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ASYMMETRICAL SURFBOARD

Filed Aug. 6, 1965

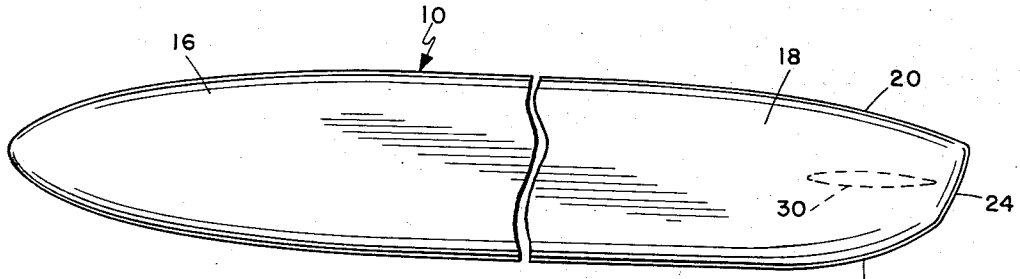


Fig. 1

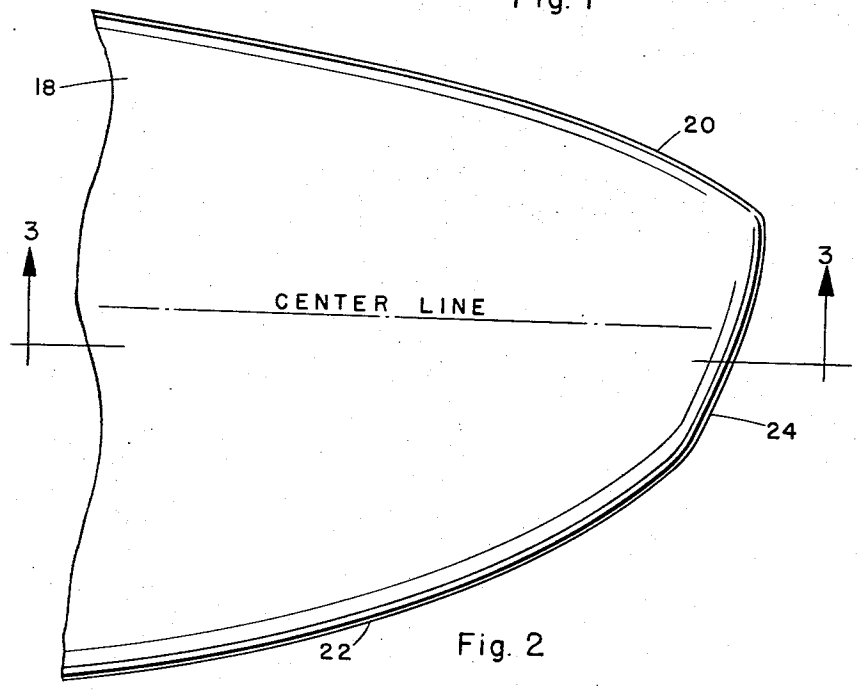


Fig. 2

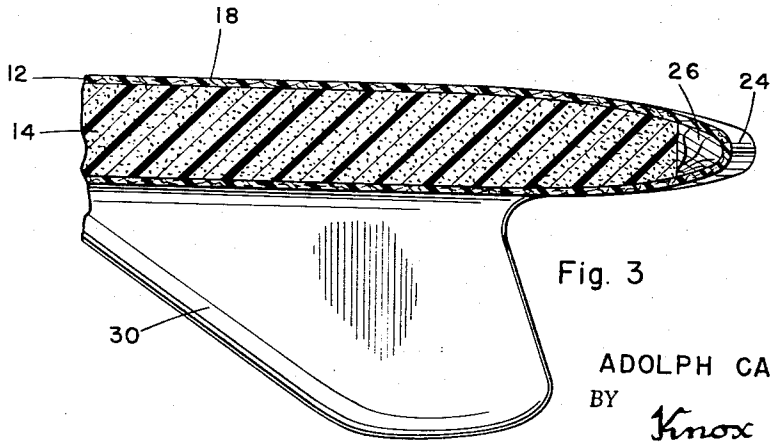


Fig. 3

INVENTOR.

ADOLPH CARL EKSTROM

BY

Knox & Knox

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ASYMMETRICAL SURFBOARD

Adolph Carl Ekstrom, 6139 La Jolla Hermosa Ave., La Jolla, Calif. 92037

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The present invention relates to sporting equipment and more specifically to an asymmetrical surfboard.

There is considerable variation in the design of surfboards for different performance characteristics. Surfboards with pronounced curvature both longitudinally and laterally are highly maneuverable, while the flatter boards are capable of high speed. Most general purpose boards are a compromise between the two extremes, but the planform is conventionally symmetrical about a longitudinal center line. Directional control of the surfboard is achieved by the rider shifting his weight in the required direction, but the normal riding stance does not put the rider's weight effectively symmetrical about the center line. The conventional stance has one foot forward near the mid point of the board and the other foot toward the rear of the board, the feet being staggered on opposite sides of the center line. However, the forward inclination of the rider's body necessary for balance at high speed places more weight on the forward foot. As a result any shift in weight tends to be more effective on one side than on the other. In precision maneuvering, or in an emergency situation, this difference in directional control can be critical.

The primary object of this invention, therefore, is to provide a surfboard having an asymmetrical planform which compensates for the offset weight distribution of a rider in normal stance and gives the board substantially equal turning ability in either direction.

Another object of this invention is to provide an asymmetrical surfboard configuration which is adaptable to all conventional construction techniques and to the various basic types of surfboards.

The special configuration of the surfboard is illustrated in the drawing, in which:

FIGURE 1 is a top plan view of the surfboard;

FIGURE 2 is an enlarged top plan view of the asymmetrical tail portion of the board; and

FIGURE 3 is a sectional view taken on line 3—3 of FIGURE 2.

The surfboard, generally indicated at **10** in FIGURE 1, can be made by any of the conventional construction techniques. One particularly efficient structure uses an outer skin or shell **12** of glass fiber reinforced plastic with a filler or core of foam material **14**, such as foamed plastic. Balsa wood may also be used as a core material, or in combination with foam plastic. Suitable reinforcing, such as a longitudinal spine of metal or hardwood, may be installed, the specific arrangement being a matter of design. The forward portion or body **16** of the surfboard **10** is conventional and symmetrical, only the tapered tail section **18** incorporating the asymmetrical feature.

The surfboard as illustrated is for use by a rider having a left foot forward stance and will be described in that respect. For a right foot forward stance the asymmetrical configuration is merely reversed.

The side edges or hip portions of the tail section **18** are curved to provide a smooth taper to the rear end, the right hip **20** having a shallow inward curve to decrease planform area on that side, while the left hip **22** has a shorter corve and it curves more sharply inwardly to maintain area on that side. The rear edge **24**, as illustrated, is inclined with respect to the longitudinal axis of the surfboard, the right side of the tail section being longer than the left to add to the asymmetry. However, the rear edge could be perpendicular to the axis, or curved, or any other convenient configuration, the edge being preferably reinforced by an insert block **26**. A conventional fin or skeg **30** is located on the under side of tail section **18** on the center line and may be formed integrally with the board or attached in a suitable manner.

In straight travel with the rider in a left foot forward stance the surfboard is balanced and weight is evenly distributed. To make a left turn the rider shifts his weight to the left, which inclines the surfboard to that side. The front end of the surfboard tends to lift out of the water, the tail end being forced down and the left hip **22** biting into the water, so that the board has a powerful pivoting action about the left rear corner.

In a right turn the shift of weight to the right is less effective since there is less weight on the rider's foot at the rear of the rear of the surfboard. The front end of the surfboard does not tend to lift from the water as much as in a left turn and a large portion of the right edge is forced down into the water, but the decreased area on that side at the rear end enables the board to turn more easily. The overall result is a substantially equal turning action in either direction, which facilitates precise maneuvering.

For a right foot forward stance the asymmetry of area and the above described actions will be reversed.

It is understood that minor variation from the form of the invention disclosed herein may be made without departure from the spirit and scope of the invention, and that the specification and drawing are to be considered as merely illustrative rather than limiting.

I claim:

1. A surfboard having a tail section asymmetrical in planform about the longitudinal center line thereof.

2. A surfboard having a tapered tail section, the planform area of said tail section being greater on one side of the longitudinal center line of the surfboard than on the other.

3. A surfboard having a tapered tail section with curved sides, one of said sides being curved more sharply than the other, whereby the area of said tail section is asymmetrical in planform with respect to the longitudinal center line of the surfboard.

4. A surfboard having a tapered tail section, one side of said tail section being longer than the other and the area of the tail section being asymmetrical in planform with respect to the longitudinal center line of the surfboard.

5. A surfboard according to claim 4 and including a rear edge portion extending between the sides of said tail section, said rear edge portion being inclined to the longitudinal center line.

6. A surfboard having a tapered tail section with curved sides, one of said sides being curved more sharply and being shorter than the other side, whereby the area of said tail section is asymmetrical in planform with respect to the longitudinal center line of the surfboard.

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MILTON BUCHLER, *Primary Examiner.*
P. E. SAUBERER, *Assistant Examiner.*