R. BATTEY.
TOY SUBMARINE BOAT.
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To all whom it may concern:

Be it known that I, Richard Battey, a citizen of Canada, residing at Nanaimo, in the Province of British Columbia, Canada, have invented new and useful Improvements in Toy Submarine Boats, of which the following is a specification.

This invention relates to a toy submarine boat and the object is to provide a device for amusement purposes and consisting of a hull having the form of a submarine boat designed for actual use and including a receptacle adapted to be filled with water for submerging the boat, upon the operation of a suitable controlling mechanism.

A further object is to provide in connection with a construction of the character indicated suitable propelling and guiding apparatus.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of elements hereinafter described and claimed.

In the accompanying drawings:

Figure 1 is a view chiefly in longitudinal section.

Fig. 2 is a top plan view.

Fig. 3 is a vertical transverse section.

The hull of the boat is designated 10 and may be of any suitable form, but preferably of the form employed in submarines designed for actual use. The propeller 12 is carried on a shaft 13 driven by means of clock work mechanism or the like shown conventionally and designated 14.

The rudder 15 is mounted between upper and lower bars or frames 16 and 17, this shaft being under the control of an arm 18 having a handle portion 19 cooperating with the teeth of a rack member 20. This permits the rudder to be placed in any desired position and to be retained in that position until reset by hand. The boat may thus be caused to travel in a circle or if desired to travel in a straight line.

The chamber designed to receive a sufficient quantity of water to provide for the submerging of the boat is designated 24 and comprises an upper and lower wall connected by means of flexible side walls shown at 25, thus providing for the collapse of the chamber and the discharge of the water therefrom, or for the ejection of the air before the chamber has been filled with water. An outlet for the chamber is designated 26.

The chamber or tank is controlled by means of a device constituting an imitation periscope shown at 39 and having connection with the upper wall of the chamber at the point 31. This rod or imitation periscope operates within a tubular member or sleeve 33 having a longitudinal slot in the side thereof for the accommodation of a pin 34. A coiled spring 38 is mounted between the upper portion of the chamber and the upper portion of the hull of the boat and is connected with the upper wall of the chamber. The chamber is retained in expanded position against the tension of the spring 70 when the periscope is drawn upwardly by hand and pin 34 is caused to engage a notch in the upper portion of the slot in sleeve 33, by partly rotating element 30.

An imitation conning tower is designated 75 and the tubular member 33 passes through the central portion thereof.

Before submerging the boat, the operating member 30 is depressed by the spring for the purpose of collapsing the chamber 80 designed to be filled with water, and the air is thereby forced out of said chamber permitting water to enter when the boat is partly submerged.

A sufficient amount of water having entered the chamber the boat will be gradually submerged, the member 80 being raised to a suitable position to permit the pin 34 to engage the top of the tube 33. The release of pin 34 by a partial rotary movement of element 90 will permit the spring to force the water from the chamber and cause the boat to rise.

A weight 40 is provided for stabilizing purposes, and serving in part to counterbalance the weight of the rudder and propelling mechanism.

What is claimed is:

1. In a device of the class described, a hull, a water receptacle mounted therein and provided with an outlet extending through the hull, said receptacle including collapsible walls, and spring controlled means for collapsing the receptacle and means for placing the spring under tension.

2. In a device of the class described, a hull, propelling and guiding means, means for counter-balancing the weight of said propelling and guiding means, a water receptacle provided with an opening extending through the hull, said receptacle being provided with collapsible walls, a member...
extending through the upper portion of the hull for manually controlling the walls, and resilient means for reducing the receptacle to its lowest capacity.

3. In a device of the class described, a hull, a receptacle mounted therein and provided with collapsible walls, said receptacle having an outlet through the hull, a member extending through the upper portion of the hull for expanding the receptacle, a sleeve surrounding said member and provided with a slot, an engaging device carried by said member and cooperating with the slot, said engaging device being adapted to contact with the upper end of the sleeve for retaining the receptacle in expanded position, and a spring adapted to be placed under tension by the manual operation of said member within the sleeve.

In testimony whereof I affix my signature.

RICHARD BATTEY.