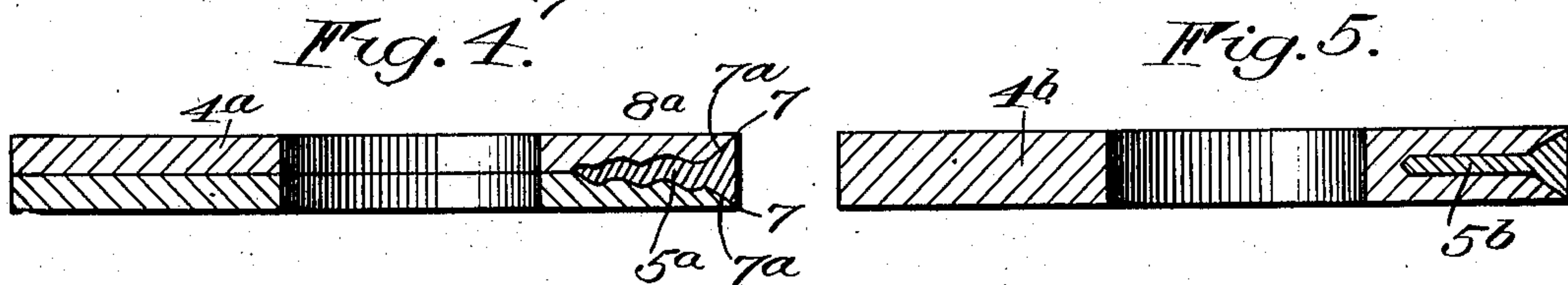
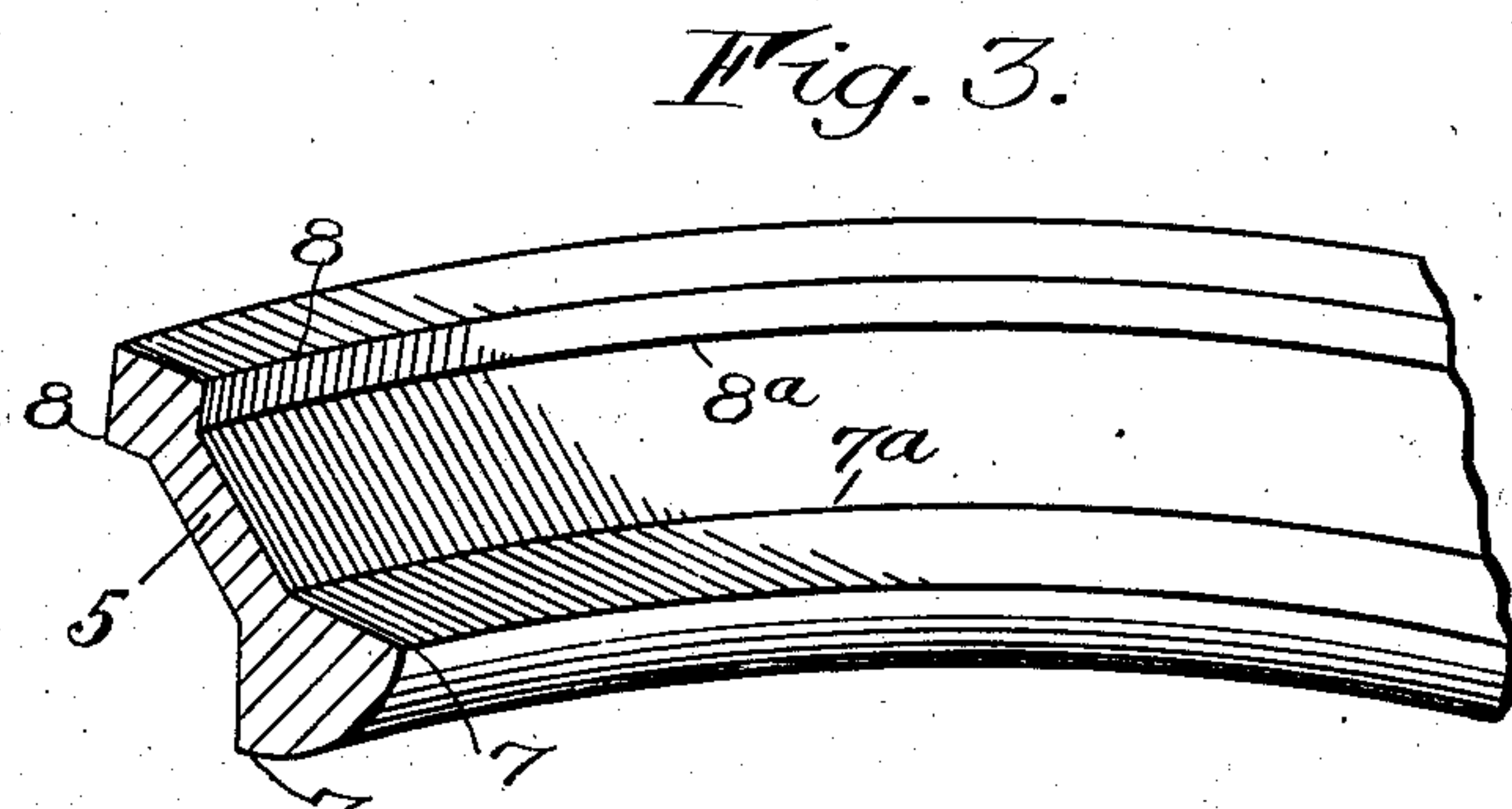
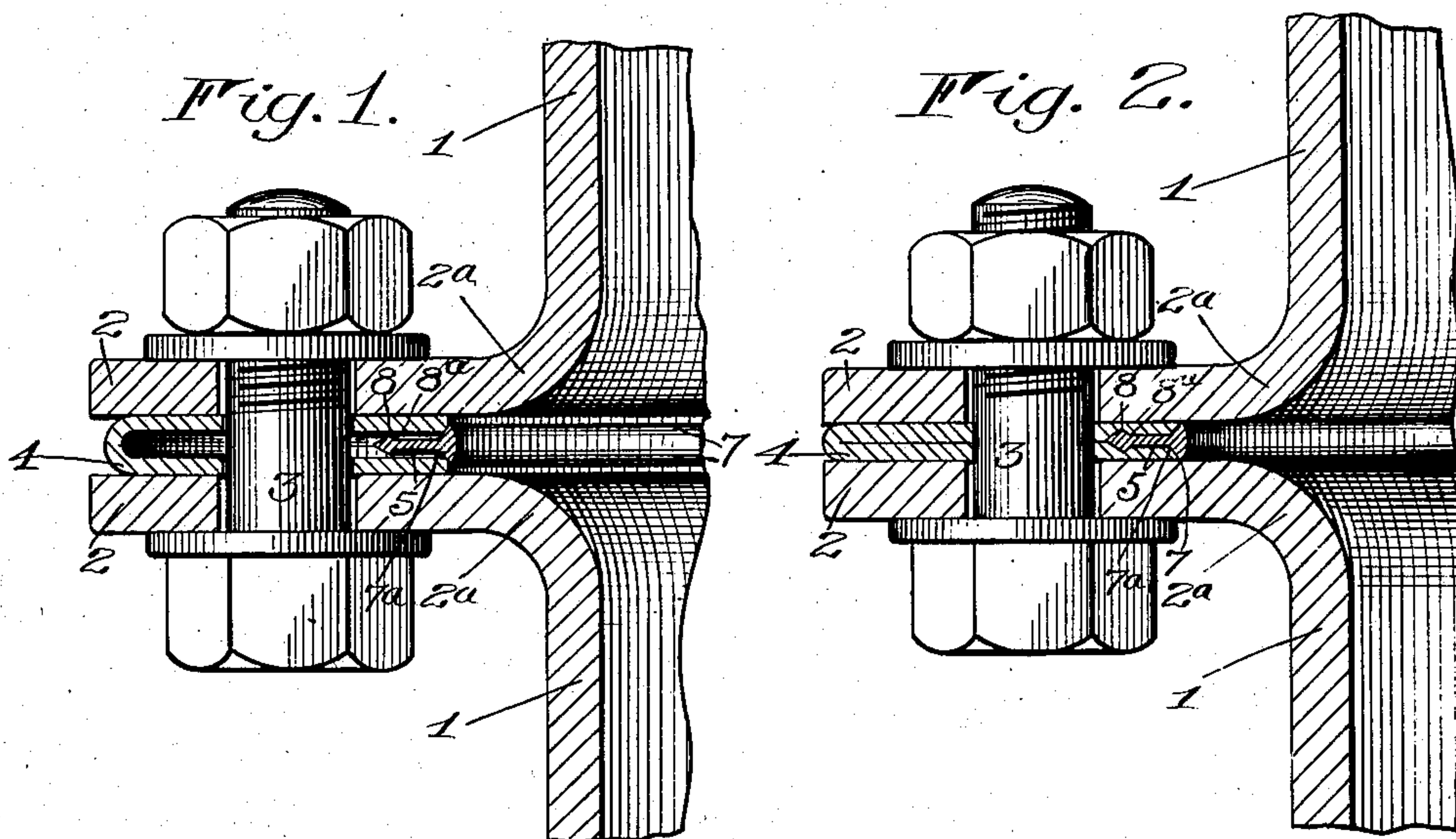


C. C. PUFFER.
PACKING.

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923,890.

Patented June 8, 1909.



Witnesses

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PACKING.

No. 923,890.

Specification of Letters Patent.

Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, CHARLES C. PUFFER, of Rochester, in the county of Monroe and State of New York, have invented certain
5 new and useful Improvements in Packing; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying
10 drawings, forming a part of this specification, and to the reference - numerals marked thereon.

The present invention relates to the packing of joints between sectional vessels such as large tanks or vats for beer or the like, and it
15 has for an object to provide for effectively covering the usual compressible sealing material on the interior of the vessel in such a manner that the collection of matter that would affect the contents of the vessel can-
20 not take place, and, at the same time a construction of covering is provided that will not retard the drawing of the sections together to compress the sealing material.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more
25 fully described, the novel features being pointed out in the claims at the end of the specification.

30 In the drawings: Figure 1 is a sectional view of portions of two tank sections and a packing therefor, prior to the compression of the latter; Fig. 2 is a like view showing the same packing compressed; Fig. 3 is a detail
35 perspective view of a portion of the covering for the inner edge of the sealing material; Fig. 4 is a sectional view of another embodiment of the packing in which the covering is of slightly different form and the compressi-
40 ble sealing material is made of two pieces instead of one folded piece, as shown in Figs. 1 and 2; and Fig. 5 shows an embodiment in which the covering has a portion embedded in one end of a solid piece of sealing material.

45 The usual covering for compressible sealing material of the type arranged between the sections of a vessel is so constructed that it interferes with the drawing of the sections together to compress the sealing material,
50 and, at the same time owing to the fact that the coverings are usually of metal with broad faces engaging the tank sections a tight joint is not obtained. These difficulties are overcome in the present embodiment
55 by providing a covering so constructed that

it does not interfere with the compression of the sealing material, and engages the sections in such a manner that a tight joint is possible. The vessel in this instance is made up of a plurality of sections in the form of
60 rings 1 which have laterally turned flanges 2 at their proximate edges connected to these rings by curved portions 2^a and held together in any suitable manner, such as bolts 3 passing through perforations in the flanges and
65 serving to draw the sections together; the inner surface of the sections being preferably lined with enamel or other material which is not liable to be attacked by the contents of the vessel.

70 Arranged between the sections or the flanges thereof is the packing which in this instance comprises a compressible sealing material preferably non-absorbent, like ebonite, and a covering portion for the inner
75 edge that does not retard the compression. In Figs. 1 and 2 the sealing material is in the form of a double strip 4, the turn of which is disposed outwardly and the free edges of which are covered by a metal strip, shown in
80 Fig. 3, consisting in this instance of a web 5 having oppositely extending covering flanges 7 at one edge providing the covering portion which is substantially equal in width to the width of the compressible sealing material
85 and retaining ribs 8 on the opposite sides near the other edge. The opposed walls of the flanges 7 and ribs 8 are inclined or converge toward their bases at 7^a and 8^a respectively, and the outer or contacting edges of
90 the flanges 7 are narrow or thin. When this form of packing is compressed by operating bolts 3 or by other means, the sealing material is held with great pressure about the outer edges of the covering or flanges 7,
95 which being very narrow do not permit the formation of any crevices which are not filled by the sealing material and the sealing material is practically covered toward the interior of the vessel. The inclined faces 7^a
100 and 8^a cause the sealing material to be compressed to a greater degree near its inner edge, while the flanges 8 prevent the covering slipping during the compression and also serve to anchor it during the building of the
105 vessel.

In Fig. 4 the sealing material is formed by two strips 4^a and the web 5^a is corrugated on opposite sides to provide retaining ribs 8^a, the flanges 7 being the same as in the other
110

embodiment and having their faces 7^a on the web side inclined to cause the compressible material to be forced about the edges of the covering. The effect of this embodiment is the same as that shown in Figs. 1 to 3 but owing to the different formation of the retaining ribs, the compression of the sealing material is not so great.

In Fig. 5 the sealing material is one solid piece 4^b having a slot in its inner edge to receive the web 5^b of the covering, the web in this instance being smooth on both faces.

A packing constructed in accordance with this invention will not have any crevices in which matter may collect to affect the contents of the vessel. The covering which is made of material that will not be attacked by the contents of the vessel contacts with the vessel sections only slightly and as a consequence the enamel surface is not injured and at the same time a close fitting is secured. Should the covering not form a tight joint at any point the sealing material is highly compressed about the edges of the covering due to the fact that web 5 does not extend entirely through the sealing material and to the inclined inner faces of the covering. The inclined faces force the sealing material over the narrow edges of the covering which when made of hard metal will sever the projecting portions by reason of the engagement of the sharp edges with the flanges. This operation prevents the formation of pockets in rear of the covering and the covering by engaging the flanges in proximity to the curved portions 2^a prevents the formation of any sharp corners in which bacteria is liable to collect. In some instances, when the contents of the vessel will permit it, the covering is made of soft metal so that the sharp edges of the flanges are compressed by engagement with the vessel sections. The forms herein shown may be formed inexpensively by machinery and the installation is very simple.

What I claim is:

1. In a packing for joints, the combination with a compressible sealing material, of a covering for one edge of the sealing material comprising a web projecting into the sealing material but not extending through the latter, and a hard metal covering portion

projecting in opposite directions from one edge of the web and having its inner side inclined and also having a width substantially equal to the compressed sealing material the edges of said oppositely projecting portions being sharp.

2. In a packing for joints, the combination with a compressible sealing material, of a covering for one edge of the sealing material comprising a web projecting into the sealing material and hard metal covering flanges arranged only at one end of the sealing material and having inclined inner faces and a combined width substantially equal to the compressed sealing material the outer end of said flanges being sharp.

3. In a packing for joints, the combination with a compressible sealing material, of a covering for one edge of the sealing material comprising a web fitting in the sealing material, retaining ribs on the web, and covering flanges projecting in opposite directions from the web near one edge only of the latter.

4. In a packing for joints, the combination with a compressible sealing material, of a covering for one edge of the sealing material comprising a web projecting into said sealing material and a covering portion projecting in opposite directions from one edge of the sealing material and having narrow edges to contact with the walls of the joint.

5. The combination with a pair of enameled sections provided with outwardly turned flanges and curved portions connecting the flanges with the main portions of the sections, of a packing interposed between the flanges of the sections comprising a compressible sealing material, and a hard metal covering embodying a web projecting into the sealing material and oppositely extending flanges having their inner faces inclined and contacting with the proximate edge of the sealing material and their outer ends sharp and cooperating with the flanges of the sections in proximity to the curved portions.

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Witnesses:

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