

F. W. PETTEE.

Metallic Packing for Piston Rods, &c.

No. 135,663.

Patented Feb. 11, 1873.

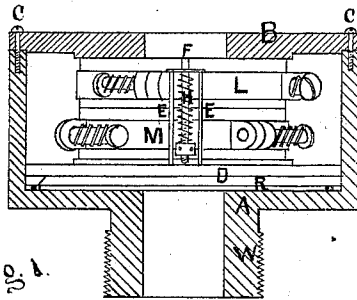


Fig. 1.

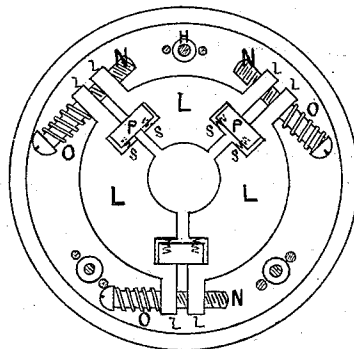


Fig. 2.

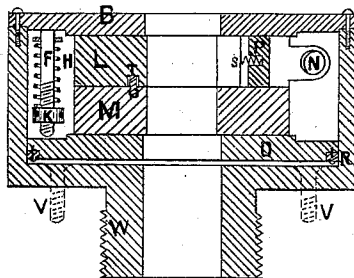


Fig. 3.

WITNESSES.

J. L. Norton
John J. Halcy

INVENTOR

Frank W. Pettee

UNITED STATES PATENT OFFICE.

FRANK W. PETTEE, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM P. WELCH AND ALBION CHIPMAN, OF SAME PLACE.

IMPROVEMENT IN METALLIC PACKINGS FOR PISTON-RODS, &c.

Specification forming part of Letters Patent No. 135,663, dated February 11, 1873.

To all whom it may concern:

Be it known that I, FRANK W. PETTEE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Metallic Packing for Piston-Rods, &c., of which the following is a specification:

The Nature of the Invention.

The nature of my invention consists in combining sets of metallic segments, which, being held together by springs, form a packing between two disks held to each other by springs—the whole forming a packing which contracts in every direction as it wears, and is thus always tight.

Description of the Drawing.

Figure 1 is a vertical section of the casing, showing the packing-rings in elevation. Fig. 2 is a plan of the same. Fig. 3 is a vertical section.

General Description.

A B represents the outer casing, the upper part B being removable for convenience. The packing-rings L and M, Figs. 1 and 3, are each made in three segments, as shown in Fig. 2. These segments L L have attached to them ears *ll*, through which a screw, *n*, passes, slipping loosely through one of the ears and engaging with the other. Upon this screw a spring, O, is attached, which, acting against the head of the screw and upon the ear of the segment, has a tendency to draw the segments together—that is, make them embrace the pis-

ton-rod accurately. Steam is prevented from escaping through the opening between these segments by the blocks P P. These blocks are held in position by springs S S; or the block may be made to fit into the segments resting against the piston-rod, the edge being inclined to admit of wear. These complete rings L and M are placed one upon the other, so as to break joints, and are held in this position by the dowel T, Fig. 3, and together by the plates D and B by means of the spring H and the rods E E F, so that all of the horizontal joints are tight. At the bottom of the plate D an expanding-ring, R, is placed, which serves to prevent steam from passing between the plate D and the walls of the case. This packing-box may be attached to the cylinder-head by the screw W or by the small screws V V, as may be deemed desirable.

I claim as my invention—

1. The combination of the segments L with the ears *l*, screw N, and spring O, operating substantially as described, and for the purpose set forth.
2. The combination of the segments L with the blocks P, substantially as described, and for the purpose set forth.
3. The combination of the plates B and D with the segment-rings L M and holding device F E E H, substantially as described, and for the purpose set forth.

FRANK W. PETTEE.

Witnesses:

P. L. NEWTON,
J. J. HULEY.