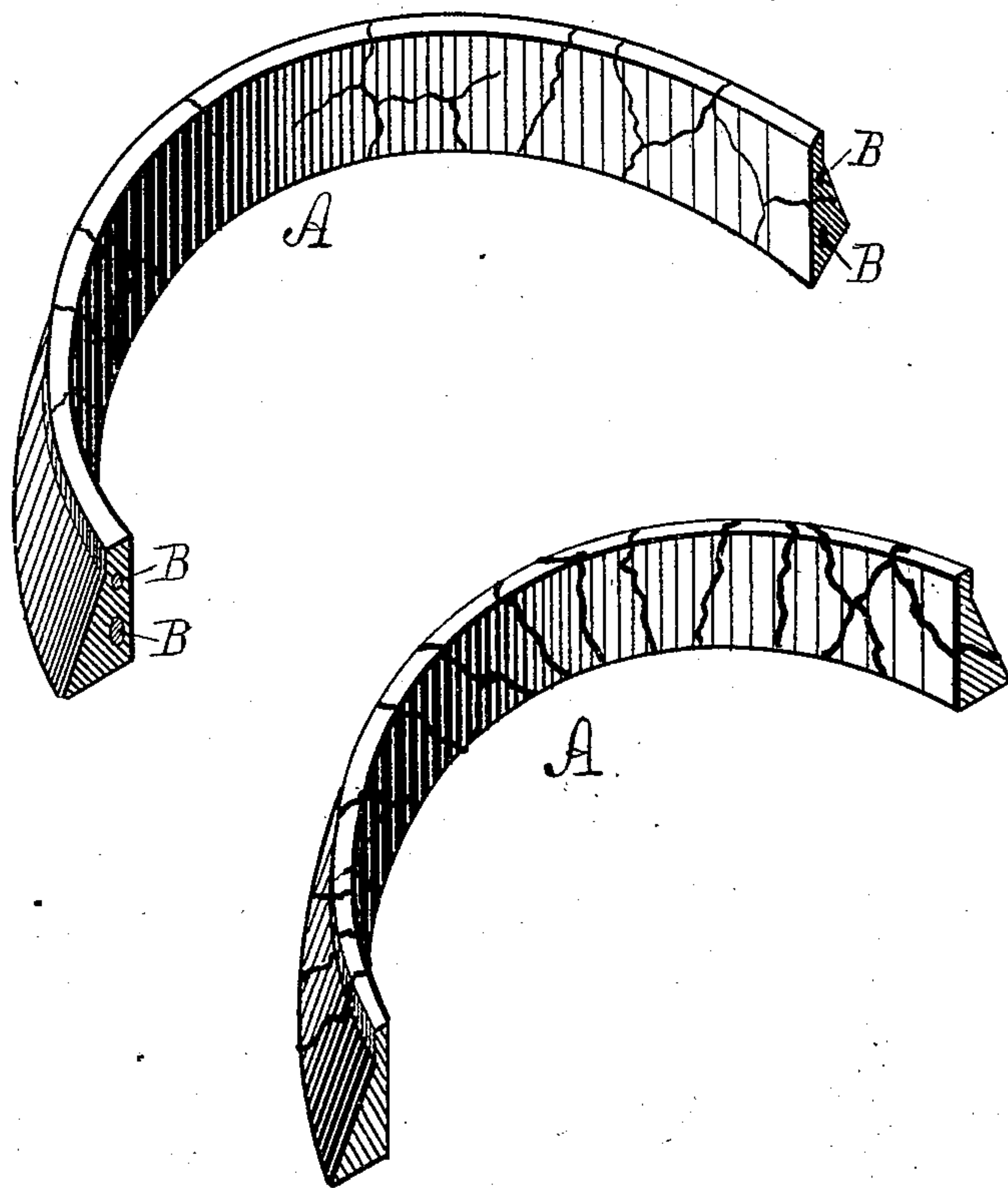


J. A. OSGOOD.
Metallic-Packing for Piston-Rods.

No. 226,624.

Patented April 20, 1880.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSIAH A. OSGOOD, OF GRANTVILLE, MASSACHUSETTS.

METALLIC PACKING FOR PISTON-RODS.

SPECIFICATION forming part of Letters Patent No. 226,624, dated April 20, 1880.

¹ Application filed January 21, 1880.

To all whom it may concern:

Be it known that I, JOSIAH A. OSGOOD, of Grantville, in the county of Norfolk and State of Massachusetts, have invented certain useful Improvements in Metallic Packings for
5 Piston-Rods, of which the following is a specification.

This invention relates to metallic packings for piston and other rods in which soft-metal
10 rings are employed to hug the rod with a steam-tight joint, such rings being crowded up to the rod by pressure suitably applied from the outside.

Owing to the weak and brittle character of the soft metal of which the ring is composed
15 the latter becomes cracked, and in a comparatively short time useless, owing to the variations in the diameter of the rod or excessive vibrations of the same.

To remedy this evil is the object of my present invention; and to effect my object I employ, in connection with the soft-metal ring,
20 one or more metallic wires or bands, such wire or wires being cast in the metal of the ring, and serving, by their greater strength and toughness, to bind the mass of the ring together with great tenacity.

The drawing accompanying this specification represents, in sectional elevation, a soft-metal packing-ring embodying my improvement.
30

In said drawing, A represents a soft-metal ring having a straight bore and frusto-conical periphery, such as is now extensively used
35 in one style of metallic-rod packings.

B B represent two wires run into the metal as the latter is molded or cast, such wires extending from end to end of the ring, and serving, as before stated, to bind the mass of metal firmly together in such manner as to prevent
40 cracking of the ring, or, if fracture takes place, to bind the parts together so that they cannot become separated, and by this means still maintain a steam-tight packing.

Brass, German silver, copper, or other material may be employed to produce the stay-wires B B, and these wires may be ordinary
45 round wire or flat ribbons, or of any form that practice may demonstrate as suitable.

I have extensively used a copper wire as possessing great strength and toughness as well
50 as sufficient elasticity for the purpose; but I do not confine myself in any manner to the form of the stay-wires or their shape.

In many instances, especially with larger rods
55 or pistons, the diameter of the rod changes, owing to unequal wear. This tends to fracture the soft-metal ring in many places; but the wires bind the various pieces together and maintain a tight joint about the rod.
60

I claim—

A ring for metallic-rod packings composed of soft metal bound or stayed by wires or bands of a more flexible and tougher metal,
65 substantially as and for purposes herein described.

JOSIAH A. OSGOOD.

Witnesses:

H. E. LODGE,
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