No. 754,065. PATENTED MAR. 8, 1904.

J. HODGE.

ROD PACKING.

APPLICATION FILED JAN. 8, 1904.

NO MODEL.

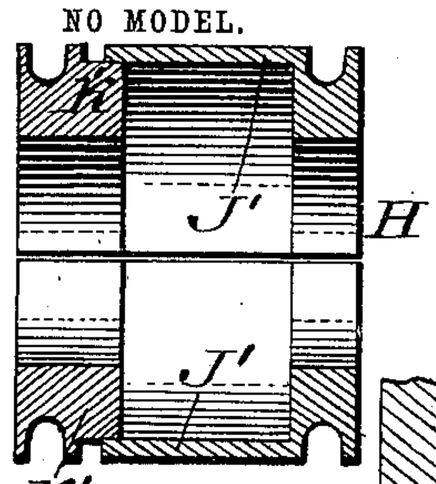


Fig. 6.

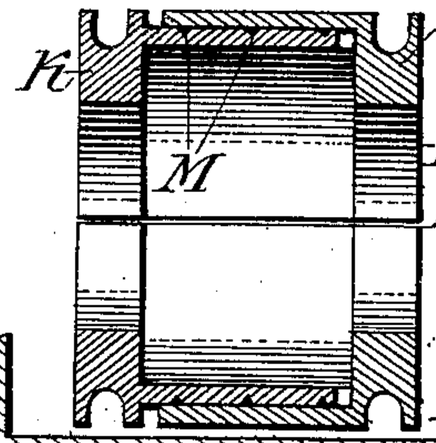


Fig. 5.

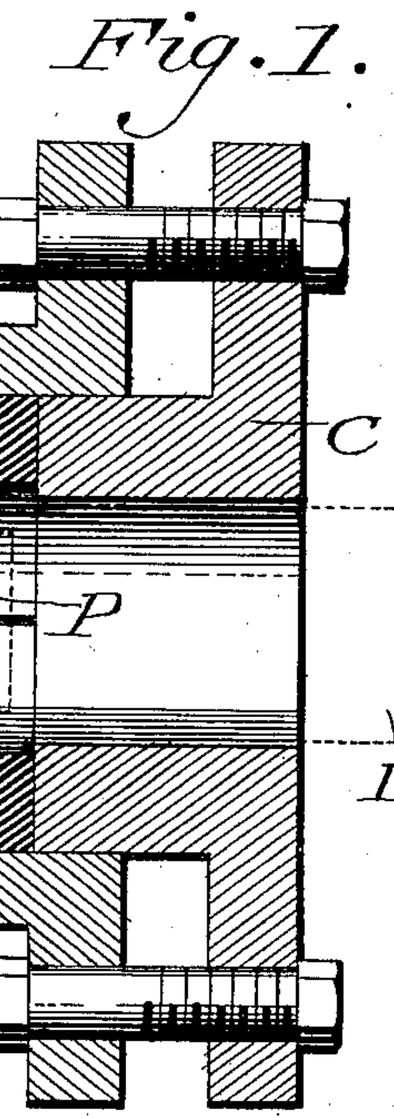
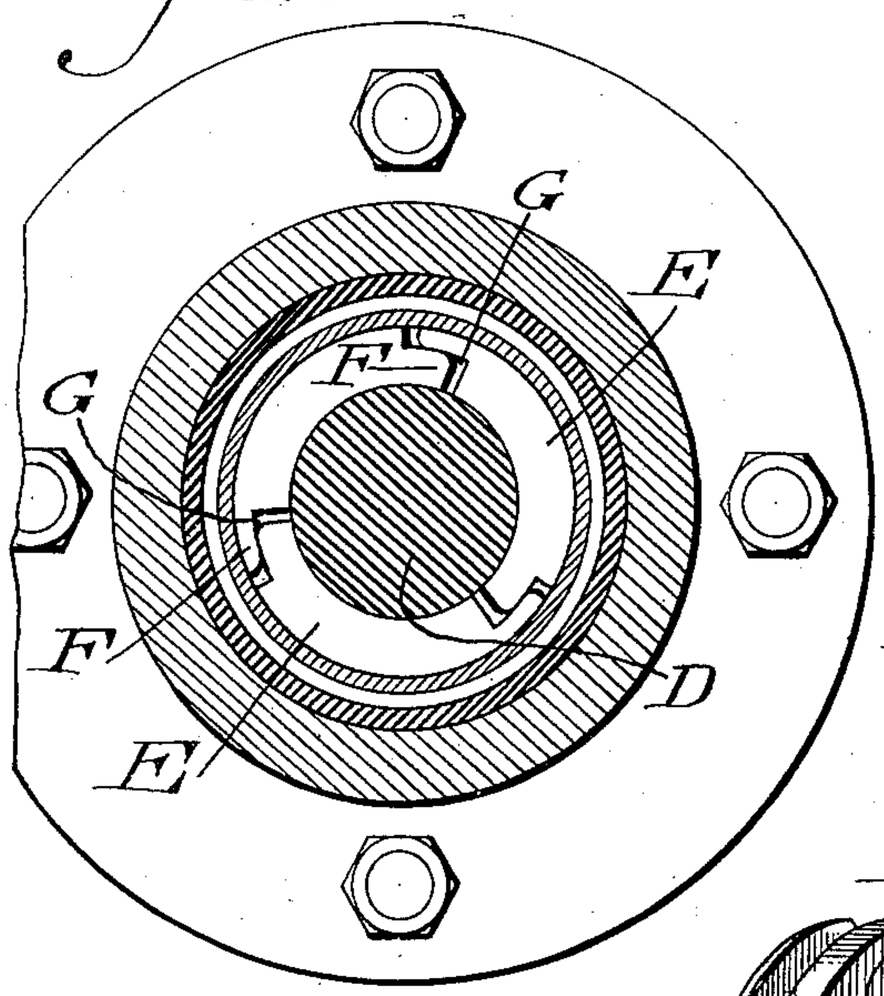


Fig. 1.

Fig. 2.



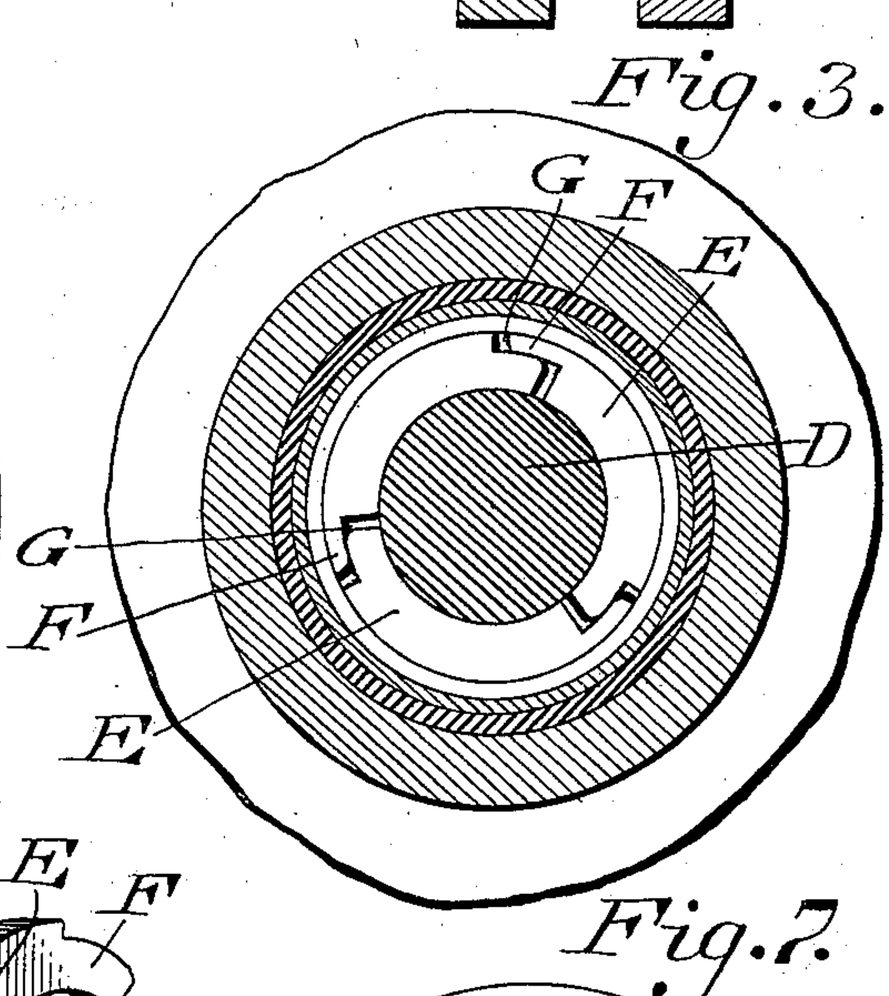


Fig. 3.

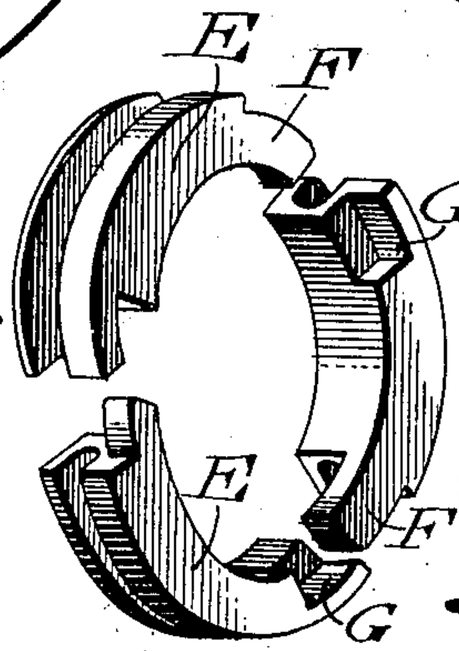


Fig. 4.

Fig. 7.

Witnesses

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No. 754,065. Patented March 8, 1904.

UNITED STATES PATENT OFFICE.

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ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 754,065, dated March 8, 1904.

Application filed January 8, 1904. Serial No. 188,181. (No model.)

To all whom it may concern:

Be it known that I, JOHN HODGE, a citizen of the United States, residing at Chester, in the county of Delaware, State of Pennsylvania, have invented a new and useful Improvement in Rod-Packing, of which the following is a specification.

My invention consists of an improved metallic packing for piston-rods and the like, as will be hereinafter fully described and claimed.

Figure 1 represents a central longitudinal sectional view of a metallic packing embodying my invention. (Shown in dotted lines.) Fig. 2 represents a sectional view on line *x x*, Fig. 1. Fig. 3 represents a sectional view on line *y y*, Fig. 1. Fig. 4 represents a perspective view of a portion of a packing employed. Fig. 5 represents a sectional view of a casing employed. Fig. 6 represents a perspective view of a casing in slightly different form from that shown in Fig. 5. Fig. 7 represents a perspective view of a portion of a packing-ring, which may be employed, if desired.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a head of the cylinder; B, a stuffing-box; C, the gland therefor, and D a piston-rod, said parts being of the usual construction.

My invention is applicable more especially to metallic packing, consisting of the rings E, which are made in section, and one side of each of which is provided with the lap-joints, the same being formed by a projection F on one section of the ring, adapted to be seated in a corresponding recess G in the face of the adjacent section thereof, it being seen from Fig. 4 that the said lap-joints are all on one side of a ring, the said sections being held in position in any suitable manner—in the present instance by the springs F, which are seated in a suitable recess in the periphery of the ring for that purpose. The rings are inclosed within a casing H, formed of the two members J and K, the latter fitting within the former and both of the same being split and being held together by means of the springs L, situated in suitable grooves provided therefor, the said members fitting or telescoping within each other forming steam-joints between their interfitting sides, while the member K in the present instance is provided with the peripheral grooves M, designed to catch the water of condensation that may leak through, and thus aid in maintaining the steam-joint between the telescoping sides of said members. The width of the interior of the casing is preferably formed to receive two rings, and the same are placed therein with the overlapping joints placed at the outer ends of the casing.

N designates a box which is longitudinally divided to receive the rings and may be secured together in any suitable manner, in the present instance by means of screws P, said box having suitable end pieces and an inner flange Q about midway between its ends, the latter being employed when more than one set of rings are inclosed therein, it being understood that the said box fits within the stuffing-box B, and any suitable means may be employed to insure a tight joint between said box and the stuffing-box, gland, &c. The rings E fit within the member K in such a way that they form therewith a steam-joint, and the casing H fits within the box between one end thereon and the rib Q. In Fig. 1 two casings, with their rings, are shown in position in the box N. In this way steam-joints are not only formed between the box G and the surrounding members, but also between the adjacent faces of the box N and the casings H, as well as between the members of said casing themselves and also by means of the rings, the overlapping joints being at the outer ends, forming a complete and positive prevention for the pressure from the cylinder from reaching the outer periphery of said rings.

In Fig. 6 I have shown a casing H′, similar to the one shown in Fig. 5; but in this instance the diameter of the rings correspond to the size of the interior of the outer member J′, as the other member, K′, extends but a slight distance within said member J′ and the overlapping joints of the rings abut against the edge of the member K′.

In Fig. 7 I have shown what is known as a

T-ring, on each side of which are overlapping joints, and this is made of such size as to fill the interior of the casing H; but in this instance the overlapping joints will be situated at the outer extremities of the said casing.

It will be seen from the foregoing that the casing and the overlapping joints of the rings being situated at the extremities of said casing prevent the steam-pressure from the boiler from acting upon the outside peripheries of the packing-rings, thereby reducing the friction between the rings and the rods and also prolonging the life of the rings.

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

1. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding the same upon said rod and means containing said rings for preventing the pressure from the cylinder from reaching the outer peripheries of said rings, the overlapping joints of the latter being placed at the outer ends of said last-mentioned means.

2. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding the same upon said rod and means containing said rings for preventing the pressure from the cylinder from reaching the outer peripheries of said rings, the overlapping joints of the latter being situated at the extremities of said last-mentioned means.

3. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding the same upon said rod and a casing for said rings, the overlapping joints of the latter being situated at the extremities of said casing.

4. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding the same upon said rod and a split casing containing said rings, the overlapping joints of the latter being situated at the outer extremities of said casing and means for holding said split casing in assembled position.

5. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding the same upon said rod, a casing consisting of interfitting members, containing said rings for preventing the pressure from said cylinder from reaching the outer periphery of said rings, the overlapping joints of the latter means situated at the extremities of said interfitting members.

6. In a metallic packing in combination with a stuffing-box, a box situated therein, a casing fitting within said box and consisting of interfitting members, a packing-ring within said casing having overlapping joints which are situated at the extremities of said casing.

7. In a metallic packing, a rod, a packing-ring having overlapping joints, means containing said ring to prevent pressure from the cylinder from reaching the outer periphery of said ring, the overlapping joints of the latter being placed at the outer extremities of said last-mentioned means.

8. In a metallic packing, a casing consisting of interfitting sections, one of said sections having a circumferential groove on the face thereof and contacting with the other section, and a packing-ring having overlapping joints situated within said casing with the said joints at the outer extremities of said casing.

9. In a metallic packing, a rod, packing-rings having overlapping joints, means for holding same upon said rod, split means for preventing the pressure from the cylinder from reaching the outer periphery of said rings, the overlapping joints of the latter being situated at the outer extremities of said split means and an inclosing box for said parts.

JOHN HODGE.

Witnesses:
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