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A. D. BAILEY

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PACKING RING

Filed Nov. 24, 1930

Fig. 1.

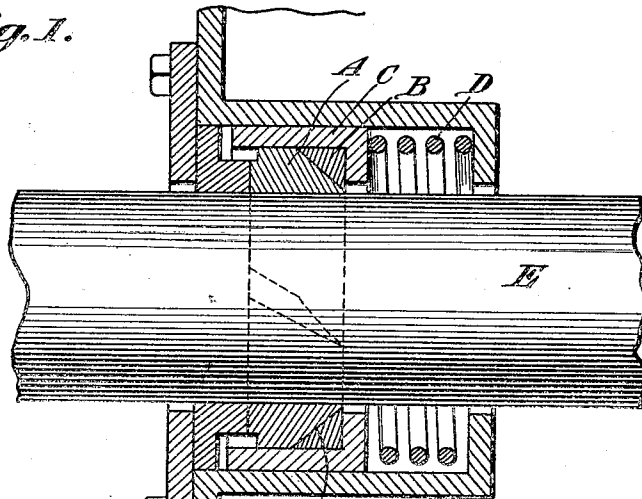


Fig. 2.



Fig. 4.

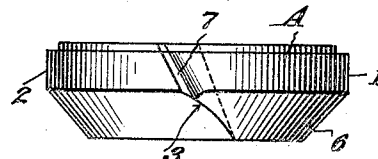


Fig. 5.

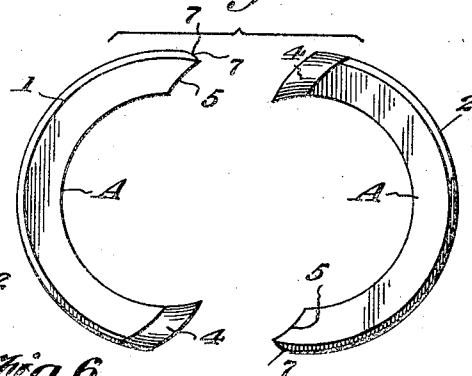


Fig. 3.

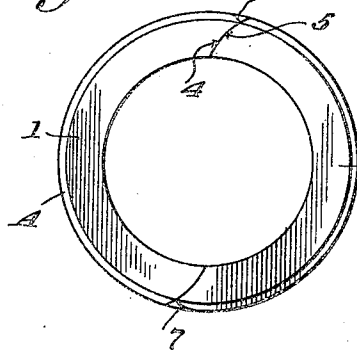


Fig. 6.



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PACKING RING

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This invention relates to a packing ring which is mainly designed for use in glands for the piston rods of locomotives, but which, of course, can be used for other purposes, the general object of the invention being to form the ring in two sections, with the ends of the sections of substantially spiral form, one end being concaved and the opposing end convex, whereby the ends of the sections will slide one upon another as the wear takes place in the ring, so that the ring will continue to engage the rod in a manner to prevent leakage even after the ring has become worn to a suitable extent.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view through a gland provided with the improved ring.

Figure 2 is a view looking toward the beveled end of the ring.

Figure 3 is a view looking toward the flat end of the ring.

Figure 4 is a side view of the ring.

Figure 5 is a view with the sections separated.

Figure 6 is a detail view showing one of the concaved ends of the ring.

As shown in these views, the ring A is composed of the sections 1 and 2, the sections being separated by substantially spiral-shaped cuts 3. The end 4 of each section is convex and the opposite end 5 of each section is concaved, the convex end of one section contacting the concaved end of the other section. The surfaces formed by the concaved and convex ends presents a true sphere formation throughout their extent, so that a curvature exists in all directions and thus a universal action results therefrom, whereby the packing ring on its assembly accommodates the action of the piston rod, laterally, longi-

tudinally, and in every direction therefrom at all times during its working. The ring is formed with a beveled end 6 for engaging the beveled ring B of the cup C of the packing, a spring D in the gland pressing the cup and the ring B toward the ring A, thereby causing the ring B to act on the ring A so that the sections thereof will be kept in contact with the rod E in the usual manner. The other end of the ring A is substantially flat, as shown. That end of each section which is provided with the concaved extremity 5 is rounded off on its cylindrical part, as shown at 7, so that this end is of less width than the rest of the section so that these ends of the sections can move outwardly, as the diameter of the ring is reduced through wear, and the sections are moved inwardly, thus enabling movement of the sections in the cup without the cup interfering with such movement.

As will be seen, as the ring wears, the pressure of the beveled face of the ring B against the beveled face 6 of the ring A will cause the sections 1 and 2 to move inwardly to take up the wear and during this movement, the spiral ends of the sections will slide one upon another and thus the packing ring will be tightly held against the rod. The spiral formations of the ends of the sections and the concaved ends being engaged by the convex ends, will form tight joints between the ends of the sections.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A packing ring of the class described formed of a number of sections, the sections being separated by substantially spiral cuts, one end of each section being of convex shape and the opposite end of concaved shape, the concaved end of one section engaging the convex end of the other section, the meeting surfaces at the cuts having the convexed and

concaved shape being of spherical conformation to effect universal action between the sections, the ends of the sections which terminate in the concaved portions having their outer edges reduced.

5 2. A packing ring of the class described formed of a number of sections, the sections being separated by substantially spiral cuts, one end of each section being of convex shape and the opposite end of concaved shape, the
10 concaved end of one section engaging the convex end of the other section, the meeting surfaces at the cuts having the convexed and concaved shape being of spherical conformation to effect universal action between the sections.

15 3. A packing ring of the class described having one end bevelled and the ring being composed of two sections, each section being formed with substantially spiral shaped ends,
20 one end being concaved and the other convex, with the concaved end of one section contacting a convex end of the other section, the meeting surfaces at the ends having the convexed and concaved shape being of spherical conformation to effect universal action between the sections.

In testimony whereof I affix my signature.
ADELBERT D. BAILEY.

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