Oct. 27, 1931. L. H. BRIMHALL 1,829,471

SURF SLED

Filed Dec. 11, 1930 2 Sheets-Sheet 1

Fig. 1.

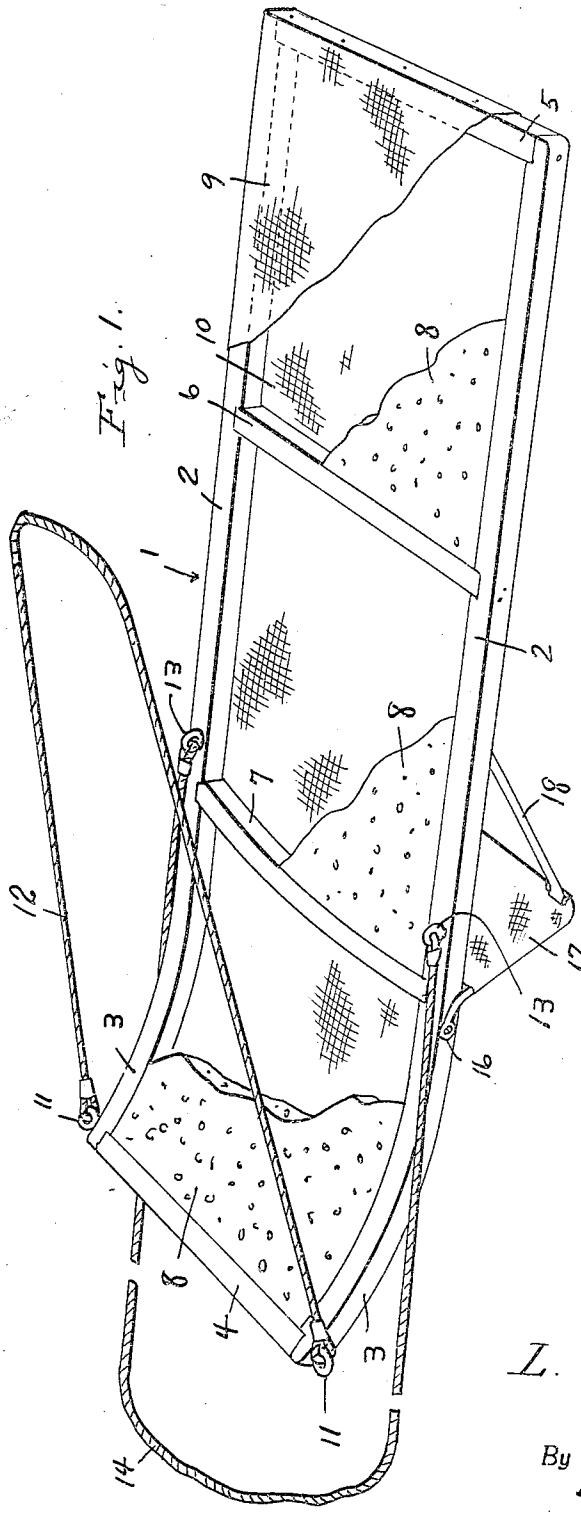
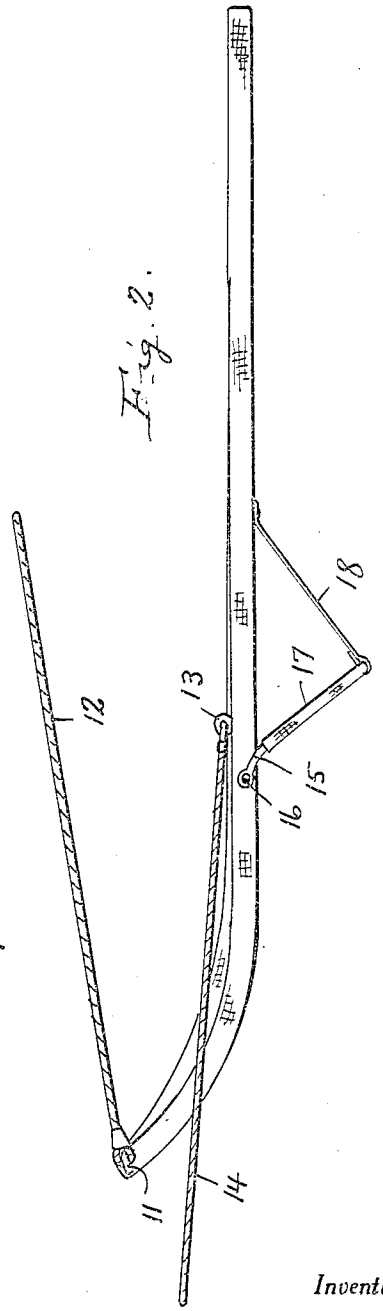


Fig. 2.



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Fig. 3.

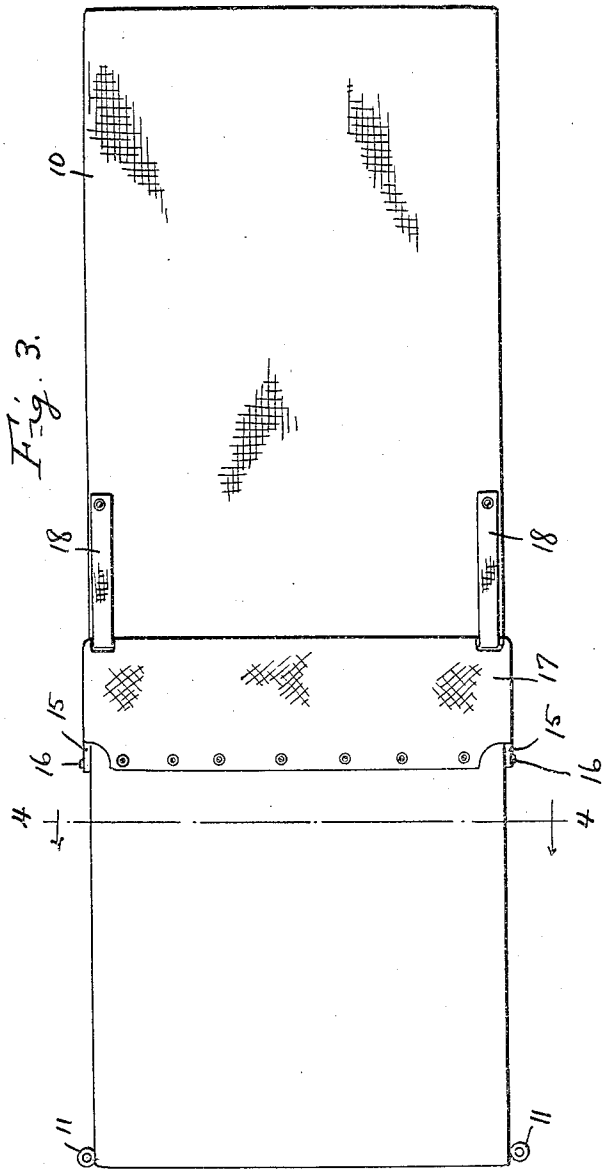
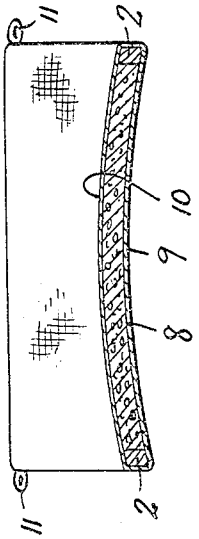


Fig. 4.



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UNITED STATES PATENT OFFICE

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SURF SLED

Application filed December 11, 1930. Serial No. 501,697.

This invention relates generally to aquatic amusement devices and more particularly to a device of this character which is in the nature of a surf sled and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character embodying a novel construction and arrangement of parts whereby sufficient buoyancy is had to support the weight of one or more persons on the surface of the water.

Another object of the invention is to provide a device of the character described having mounted thereon a pivoted blade or fin for engagement by the water for propelling the device with a current or flow of water when said device is headed in the direction of the current or flow, said blade or head being inoperative when the device is being drawn through the water.

Another important object of the invention is to provide a surf sled embodying a construction whereby the same may be used as an aqua-plane should it be so desired by simply attaching the same to a power boat or the like.

Other objects of the invention are to provide a surf sled of the character set forth which will be simple in construction, strong, durable, efficient and reliable in use and which may be manufactured at low cost.

All of the foregoing and still further objects and advantages of the invention may become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:—

Figure 1 is a perspective view of the device showing portion of the same broken away to more clearly disclose the construction and arrangement.

Figure 2 is a view in side tlevation of the device.

Figure 3 is a view in bottom plan of the invention.

Figure 4 is a vertical cross sectional view taken substantially on the line 4—4 of Figure 3 looking in the direction indicated by the arrows.

Referring to the drawings in detail, it will be seen that the reference numeral 1 designates generally an elongated, substantially rectangular frame which includes the spaced, parallel, coextensive, longitudinal side bars 2 having upwardly turned forward end portions 3. Front and rear end cross bars 4 and 5, respectively, extend between the side bars 2 as do also the intermediate cross bars 6 and 7, the cross bar 7 being disposed adjacent the upwardly curved forward end portions 3 of the side bars 2 and said cross bar 7 being arcuated upwardly. It will thus be seen that the frame 1 is divided into series of cells or compartments.

Cork or other suitable buoyant material 8 is placed in the cells or compartments formed by the frame 1 and said buoyant material is preferably in a loose or ground condition particularly in the two forward cells or compartments. Sheets of canvas 9 and 10 are tightly stretched and secured over the upper and lower sides, respectively, of the frame 1, said canvas being painted or otherwise suitably treated to resist the action of the water. As clearly seen in the drawings and in Figure 4 thereof in particular, the forward portion of the device, in addition to being curved upwardly, is arcuate in cross section due to the curvature of the cross bar 7 and the fact that the canvas is stretched tight on the frame. Eye screws 11 are anchored in the forward end portions of the side bars 2 of the frame and secured to the said screws are the end portions of the rope or cable 12 which is tripped by the person riding the surf sled to manipulate the device and maintain a balance.

Eye screws 13 are also anchored in intermediate portions of the side bars 2 of the frame 1 and secured thereto are the end portions of a towing or draft rope or cable 14 which, if desired, may be secured to a power boat or the like for drawing the sled over the surface of the water as an aqua-plane.

The end portions of a substantially U-shaped metallic frame 15 are pivotally secured as at 16, to the outer sides of the longitudinal side bars 2 of the frame 1 at intermediate portions of the side bars 2. A sheet

of canvas or the like 17 is stretched on the U-shaped frame 15 and thus a blade or fin is provided which is mounted for swinging movement beneath the frame 1. Flexible straps 18 have one end secured to the substantially U-shaped frame 15 and their other ends anchored to the side bars 2 of the frame 1 at a point rearwardly of the U-shaped frame 15, as clearly seen in Figure 2 of the drawings. The flexible straps 18 permit the blade or fin to swing rearwardly and upwardly toward the bottom of the surf sled but limit the forward swinging movement of said blade or fin as also illustrated in Figure 2.

The blade or fin may be removed when it is so desired and the same is used when the surf sled is riding breakers or in a current of water and is headed in the direction of movement of the breakers of the current. The moving water will engage the blade or fin and move the sled forwardly as will be obvious. When the surf sled is moving in a direction against the water or when the same is being drawn by a power boat, the blade or fin swings upwardly adjacent the bottom of the sled. The upturned forward end portion of the sled materially reduces resistance by the water. The arcuated cross sectional shape of the forward portion of the sled lends stability thereto.

It is believed that the many advantages of a device in accordance with this invention will be readily understood, and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction may be had which will fall within the scope of the invention as claimed.

What is claimed is:—

1. A surf sled of the character described comprising a frame including spaced, parallel, longitudinal side bars having upwardly curved forward end portions, end cross bars extending between the side bars, a pair of spaced, intermediate cross bars extending between the side bars, one of said intermediate cross bars being arcuated upwardly and disposed adjacent the upwardly curved portions of the side bars, the intermediate cross bars dividing the frame into a series of compartments, waterproof fabric covers secured on the upper and lower sides of the frame, and a buoyant filler disposed in the compartment between the upper and lower covers.

2. A surf sled of the character described comprising an elongated substantially rectangular frame having an upturned forward end portions, fabric covers secured over the top and bottom of the frame, a buoyant filler disposed in the frame between the covers, a substantially U-shaped metallic frame pivotally secured to intermediate portions of the sides of the first named frame and disposed for swinging movement therebeneath, a sheet of flexible material secured on the substantially U-shaped frame for engagement by the water for propelling the sled, and flexible straps secured, at one end, to the free end of the substantially U-shaped frame and at their other ends to the first named frame in a manner to limit the swinging movement of the U-shaped frame.

3. A surf sled of the character described comprising an elongated substantially rectangular frame having an upturned forward end portions, fabric covers secured over the top and bottom of the frame, a buoyant filler disposed in the frame between the covers, a substantially U-shaped metallic frame pivotally secured to intermediate portions of the sides of the first named frame and disposed for swinging movement therebeneath, a sheet of flexible material secured on the substantially U-shaped frame for engagement by the water for propelling the sled, and flexible straps secured, at one end, to the free end of the substantially U-shaped frame and at their other ends to the first named frame in a manner to limit the swinging movement of the U-shaped frame, eye screws anchored in the forward end portions of the first named frame, a rope secured at its ends to the eye screws, and a rope secured at its ends to intermediate portions of the first named frame.

In testimony whereof I affix my signature.

LEE H. BRIMHALL.