## C. L. COOK. ROD PACKING.

APPLICATION FILED MAR. 8, 1904.

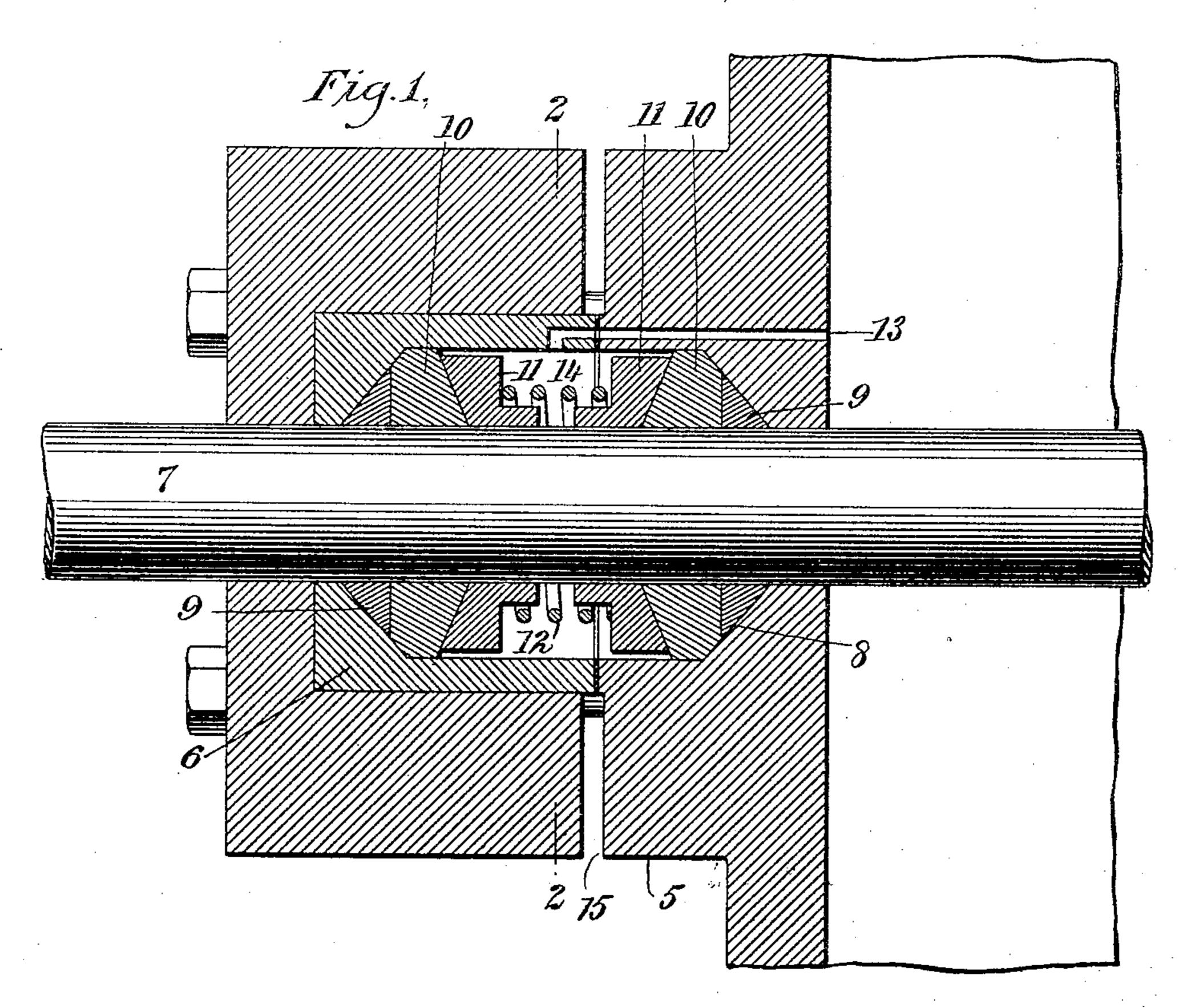
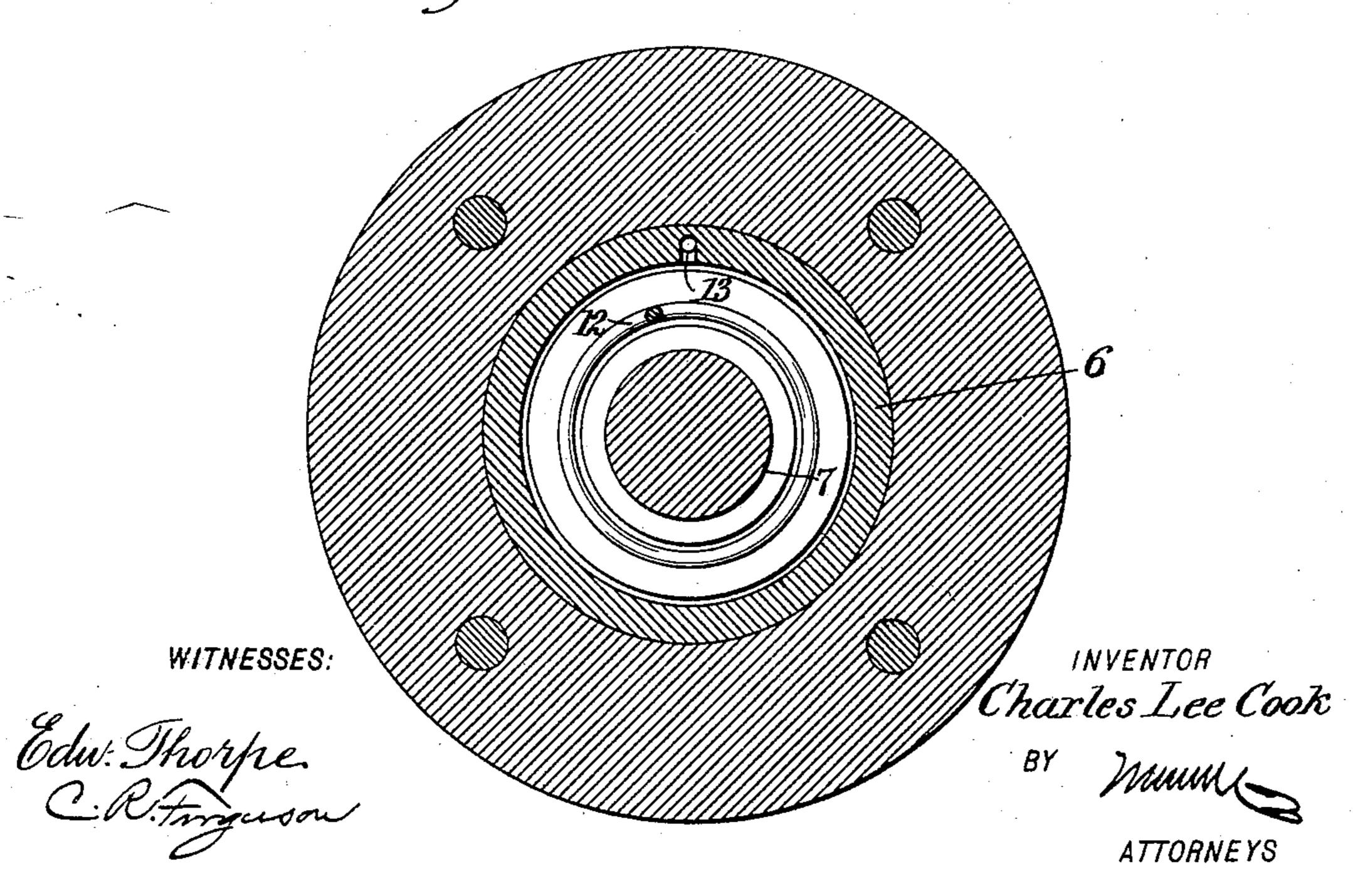


Fig. 2.



## United States Patent Office.

CHARLES LEE COOK, OF LOUISVILLE, KENTUCKY.

## ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 778,635, dated December 27, 1904. Application filed March 8, 1904. Serial No. 197,140.

To all whom it may concern:

Be it known that I, CHARLES LEE COOK, a citizen of the United States, and a resident of Louisville, in the county of Jefferson and State 5 of Kentucky, have invented a new and Improved Rod-Packing, of which the following is a full, clear, and exact description.

This invention relates to improvements in packings for piston-rods and shaftings of all to descriptions, the object being to provide a metallic packing of novel construction that will effectually prevent the escape and consequent waste of steam or other motive agent.

I will describe a rod-packing embodying 15 my invention and then point out the novel

features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indi-20 cate corresponding parts in both the figures.

Figure 1 is a longitudinal section of a rodpacking embodying my invention, and Fig. 2 is a section on the line 2 2 of Fig. 1.

Referring to the drawings, 5 designates a 25 packing-case having a gland 6 and being joined at 15, both of which form a guide for the rod or shaft 7 and prevent same from lateral play. The end walls of the packing-case and gland are beveled or inclined, as indicated 3° at 8, and engaging with the end walls are segmental packing-rings 9, which are substantially triangular in cross-section or corresponding at their outer sides to the end walls 8. Also engaging with the end walls and

35 with the rings 9 are the inner packing-rings 10. The packing-rings 10 are beyeled on their inner surfaces, and these inner surfaces are engaged with correspondingly-shaped outer surfaces of pressure-rings 11. These rings 4° 11 are forced longitudinally outward, and consequently force the rings 9 and 10 longitudinally outward, by means of a coiled spring 12. Therefore the rings 9 and 10 are compressed to the rod or shaft. The several rings 45 are further pressed outward by means of steam passing from a suitable source of supply through a port 13, formed in the wall of the casing. From the said port the steam passes into an annular chamber 14, and thus forms 5° a steam seal which is impervious to the action

of vacuum.

The rings 8 and 10 consist of Babbitt metal; but they may be made of brass or other suitable metal without departing from the spirit of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A rod-packing comprising a packingcase and gland, packing-rings arranged in the case, and a steam-port leading into the case 60 for admitting steam for forcing the packingrings outward and forming a steam seal.

2. A rod-packing comprising a packing-casing and gland having inclined interior end walls, packing-rings conformed to said end 65 walls, inner rings engaging with said walls and with the first-named rings, the said inner rings being beveled on their inner surfaces, pressure-rings conformed to the incline of the inner rings and engaging therewith, and means 70 for admitting steam between said pressurerings to force the rings outward.

3. A rod-packing comprising a packing-case and gland, packing-rings arranged in the packing-case and gland, a spring for pressing 75 the rings toward the end of the case and gland, and a steam-port leading into the case between the rings whereby entering steam will force

the rings outward.

4. A rod-packing for a stuffing-box, having 80 a packing-case and gland forming a guide for the rod, a port extended through the wall of the packing-case and gland, and into the annular chamber of the packing-case, packingrings arranged in the case and gland, and a 85 spring pressing said rings toward the ends of the case and gland.

5. A rod-packing comprising a packingcase and gland, packing-rings arranged in the case and gland around the rod, and means for 90 admitting steam to press the rings toward the ends of the packing-case and gland, forming a steam seal.

In testimony whereof I have signed my name to this specification in the presence of two sub- 95 scribing witnesses.

## CHARLES LEE COOK.

Witnesses:

HOMER W. BATSON, Dennis S. Slaughter.