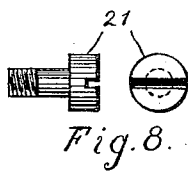
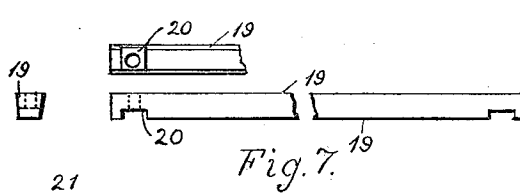
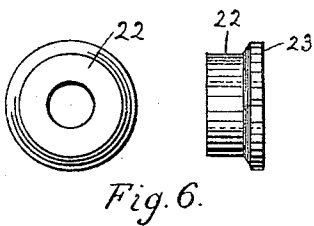
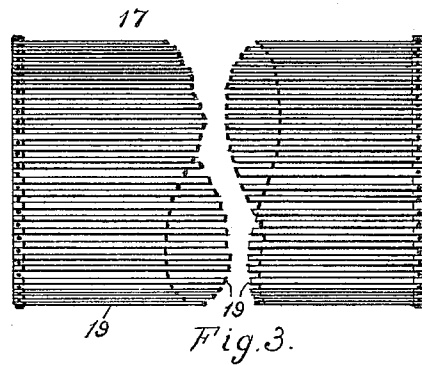
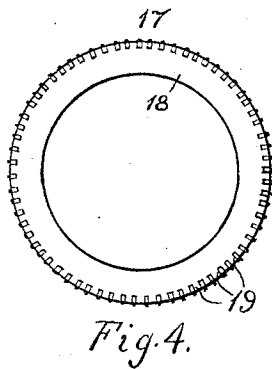
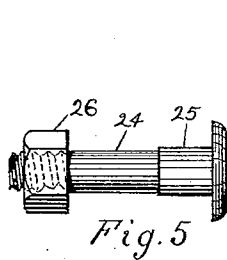
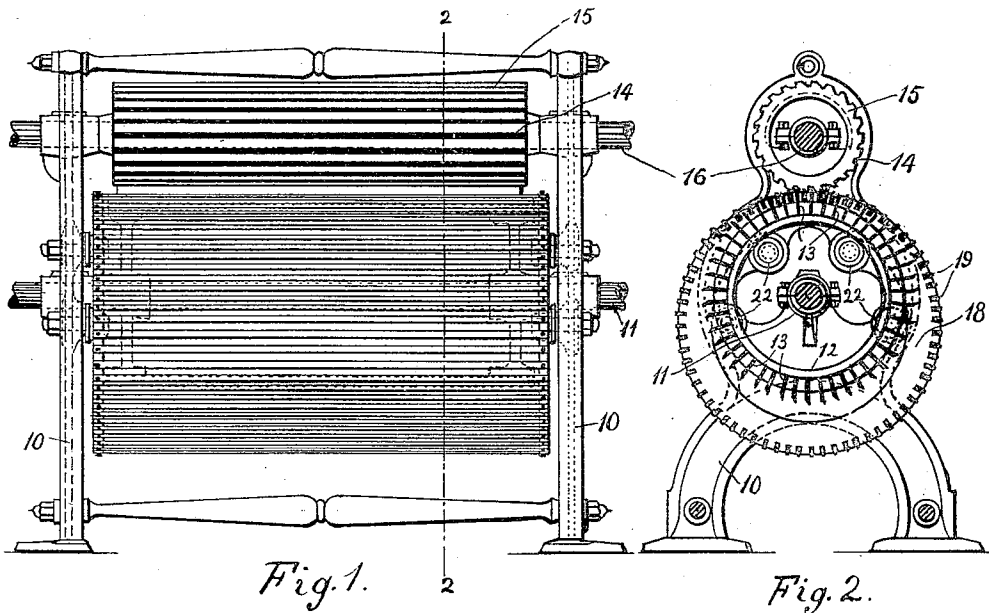


(No Model.)

W. F. HUTCHINSON.  
WOOD CUTTING MACHINE.

No. 529,386.

Patented Nov. 20, 1894.



WITNESSES:

Wallace A. Downs  
Warren B. Hutchinson

INVENTOR

William F. Hutchinson

# UNITED STATES PATENT OFFICE.

WILLIAM F. HUTCHINSON, OF PASSAIC, NEW JERSEY.

## WOOD-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 529,386, dated November 20, 1894.

Application filed October 3, 1893. Serial No. 487,121. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM F. HUTCHINSON, of Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Wood-Cutting Machines, of which the following is a full, clear, and exact description.

My invention relates to that class of machines which are used for cutting long strips of veneer into short lengths or blocks, and my present invention is an improvement on the machine shown in Letters Patent of the United States No. 507,499, dated October 24, 1893. In machines of this class the strip of veneer to be cut is fed between a revoluble cylinder having projecting peripheral knives and a bearing drum against which the knives project. As a result the severed wood is jammed firmly between the knives of the cutting drum and ejecting mechanism has to be employed for throwing the material from between the knives. My present invention relates wholly to ejecting mechanism for this purpose, and the object of my invention is to produce an ejecting mechanism which is applicable to any rotary cutter of the class named and which operates positively and automatically to push the severed wood from between the knives.

To this end my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the machine embodying my invention. Fig. 2 is a vertical cross section on the line 2—2 of Fig. 1. Fig. 3 is a broken side elevation of the ejecting cylinder. Fig. 4 is an end view of the cylinder. Fig. 5 is a detail of the bolt on which the bearing rollers of the ejecting cylinder are journaled. Fig. 6 is a detail side elevation and plan of one of the bearing rollers. Fig. 7 is a broken detail view, showing a side elevation, inverted plan, and an end view of one of the ejecting rods or bars of the cylinder, and Fig. 8 is a detail side elevation and end view of the fastening screw to secure the bars or rods to the cylinder ends.

The machine is provided with a suitable frame 10, in which is journaled longitudinally a shaft 11, carrying a cylinder 12 having projecting peripheral spaced knives 13 which register with grooves 14 in a bearing drum 15, and the latter is carried on the shaft 16 which is journaled in the machine frame above the cutting drum and parallel therewith. The knives 13 may be held in any convenient way to the cutting drum and, so far as my invention is concerned, it is not necessary to have the bearing drum provided with grooves.

The veneer or wood strips which are cut are fed between the bearing drum and cutting drum, so that the pressure of the knives 13 on the wood will sever it, and it will be seen that the pressure requisite to cut the wood forces it very firmly between the knives. To force it out I employ an ejecting cylinder 17, which is of larger diameter than the cutting drum and which is provided with circular open ends 18 and the body of which has parallel bars 19 adapted to lie between the knives of the cutting drum. These bars 19, as illustrated, are recessed on their under sides, as shown at 20, to enable them to lie snugly on the end pieces 18, and they are securely fastened to the end pieces by screws 21 or equivalent fastenings.

I have shown the rods or bars 19 and the cylinder ends separable, but it will be understood that the cylinder may be made in a single piece and the rods or bars 19 produced by slotting the cylinder longitudinally at necessary intervals. The cylinder ends 18 run on rollers 22 which are preferably provided with flanges 23 and which are journaled on bolts 24 having enlarged bearing portions 25 for the rollers and provided with nuts 26 to hold them in place. The bolts are fastened securely to the frame 10 at the ends thereof, as clearly shown in Fig. 2, and there are preferably four of these rollers on each end, these being spaced so as to bear against opposite portions of the cylinder ends, so that the cylinder may revolve steadily.

The cylinder is suspended in such a way that the uppermost rods or bars 19 lie flat against the drum 12 and between the upper knives of the drum, so that sufficient space is left between these upper rods or bars and

the bearing drum 15 to accommodate the severed veneer or wood. As the cutting drum 12 revolves it carries with it the ejecting cylinder, and as this describes at its periphery a different circle from the cutting drum, the rods 19 of the cylinder are gradually carried outward until they lie beyond the edges of the knives 13, as shown in Fig. 2, and it will be seen that the material which has been forced from between the knives and upon the rods is positively expelled.

As the drum and cylinder continue to revolve new rods are constantly coming between the bearing and cutting drums and the operation of ejecting proceeds, as above described. The bearing rollers 22 serve merely to steady the ejecting cylinder, but they permit it to hang upon the cutting drum, and I do not limit my invention to the use of the rollers, as the cylinder may be steadied in any other suitable manner.

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

1. The combination, with a wood cutting machine, having a revoluble cutting drum with projecting knives and a bearing drum for the knives, of an ejecting cylinder hung on the cutting drum and provided with parallel rods or bars to lie between the knives of the cutting drum, substantially as described.

2. The combination, with the revoluble cutting drum having projecting peripheral knives and the bearing drum against which the knives revolve, of an ejecting cylinder hung on the cutting drum and provided with parallel peripheral rods to lie between the knives, and steadying devices for the ejecting cylinder, substantially as described.

3. The combination, with the revoluble cutting drum having projecting peripheral knives and a bearing drum for the knives, of the ejecting cylinder hung on the cutting drum and provided with parallel rods or bars to lie between the knives, and bearing rollers arranged within the cylinder to steady the same, substantially as described.

4. The combination, with the machine frame, the revoluble cutting drum having projecting peripheral knives and the bearing drum for the knives, of the ejecting cylinder having parallel peripheral rods to lie between the knives and open circular ends, and the bearing rollers journaled on the machine frame and turning against the inner edges of the cylinder ends, substantially as described.

WILLIAM F. HUTCHINSON.

Witnesses:

WALLACE A. DOWNS,  
WARREN B. HUTCHINSON.