

No. 796,176.

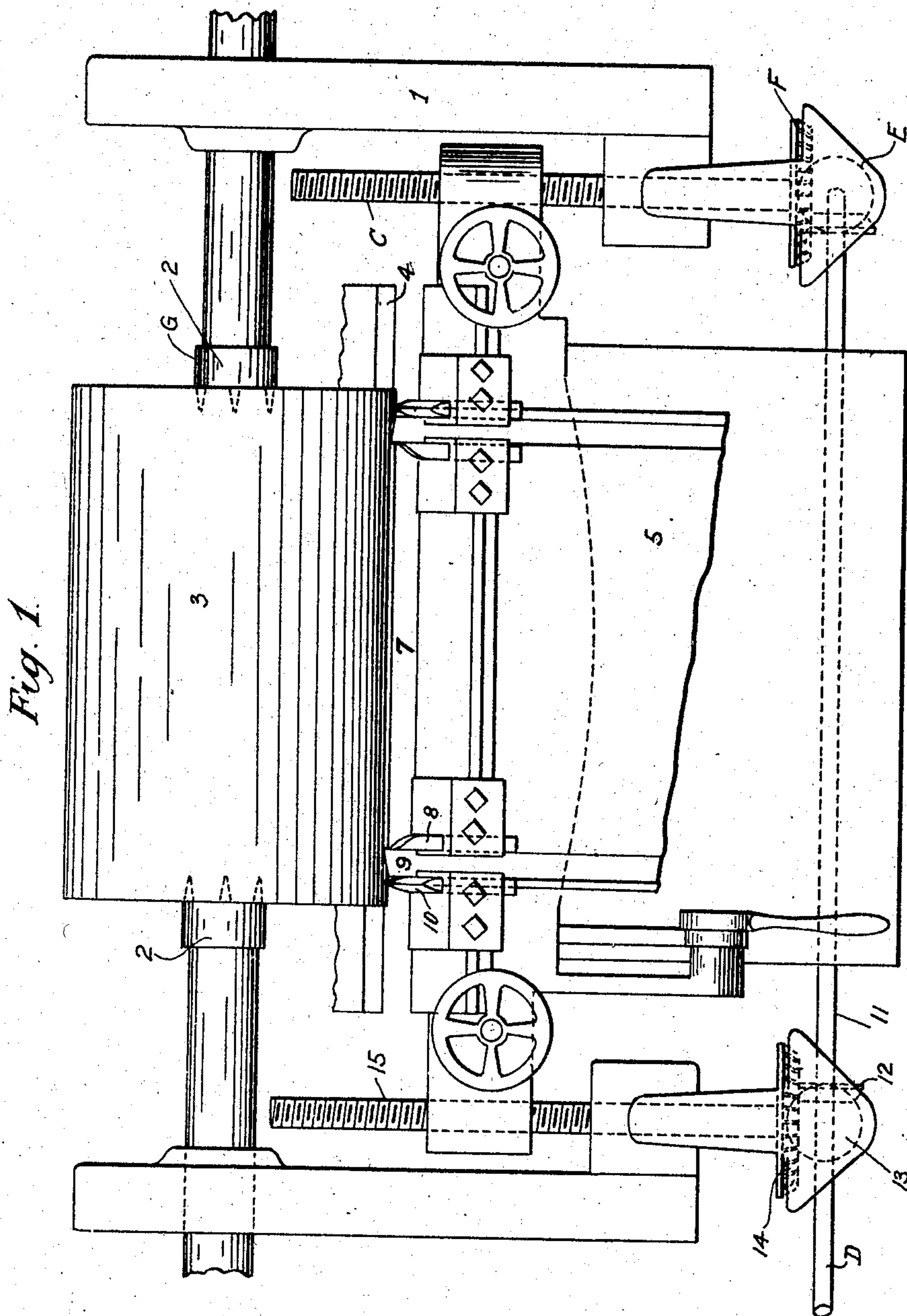
PATENTED AUG. 1, 1905.

E. E. BARTHOLOMEW.

MACHINE FOR MAKING BARREL STAVES OR BLANKS.

APPLICATION FILED JUNE 28, 1904.

2 SHEETS--SHEET 1.



WITNESSES:

Rm Caffee  
J. L. Briggs.

Eugene E. Bartholomew INVENTOR,  
BY Fouts & Hull ATTORNEYS

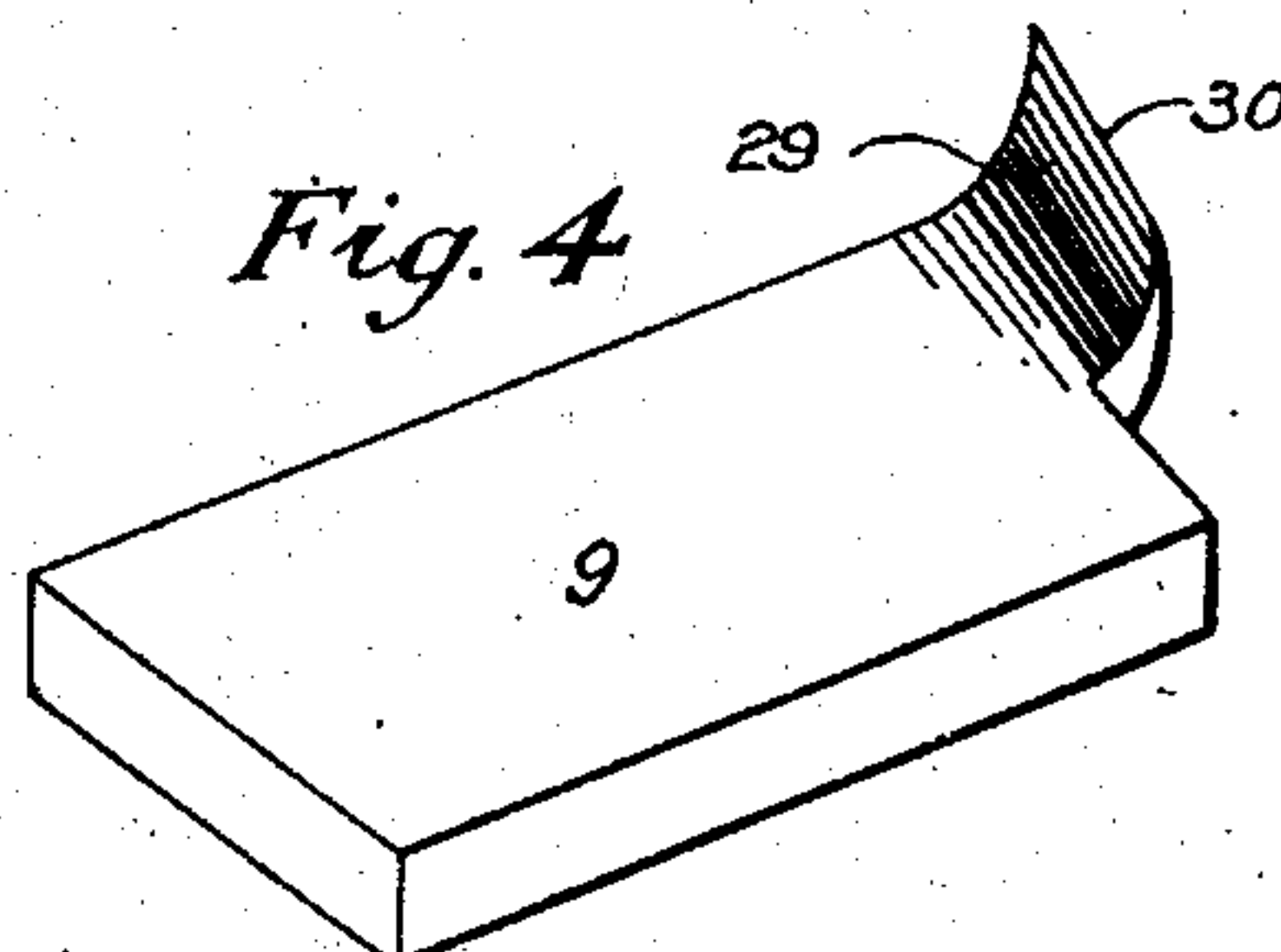
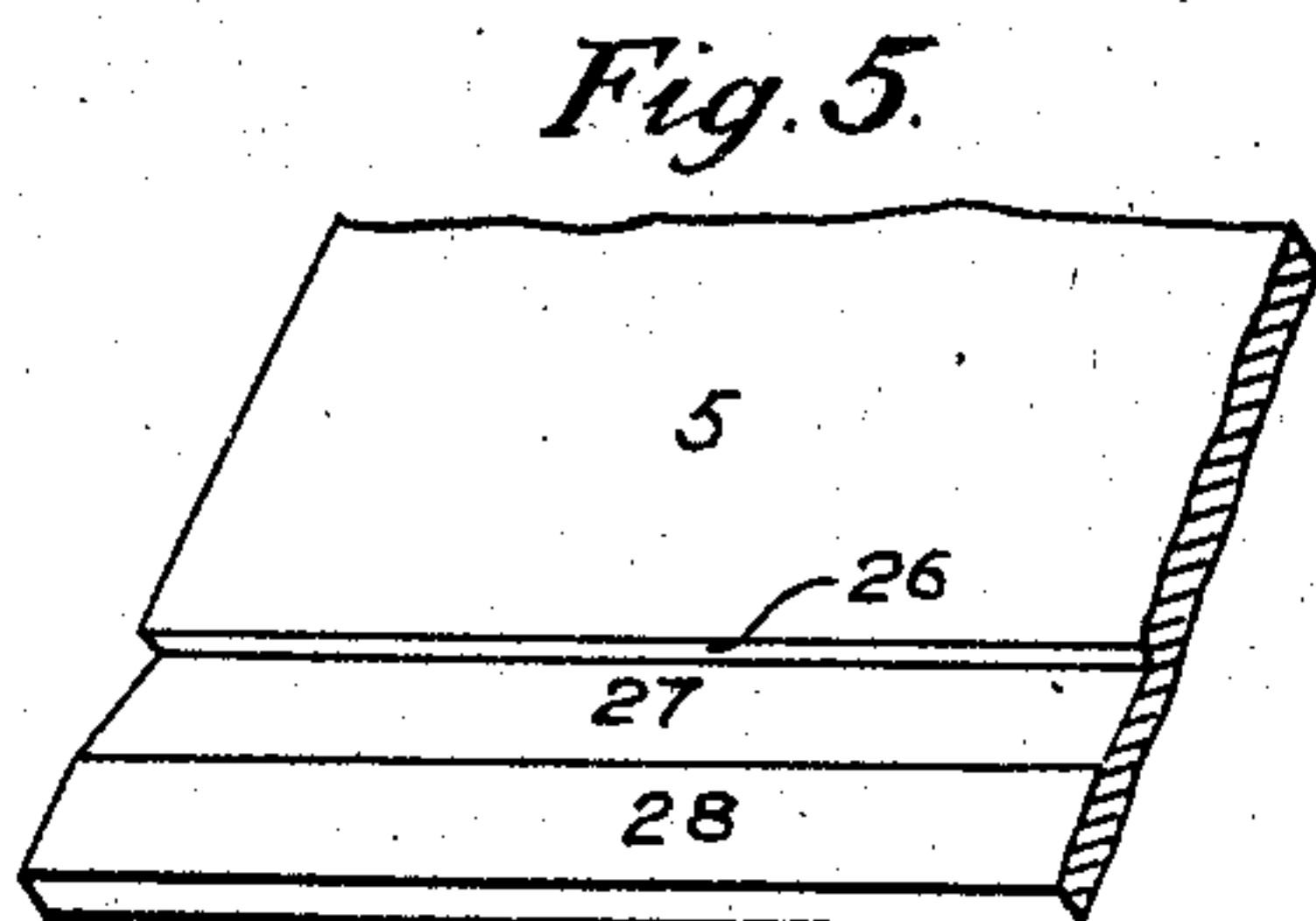
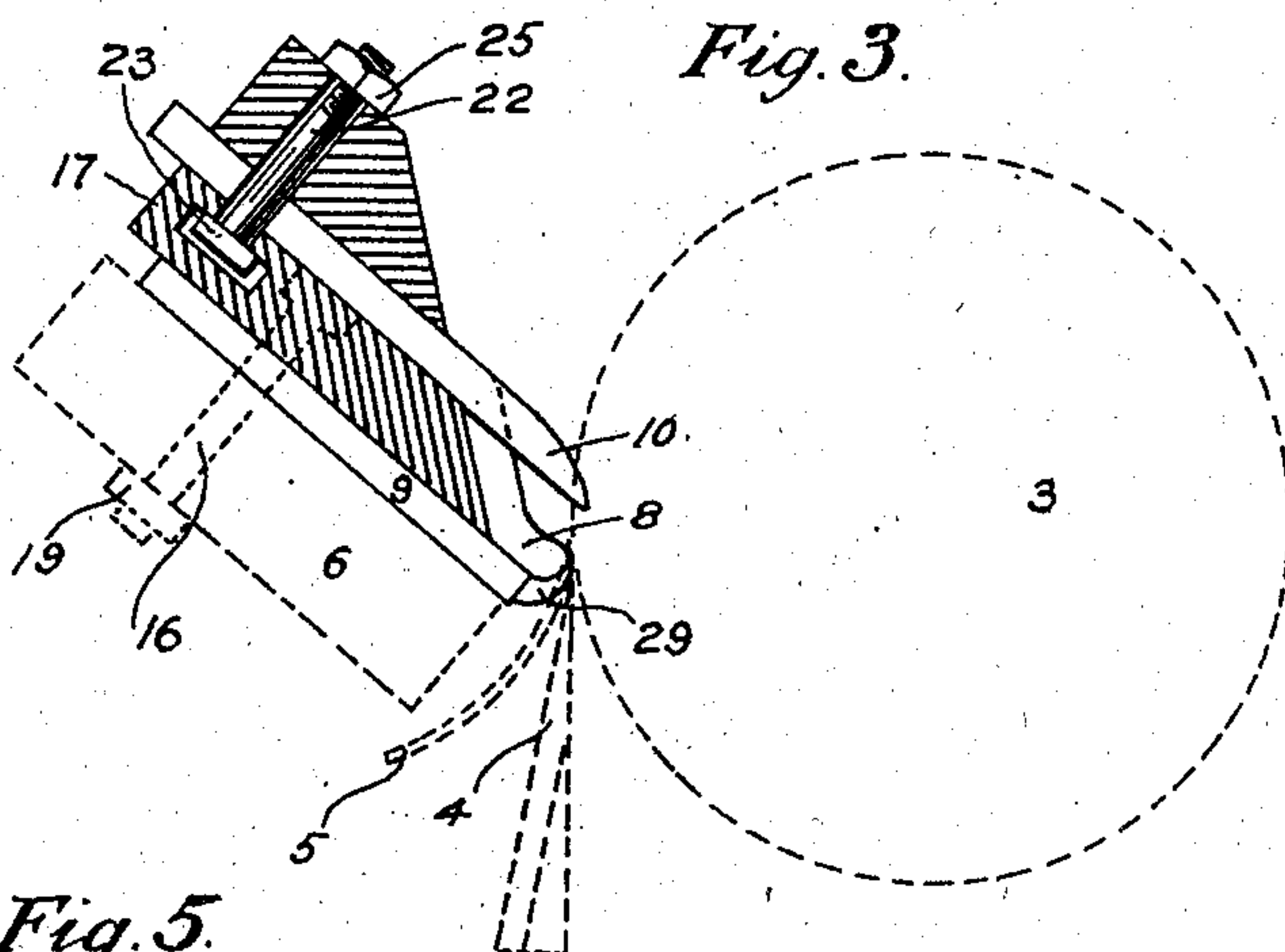
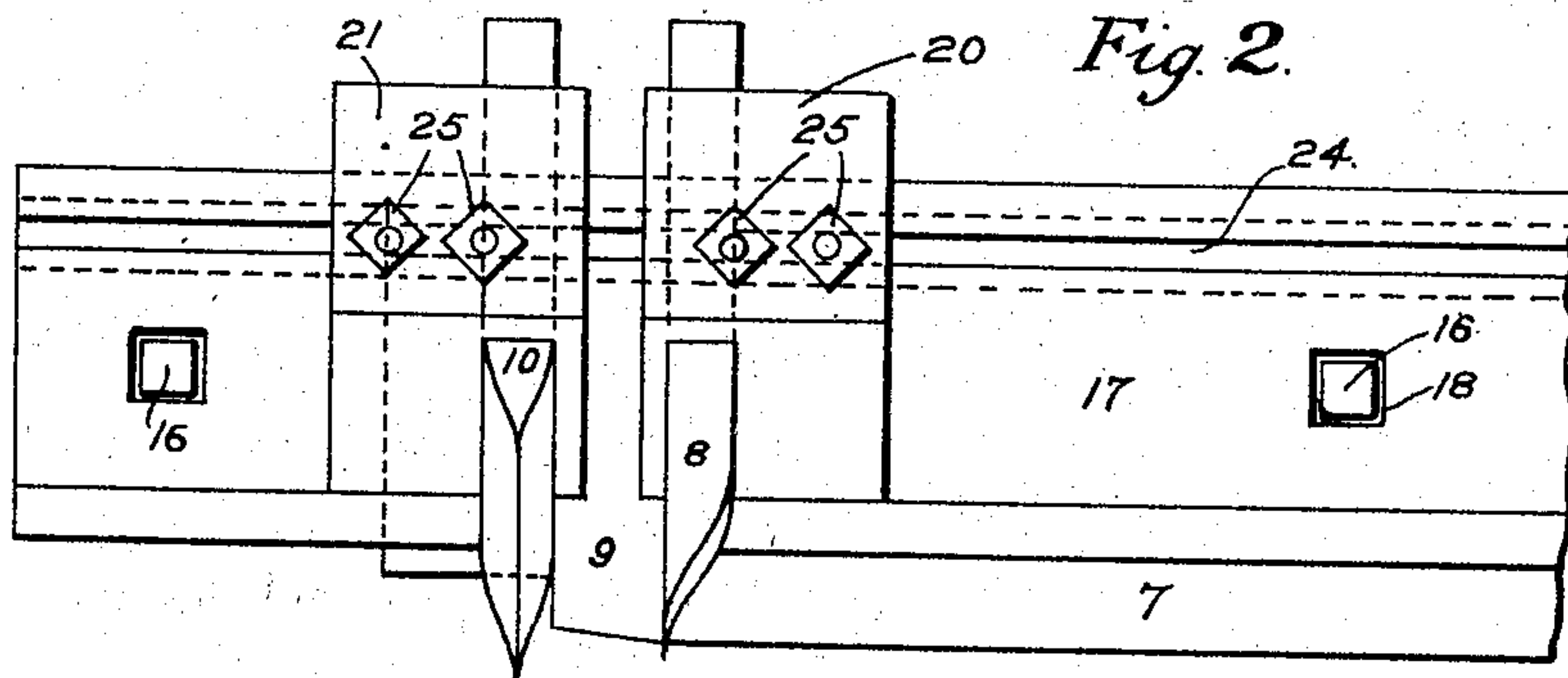
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2 SHEETS—SHEET 2.



WITNESSES:  
*R. M. Caffrey*  
*F. L. Biggs*

INVENTOR  
*Eugene E. Bartholomew*  
BY *Fonts & Hull*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

EUGENE E. BARTHOLOMEW, OF CLEVELAND, OHIO, ASSIGNOR TO THE SINGLE STAVE BARREL COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

## MACHINE FOR MAKING BARREL STAVES OR BLANKS.

No. 796,176.

Specification of Letters Patent.

Patented Aug. 1, 1905.

Application filed June 28, 1904. Serial No. 214,515.

*To all whom it may concern:*

Be it known that I, EUGENE E. BARTHOLOMEW, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Machines for Making Barrel Staves or Blanks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My invention relates to machines for making barrel staves or blanks from veneer; and it consists generally in the combination, with a machine for cutting veneer from logs, of means for forming in such veneer the croze and chime for the stave or blank.

The invention may be defined generally as consisting of the combinations of elements embodied in the claims hereto annexed.

Referring to the drawings, Figure 1 represents a plan view of a portion of a veneer-cutting machine having my invention applied thereto. Fig. 2 represents an enlarged detail plan view showing the arrangement of the knives or tools which I employ. Fig. 3 is a view, partly in section and partly in elevation, showing the manner in which the tools are applied to the veneer material. Fig. 4 is a view in perspective of the croze-cutting knife or tool. Figs. 5 and 6 are respectively a perspective and a sectional view of a portion of a stave or blank after the same has been operated upon by my machine.

In the manufacture of veneer barrels it is essential that the ends of the barrels be formed in such manner as to firmly retain the heads therein and at the same time not unduly weaken the material from which the barrels are made. Owing to the thinness of such material (veneer of about one-fourth inch being usually employed) it is difficult to form a croze which will effectually retain the heads in the barrels and at the same time construct the chimes to sustain the strain incident to rolling and otherwise handling the barrels. I have found that the best manner to overcome these difficulties is to make the croze and chime substantially as shown in Figs. 5 and 6—viz., by forming the croze as a continuous incline extending from near the end of the stave or blank a suitable distance to receive the head and terminating in an abrupt shoulder and by making the chime relatively short and of the entire thickness of the veneer. In order to form such croze and

chime, I have devised the following construction.

In Fig. 1, 1 represents a part of the frame of a veneer-cutting machine, said frame supporting the dogs 2, by which the log 3 is sustained and rotated. Suitably supported in operative relation to the log is the knife 4, by means of which the veneer 5 is cut from the log. Opposite the knife 4 is the bed-plate 6, which carries the presser-bar 7 and tools 8, 9, and 10, by means of which the croze is formed in the veneer and the end of the blank or stave is trimmed. The veneer-cutting knife and the presser-bar, with the knives or tools 8, 9, and 10, are fed toward the log by means of the shaft 11, gears 12 13 14, and feed-screws 15 in the manner usual in veneer-cutting machines.

The veneer as it is cut from the log passes between the presser-bar 7 and the knife 4. The knives or tools 8, 9, and 10 are positioned to act upon the material before it is removed from the log, thereby insuring a firm support for such material.

The tools or knives are supported as follows: Clamped to the bed-plate 6 by means of bolts 16 is the clamping-plate 17, said plate having recesses 18 for the reception of the heads of the bolts 16, there being nuts 19 below the bed-plate for tightening said bolts. The presser-bar 7 is inserted between the clamping-plate and the bed-plate and is held in place by tightening the nuts 19. The croze-cutting knife or tool 9 is also inserted between said clamping-plate and bed-plate and is of the same thickness as the presser-bar, whereby the tightening of the nuts 19 also clamps said knife. The tools 8 and 10 are carried by blocks 20 and 21, each of said blocks being provided with a slot extending from the bottom face thereof a sufficient distance to receive the appropriate tool between the upper wall of the recess and the clamping-plate 17. Bolts 22, having heads 23 engaging a T-shaped slot or keyway 24 in the clamping-plate, extend through the blocks 20 and 21 and are provided with nuts 25, by means of which said blocks may be drawn toward the clamping-plate and the tools 8 and 10 secured by clamping against said plate.

The tools 8 and 10 project toward the log and are above the knife or tool 9. The tool or knife 9 is clamped adjacent to the presser-



bar 7, but is slightly separated therefrom a sufficient distance to permit the insertion between said knife and bar of the point of the tool 8, as shown more particularly in Figs. 2 and 3. As will further appear from said figures, the point of the knife 8 projects slightly beyond the adjacent edge of the tool 9 and is at right angles to the log 3, whereby said point cuts the abrupt shoulder 26 at the end of the incline 27 cut by the said tool 9. The knife or spud 10, which cuts off the surplus end of the stave or blank, is separated a short distance from the adjacent edge of the tool 9 and projects beyond said tool and the knife 8, whereby it forms the chime 28. By simply slackening up the nuts 25 the positions of the knives 8 and 10 may be varied either longitudinally or transversely of the clamping-plate, as well as with reference to the tool 9.

The tool 9, as will appear from an inspection of Figs. 2, 3, and 4, is formed with an upturned lip 29, having an inclined edge 30, the inclination of such edge and the adjustment of the knife being such as to enable it to cut the inclined croze 27. If preferred, the body of the tool may be wider than the cutting edge, as shown, providing a larger surface for engagement by the clamping-plate 17.

From the foregoing it will be apparent that I have produced a construction which will not only enable me to simultaneously cut, croze, and chime veneer blanks or staves for barrels, but which will enable me to produce a form of croze and chime for such stave or blank which is peculiarly adapted for barrels made of thin material and which will permit the ready adjustment of the tools to meet varying conditions which may occur in the manufacture of such staves or blanks.

While I have described my invention in detail, it will be apparent that such details may be varied or departed from more or less without varying the spirit of my invention, and I do not propose to be limited to such details except as the same may be rendered necessary by the prior state of the art or may be embodied in the claims hereto annexed.

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

1. In a machine for making barrel staves or blanks of veneer, the combination of a knife for cutting such blank or stave from the log, a presser-bar of slightly less length than said stave or blank, a croze-knife adjacent each end of said presser-bar and supported in a common plane therewith, and a common clamping means for said bar and knife, substantially as specified.

2. In a machine for making barrel staves or blanks of veneer, the combination of a knife for cutting such blank or stave from the log, a bed-plate adjacent said knife, a presser-bar on said bed-plate of slightly less length than

said stave or blank, a croze-knife adjacent each end of said presser-bar and supported on said bed-plate, a common clamping-plate for said presser-bar and said croze-knife, and means for clamping said plates together, substantially as specified.

3. In a machine for making barrel staves or blanks of veneer, the combination of a knife for cutting such blank or stave from the log, a presser-bar of slightly less length than said stave or blank, a croze-knife at each end of said presser-bar and having its body portion supported in the plane of the presser-bar and provided with an upturned inclined edge, and a shoulder-cutting knife supported above said croze-knife with its edge in close proximity to the inner end of the edge of said croze-knife, substantially as specified.

4. In a machine for making barrel staves or blanks of veneer, the combination of a knife for cutting such veneer from the log, a presser-bar opposite said knife, said presser-bar being in length slightly less than the length of the desired stave or blank, a shoulder-forming knife at each end of said presser-bar, a croze-cutting tool outside of and adjacent said shoulder-forming knife, and a spud or knife outside of and adjacent to said croze-cutting tool, for removing the surplus ends from said blank or stave, substantially as specified.

5. In a machine for making barrel staves or blanks from veneer, the combination of a veneer-cutting knife, a bed-plate opposite said knife, a clamping-plate above said bed-plate, a croze-cutting knife or tool between said bed-plate and clamping-plate, means for clamping said plates together, a shoulder-cutting tool or knife clamped to said clamping-plate with its edge adjacent to and projecting slightly beyond said croze-cutting knife, and a spud or knife for cutting off the surplus ends of the veneer, said spud or knife being also clamped to the clamping-plate, substantially as described.

6. In a machine for making barrel staves or blanks from veneer, the combination of a veneer-cutting knife, a presser-bar of slightly less length than said stave or blank, a croze-cutting knife or tool adjacent said presser-bar, said presser-bar and said knife resting on said bed-plate, a clamping-plate above said presser-bar and croze-cutting knife, a spud or knife for removing the surplus ends of the stave or blank, and means for adjustably supporting said spud or knife on said clamping-plate, substantially as described.

7. In a machine for making barrel staves or blanks from veneer, the combination of a knife for cutting the veneer from the log, a bed-plate opposed to said knife, a clamping-plate, a croze-cutting knife between said clamping-plate and bed-plate, means for clamping said plates together, said clamping-plate being provided with a longitudinal slot or keyway therein, a supporting-block on said clamping-plate, said supporting-block having its lower



face recessed, a spud or knife for cutting off the surplus ends of the staves or blanks, said spud or knife fitting in the recessed portion of the block, a bolt extending through said block and having its head in the slot or keyway, a nut on the end of said bolt, whereby the block may be clamped in any desired position to said plate and the tool be retained in place in the recess of said block, substantially as described.

8. In a machine for making barrel staves or blanks from veneer, the combination of a knife for cutting the veneer from the log, a croze-cutting knife opposed to said first-mentioned knife, said croze-cutting knife having an edge inclined from one end to the other thereof, and a knife or tool adjacent said croze-cutting knife, said last-mentioned knife or tool having its edge projecting slightly beyond the end of the croze-cutting knife and adjacent said latter knife, the cutting edge of said last-mentioned knife being perpendicular to the surface of the material, whereby a croze is formed in said material having an inclined face and an abrupt shoulder.

9. In a machine for making barrel staves or blanks from veneer, the combination of a bed-plate, a clamping-plate above said bed-plate, a croze-cutting knife between said plates; means for clamping said plates together, said clamping-plate having a keyway or slot in the upper portion thereon, tools for forming a shoulder in the croze and for cutting off the surplus end of the stave or blank, and means for adjustably supporting said tools with reference to said croze-cutting knife, said means consisting of a pair of blocks, each having a recess in the lower face for the reception of a tool, a bolt extending through each of said blocks, said bolt having its head fitting in said keyway or slot, and a nut for the end of said bolt, whereby said blocks and the tools therein may be adjusted and clamped to said clamping-plate.

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

EUGENE E. BARTHOLOMEW.

Witnesses:

S. E. FOUTS,

R. M. CALFEE.