United States Patent [19]

Oliver

[11] **3,879,782**

[45] **Apr. 29, 1975**

[54] **SURFBOARD WITH REMOVABLE TAIL SURFACE AREA PORTION**

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[22] Filed: **Aug. 6, 1973**

[21] Appl. No.: **385,896**

[52] **U.S. Cl.** ..... **9/310 E**

[51] **Int. Cl.** **A63c 15/00**

[58] **Field of Search** ..... 9/310 B, 310 C, 310 E; 403/380, 339, 333

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[57] **ABSTRACT**

An improved surfboard having a cut out in the tail block portion. The periphery of the cut out is provided with a grooved slot. A removable tail surface portion is provided which includes a flange for removably mating with the periphery of the cut out portion of the tail block so as to form a unitary surfboard structure. A removable pin for locking together the tail surface portion to the tail block portion while the same are mated is provided.

8 Claims, 5 Drawing Figures

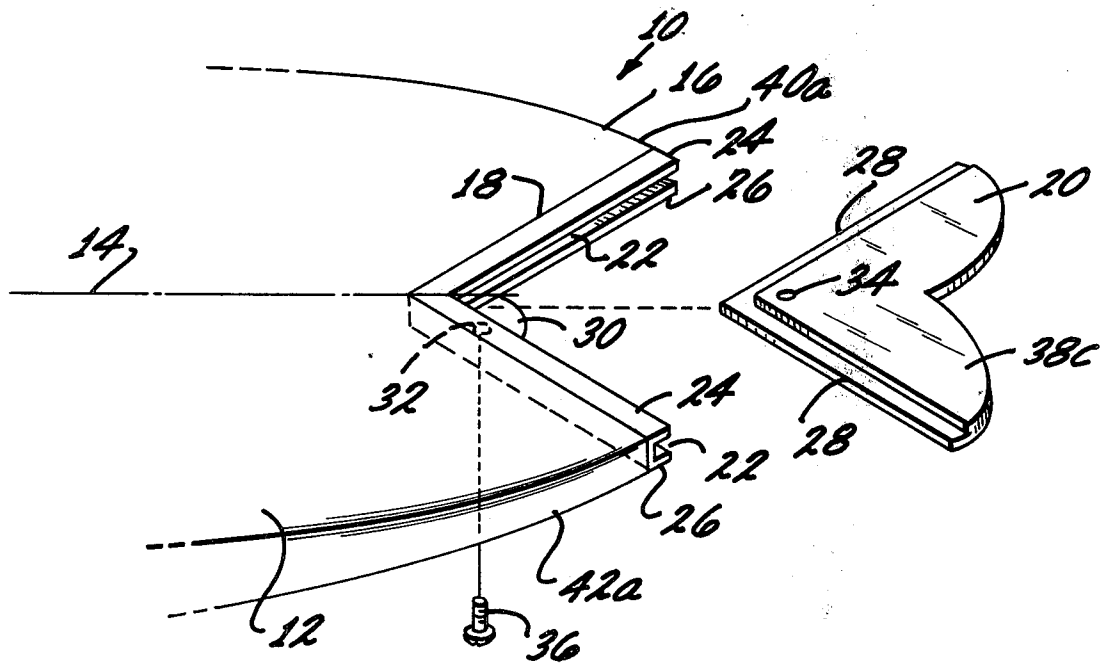


FIG. 1

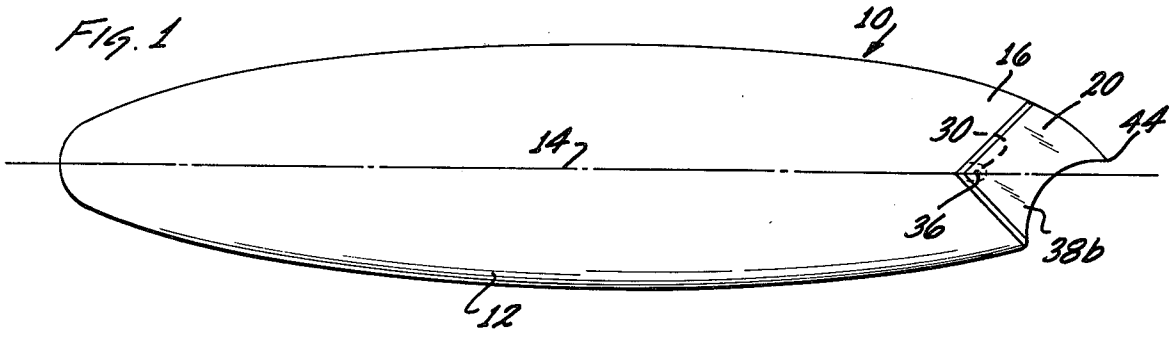


FIG. 2

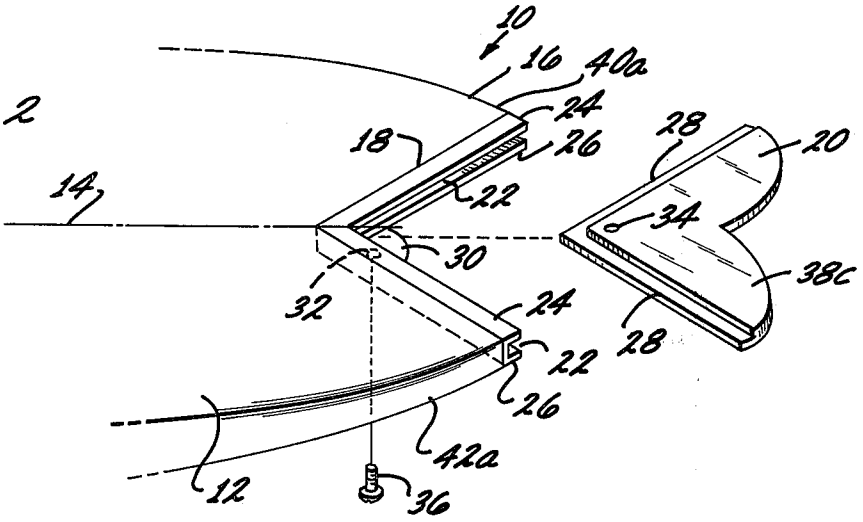


FIG. 3a

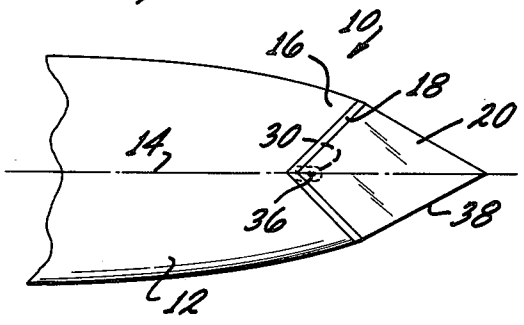


FIG. 3b

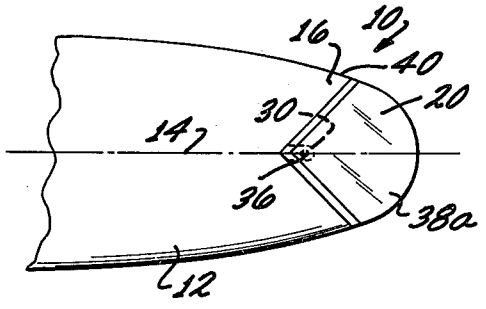
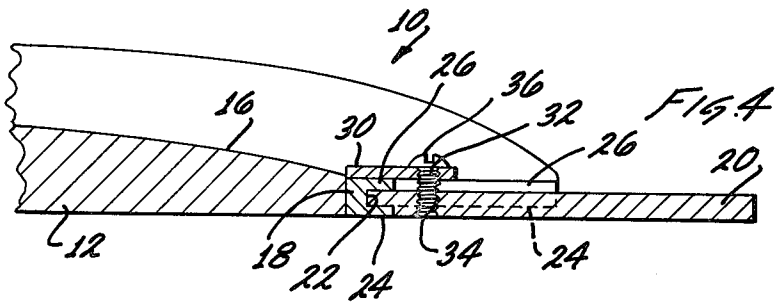


FIG. 4



SURFBOARD WITH REMOVABLE TAIL SURFACE AREA PORTION

BACKGROUND OF THE INVENTION

The invention relates to surfboards and more specifically to a basic surfboard adapted to receive and lock thereto a removable tail surface portion having a selective configuration.

It is well known by surfers that the tail surface configuration of a surfboard performs an important function in control and maneuverability of the board. Each different wave and loading condition requires a different tail surface configuration for maintaining ideal control and maneuverability of the board. Presently surfboards are manufactured with the tail surface as a fixed integral portion of the tail block portion of the surfboard. When a surfer encounters changed loading or wave conditions he must select a surfboard that has the desired tail surface configuration for the changed condition. Obviously for surfing under a plurality of different conditions, a surfer must possess a plurality of boards having different tail surface configurations. This of course would not be practical because of the expense. Many surfers now surf under adverse conditions because they do not possess a plurality of boards having the desired different tail surface configurations. In addition, some of the most desirable surfing areas are inaccessible except by the surfer carrying his board to the area. The surfer is presently required to carry more than one board or choose a single board that will meet a single wave condition.

SUMMARY OF THE INVENTION

The instant invention provides a low cost means for changing the tail surface configuration of a single basic board. The configuration is changed by removing the existing tail surface and replacing it with one selected from a plurality of low cost, light weight, interchangable tail surfaces having different surface configurations.

The invention provides a low cost means for enabling a surfer to possess a board having the desired tail surface configurations by possessing several different shaped tail surface inserts that are light in weight and small in size that are easily transportable.

These features and other advantages of this invention will become readily apparent upon reference to the following description, when taken in conjunction with the accompanying drawings, wherein:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows the bottom view of a surfboard.

FIG. **2** is a prospective cut away view of the rear portion of the surfboard with the tail surface removed.

FIGS. **3***a* and **3***b* show two additional tail surface configurations.

FIG. **4** is a cross-sectional side view of the rear portion of the surfboard.

DETAILED DESCRIPTION OF THE PREFERRED IMBODIMENTS

Referring now to FIG. **1**, a basic surfboard **10** has a bottom portion **12.** The bottom portion **12** has a center line **14** running the longitudinal length of the surfboard **10.** The board **10** has a rear tail block portion **16** which includes mounting means **18** for receiving and mating to a removable tail surface portion **20** to form a unitary surfboard structure.

Referring now to FIG. **2**, the tail block portion includes mounting means **18** that includes a slotted channel **22** positioned between walls **24, 26.** The slotted channel **22** receives and mates with flange **28** of tail surface portion **20.** The tail block portion **16** of the basic board **10** includes a locking flange **30** with an aperture **32** therethrough. The tail surface portion **20** includes an aperture **34.** These apertures can be of smooth bore, threaded, or tapered as hereinafter explained. A locking pin **36** is used to removably lock the tail surface portion **20** with the tail block portion **16** to form a unitary structure.

FIG. **3***a* shows a tail surface portion **20** having a rear periphery **38** that angles rearward from the tail block portion **16** so as to form a shape substantially that of a half diamond that is symmetrical with the center line **14** of the basic board (shown in FIG. **1**). FIG. **3***b* shows a tail surface portion **20** having a rear periphery **38***a* that forms a semi-circle extending between the corner **40** and **42** of the tail block portion **16.**

The tail surface portion **20** of the board **10** of FIG. **1** has a rear periphery **38***b* that has an elongated portion **44** on one corner of board **10** that tapers forward in a semi-arc to tail block portion **16** at the opposite corner of board **10.**

The tail surface portion **20** of the board **10** of FIG. **2** has a rear periphery **36***c* formed by two semi-circles meeting at the center line **14** of the board inward from the outer corners **40***a* and **42***a* of the tail block portion **16** of the board **10.**

it should be obvious how mating and interchangeability of the tail surface portion **20** to tail block portion **16** is performed. A short summary of explanation follows.

The basic board **10** as shown in FIG. **4** has a slotted channel for receiving flange **28** of the tail surface portion **20** so that the tail surface when mated forms a continuation of the surface lines of the basic board **10** as shown in FIG. **1**, **3***a*, **3***b* so that a unitary surfboard structure is formed that resembles a conventional surfboard. When the two portions are mated in thus manner the aperature **32** through flange **30** is co-axial with aperture **34** through tail portion **20.** The locking pin **36** is then inserted through the aligned apertures to secure the two portions together. A tapered pin **36** can be inserted from the top of the board toward the bottom until it is held in place by friction of engagement. The locking pin may also be threaded through threads provided in apertures **32, 34** or a keeper in the form of a blot may be inserted through smooth apertures **32, 34** and a nut threaded on the free end thereof. The opposite operation is employed for removing the tail surface portion **20** from the basic board **10.**

From the foregoing it will be evident that the present invention has provided a surfboard with an interchangeable tail surface portion in which all of the various advantages are fully realized.

What is claimed is:

1. An improved surfboard comprising:

a unitary surfboard structure having a tail block portion with a cut away tip surface area;

a plurality of differently configured tail block tip surface area sections;

mating means for removably mating any selected one of said plurality of said tip surface area sections to said cut away tip surface area of said surfboard so as to provide a tip surface area of desired configuration to said surfboard; and

removable locking means for locking the mated one of said plurality of tip surface area sections to said surfboard;

said cut away tip surface area is substantially "V" shaped;

said mating means comprises a slotted channel on the rear periphery of said tail block portion and each of said plurality of tip surface area sections include a flange for mating within said slotted channel.

2. The invention as defined in claim **1** wherein each side of the outer surface of said "V" forms an equal acute angle with the center line of said surfboard.

3. The invention as defined in claim **1** wherein said removable locking means comprises in combination apertures passing through said tail block portion and each of said tip surface area sections, said apertures are coaxial when said tail block portion and a selected one of said tip surface area sections are mated, and a removable pin passing through said apertures for maintaining a mated configuration.

4. The invention as defined in claim **3** wherein said apertures are threaded and said pin is threaded for threaded engagement there with.

5. The invention as defined in claim **1** wherein one of said plurality of tip surface area sections is substantially diamond shaped.

6. The invention as defined in claim **1** wherein one of said plurality of tip surface area sections has a convex outer periphery.

7. The invention as defined in claim **1** wherein one of said plurality of tip surface area sections has an outer periphery comprised of at least two curved portions in contact at the center line of said surfboard.

8. The invention as defined in claim **1** wherein one of said plurality of tip surface sections has an outer periphery with an elongated portion on one side thereof.

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