No. 642,411. Patented Jan. 30, 1900.

G. F. ALLEN.

PISTON ROD PACKING.

(Application filed Mar. 20, 1899.)

(No Model.)

Fig. I.

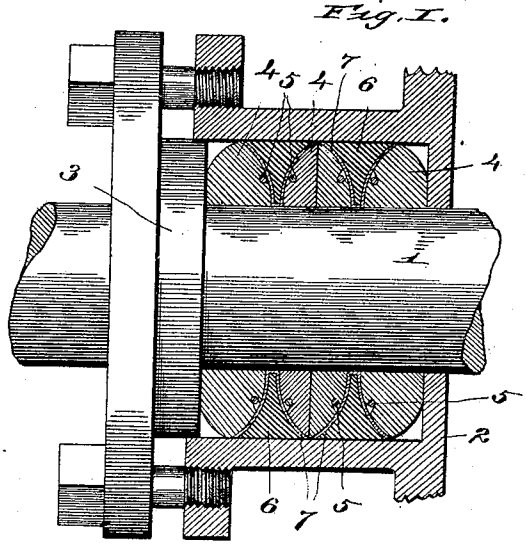


Fig. II.

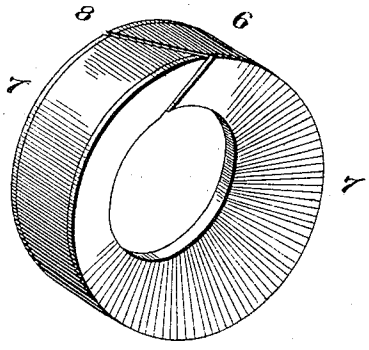
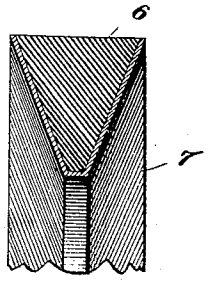


Fig. III.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE FRANKLIN ALLEN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE HOYT METAL COMPANY, OF SAME PLACE.

PISTON-ROD PACKING.

SPECIFICATION forming part of Letters Patent No. 642,411, dated January 30, 1900.

Application filed March 20, 1899. Serial No. 709,734. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FRANKLIN ALLEN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Piston-Rod Packings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement in piston-rod packings, and has special reference to the elastic packing-rings situated between metallic packing-rings; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a longitudinal sectional view taken through a packing-box with my improved packing shown therein. Fig. II is a perspective view of one of the elastic packing-rings constituting the main feature of my improvement. Fig. III is a cross-sectional view through the ring shown in Fig. II.

1 designates a piston-rod mounted in a packing-box 2, provided with a gland 3.

4 designates metallic packing-rings of sectional form, the members of which are held together by retaining-wires 5, occupying seats at the surfaces of said rings.

6 designates the bodies of elastic packing-rings seated between the metallic rings 4, these elastic rings being preferably of approximately V shape in cross-section, and the body 6 is preferably of rubber, and their narrowest portions are designed to lie in contact with the piston-rod 1. The body 6 is covered upon its two converging sides and at its inner narrow edge with a covering 7, of asbestos, that confines the said body and prevents the material of the body from spreading within said covering. The outer surface of each elastic ring is uninclosed by said covering, and therefore is free to spread and fill any interstices within the packing-box, which it is rendered more efficient in accomplishing by reason of the body 6 being confined at its sides by the covering 7. The elastic ring is separated on a line 8 (see Fig. II) to allow of its ready application to the piston-rod.

The elastic rings being confined at their sides and inner edges by the inclosing covering there is no possibility of the elastic body being pressed between the metallic rings and piston-rod to clog the action of said rod; but instead the elastic body is forced outward at the uninclosed outer surface of each ring to effectually fill the interior of the box and force the interposed metallic rings to the piston-rod. It will therefore be seen that the bearing-contact with the piston-rod is entirely metallic, while the elastic rings form cushions between the metallic bearing-rings.

I claim as my invention—

In a piston-rod packing, the combination with a box, of sectional metallic rings located therein, and elastic rings located between said metallic rings of V shape in transverse section, said elastic rings each comprising an elastic body having inwardly-converging sides and a narrow inner edge and a covering of asbestos inclosing the said sides and the inner edge only of said elastic ring, substantially as described.

GEORGE FRANKLIN ALLEN.

In presence of—
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