(No Model.)

S. R. ELLIS.

DEVICE FOR EXHIBITION PURPOSES.

No. 443,991. Patented Jan. 6, 1891.

FIG. 1.

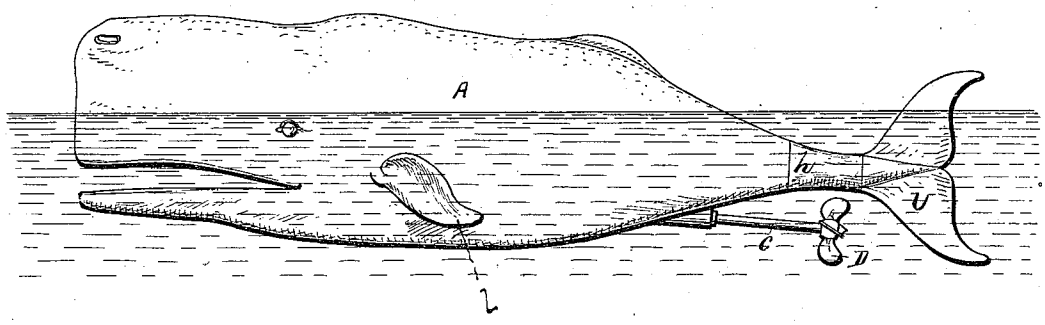


FIG. 2.

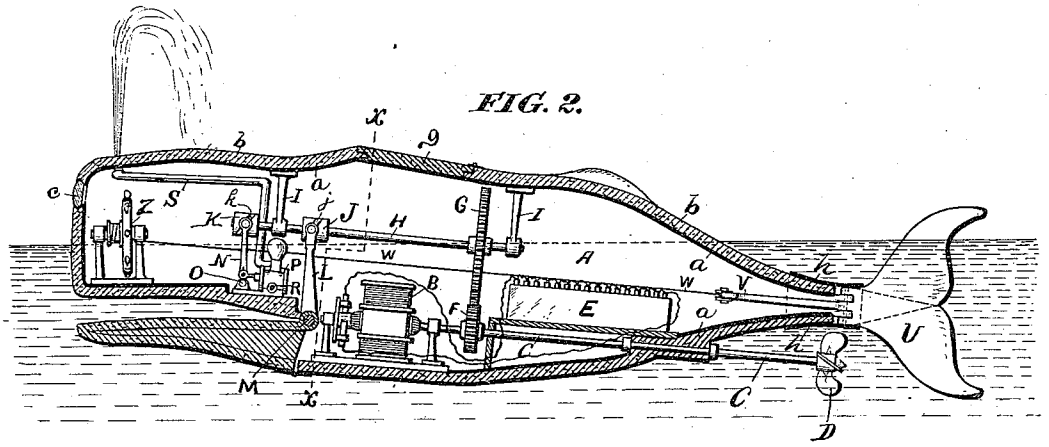
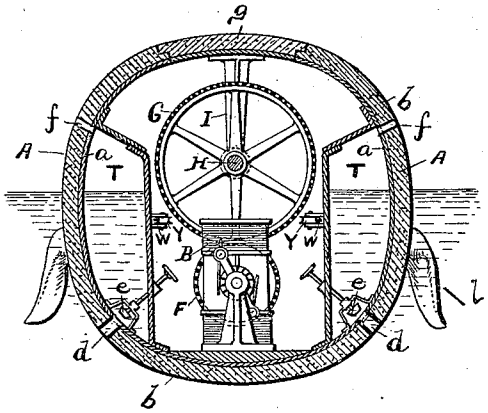


FIG. 3.



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DEVICE FOR EXHIBITION PURPOSES.

SPECIFICATION forming part of Letters Patent No. 443,991, dated January 6, 1891.

Application filed April 28, 1890. Serial No. 349,793. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY R. ELLIS, a citizen of the United States, and a resident of the city, county, and State of New York, have invented a new and useful Device for Exhibition or Stage Purposes, of which the following is a specification.

My invention relates to improvements in devices for giving aquatic exhibitions, either in the open air or in buildings or upon the stage; and it consists of a mechanical whale which is constructed of wood or metal, and which is furnished with tanks, into which water may be admitted to sink the whale in the water, and with suitable devices by means of which it may be propelled and guided.

In the accompanying drawings, forming part of this specification, and in which similar letters of reference indicate similar parts throughout the several views, Figure 1 is a side elevation of my mechanical whale; Fig. 2, a longitudinal sectional elevation of the same; and Fig. 3, an enlarged transverse section on the line *x x*, Fig. 2.

The body A of the whale is constructed of wood or metal *a*, which is suitably braced by knees and ribs, (not shown,) and which is covered with a coating *b* of cork or some other soft material.

Within the whale is placed the mechanism for driving and guiding it. I prefer to propel the whale by electricity, and to this end I place within the whale an electric motor B, to the armature of which I attach a shaft C, upon the end of which is a propeller D.

E is a storage-battery which furnishes the power for driving motor B.

Upon the shaft C is a pinion F, which meshes into and drives a gear-wheel G, which is carried upon a shaft H, supported in suitable bearings in brackets I, which are secured to the body of the whale. Upon this shaft are two collars J K, which are furnished with grooves *j k*. Connected with groove *j* in collar J is a lever L, the lower end of which is attached to the lower jaw of the whale. This jaw works upon a pivot M, Fig. 2. As the shaft H and collar J are revolved, the upper end of lever L is caused to move back and forth, causing the lower jaw to open and close.

N is a lever, the lower end of which is pivoted at O and the upper end of which works in groove *k* in collar K. Attached to lever N is the piston-rod of a pump P, which is connected with suitable pipes R, Fig. 2, to the tanks T, Fig. 3, or with the water in which the whale floats.

S is a pipe leading from pump P to the nostrils of the whale. The revolution of collar K causes lever N to be moved back and forth, operating the pump P, which throws a stream of water through the nostrils.

The whale is guided by moving its tail U, which is hinged to the body in any suitable manner, and which acts as a rudder. A tiller V is attached to the tail and enters the body. To this tiller are attached the ends of two ropes W, which are guided by pulleys Y upon the inside of the whale. These ropes lead to a suitable steering apparatus Z in the front of the whale.

c, Fig. 2, is an opening or window, through which the operator within the whale may look, in order to guide it in its movements.

The tanks T are connected with the water in which the whale floats by means of openings *d* near their bottoms. *e* are valves, by means of which these openings may be opened or closed. Near the tops of the tanks T are openings *f* to allow the escape of air while the tanks are being filled.

Upon the top of the whale is a trap-door *g*, through which access may be had to its interior.

The tanks T may be of sufficient size that when full of water the whale may be completely submerged, and these tanks may be cleared of water by means of the pump P, which may pump the water out through the nostrils or any other convenient place.

h, Figs. 1 and 2, is a flexible water-tight covering, which covers the joint between the body of the whale and the tail, and which prevents water from leaking in through this joint.

The body of the whale is covered with cork or some other suitable substance *b*, so that it can be speared or harpooned without injury.

l, Figs. 1 and 3, are fins of the whale, which are attached to its sides, and which are immovable.

Having thus described my invention, I claim—

1. The herein-described automatic whale, consisting of a wood or metal body covered with cork or some other suitable substance and furnished with devices, substantially as described, for propelling and guiding it.

2. The combination, in an automatic whale, of the body furnished with water-tanks, as described, and openings and valves for admitting water to the tanks, a pump connected with said tanks and with the nostrils of the whale, and devices for operating said pump, all substantially as and for the purposes set forth.

3. In an automatic whale, and in combination, the body, the lower jaw pivoted or hinged to the body, a lever secured to this lower jaw, and devices, substantially as described, for operating this lever and for opening and closing the lower jaw, all substantially as set forth.

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