July 24, 1923. 1,462,769

A. V. SANTARSIERO

COLLAPSIBLE BOAT

Filed Aug. 10, 1922

Fig. 1.

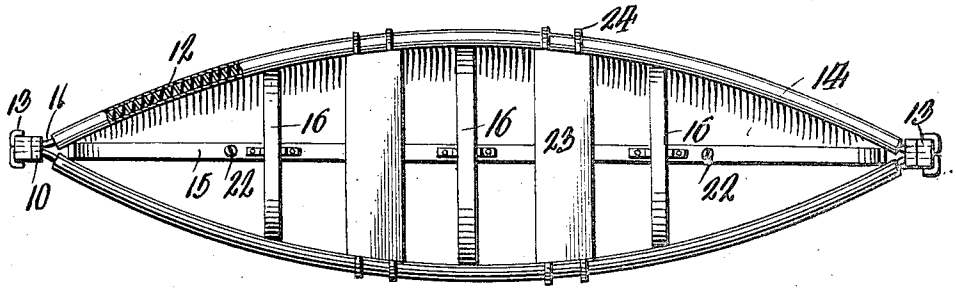


Fig. 2.

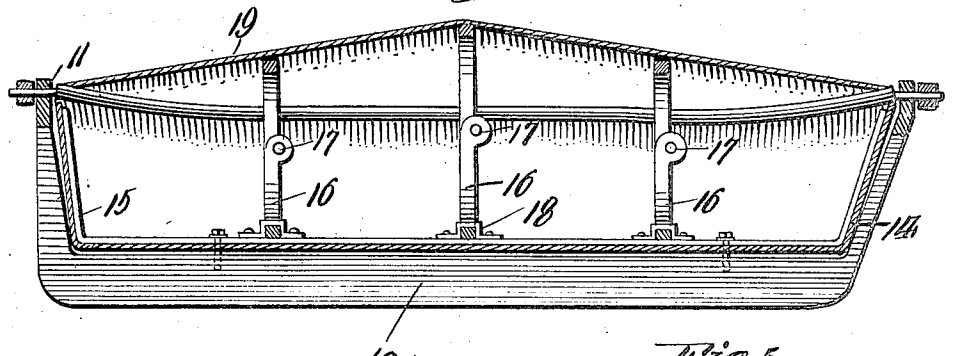


Fig. 3.

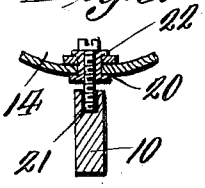


Fig. 5.

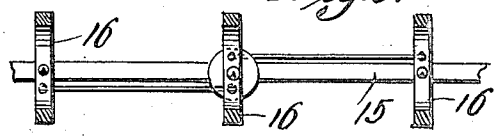
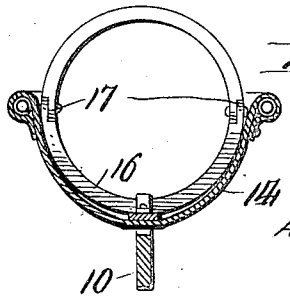


Fig. 4.



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UNITED STATES PATENT OFFICE.

ANTONIO V. SANTARSIERO, OF NEW YORK, N. Y.

COLLAPSIBLE BOAT.

Application filed August 10, 1922. Serial No. 580,981.

To all whom it may concern:

Be it known that I, ANTONIO V. SANTARSIERO, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in a Collapsible Boat, of which the following is a specification.

My invention relates to improvements in collapsible boats.

An object of my invention is to provide a collapsible boat, that may be easily collapsed, in such a manner, that it may be carried around with very little difficulty.

A further object of my invention is to provide a collapsible boat, that is constructed with a frame made from coiled springs so that the boat will suffer no damage, if it is accidentally bumped against any obstruction, such as a rock.

A still further object of my invention is to provide a collapsible boat, that is provided with a keel that is pivoted at its ends, that may be used to stabilize the boat in rough water.

A still further object of my invention is to provide a collapsible boat, that has removable seats.

A still further object of my invention is to provide a collapsible boat, that is provided with folding rib members, which may be swung up to adapt a cover to be mounted thereon, to absolutely guard against the sinking of the boat in very rough water.

A still further object of my invention is to provide a collapsible boat, that is strong, durable, simple and inexpensive in construction, and that is well adapted to be used for the purpose for which it is designed.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawings, wherein like numerals are employed to designate like parts throughout the same,

Figure 1 is a top plan view of my boat with the cover removed,

Figure 2 is a longitudinal section of my boat, showing the cover in place,

Figure 3 is a detailed section illustrating the means whereby the cover is secured to body of the boat,

Figure 4 is a transverse section taken through my boat, illustrating one of the circular ribs in elevation, and

Figure 5 is a detail of the circular ribs used in my invention, and the means whereby they may be swung around in such a position that the boat may easily be collapsed.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention the numeral 10 designates the keel which is carried at its end by means of the members 11 which are the ends of the curved springs 12, said coiled springs 12 being the frame of my boat. The coiled springs are clearly shown in Figure 1 of the drawings, and it will be seen that they are secured at their ends by means of the blocks 13. A canvas or other like material body 14 is secured in any suitable manner to the coiled springs 12.

The numeral 15 designates a U-shaped strip of material, that is bent to conform with the base of the keel 10, as is clearly shown in Figure 2 of the drawings. The circular ribs 16, which are hinged at their center by means of a hinge 17 are mounted on the U-shaped strip of material 15 in any suitable manner. The circular ribs may be mounted by means of the clips 18 as are illustrated in Figure 2, or may be connected as is clearly shown in Figure 5 of the drawings, so that the ribs may be turned around, in order that the boat may easily be collapsed for transportation. Normally the circular ribs are bent down, that is the upper half is swung down so that the ribs will represent a U, but they may readily be swung upwardly into a position as is clearly shown in Figure 2, in order that a top covering 19 may be used. The covering 9 ordinarily is not in use, and may be rolled up and carried in any convenient manner within the boat, but when it is desired to use the covering during a storm or the like, the covering may be mounted over the circular ribs 16 and fastened to the coiled spring members in any suitable manner.

As stated above, the keel 10 is carried by the ends of the coil springs 12 and it is adapted to be swung to the right and left as it is desired, in rough water to facilitate in stabilizing the boat. Normally the keel 10 should be in a position as is shown in Figure 4 of the drawings, and I have devised means whereby the keel may be carried in such a position and which may be readily freed to cover upon the ends 11. In accomplishing this end, I provide a plurality of threaded sleeves 20 which are mounted in the bottom of the boat, being extended through the

strip 15 and the canvas body 14. The keel is provided with threaded recesses 21 which are adapted to be registered with the threaded openings in the sleeves 20. It will thus be seen that a threaded bolt 22 screwed to the sleeves 20 and into the recess 21 in the keel 10, will hold the keel in the desired position. It will further be noted that the internally threaded sleeve 20 and the threaded bolt 22 will form an absolutely water-tight connection. When it is desired that the keel 10 be allowed to swing freely, the bolt 22 is partially removed, that is entirely removed from the recess within the keel 10 but not from the sleeve 20. It will thus be seen that the bolt 22 will act as a plug when the keel is not in the position as is shown in Figure 4, but is allowed to swing to the right or left, and at all times a water-tight connection is had. It will readily be seen that the keel 10 can be made rigid by swinging the same down and screwing the bolt 22 back into the recess 21 in the keel 10. Any form of seat or seats 23 may be mounted on the coiled springs 12 by suitable clips 24, and may readily be removed when it is desired to collapse the boat.

It will thus be seen that I have devised a collapsible boat, that is entirely different from any of the boats now in use, and I wish to call particular attention to the coiled springs 12, and the pivoted keel 10. It will be seen that by means of the coiled springs 12, that by striking a rock or the like, no damage will occur, either in drying the boat or braking the same, as is very commonly done in the ordinary row boat or canoes that are now in use.

It is to be understood that the form of my invention herewith shown and described, is to be taken as a preferred embodiment of the same, and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A boat of the class described comprising a resilient frame, a water-proof body secured thereto, foldable annular ribs mounted in said body, and a keel pivoted to the end of the resilient frame.

2. A boat of the class described comprising a frame formed from coiled springs, a water-proof body secured thereto, a U-shaped bar mounted transversely within the body, a plurality of foldable annular ribs carried by the U-shaped bar, a keel pivoted to the end of said frame and means to hold said keel stationary.

3. A boat of the class described comprising a resilient frame, a water-proof body secured thereto, a keel pivoted to the end of said frame, a plurality of foldable annular ribs, adapted to be rotated, said boat being adapted to be collapsed.

4. A boat of the class described comprising gunwales formed of substantially longitudinal coil springs, a water-proof body secured thereto, foldable annular ribs mounted in said body, and a keel pivoted to the end of the gunwales.

5. A boat of the class described comprising gunwales formed from substantially longitudinal coil springs, a water-proof body secured thereto, a U-shaped bar mounted transversely within the body, a plurality of foldable annular ribs carried by the U-shaped bar, a keel pivoted to the end of said gunwales and means to hold said keel stationary.

6. A boat of the class described comprising gunwales formed from substantially longitudinal coil springs, each of said gunwales being formed from a continuous spring, a water-proof body secured thereto, a U-shaped bar mounted transversely within the body, a plurality of foldable annular ribs carried by the U-shaped bar, and adapted to be rotated, a keel pivoted to the ends of said gunwales, an internally threaded recess formed in the upper side of said keel, and a screw threaded plug carried by said U-shaped bar adapted to be received within said recess.

In testimony whereof I affix my signature.

ANTONIO V. SANTARSIERO.