

No. 721,391.

PATENTED FEB. 24, 1903.

C. RESTEIN.
PACKING.

APPLICATION FILED DEC. 2, 1902.

NO MODEL.

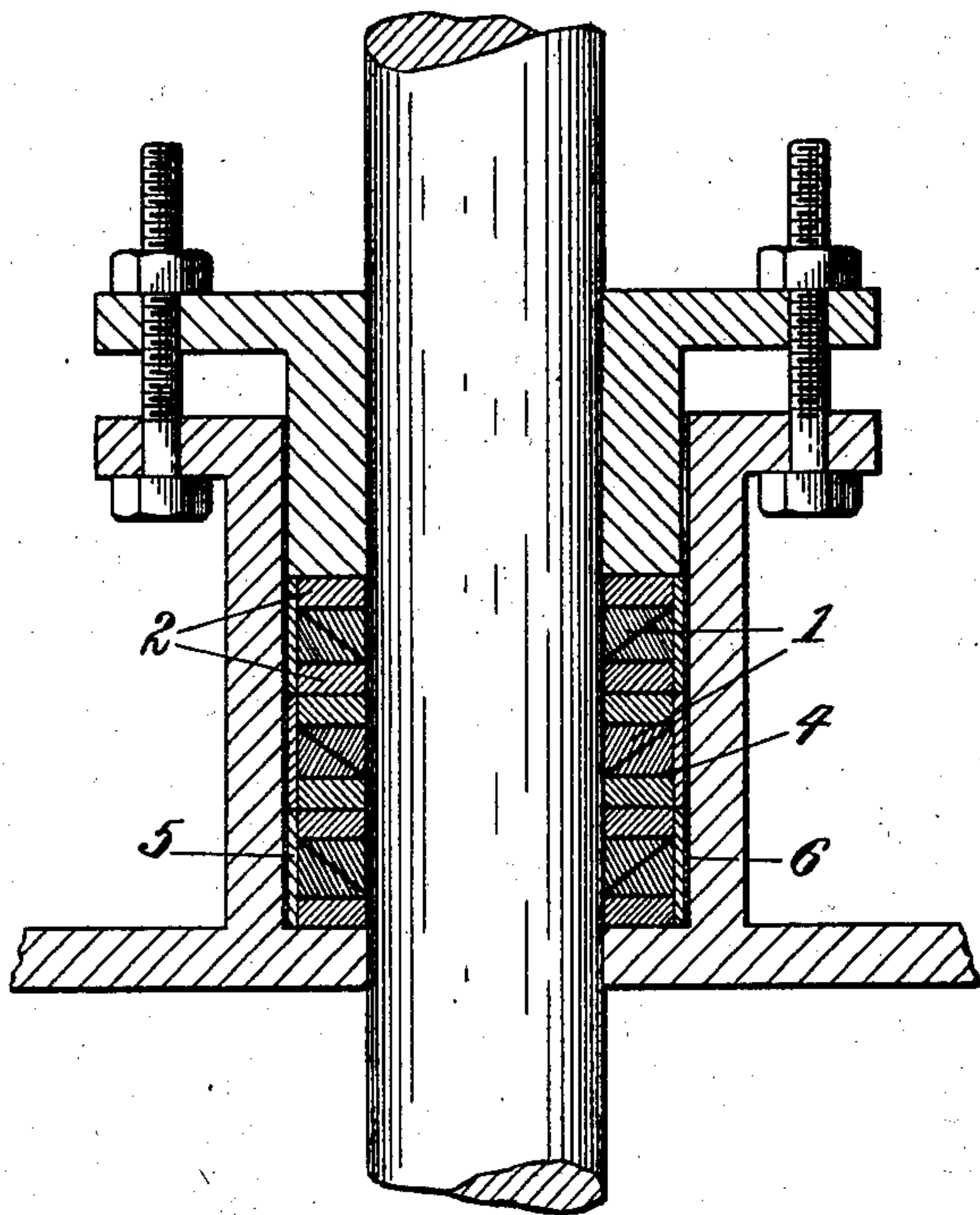


Fig. 3

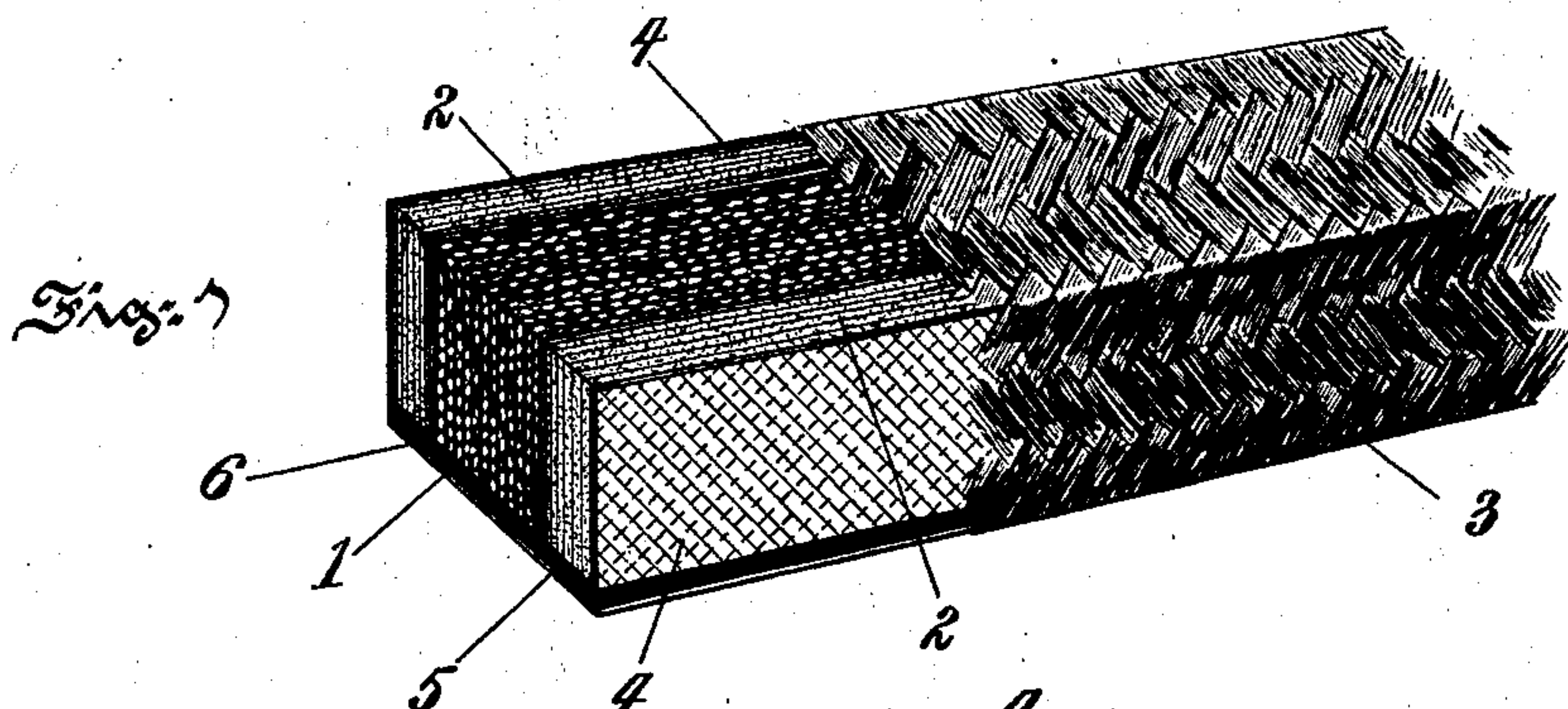


Fig. 1

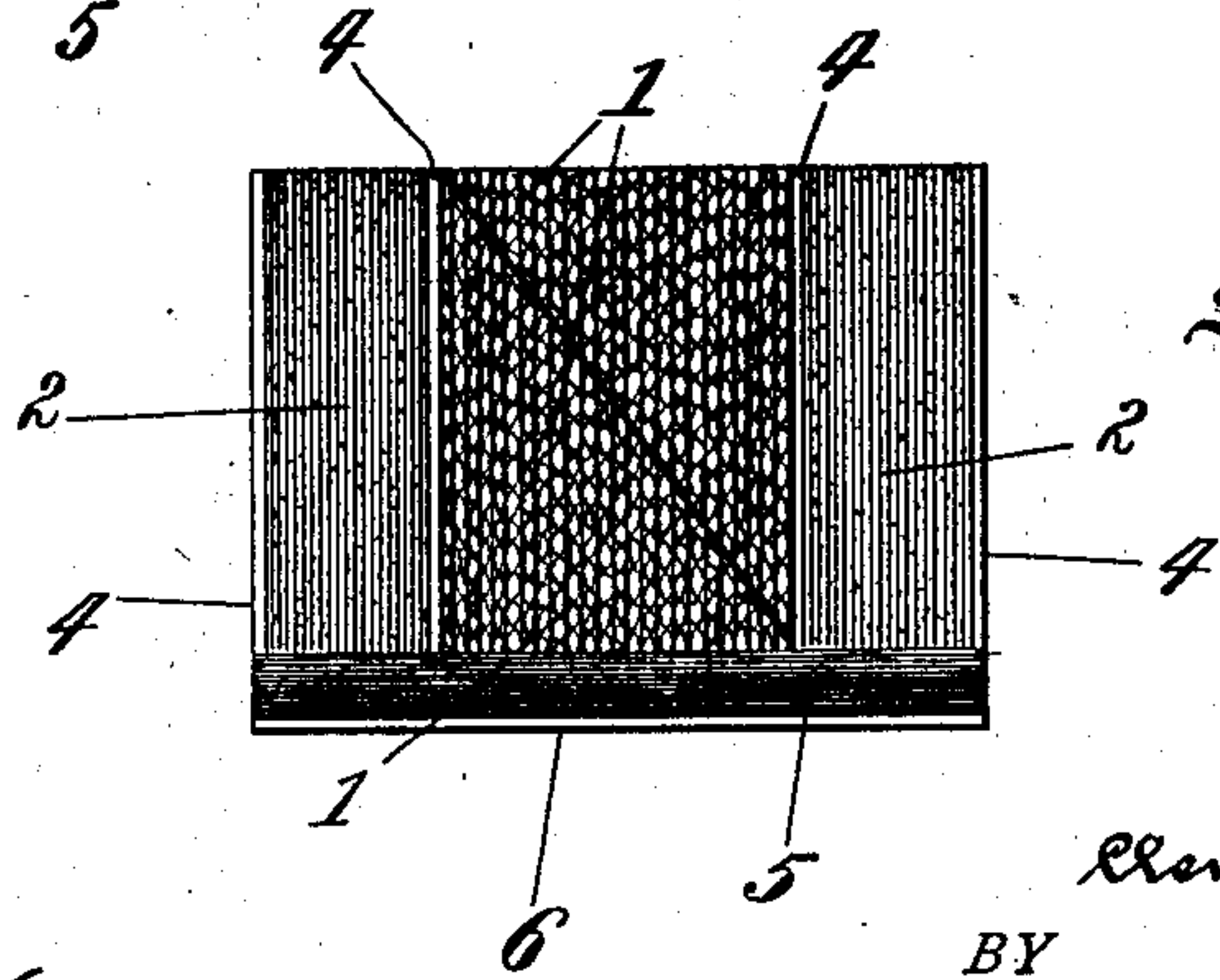


Fig. 2

WITNESSES:

Frank E. Punch

INVENTOR.

Element Restein.

BY

Augustus S. Stoughton.

ATTORNEY.

UNITED STATES PATENT OFFICE.

CLEMENT RESTEIN, OF PHILADELPHIA, PENNSYLVANIA.

PACKING.

SPECIFICATION forming part of Letters Patent No. 721,391, dated February 24, 1903.

Application filed December 2, 1902. Serial No. 133,644. (No model.)

To all whom it may concern:

Be it known that I, CLEMENT RESTEIN, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Packing, of which the following is a specification.

Objects of the present invention are to provide a comparatively inexpensive, durable, and reliable packing which shall, generally speaking, be adapted for universal use, to provide a packing which will make a tight joint and maintain it even after considerable wear, and to provide a packing which by properly tightening the gland can be made to be efficient for a comparatively great length of time.

To these and other ends hereinafter referred to the invention comprises the improvements to be finally claimed and next described in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of a packing embodying features of the invention with a portion of the exterior braid removed. Fig. 2 is an end view drawn to an enlarged scale and illustrating the packing without the exterior braid; and Fig. 3 is a view principally in central section, illustrating the packing in application to a stuffing-box.

In the drawings, 1 represents complementary wedge-shaped strips, and they are slidably mounted or laid in the groove or trough of a rabbeted or grooved strip 2. The wedge-shaped strips are triangular in cross-section, and their diagonal faces are in sliding contact. Around these there is a braided covering 3, which serves to hold them together while the packing is being put in the box, but which soon wears off in the use. The wedges 1 are illustrated as composed of layers of duck and rubber, and the grooved strip 2 is illustrated as having its side walls 4 made of layers of duck or canvas cemented together and its bottom wall made of rubber 5, with a strip of canvas or duck 6 applied to it. The side and bottom walls are connected together, and thus make up the grooved strip.

Suitable lubricants, including graphite, are applied to the packing, and in use they may be placed in the stuffing-box, as shown in Fig. 3, with the wedges, or rather one of them, in

contact with the moving part. When the packing is first put in the box and subjected to the conditions there existing, it by swelling and gland-pressure makes a tight joint, and after it has worn somewhat additional gland-pressure forces the wedges to slide in respect to each other, and thus tighten the joint. The bottom wall 6 is yielding and readily accommodates or permits of the described motion, even to the extent of becoming softened and distorted, so as to, as it were, follow up the wedges and crowd them toward the moving part. Of course the comparatively non-compressible side walls 4 assist in bringing about the described movement of the wedges, and these side walls 4 themselves operate to pack the moving part until they are worn, because the bottom wall 6 in swelling, as it will do if made of rubber, when first put into the box pushes or tends to push them up against the moving part.

The advantages of the packing are numerous; but some of them may be briefly stated as follows: When the packing is first put into the box, the part 6, as well as other parts of it, swells, so that the tops of the walls 4 and the wedges cooperate in making a tight joint, and as the rubbing-face wears and gland-pressure is applied the wedges move to contact with the moving part, and even after further wear the application of additional gland-pressure causes the rubber to become distorted and follow up and press the wedges.

It will be obvious to those skilled in the art to which my invention appertains that modifications may be made in detail without departing from the spirit thereof. Hence I do not limit myself to the precise construction and arrangement of parts hereinabove set forth, and illustrated in the accompanying drawings; but,

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

1. A packing comprising the combination of a grooved strip, and two complementary wedge-shaped strips having triangular cross-sections and slidably mounted in the groove of the first-mentioned strip with their diagonal faces in contact, substantially as described.

2. A packing comprising the combination of a grooved strip, two complementary wedge-

shaped strips having triangular cross-sections and slidably mounted in the groove of the first-mentioned strip with their diagonal faces in contact, and a fibrous casing inclosing said strips, substantially as described.

3. A packing comprising the combination of a grooved strip, consisting of a bottom wall of rubber and side walls of cemented textile material, and complemental wedge-shaped strips having triangular cross-sections and arranged in the groove of the first-mentioned strip with their diagonal faces in contact, substantially as described.

4. A packing comprising the combination of a grooved strip consisting of a bottom wall of rubber and side walls of cemented textile material, complemental wedge-shaped strips arranged in the groove of the first-mentioned strip, and a fibrous casing inclosing said strips, substantially as described.

5. A packing comprising the combination

of a grooved strip consisting of side walls and a rubber bottom wall and a layer of textile material applied to the rubber wall, and complemental wedge-shaped strips slidably mounted in the groove of the first-mentioned strip, substantially as described.

6. A packing comprising the combination of a grooved strip consisting of side walls and a rubber bottom wall and a layer of textile material applied to the rubber wall, complemental wedge-shaped strips slidably mounted in the groove of the first-mentioned strip, and a fibrous casing inclosing said strips, substantially as described.

In testimony whereof I have hereunto signed my name.

CLEMENT RESTEIN.

Witnesses:

W. J. JACKSON,
FRANK E. FRENCH.