4 is a vertical section taken substantially upon the line 4—4 upon Figure 2.

Fig. 5 is a vertical section similar to Figure 2, illustrating a modified form of construction.

Fig. 6 is a partial view in top plan, illustrating the construction shown in Figure 5.

Referring to the accompanying drawing,

wherein similar reference characters designate similar parts throughout the surf board to which the invention is shown as having been applied is indicated by the reference character 10. This surf board may be of any conventional or preferred construction. In applying the device, I secure a small block or cleat 11 to the under side of the board such as by nails or screws 12. I then bore a hole 13 in the board for the reception of a bolt 14. A stop means indicated at 15 is provided which is in the nature of a block presenting a vertical rear surface 16. This block has a recess 15a formed in its upper surface which receives the block or cleat 11. The stop 15 presents on its under surface a forwardly tapering downwardly convex surface so as to offer a minimum resistance to the water and in the event that through accident the surf board should encounter other bathers the stop will not present a sharp edge which would be apt to injure.

The impeller is indicated by the reference character 17 and is in the nature of a transversely extending section of metal or equivalent material. This section extends substantially the complete width of the surf board 10 although it is slightly shorter as shown in Figure 4. It is secured to the under side of the surf board as by hinges 18. The entire construction when mounted on the surf board is preferably secured near the forward end of the board as shown in Figure 1.

The operation and advantages of the construction are as follows. In riding a breaker the surf attempts to rush toward the shore at a considerably greater velocity than that which can be imparted by the rider to the board. As the conventional surf board and the body of the rider do not present a material surface on which the rushing water may become effective, considerable skill is required to "catch" the breaker. By the improved construction as soon as the water of the breaker tends to rush shorewardly, the impeller 17 assumes the vertical position shown in Figure 2, forming an obstacle and thus quickly bringing the speed of the surf board up to the speed of the water. Conse-

quently with a surf board having the attachment no special skill is required to "catch" the breaker. On carrying the board out into the surf or in any condition where the water

5 moves rearwardly with respect to the board, the impeller 17 may swing upwardly and rearwardly as shown in Figure 3 to assume an inoperative position wherein the board affords a minimum amount of resistance.

10 The impeller may be held in this position by a suitable latch indicated at 19 which may be mounted on the side of the board and which is designed to be manually operated to release the impeller and permit it to assume

15 the position shown in Figure 2.

In the modification shown in Figures 5 and 6, the block 20 which provides the stop for the impeller 21 is mounted on the under side of the surf board in any suitable manner and the impeller is fastened as by hinges 22 to a plate 23. This plate bears against a plate 24 mounted on the under side of the surf board 25 and carries a bolt 26. The top of the bolt is preferably squared to receive a handle 27

25 which extends transversely across the top of the board. This handle can be swung about the bolt 26 as a center and will rotate plate 23 and thus vary the transverse position of the impeller 21 with respect to the board.

30 The stop 20, as shown in Figure 6, is preferably diamond shaped in plan although it likewise presents a rounded convex lower surface. The rear converging sides of the stop permit the transverse adjustment of the impeller as above described. In all positions, however, the rear edge of the stop is present to limit the downward and forward movement of the impeller to the position shown in Figure 5. By swinging the handle

40 and thus adjusting the position of the impeller, it is possible to guide the movement of the surf board to a limited extent.

From the above described construction it will be appreciated that an improved surf board has been designed which will facilitate the "catching" of breakers, causing the surf board and rider to be quickly brought up to the speed of the breaker and impelled thereby toward the shore.

50 Various changes may be made in the details of construction without departing from the spirit or scope of the invention as defined by the appended claims.

I claim:

55 1. A surf board having an impeller hingedly mounted upon the under side of the board so as to be capable of swinging rearwardly against the under side of the board into an idle position, and means limiting the forward swinging movement of the impeller to an impelling position, said impeller being rotatably adjustable so that its transverse position with respect to the board may be varied.

60 2. A surf board having an impeller hing-

edly mounted upon the under side of the board so as to be capable of swinging rearwardly against the under side of the board into an idle position, means limiting the forward swinging movement of the impeller to an impelling position, and a handle located on the upper side of the board connected to the impeller for rotatably adjusting it to vary its transverse position with respect to the board.

3. A surf board having an impeller, means for hingedly mounting the impeller upon the under side of the board so as to be capable of swinging rearwardly adjacent the under side of the board into an idle position, said means being rotatably adjustable with respect to the board and having a handle operable by a surf board rider riding upon the upper surface of the board for rotatably adjusting the impeller to vary its transverse position with respect to the board, and means limiting the forward swinging movement of the impeller to an impelling position.

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

WM. L. WHEELER.