Oct. 1, 1935. R. O. BRITTON 2,016,069

LOG BARKER OR PEELER

Filed April 23, 1934 6 Sheets-Sheet 1

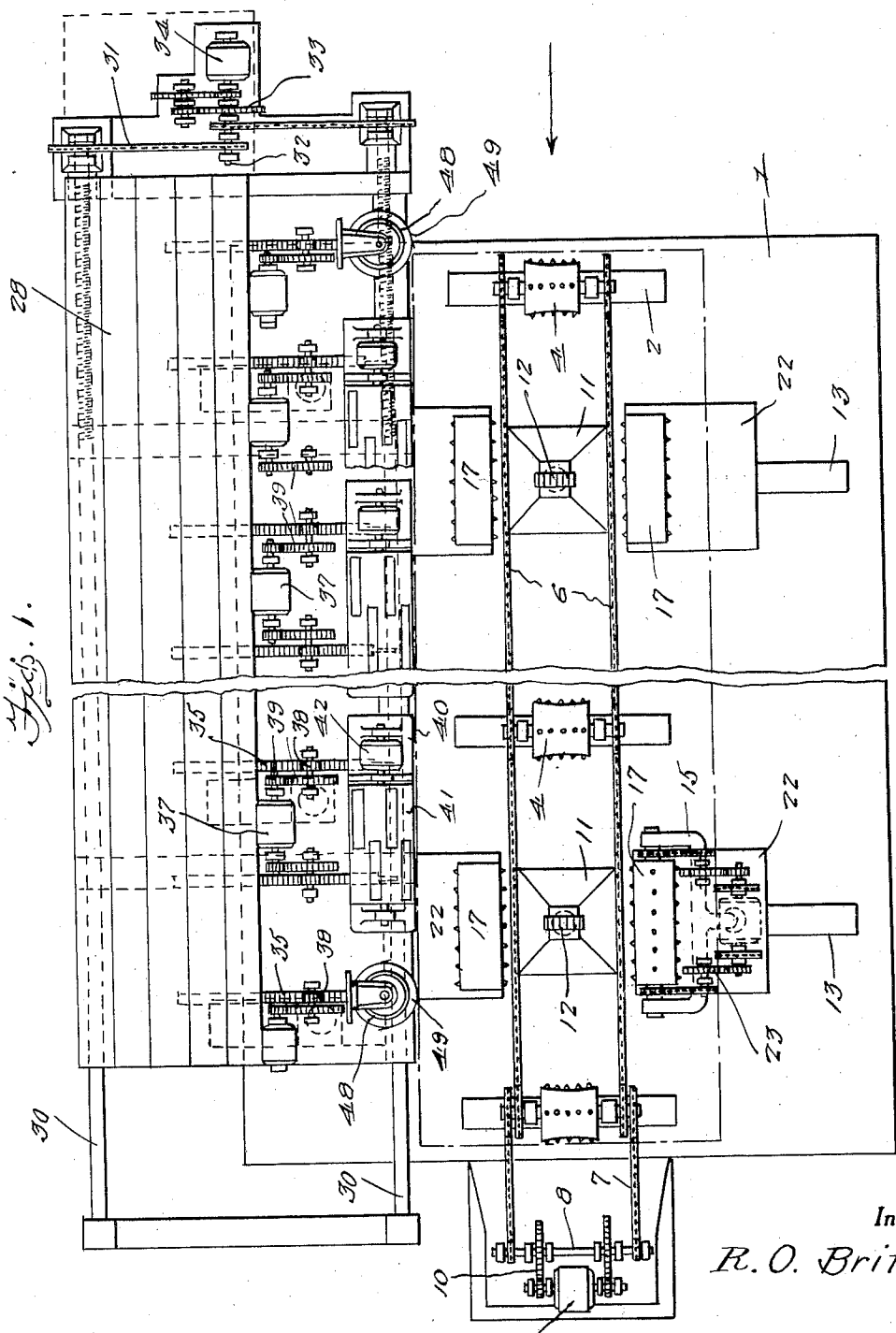


Fig. 1.

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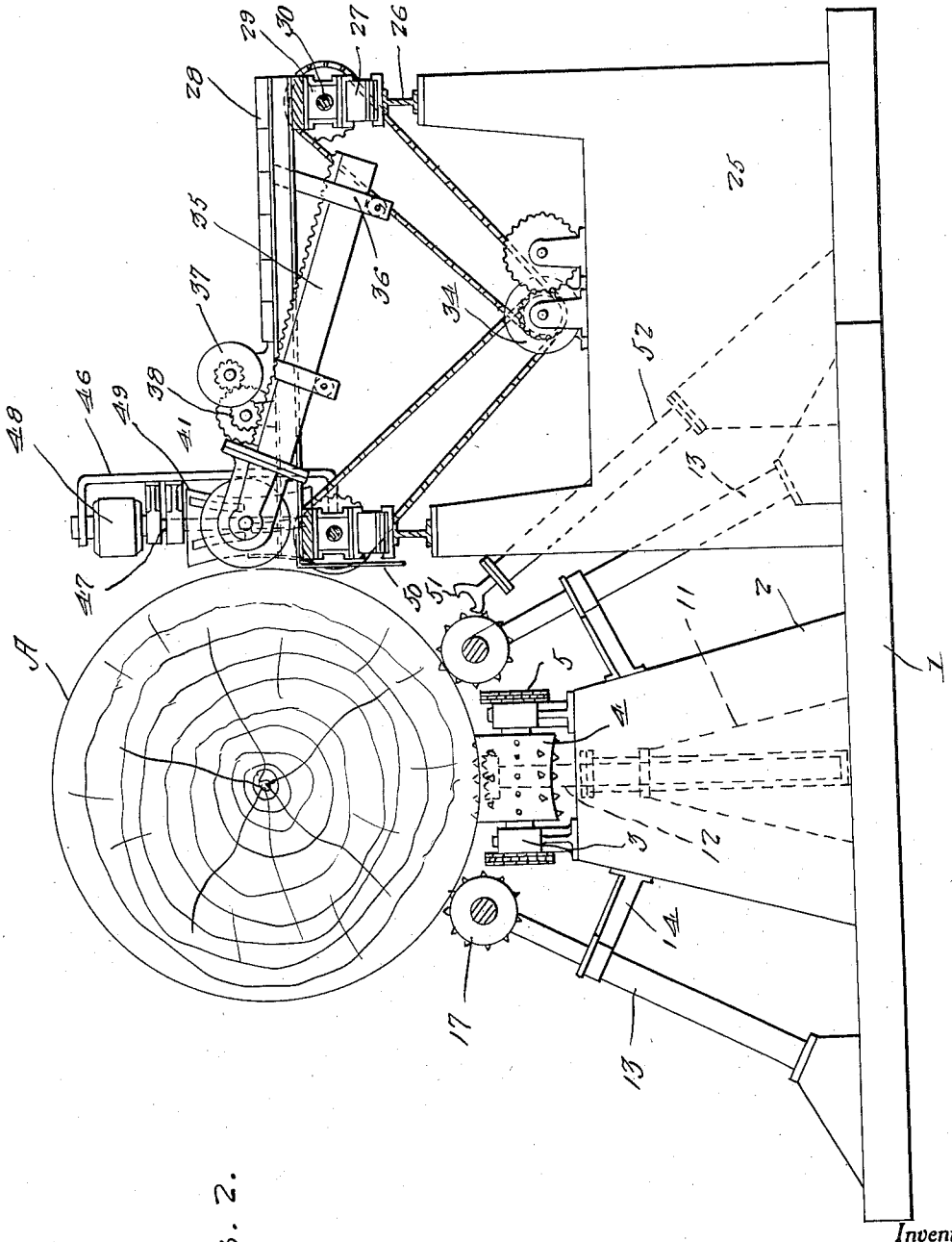


Fig. 2.

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LOG BARKER OR PEELER

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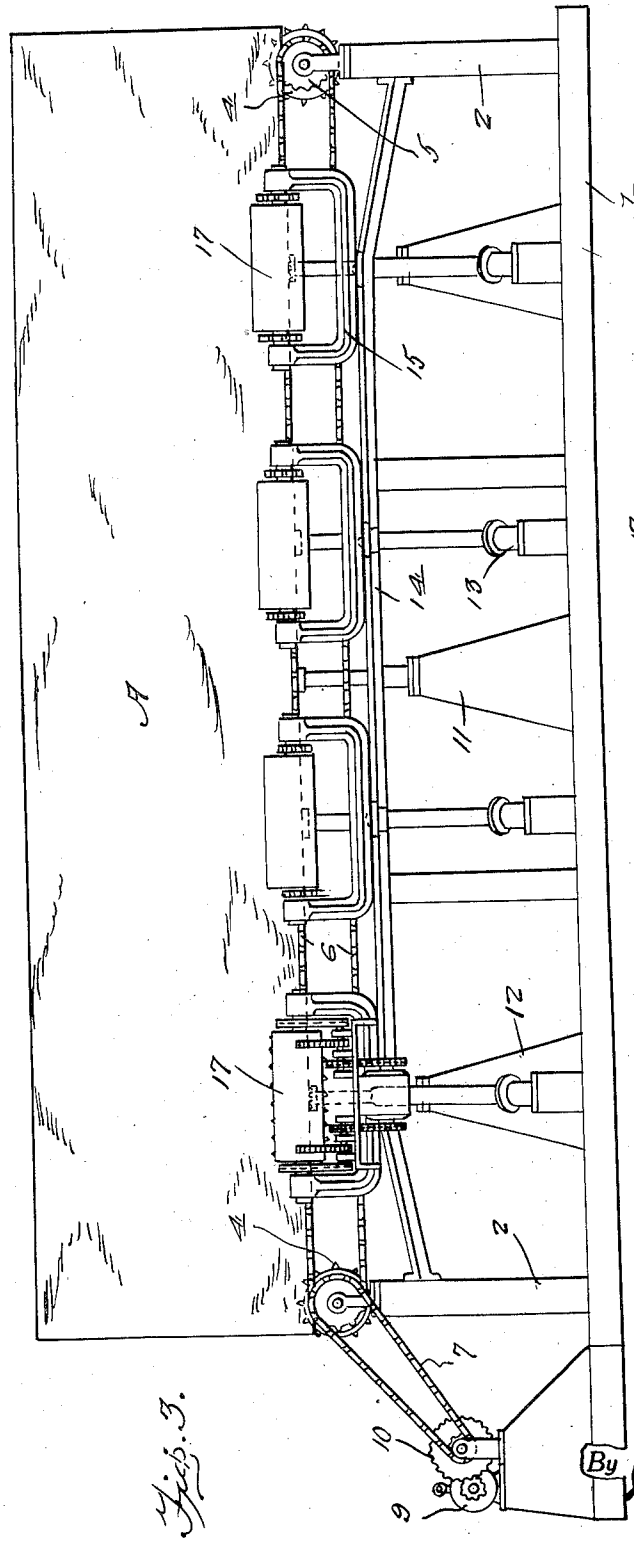


Fig. 3.

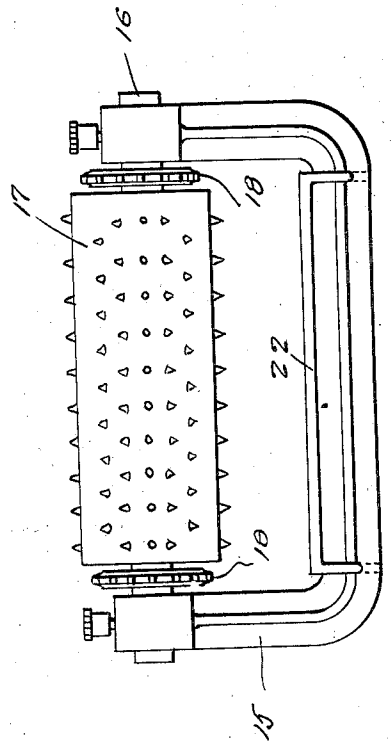


Fig. 7.

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LOG BARKER OR PEELER

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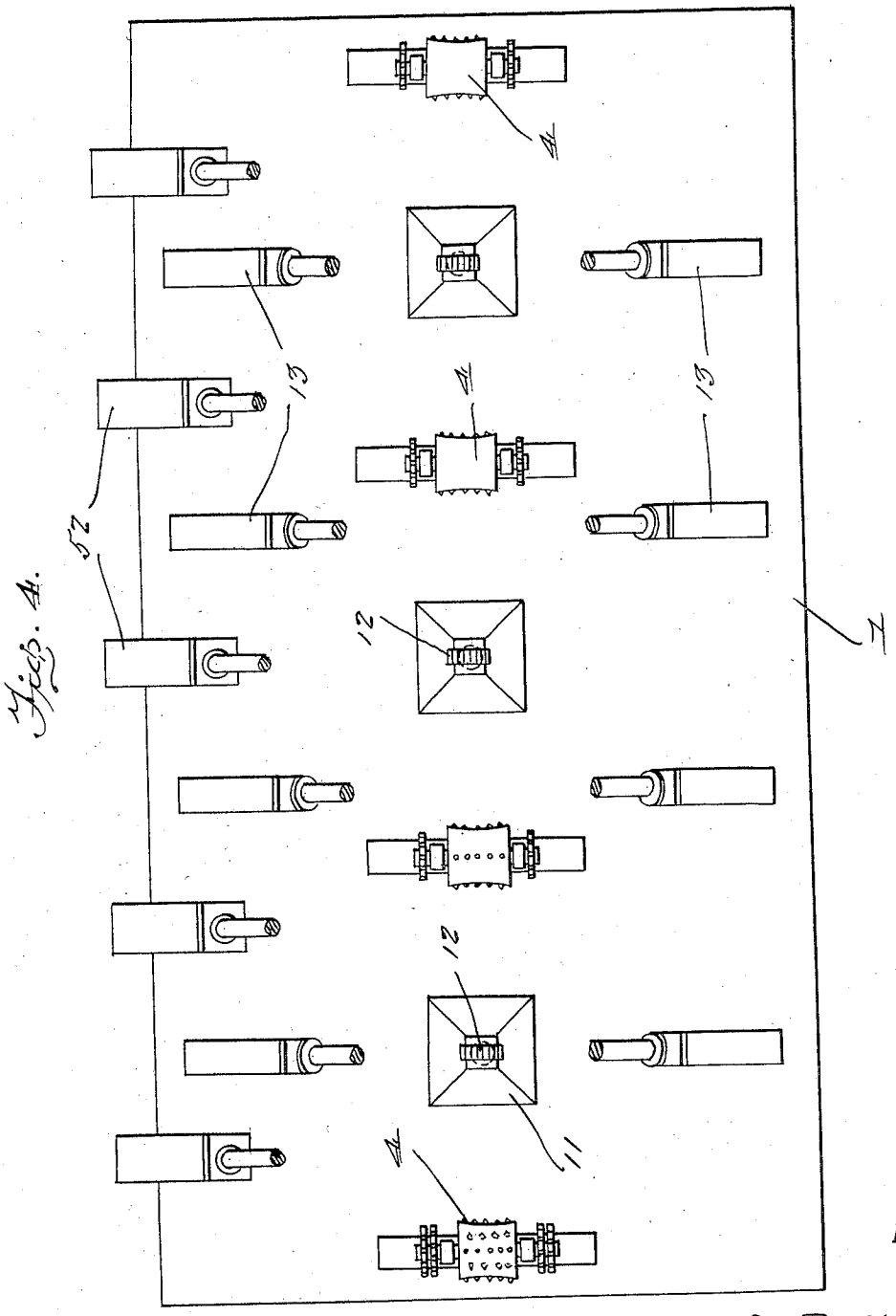


Fig. 4.

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LOG BARKER OR PEELER

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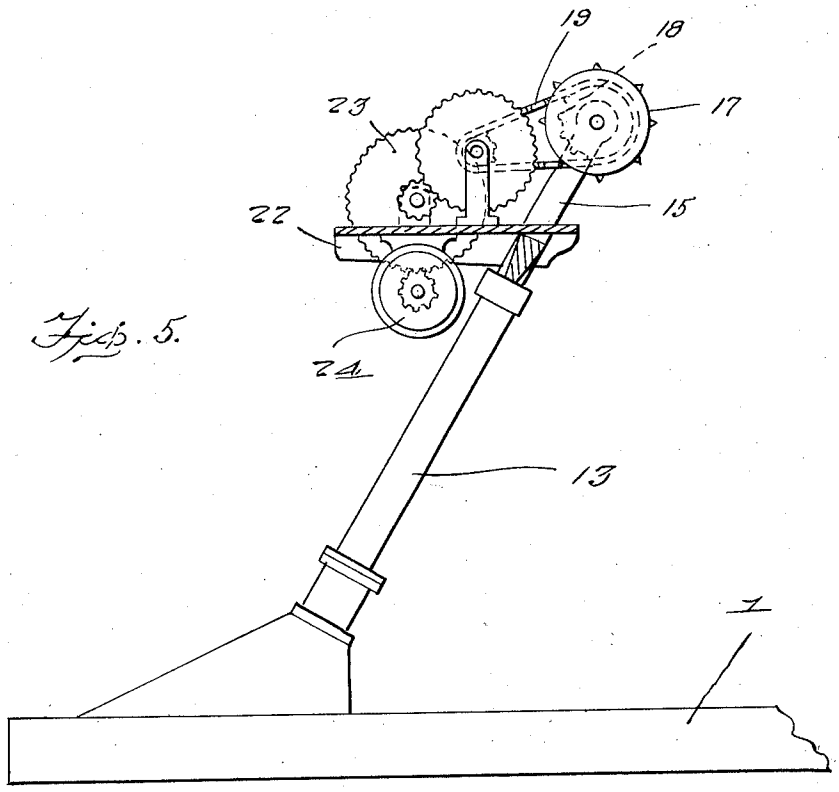


Fig. 5.

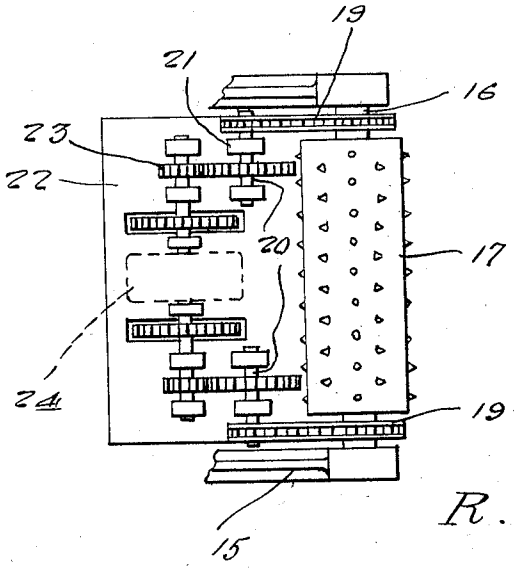


Fig. 6.

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LOG BARKER OR PEELER

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Fig. 8.

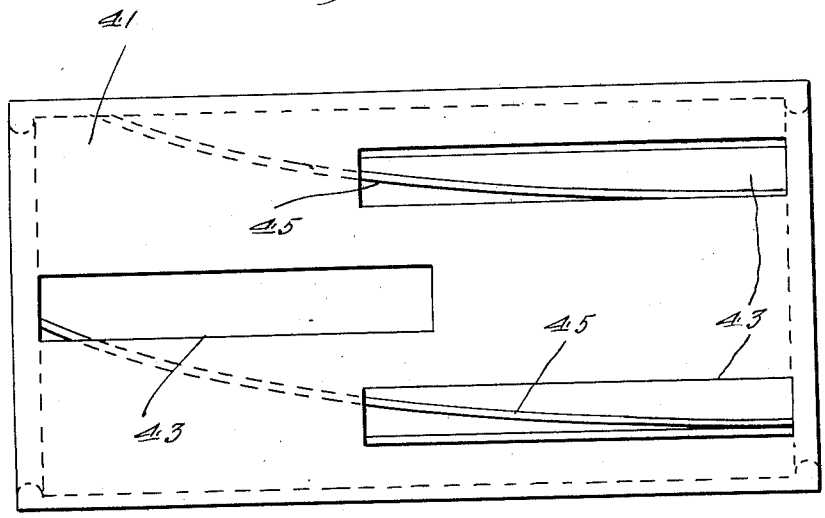
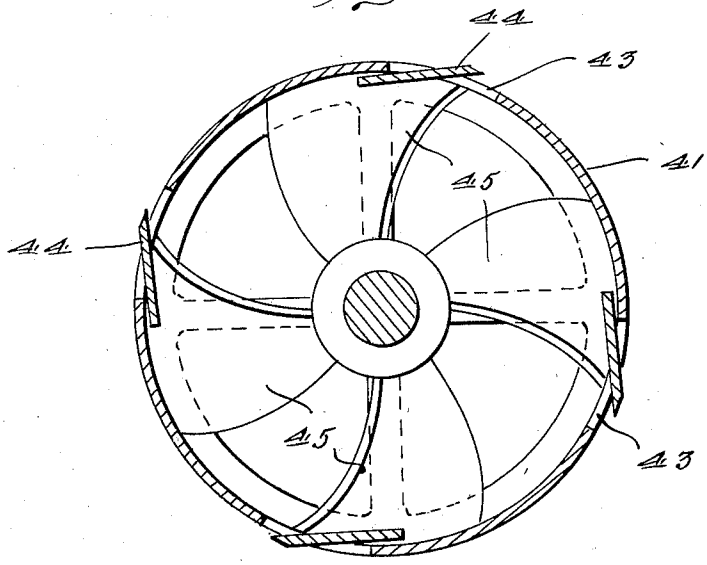


Fig. 9.



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UNITED STATES PATENT OFFICE

2,016,069

LOG BARKER OR PEELER

Rex Otis Britton, Port Angeles, Wash.

Application April 23, 1934, Serial No. 722,037

3 Claims. (Cl. 144—209)

This invention relates to a log barker or peeler, the general object of the invention being to provide means for rotating the log, a carriage moving parallel to the log and cutters carried by the carriage for peeling or removing the bark from the log, with means for projecting and retracting the cutters.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a plan view of the apparatus.

Figure 2 is an end view thereof, showing the log in position.

Figure 3 is a side view with the log in position.

Figure 4 is a top plan view with the jacks for the log turning means in section.

Figure 5 is a view partly in section of one of the log turning assemblies.

Figure 6 is a top plan view of the upper portion of Figure 5.

Figure 7 is an elevation of one of the log turning means, with the jack omitted.

Figure 8 is a view of one of the drums which carries the cutting knives.

Figure 9 is a transverse sectional view through the drum, with parts in end view.

In these drawings, the numeral 1 indicates a base or foundation from which rises the supports 2 which carry the bearing members 3 for the shafts of the spiked rollers 4 which have concave surfaces for engaging portions of a log A. Sprockets 5 are connected to the ends of the shafts and endless chains 6 pass over these sprockets and one of the end shafts is connected by the sprockets and chains 7 with the shaft 8 driven from a motor 9 by the gears 10.

A log to be peeled or barked is moved longitudinally in the direction of the arrow shown in Figure 1, by the ordinary bull chain in common use in saw mills, or by other means, and as the log comes into contact with the spiked rollers 4, it is moved longitudinally by said rollers until it reaches the desired position, when the motor 9 is stopped.

Upright supports 11 are carried by the base or foundation between the rollers 4 and carry the vertically arranged jacks 12 which may be operated hydraulically or mechanically, with the heads of these jacks adapted to engage an under part of the log so as to raise the log clear of the spiked rollers 4.

Two rows of jacks 13 converge upwardly from the base, one row being arranged on one side of the rollers 4 and jacks 12 and the other row on the opposite side and these jacks 13 are provided with the bracing means 14. Each of the jacks 13 has a yoke 15 at the upper end of its movable member, the upper ends of the limbs of which are provided with bearings for the shaft 16 of a spiked roller 17 and said shaft 16, adjacent the ends of the roller 17, carries the sprockets 18 over which chains 19 pass, said chains also passing over sprockets on stub shafts 20 supported in bearings 21 on a platform 22 carried by the bight of the yoke.

Trains of gearing 23 connect the stub shafts with the shaft of a motor 24 supported by hangers from the platform 22. Thus by raising the jacks 13, the spiked rollers 17 will engage the log and then by starting up the motors 24, the rollers 17 will be rotated and thus revolve the log.

Supports 25 carry the track rails 26 engaged by the rollers 27 of a carriage 28 and said carriage has the nut members 29 connected therewith through which screw shafts 30 pass, these shafts being connected by the sprockets and chains, shown generally at 31, to a shaft 32 which is driven by the gears 33 from a motor 34 supported on one of the members 25. Thus when this motor 34 is in operation, the screw shafts will be rotated and said shafts will move the carriage parallel to the log.

Said carriage carries a plurality of rack bars 35 which are slidably supported by the roller-equipped hangers 36 carried by the carriage. These hangers may be adjustably connected with the carriage so as to change the angle at which they hold the rack bars. These rack bars are projected and retracted by means of the motors 37 carried by the carriage and rotating pinions 38, which engage the teeth of the rack bars, through means of the gearing shown generally at 39. The rack bars, excepting the end ones, are arranged in pairs and each pair is retracted and projected by a single motor, as shown in Figure 1, and each pair of rack bars carries a support 40 provided with journals for a knife carrying drum 41 and each support also carries a motor 42 for rotating the drum.

As shown in Figures 8 and 9, each drum is formed with the slots 43 through which project the knives 44 which are suitably supported by the

drum. Within the drum is arranged a set of spirally arranged members **45** which deflect the bark and other material cut from the log by the knives to one end of the drum.

As shown in Figure 8, the drum is preferably formed with two sets of slots **43** for the knives, with the slots staggered, as shown in Figure 8. A single rack bar and a motor for operating the same, is arranged at each end of the carriage and each of these rack bars carries a vertically arranged frame **46** in which is rotatably arranged a vertical shaft **47** driven by a motor **48** and carrying a vertically arranged cutting drum **49** which has its circumference of concave shape, as shown in Figure 2. These vertically arranged cutting drums are adapted to engage the ends of the log to remove the bark therefrom.

As will be seen, the cutting drum can be retracted and projected independently of each other so that the knives will properly engage those portions of the log opposite the drums and this arrangement permits an uneven taper or bow in the log to be operated on by the cutting drums, for where a drum is to operate on a concavity in the log, this drum can be projected to a greater extent than the other drum and by moving the carriage, the entire log can be operated upon. The drums are rotated in an opposite direction to the turning motion of the log and I provide a shield **50** at that side of the carriage adjacent the log to keep the bark and other material cut from the log by the knives away from the rails and rollers **27**.

After the entire log has been barked or peeled, the log is expelled by the thrust of the kickers **51** operated by the jacks **52**.

Thus it will be seen that I have provided comparatively simple means for removing bark from logs and with the minimum amount of manual labor. This apparatus will handle logs from approximately 12 inches in diameter to 10 feet in diameter and I prefer to provide means whereby all of the motors and jacks can be operated from a central point.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What is claimed is:—

1. In a log peeling apparatus, a plurality of drums arranged longitudinally of the log and carrying knives for peeling a log, means for rotating the drums, means for moving the drums toward and away from the log independently of each other, each drum having elongated longitudinally extending slots therein in which the knives are mounted and through which the cut material enters the drum and spirally arranged members in each drum for deflecting the material cut by the knives toward one end of the drum.

2. In a log turning machine, two rows of upwardly converging jacks, a platform carried by each jack, a yoke at the upper end of each jack, a horizontally arranged spiked roller parallel to the log and carried by each yoke and means on each platform for rotating its respective roller.

3. In a log peeling apparatus, a carriage, means for moving the carriage parallel to a log, a drum carried by the carriage and arranged longitudinally of the log, said drum having elongated longitudinally extending slots therein, knives carried by the drum and passing through the slots, means for rotating the drum, means for moving the drum toward and away from the log, the material cut by the knives entering the drum through the slots and means in the drum for moving the material from the drum.

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