No. 863,196. PATENTED AUG. 13, 1907.

L. H. MARTELL.

PACKING FOR PISTON RODS.

APPLICATION FILED DEC. 22, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

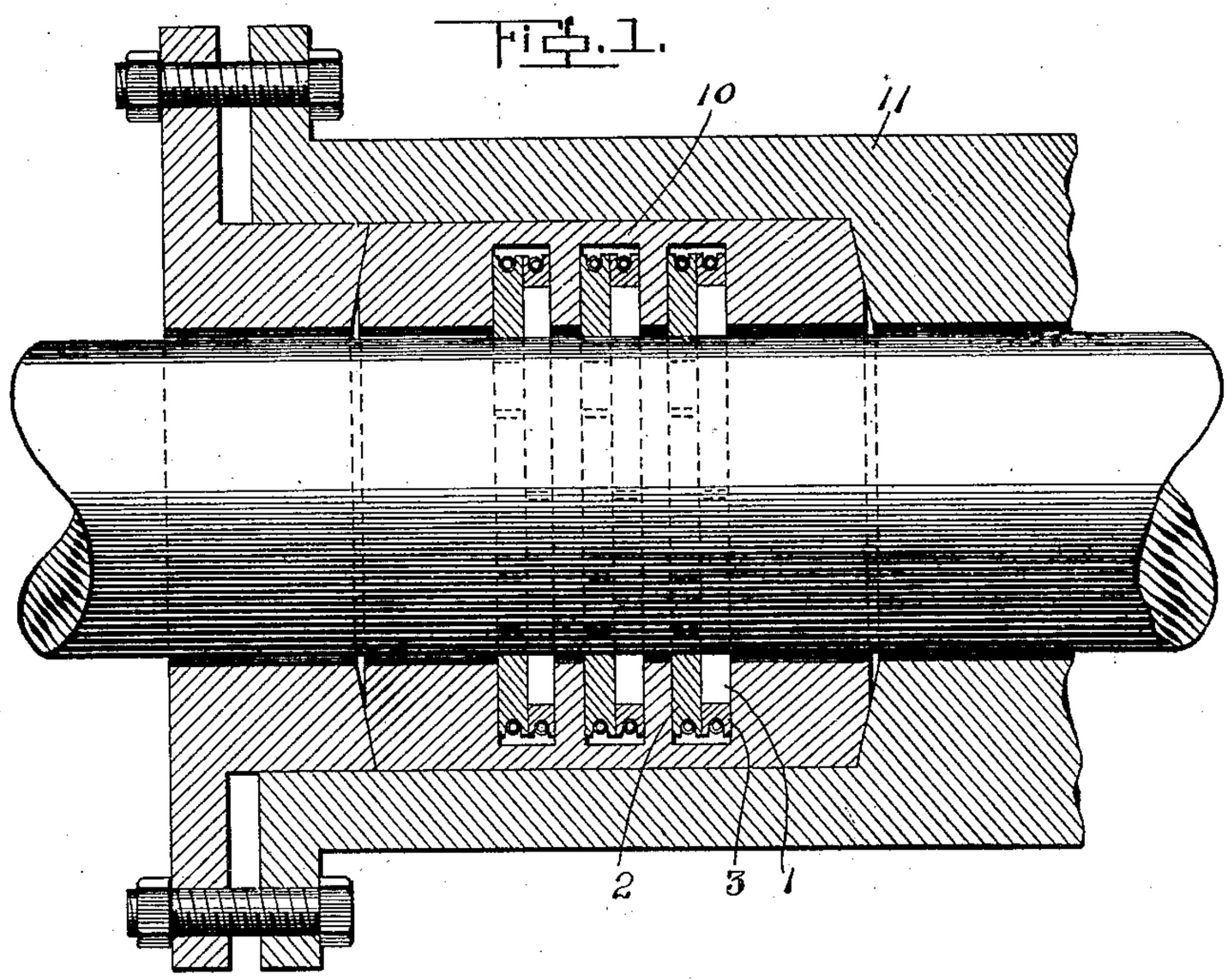


Fig. 2.

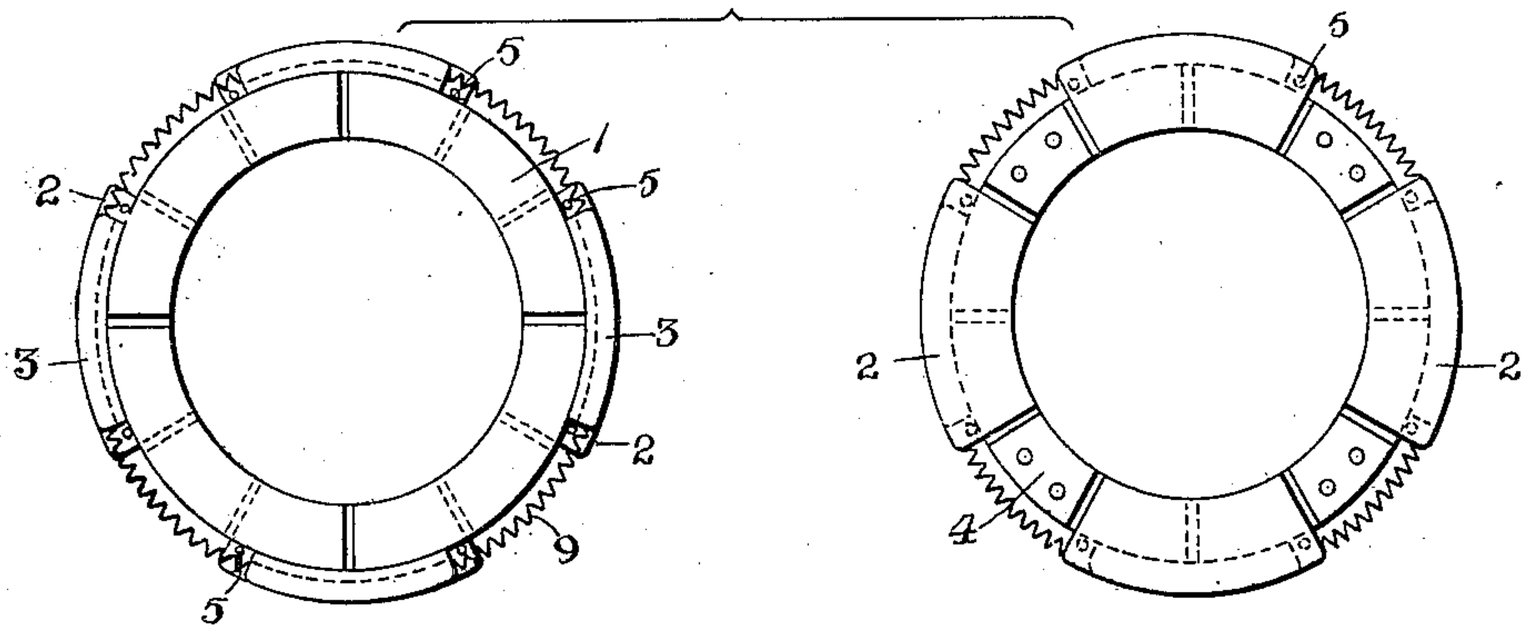
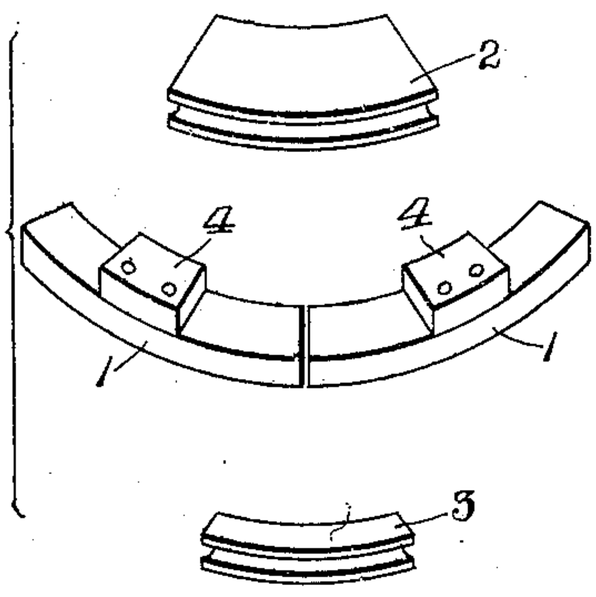


Fig. 3



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2 SHEETS—SHEET 2.

Fig. 4.

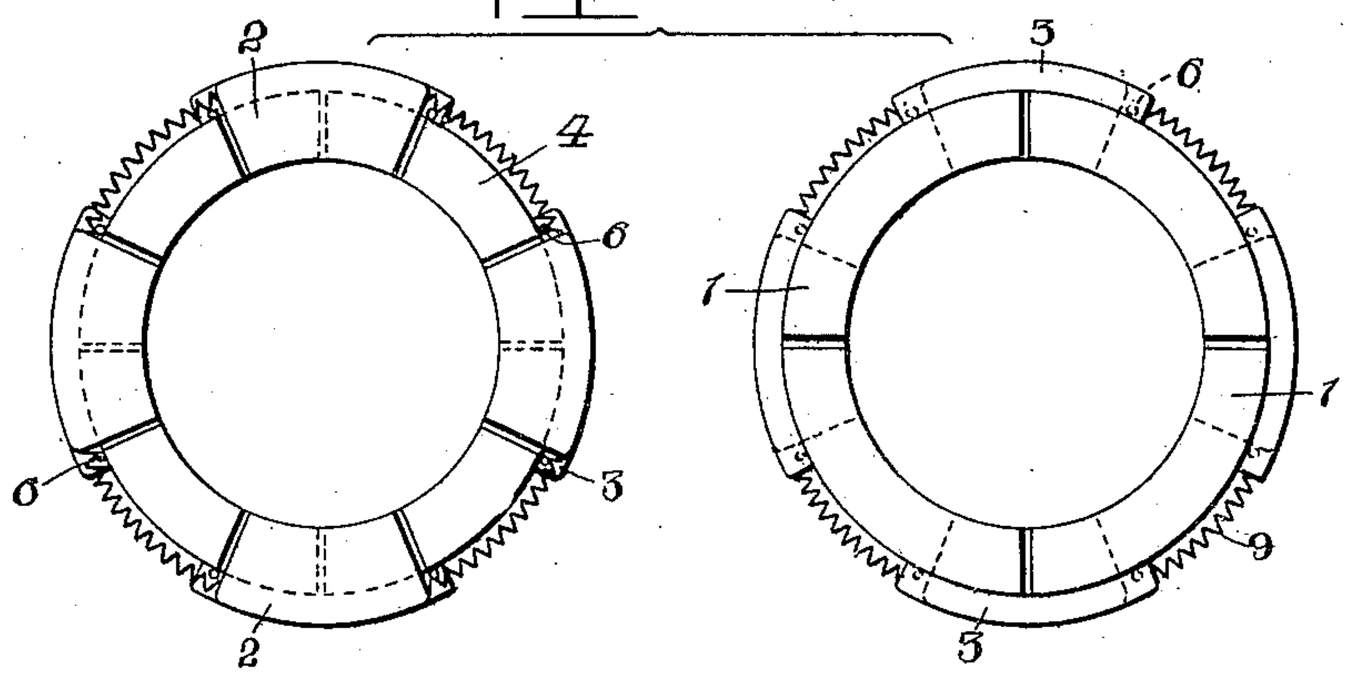


Fig. 5.

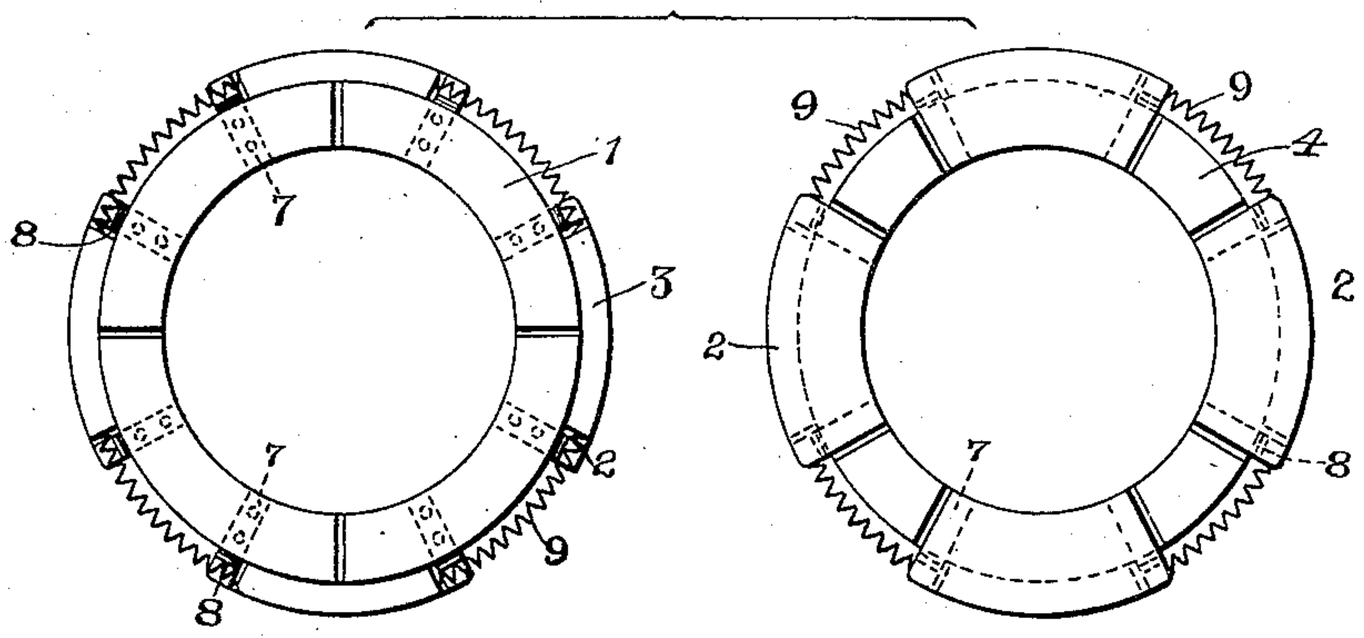
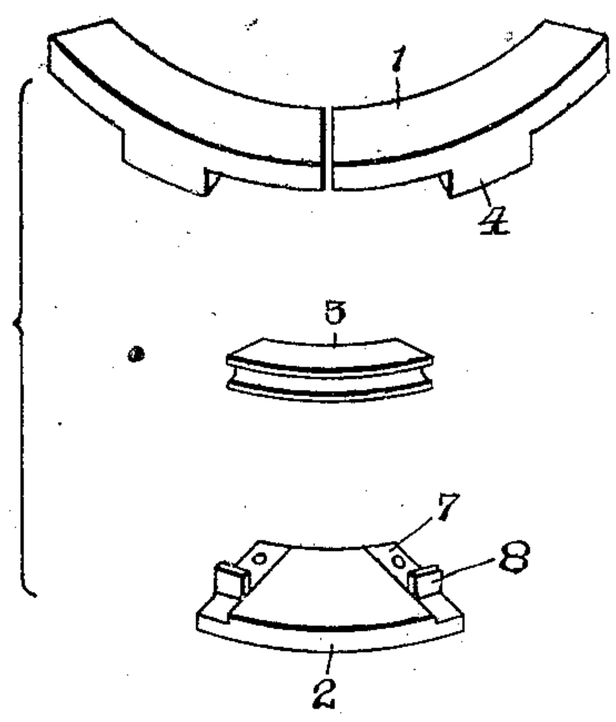


Fig. 6.



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UNITED STATES PATENT OFFICE.

LOUIS H. MARTELL, OF ELLWOOD CITY, PENNSYLVANIA.

PACKING FOR PISTON-RODS.

No. 863,196. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed December 22, 1905. Serial No. 292,975.

To all whom it may concern:

Be it known that I, LOUIS HENRY MARTELL, residing at Ellwood City, in the county of Lawrence and State of Pennsylvania, a citizen of the United States, have invented or discovered certain new and useful Improvements in Packing for Piston-Rods, of which improvements the following is a specification.

The invention described herein relates to certain improvements in sectional packing for piston rods. In some forms of sectional packing cap sections are employed to cover the peripheral spaces between the ends of the main ring sections, and heretofore it has been customary to prevent these caps from creeping around out of position by radial pins passing through the caps and projecting between adjacent ends of the main sections. The insertion of these radial pins reduces the transverse strength of the caps and is therefore objectionable.

The present invention has for its object a construction in which the pins or holding abutments are so attached or secured to parts of the packing as not to weaken any parts subjected to strain. The invention is hereinafter more fully described and claimed.

In the accompanying drawings forming a part of this specification, Figure 1 is a sectional view of a piston rod and stuffing box having my improved packing rings arranged therein; Fig. 2 shows views of opposite sides of a form of my improvement; Fig. 3 shows in perspective different parts of members of the packing shown in Fig. 2; Fig. 4 presents views of opposite sides of another form of my improvement; Fig. 5 shows similar views of a further modification, and Fig. 6 shows in perspective the different parts of the construction shown in Fig. 5.

My improved packing ring consists of two or more main ring sections 1, two or more side pieces 2 overlapping the adjacent ends of the main sections, and cap sections 3 arranged around the peripheries of the main sections and covering the peripheral spaces between adjacent ends of the main sections. The main sections are provided with shoulders or projections 4, between which the side pieces are arranged when the sections 1 are placed in operative position, said shoulders are so spaced that the main sections can be contracted but will prevent any such movement of the side pieces on the main sections as will uncover the spaces between the main sections. The shoulders or abutments 4 may be riveted, or otherwise secured, to the main sections or may be formed integral therewith, as shown in Figs. 3 and 6. The cap sections are arranged on the peripheries of the main sections and rest upon the side pieces, which are made sufficiently wider than the main sections to overlap the caps. These covering parts, *i. e.*, the side pieces and caps, are made of such lengths relative to each other, that one will project beyond the other outside of the periphery of the main sections. As for example in Fig. 2 the side covering pieces 2 are made of such a length as to project beyond the ends of the caps, which are held from creeping by pins 5 secured to the projecting portions of the side pieces adjacent to the ends of the caps. In Fig. 4 the caps are made longer than the side pieces and the pins 6 secured in such extensions project alongside of the side pieces.

In Fig. 6 radial strips 7 are secured in recesses in one side of the pieces 2 at or near the ends thereof and the outer ends 8 of these strips are bent so as to extend across the ends of the caps 3, the side covering pieces being made longer than the caps.

The several parts of my improved packing ring are held together by a yielding ring 9, which is held in position laterally by grooves in the peripheries of the caps. These rings are arranged in grooves in cases or cages 10 adapted to fit in the stuffing box 11. While the cage or case may be held in the stuffing box as shown in Fig. 1, it is preferred that it should be constructed and held in position as described and claimed in application, Serial No. 292974, filed December 22nd 1905.

As shown the shoulders 4 extend to the inner periphery of the main sections and consequently increase the bearing surfaces of said sections.

I claim herein as my invention:

1. A packing for piston rods having in combination two or more main ring sections, a series of two or more side covering pieces and a series of two or more peripheral covering pieces or caps, the parts of one of the covering series having a greater length than the parts of the other series, and provided with projections extending across the ends of the series of shorter parts.

2. A packing for piston rods having in combination two or more main ring sections provided on their sides with abutments extending to the inner peripheries or edges of the sections, a series of two or more side covering pieces arranged on the main sections between the abutments and a series of two or more peripheral covering pieces or caps.

In testimony whereof, I have hereunto set my hand.

LOUIS H. MARTELL.

Witnesses:
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J. C. MCCORMICK, Jr.