

No. 741,808.

PATENTED OCT. 20, 1903.

E. G. MINER.

PACKING.

APPLICATION FILED FEB. 13, 1903.

NO MODEL.

Fig. 1.

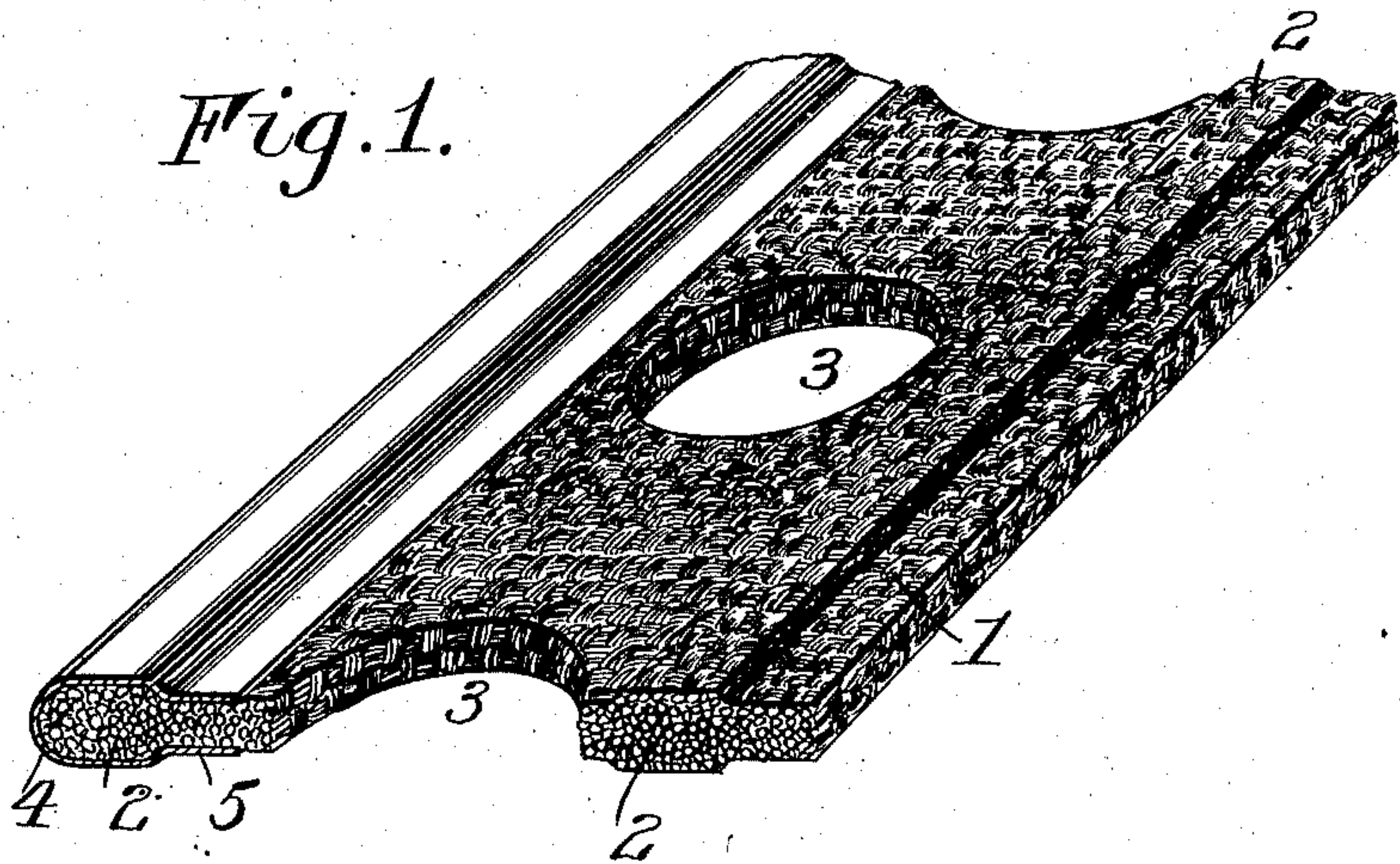
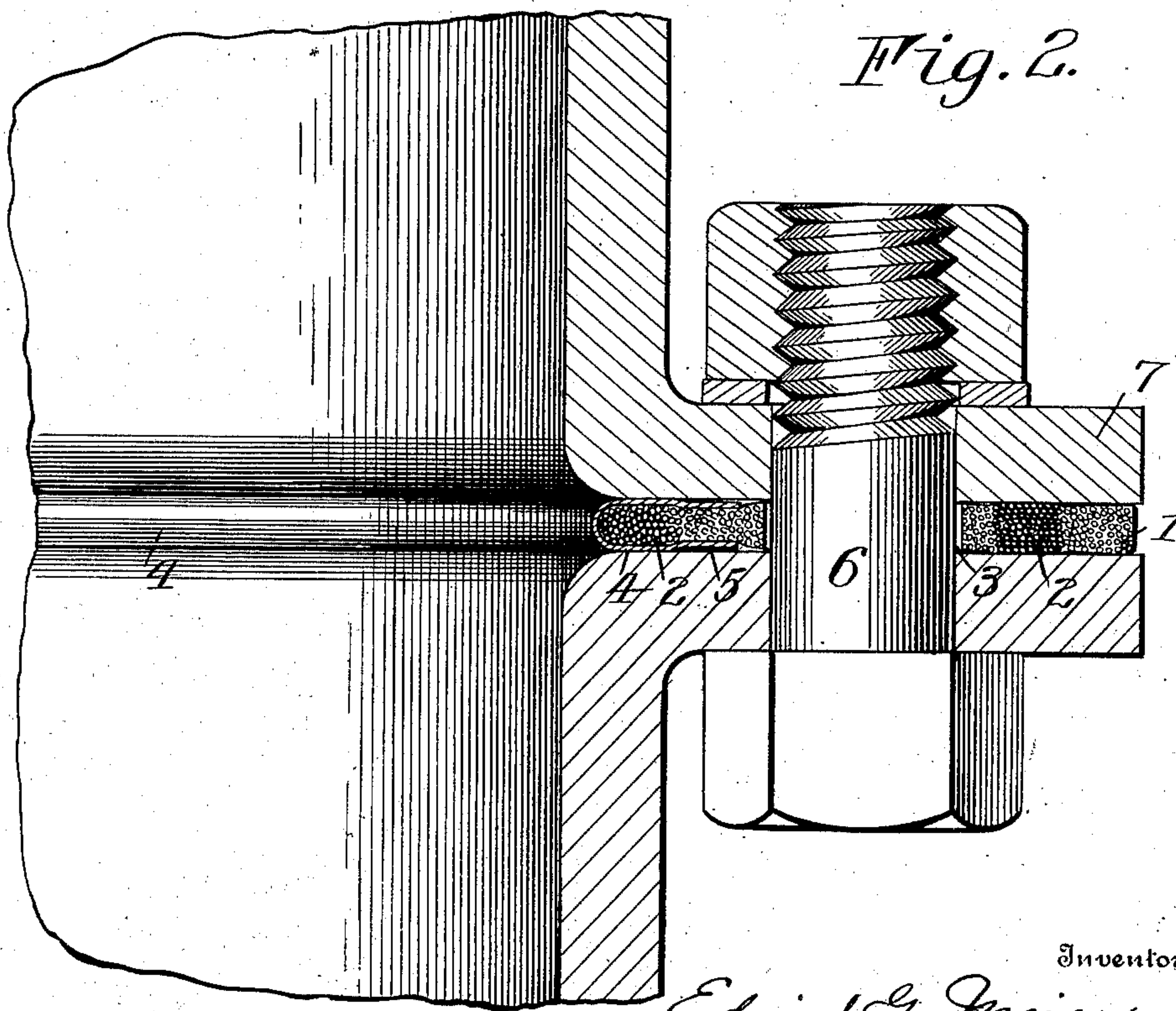


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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PACKING.

SPECIFICATION forming part of Letters Patent No. 741,808, dated October 20, 1903.

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To all whom it may concern:

Be it known that I, EDWARD G. MINER, of the city of Rochester, in the county of Monroe and State of New York, have invented certain 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 drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to provide a new and improved packing material adapted to be used as a gasket for forming tight joints, such as are used in steam, hydraulic, and pneumatic service; and it has for its object to provide a packing adapted not only for forming a tight joint, but one in which the exposed edge or edges are protected from wear or other injury and also from forming a support or place of lodgment for foreign substances that may be present in the vessel in which the packing is employed.

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

In the drawings, Figure 1 is a perspective view of a piece of packing formed and constructed in accordance with my invention. Fig. 2 is a cross-sectional view illustrating the packing in operative position.

Similar reference-numerals in the two figures indicate similar parts.

The packing material constructed in accordance with my invention consists of an elastic or yielding body portion 1, preferably formed of a woven fabric, which is rendered impervious to moisture or the passage of gases by having its fiber impregnated with a non-soluble substance, such as beeswax, paraffin, or other material suitable to the requirements and conditions of the place in which the packing is to be employed. As the latter is secured by being bolted between proximate faces of separable sections of a vessel or chamber, I provide the body 1 with the apertures or bolt-holes 3, and at each side thereof are ribs or enlargements 2, extend-

ing longitudinally upon its opposite faces, which may be conveniently formed by suitable operations in the process of weaving the fabric. Arranged at one edge of the fabric is a protecting cover or binding 4, constructed of any desirable metal that shall be innocuous to the liquid which the vessel is adapted to contain. This covering may be formed as a band or ribbon of the required width and bent into a U form, as shown. It may be secured to the body 1 in any convenient manner, and that which I have shown consists in rolling or otherwise pressing the edges 5 of the band relatively toward each other, so that they form shoulders which lie in rear of the edges of the inclosed rib portion 2. These edge portions also extend over the body of the packing and form a bearing-surface thereon, so that as the covering 5 is compressed its offset portions may be straightened without cutting into the packing, so there is no possibility of severing the edge or injuring the strands of the fabric.

The binding or covering 4 is formed of comparatively thin ductile metal, which permits the packing to be formed in strips and when used to be readily bent to the desired form.

The packing which I have described is particularly adapted to be used as a gasket in forming tight joints in tanks or similar vessels, as shown in Fig. 2, the parts of which are provided with the flanges 7, through which the usual bolts 6 are passed. The smooth interior metallic covering on the packing prevents it from contacting with the contents of the vessel and also protects its edge from injury—as, for instance, such as fraying of its edges by devices operating in the vessel or employed therein. The binding being formed of thin flexible metal is easily compressed as it is clamped between two surfaces, so that if the latter are provided with an enamel or other friable coating it will not be injured in any way. When the packing is secured in position, the covering is engaged between the parts of the vessel and compressed, so that it is held in close contact therewith, preventing particles of foreign matter adhering to or being deposited upon the fabric. The slightly-enlarged ribs or portions 2, also being provided upon the body 1, are compressed be-

tween the proximate faces of the flanges at opposite sides of the bolt-holes, so that while the entire surface of the packing is engaged under sufficient tension to prevent a leakage
5 between the parts the rib portions are compressed under a greater tension and increase the capability of the packing to withstand extraordinary pressure. The outer portion or rib of the packing is in the present embodiment of fibrous material, and the grip of the
10 securing-flanges of the tank or receptacle upon it prevents the packing from sliding inward and also prevents the splitting of the packing longitudinally if the securing-flanges
15 should be bent by the fastening devices which bear on said flanges between the points where they are separated by the ribs on the packing.

I claim as my invention—

1. A packing consisting of a body having
20 ribs or portions of greater thickness near opposite edges and bolt-apertures formed in the thinner portion of the body between the ribs.

2. A packing consisting of a body having ribs or portions of greater thickness near the
25 edges and a thinner portion between them and a metallic covering for the inner rib.

3. A packing consisting of a body of woven fabric having near the inner and outer edges ribs or portions of relatively greater thickness than the intermediate portion of the
30 body, and a metallic covering extending over the inner rib.

4. In a packing, the combination with a yielding body portion provided with ribs or enlargements extending at opposite sides
35 thereof, of a metal covering extending around one edge and inclosing a rib and having its edges extending relatively toward each other in rear thereof.

5. In a packing, the combination with a
40 woven body or fabric having apertures therein and ribs or portions of greater thickness formed in the body at the inner and outer sides of said apertures, covering or binding
45 extending around one edge of the body and inclosing one of the ribs and having the edges engaging the body in rear thereof.

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Witnesses:

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