T. TRIPP & P. W. RICHARDS.

METALLIC PACKING FOR PISTON-RODS.

No. 184,484. Patented Nov. 21, 1876.

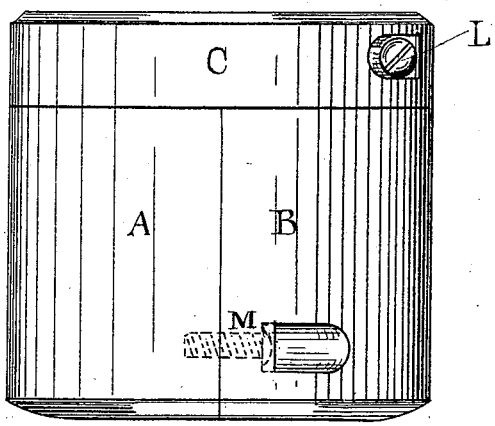

Fig. 1

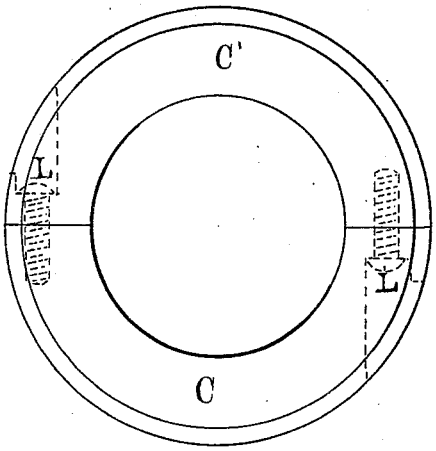

Fig. 2.

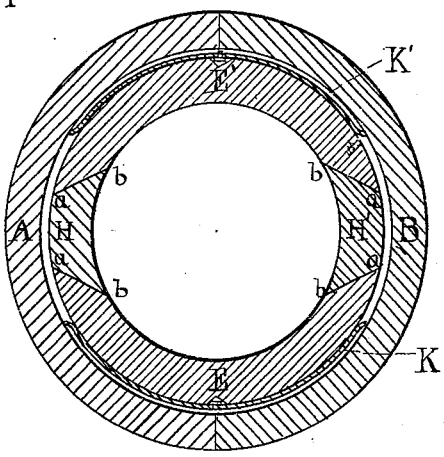

Fig. 4.

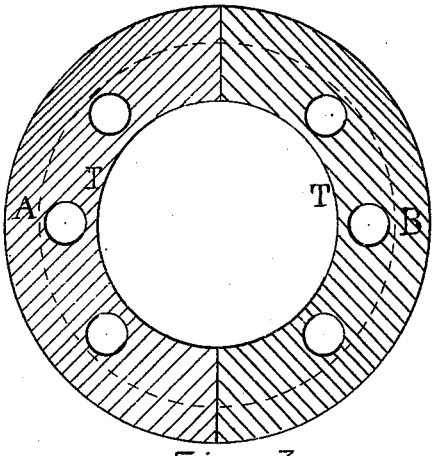

Fig. 3.

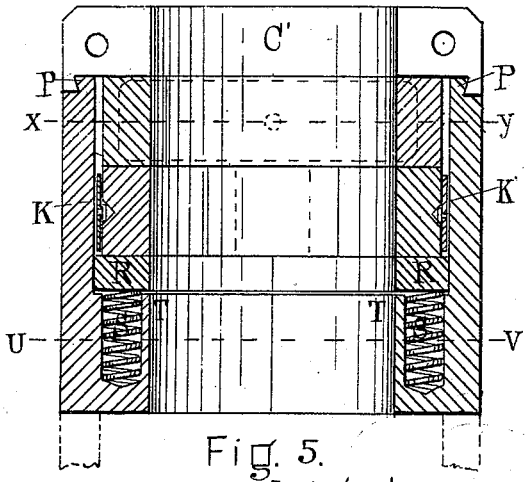

Fig. 5.

WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS TRIPP AND PHILLIP W. RICHARDS, OF BOSTON, MASSACHUSETTS; SAID RICHARDS ASSIGNOR TO SAID TRIPP; SAID TRIPP ASSIGNOR TO WILLIAM H. FLOYD, TRUSTEE OF THE METALLIC STEAM PACKING ASSOCIATION, OF SAME PLACE.

IMPROVEMENT IN METALLIC PACKINGS FOR PISTON-RODS.

Specification forming part of Letters Patent No. **184,484**, dated November 21, 1876; application filed February 11, 1876.

To all whom it may concern:

Be it known that we, THOMAS TRIPP and PHILLIP W. RICHARDS, both of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Metallic Packing for Piston-Rods, of which the following is a specification:

Our invention relates to improvements on that class of packings to which the patent granted to P. W. Richards, February 4, 1873, No. 135,589, belongs; and consists in the construction of the casing-rings, which are made in parts, so as to be easily put onto or taken off from the piston-rod; also, in the packing-rings themselves, all of which may be best understood from the following description and drawings.

Figure 1 is an elevation of our invention. Fig. 2 is a plan of the same. Fig. 3 is a horizontal section through the line U V of Fig. 5. Fig. 4 is a horizontal section through the line X Y of Fig. 5. Fig. 5 is a vertical section.

The casing or receptacle in which we place our packing-rings is made of two semi-cylindrical pieces, A and B, Figs. 1, 3, 4, and 5, which are made fast to each other by means of screws, one of which is shown at M, Fig. 1. This case has an inwardly-projecting flange, T, at its base, as shown in section, Fig. 5.

In some instances we make what we call a double case. Then the inwardly-projecting flange occupies a place at about the middle of the height of the cylinder, and the packing-rings E E′ H H′ are placed both above and below the flange, and the cylinder has a head-ring, like C C′, at both ends.

The head-ring C C′, Figs. 1, 2, and 5, is formed as shown in section at Fig. 5, so as to lock onto the undercut annular projection P, the ring C C′ being made into semi-annular parts, and fastened together by screws L. (See Figs. 1 and 2.)

In the part T, Figs. 3 and 5, we insert a number of springs, S S, upon which the ring R, Fig. 5, rests. Upon this ring R we place one or more sets of packing-rings, E E′ H H′. (See Fig. 4.) These packing-rings are formed of parts which join each other by inclined joints *a b a b*, so arranged that the pressure of the flat springs K K′, Figs. 4 and 5, upon the parts E E′, in forcing them toward the piston-rod, will be transmitted by the inclines *a b* to the parts H H′, and thus force them in onto the piston.

When the rings are properly placed, and the head-ring C C′ fastened on, the pressure of the spiral springs S S will keep all of the parts in place and tight together.

Having now described the construction and operation of our invention, what we claim is as follows:

1. The casing A B, united as shown, and combined with one or more head-rings, C C′, substantially as described, and for the purpose set forth.

2. The combination of the embracing-pieces E and E′ with the wedge-shaped or inclosed pieces H H′, the said pieces E and E′ forming nearly the entire circle, and provided with springs K and K′, all operating together substantially as described, and for the purpose set forth.

THOMAS TRIPP.
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Witnesses:
WILLIAM EDSON,
N. EVANS, Jr.