

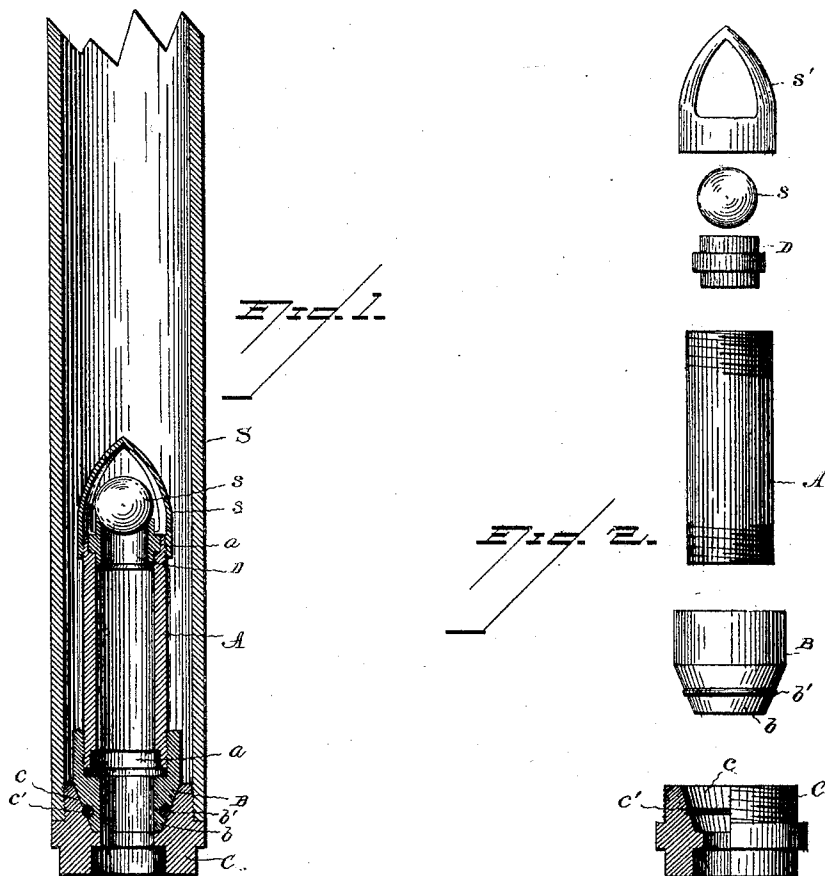
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Patented Dec. 31, 1901.

H. BICKEL & A. T. EVANS.
STANDING VALVE FOR WELLS.

(Application filed Aug. 10, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

HIRAM BICKEL AND ALFRED T. EVANS, OF GUFFEY, PENNSYLVANIA.

STANDING VALVE FOR WELLS.

SPECIFICATION forming part of Letters Patent No. 690,046, dated December 31, 1901.

Application filed August 10, 1901. Serial No. 71,567. (No model.)

To all whom it may concern:

Be it known that we, HIRAM BICKEL and ALFRED T. EVANS, citizens of the United States, and residents of Guffey, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Standing Valves for Wells, of which the following is a specification.

The object of this invention is to provide an improved standing valve for Artesian or oil wells of such peculiar construction and arrangement of parts that the life of the valve and its effectiveness in operation will be materially increased and in which the device can be readily and conveniently placed in position at the lower end of the working barrel of the well.

The invention consists in providing a standing valve in which the parts are reversible and in the particular construction and combination of such parts, all as will be hereinafter fully described, and more specifically pointed out in the appended claim.

In the accompanying drawings, which form a part of this specification, and in which like letters of reference indicate like parts in both views—

Figure 1 is a longitudinal sectional view through the standing valve. Fig. 2 is a view of the valve, the parts constituting the same being separated.

In carrying out our invention we provide a tube or cylinder A, forming the body of the valve, and at each end of said tube or cylinder form an internal annular recess *a* to receive the valve-seat, hereinafter described, and thread the ends of the tube externally, so that either end may be screwed into the thimble or base-piece B, by which said tube or cylinder is supported in an upright position in the center of the working barrel of the well. The thimble or base-piece B is tapered at its lower end and is provided with a central opening, the upper part of which is enlarged and threaded to receive either end of the tube or cylinder A, while the lower end of said opening corresponds in diameter with the opening through said tube or cylinder. This base-piece forms the lower end of the standing valve and supports the same in the lower end of the working barrel S of the well, as shown in Fig. 1 of the drawings, the lower

tapered end fitting into the seat C, said seat having a tapered opening *c* in its upper end and an annular recess *c'* in the wall of said tapered opening near the lower end thereof. This tapered opening is similar in shape to the tapered end of the base-piece B, and the latter is provided with a round rubber gasket *b'*, seated in a recess *b*, the said gasket engaging the recess *c'* in the seat C to hold the standing valve in place and insure a tight joint. This manner of holding the standing valve in place permits it to be readily placed in position and easily removed.

The reversible tube or cylinder A is recessed at its ends, as hereinbefore described, for the purpose of receiving a reversible valve-seat D, and as we are aware that it is not new to provide a valve-seat of this construction we do not lay any claim thereto, but show the same in its application to the barrel. The seat D receives the ball *s* of the valve, and said ball is held in place by the cage *s'*.

From the foregoing description, in connection with the accompanying drawings, the construction and application of the standing valve will be readily understood, and it will be particularly noted that we provide a valve for Artesian and oil wells which will be simple and durable and which can be readily and conveniently placed in position.

Having thus described our invention, we claim—

In a standing valve for Artesian and oil wells, the combination, of a tube or cylinder A the ends of which are recessed internally and threaded externally, a base-piece B tapered at its lower end and provided with an opening the upper end of which is enlarged and threaded to receive either end of the tube or cylinder A, a gasket *b'* seated in a recess in the tapered portion of the base-piece, and a seat E having a tapered opening with an annular recess *c'*, the parts being constructed and arranged as herein shown and described.

In testimony whereof we affix our signatures in the presence of two witnesses.

HIRAM BICKEL.
ALFRED T. EVANS.

Witnesses:

C. C. KENNEDY,
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