

J. H. VAN RIPER.
Piston-Packing.

No. 211,873.

Patented Feb. 4, 1879.

Fig. 1.

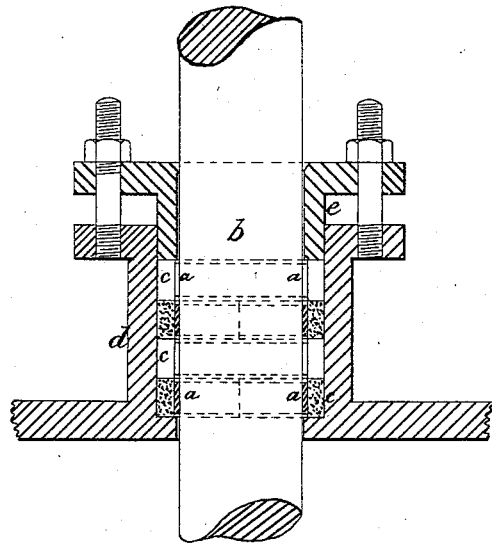


Fig. 2.

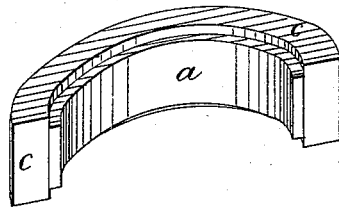


Fig. 3.



Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES H. VAN RIPER, OF NEW YORK, N. Y.

IMPROVEMENT IN PISTON-PACKINGS.

Specification forming part of Letters Patent No. 211,873, dated February 4, 1879; application filed June 24, 1878.

To all whom it may concern:

Be it known that I, JAMES H. VAN RIPER, of the city of New York, county and State of New York, have invented certain new and useful Improvements in Piston-Rod Packings, of which the following is such an exact and clear description that any one skilled in the art may make and use the same.

This invention relates to packings for piston-rods of steam-engines, &c.; and it consists of strips of sheet-lead bent round so as to fit the rod to be packed, and secured, by means of a suitable cement, to pieces of vulcanized india-rubber similarly formed, the thickness of the lead and india-rubber being such as to just fill the space between the piston-rod and side of the packing-box. The lead is caused to bear against the rod by the gland of the box pressing endwise on the india-rubber. This packing is preferably made in narrow semicircular sections, which are placed in the box so as to break joints one with another; but to describe my invention more particularly, I will refer to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents my improved packing as applied to a piston-rod. Fig. 2 is a perspective view of one of the segments. Figs. 3 and 4 are sectional views of the same.

The strips of sheet-lead *a a* are bent into a semicircular form, so as just to fit on the piston-rod *b*. They are secured to the india-rubber backing-pieces *c c* by means of a suitable cement. These backing-pieces *c c* and the lead facings *a a* fill up the whole space be-

tween the piston-rod *b* and the interior surface of the packing-box *d*, so that as the gland *e* is forced down on the packing the lead facings *a a* are caused to bear against the piston-rod *b* with sufficient pressure to make a perfect steam-tight joint and yet allow the rod to move with very little friction, whether it has a reciprocating or rotary movement.

The perspective view, Fig. 2, shows the form of the narrow semicircular segments, which are placed in the packing-box so as to break joints. At Fig. 3 the lead facing is shown with square edges, and at Fig. 4 the edges are shown beveled.

I am aware that piston-rod packings have heretofore been made having metal facing, combined with an elastic backing. The English Patent No. 543, to John McClintock, 1867, shows such a combination; so I wish it understood that I do not claim, broadly, such combination; but what I do claim is the specific combination heretofore described—that is to say:

As a new article of manufacture, a piston-rod packing composed of a lead facing and india-rubber backing, formed into narrow semicircular segments, substantially as hereinbefore set forth.

In witness whereof I have hereunto set my hand this 21st day of June, 1878.

JAMES H. VAN RIPER.

Witnesses:

ALFRED SHEDLOCK,
JOHN A. MCSORLEY.