



A.D. 1853 N° 1281.

Vessels to be used chiefly under Water, and Apparatus for Propelling, Balancing, and Steering the same, &c.

(This Invention did not proceed to the Great Seal.)

PROVISIONAL SPECIFICATION left by William Bauer at the Office of the Commissioners of Patents, with his Petition, on the 25th May 1853.

I, WILLIAM BAUER, of Munich, in the Kingdom of Bavaria,
5 Engineer, do hereby declare the nature of the said Invention for
“IMPROVEMENTS IN THE CONSTRUCTION OF VESSELS TO BE USED CHIEFLY AT
VARIOUS DEPTHS UNDER THE SURFACE OF THE WATER, AND IN MACHINERY
OR APPARATUS CONNECTED THEREWITH FOR PROPELLING, BALANCING, AND
STEERING THE SAME, AND FOR CARRYING ON OPERATIONS OF VARIOUS KINDS ON
10 OR UNDER THE SURFACE OF THE WATER, FROM WITHIN, UPON OBJECTS WITHOUT,
SUCH VESSELS,” to be as follows:—

It consists in so forming a vessel or boat, which I call an “hyponaut
apparatus” of any suitable materials, that it will either float on the
0 surface of water, or it may be made to descend under the surface of
15 water, and when in either of these situations it may, by machinery
within and outside the boat, be propelled and guided in any required
direction. For the purpose of propulsion I make use of an apparatus
generally known as a screw propeller (without, however, confining
myself to that particular apparatus). The boat is steered or guided in

Bauer's Impts. in the Construction of Vessels to be used under Water, &c.

it's lateral motions by a rudder similar to those in ordinary use, and in it's upward or downward motion by fins which can be placed at any required angle with the horizon. In order to effect the descending or ascending of the boat a certain quantity of water is received into or discharged therefrom. In addition to which, the boat carries a certain 5 quantity of ballast, part of which can be instantaneously discharged when required. A weight adjustable in a longitudinal direction serves to depress the boat either by the bow or stern. The boat is so provided with windows or daylights that persons inside the boat can see to some distance in the water the objects desired to be approached or to be 10 avoided; and in parts it is provided with flexible water-tight sleeves, so that a person in the boat, by introducing his hands and arms through the sides of the boat into the sleeves, may employ his hands for any purpose he may require. When the air in the boat, which is of no more than the simple atmospheric pressure, becomes foul by respiration 15 or otherwise, a fresh supply may be drawn down a tube from above the surface of the water, and the foul air be at the same time driven out by double acting air pumps. The motive power is so generated as not to consume any atmospheric air. It consists of a mixture of nitre, sulphur, charcoal, and ammonia, which, on being ignited, produces a gas or 20 vapor of the requisite tension to work a piston similar to that of a steam engine, which is in connection with the propeller. The propeller may, however, also be set in motion by manual labor or other means. The apparatus for carrying on various operations at or under the surface of the water consists in divers implements for taking hold of such 25 materials as are required to be conveyed and deposited by means of my "hyponaut apparatus" when it is used for building or other purposes. It is evident that this boat may also be advantageously employed for the purpose of assisting vessels in distress, and for laying submarine telegraphic wires. 30

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