

No. 700,296.

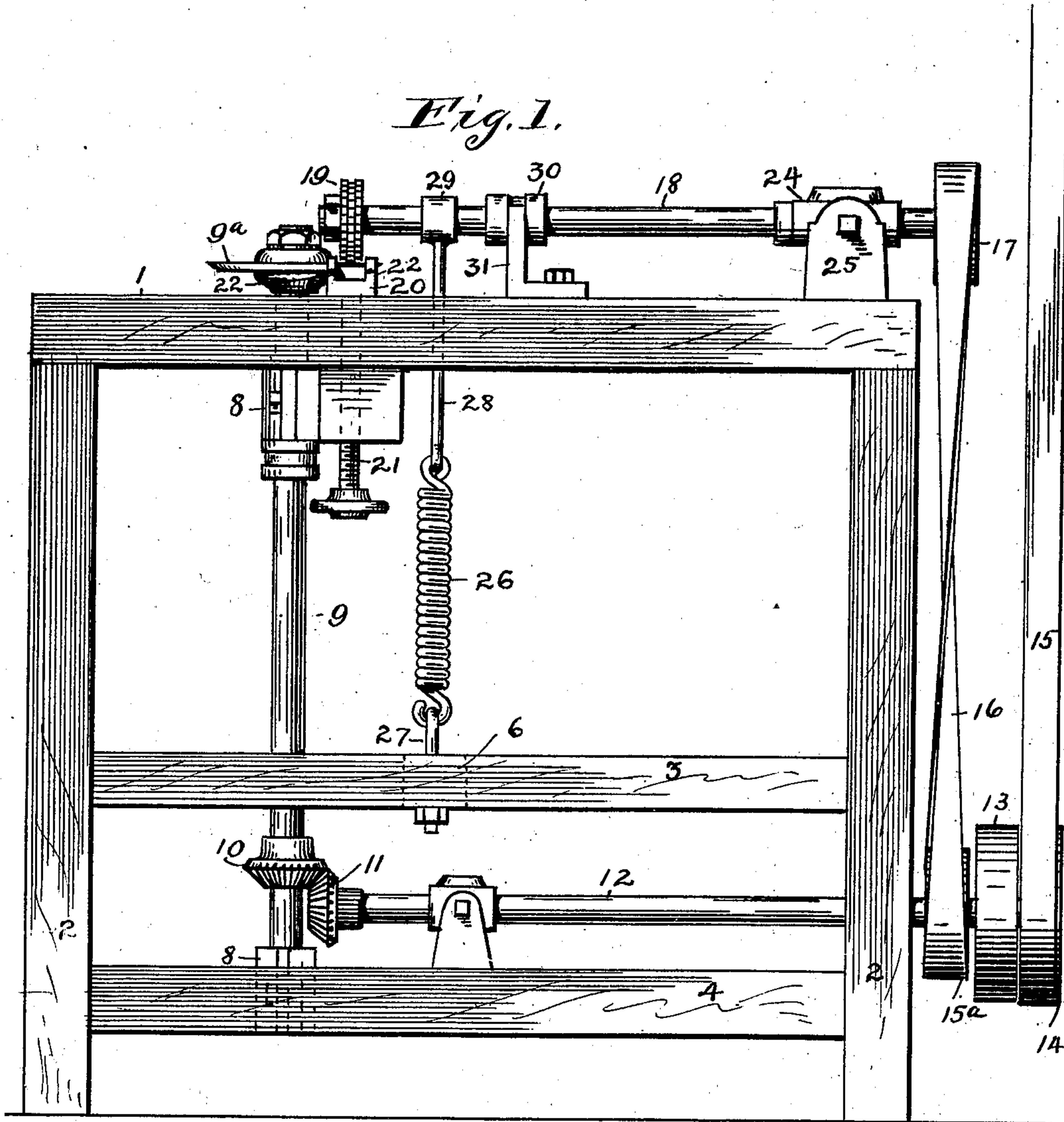
Patented May 20, 1902.

E. L. BROWN.
MACHINE FOR SPLITTING BARK STRIPS.

(Application filed June 24, 1901.)

(No Model.)

3 Sheets—Sheet 1.



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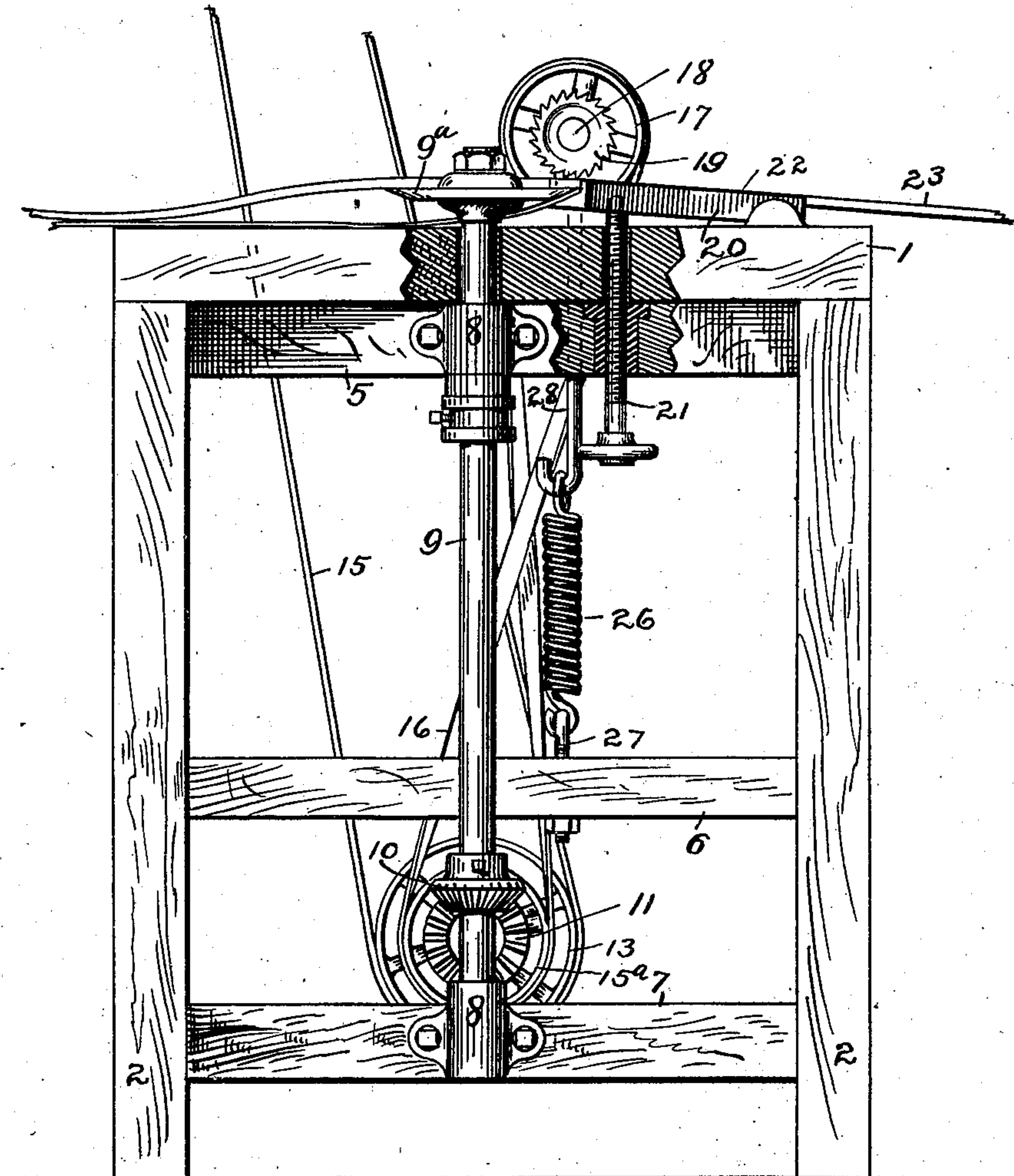
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3 Sheets—Sheet 2.

Fig. 2.



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Fig. 3.

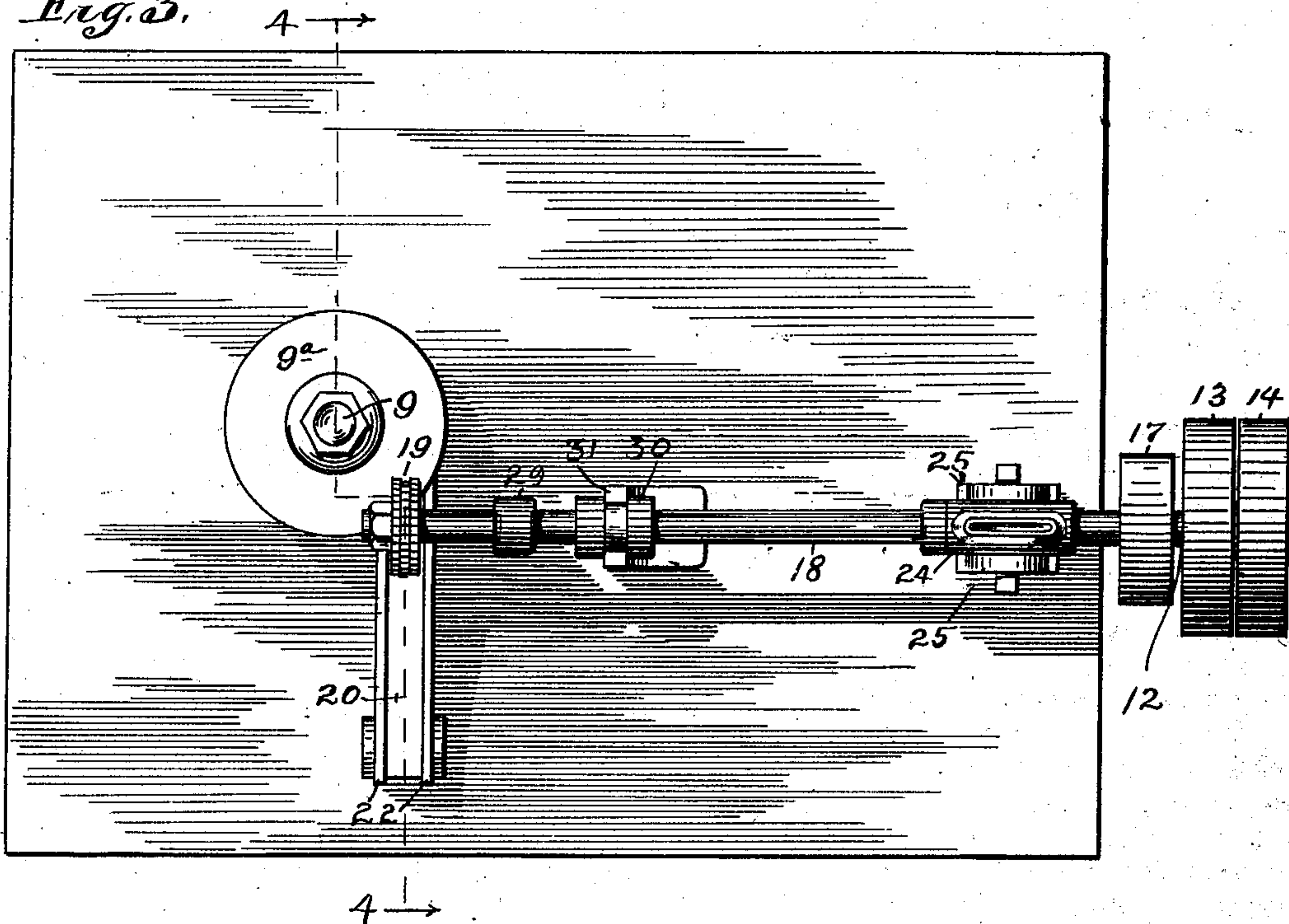
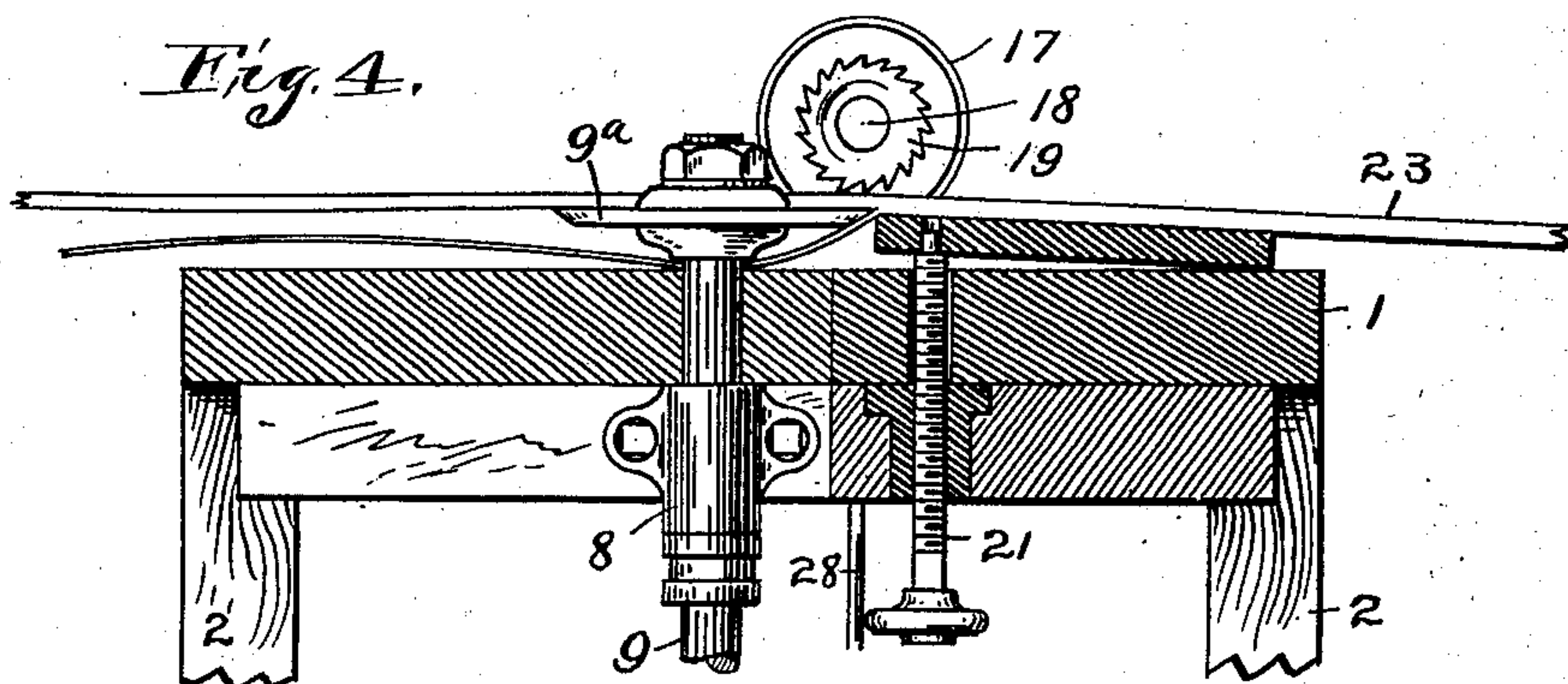


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDMUND L. BROWN, OF MARTINSVILLE, INDIANA.

MACHINE FOR SPLITTING BARK-STRIPS.

SPECIFICATION forming part of Letters Patent No. 700,296, dated May 20, 1902.

Application filed June 24, 1901. Serial No. 65,878. (No model.)

To all whom it may concern:

Be it known that I, EDMUND L. BROWN, a citizen of the United States, residing at Martinsville, in the county of Morgan and State of Indiana, have invented certain new and useful Improvements in Machines for Splitting Bark-Strips, of which the following is a specification.

This invention relates to improvements in machines for splitting strips of hickory, birch, and other tenacious barks and materials into several thinner strips and for reducing such strips to a uniform thickness.

The invention is intended primarily for producing the splints or strips of hickory-bark to be used in weaving the backs and bottoms of chairs of a pattern such as were produced by the early pioneers. The bark as it comes from the tree is too thick to work to the best advantage as to convenience of manufacture and handsome appearance of the finished product and besides is covered on the outside with a rough scale and is full of knots and uneven places. All of these imperfections the machine is designed to remove and by splitting the original bark cheapening the cost by producing several strips from a single original one and at the same time providing a more pliable material.

I accomplish the objects of the invention by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of my invention; Fig. 2, an end view of same; Fig. 3, a plan view, and Fig. 4 a detail of the upper portion of the machine in vertical section on the dotted line 4 4 of Fig. 3.

Like figures of reference indicate like parts throughout the several views of the drawings.

1 is the table upon which the splitting operation is performed. It is supported in the usual manner by the legs 2. The legs are connected by the longitudinal bars 3 and 4, which in turn are connected by the transverse bars 5, 6, and 7. Bolted to bars 5 and 7 are boxes 8 8, in which is mounted the vertical shaft 9. The upper end of shaft 9 projects a suitable distance above the top of the table and is provided with the removable cutter 9^a, which is a circular steel disk having its periphery beveled on the under side to bring it to a cutting edge. The vertical shaft

9 has the beveled pinion 10, the teeth of which mesh with the teeth of the beveled pinion 11 on the end of the horizontal shaft 12. The shaft 12 is placed longitudinally of the machine and has the loose pulley 13 and adjacent tight pulley 14 on its outer end to receive belt 15, by means of which power from any suitable motor is transmitted through the pulley 14 to said shaft. Also mounted on shaft 12 between the pulleys just mentioned and the frame of the machine is the pulley 15^a, which is connected by the crossed belt 16 with pulley 17 on the end of the shaft 18. Shaft 18 is above the table 1 and is mounted parallel with the shaft 12. Its inner end terminates over the disk 9^a, and mounted thereon are the serrated feed-disks 19. A feed-box 20 rests upon the table; with its inner end terminating under the feed-disks and also under the edge of the cutting-disk 9^a. This inner end of the box is adjustable vertically to or from the disk 9^a by means of the screw 21. The sides 22 22 of the box serve as guides to direct the bark 23 to the cutter, and the space between the adjacent end of the feed-box and the cutting edge of the cutter 9^a determines the thickness of the strip to be peeled off of the under side of the thick piece presented. This strip 23 is force-fed to the cutter by the rotation of the feed-disks 19, and to prevent the choking of the strip between the feed-disks and the feed-box from irregularities in thickness of the original bark strip I provide a vertical adjustment of the end of shaft 18, carrying said feed-disks, by pivoting the journal-box 24 in the block 25. The inner end of this shaft is drawn in a downward direction by the spring 26, the lower end of which is fastened by the eyebolt 27 to the bar 6 and the upper end of which spring is connected by link bar 28 with sleeve 29, which surrounds the shaft 18. Lateral movement of the shaft is prevented by the annularly-grooved box 30, which takes into a vertical slot in the standard 31. When an unusually thick or unusually thin portion of a strip of bark 23, passing through the feed-box to the cutter, arrives under the feed-disks, the latter rises or falls proportionately to let it pass. The thinner strips are taken off one at a time, the original strip being run through successively until not enough material is left

to take off another strip. The bark is softened by soaking in water before it is put through the splitting-machine.

Having thus fully described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. A revoluble cutter beveled on one side to a cutting edge, a guideway having one end adjacent to the beveled side of the cutter and adjustable in its distance from the cutting edge, and revoluble feed-disks on the end of a vertically-tilting shaft to force-feed the material between the bearing-plate and cutter, said feed-disks being automatically adjustable to accommodate material of varying thickness.

2. A table, a revoluble vertical shaft projecting through said table, a circular disk mounted on the top of said shaft having its under edge beveled to form an upper cutting edge, a feed-box having one end located under the cutter to hold the material up thereto, means for adjusting said end toward and from the cutter, a horizontal revoluble shaft terminating at one end above the feed-box and cut-

ter, said shaft having a vertical rocking adjustment, serrated feed-disks mounted on said end of the horizontal shaft, and yielding means for drawing the end of the shaft having the cutters, down toward the feed-box with a predetermined pressure.

3. In a splitting-machine, a vertical revoluble shaft having a cutter at its upper end, a feed-box leading to said cutter, the end of said feed-box forming a bearing for the material under the cutter, a screw for adjusting said bearing end of the feed-box, a horizontal revoluble shaft pivoted to afford a vertical adjustment of its inner end, a spring to draw the shaft toward the feed-box, a tension device to regulate the force of the spring, and feeding-disks on the end of the shaft over the feed-box.

In witness whereof I have hereunto set my hand and seal, at Martinsville, Indiana, this 12th day of June, A. D. 1901.

EDMUND L. BROWN. [L. S.]

Witnesses:

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GEORGE HILL.