T. A. Bisbee,

Piston Packing.

No. 76,295. Patented Apr. 7, 1868.

Fig. 1

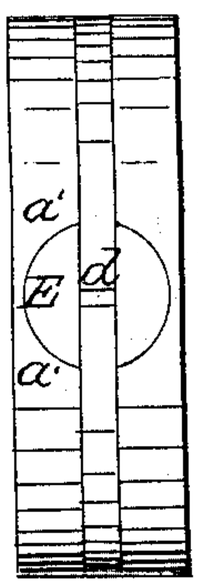


Fig. 2

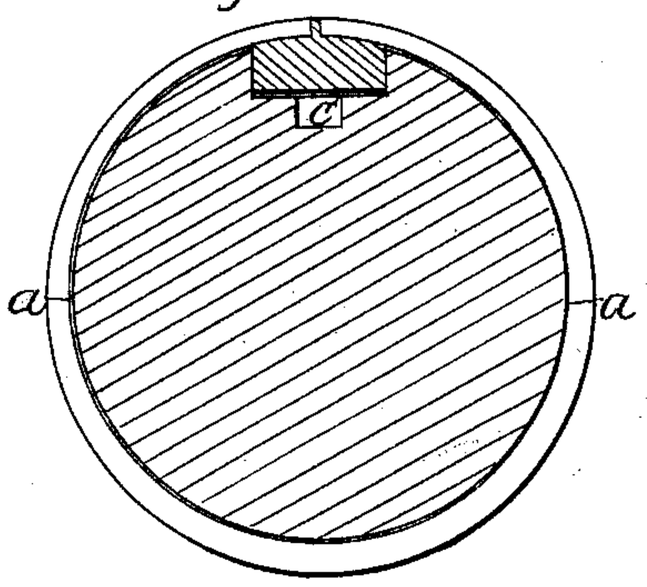


Fig. 3

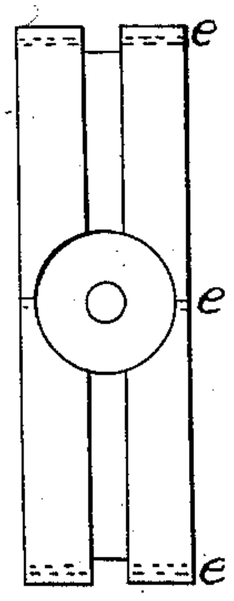


Fig. 4

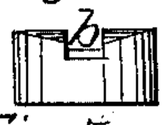


Fig. 5.

Fig. 6.

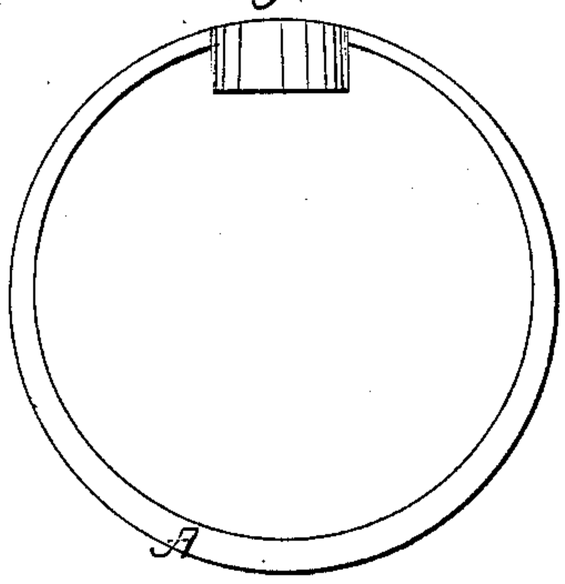
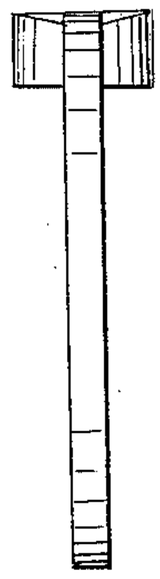


Fig. 7



Witnesses:
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United States Patent Office.

THOMAS A. BISBEE, OF DAYTON, OHIO, ASSIGNOR TO HIMSELF AND EDWIN R. STILWELL, OF SAME PLACE.

Letters Patent No. 76,295, *dated April* 7, 1868.

IMPROVEMENT IN PISTON-PACKING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS A. BISBEE, of Dayton, county of Montgomery, and State of Ohio, have invented a new and improved Steam Piston-Packing for Steam-Engines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an edge view of the head, with the ring and plug in position.
Figure 2 is a longitudinal section through the same, taken at the point.
Figure 3 is an edge view of the head, with ring and plug removed.
Figure 4 is a vertical view of the plug.
Figure 5 is a face view of the plug.
Figure 6 is a horizontal view of ring, with the plug attached; and
Figure 7 an edge view of the same.

This invention relates to a novel arrangement for breaking the joint in the ring employed in packing the piston in steam-engines.

The object of my invention is to furnish a self-adjusting plug, so that it moves freely with the ring in its lateral movements, and at the same time adjusts itself to and perfectly breaks the joint of the ring. The ring is formed of one piece of metal only, and eccentric in its shape. The ring is made eccentric in form, as shown in the drawing, for the purpose of making the expansion equal at all points of the circle.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawing, fig. 1 represents a solid head, with the ring and plug in position. *a a*, fig. 2, show the space allowed for the play of the ring. *c*, fig. 2, shows space allowed for the play of the plug. *d*, fig. 1, shows the ring cut and the joint broken by the plug E. The plug E may be made elliptical between the points *a' a'*. The ring is made to fit closely in the groove *b*, fig. 4.

Operation: Steam enters the head by means of small openings at *e e e*, forces the ring and plug to their bearing against the opposite face or shoulder, and at the same time expands the ring, and forces it and the plug to a bearing against the cylinder. The action is repeated as the steam is admitted alternately at either end of the cylinder.

What I claim as new, and desire to secure by Letters Patent, is—

1. The cylindrical plug E, substantially as and for the purposes described.
2. I claim the combination of the plug E and eccentric-ring A, substantially as described.

THOS. A. BISBEE.

Witnesses:
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E. R. STILWELL.