

No. 625,780.

Patented May 30, 1899.

H. A. LEAK.

PACKING FOR BOTTLES OR THE LIKE.

(Application filed Sept. 6, 1898.)

(No Model.)

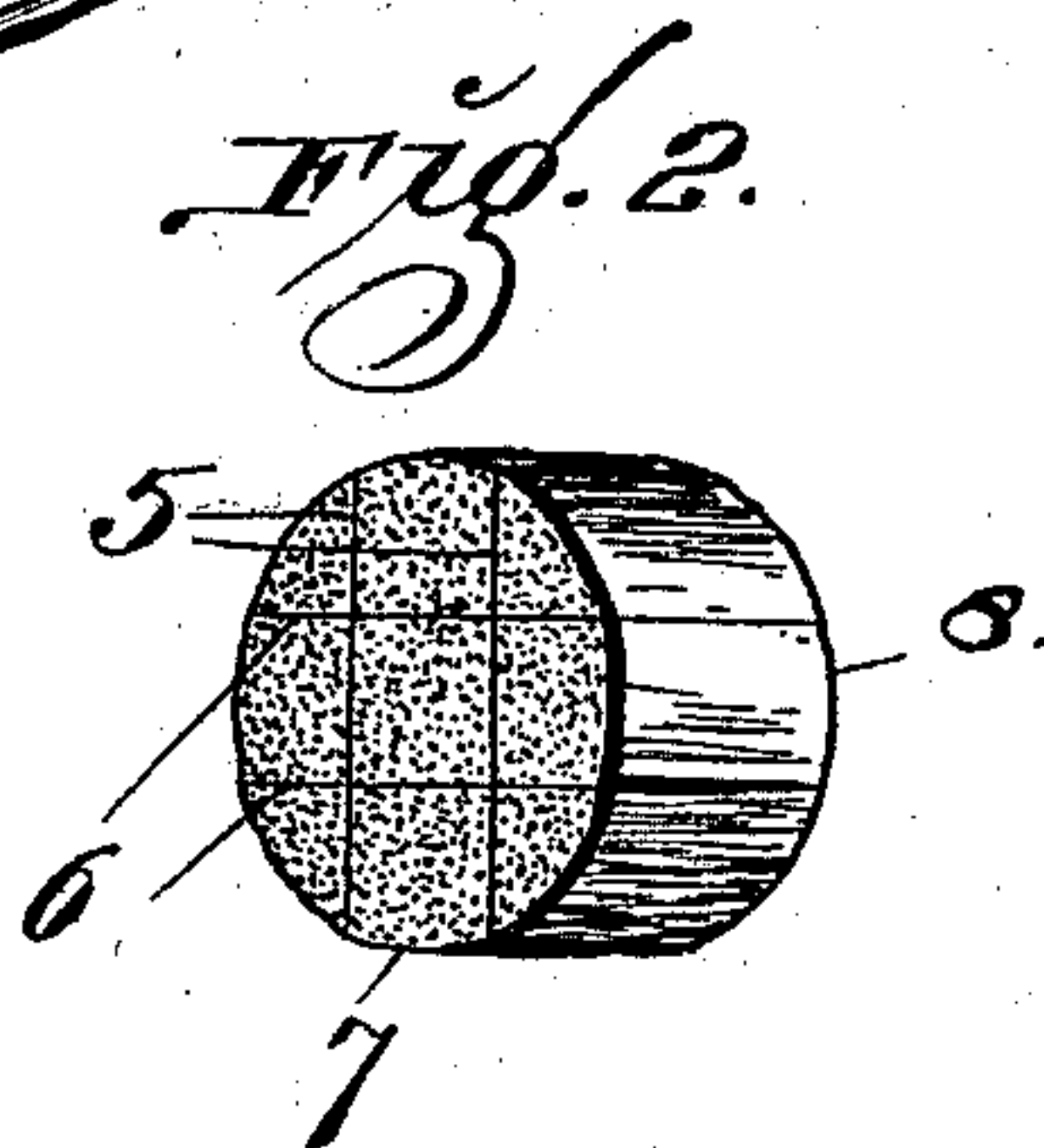
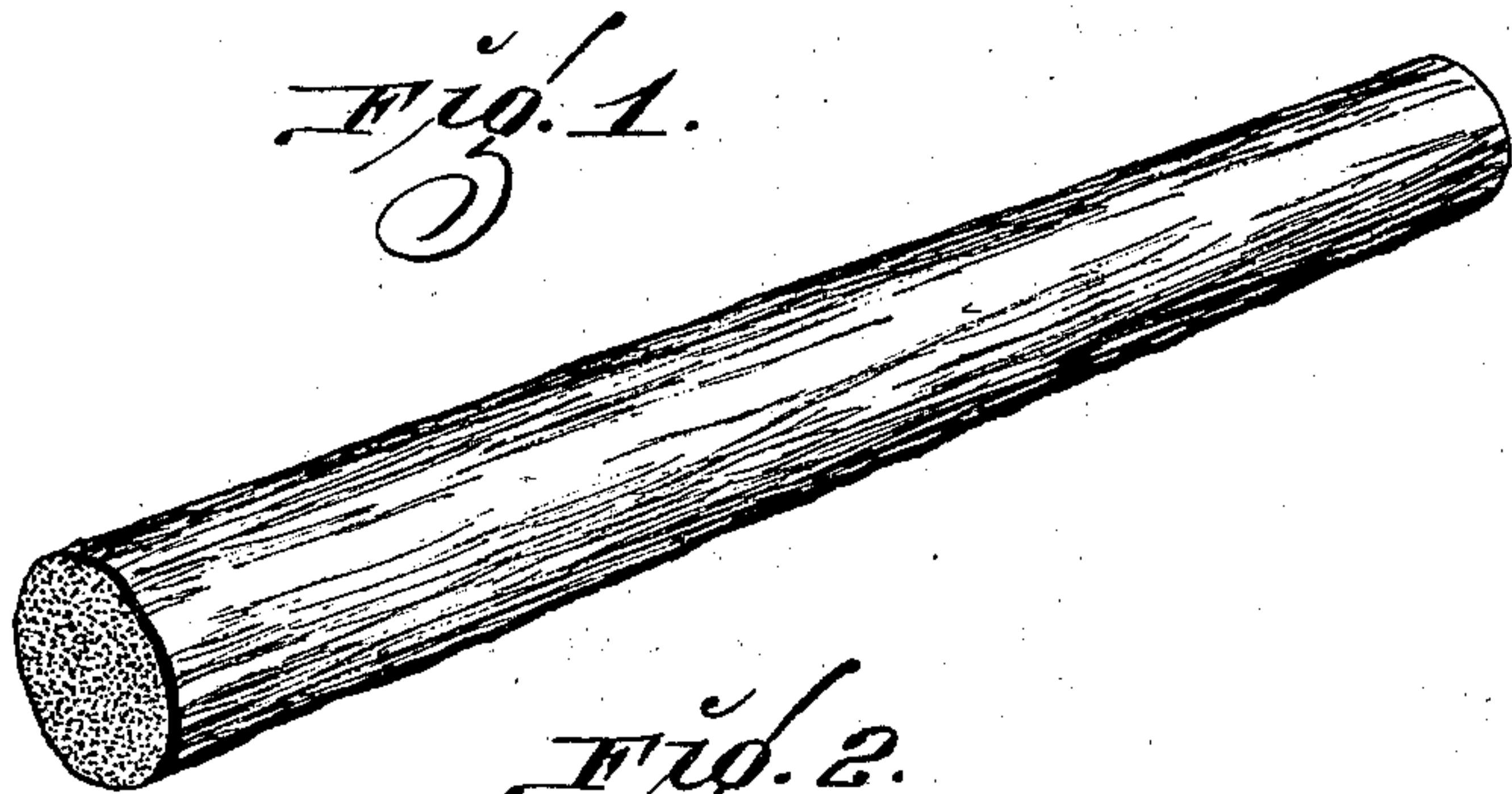


Fig. 3.

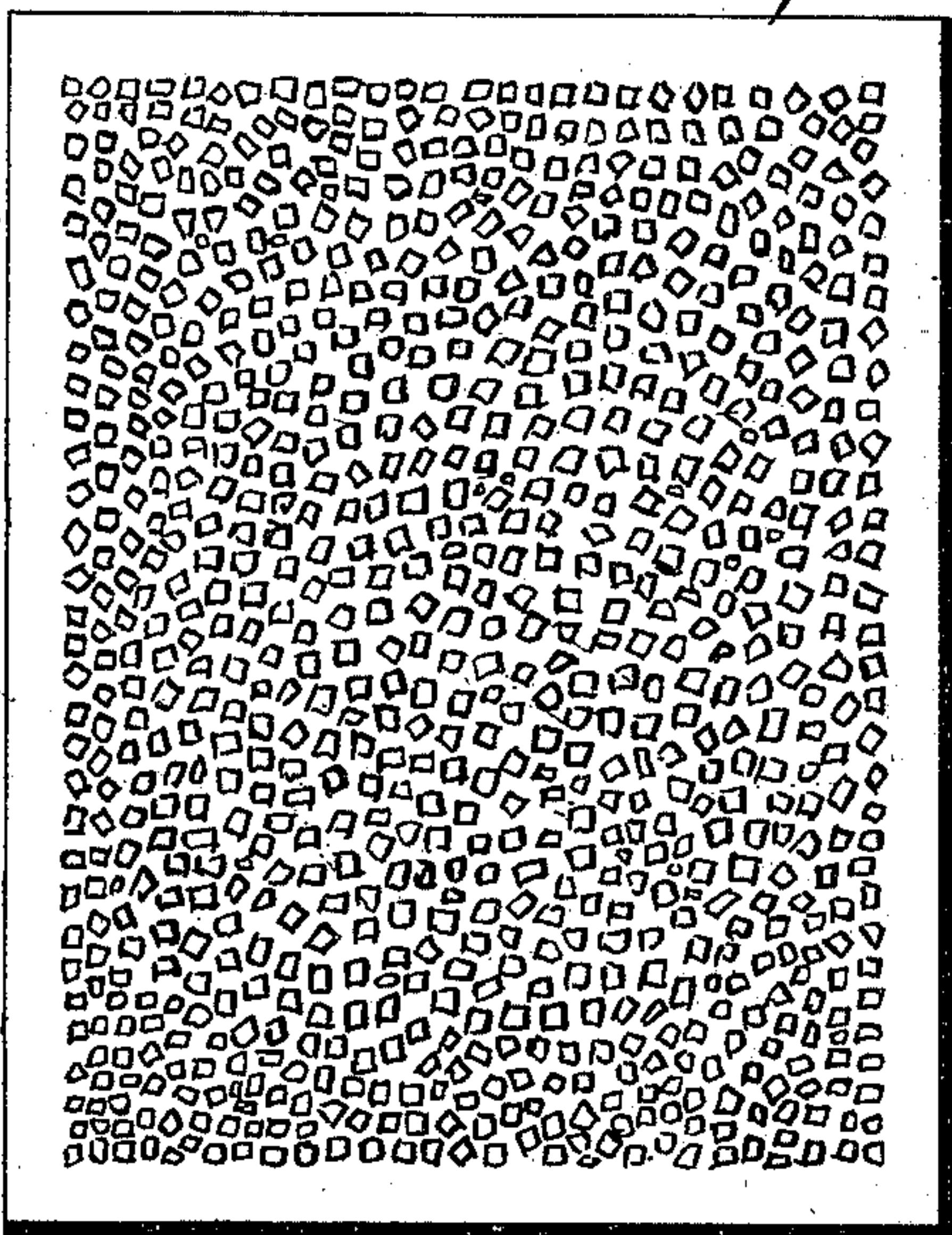
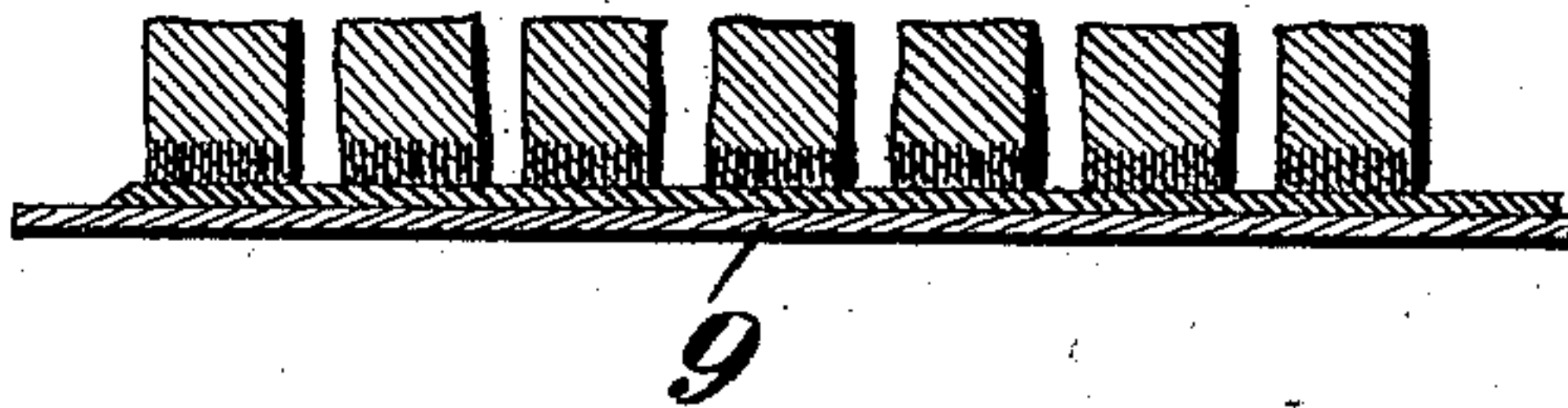


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE.

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PACKING FOR BOTTLES OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 625,780, dated May 30, 1899.

Application filed September 6, 1898. Serial No. 690,274. (No model.)

To all whom it may concern:

Be it known that I, HOWARD A. LEAK, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Packing for Bottles or the Like, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to packing for bottles and the like; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

My object is to produce an improved packing for bottles and the like, and I attain this object by taking cornstalks and extracting the piths, cutting the piths into small cubes, sticking said cubes to a sheet of straw paper or the like, and running the sheet, including the cubes, between rollers to produce an even face.

Figure 1 is a view in perspective of a cornstalk-pith after it has been extracted. Fig. 2 is a view in perspective, showing the lines upon which the pith is cut in reducing it to a granular form. Fig. 3 is a plan of a piece of sheet-packing ready for use. Fig. 4 is a sectional view illustrating the construction of the packing. Fig. 5 is a sectional view similar to the last, but on an enlarged scale, for the purpose of better illustrating the construction.

The pith is extracted from the cornstalk in pencil form, as shown in Fig. 1. Then it is cut longitudinally of the pencil and upon the vertical lines 5 and the horizontal lines 6, and it is cut transversely upon the lines 7 and 8. This produces a granular mass, the individual particles of which are substantially cubical in form. The distances between the lines 6 and between the lines 7 and 8 are substantially equal, and the thickness of the packing produced is equal to the distance between any corresponding ones of said lines plus the thickness of the paper. The sheet 9 may be of straw paper or any other suitable flexible substance, and it is coated upon one side with a flexible glue, and the granular mass of pith is spread upon the glue, thus causing the pith to stick to the paper or at least a sufficient amount of the pith. After the glue has dried the particles of pith which fail to stick are brushed away or the paper is turned bottom

upward and the particles fall away. Then the packing is run between rollers set a fixed distance apart, and the large particles of pith and those which have become fastened in position with their corners projecting upwardly are pressed slightly, thus rendering the packing even in thickness. The larger part of the cubical particles of pith will present a flat side to the paper, and consequently will present a flat side away from the paper; but the particles of pith which are uneven in form and of irregular sizes will present corners and edges both to the paper and away from the paper, thus making the packing slightly rough, but this roughness is remedied by passing the packing between the rollers.

In falling upon the wet glue the cubical particles of pith will by gravity adjust themselves in such a manner that a flat surface will be presented to the paper in nearly every case, so that the pieces of pith will be of almost uniform height before the rolling operation takes place. This construction is best shown in Fig. 5.

During the above-described process of placing the particles or cubes of pith upon the wet glue the action of the pith as an absorbent is illustrated by the fact that the glue penetrates about one-fourth of the vertical height of the cubes of pith, as shown in Fig. 5 of the drawings. This penetration or absorption of the glue by the pith causes the lower portion of the latter to become comparatively solid after the glue has hardened, so that each of said particles thereby consists of a solid basic portion elevated above the sheet of paper and an elastic or cushioning portion located above the solid basic portion and integral therewith.

The packing thus produced may be accurately graded in thickness, will present an even surface to the bottles or the like, and will stand a large amount of hard usage without breaking the bottles or damaging the other goods which may be contained or wrapped in the packing.

I have during a course of experiments with cornstalk-pith discovered that such pith is a very rapid and effective absorbent of liquids, so that when the same is prepared as above described and used as a packing for bottles containing liquids when a bottle breaks the liquid will be immediately absorbed by the

cubes of cornstalk-pith, and the spilled liquid will thereby be prevented from coming in contact with the adjacent packages or bottles and ruining or defacing them. This is a valuable improvement over the usual packing composed of paper and granulated cork, for the reason that when a bottle breaks with the cork packing the paper is defaced and rendered useless and the adjoining packages are greatly injured, if not destroyed, owing to the fact that the cork cannot absorb the liquid. Hence the advantage of my discovery.

In addition to the above advantage I find that the cornstalk-pith when secured upon the sheets of paper may be in a much thinner layer than would be required of cork, because the said cornstalk-pith is much softer and lighter and is a much better cushion than cork. It is cheaper, lighter, and more pliable than cork.

Another advantage is that by having the lower portion of the particle or cube solid, which is rendered so by that portion of the cube absorbing and amalgamating the glue, it is obvious that the cushioning portion above said solid portion is rendered comparatively more resilient, the same analogy be-

ing, for instance, by taking a piece of rubber and mounting it on a yielding surface and on a solid surface. Of course if the base yields the full benefit of the cushion is not available. Moreover, the solid basic portion being comparatively inflexible is not so liable to be bent and become loosened from the packing-paper.

I claim—

As a new article of manufacture, a packing for bottles and the like, consisting of a sheet of flexible paper having a coating of glue thereon, and cubical pieces of cornstalk-pith located upon said paper with a flat surface thereof adjacent said paper, and said cubical pieces having each a solid basic portion adjacent to and projecting above said paper, and having an elastic or cushioning portion located above said solid basic portion and integral therewith, substantially as herein specified.

In testimony whereof I affix my signature in presence of two witnesses.

HOWARD A. LEAK.

Witnesses:

S. B. RIGGEN,
E. J. HAIGHT.