

W. J. OTT.
 VENEER BARREL MAKING MACHINE.
 APPLICATION FILED JAN. 6, 1911.

1,022,970.

Patented Apr. 9, 1912.

2 SHEETS-SHEET 1.

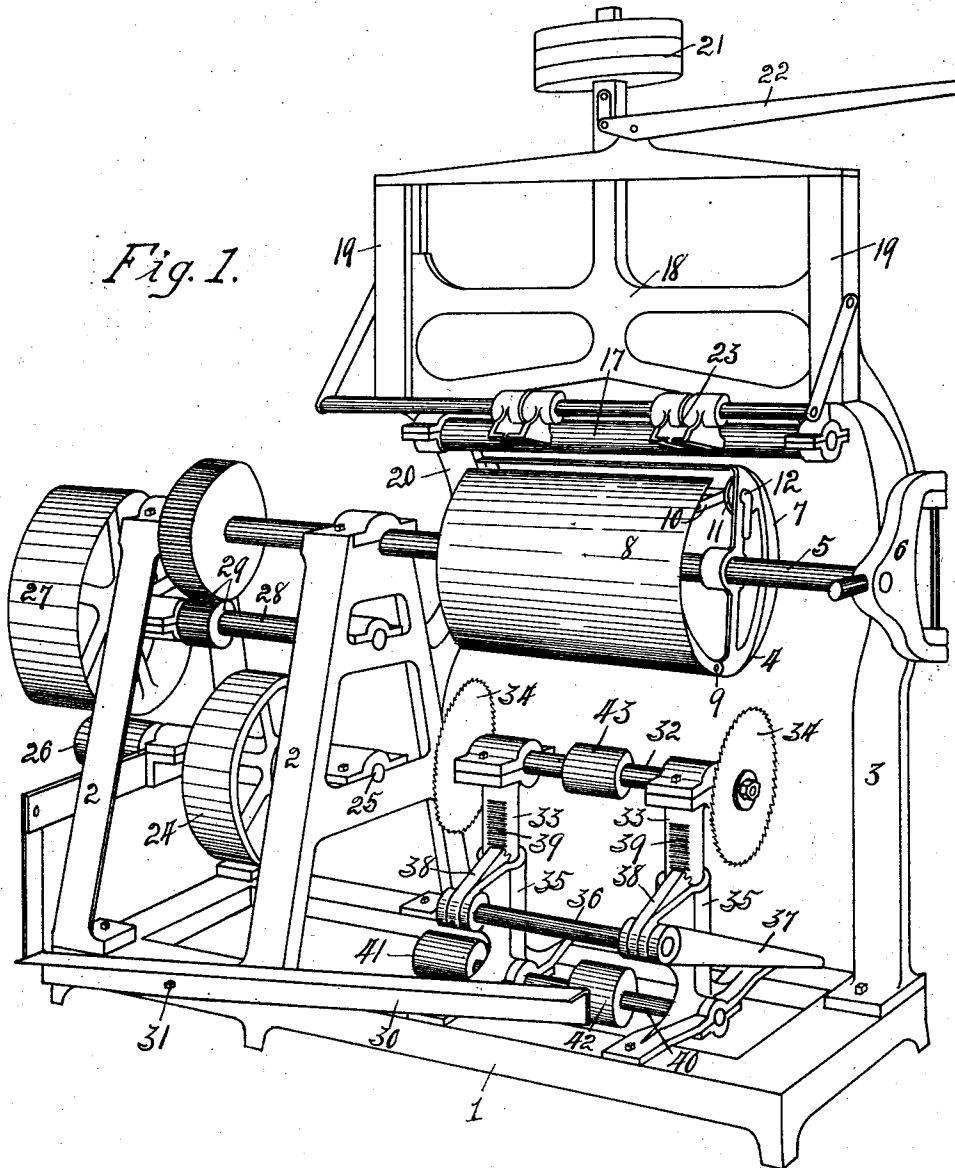


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

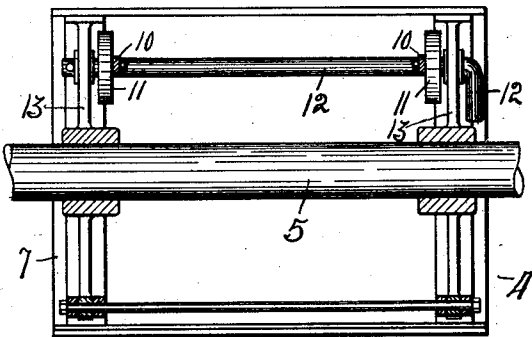


Fig. 3.

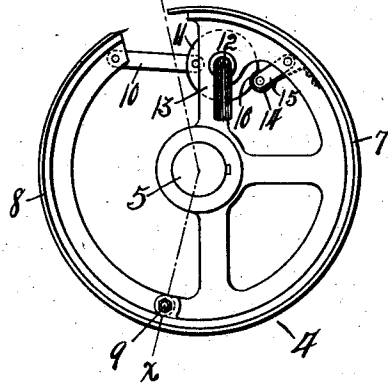


Fig. 4.

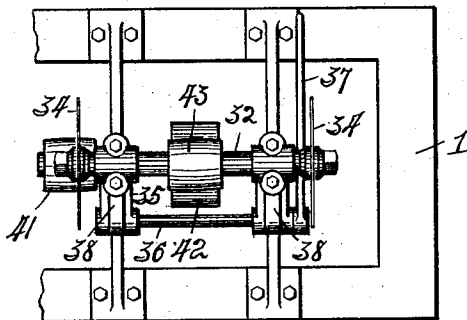
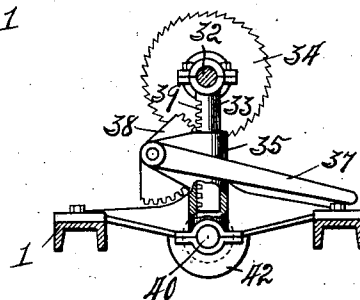


Fig. 5.



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veneer-barrel-making machine.

1,022,970.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed January 6, 1911. Serial No. 601,200.

To all whom it may concern:

Be it known that I, WILLARD J. OTT, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Veneer-Barrel-Making Machine; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to the class of machines in which veneering, paper fiber or other similar material is shaped in cylindrical form about a forming mandrel.

The object of my invention is the provision in a machine of this class of an improved and highly efficient form of collapsible mandrel, which is inexpensive, strong and durable in its construction, and capable of being easily and quickly collapsed or expanded as desired, whereby to enhance the practicability and commercial value of machines of this class.

A further object of my invention is the provision of improved means for controlling the movements of the work trimming saws whereby they may be easily and quickly moved to work trimming position or retracted therefrom as may be desired.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which,—

Figure 1 is a view in perspective of a machine embodying my invention. Fig. 2 is a section of the collapsible mandrel taken on the line $x-x$ in Fig. 3. Fig. 3 is an end view thereof. Fig. 4 is a plan of the work trimming mechanism, and Fig. 5 is a vertical section thereof with a part broken away.

Referring to the drawings, 1 designates the base frame of the machine from which rise the bearing standards 2, 2, and 3. The drum or mandrel 4, comprising one of the features of my invention, is carried by a shaft 5, one end portion of which is journaled in the upper portions of the standards 2, 2, while its other end is journaled in a bearing gate 6, which is hinged in a suitable manner to the standard 3 to enable it to be

swung outwardly from the shaft 5 to permit a removal of a formed drum from the mandrel endwise thereof. The drum 4 is preferably of hollow construction and has a portion 7 of its rim or periphery fixed relative to the shaft 5 and a segmental portion 8 thereof hinged at one edge to the adjacent edge of the portion 7 as at 9 to adapt its opposite edge to be swung inwardly or outwardly from the adjacent edge of the fixed portion of the drum to permit a collapsing or expansion of the drum periphery as may be desired.

The free edge of the hinged segment 8 is connected adjacent its ends by links 10 to disks 11 which are fixed to a shaft 12 that is disposed within the drum longitudinally thereof and has its ends journaled in a set of spokes 13 of the drum adjacent the free edge of the portion 7 thereof. One end of the shaft 12 is turned inwardly without its bearing to provide a crank handle to facilitate a turning of the shaft. It is apparent with this construction that when the segment 8 stands in expanded relation to the portion 7 of the drum, as shown in Fig. 3, a turning of the shaft 12 and attached disks 13 in either direction will cause the free end of the segment to move inwardly toward the portion 7 whereby to collapse the drum to permit the removal of a formed article therefrom. The peripheral portions of the drum parts 7 and 8 when expanded are adapted to cooperate to form a complete circle except for the space between the free edges thereof. Upon a collapsing of the drum section 8 it assumes a position which is eccentric to the drum axis.

A pressure roll 17, which is intended to hold the veneering or other material to the drum as it is wound thereon, is disposed above the drum and has its ends journaled in suitable bearings carried by a cross-head 18, which cross-head is mounted for vertical reciprocatory movements in guides 19 formed at the upper ends of the standards 3 and an arm 20 projecting from the inner one of the standards 2. The cross-head 18 is preferably weighted, as at 21, and is lowered by the movement of a control-lever 22.

23 designates the usual guides through which the outer hoops of a veneer barrel or package pass as they wind upon the drum with the veneering.

Power is communicated to the drum shaft 5 by a belt (not shown) engaging a pulley

24 on a shaft 25, which is journaled at one end in the inner standard 2 and has its other end carrying a friction-wheel 26 for coaction with the friction wheel 27 to transmit
 5 rotation to the shaft 28, which in turn transmits rotation to the drum shaft through the medium of the spur gears 29. The friction wheel 26 normally stands out of contact with the wheel 27 and is moved into engagement with such wheel by a lowering of the
 10 foot-treadle 30 which is fulcrumed to the frame-base as at 31 and has its short arm connected to the shaft 25 in a suitable manner to effect a raising of the wheel 26 into
 15 contact with the wheel 27 when the other end of the treadle is lowered, as shown. The means shown for driving the drum is common in machines of this class and no claim is made for the same.

20 Located beneath the forming drum or mandrel 4 is a shaft 32 which is journaled in the upper ends of stems or standards 33 and carries work-trimming saws 34, 34 at the ends thereof in suitable position to
 25 adapt them when raised to trim the ends of an article when formed on the mandrel. The stems 33 are mounted at their lower ends for reciprocatory movements in guiding sockets 35 which are suitably secured at
 30 their lower ends to the base frame 1. Journaled to one side of each of these sockets is a rock shaft 36 having a control lever 37 projecting from one end thereof. Peripherally toothed segments 38 project from the
 35 shaft 36 with their toothed portions working through registering openings in the sides of the sockets 35 and mesh with rack-teeth 39 formed on the adjacent sides of the stems 33, whereby a rocking of the shaft
 40 36 will effect a raising or lowering of the stems 33 and attached parts due to the rack and pinion connection between said stems and the shaft 36. A shaft 40, which is driven in any suitable manner, as by a drive
 45 belt engaging a pulley 41 thereon, is mounted in the lower portions of the sockets 35 and has a pulley 42 which connects with a superimposed pulley 43 on the saw shaft 32 by a belt, not shown. The belt
 50 which connects the pulleys 42 and 43 becomes tightened thereon when the saws are raised in proper position to trim the work.

In the operation of my improved machine the operator after lowering the pressure roll
 55 17 to have contact with the drum 4 and starting a strip of veneering to wind on such drum, presses his foot upon the treadle 30 to effect a raising of the wheel 26 into contact with the wheel 27 and a consequent

rotating of the drum 4 to cause the veneering or other thin material to wind upon the drum. During the winding operation the drum segment 8 is thrown to its limit of outward movement or with its peripheral portion in concentric relation with the drum
 65 shaft, it being yieldingly held in such position by the spring pressed roller 14 seating in a notch in one of the disks 13. When the desired amount of material has been wound upon the drum it is secured against
 70 an unwinding movement by nailing it or in any other suitable manner, and the saw controlling lever 37 is raised to effect a raising of the saws 34 into position to trim the ends of the work, after which the saws are lowered to their normal position. This having
 75 been done the operator turns the shaft 12 carrying the disks 11 to effect an inward drawing or collapsing movement of the movable drum segment 8 thus releasing the
 80 internal pressure upon the formed work to permit an easy withdrawal of the same from the mandrel endwise thereof. Prior to removing the work from the mandrel the bearing gate 6 is swung outwardly so as not
 85 to obstruct the removal of the work.

I wish it understood that my invention is not limited to any specific construction or arrangement of the parts except in so far as such limitations are specified in the claim. 90

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

In a machine of the class described, a shaft, a collapsible drum mounted on said
 95 shaft and having two hingedly connected segmental parts one of which is fixed to the shaft, a shaft mounted longitudinally within the fixed part adjacent to its free edge, disks carried by said latter shaft and one
 100 having a notch in its periphery, a link connecting each disk to the free edge portion of the movable part and adapted to effect a positive inward or outward movement of the movable drum part relative to the fixed
 105 part upon a turning of said disks, and means carried by the fixed drum part and yieldingly acting on the notched disk to cooperate with the notch thereof to resist a turning of the disk from drum expanding position.
 110

In testimony whereof, I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

WILLARD J. OTT.

Witnesses:

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 M. COWAN.