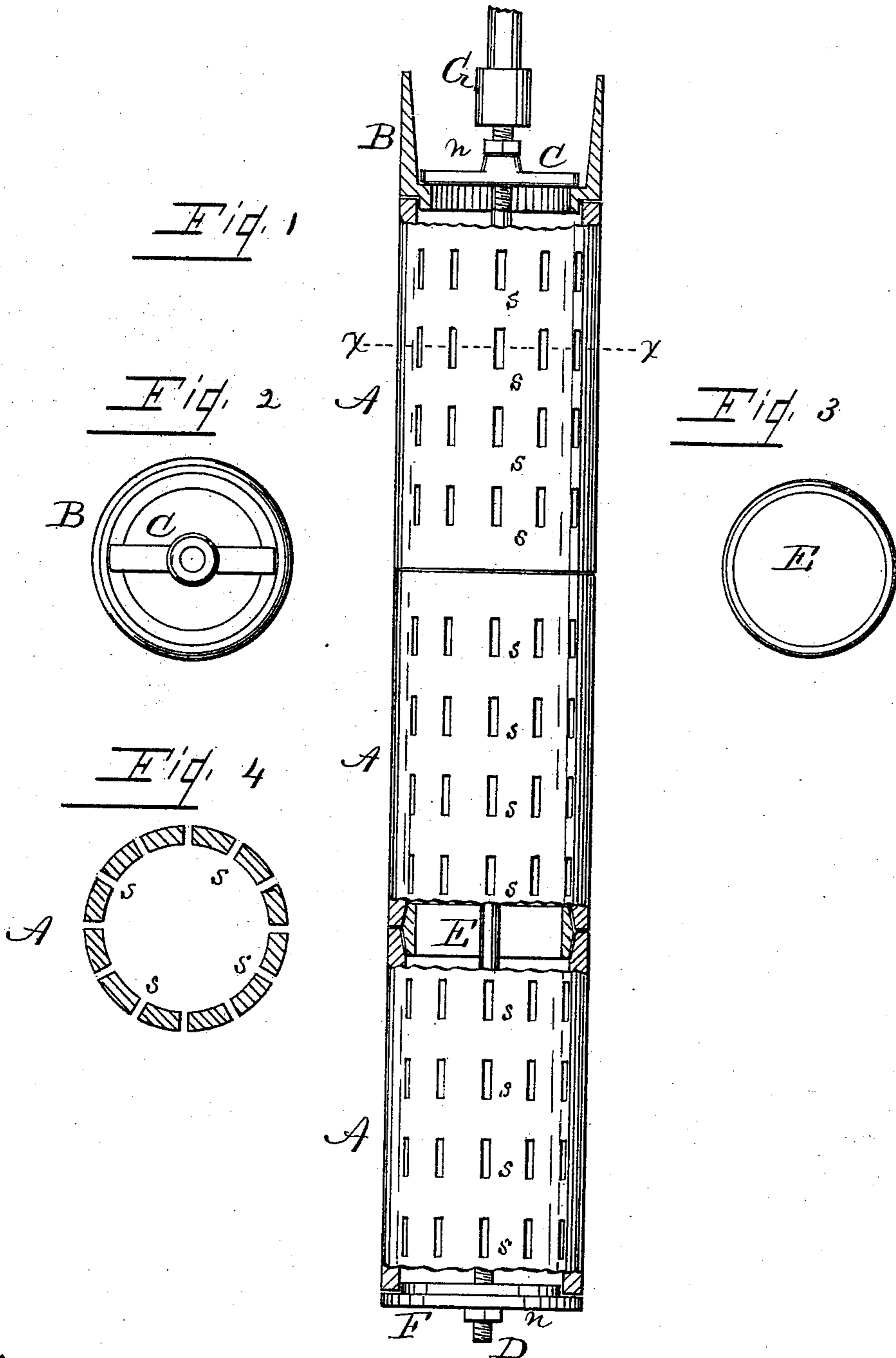


(No Model.)

S. H. DICKERSON.
STRAINER FOR TUBE WELLS.

No. 420,553.

Patented Feb. 4, 1890.



Witnesses

L. C. Adams
J. B. Minder

Inventor

Samuel H. Dickerson
By His Attorney R. Pickering

UNITED STATES PATENT OFFICE.

SAMUEL H. DICKERSON, OF DAYTON, OHIO, ASSIGNOR OF ONE-HALF TO
E. A. STIMSON & CO., OF SAME PLACE.

STRAINER FOR TUBE-WELLS.

SPECIFICATION forming part of Letters Patent No. 420,553, dated February 4, 1890.

Application filed June 17, 1889. Serial No. 314,602. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. DICKERSON, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Strainers for Tube-Wells; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in strainers for tube-wells, the several features of which will be fully hereinafter set forth.

The object of my invention is to provide non-oxidizable strainers instead of the metallic strainers in use. This I accomplish by a series of perforated or slotted cylinders of earthenware or porcelain held together by a rod central to said cylinders.

The mechanism is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the strainer with portions cut away. Fig. 2 is a top view of the expanding-ring. Fig. 3 is a top view of the joining thimble or ring. Fig. 4 is a cross-section of the strainer-cylinder on line *x*, Fig. 1.

Like letters designate like parts throughout the several views.

The series of earthenware cylinders A are used as strainers. These I mold of clay, and when partially dried I make the radial perforations *s*, and then burn them in a kiln and glaze them or not, as may be desirable. The ends may be flat, tapering, concave, and convex, or at their junction may be used the tapering thimble E.

In the use of the thimble the ends must have a corresponding taper, as shown at E, Fig. 1, and the top view of the thimble is shown at Fig. 3. This thimble serves to hold

the cylinders in exact line. The thimble is not absolutely necessary, as when the abutting ends are placed together and bound by the central rod they would be held in line.

At the bottom of the series of cylinders is the plate F, which closes the end of the lower cylinder and supports the rod D. On the top of the series is placed the expanding-ring B, which is used to fill the space between the inner surface of the well-tubing and the said expanding-ring. The plate C rests on the shoulder of this ring and supports the upper end of the rod. The nuts *n n* of the rod hold these parts, and thereby bind the several cylinders constituting the strainer together.

G is the end of a tool which is threaded to engage the rod D, and is used to lower the strainer into proper position at the lower end of the well tubing or casing. When the tubing is placed in the earth to the water-bearing strata, the strainer is let down inside until the larger portion of the same projects beyond said tubing. Then an expander is used against the soft metallic ring B at the top, which forms a close union between said tubing and the said strainer. After the sand is pumped away about the strainer nothing can enter to obstruct the action of the pump.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In a tube-well strainer, the combination of the series of perforated earthenware cylinders A, expanding-ring B, plate C, closing-plate F, and rod D, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

SAMUEL H. DICKERSON.

Witnesses:

B. PICKERING,
CHAS. A. WALTMIRE.