

No. 627,756.

Patented June 27, 1899.

H. J. MARK.  
CORRUGATED WOOD VENEER.

(Application filed Apr. 22, 1899.)

(No Model.)

Fig. 1.

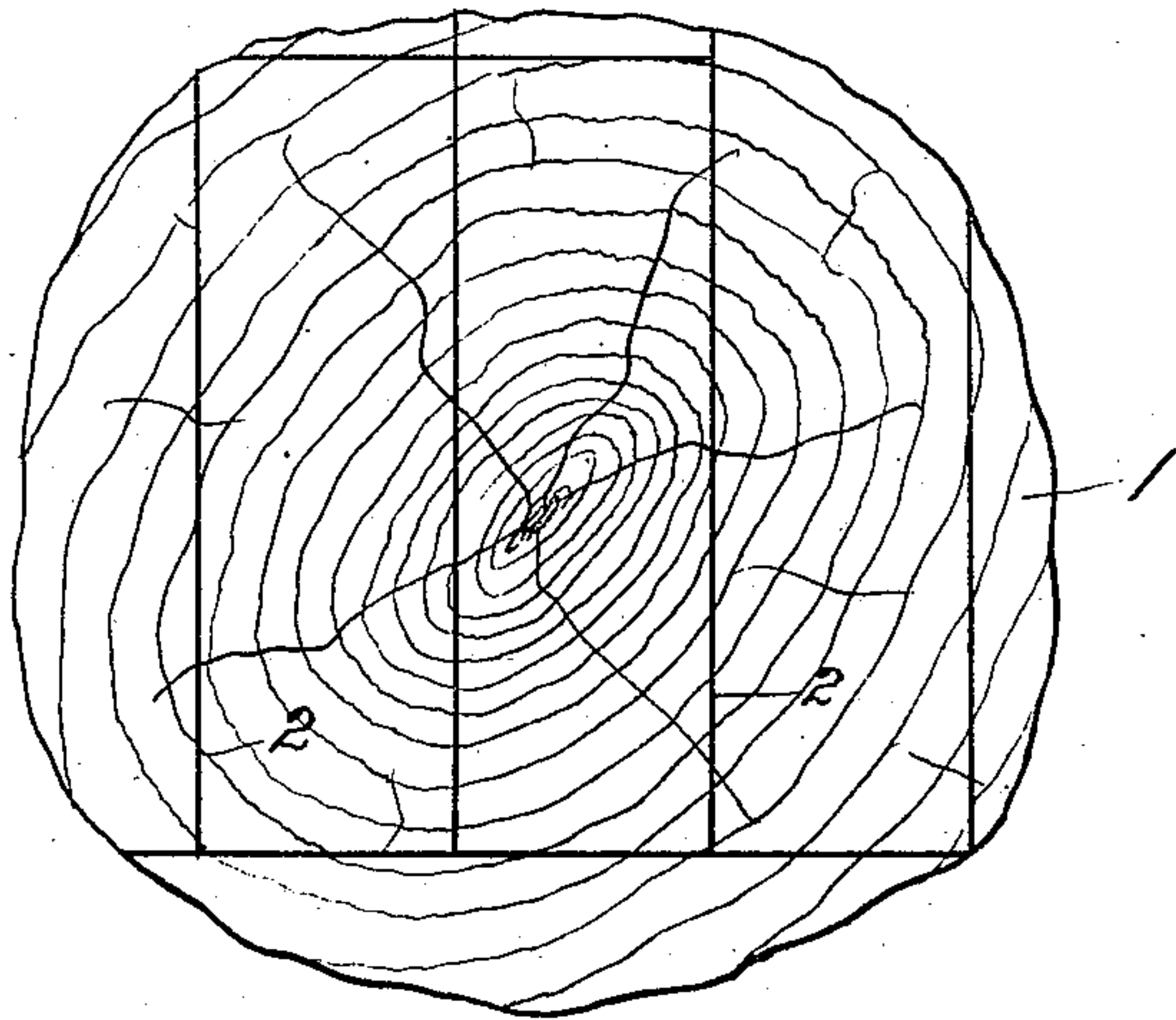


Fig. 2.

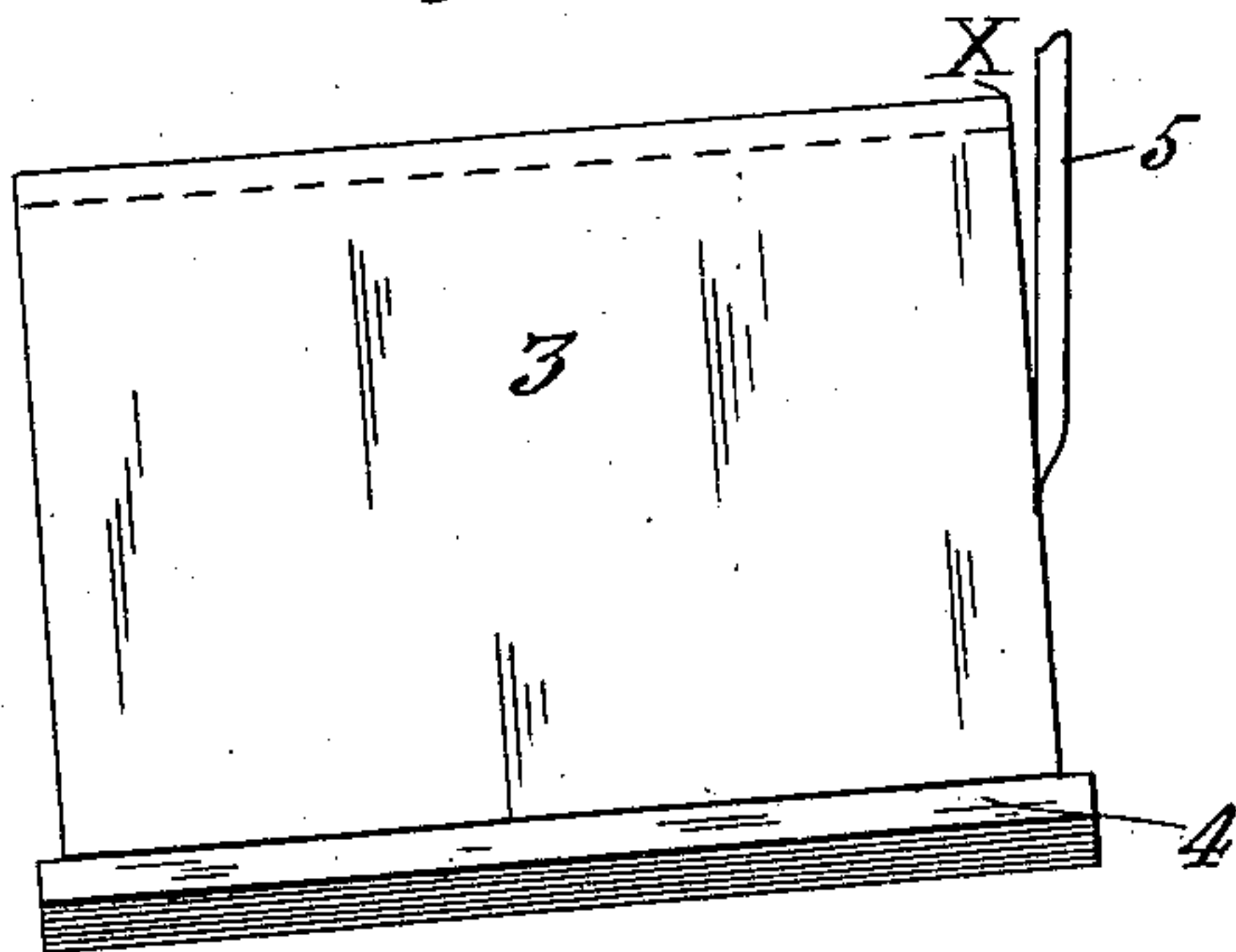


Fig. 3.

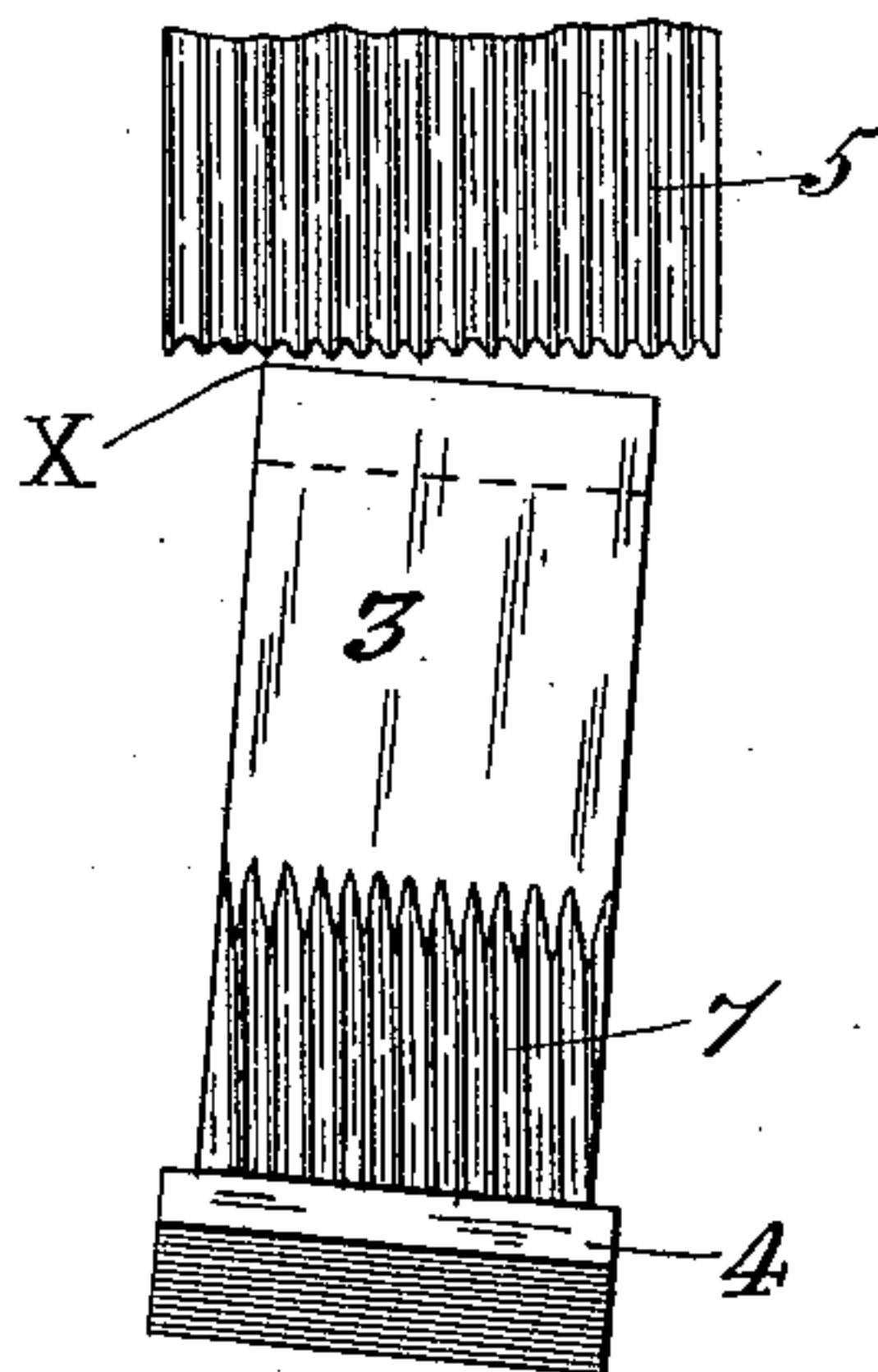


Fig. 6.

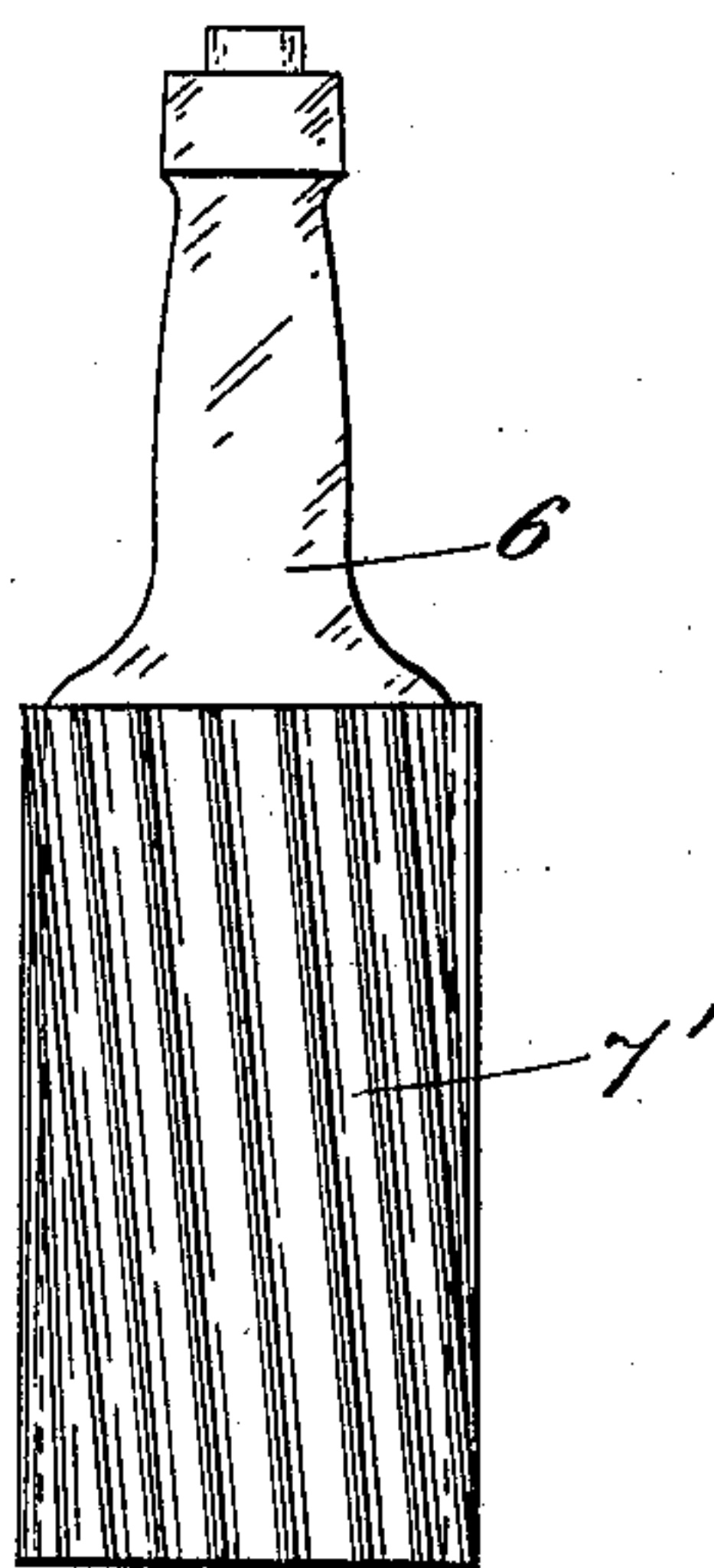


Fig. 4.

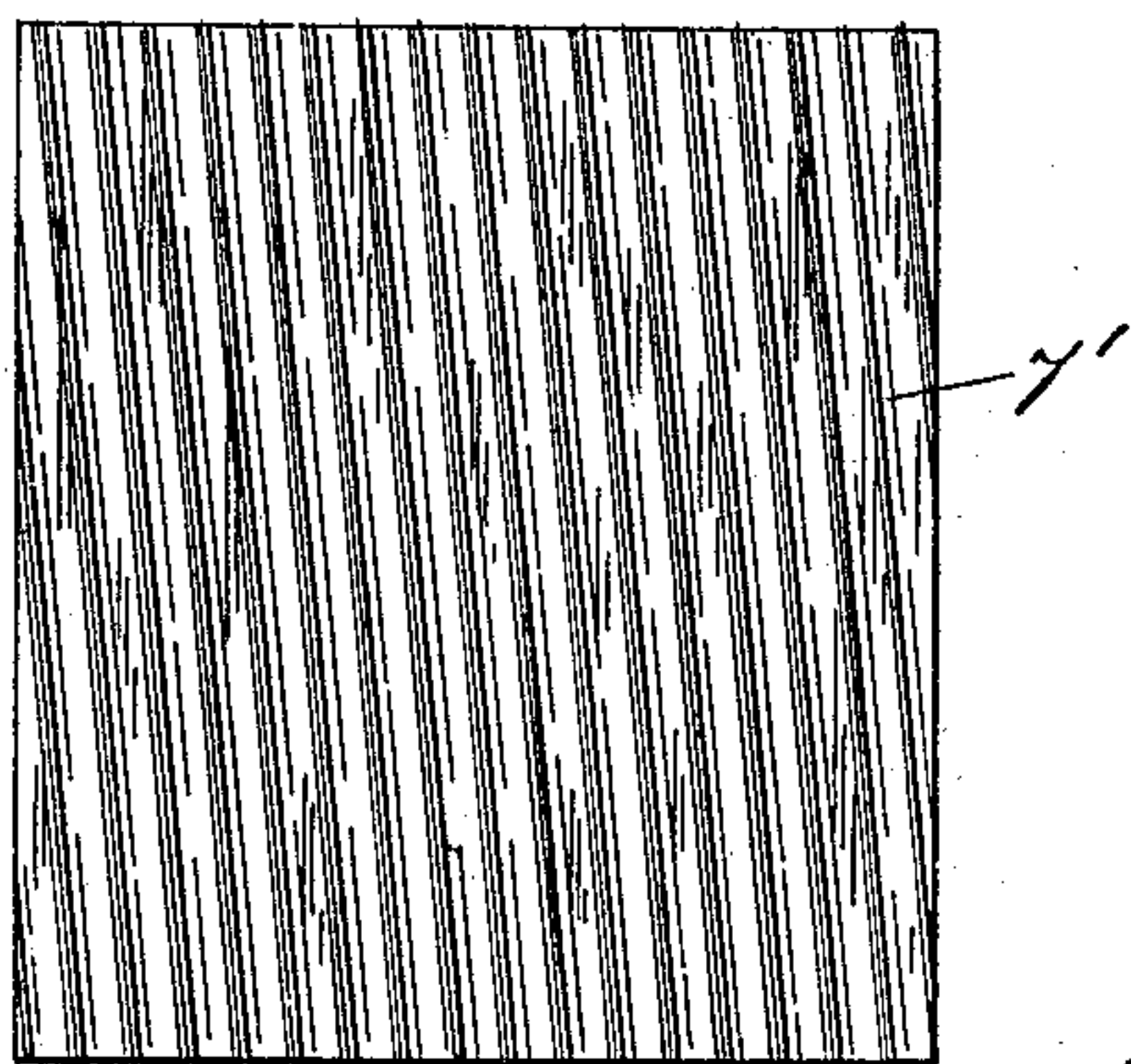
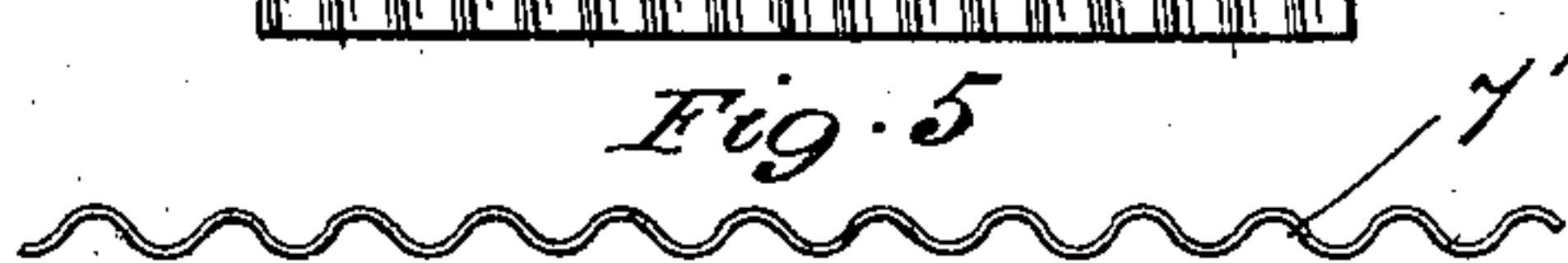


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## CORRUGATED WOOD VENEER.

SPECIFICATION forming part of Letters Patent No. 627,756, dated June 27, 1899.

Application filed April 22, 1899. Serial No. 714,130. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY J. MARK, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Corrugated Wood Veneers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in corrugated wood veneers; and it consists in the novel construction of veneer to be more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a cross-section of a tree-trunk, showing the manner of squaring and blocking off the same in securing proper-sized blocks from which the veneer is to be cut. Fig. 2 is a side elevation of the block in position for cutting, showing also an end view of the knife. Fig. 3 is a front elevation of the parts. Fig. 4 is a plan view of the finished product. Fig. 5 is an edge view of the veneer sheet shown in Fig. 4; and Fig. 6 is an elevation of a bottle, showing the veneer as a bottle-wrapper.

The object of my present invention is to produce a corrugated-wood-veneer bottle-wrapper which will possess a maximum amount of elasticity and durability and one which can be readily folded or wrapped about the bottle without material injury to the wrapper in the act of folding. The state of the art will disclose the existence of wood-veneer packings and bottle-wrappers in which the corrugations are formed either at right angles to the grain or at an angle of from thirty-five to forty-five degrees to the grain, the corrugations in all such cases being formed, however, by cutting the wood parallel to the general direction of the fiber by which the grain is defined. The objection to wrappers in which the corrugations are formed at right angles to the grain is that in the folding of the wrapper about the bottle the wrapper will crack along the lines of the grain, and thus destroy the effectiveness of the sheet as a wrapper. The objection to wrappers in which the corrugations are cut oblique to the grain is that the sheet instead of folding into the form of a right cylinder about the body of the bottle tends to fold into an oblique cylinder, the

tendency being to fold along the lines determined by the obliquity of the corrugations, and the opposite ends of the meeting edges of the cylinder thus formed instead of meeting will always be out of alinement unless forced to meet; but when so forced the wrapper is liable to crack and its effectiveness destroyed.

My present invention overcomes the foregoing objections, the veneer sheets being cut at a slight angle to or across the general direction of the fiber, the corrugations of the severed sheet being approximately in line with, but yet at a slight angle to, the general direction of the grain of the sheet thus severed.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents a section of a tree-trunk which is blocked off into a series of boards 2 of suitable width or thickness, the boards being subsequently cut into a series of blocks 3, from which the veneer sheets are directly cut or severed. The block 3 is placed on a base or platform 4, which is tilted so as to slightly incline the front face of the block rearwardly or sufficiently to enable the vertically-reciprocating cutting-knife 5 to cut the wood at a slight angle to the general direction of the fiber—that is to say, across the fiber. The base 4 is simultaneously inclined, so as to tilt the block 3 laterally, so as to enable the knife to exert a shear cut, all as fully represented in Figs. 2 and 3 of the drawings. As the successive veneer sheets are severed or peeled off from the advancing face of the block the latter is fed forward under the knife, the mechanism for feeding the block and actuating the knife not being herein shown, as these features do not form a part of the present invention, and for the further reason that any machine for the purpose may be employed.

As stated above, the object of inclining the block 3 rearwardly is to enable the knife to cut across the fiber of said block. Were this not so and the knife allowed to cut parallel to the fiber, the veneer sheets would in the majority of cases split off from the body of the block, just as is common in the splitting of kindling-wood, and instead of resulting in a perfectly formed or cut corrugated veneer sheet the chances are that there would be pro-



duced strips or plane sheets forcibly separated or split from the block. The object of inclining the block laterally is to enable the knife to exert a shear cut, as before explained, and for the additional purpose of producing a veneer in which the corrugations of the severed sheet shall run at a slight angle to the grain of such sheet. The advantage and importance of this construction is that as the sheet is wrapped about the bottle 6 into the form of a right cylinder the elements of the peripheral surface of such cylinder are substantially parallel to the grain of the sheet, and were it not for the slight obliquity of the corrugations the cylinder thus formed would be apt to crack along the grain-lines.

In beginning the cutting of a block the first strips or sheets severed extend only partially the full depth of the block, owing to the inclination of the face of the latter, as seen in Figs. 2 and 3, the latter showing a veneer sheet already severed and the knife in position to begin the next cut. When the knife finally begins the severance of the sheets at the point X in Fig. 2, the sheets will be the full depth of the block, as seen at 7' in Fig. 4. The grain of the wood is indicated by groups of parallel lines in Figs. 2, 3, and 4, whereby the manner of the cutting of the veneer sheets and their relation to the general direction of the grain are better apparent. The knife is provided with a fluted edge and corrugated face, so as to cut the sheets, as fully indicated in Figs. 4 and 5.

By bearing in mind the manner of cutting the veneer it will be found that the product as severed from the block possesses two characteristics—viz., the body of the sheet is cut across the fiber of the wood, (that is, on a bias to the fiber,) and the corrugations of the finished sheet are slightly oblique or at an angle to the general direction of the grain. By cutting the sheet bias to the fiber the direction of the latter will be slightly oblique to the

general plane of the sheet, as is obvious. The corrugated veneer when thus completed is a highly elastic and durable product and may be used as a bottle-wrapper, as a liner for packing-cases, as a pad for packing-cases, as a carpet-liner, and, in fact, may be used for a variety of purposes not herein mentioned.

Having described my invention, what I claim is—

1. A wood veneer comprising a sheet, the fiber of which is slightly oblique to the general plane of the sheet, substantially as set forth.

2. A wood veneer comprising a sheet, the fiber of which is slightly oblique to the general plane of the sheet, the latter being provided with parallel corrugations, substantially as set forth.

3. A wood veneer comprising a sheet, cut slightly oblique to the general direction of the fiber, and having a series of parallel oblique corrugations, substantially as set forth.

4. A wood veneer comprising a sheet cut oblique to the general direction of the fiber, and having a series of corrugations disposed at a slight angle to the general direction of the grain of the sheet, substantially as set forth.

5. A wood veneer comprising a sheet cut oblique to the general direction of the wood fiber, and having a series of parallel corrugations disposed at a slight angle to the grain of the sheet, substantially as set forth.

6. A corrugated sheet-veneer having its fiber running at an angle to the general plane of the sheet, and having corrugations slightly inclined but substantially parallel to the grain of the sheet, substantially as set forth.

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

HENRY J. MARK.

Witnesses:

EMIL STAREK,

JAMES J. O'DONOHUE.