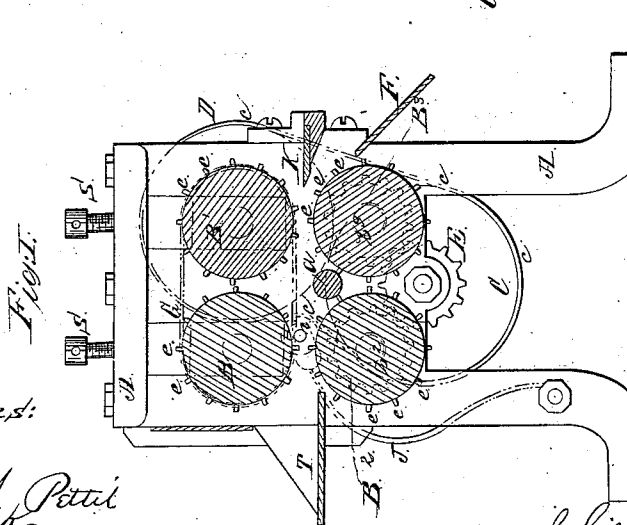
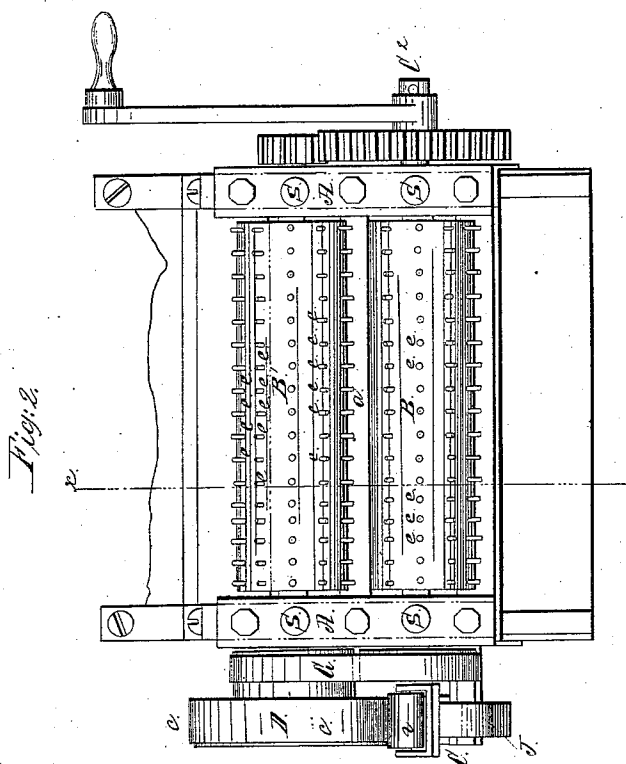


Gilpin & Dickinson, Rossing Bark.

N^o 82,399.

Patented Sep. 22, 1868.



Witnesses:

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CHARLES GILPIN AND LAURENCE T. DICKINSON, OF CUMBERLAND,
MARYLAND.

Letters Patent No. 82,399, dated September 22, 1868.

IMPROVEMENT IN ROSSING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHARLES GILPIN and LAURENCE T. DICKINSON, of Cumberland, in the county of Alleghany, and State of Maryland, have invented a new and improved Rossing-Machine; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a section through line *z z* of fig. 2.

Figure 2 is a side view.

The object of this invention is to construct a simple and effective machine, which shall ross the bark more thoroughly than has heretofore been done.

In the drawings, A is the frame of the machine, and B B¹ B² B³ are four strong cylindric rollers, arranged as shown in the drawings, each of them being provided with rows of strong teeth, *etc.*

The lower rollers, B² B³, run in fixed bearings, the upper ones, B B¹, in vertically-sliding bearings, regulated in height by set-screws *s s*, and having springs, of rubber or other suitable material, between the screw and the journal-box, so as to allow the rollers to yield slightly for the passage of very thick bark, or of any obstruction.

a is an idle-roller, extending from end to end of the frame, between the upper edges of the two lower rollers, and performing two functions, one to strengthen the machine, and the other to facilitate the passage of the bark between the rollers, by preventing it from falling between them. A similar roller may be provided to operate between the lower edges of the two upper rollers, if thought best.

Motion is imparted to the rollers in such a manner that they shall all move with uniform velocity, the under ones "with the sun," the upper ones "against the sun."

The gearing and belting that accomplish this effect are shown in dotted lines, fig. 1, and partially shown in fig. 2. In fig. 1, the working-shaft is seen at *b*², and bears a pinion, seen in outline around it. This pinion gears with an idle-wheel, E, which in turn gears with a pinion on the shaft *b*³ of the roller B³.

The three gear-wheels being of equal size, the two lower rollers are caused to rotate in the same direction with equal velocity.

To carry the upper rollers, a belt-pulley, C, is affixed to the outer end of the idle-wheel shaft, and by a belt, *c*, running to a pulley, D, rotates the shaft of roller B¹ in the same direction, and with the same velocity, as the idle-wheel, that is, in an opposite direction to the motion of the lower rollers.

By means of a belt, G, running from a small belt-pulley between the pulley D and the frame, to a belt-pulley on the end of the shaft of roller B, of equal size, the motion of roller B¹ is communicated to roller B, thus giving all four of the rollers the proper motion, and a uniform and equal velocity.

To keep the belts at the proper tension, a small wheel, *z*, may be employed, it being supported at the end of a curved spring-standard, J, which presses it against the belting.

The bark, ross-side up, is fed through between the two upper and the two lower rollers, from a table, T.

K is a sharp cutting-blade, extending across on the rear side of the machine between the rear edges of the upper and lower rollers, and presenting a sharp edge to the bark as it comes out from between the rollers, which cuts through the bark, splitting the ross-side off, so as to leave from one-eighth to one-half an inch of the "flesh" side.

The ross-side passes out above the knife K, and may be carried away to any part of the building by inclined spouts, or an endless-apron carrier, while the "flesh" side of the bark drops through a spout, and falls down an incline, F, by which, or by an endless apron, it may be carried to the bark-mill, or to any place where it is to be stored.

The whole machine has been thoroughly tested by practical use, and is found to work admirably. It not only does the work much faster and at less expense than has been accomplished heretofore, but, by means of

the knife K, it strips from the bark and throws away a large amount of dead, dry, woody substance on the outer side, which is of no use in tanning, and only absorbs a large quantity of the tannin from the "live" bark in the vat.

The product itself is a new one, consisting of the fleshy part of the bark, entirely denuded of the outer hard crust, in strips of any width and length.

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

1. The combination and arrangement, with a cutting-device, of the rollers, B B¹ B² B³, provided with the teeth *e e e*, and operated by belting and gearing in such a manner that they all have an equal and uniform motion, the two upper ones rotating in one and the same direction, and the two lower ones in the opposite direction, substantially in the manner and for the purpose specified.

2. The arrangement of the knife K with reference to the rollers B¹ B³, substantially as and for the purpose set forth.

3. The arrangement of the idle-roller *a*, in combination with the rollers, substantially as described.

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Witnesses:

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