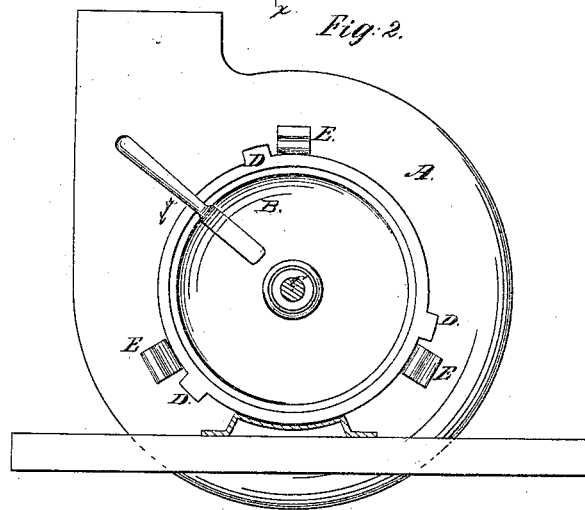
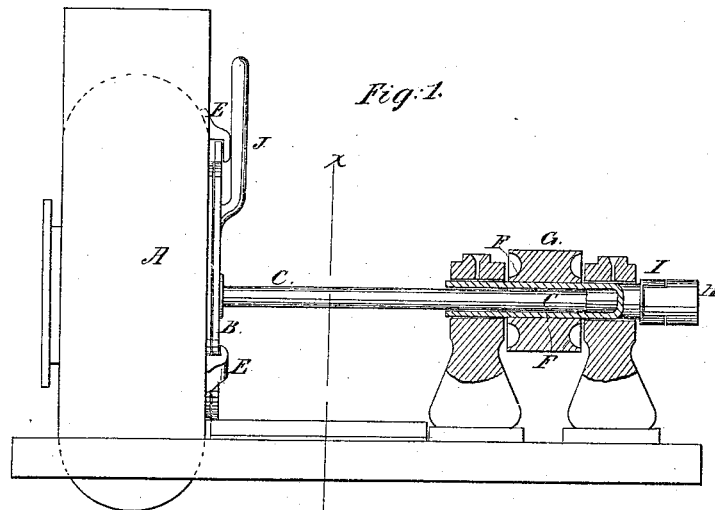


N. H. Lebbby,
Centrifugal Pump.

N^o 68,214.

Patented Aug 27, 1867.



Witnesses:
Thos. Truske
Wm. Tremm

Inventor:
N. H. Lebbby
Per *Wm. Truske*
Attorney

United States Patent Office.

N. H. LEBBY, OF CHARLESTON, SOUTH CAROLINA.

Letters Patent No. 68,214, dated August 27, 1867.

IMPROVEMENT IN CENTRIFUGAL PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, N. H. LEBBY, of Charleston, in the county of Charleston, and State of South Carolina, have invented a new and useful Improvement in Pump; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention consists in so constructing a centrifugal pump, so far as it relates to the hanging of the wheel and its arrangement or attachment within its casing, that the wheel can be freely and easily removed for the purpose of clearing the pump-wheel, if it should become choked, whereby the use of a strainer is dispensed with, which, as is well known, often becomes "choked," and occasioning much trouble to cleanse it owing to its location under or within the water. In the accompanying plate of drawings my improvement in pumps is illustrated—

Figure 1 being a view or elevation of the outside of the casing to the pump-wheel, showing the connecting parts for driving it, and

Figure 2 a transverse vertical section, taken in the plane of the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

A, in the drawings, represents the casing to the pump-wheel, which, in shape, is to be suitable to receive the said wheel. B, one head-plate to the wheel-casing, on which plate the wheel is arranged to revolve, and has its shaft C extended through it. This plate B, by means of lugs D, is secured in place under the catches E affixed to the head of the cylinder or casing A by simply turning the said plate B around sufficiently therefor. The wheel-shaft C extends through a hollow shaft or drum, F, carrying a pulley, G. This hollow shaft turns in bearings of uprights G, and with this shaft, when the wheel is in position within its casing, the shaft of such wheel is clutched at its end H by the clutch I. By turning the head-plate around sufficiently to relieve it from the catches upon the casing; for driving which a handle, J, is attached thereto, and then sliding the wheel outward or its shaft through the hollow drum or shaft, the whole shaft can be unclutched from the said drum, and thus, without stopping the motion of the drum-pulley, the wheel can be brought into a position for being cleared, if choked, while running.

I claim as new, and desire to secure by Letters Patent—

The head-plate B, provided with lugs D, in combination with the catches E, shaft C, drum F, and clutches H I, substantially as described for the purpose specified.

N. H. LEBBY.

Witnesses:

H. A. DUC, Jr.,

P. FLYNN.