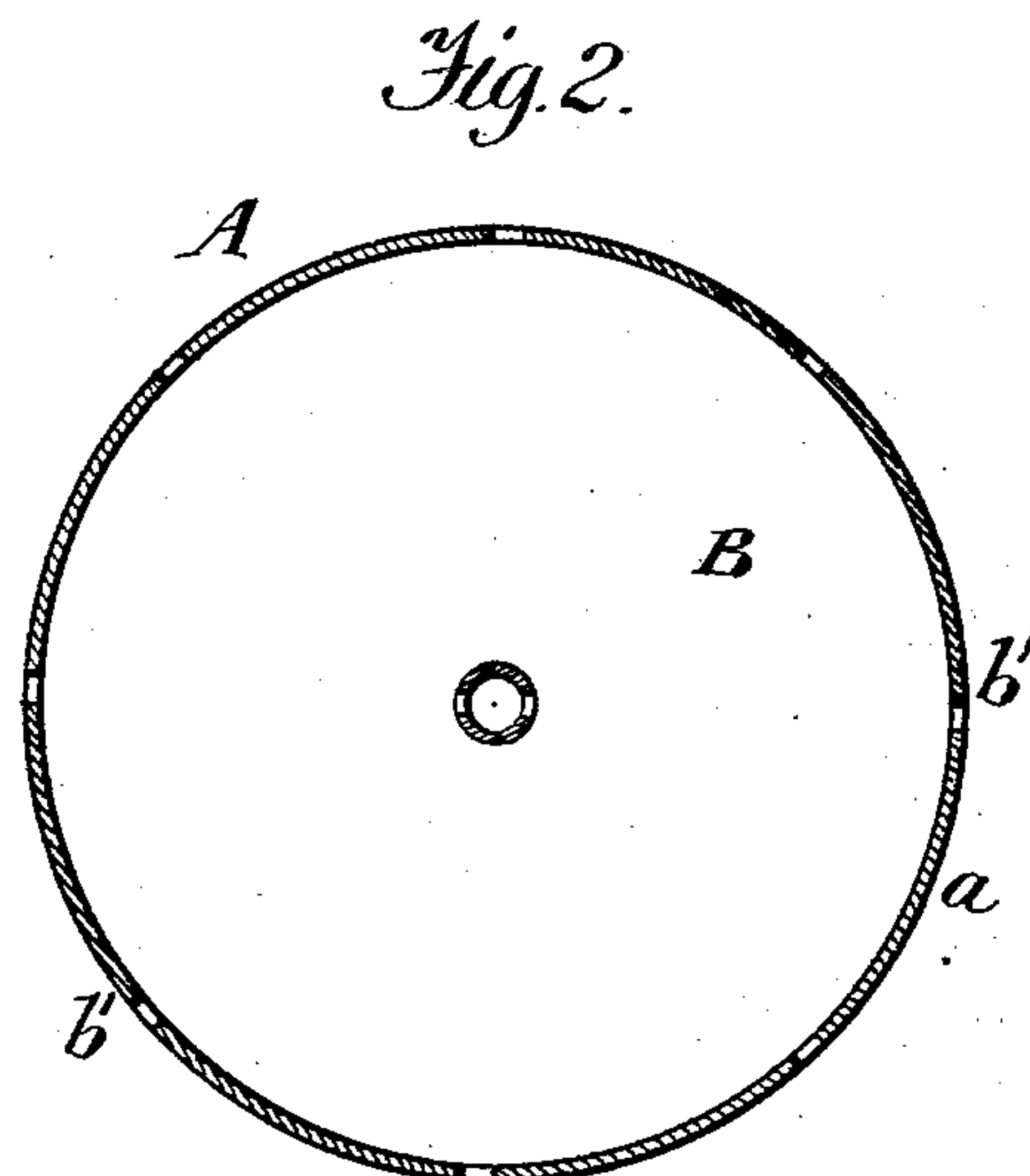
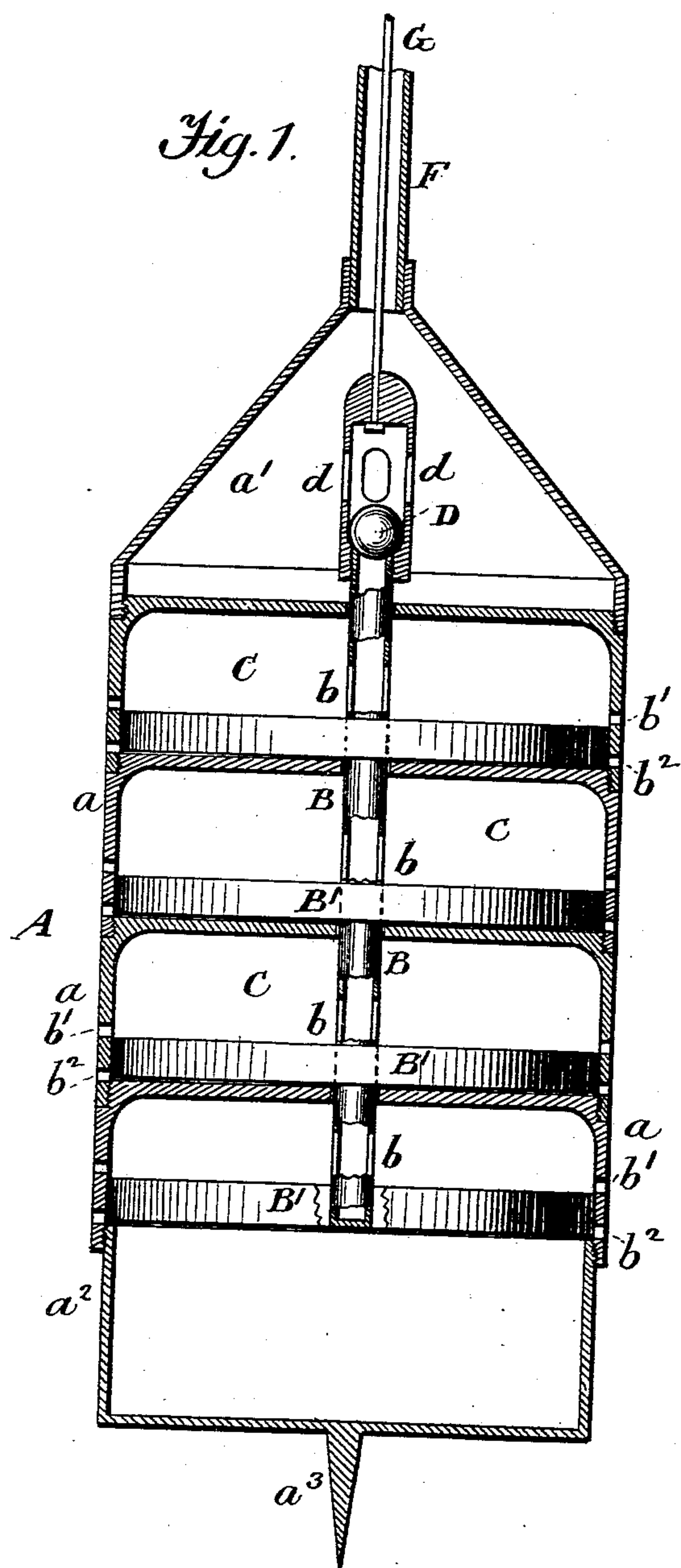


(No Model.)

G. J. KELLER.
PUMP.

No. 445,560.

Patented Feb. 3, 1891.



Witnesses.
A. Ruppert,
G. B. Towles

Inventor:
George T. Keller
Per
Thomas P. Simpson
Atty

UNITED STATES PATENT OFFICE.

GEORGE J. KELLER, OF OSCEOLA, NEBRASKA.

PUMP.

SPECIFICATION forming part of Letters Patent No. 445,560, dated February 3, 1891.

Application filed October 3, 1890. Serial No. 367,016. (No model.)

To all whom it may concern:

Be it known that I, GEORGE J. KELLER, a citizen of the United States, residing at Osceola, in the county of Polk and State of Nebraska, have invented certain new and useful Improvements in Submerged Pumps for Narrow Wells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The special object of my invention is to make a pump suitable for very narrow wells, so as to receive and lift a large quantity of water with a very short stroke of the cylinder.

Figure 1 of the drawings is a vertical diametrical section of the cylinder, pistons, and piston-rod; and Fig. 2, a horizontal section.

In the drawings, A represents the cylinder, which is made in a number of horizontal sections screwed together. The middle sections a , top section a' , and bottom section a^2 , being all screw-jointed together, may be readily taken apart and a greater or less number of the middle sections used in a well. The bottom section forms the support upon which the pump rests, and is provided with a bottom central spike a^3 , which sticks into the bottom of the well and keeps the cylinder centered.

B is a central hollow piston-rod, to which is attached a number of pistons B' , placed one above another in the chambers C, and connected by screw-joints with each other on the same piston-rod B. The chambers C communicate with the inside of the hollow piston-

rod by the holes b , and with the well by the inlet-holes b' and water-escape holes b^2 .

The lower end of the piston-rod B is closed while the upper end is open, and provided with a ball-valve D in a suitable cage with the outlet-holes d . The water entering from the well at the holes b' is forced by the up-stroke of the pistons B' through the holes b into the piston-rod B, so as to lift the ball-valve D and enter the chamber a' . Thence it passes up the discharge-pipe F to any suitable spout or other outlet. The piston-rod B is raised by a lift-rod G, connected with suitable power mechanism.

By the use of this submerged pump the water is supplied in a large volume, while the number of sections may be readily made to suit the depth of the well.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

A pump-cylinder divided into sections a a' a^2 , screw-coupled together and provided with the openings b b' b^2 , in combination with an interior hollow piston-rod B, communicating by the holes b with the section-chambers C, and the pistons B' , screw-coupled to the piston-rod, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE J. KELLER.

Witnesses:

O. KELLER,

T. H. SAUNDERS.