Aug. 18, 1925. 1,549,855

J. N. CÔTÉ

ROSSING DEVICE

Filed May 24, 1924 2 Sheets-Sheet 1

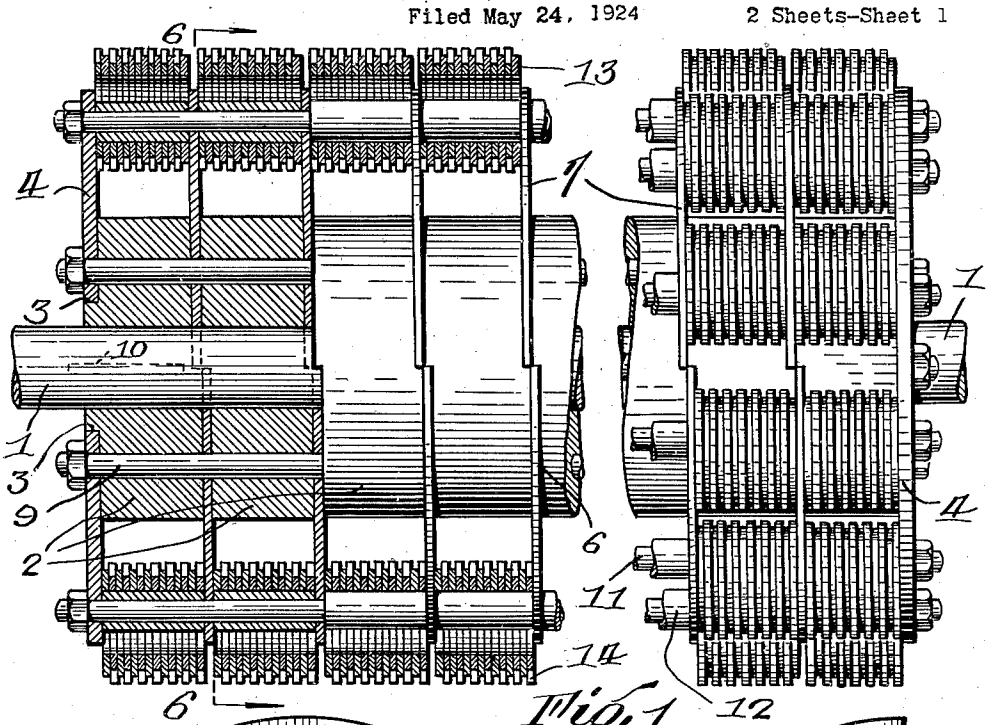


Fig. 1

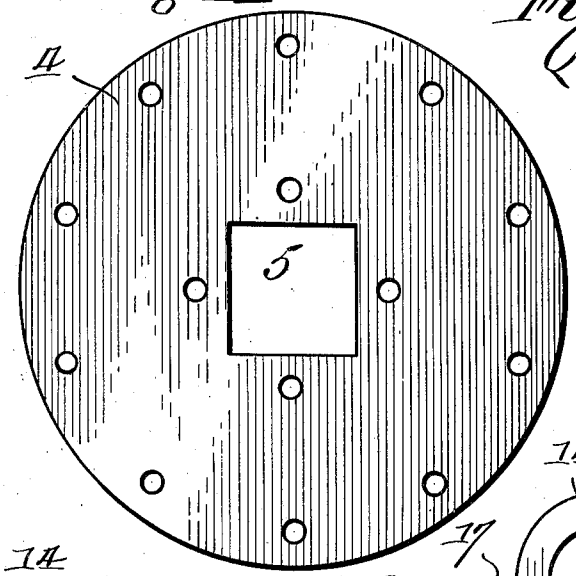


Fig. 2

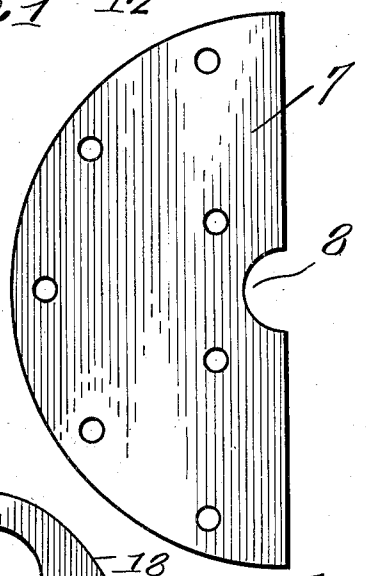


Fig. 3

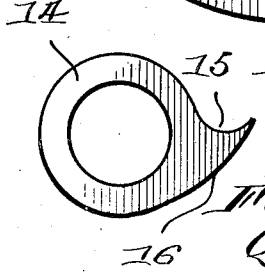


Fig. 4

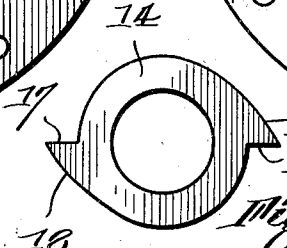


Fig. 5

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ROSSING DEVICE

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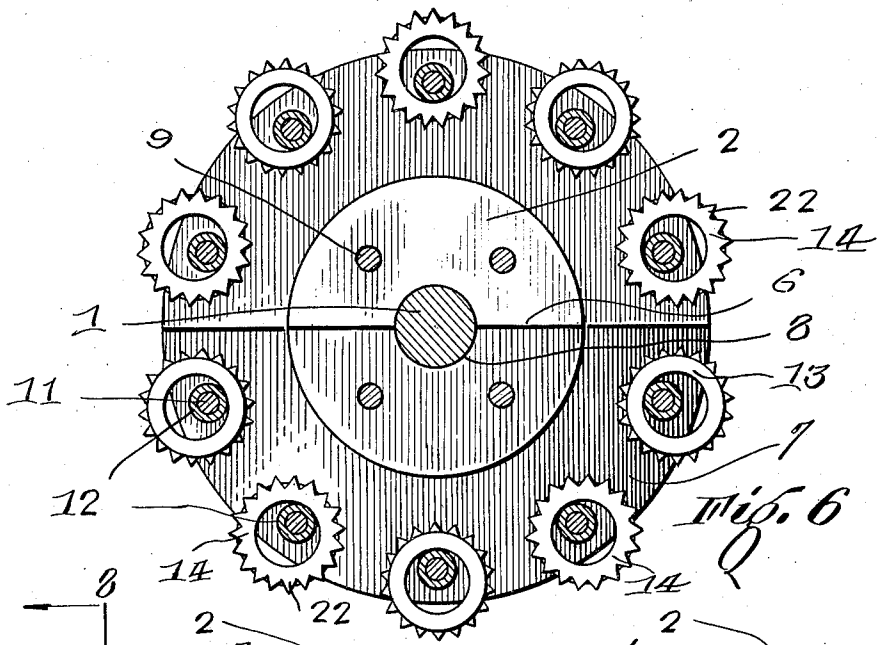


Fig. 6

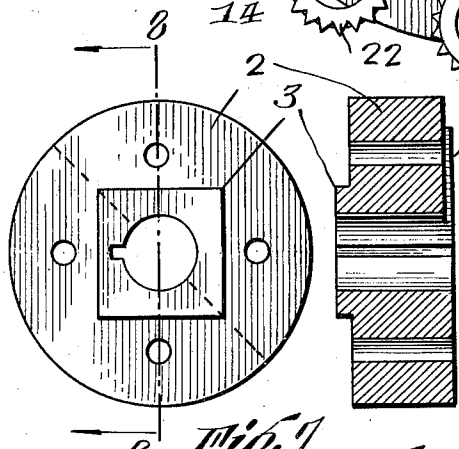


Fig. 7

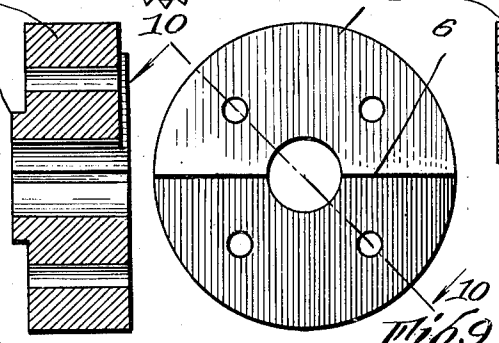


Fig. 8

Fig. 9

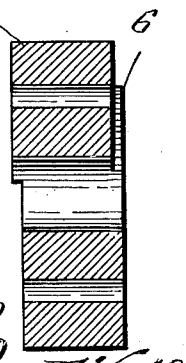


Fig. 10

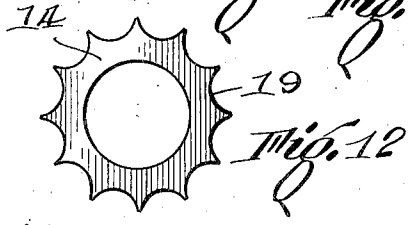


Fig. 12

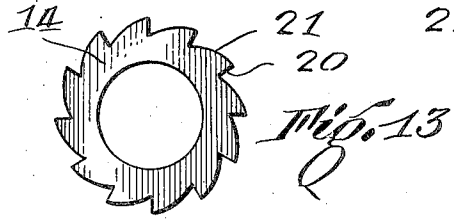


Fig. 13

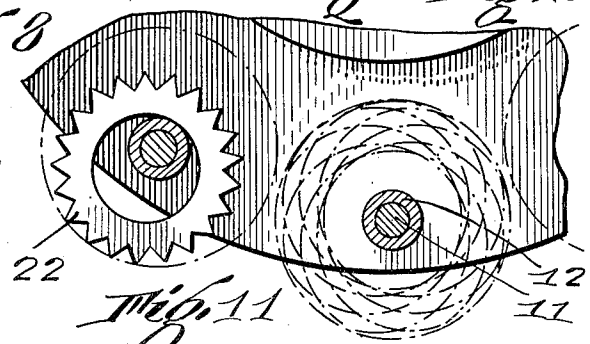


Fig. 11

Inventor

Joseph N. Côté

By William C. Sinton

Attorney

Patented Aug. 18, 1925. 1,549,855

UNITED STATES PATENT OFFICE.

JOSEPH NAPOLEÓN CÔTÉ, OF NOTRE DAME DU LAC, QUEBEC, CANADA.

ROSSING DEVICE.

Application filed May 24, 1924. Serial No. 715,708.

To all whom it may concern:

Be it known that I, JOSEPH N. CÔTÉ, a subject of the King of Great Britain, residing at Notre Dame du Lac, Province of Quebec, Canada, have invented certain new and useful Improvements in Rossing Devices; and I do hereby declare that the following is 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.

The present invention pertains to a novel device for rossing or stripping the bark from logs.

The principal object of the invention is the provision of a device of this character so constructed as to remove only the bark without chipping the woody portion of the logs. This object is realized by supporting the cutting members loosely with reference to the supporting parts. More specifically, the device comprises a drive shaft carrying a number of spaced discs. Through these discs and near the peripheries thereof are passed a number of rods in circular series. The rods are loosely surrounded by cutting rings, that is, the rings have an internal diameter which is larger than the outside diameter of the surrounded members. These rings are driven outwardly by centrifugal force during the rotation of the drive shaft, but, in meeting resistance which is greater than that of ordinary bark, pass over the same. In this manner they are prevented from cutting the woody portion of the logs.

The invention is fully disclosed in the following description and in the accompanying drawings in which:

Figure 1 is a side elevation, partly in section, of the device;

Figure 2 is an elevation of one of the end plates;

Figure 3 is an elevation of one of the intermediate plates;

Figures 4 and 5 are elevations of different forms of cutters;

Figure 6 is a section on the line 6—6 of Figure 1;

Figure 7 is an elevation of the end spacing block;

Figure 8 is a section on the line 8—8 of Figure 7;

Figure 9 is an elevation of one of the intermediate spacing blocks;

Figure 10 is a section on the line 10—10 of Figure 9;

Figure 11 is a detail of Figure 6, showing diametrically the movement of the cutters; and,

Figures 12 and 13 are elevations or additional types of cutters.

Reference will now be had to these views by means of like characters which are employed to designate corresponding parts throughout.

The numeral 1 indicates the drive shaft of the apparatus on which shaft is mounted a plurality of spacing blocks 2. The end members 2 are each formed with a square protuberance 3 on the outer face adapted to enter the socket 5 of the corresponding circular hand plate 4. The remaining faces of the end spacers and both faces of the remaining spacers are each formed with a notch 6. The notches at opposite faces of a given spacer extend in opposite directions as may be seen from Figures 1 and 10. These notches are adapted to receive semicircular intermediate plates 7 having substantially the same diameter as the members 4. The plates 7 are formed each with a semicircular recess 8 at the midpoint of the diameter for accommodation of the shaft 1. The parts 2, 3, 4 and 7 are bound together by tie bolts 9 passed therethrough in parallel with the shaft 1. One or several of the spacers 2 need be keyed to the shaft, as at 10, since all the spacers and associated parts are keyed together.

A plurality of rods 11 are passed through the plates 4 and 7 in a circular series near the peripheries thereof. These rods are surrounded by a plurality of alined sleeves 12 disposed between the plates. The sleeves in turn are surrounded by a number of blank rings 13, the internal diameter of which is much larger than the external diameter of the sleeves. The blank rings are alternated with cutting rings 14 which may be of any one of the types shown in Figures 4, 5, 12 and 13.

In Figure 4 the ring 14 carries a single tooth having a concave side 15 and a convex side 16. The cutter shown in Figure 5 comprises a pair of oppositely disposed teeth, each having a straight side 17 and a convex side 18. The form shown in Figure 12 is provided with a plurality of teeth, each having equal concave sides 19. The form shown in Figure 13 also comprises a plurality of teeth similar to those shown in Figure 5, namely, having a straight side 20 and

a convex side 21. The preferred form of cutter, as shown in Figures 6 and 11, comprises a plurality of straight sided teeth 22 extending from the ring.

In operation the device is brought to the log, or vica versa, in any suitable manner. As the shaft 1 is driven, the rings 13 and 14 are thrown outwardly with respect to the sleeves 12 by centrifugal force, as shown in Figure 6. The rings moreover constantly rotate eccentrically about the sleeves during the rotation of the device, and consequently pass through an indefinite number of positions with reference to the sleeves as illustrated diagrammatically in Figure 11. The rods 11 are so spaced, however, that it is not possible for two adjacent rings to engage one another, as may be seen by the large circles drawn in broken lines in Figure 11.

Due to the comparative freedom of the rings on the sleeves, they are readily thrown inwardly towards the shaft 1 when meeting with unusual resistance. This feature is very valuable in the operation of the apparatus, since the cutting rings remove only the bark from the log and do not penetrate the woody portion. Thus, a log having an irregular outer surface may be rossed without waste of wood, as distinguished from the operation of rossers including a cutter fixed with reference to the drive shaft, wherein the logs are turned out in cylindrical form regardless of their original shape.

While a specific embodiment of the invention has been illustrated and described, it is to be understood that various alterations in the details of construction may be made without departing from the spirit of the invention as indicated by the appended claims.

Having thus fully described the invention, what I claim as new and desire to protect by Letters Patent is:—

1. A rossing device comprising a drive shaft, spaced plates surrounding the shaft, rods passed through said plates near the peripheries thereof, sleeves surrounding said rods and disposed between the plates, cutting rings loosely mounted on said rods, the interval diameter of said rings being greater than the external diameter of said sleeves.

2. A rossing device comprising a drive shaft, a plurality of spacer blocks carried by said shaft, plates inserted between said blocks and secured thereto, rods passed through said plates near the peripheries thereof, sleeves surrounding said rods and disposed between the plates, and cutting rings surrounding said sleeves, the internal diameter of said rings being greater than the external diameter of said sleeves.

3. A rossing device comprising a drive shaft, a plurality of spacer blocks carried by said shaft, plates inserted between said blocks and secured thereto, rods passed through said plates near the peripheries thereof, sleeves surounding said rods and disposed between the plates, cutting rings surrounding said sleeves, the internal diameter of said rings being greater than the external diameter of said sleeves, and blank rings alternated with said cutting rings and having the same external diameter as the cutting rings.

In witness whereof I have hereunto set my hand.

JOSEPH NAPOLEÓN CÔTÉ.