(No Model.)

E. L. RAYNSFORD.

METALLIC PACKING.

No. 581,138. Patented Apr. 20, 1897.

Fig. 1.

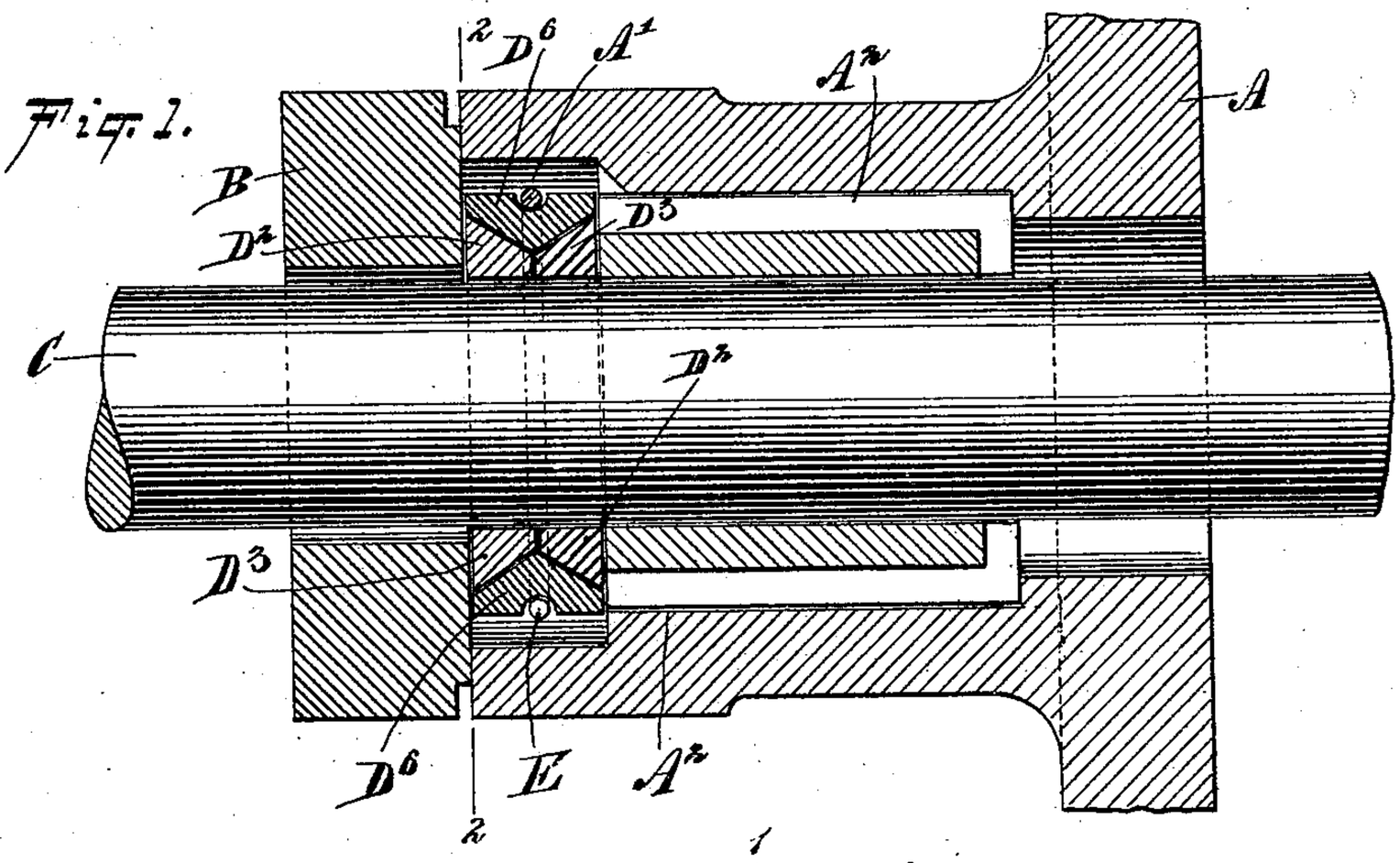


Fig. 2.

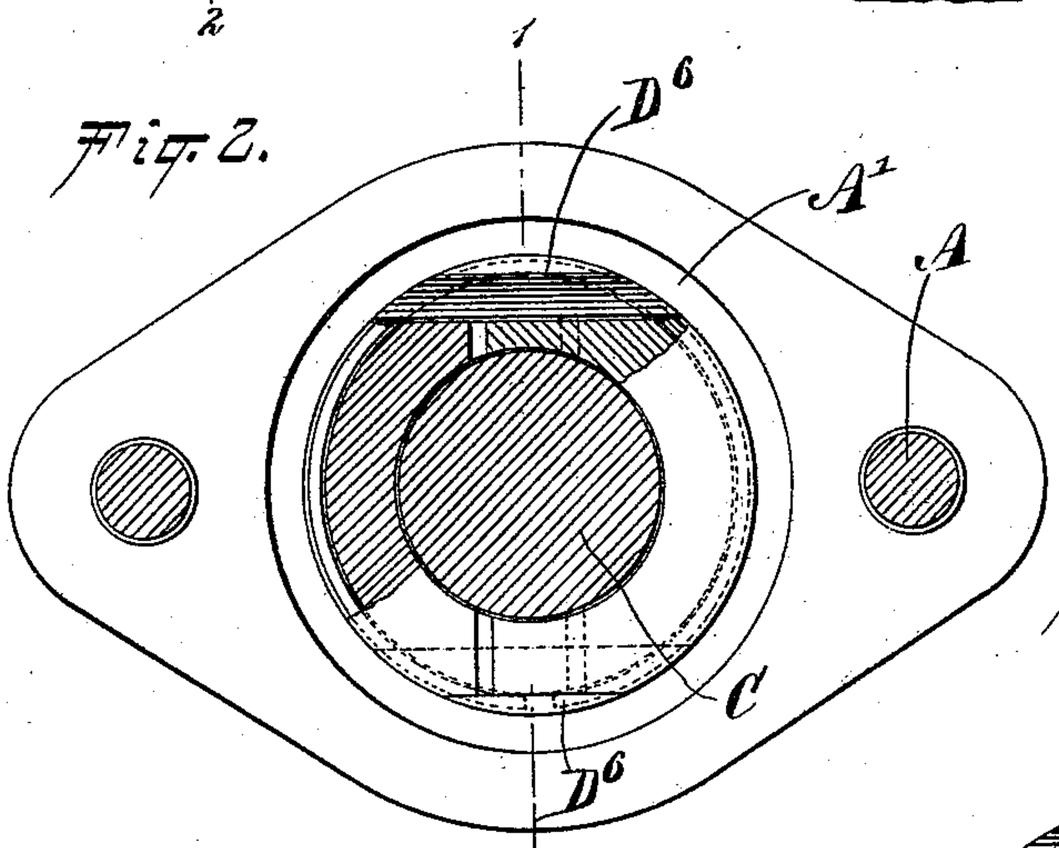


Fig. 6.

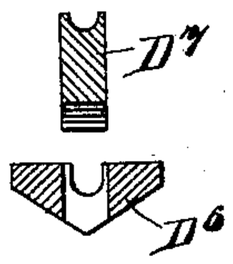


Fig. 3.

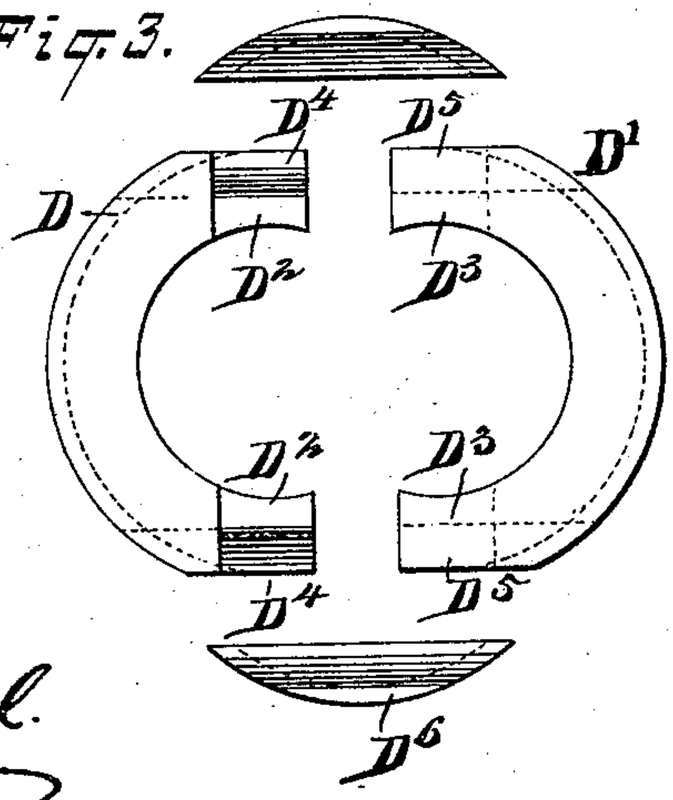


Fig. 5.

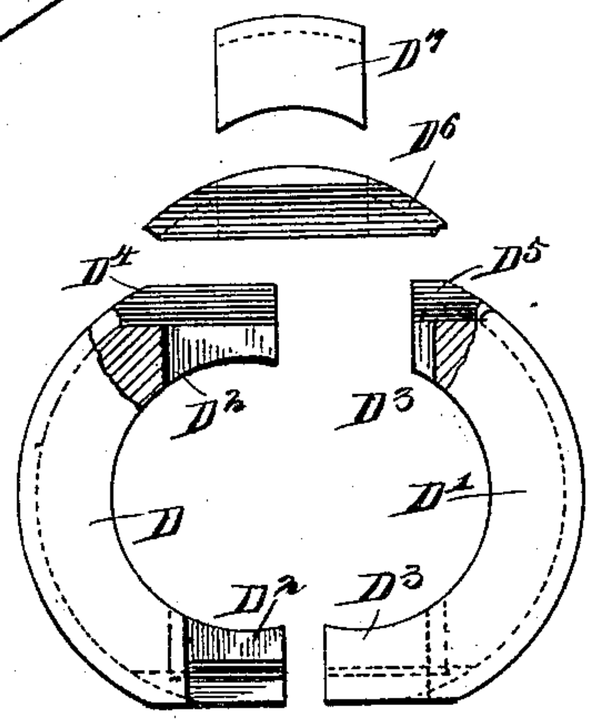
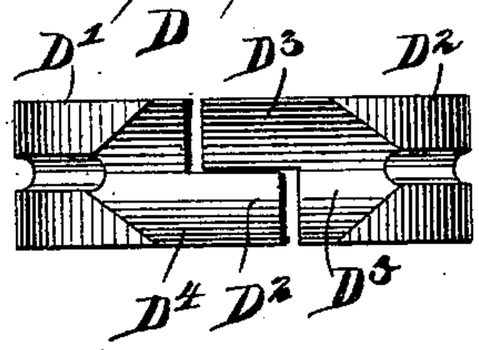


Fig. 4.



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EDWARD L. RAYNSFORD, OF SUSQUEHANNA, PENNSYLVANIA.

METALLIC PACKING.

SPECIFICATION forming part of Letters Patent No. 581,138, dated April 20, 1897.

Application filed June 12, 1896. Serial No. 595,273. (No model.)

To all whom it may concern:

Be it known that I, EDWARD LATHROP RAYNSFORD, of Susquehanna, in the county of Susquehanna and State of Pennsylvania, have invented a new and Improved Metallic Packing, of which the following is a full, clear, and exact description.

The invention relates to metallic packings, such as shown and described in the Letters Patent of the United States, Nos. 542,106 and 553,738, granted to me July 2, 1895, and January 28, 1896, respectively.

The object of the present invention is to provide a new and improved metallic packing designed for use on piston and valve rods, piston slide-valves, and other machine parts and devices, the packing being arranged to prevent all leakage and readily compensate for any wear of the parts, to insure at all times a perfect joint.

The invention consists principally of a sectional ring having overlapping joints and formed on its periphery with a recess transverse to the axis of the ring and extending over the overlapping joint and a segmental block fitted into the said recess to cover the said joint.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation, on the line 1 1 of Fig. 2, of the improvement as applied on the piston-rod. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1, the packing-ring being partly broken away. Fig. 3 is a side elevation of the improvement with the several parts separated. Fig. 4 is a plan view of the ring, the segmental block being removed. Fig. 5 is a side elevation of a modified form of the improvement, the several parts being shown separated; and Fig. 6 is a transverse section of the two blocks employed.

A metallic packing, as illustrated in Figs. 1 and 2, is applied on a cylinder-head A, formed in its outer end with a chamber A′, from which lead ports A^2 to the inside of the cylinder to permit steam or other fluid to pass through the said ports into the chamber A′. The outer end of the chamber is closed by a plate B, fastened by bolts or other means to the head A and through which passes the piston-rod C to be packed by the metallic packing.

In the chamber A′ is arranged the packing, provided with a metallic ring-head in two sections D and D′ and having a bore through which passes the piston-rod C. The ends of the sections D and D′ are formed with tongues or projections D^2 and D^3, respectively adapted to overlap one the other laterally, as plainly indicated in Fig. 4.

In sections D and D′ are formed recesses D^4 and D^5, extending transversely to the axis of the ring-sections and over the projections D^2 and D^3, the said recesses being V-shaped in cross-section, as plainly indicated in Fig. 1.

Into each pair of the registering recesses D^4 and D^5 fits a block D^6, the outer surface of which is segmental, the segment corresponding to the cut-out portion of the ring-sections, so that when the several parts are assembled a complete ring is produced with the under V-shaped surface of each block covering the joint between the ends of the sections D and D′.

It will be seen that the sections D and D′ break joints, and the joint thus produced is covered by the corresponding block D^6, so that no leakage whatever can take place at the joints. If desired, a block D^7 (see Figs. 5 and 6) may be fitted to slide radially in each block D^6 to engage with its inner end recesses cut out in the projections or tongues D^2 and D^3, so that the joint between the projections or tongues is broken to doubly secure against leakage. This block D^7 is similar to the block F, shown and described in Letters Patent No. 553,738, above referred to.

A band or a ring E, of wire or other suitable material, is passed around the peripheral surface of the packing-ring, preferably in a small groove formed in the said periphery, to securely hold the several parts of the packing in place.

It is understood that when the device is applied and steam presses on the packing-ring the sections of the ring are firmly brought in contact with the piston-rod C and with the

plate B to prevent all leakage of the steam or other fluid passing into the chamber A'.

It is understood that when the packing-ring is applied on piston slide-valves and other machine parts and devices the form of the ring is made according to that of the devices on which the packing is to be applied.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A metallic packing, comprising a sectional ring having overlapping projections, and formed on its periphery with recesses extending transverse to the axis of the ring and over the joints formed by the overlapping projections, and a segmental block fitted in the said recesses to cover the said joint, substantially as shown and described.

2. A metallic packing, comprising a sectional ring having overlapping projections, and formed on its periphery with recesses extending transverse to the axis of the ring and over the joints formed by the overlapping projections, and a segmental block fitted in the said recesses to cover the said joint, the under side of the said segmental block being V-shaped to fit into the correspondingly-shaped sides of the recesses, substantially as shown and described.

3. A metallic packing-ring, comprising a ring made in sections formed at their ends with projections or tongues overlapping each other to form a joint, a V-shaped groove and recess formed in the ring transversely of the axis and over the said joint, a segmental block having its under side beveled to fit into the said recess to cover the joint, and a block fitted to slide in the segmental block and arranged radially and passing through recesses in the said projections, substantially as shown and described.

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