No. 632,583. Patented Sept. 5, 1899.

N. B. MILLER.

ROD PACKING.

(Application filed Apr. 10, 1899.)

(No Model.)

Fig. 1.

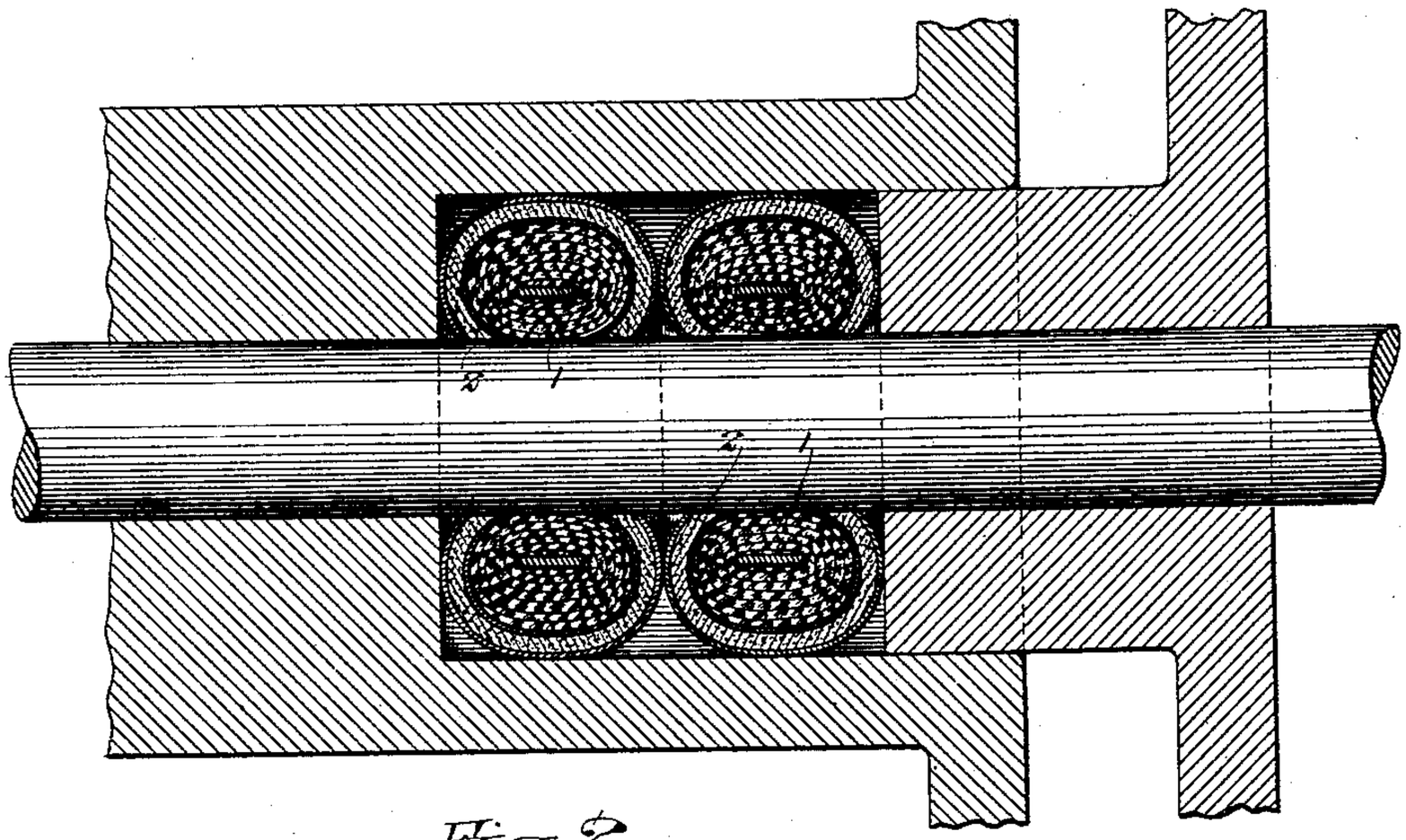


Fig. 2.

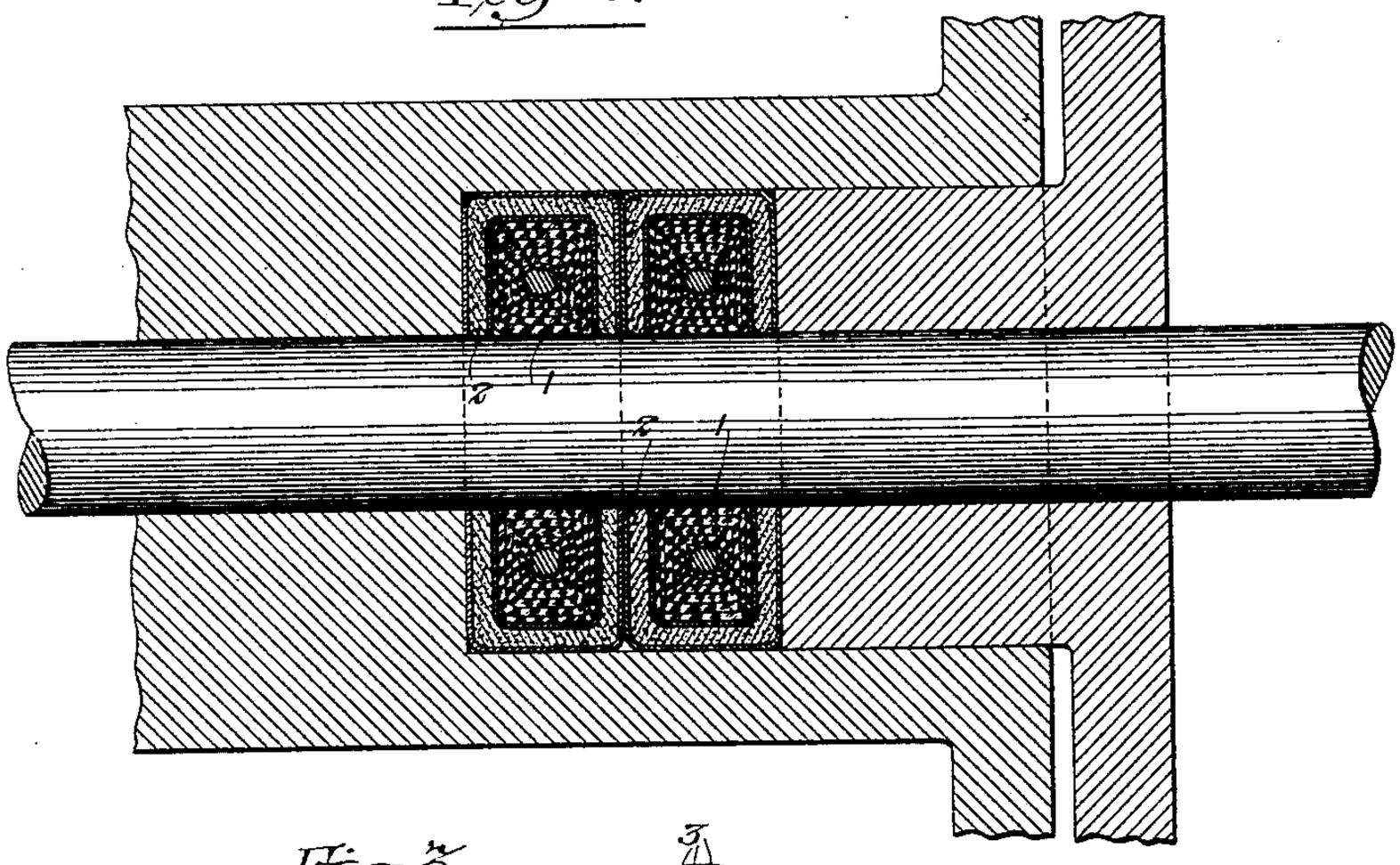
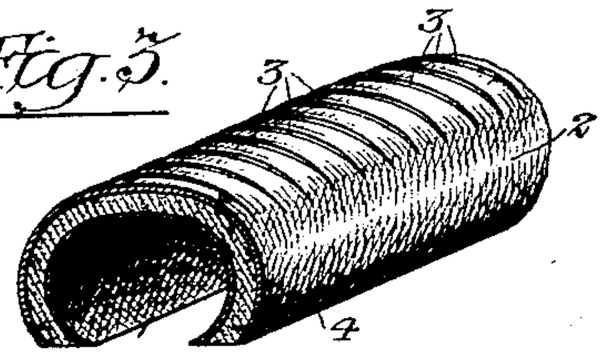


Fig. 3.



Witnesses:-
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UNITED STATES PATENT OFFICE.

NORMAN B. MILLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE JAMES SMITH & COMPANY, INCORPORATED, OF SAME PLACE AND CHARLESTON, WEST VIRGINIA.

ROD-PACKING.

SPECIFICATION forming part of Letters Patent No. 632,583, dated September 5, 1899.

Application filed April 10, 1899. Serial No. 712,528. (No model.)

To all whom it may concern:

Be it known that I, NORMAN B. MILLER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Rod-Packing, of which the following is a specification.

The object of my invention is to so construct a rod-packing as to increase the term of usefulness of the same, to better enable the packing to perform its duty of preventing the escape of steam or water along the rod, and to facilitate the removal of the packing from the stuffing-box when it becomes necessary to repack the latter. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 represents a view of part of a piston or valve rod with its stuffing-box and follower, the box containing packing constructed in accordance with my invention, said packing being uncompressed. Fig. 2 is a similar view showing the packing in the compressed condition, and Fig. 3 is a perspective view of a short piece of the casing of the packing.

The packing comprises an inner portion 1 and an outer casing 2, said inner portion of the packing being of any available character, that shown in the drawings being a braided fibrous packing having a central rectangular rubber core.

The outer casing consists of a segment of a tube, forming an arch, which incloses the inner portion of the packing on three sides and is composed of a central mass of textile fabric sheathed on both sides with rubber or other material impervious to moisture, fabric such as ordinary fire or garden hose being available for this purpose.

The outer casing may be applied to the inner portion of the packing either by bending the casing-strip around said inner portion and holding it in position by tying or otherwise until it is introduced into the stuffing-box, or the casing may be held in position on the inner portion of the packing by means of an outer braided covering, that portion of the said casing which comes into contact with the rod being worn away soon after the packing is put into use. In order to facilitate the bending of the casing around the rod, the back of said casing is incised, as shown at 3 in Fig. 3, so as to increase the flexibility of this portion of the casing and overcome its tendency to straighten out from the ring form. By reason of the fact that the edges of the casing bear firmly upon the rod said casing aids the inner portion of the packing in performing its proper duty, and as the casing is proof against the passage of liquids it protects the inner portion of the packing from injurious contact with such liquids, the elasticity of the casing, moreover, increasing the resiliency of the packing-ring and enabling a tight joint to be formed without excessive pressure upon the ring and without the necessity of frequent adjustment of the follower. The casing furthermore prevents the access of grit and scale from the sides of the stuffing-box to the inner fibrous portion of the packing, and it separates said fibrous portions one from another, so that they do not become packed together in a solid mass. Consequently the removal of worn packing from the stuffing-box can be effected more readily than usual when it becomes necessary to repack said box.

In order to prevent spreading or buckling of the inner portions of the arched casing when the same is bent into ring form around the rod, I find it advisable to form in these portions of the casing longitudinal incisions 4, which are preferably waved or corrugated, as shown in Fig. 3.

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

1. A rod-packing consisting of an inner mass of packing material and an elastic liquid-proof fibrous casing inclosing the same on three sides but open on the side toward the rod, and bearing against said rod, substantially as specified.

2. The within-described casing for a rod-packing, said casing consisting of a segment of a tube having external longitudinal inci-

sions, adjacent to its edges, substantially as specified.

3. The within-described casing for a rod-packing, said casing consisting of a segment of a tube having external waved or corrugated longitudinal incisions adjacent to its edges, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NORMAN B. MILLER.

Witnesses:

F. E. BECHTOLD,

JOS. H. KLEIN.