(No Model.)

W. A. WOODS.

BARK MILL.

No. 332,854. Patented Dec. 22, 1885.

FIG. 1.

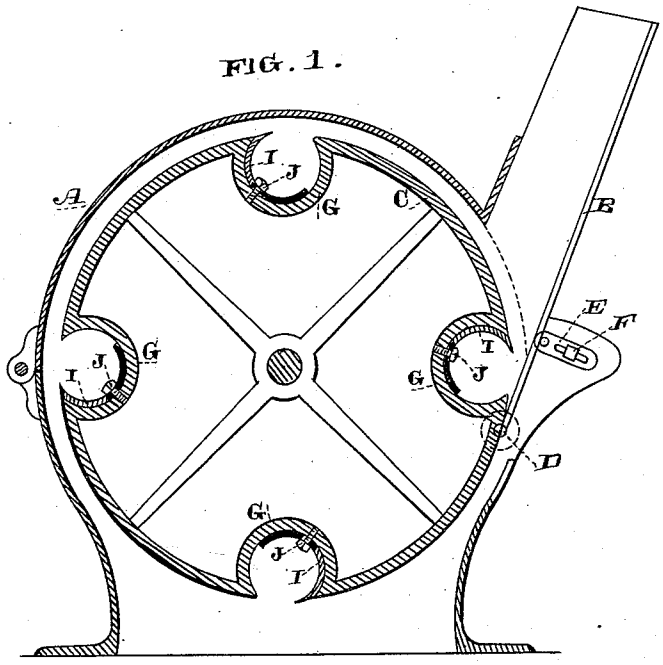
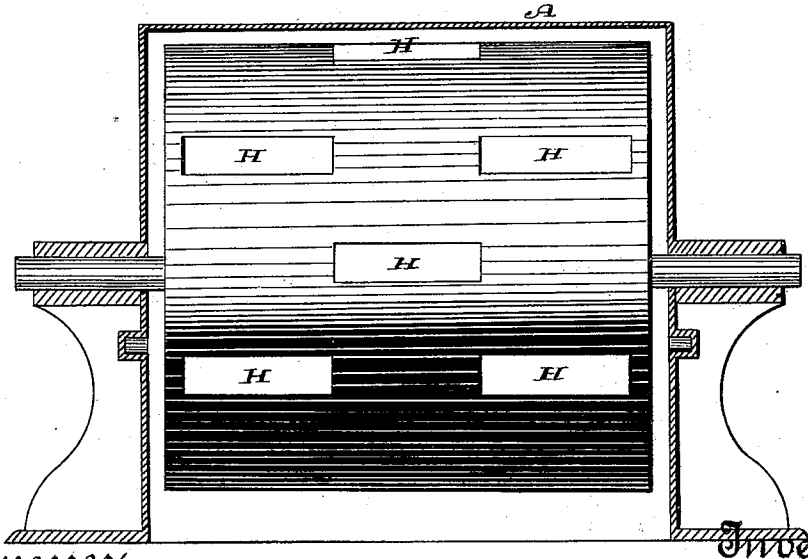




FIG. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM A. WOODS, OF SANTA CRUZ, CALIFORNIA, ASSIGNOR TO JOHN C. HAGERTY, OF SAME PLACE.

BARK-MILL.

SPECIFICATION forming part of Letters Patent No. 332,854, dated December 22, 1885.

Application filed April 20, 1885. Serial No. 162,848. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WOODS, of Santa Cruz, Santa Cruz county, State of California, have invented an Improvement in Bark-Mills; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an apparatus for cutting or reducing bark to fine particles for tanners' use.

The machine consists of a drum rotating within an outer casing and having hollow cylindrical chambers with closed ends formed at intervals around its periphery, so that they open outwardly through the periphery. These chambers have curved knives or cutters fitted in them so that their edges project just beyond the periphery of the drum, and the bark being fed into an apron or chute in the case, which delivers it so that it rests against the periphery of the drum, these cutters will shear it off, so that it is discharged through the opening in the lower part of the case.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a section taken through the casing and drum transversely to the axis or shaft. Fig. 2 is a vertical section of the casing, showing a face or side view of the drum.

A is the exterior casing, having at one side an inclined chute or apron, B, into which the bark is placed so that its lower end may rest against the periphery of the drum C at a considerable angle with its face. The lower end of this apron is hinged or pivoted as shown at D, and a slotted guide, E, is attached to the side of the apron above the pivot-point, so that the apron may be raised or lowered, and thus change the rate at which the bark is delivered to the cutters. A slotted rack and screw, F, retains the apron at any desired point or angle. The cylinder C has chambers or semicircular depressions G formed in its periphery, these depressions forming considerably less than a complete cylinder and opening through the rim or periphery of the drum C, as shown at H. The ends of the chambers are closed. Within each of these chambers is fixed a knife or cutter, I, having the same general curve as the interior of the chambers, the knife being secured by a set or holding screw, J, which passes through the slot K, formed in the rear portion of the cutter. This slot allows the edge of the cutter to be advanced as fast as it is worn away by use and sharpening until it is necessary to replace it.

The operation of my machine is as follows: The bark being placed in the apron or chute B after the latter has been adjusted to the desired angle with reference to the cutters, the drum C, with its cutters fitting into the depressions on its face, as described, will be caused to rotate rapidly, and the cutters will act to shear the end of the bark off in fine shavings or particles, which will be delivered into the open mouths of the chambers G, and the centrifugal force of the rotating drum will be sufficient to discharge it as soon as the chambers arrive opposite the opening in the lower part of the case where the bark will have a free discharge. By this construction I avoid the necessity of passing the bark into the interior of the drum, and the shaft and all the interior portions are thus kept entirely clear of dust and dirt. The cylindrical chambers are formed transversely just within the periphery or rim and extend as far across as may be desired. I prefer to make them to extend only a part of the way across the face, and to alternate in position so that the cutters act successively, as will be seen in Fig. 2. This enables me to use a drum with a wide face, since the knives do not extend entirely across, and it will do a larger amount of work and will run more steadily on account of this construction.

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

1. In a bark-machine, a rotating drum having chambers formed parallel with its face and with closed ends and cutters fitted to project beyond the edges of the chambers, in combination with an inclosing casing, and an apron by which the bark will be held in contact with the periphery of the drum as it rotates, substantially as herein described.

2. In a bark-mill, a cylindrical rotating drum having longitudinal cylindrical chambers with closed ends, and cutters in said open-

ings, in combination with an exterior casing having a feed apron or chute at one side, and means for adjusting and changing the angle of the said chute, substantially as herein described.

3. In a bark-mill, a rotating cylindrical drum having cylindrical chambers with closed ends formed within the drum parallel with its face, and openings through the face into the chambers, in combination with cutters or knives curved to fit the interior of the chambers, with their cutting-edges projecting through the openings, an inclosing-case, and an adjustable feed chute or apron, substantially as herein described.

In witness whereof I have hereunto set my hand.

WILLIAM A. WOODS.

Witnesses:
H. C. LEE,
S. H. NOURSE.