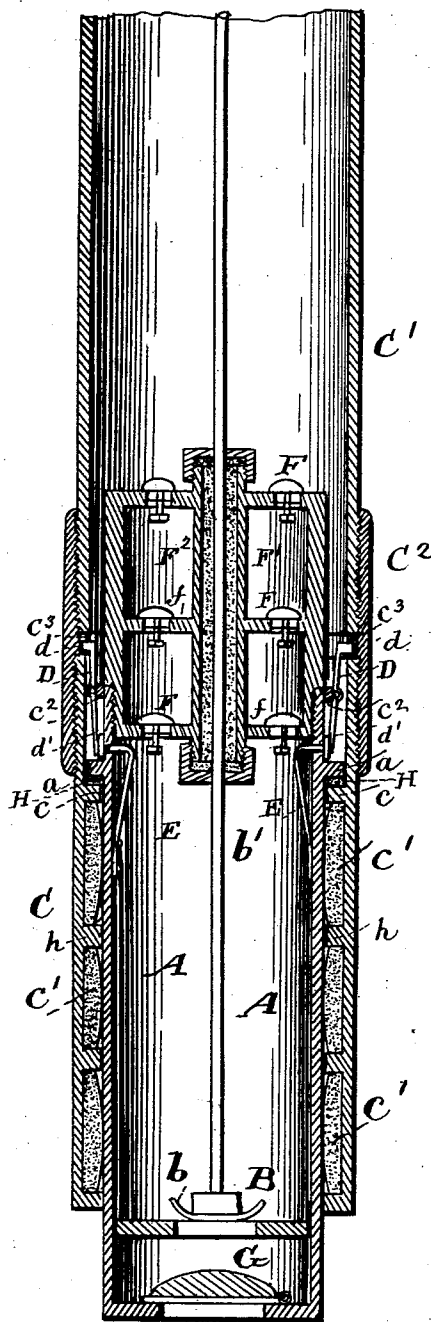


(No Model.)

J. C. WILSON.  
PUMP.

No. 564,674.

Patented July 28, 1896.



*Witnesses.*  
*A. Ruppert,*  
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*Per*  
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*atty*

# UNITED STATES PATENT OFFICE.

JOHN C. WILSON, OF ALLEGHENY, PENNSYLVANIA.

## PUMP.

SPECIFICATION forming part of Letters Patent No. 564,674, dated July 28, 1896.

Application filed May 1, 1896. Serial No. 589,841. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. WILSON, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Pumps; and I do 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, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which forms a part of this specification.

The invention relates to force and lift pumps; and it consists in the improvement thereof as hereinafter described and claimed.

The drawing is a median vertical section.

In the drawing, A represents the cylinder in which works the piston B with its upwardly-opening valve *b* and the central rod *b'* by which it is reciprocated.

C is an outer casing, on whose inside is arranged the elastic packing *c'*, each piece of packing being inclined from the middle toward each end on the inner face, against which bears the cylinder A. The latter has an exterior collar *a*, which is supported on an interior collar *c* of the casing, and at the upper end an annular flange *c'*, to which is pivoted the lever D, which has oppositely-arranged arms *d'* *d'*.

The lower and upper sections C C' of the casing are connected by a screw-sleeve C<sup>3</sup> so that there is left a space *c*<sup>3</sup> between the two cylinders, into which passes the arm *d* of the lever, while the other arm *d'* is connected with the upper end of a spring E on the inside of the cylinder A.

The upper valves F are in horizontal partitions *f* of a separate cylinder F', in the center of which is a tube F<sup>2</sup>, filled with any suit-

able packing, and through which passes the piston-rod. The cylinder F' is externally rabbetted at the lower end to fit within and upon the upper edge of the cylinder A. G is the lower valve of the piston-cylinder, opening upwardly to admit water when the piston is ascending and closing tight when it is descending. H is packing between the shelves *a* and *c* on the casing.

When it is desired to remove the pump-cylinder and its appurtenances for any reason, the piston is pulled up, pressing inwardly the spring E so as to release the levers which are locked on the top of the casing C. This allows the cylinder A, into whose upper end screws the lower end of the valve-cylinder F' to be drawn out with the piston and valve-cylinder.

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—

1. The combination with a casing in two parts C C' held together, by a screw-sleeve, at such a distance apart, as to form an opening *c*<sup>3</sup> between their adjacent ends, and with an interior piston-cylinder, of the lever D having the reverse end arms *d* *d'* and the springs E E on the inside of the piston-cylinder as and for the purpose described.

2. In a pump, the upper cylinder F' with check-valves in partitions thereof, a rabbet externally threaded to screw into the piston-cylinder; and a central tube with piston-rod packing and a screw-cap at both ends as shown and described.

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

JOHN C. WILSON.

Witnesses:

SOLOMON C. KEMON,  
A. RUPPERT.