

P. W. RICHARDS.
PISTON-ROD PACKING.

No. 185,784.

Patented Dec. 26, 1876.

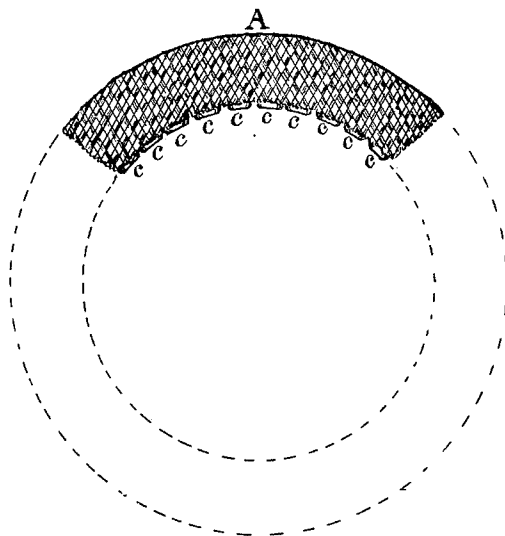


Fig. 1.

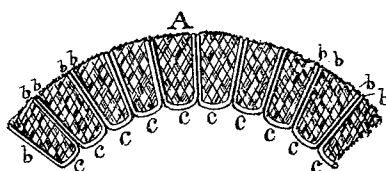


Fig. 2.

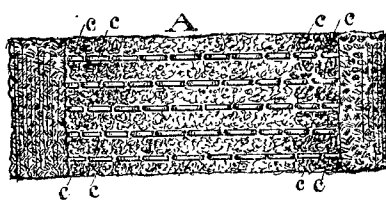


Fig. 3.

WITNESSES

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PHILLIP W. RICHARDS, OF BOSTON, ASSIGNOR TO FRANK E. CRAIN, OF
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IMPROVEMENT IN PISTON-ROD PACKINGS.

Specification forming part of Letters Patent No. **185,784**, dated December 26, 1876; application filed
August 4, 1876.

To all whom it may concern:

Be it known that I, PHILLIP W. RICHARDS, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Packing for Piston-Rods of Steam-Engines, &c., of which the following is a specification:

The nature of my invention consists in intimately blending with the meshes of a textile body a metallic filling, said filling being divided into small parts, so that the flexibility of the packing is not in the slightest impaired.

Figure 1 shows a plan of my packing as it would appear when complete. Fig. 2 shows section of the same. Fig. 3 is an elevation of a part, showing the appearance of the surface next to the rod.

Let A in all the drawings represent a base for my packing. This base is formed of any suitable textile fabric of hemp, cotton, &c., woven in any desired manner. Into this base I put metallic staples or points *c c c c*. These metallic parts are placed as near to each other

as is possible, so that the flexibility and cohesion of the packing are not impaired.

As shown in the drawings, each metallic part is a small staple or U shaped wire, *c b b*, passing through the base A in such a manner that the bend of the staple is presented to the interior or wearing portion of the packing, so that the piston contacts with the metallic portion only. Thus I secure, in a very perfect manner, a metallic wearing-surface with soft flexible packing.

Having thus described my invention, what I desire to secure by Letters Patent is as follows:

The combination of the soft textile base A with the metallic filling *c b b*, &c., constructed substantially as described, and for the purpose set forth.

PHILLIP W. RICHARDS.

Witnesses:

N. EVANS, Jr.,
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