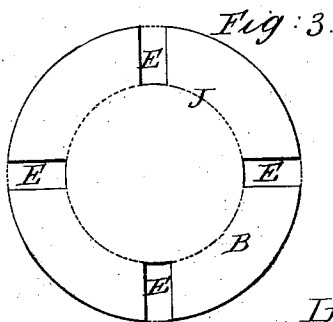
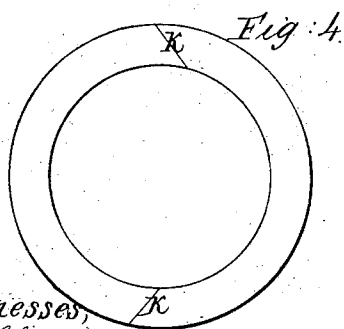
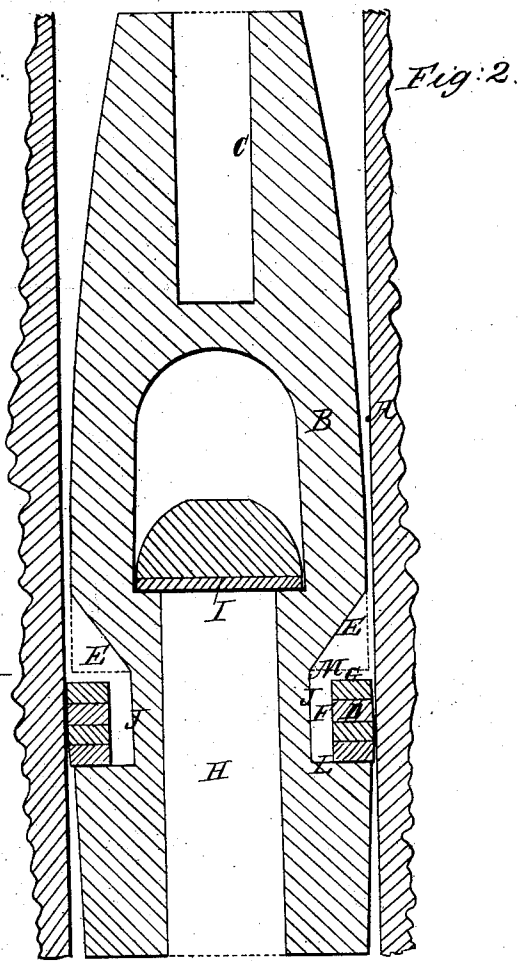
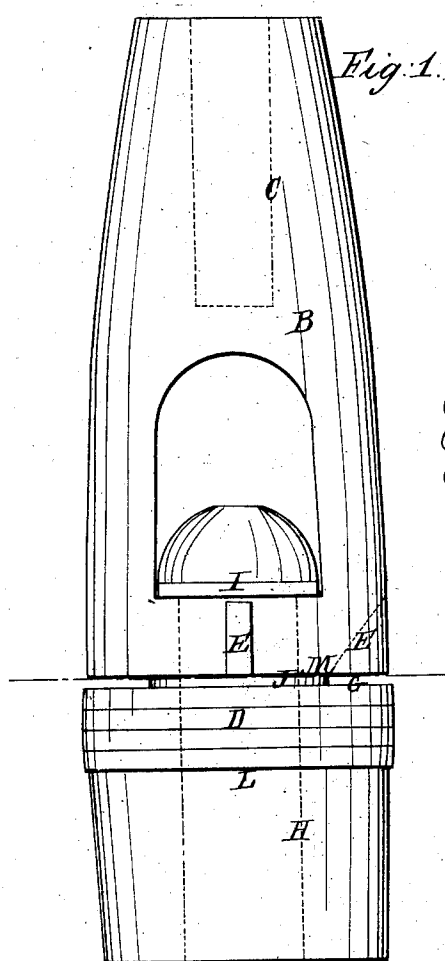


D. S. Wood,
Pump Piston,

N^o 56,314.

Patented July 10, 1866.



Witnesses,
Geo. S. Chapin,
Atty. Chapin.

Inventor
David S. Wood

UNITED STATES PATENT OFFICE.

DAVID S. WOOD, OF DELAVAN, WISCONSIN.

IMPROVEMENT IN, PUMP-PISTONS.

Specification forming part of Letters Patent No. **56,314**, dated July 10, 1866.

To all whom it may concern:

Be it known that I, DAVID S. WOOD, of Delavan, Walworth county, and State of Wisconsin, have invented an Improved Piston for Water-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, in which—

Figure 1 is an elevation of my improved piston for water-pumps. Fig. 2 is a central sectional elevation of the same. Fig. 3 is a horizontal section of the piston, taken through Fig. 1 at the point indicated by the red line *x x*. Fig. 4 is a plan view of the packing.

The object of my invention is to provide a pump-piston, to be used in elevating and forcing water, that will be more durable and effective in its operation than those heretofore used. This I claim to have accomplished by entirely different means than those heretofore employed—by the use of a two-part circular packing operating loosely in a channel made in the outside of the piston-head in such a manner as to allow sand and gravel passing into the annular space at the back of the packing to pass out between the packing and the lower shoulder of the channel when the piston is operated.

To enable others skilled in the art to make and use my invention, I will describe the method of construction and operation.

A represents a section of the pump-stock, in which the piston operates. B is the principal or substantial part of the piston. C shows the hole in which the piston-rod is secured; I, the valve, and H the opening through which the water passes, all of which are constructed in the usual manner.

M J L show the three sides of the channel made in the outer side of the part B for the purpose of holding the packing D in the proper

place. This channel is made of sufficient depth to form the water-chamber F, Fig. 2, between the packing and the back of the chamber J. The object of this chamber is to allow the water to press against the inside of the packing, so that the outside of the same may press against the inside of the pump-stock and prevent the escape of the water downward past the packing.

E represents the conductors which convey the water into the chamber F.

The width of the channel M J L is made greater than the width of the packing, for the purpose of giving sufficient space around the same, so that it may not be choked or rendered inoperative by means of sand or gravel.

D shows the packing, constructed in two parts, the ends meeting in a lap-joint, as seen at K, Fig. 4. The object of this kind of joint is to allow the ends of the packing to meet when the same is worn by use.

The material used is the same as that in common pistons, the packing being leather.

Operation: When the piston has been constructed as described it may be operated without further care in the usual manner. When the piston is forced downward the packing will fill the space G, and a space will be made below the packing of similar size, the packing being adjusted loosely in the channel M J L.

Having thus fully described my device, what I claim, and desire to secure by Letters Patent of the United States, is—

The two-part loose packing D, in combination with the channel L J M and the piston-head B, substantially as and for the purpose specified.

DAVID S. WOOD.

Witnesses:

GEO. L. CHAPIN,
A. L. CHAPIN.