

No. 641,263.

Patented Jan. 16, 1900.

J. A. BONFIGLIO.
HYDRAULIC PACKING.

(Application filed May 3, 1898.)

(No Model.)

Fig. 1.

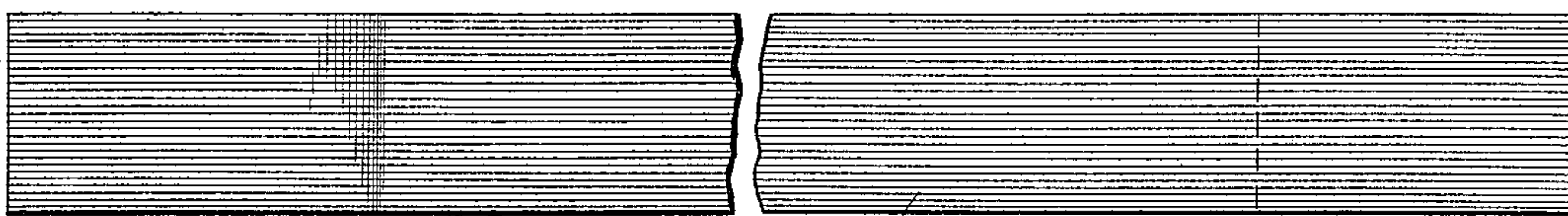


Fig. 2.

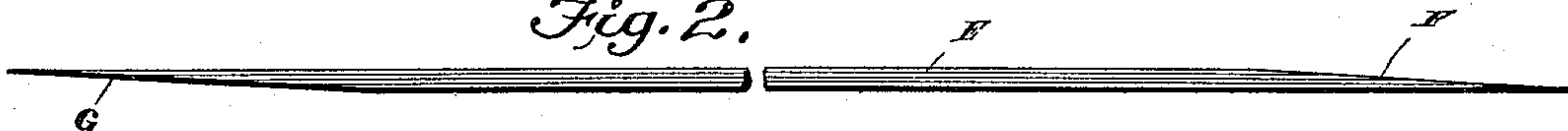


Fig. 3.

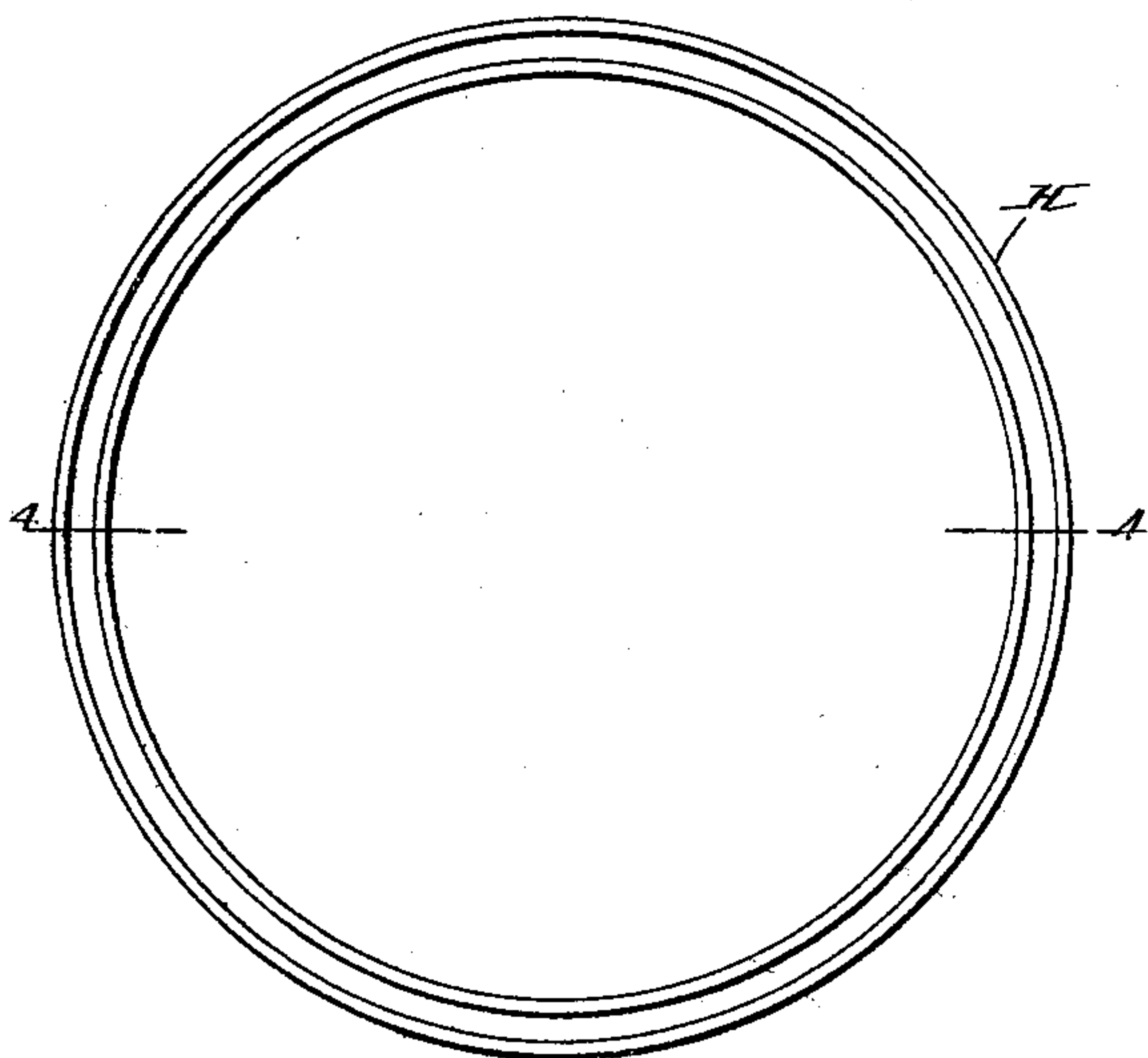


Fig. 4.

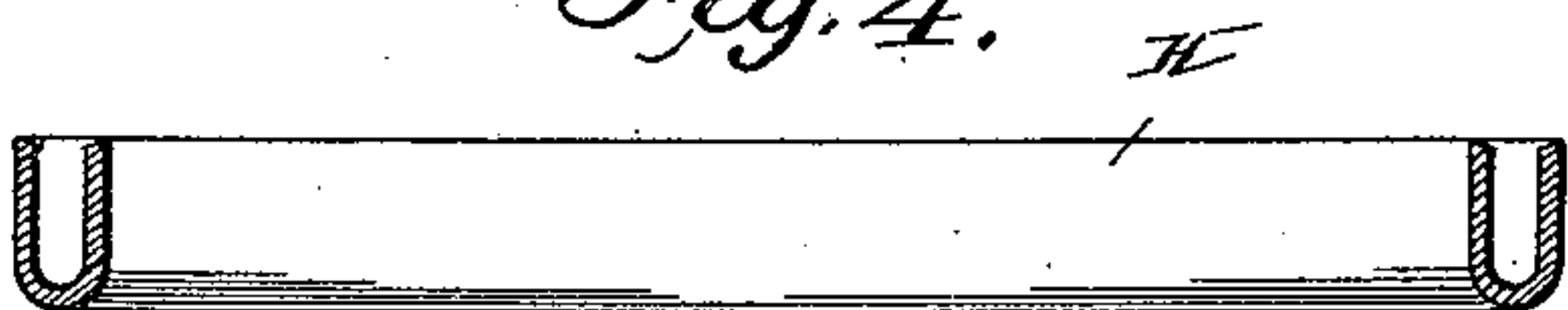


Fig. 5.

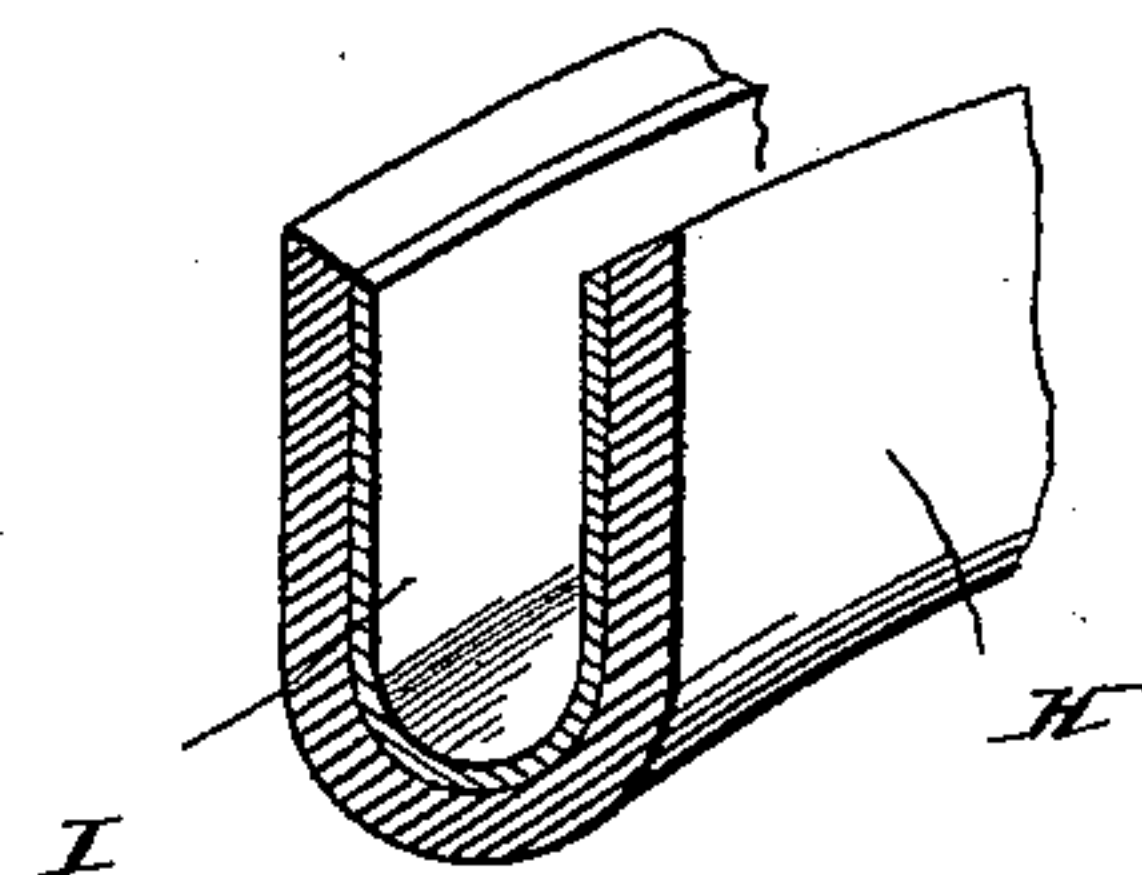


Fig. 6.

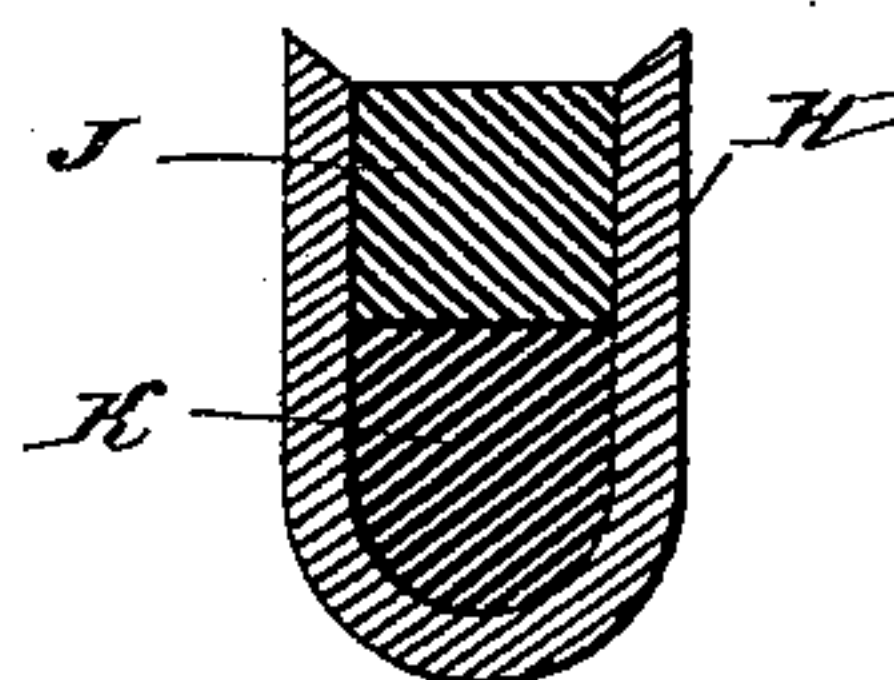
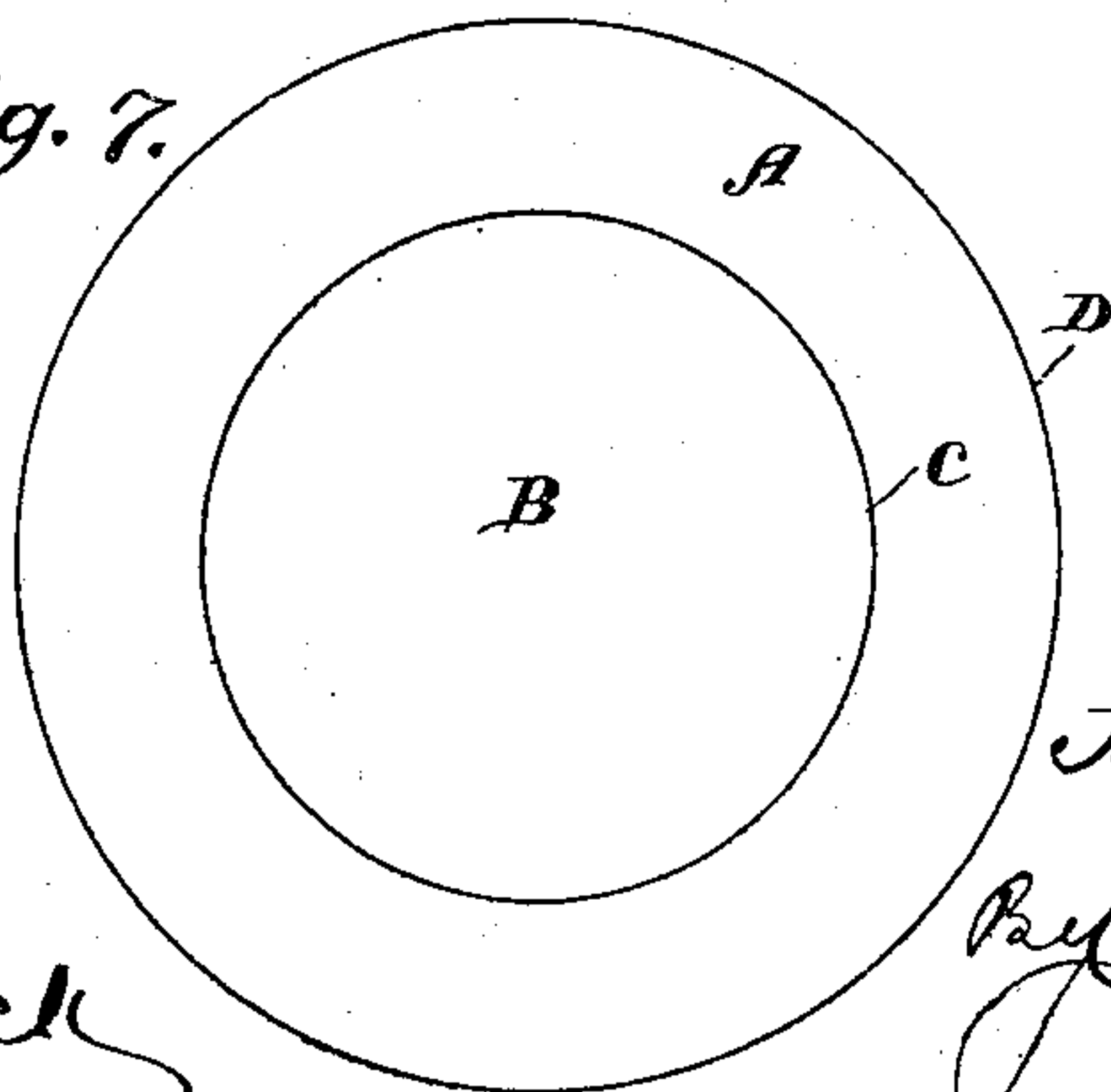


Fig. 7.



Witnesses

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JAMES ALBANY BONFIGLIO, OF NEW ORLEANS, LOUISIANA.

HYDRAULIC PACKING.

SPECIFICATION forming part of Letters Patent No. 641,263, dated January 16, 1900.

Application filed May 3, 1898. Serial No. 679,606. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALBANY BONFIGLIO, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Hydraulic Packing, of which the following is a specification.

My invention relates to packing-rings, and more especially to packing-rings intended for use in hydraulic rams and other machinery in which water or other fluid under pressure is used and in which hermetically-sealed joints are required.

The object of my invention is to provide a hydraulic packing which shall be simple and cheap in construction, economizing in the amount of leather necessary to produce a given amount of packing, and simplifying and facilitating the manufacture.

With this object in view, my invention consists in the hydraulic packing consisting of a ring composed of leather, U-shaped in cross-section, and constructed of a strip of leather having its ends beveled, lapped, and secured together with a flexible cement and afterward bent into the U-shaped form, said ring being lined with a suitable yielding supporting material.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view illustrating a strip of leather from which to manufacture a ring of my improved hydraulic packing, the central portion being broken away to shorten the figure. Fig. 2 is an edge view thereof. Fig. 3 is a view illustrating the ring formed into U shape in section, looking at the open side. Fig. 4 is a transverse section taken on the line 4 4 of Fig. 3. Fig. 5 is a transverse sectional view of a portion of my improved packing-ring lined with flexible spring-brass. Fig. 6 is a cross-sectional view through a ring constructed in accordance with my invention, but filled in with rubber rings. Fig. 7 is a diagrammatic view showing a disk of leather required to manufacture a packing-ring of U shape in section according to the old method.

Like letters of reference mark the same

parts wherever they occur in the various figures of the drawings.

In the method now generally employed to make a packing-ring U-shaped in section a disk A, of leather, (see Fig. 7,) is required, from which the central disk B is cut and is wasted, the outer ring being the only part of the leather utilized in the formation of the packing into U shape, and either the inner edge of the ring must be stretched or the outer edge crimped, because when finished that portion of the leather on the line C inside of the ring is required to extend in a circle very near to that in which the edge D is located.

In carrying out my invention I provide a strip E of leather (see Figs. 1 and 2) of a suitable length, and after chamfering or beveling off the ends F and G, I bend the strip into the form of a ring or collar with the chamfered edges overlapping and secure these edges together by means of a flexible cement, such as is well known in leather work. This ring I then bend into U shape in section, as shown at H in Figs. 3 and 4, the act of bending into this form requiring but little crimping or stretching of the material, thus preventing the deterioration of the leather due to such stretching and crimping in the old method of manufacture. For some purposes the ring thus formed will be sufficient of itself for the packing-ring; but where it is required to resist high pressure I sometimes line the ring H with an inner ring or shield I of spring-brass of the same form. For other purposes the ring H will be filled with one or more rings J K, of soft rubber, as shown in Fig. 6.

Instead of forming the ring H in shape ready to be inserted it is sometimes customary to take the strip E and insert it in a mold and after applying the flexible cement on one side only of the lapped ends to put it under pressure and allow it to remain twenty-four (24) hours, when it can be taken out and trimmed, and it will then be ready to be inserted in place for use and a packing of flexible leather will be assured as good as when received from the tannery, all the bad effects attending the necessary soaking of the leather in very hot weather, as in the old method, being obviated.

While I have illustrated and described what I consider to be efficient means for carrying out my invention, I do not wish to be understood as restricting myself to the exact
5 details of construction shown and described, but hold that any slight changes or variations, such as might suggest themselves to the ordinary mechanic, would properly fall within the limit and scope of my invention.

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

The herein-described hydraulic packing-

ring consisting of a straight strip of leather provided with chamfering ends, bent longi- 15 tudinally into cylindrical form with the ends overlapped and secured together with flexible cement, bent laterally into U shape in radial section, and finally lined with a yielding metallic ring of the same shape, substan- 20 tially as described.

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Witnesses:

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