May 9, 1933. C. C. HARRIS ET AL 1,908,420

FLOAT

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Fig. 1

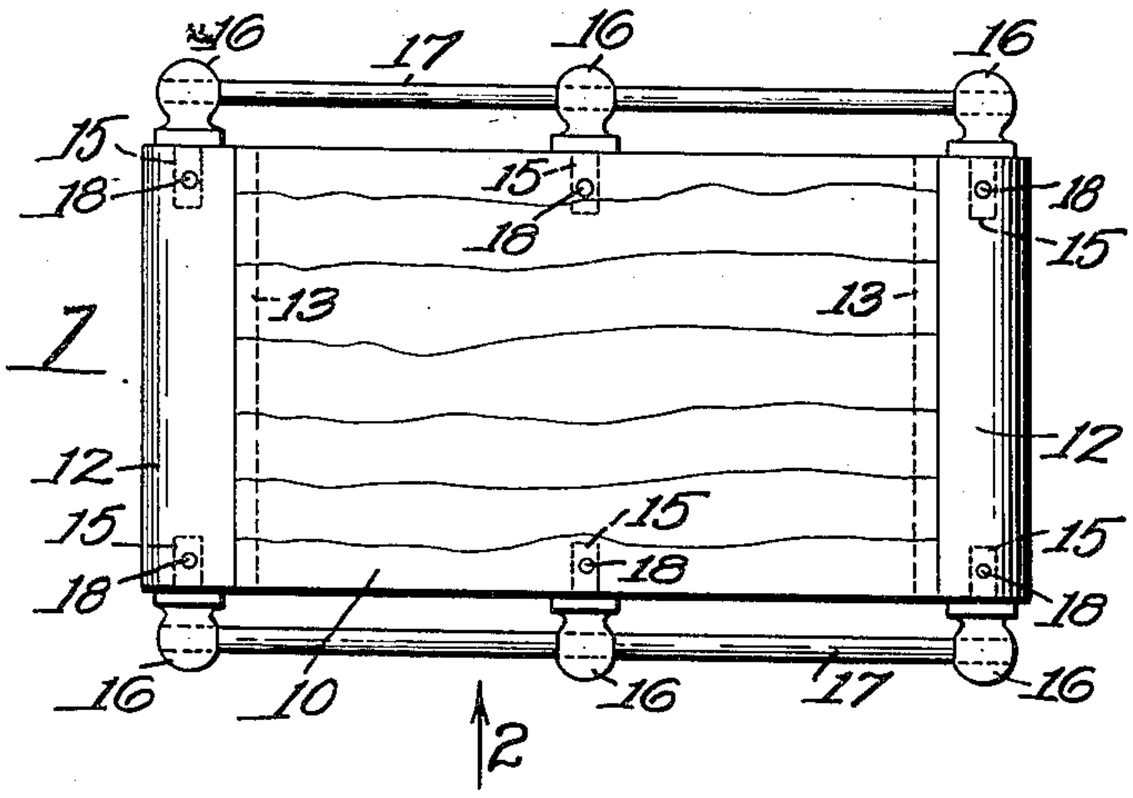

Fig. 2

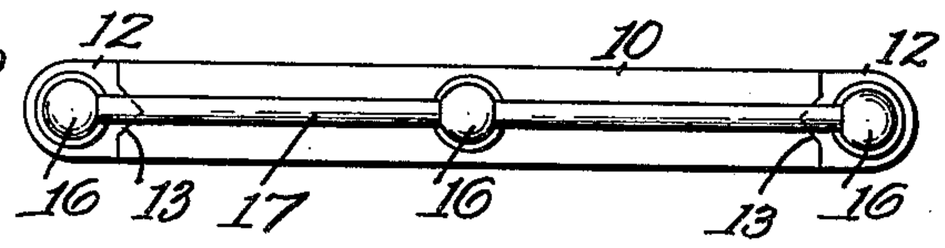

Fig. 3

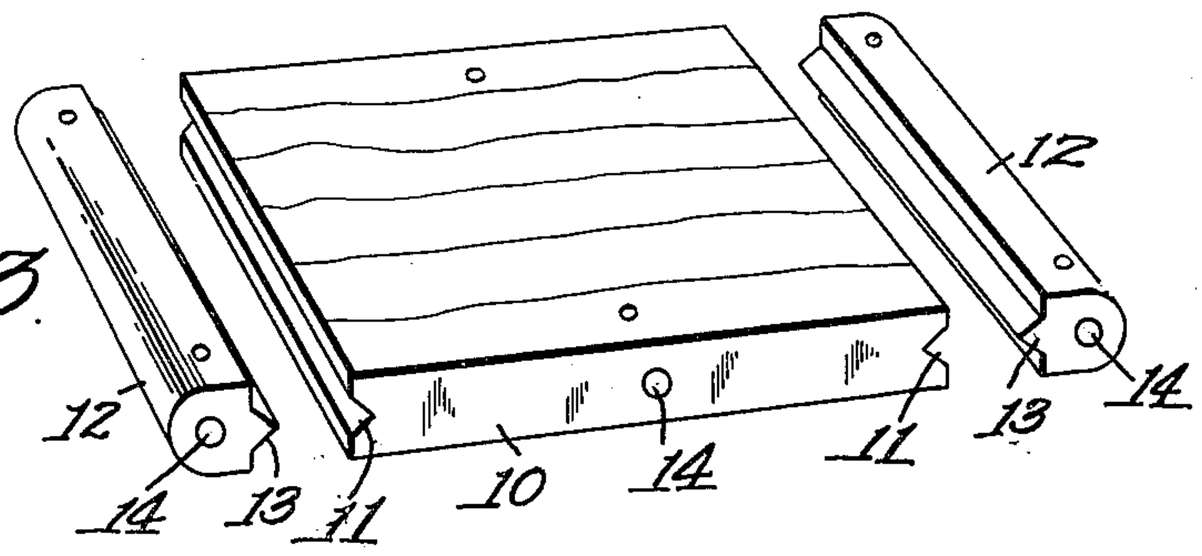

Fig. 4

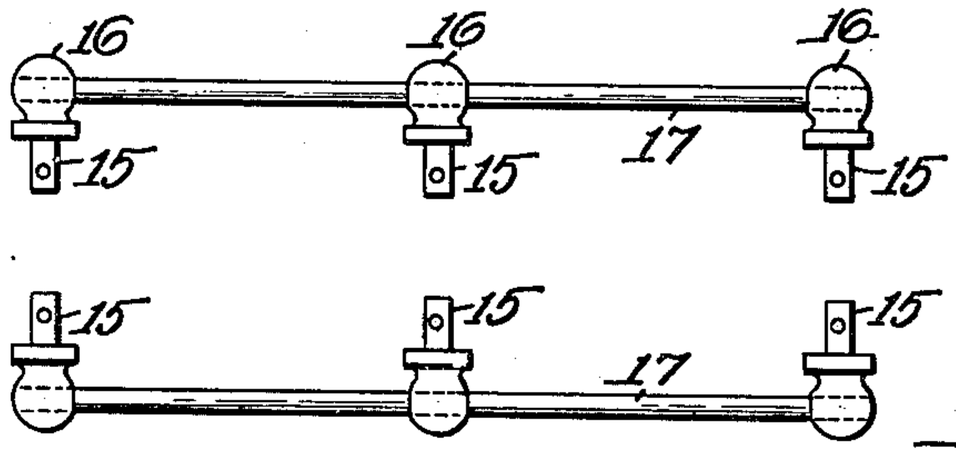

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Fig. 5.

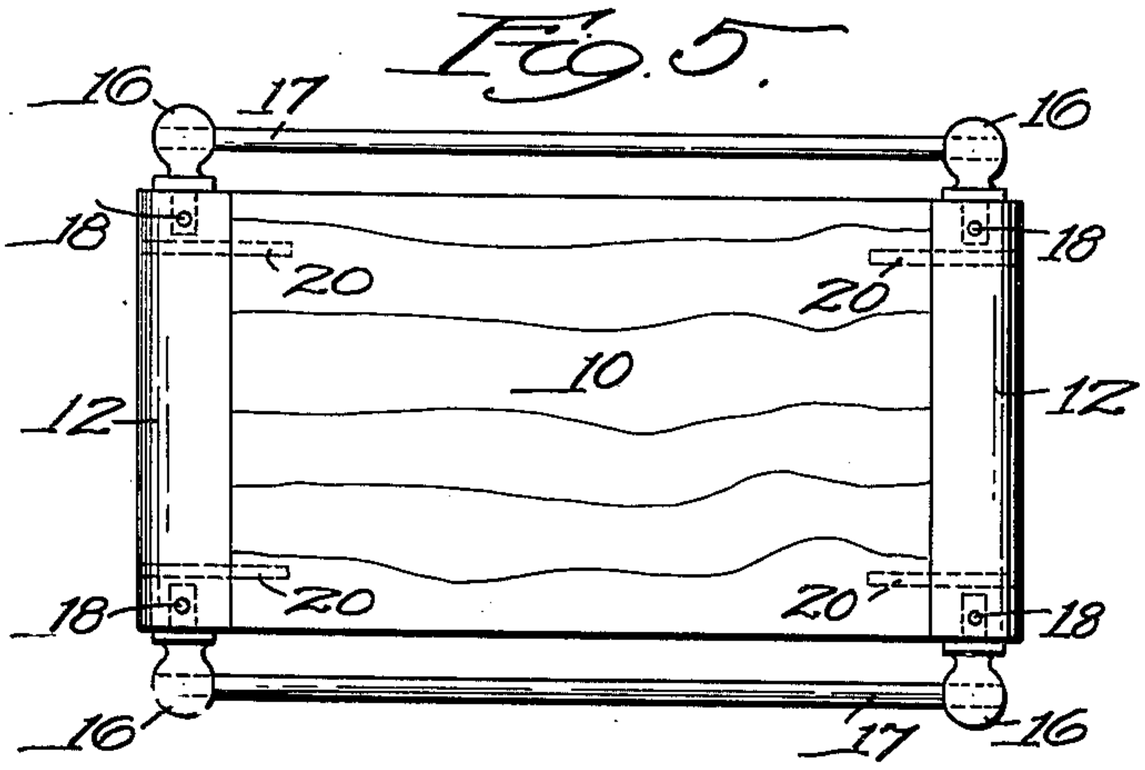


Fig. 6.

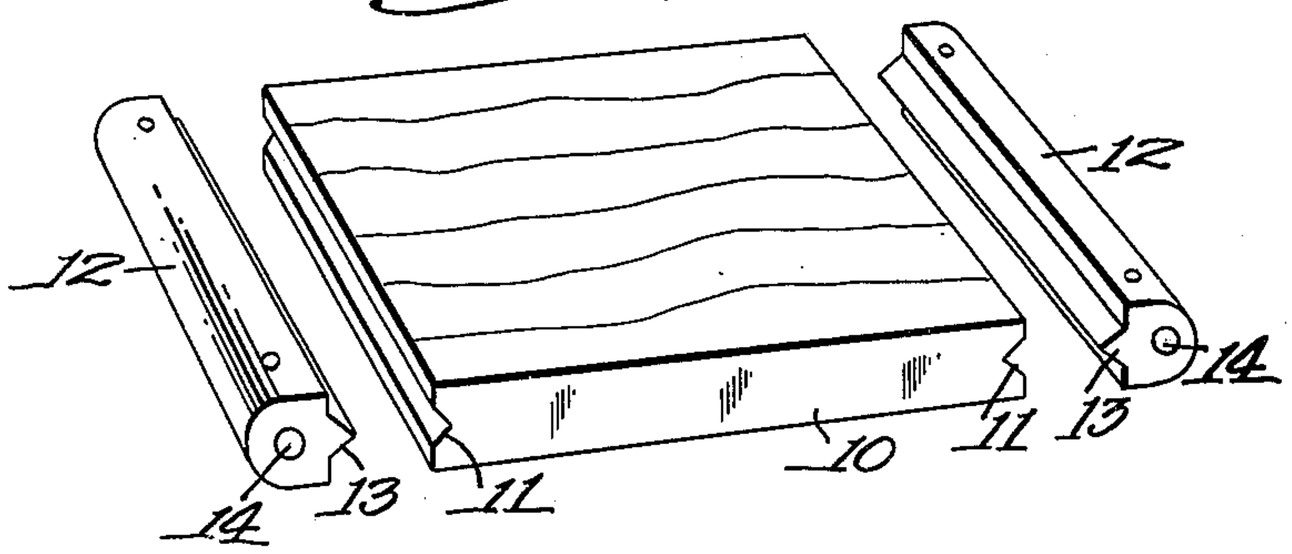
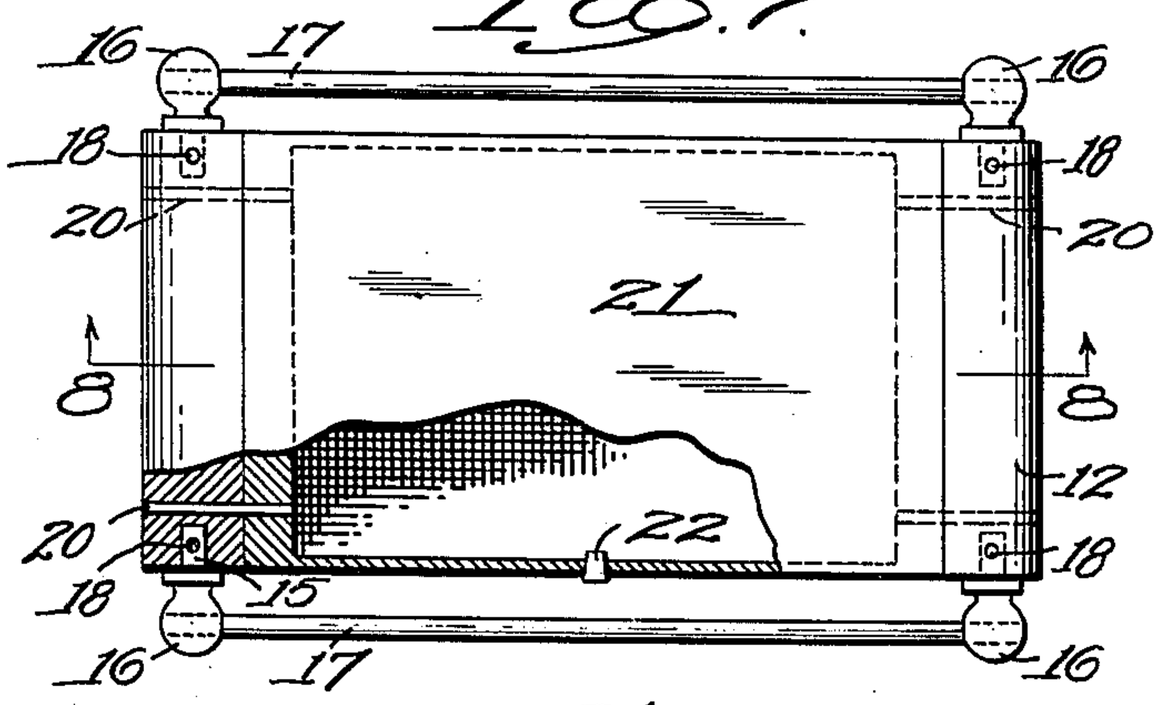


Fig. 7.



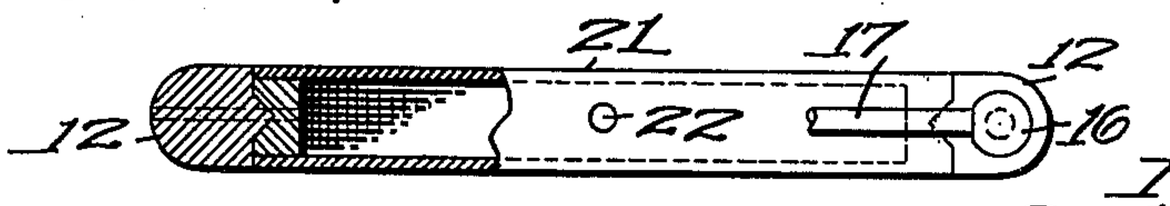


Fig. 8.

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UNITED STATES PATENT OFFICE

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FLOAT

Application filed May 6, 1932. Serial No. 609,698.

The principal objects of this invention are to provide a float for sports use and safety purposes without cross rods, end rods, or textile covering; to provide a construction which can be made at a very low cost and to provide a construction which will be strong, durable, light and inexpensive.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which

Fig. 1 is a plan of a float constructed in accordance with this invention;

Fig. 2 is an edge view as indicated by the arrow 2 in Fig. 1;

Fig. 3 is a perspective view of the central parts of the device separated to show the construction;

Fig. 4 is a view of the side rods and their connecting features;

Fig. 5 is a plan showing a modification;

Fig. 6 is a separated perspective view of the same;

Fig. 7 is a plan of another modification, and

Fig. 8 is a sectional view thereof on the line 8—8 of Fig. 7.

The float is designed to be used as a swimming float for use at bathing beaches for the assistance of the bathers to hold them up when swimming or, in larger sizes, it can be used as a raft and furthermore as a life preserver.

In the form shown on the first sheet of drawings, the central main part of the device 10 preferably is constructed of balsa wood or other very buoyant material. It can be made up of several pieces secured together by cement or any fastening devices that may be desirable but is a unitary piece which will hold together in the water. It is intended to be covered all over with paint or other water-proof material to keep the water from getting into the grain of the wood and reducing its floating capacity and eventually causing the wood to deteriorate. Preferably it is made of rectangular shape with two central opposite V-shaped grooves 11 along its ends.

The float is provided with end bumpers 12 of pine or other wood, also preferably covered with water-proof paint or varnish. These two strips extend along the ends of the balsa wood and the grain is at right angles to the grain of the balsa wood. The ends of these bumpers are rounded preferably to avoid corners which might injure the bathers and at the inner edge of each piece is a continuous V-shaped projection 13 adapted to fit within the V-shaped grooves 11.

These ends serve as bumpers to protect the lighter and more fragile balsa wood. By the use of the tongues or projections 13 on the pine ends 12 and by their projection into the grooves 11 of the balsa wood, the warping of the balsa wood is prevented and furthermore the warping of the pine ends also is restrained. For this reason the article will maintain a level and flat surface on both sides under the severe conditions to which floats are subjected.

Extending into recesses 14 in the ends 12 and also in the balsa wood part 10 are pins 15 of maple or other strong wood having heads 16 which are perforated to provide for the support of side rods 17 which also are formed of maple or the like. The pins 15 are fixed in place by maple dowels 18 passing preferably all the way through the pine ends and the balsa wood center. These side rods serve the usual purpose and also serve to hold the device together.

By the use of these pins 15, the cross rods which extend clear through the float in accordance with my previous floats are eliminated. By covering all the wooden parts with the water-proof paint or varnish the necessity for using canvas is also eliminated. The ornamentation, if any, is secured by painting or varnishing the parts. The end pieces not only strengthen the balsa wood centers but also serve as bumpers when the float engages some other float or stationary object. The balsa wood center is water-proof as stated and has a hard and durable surface.

In the form shown in Figs. 5 and 6 the central pins 15 are omitted. It will be obvious that the side rods 17 and ends 12 serve to hold the balsa wood center 10 in position. Two pins 15 and dowels 18 are used on each side. The ends 12 also serve to strengthen

the balsa wood center 10 and as bumpers. Longitudinal dowels 20 may be used to prevent the center 10 from sliding out sideways.

In the form shown in Figs. 7 and 8 these features are all present, but for the balsa wood float is substituted a thin walled waterproof box 21. In this way a good light float is provided. In case of leakage the water can be drained out through an opening normally closed by a plug 22.

This float constitutes a compact device the whole length of which is taken up by the wood and which is not provided with end rods located beyond the floating elements of the float. The side rods of course are spaced from the sides of the wood center and permit the bathers to grasp them and hold themselves up by means of the float. The pins are all driven in tight so that they will not be loosened by the use of the device or by its alternate wetting and drying out and the pins 16 are secured in place permanently.

Although we have illustrated and described only one form of the invention we are aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore we do not wish to be limited in this respect but what we do claim is:

1. As an article of manufacture, a float comprising a center of balsa wood, or the like, having horizontal grooves in its opposite ends and a pair of end pieces of stronger wood extending throughout the said ends and having integral longitudinal projections on their inner surfaces extending into and fitting said grooves, for the purposes described.

2. As an article of manufacture, a float comprising a central portion of buoyant material and end pieces located in contact with the ends thereof and secured thereto, a series of pins extending into the ends of the end pieces and into the sides of the buoyant material, said pins having heads with perforations in alignment, side rods extending through said perforations, and means for permanently securing said pins in position.

3. As an article of manufacture, a float comprising a buoyant center having grooves in its opposite ends and a pair of end pieces of strong wood extending throughout the said ends and having projections on their inner surfaces extending into and fitting said grooves, a series of pins extending into the ends of the end pieces and into the sides of the buoyant center and arranged in alignment along the sides of the float, said pins having heads with perforations in alignment, and side rods extending through said perforations.

4. As an article of manufacture, a float comprising a central buoyant portion and end pieces located in contact with the ends thereof and secured thereto, a pair of pins on each side extending into the ends of the end pieces, said pins having heads with perforations in alignment, and side rods extending through said perforations to hold the end pieces in place.

5. As an article of manufacture, a float comprising a hollow center of wood, or the like, having horizontal grooves in its opposite ends and a pair of end pieces of strong wood extending throughout the said ends and having horizontal projections on their inner surfaces extending into and fitting said grooves, side rods secured to the opposite sides of the ends and spaced from the sides and in the plane of said center, and means for preventing the ends from moving sideways with respect to the center.

In testimony whereof we have hereunto affixed our signatures.

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HAROLD W. CADWELL.