

(No Model.)

E. L. RAYNSFORD.
METALLIC PACKING.

No. 542,106.

Patented July 2, 1895.

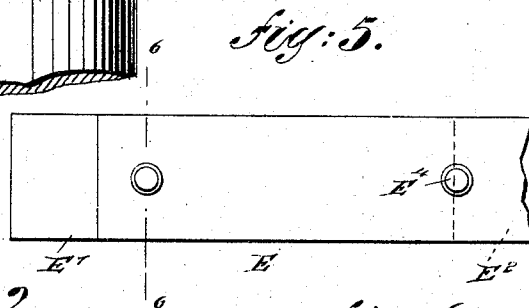
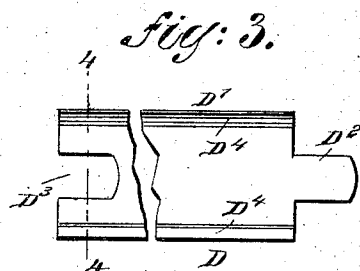
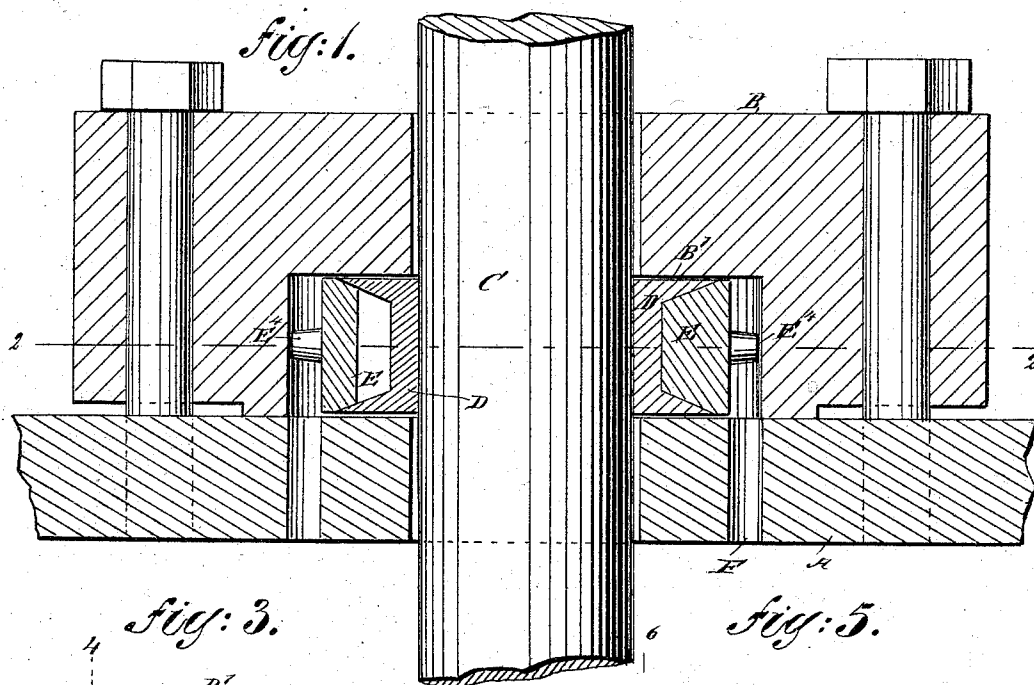
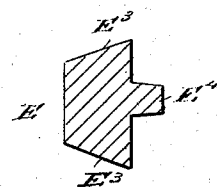
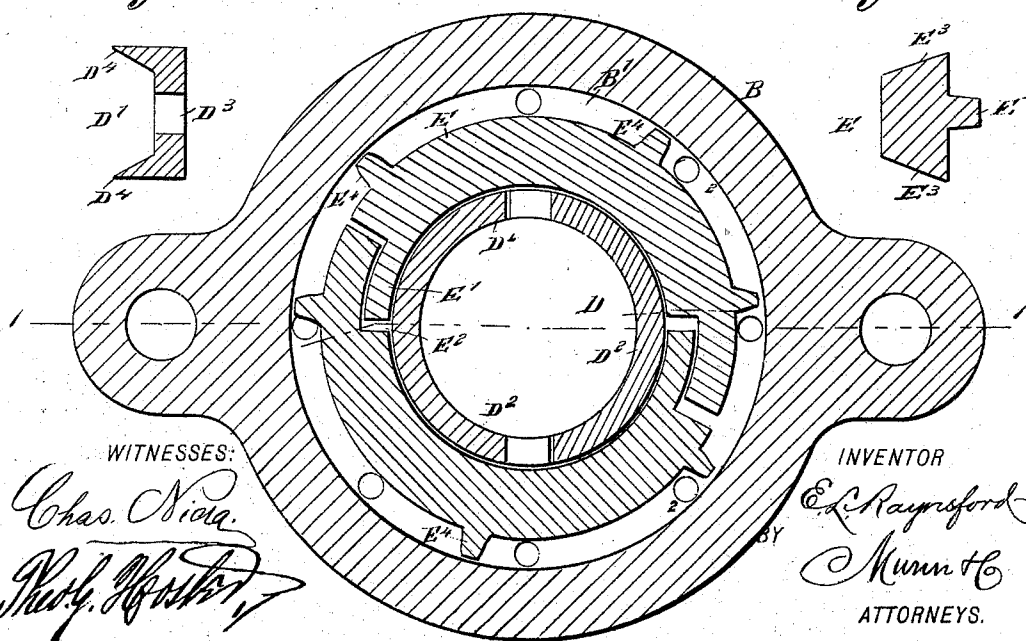
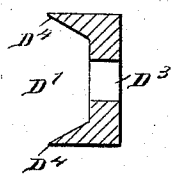


Fig. 4.

Fig. 2.

Fig. 6.



WITNESSES:

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METALLIC PACKING.

SPECIFICATION forming part of Letters Patent No. 542,106, dated July 2, 1895.

Application filed February 20, 1895. Serial No. 539,107. (No model.)

To all whom it may concern:

Be it known that I, EDWARD L. 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 object of the invention is to provide a new and improved metallic packing which is comparatively simple and durable in construction, very effective in operation, and arranged to form at all times a secure packing between joints and without the use of springs.

The invention 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 letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional plan view of the improvement on the line 1 1 of Fig. 2 and as applied on a piston-rod. Fig. 2 is a sectional side elevation of the same on the line 2 2 of Fig. 1. Fig. 3 is a plan view of one of the sections of the inner packing-ring. Fig. 4 is a cross-section of the same on the line 4 4 of Fig. 3. Fig. 5 is a plan view of a section of the outer packing-ring, and Fig. 6 is a cross-section of the same on the line 6 6 of Fig. 5.

As illustrated in Fig. 1, the cylinder-head A is provided with a gland B, secured by bolts or other means on the said head, and through which passes the piston-rod C to be packed. On the inner face of the gland B is formed an annular chamber B', surrounding the piston-rod C and containing a packing composed of an inner ring D and an outer ring E, fitted onto the said inner ring, as hereinafter more fully described.

The inner ring D is made in sections D', preferably two in number and each formed at one end with a tongue D², engaging a recess D³, formed in the end of the adjacent section. Each section D' is also provided with beveled sides D⁴, as is plainly illustrated in Fig. 4, to receive the beveled sides of the sections of the outer ring E, each section of this ring E being formed at one end with a tongue E', fit-

ting into an under-cut E² in the end of the next adjacent section. (See Fig. 2.)

The beveled sides E³ of the outer ring E fit onto the beveled sides D⁴ of the ring D, as previously mentioned, and each section of the outer ring E is provided on its periphery with lugs E⁴, extending to the inner peripheral wall of the chamber B'. Between the periphery of the outer ring E and the peripheral wall of the chamber B' is formed sufficient space for the entrance of steam under pressure, passing from the interior of the cylinders through ports F in the head A to the said spaces to press the sections of the outer ring in firm contact with the sections of the inner ring, so that the latter is firmly pressed in contact with the piston-rod C, and consequently the latter is packed.

The joints between the sections of the inner and outer rings are so arranged relative to each other as to break joints, as will be readily understood by reference to Fig. 2, so as to prevent escape of pressure. It will further be seen that by providing the inner packing-ring D with beveled sides, pressed on by the beveled sides of the outer ring E, a firm joint is established between the packing and the front wall of the chamber B', so that steam cannot leak out in the opening of the gland B for the rod C.

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

1. A metallic packing, comprising an inner ring provided with an annular groove having inwardly beveled sides, and an outer ring having inwardly beveled sides and fitting in the groove of the inner ring, substantially as described.

2. A metallic packing, comprising an inner ring provided with an annular groove having beveled sides and an outer ring provided with lugs on its periphery and having its sides beveled to fit in the groove of the inner ring, substantially as described.

3. A metallic packing, comprising an inner ring formed in sections, each section provided with a groove in its periphery, said groove having beveled sides, and with a tongue at one end and a recess at the other, and an outer

ring formed in sections, each section being provided with lugs projecting from its periphery and with a tongue at one end and a rabbet at the other, substantially as herein shown

5 and described.

4. A metallic packing, comprising a gland formed with a chamber in communication with a pressure supply, two sectional packing rings held in the said chamber and one fitting

upon the other, the outer packing ring being provided with lugs extending to the peripheral wall of the said chamber, substantially as shown and described.

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Witnesses:

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