No. 710,337. Patented Sept. 30, 1902.

A. B. PRATT.

ROD PACKING.

(Application filed Apr. 26, 1902.)

(No Model.)

Fig. 1

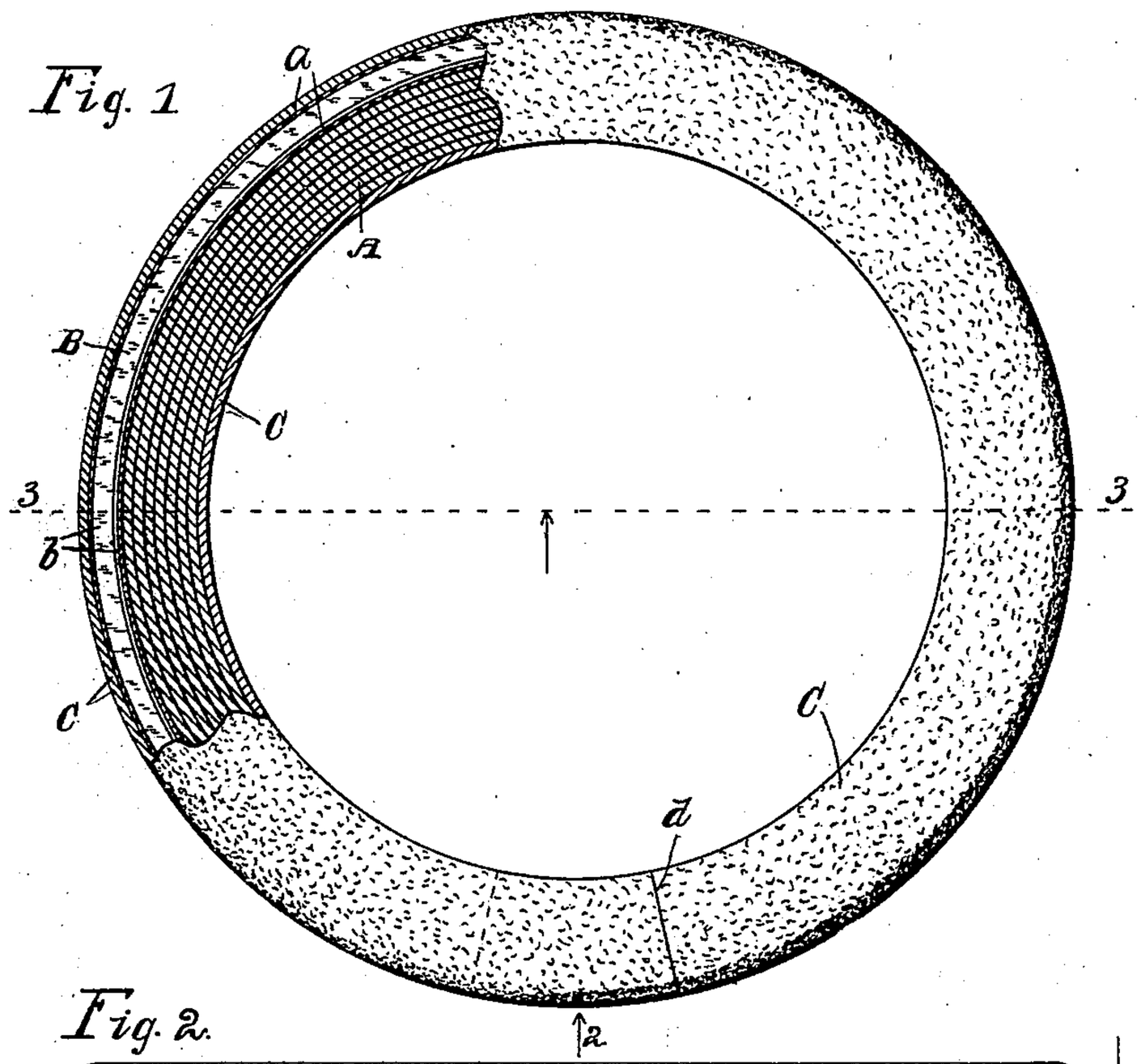
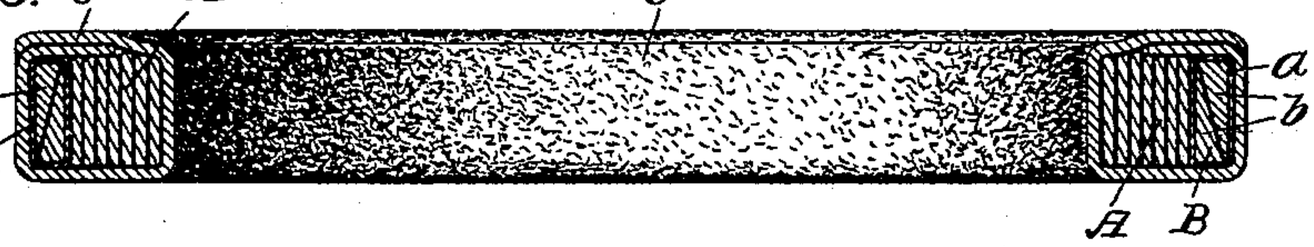


Fig. 2.

Fig. 3.



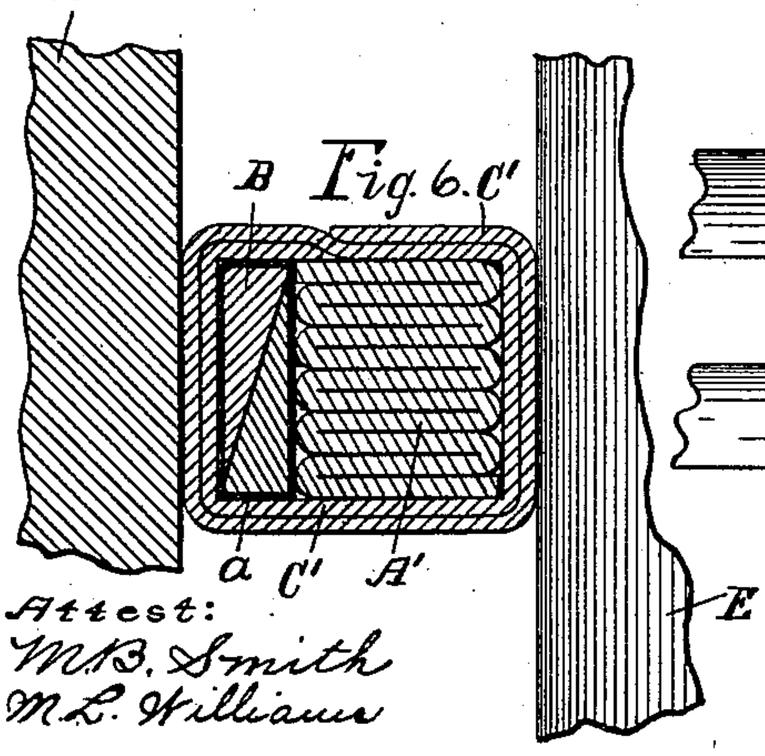


Fig. 6.

Fig. 4.

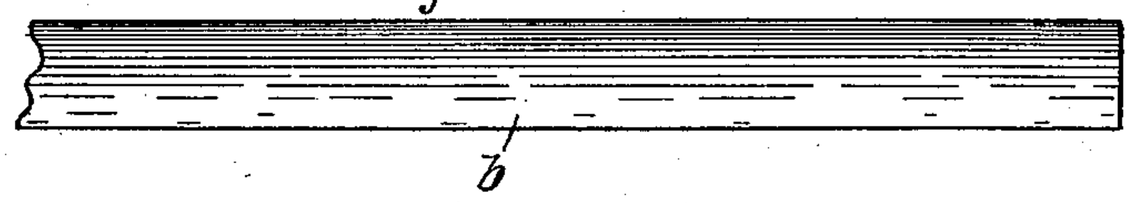


Fig. 5.

Attest:
W. B. Smith
M. L. Williams

Inventor:
Albert B. Pratt
By C. B. Whitmore, Atty.

UNITED STATES PATENT OFFICE.

ALBERT B. PRATT, OF BOSTON, MASSACHUSETTS.

ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 710,337, dated September 30, 1902.

Application filed April 26, 1902. Serial No. 104,868. (No model.)

To all whom it may concern:

Be it known that I, ALBERT B. PRATT, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Rod-Packing, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention relates to machinery-packing generally, but particularly to the kind known as "rod-packing," in the form of rings, this improved packing being composed of a body of fibrous material and a metallic body in parts, combined, and a wrapper for the whole.

The invention is hereinafter fully described, and more particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a ring of my improved rod-packing, partly broken away and transversely sectioned, as on the dotted line 1 1 in Fig. 2. Fig. 2 is an edge view of the ring seen as indicated by arrow 2 in Fig. 1. Fig. 3 is a diametrical section of the ring, taken as on the dotted line 3 3 in Fig. 1. Figs. 4 and 5 are side views of the respective metal strips. Fig. 6, drawn to a large scale, is a cross-section showing a double wrapper and different manner of making up the fibrous body.

In the drawings, A is the main body of the packing-ring, it being a circular strip substantially square in cross-section, consisting, commonly, of plies or layers of fibrous packing material of usual kind, as cotton or asbestos, joined into a compact body by some adhesive substance, as rubber cement.

B is a metallic body, rectangular in cross-section, having a vertical dimension about equal to that of the body A and placed against one side or face of the latter, as shown.

C is an envelop or wrapper for the bodies A B, serving to combine them into a single body, the wrapper being a fibrous sheet of material similar to the plies of the body A, held to place around the bodies A B by rubber cement.

The body B consists of a pair of flexible metal strips *b b*, as lead, formed wedge shape or triangular in cross-section, as shown in Fig. 3, placed side by side, with a lubricant, as plumbago, between them, the thin edge of one strip being next the thick edge of the other. Around these two associated leaden strips *b b* is placed a wrapper of suitable kind, as adhesive fabric or foil *a*, the body B thus constructed acting as a firm backing for the more yielding body A of fibrous parts. In forming the rings the body of packing is bent to have the metallic part B outside the soft body A or near the inner wall of the stuffing-box D, as shown in Fig. 6, the softer part A being next the rod E.

The meeting ends or joints of the rings may be of any form desired, an inclined lap or scarf joint being shown at *d*, Figs. 1 and 2. These rings are placed in the stuffing-box, one against another, in compact form around the rod in the usual manner and pressed together by the follower. When thus pressed, the leaden strips *b b* are caused to slide or slip sidewise one upon the other, serving to increase the horizontal width or thickness of the metal body B, which causes the fibrous body A to be pressed toward and against the rod E as it wears away from the action of the rod. The foil-wrapper *a* around the leaden strips serves to insulate them from the fibrous material and the rubber cement, preventing them from sticking, so the strips are free to move upon each other, as stated, when pressed by the follower of the stuffing-box.

I prefer usually to form the packing as shown in Fig. 6—that is to say, with the wrapper C′ of double thickness and the fibrous body A′ in a single piece folded or doubled upon itself either vertically or horizontally, as clearly shown. However, these features are matters of judgment and do not constitute essential parts of my invention.

When the packing-rings are formed, they are treated in the usual manner of such packing, as by being saturated with hot grease or oil or compounds of the same.

I claim—

1. A body of rod-packing consisting of a ring comprising a fibrous body, and a metallic body combined with the fibrous body, and a wrapper for the combined fibrous body and the metallic body, the latter consisting of two strips or bars of metal wedge shape or triangular in cross-section, placed side by side with the thin edge of one strip or bar next the thick edge of the other, substantially as and for the purpose set forth.

2. A body of rod-packing consisting of a body of fibrous material, and a body of metal in two parts placed longitudinally of the fibrous body, a metallic wrapper for the metallic body, and a fibrous wrapper to inclose said fibrous body and the metallic body with the metallic wrapper, substantially as and for the purpose set forth.

3. A ring of packing for piston-rods, consisting of a body of fibrous material, a metallic body of wedge-shaped leaden strips with a lubricant between them, and an envelop of fibrous material enveloping the whole.

4. A ring of packing for piston-rods consisting of a fibrous body, a metallic body of wedge-shaped triangular strips with a lubricant between them and adhesive fabric enveloping said strips and bearing against the face of the fibrous body, and a fibrous wrapper enveloping the whole and retaining it in compact form.

In witness whereof I have hereunto set my hand, this 18th day of April, 1902, in the presence of two subscribing witnesses.

ALBERT B. PRATT.

Witnesses:
ENOS B. WHITMORE,
MINNIE SMITH.