

(No Model.)

C. E. V. FOLIN.  
MACHINE FOR REMOVING BARK, &c.

No. 528,664.

Patented Nov. 6, 1894.

Fig. 1.

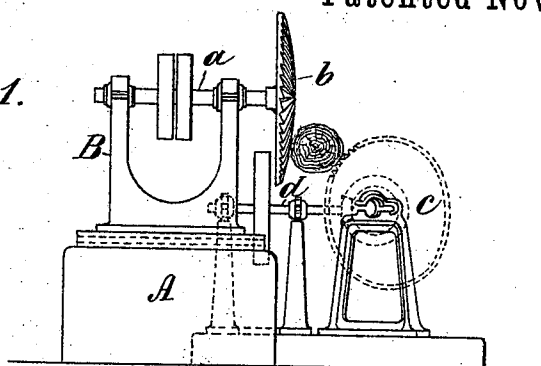


Fig. 2.

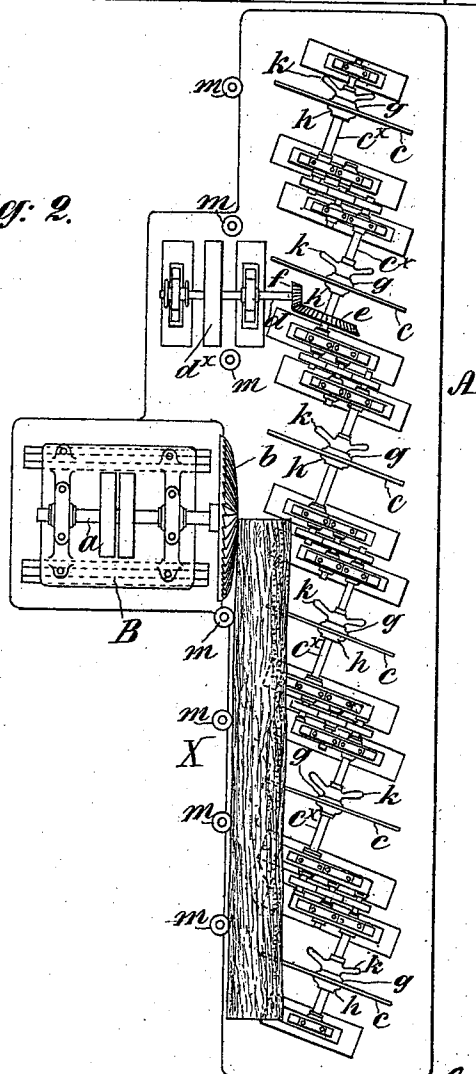
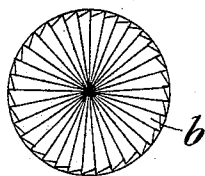


Fig. 3.



Witnesses:

J. W. Wiman

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Inventor:

C. E. V. Folin

by Henry G. G. G.  
Folin's Attorney

# UNITED STATES PATENT OFFICE.

CLAES ERIK VICTOR FOLIN, OF HAMMARBY, SWEDEN.

## MACHINE FOR REMOVING BARK, &c.

SPECIFICATION forming part of Letters Patent No. 528,664, dated November 6, 1894.

Application filed March 1, 1894. Serial No. 501,985. (No model.)

*To all whom it may concern:*

Be it known that I, CLAES ERIK VICTOR FOLIN, a subject of the King of Sweden and Norway, and a resident of Hammarby, Storvik, in the Kingdom of Sweden, have invented certain new and useful Improvements in Machines for Removing the Bark Automatically from Round Wood Blocks or Logs, of which the following is a specification.

My invention relates to devices for removing the bark from logs or log-blocks of wood destined, after the removal of the bark, for the manufacture of wood pulp, and the machine which forms the object of the present application is designed to accomplish this result automatically and thoroughly as well as economically.

The machine comprises, in general, a rotating bark-removing disk, having cutters on its face and a series of toothed feeding wheels placed obliquely to the path of the log. The wheels rotate the log and simultaneously feed it endwise, whereby the bark-removing, or rossing, or decorticating disk, is caused to remove the bark in a spiral or helical manner as the log moves by it.

The accompanying drawings illustrate an embodiment of the invention.

Figure 1 is an end view of the machine, and Fig. 2 a plan thereof. Fig. 3 is a face view of the bark-removing disk.

A represents, in general, the main frame and bed of the machine, and B a frame mounted adjustably on the frame A. In the frame B is rotatively mounted a shaft or arbor *a*, which carries the bark-removing disk *b*. This disk—which I prefer should not exceed ninety centimeters in diameter—is somewhat convex on its face and is provided on this face with cutters or knives, preferably arranged radially, or a little oblique to the radius.

X represents the log, and *m*, represents bearing rollers on the main frame or bed to support the log on the side next the disk *b*.

The toothed feeding wheels, *c*,—which may be about sixty centimeters in diameter—are clamped each on an arbor *c*<sup>x</sup>, rotatively mounted in bearings on the bed of the main frame. The path through which the log X moves is at right angles to the arbor *a* of

the disk *b*, and the arbors *c*<sup>x</sup>, when the machine is seen in plan, all stand at an angle with the path of the log. This angle is clearly seen in Fig. 2, and may be about thirty degrees.

Mounted rotatively on the main frame is a shaft *d*, provided with a driving pulley *d*<sup>x</sup>; and on this shaft *d* is fixed a toothed wheel *f*, which gears with a wheel *e* on one of the arbors *c*<sup>x</sup>. These arbors *c*<sup>x</sup> are all parallel and geared together in a well known way so that when the shaft *d* drives one it drives all in one direction. The wheels *c* are secured on their respective arbors somewhat in the manner of circular saws; that is, the arbor has collars *g* and *h*, between which the wheel is clamped, and a clamping nut *k*.

The frame or carriage B may be adjusted toward or from the series of feed wheels so as to adapt the machine to logs of different sizes.

The wheels or disks *c* are not clamped so tightly upon their arbors that they cannot be held stationary while the arbor rotates, and in case the log X is not uniform in diameter it may arrest the rotation of one feed-wheel momentarily, allowing its arbor to still rotate. Thus the feed-wheels will accommodate themselves to each other as to their rotary movements.

The relative speed of the disk *b* and the feed-wheels must be such that the log will not be fed faster than the disk *b* will remove the bark. There may be more than one disk *b* operating on the log at the same time. For example one may simply "ross" the log, or take off the rough outer bark, and the other take off the remaining bark.

My machine is especially adapted for operating on rough logs of variable cross-section which taper and have crooks, hollows and bends. The log is not centered or dogged, as in turning in a lathe, but is merely supported from below, the oblique, saw-like feed-wheels *c* bearing it up on one side and the roller, or other supports, *m*, bearing it up at the other side.

It will be observed that the bark removing-disk *b* and feed-wheels or disks *c*, are so set, respectively, and with respect to the log X,

that the portion of the disk *b* below its center acts on the log, and the wheels *c* take under and support the log at that side.

Having thus described my invention, I claim—

1. In a machine for rossing bark, the combination with a rotating, bark-removing disk, *b*, and a series of log-supports *m*, aligned with the said disk, of a series of circular, saw-like feed-wheels *c*, arranged in line parallel with supports *m* and set obliquely to the path of the log, and mechanism for driving the feed-wheels and the disk *b*, the said feed-wheels being arranged to take under the log and support the same at the side opposite to the disk *b*, substantially as set forth.

2. In a machine for rossing bark, the combination with a stationary frame provided with a row of bearing rollers *m*, on upright axes, to support the log at one side thereof, a row of toothed feed-wheels *c*, mounted on the base and arranged to support the side of the log opposite to the rollers *m*, said feed-wheels being arranged obliquely to the path of the

log, a bark-removing disk *b*, arranged in line with the rollers *m*, and mechanism for driving said disk and feed-wheels.

3. In a machine for rossing bark, the combination with a bark-removing disk, *b*, of a series of circular, saw-shaped, stationary feed-wheels, *c*, set obliquely to the straight line through the centers of all the wheels, a part of these wheels being situated on the right hand and a part of them on the left hand of the bark-removing disk and at about the same distance one from another, and of supports *m*, in line with the bark-removing disk, and on the opposite side of the log from the feed-wheels which support the log obliquely from below.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CLAES ERIK VICTOR FOLIN.

Witnesses:

CARL P. GERELL,  
CARL TH. SUNDHOLM.