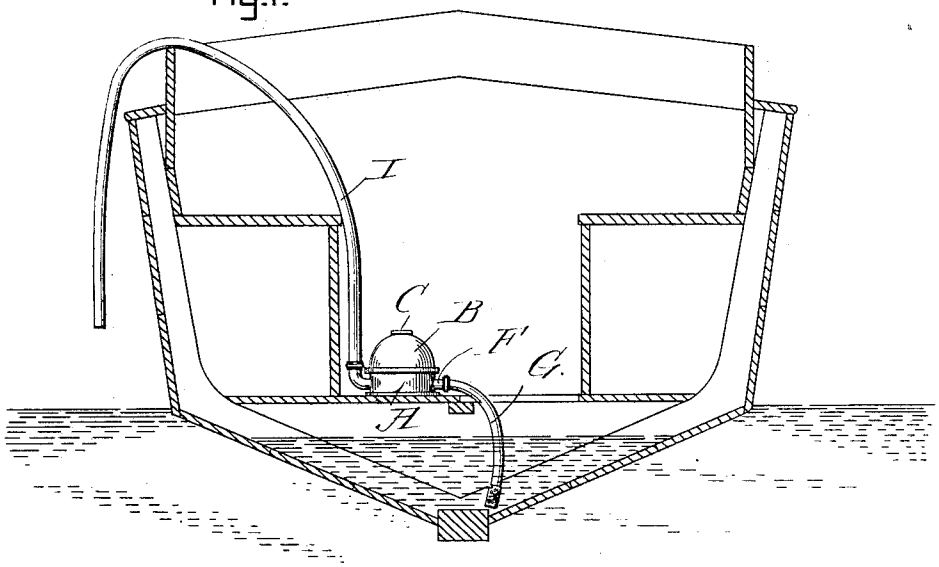
T. S. BULMER.

BILGE PUMP.

APPLICATION FILED SEPT. 6, 1913.

1,117,779. Patented Nov. 17, 1914.

Fig. 1.



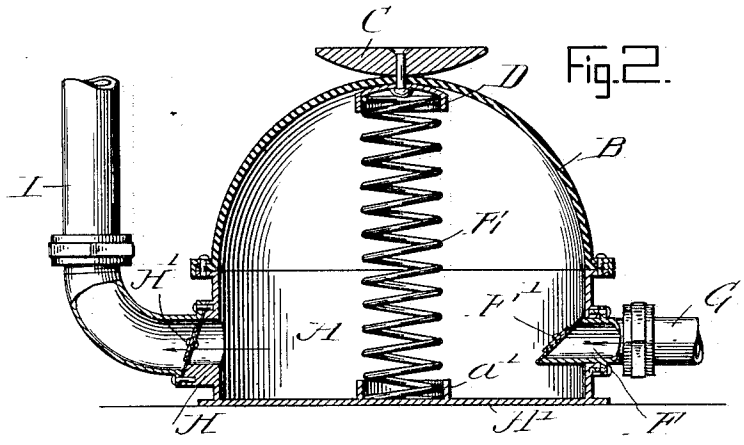
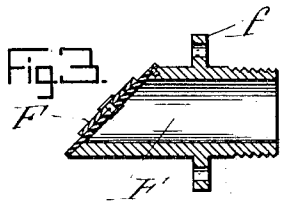


Fig. 2.

Fig. 3.



WITNESSES

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THADDEUS SIMMONS BULMER, OF GREENPORT, NEW YORK.

BILGE-PUMP.

1,117,779. Specification of Letters Patent. Patented Nov. 17, 1914.

Application filed September 6, 1913. Serial No. 788,404.

To all whom it may concern:

Be it known that I, THADDEUS S. BULMER, a citizen of the United States, and a resident of Greenport, in the county of Suffolk and State of New York, have made certain new and useful Improvements in Bilge-Pumps, of which the following is a specification.

My present invention relates to bilge pumps and my object is to provide a simple, inexpensive structure particularly adapted for use upon small boats and embodying a minimum number of readily accessible parts whereby it may be maintained in good working order easily and at all times.

Further objects having to do with the structure of my improved pump will be brought out in the accompanying specification, reference being had to the drawings forming a part thereof, and in which,—

Figure 1 is a transverse section through a small boat illustrating the practical application of my invention. Fig. 2 is a vertical section through the pump, and, Fig. 3 is a similar view through the inlet fitting removed and enlarged.

Referring now to these figures, the body A of my improved pump is in the form of a short vertical cylinder, the lower end of which is closed by a flat base plate A′ whereby the pump body may be conveniently supported on any flat surface without the necessity of supplemental supporting members or braces.

The upper open end of the body A is flanged and to this flange is secured the flange surrounding the lower open side of a flexible crown B substantially hemi-spherical in form, and provided with a foot piece C secured to its upper central portion by means of a rivet or like fastening member extending centrally through the crown and connecting with a downwardly opening cup D therein. A clamping ring secures the flanges of the body A and crown B as best shown in Fig. 2.

As seen in Fig. 2, the cup D opposes a somewhat similar cup formed centrally upon the base A′ by means of an integral upstanding circular rib *a′*, and serves to receive the upper end of a coil spring E, the lower end of which is seated within the rib *a′*. In this manner the spring is effectively held against displacement and injury to the crown B.

At one side, the body A has an inlet opening surrounded by a flange to which is attached the flange *f* of the tubular inlet fitting F particularly seen in Fig. 3, adapted, at its outer end, to be coupled to a flexible suction pipe G and having an inclined inner face forming a valve seat. At one side of this seat is connected a flexible flap valve F′ thus arranged to open inwardly into the pump body. At its opposite side the body A has an outlet opening through an integral outlet tube H, the outer end of which is inclined and provided with an outwardly opening flap valve H′ similarly constructed and similarly connected as compared with inlet valve F′. To the outlet tube is coupled the pipe I of suitable length.

In operation the pump body may be disposed on any flat surface of a boat without additional support, and with its suction tube or pipe G in the bilge water and its outlet pipe overboard. Only one foot of the operator is necessary to press the foot piece C down, each upward movement under pressure of spring E sucking water into the pump body which downward movement expels through the outlet tube. This operation is simple and effective and leaves the hands free and requires no bending or other body movement. It should be also noted that, due to the particular structure, the crown, inlet fitting and outlet pipe may be quickly removed, rendering the several interior parts readily accessible and easy to clean and repair.

I claim;—

A bilge pump, comprising the combination of a vertical cylindrical body having a flanged upper open end, a flexible crown substantially hemi-spherical in form, having a central upper foot piece and a flange upon its lower open side disposed on the flanged end of the pump body a clamping ring for securing the flanges of the body and crown, a downwardly opening cup within the crown a fastening member extending centrally through the crown and rigidly and permanently connecting the said cup and foot piece, the base of the pump body being flat and having a circular rib upstanding centrally thereof and below the cup, a coil spring having its lower end disposed within the said rib and its upper end extending within the cup, said pump body having inlet and outlet openings upon opposite sides thereof,

an inlet fitting detachably connected to extend through the inlet opening and having an inclined inner end, an outlet tube leading from the outlet opening and having an inclined outer end, flap valves connected to the inclined ends of said inlet fitting and outlet tube, a suction pipe coupled to the inlet fitting, and an outlet pipe coupled to the outlet tube, substantially as described.

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Witnesses:
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