

G. C. WALTERS.
METALLIC PACKING.
APPLICATION FILED SEPT. 13, 1902.

NO MODEL.

Fig 2.

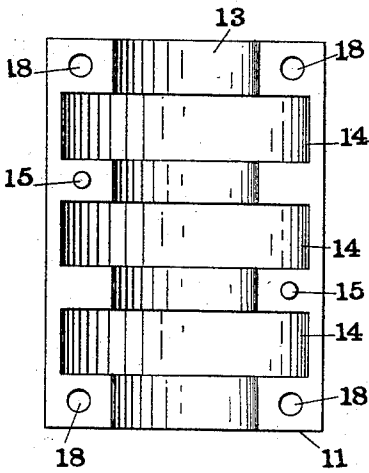


Fig 1.

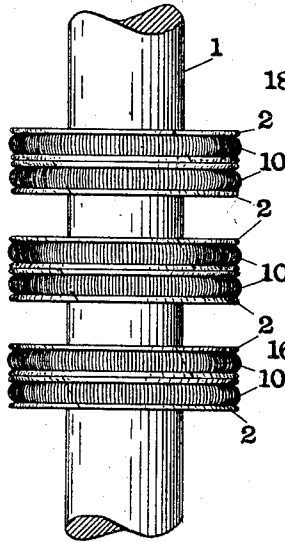


Fig 3.

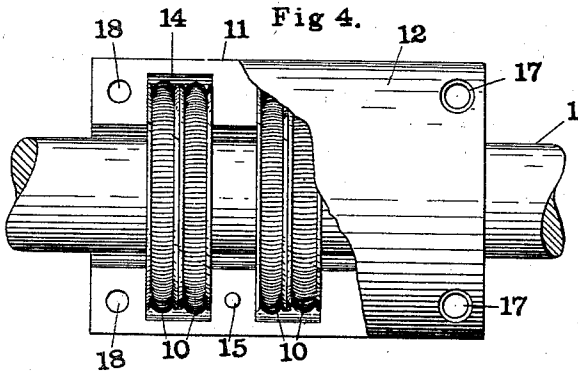
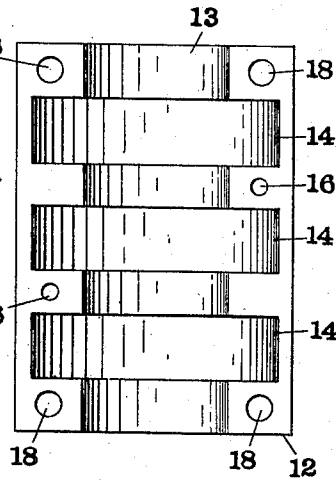


Fig 5.

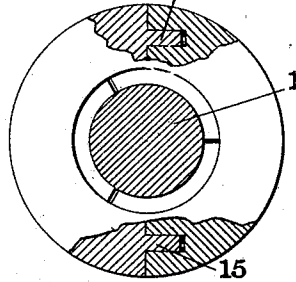


Fig 6.

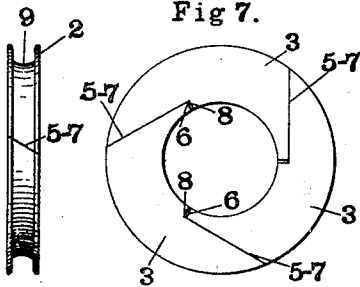


Fig 7.

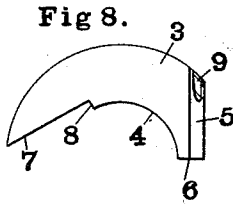


Fig 8.

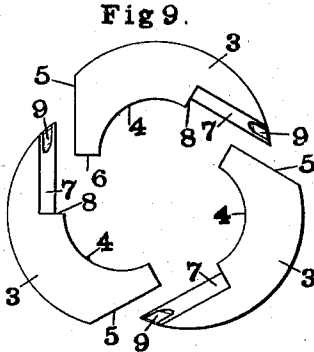


Fig 9.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE C. WALTERS, OF PHILADELPHIA, PENNSYLVANIA.

METALLIC PACKING.

SPECIFICATION forming part of Letters Patent No. 722,269, dated March 10, 1903.

Application filed September 13, 1902. Serial No. 123,265. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. WALTERS, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Packing, of which the following is a specification.

This invention is designed, primarily, for providing an automatic packing adapted to compensate for wear and a casing therefor having means for effecting accurate registration of its sections.

The nature of the improvements will more fully appear by reference to the following description and the accompanying drawings, of which—

Figure 1 shows a plan view of a rod and the improved packing-rings thereon. Fig. 2 shows a view of the interior of one of the sections of the containing-casing. Fig. 3 shows a view of the interior of the other of the sections of the containing-casing. Fig. 4 shows a side view, partially in section, of the assembled rod, rings, and casing. Fig. 5 shows an end view, partially in section, of the assembled rod, rings, and casing. Fig. 6 shows a peripheral view of a segmental packing-ring made in accordance with the invention. Fig. 7 shows a face view of the segmental packing-ring. Fig. 8 shows a face view of one of the segments detached, and Fig. 9 shows a face view of the obverse side of the several segments detached.

Referring to the drawings, the rod 1 has sleeved thereon the packing-rings 2, comprising the segments 3, each having a curved bearing-surface 4, adapted to fit the rod, a plain bearing-surface 5, angular to both the axis and radii of the ring, a plain surface 6, preferably radial to the ring, a plain surface 7, preferably angular to both the axis and radii of the ring, a plain surface 8, preferably radial to the ring, and a grooved periphery 9. The segments 3 are held together and against the rod 1 preferably by a coiled spring 10.

The casing comprises the longitudinally-divided sections 11 and 12, having the bore

13 for the rod 1 and the recesses 14 for the rings 2, the desired registration of the parts being secured by providing the section 11 with the dowel-pins 15 and the section 12 with the holes 16, in which the dowel-pins fit. The sections of the casing may be secured together in any convenient manner, as by means of the screws 17, set in the holes 18.

In the assembled and operative relation of the parts the segment-surfaces 4 are pressed by the springs 10 against the rod 1 and the segment-surfaces 5 and 7 are pressed together, the surfaces 6 and 8 being separated to provide an open joint and to permit the radial movement of the segments to accommodate themselves to variations in the size of the rod. The bearing-surfaces 5 and 7 remain in contact and form a close joint regardless of the expansion and contraction of the ring, and their angular character provides a self-packing joint, the forces acting upon the opposite faces of a ring pressing these surfaces together to form a tight joint.

Having described my invention, I claim—

1. In a metallic packing, a ring comprising segments having bearing-surfaces angular to the axis and radii of said ring and an open joint between said segments to provide for contraction and expansion, substantially as specified.

2. In a metallic packing, a ring comprising segments having bearing-surfaces angular to the axis and radii of said ring, an open joint between the interior surfaces of said segments providing for expansion and contraction, and mechanism for pressing said segments together, substantially as specified.

3. In a metallic packing, a rod, in combination with an expanding and contracting segmental ring having joints adapted to be automatically packed during expansion and contraction, and a longitudinally-divided casing having one or more dowel-pins for securing the registration of the sections thereof, substantially as specified.

4. In a metallic packing, a rod, in combination with a ring comprising segments having bearing-surfaces angular to the plane and

the axis of said ring and an open joint between the interior surfaces of engaging segments, said joints being formed by separated surfaces of the respective segments intersecting the respective bearing-surfaces, substantially as specified.

5 In testimony whereof I have hereunto set

my hand, in the presence of the subscribing witnesses, this 12th day of September, A. D. 1902.

GEORGE C. WALTERS.

Witnesses:

UTLEY E. CRANE, Jr.,

JOHN THIEL.