

(No Model.)

C. F. RIGBY.
ROD PACKING.

No. 572,910.

Patented Dec. 8, 1896.

Fig. 1.

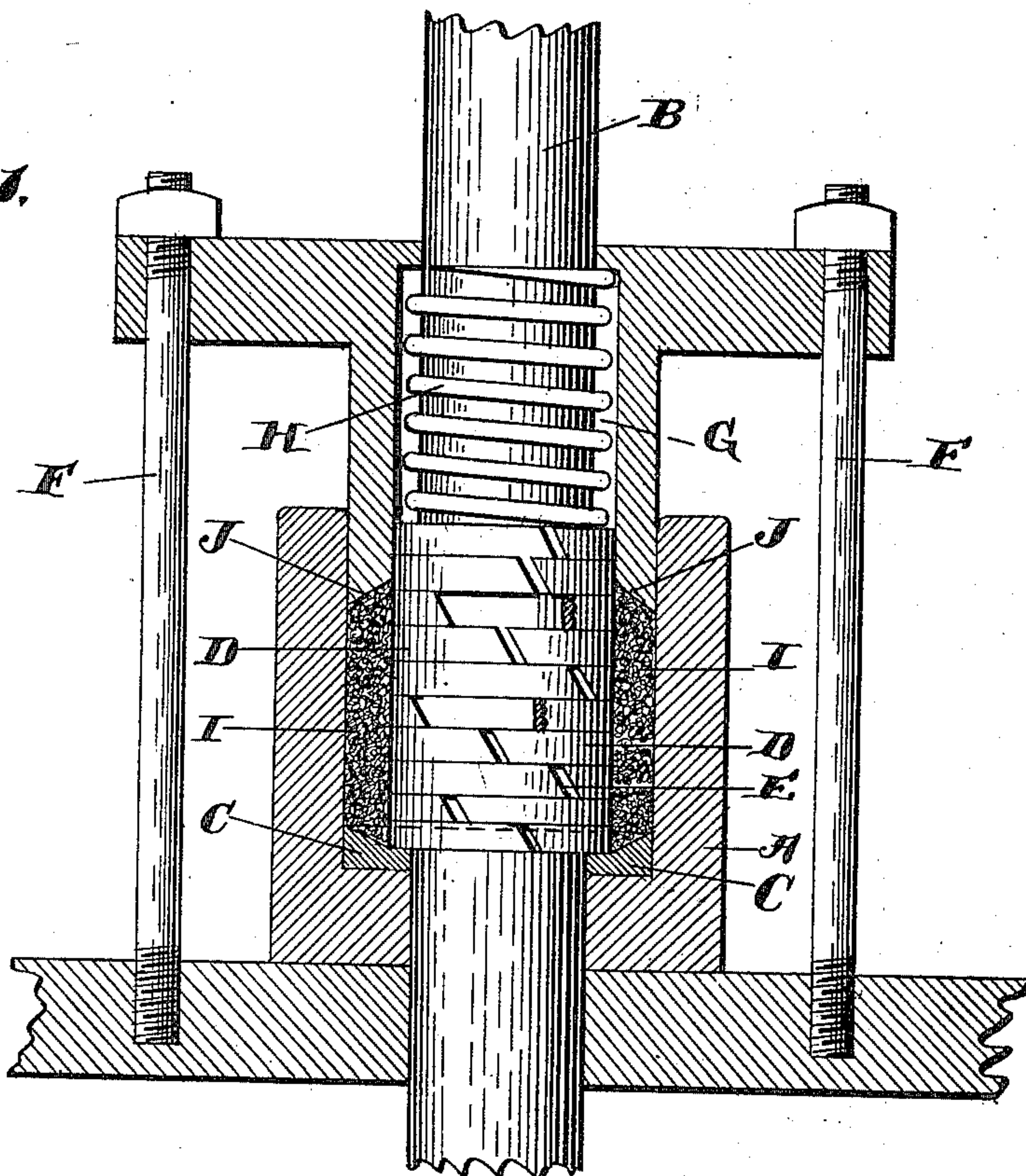
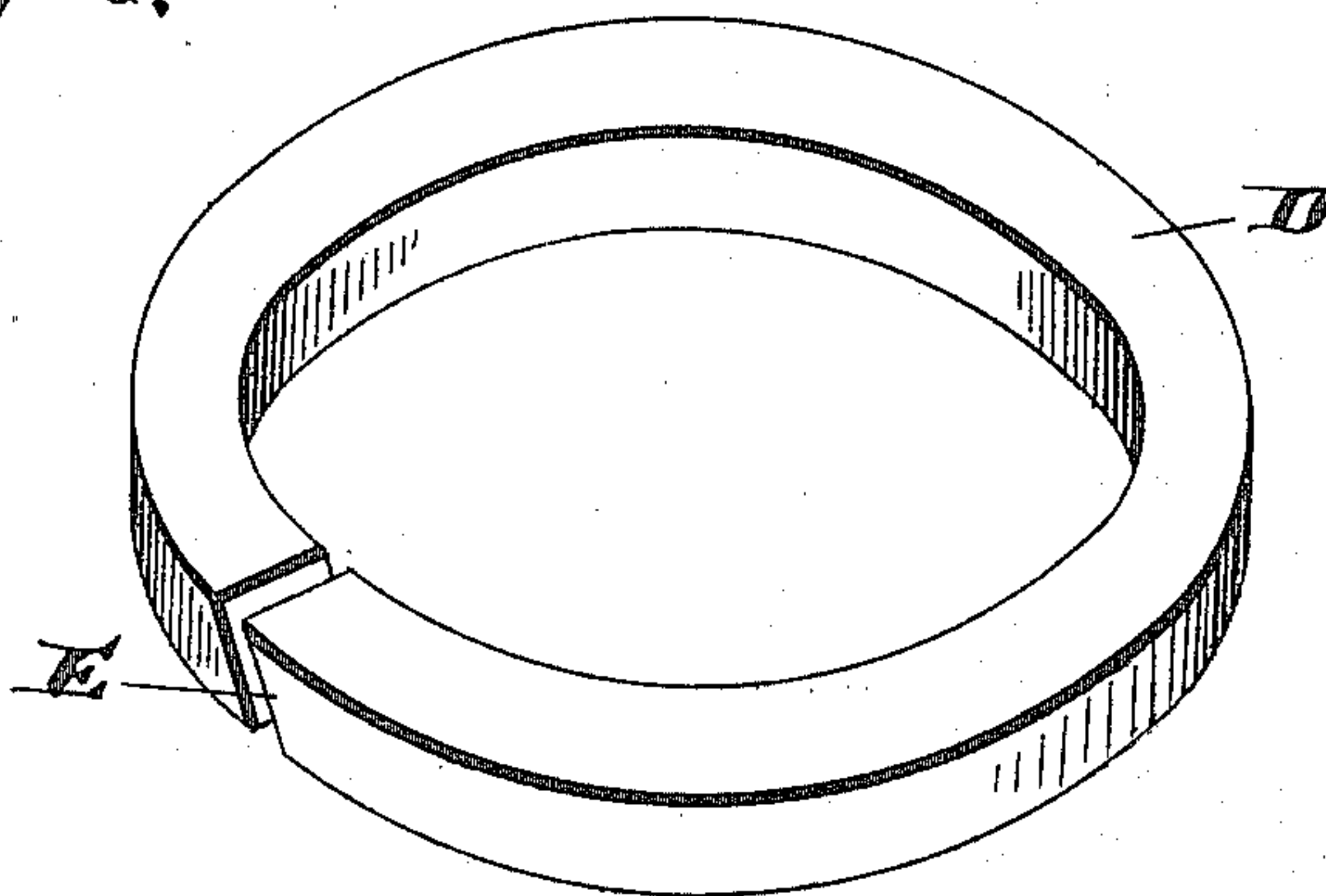


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 572,910, dated December 8, 1896.

Application filed November 19, 1895. Serial No. 569,438. (No model.)

To all whom it may concern:

Be it known that I, CLARK F. RIGBY, of Mannington, in the county of Marion and State of West Virginia, have invented certain new and useful Improvements in Rod-Packing; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention pertains to rod-packing; and the object of the invention is to provide an improved combined metallic and soft packing for forming a fluid-tight joint.

The invention consists in the novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of the stuffing-box and gland, the major portion of the metallic packing-rings, as well as the piston and gland-securing bolt, being shown in elevation. Fig. 2 is a detail perspective view of one of the packing-rings.

A is the stuffing-box, and B the piston. The interior of the stuffing-box is of greater diameter than the piston, and arranged at the inner end or base of the stuffing-box is the inwardly-flared ring C. Resting upon this base-ring and arranged in succession around the piston are packing-rings D, each ring being split at E and sprung or expanded slightly, so as to permit of contraction when subjected to circumferential pressure, the packing-ring in its normal state being illustrated in Fig. 2. The rings are here shown as arranged about the piston nearly to the outer end of the stuffing-box, but the rings are of less diameter than the interior of said box, and this remaining space is occupied by the longitudinally-adjustable gland, which fits closely the same and which is held and adjusted by bolts F in the usual manner. The gland being recessed sufficiently to inclose packing-rings D a space G occurs between the upper end of the interior of the gland and the packing-rings D, and confined in this space is the heavy coiled spring H. Arranged beneath the gland and between the packing-rings D and the wall of the stuffing-box A is the asbestos or other soft

rod-packing I, which is compressed by the inward longitudinal movement of the gland, the lower end of the latter being beveled inward and upward, as indicated at J, which, in conjunction with the beveled ring C, tends to create an inward pressure of the soft packing against the packing-rings D, as will be understood. The pressure is so gaged as to create only a slight contraction of the packing-rings, so as to close snugly around the piston, but not sufficiently tight to bind the same. The coiled spring holds the packing-rings in place and at the same time permits slight longitudinal compensation of the rings, if necessary.

Heretofore it has been proposed to provide packing-rings adapted to fit within the gland, the latter pressing soft packing between the rings and box, and to this no broad claim is laid. It has also been proposed heretofore to arrange packing-boxes of the above description with soft packing within the gland above the metallic rings and surrounding rod. These arrangements are deficient for the reasons that lint from the packing works into the piston-chamber, thus necessitating frequent cleaning of the latter, and, further, the soft packing when placed under great pressure by the gland becomes greatly worn and loses its elasticity, so that in order to keep tight the metallic rings the gland must be frequently adjusted, and repeated renewals of the soft packing is necessary.

My present invention is designed to obviate the difficulties noted by dispensing altogether with soft packing in contact with the rod and substitute therefor a spring, which is arranged between the gland and rings and the tension of which, as created by the gland pressing thereon, holds the rings in proper place at all times. Very little adjustment of the glands is necessary, and the use of soft packing in contact with the rod, which is objectionable, is avoided. At no point is the rod exposed to soft packing, and thus no lint or particles can work into the chamber.

With my improvement greater economy may be practiced, as there is not the continual waste of packing, and the box will be found more effectual than those heretofore employed.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

The rod-packing shown and described comprising the rod, the stuffing-box, the bottom
5 ring C therein, the split packing-rings on ring C, and surrounding the rod, the body of soft packing surrounding the packing-rings and resting on ring C, the portion of ring C on which the body of soft packing rests flared
10 inwardly, the expansive coiled spring H surrounding the rod and bearing on the top packing-ring and yieldingly holding said rings to their work without excessive pressure or

twisting or jamming, and the adjustable gland inclosing the spring and holding it to its work 15 and provided with the extension inclosing the upper rings and having the beveled end pressing the soft packing against the rings, substantially as described.

In testimony whereof I affix my signature 20 in presence of two witnesses.

CLARK F. RIGBY.

Witnesses:

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