

(No Model.)

S. D. THURSTON.
PISTON ROD PACKING.

No. 318,400.

Patented May 19, 1885.

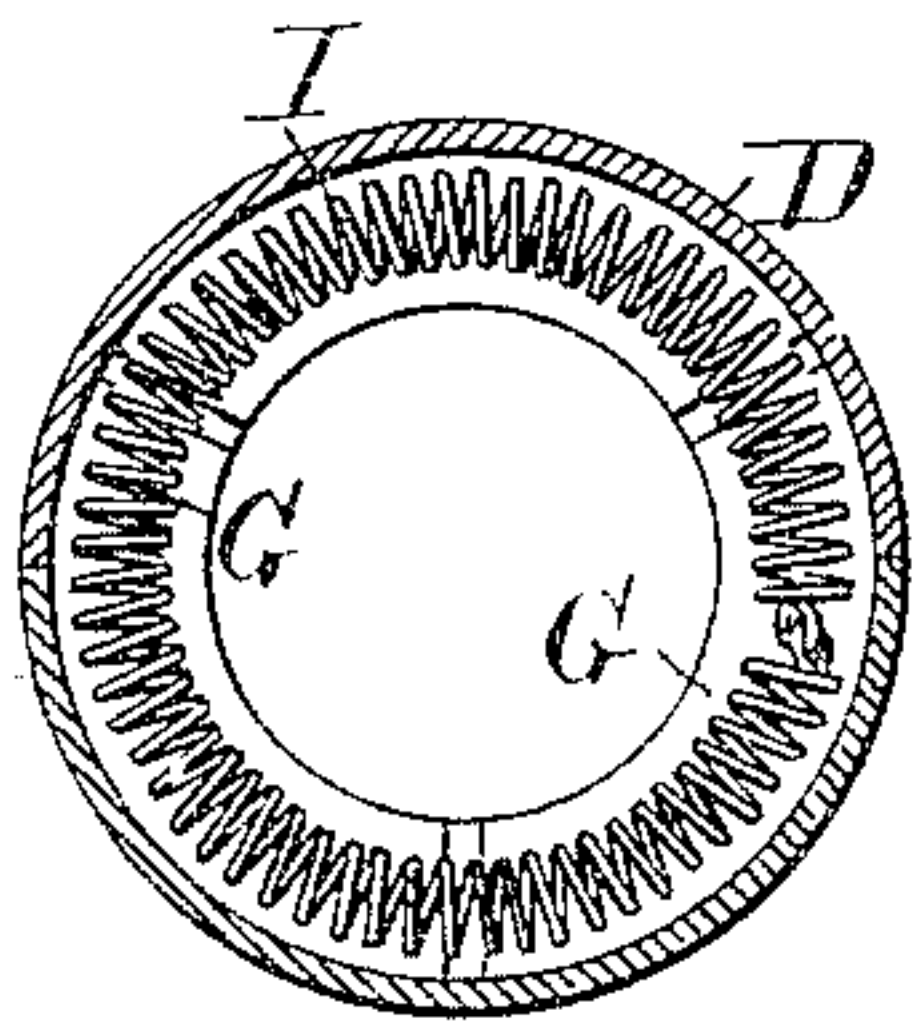
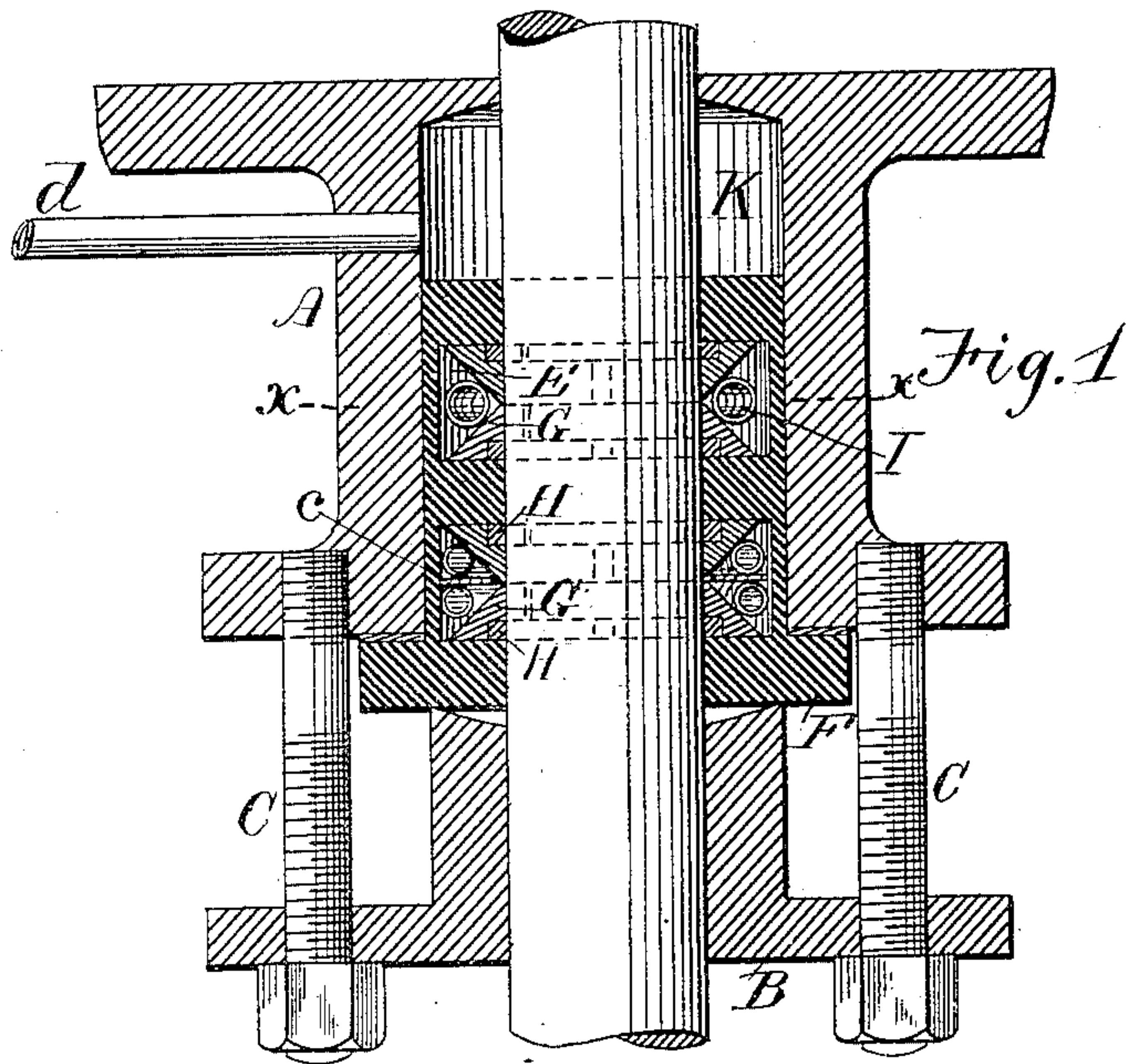


Fig. 4

Fig. 2

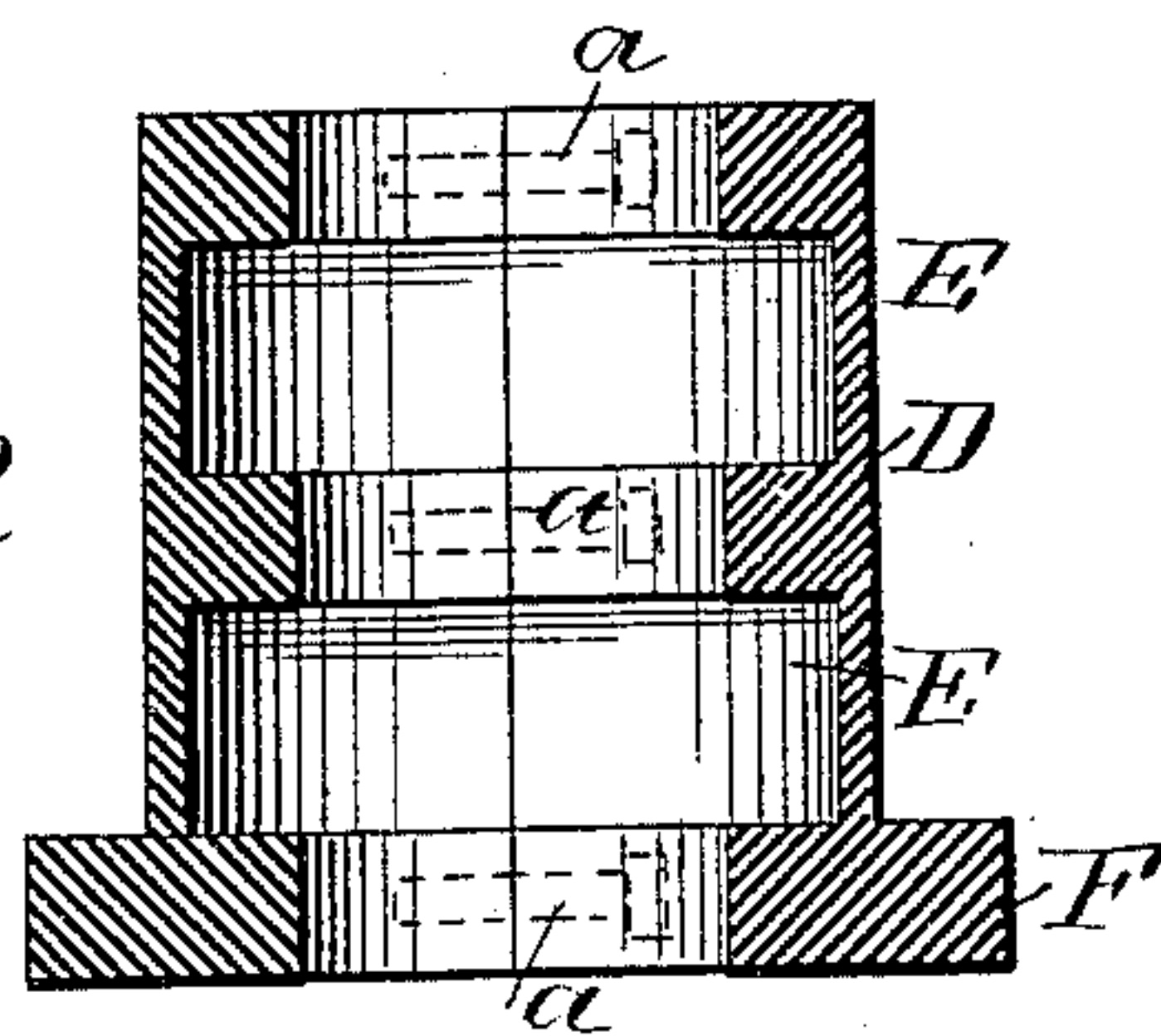


Fig. 5

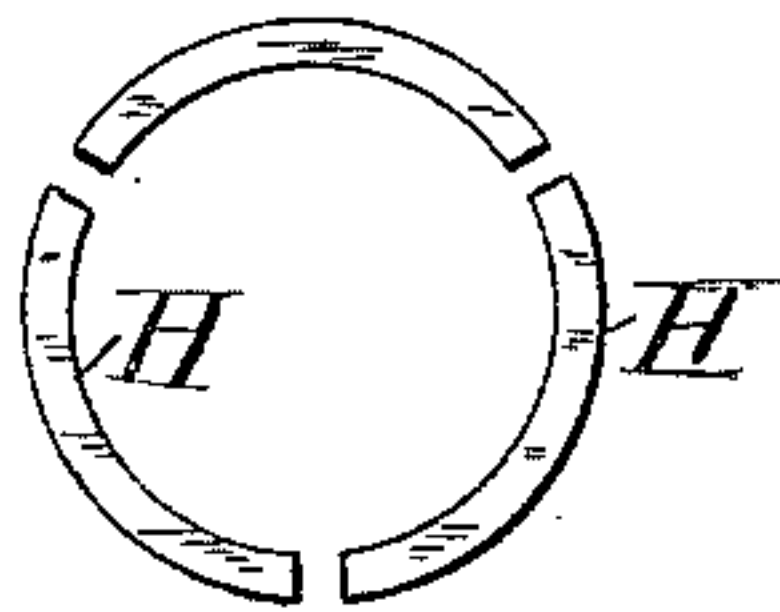


Fig. 3

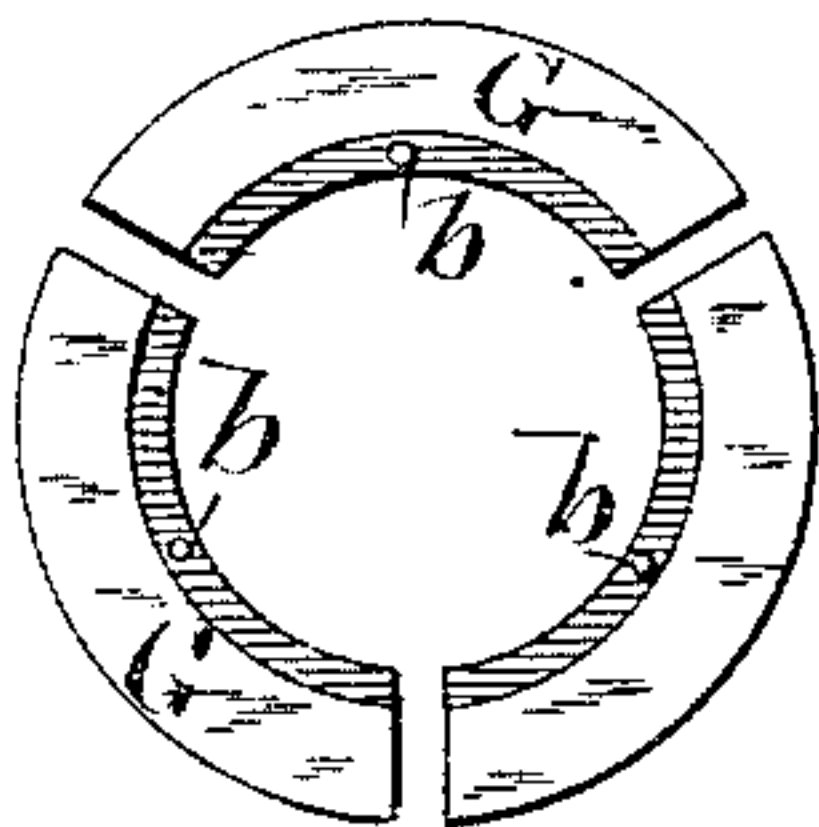
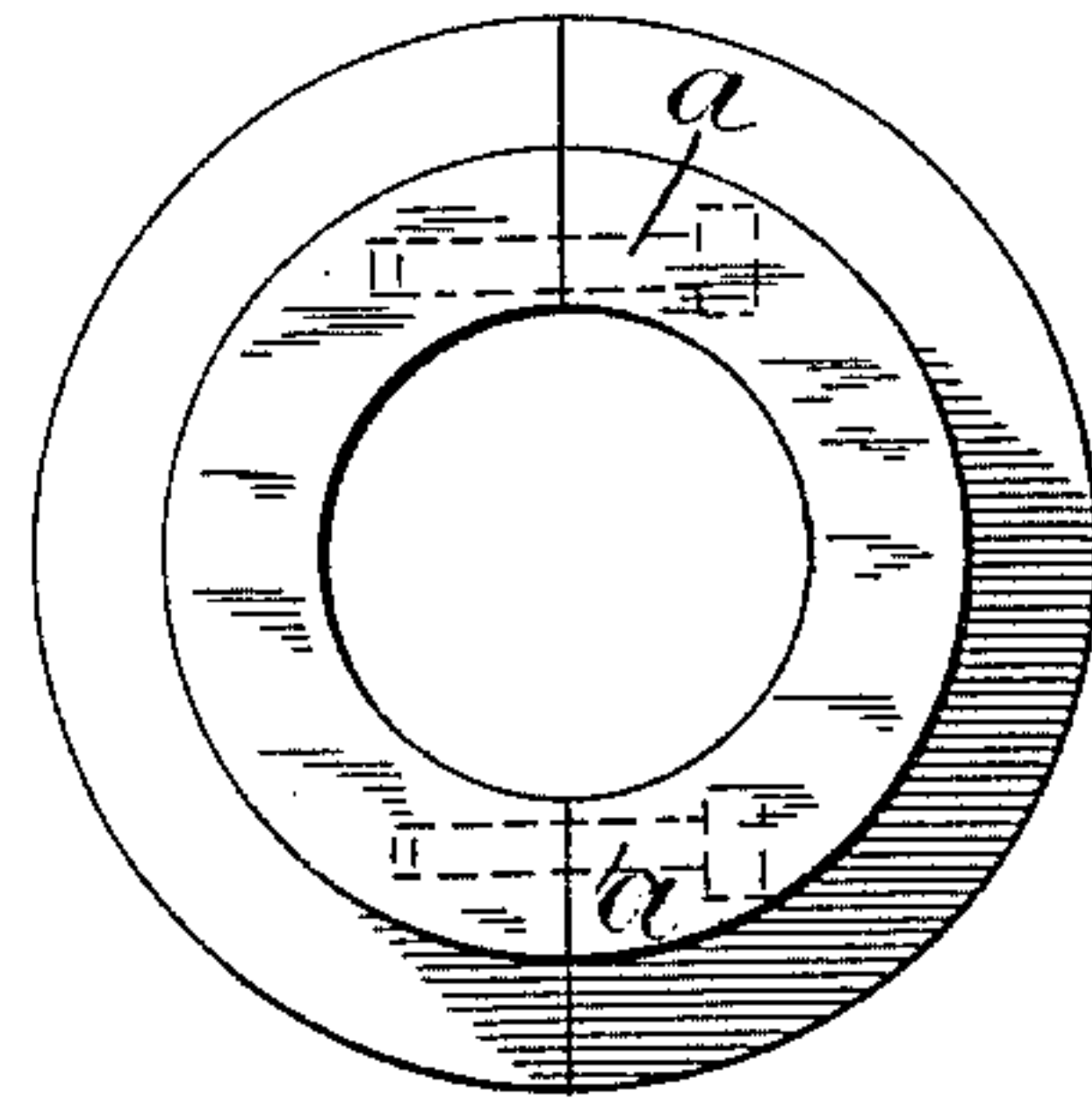


Fig. 6

Witnesses

J. Frank White.
J. Fred Reily.

Inventor
Spencer D. Thurston.
Per. O. E. Duff.
Atty.

UNITED STATES PATENT OFFICE.

SPENCER D. THURSTON, OF PHILADELPHIA, PENNSYLVANIA.

PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 318,400, dated May 19, 1885.

Application filed March 3, 1885. (No model.)

To all whom it may concern:

Be it known that I, SPENCER D. THURSTON, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Piston-Rod Packing and Glands Therefor; 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 part of this specification.

My invention relates to that class of rod-packing in which a self-adjusting packing is held in the stuffing-box by a divided box, the divided box being held by the ordinary stuffing-box gland.

It consists of certain novel features that will be specifically described in the specification and particularly claimed at end thereof.

Figure 1 is a vertical section of the packing, the stuffing-box being shown on the bottom end of the cylinder. Fig. 2 is a section of the divided packing-box, showing the screws in dotted lines for holding the two parts together. Fig. 3 is an end view of the packing-box with the screws in dotted lines. Fig. 4 is a section through line *x x*, Fig. 1. Fig. 5 is a top view of the small sectional packing-ring, and Fig. 6 is a similar view of the large packing-rings.

A is an ordinary stuffing-box with its gland B and stud-bolts C. In this stuffing-box is inserted a longitudinally-divided packing-box, D, which is divided vertically for the purpose of placing the box in position without disengaging the piston-rod from its cross-head. The box is held together by screws *a*, (shown in dotted lines,) the holes being countersunk; so that the heads will be below the surface of the box. Upon the inside of the box, next to the rod, is formed two or more recesses, E, which form separate compartments when in position, and into which the packing rings and springs are placed, and upon the outer end of the box is a flange, F, which rests upon the outer end of the stuffing-box, and between which a gasket of suitable material may be placed; or a ground joint may be made to prevent any leaking of steam between the packing-box and stuffing-box, the parts being held in position by the gland.

G G are the large packing-rings, as shown

in Fig. 6, triangular in section and in two or more pieces, for the same purpose as the division of the box. These rings are recessed in their corners adjoining the rods and box for the insertion of small rings H, which are square in section. These rings are also divided, and when in position they break joint with the large rings, being held in place by dowel-pins *b*. Two of the large rings, with the small rings in position, are placed in each recess of the packing-box. The right-angle faces of the rings coming in contact with the rod and box causes the inclined faces to form an angular recess, into which a coiled spring or springs, I, are inserted, which causes the rings to close the space between the rod and box, thereby preventing any escape of steam or water. When two springs are used, a plate, *c*, is inserted between the rings to keep the coils from slipping between each other. The small and large packing-rings are made of any suitable but different material. The chamber K in the stuffing-box will retain some of the water of condensation, which will act as a lubricant; or a lubricant can be supplied to the chamber by the pipe *d*.

Having described my invention, what I claim is—

1. In a rod-packing, the combination of the longitudinally-divided packing-box having recesses formed therein with the packing rings and springs, substantially as described.

2. In a rod-packing, the combination of the packing-box having recesses that form separate compartments with the two rings triangular in section in each compartment and the coil-spring, substantially as described.

3. In a rod-packing, the combination of the box having separate compartments with four rings in each compartment, two being triangular and two square in cross-section, and the coiled spring, all arranged substantially as shown and described.

4. In a rod-packing, the combination of the packing-box having separate compartments and provided with a flange at one end with the rings, the stuffing-box, and the gland secured to the lower portion of the packing-box by bolts or rods, substantially as described.

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

Witnesses: SPENCER D. THURSTON.
JAMES O'NEILL,
W. W. GRAHAM.