



A.D. 1860, 16th JULY. N^o 1716.

Diving Bell.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by William Bauer at the Office of the Commissioners of Patents, with his Petition, on the 16th July 1860.

I, WILLIAM BAUER, of Munich, in the Kingdom of Bavaria, and No. 36, 5 Burton Street, Burton Crescent, W.C., London, do hereby declare the nature of the said Invention for "**AN IMPROVED DIVING BELL**," to be as follows :—

This improved diving bell, which I call an artificial polyp for submarine works, consists of a metal and flexious shell; the shell can be built in any form suitable to the intended work which is to be executed, but the principal 10 of this Invention is described by the following lines.

The diving bell or polyp can be lowered to the bottom of the water or to the sides of any vessel, where the elastic and flexious shell clings to the form of the ground or vessel, partly by its own weight and flexious links, which are covered with india-rubber, and partly by raising large hermetically closed 15 telescopic flues, which suck at once more water out of the diving bell or artificial polyp than the leakage round the india-rubber frame lets in; in that manner a vacuum is produced, and the weight of the column of water outside presses now against the frame and makes it tight. The remaining water in the diving bell or polyp will be discharged entirely by a separate pump, and 20 the volume of this water will be exchanged by air. The said telescopic flues will be opened, after arriving at a certain height, at the surface of the water, to serve as entrances for men, and as communication with the air, tools, and materials necessary to perform the work.

Bauer's Improvements in Diving Bells.

In case the said diving bell or polyp is to be used for examining, cleaning, or repairing the outside of a vessel, it will be fastened to it by chains or otherwise, in any position without interference with the arrangements as described above.

To illuminate the inside of the diving bell or polyp several windows are 5 fixed in the shell, but in great depth, or in darkness, artificial light can be added.

The whole of this diving bell or artificial polyp can be carried out in a size and manner suitable to be taken on board and put to action in sea or harbour whenever required. Under particular circumstances the diving bell or polyp 10 can serve as a life-boat.

If the diving bell or polyp is used for submarine mining or deepening of docks or harbours, arrangements are made for raising the excavated substances to the surface of the water, so that it can be also used for building submarine foundations of any kinds. 15

For cleaning the surface of vessels or other bodies under the surface of the water, where it is not required to use the diving bell or artificial polyp, a small machine is constructed fitted with straight rotary wire brooms or tools fixed to shafts moveable in all directions, and which is put in motion from above or from the inside of the diving bell or artificial polyp by steam or manual 20 power.

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