Aug. 26, 1952 H. J. EKLUND ET AL 2,608,224

CHAIN-TYPE LOG BARKER

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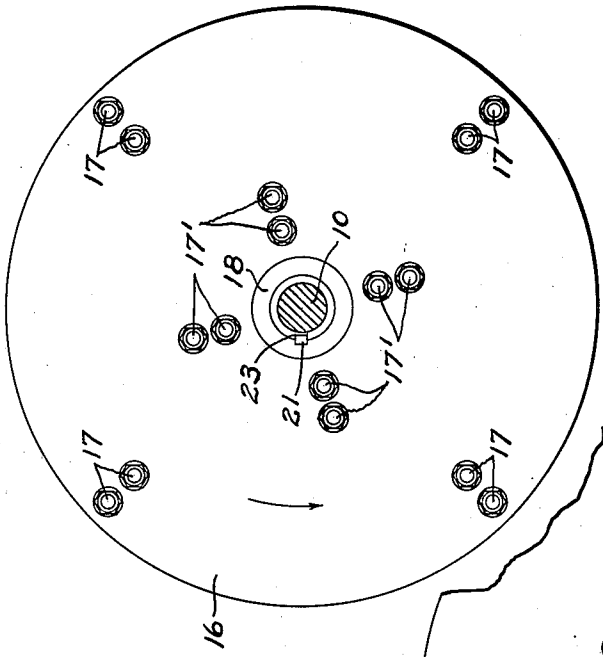


FIG. 3.

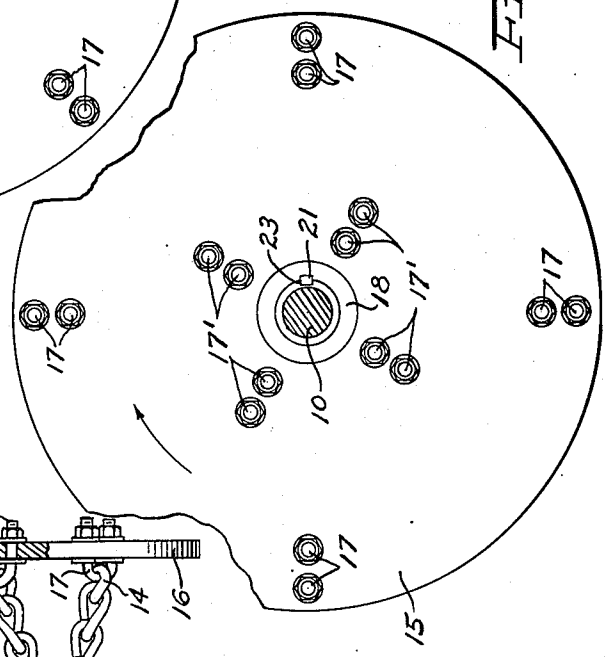


FIG. 2.

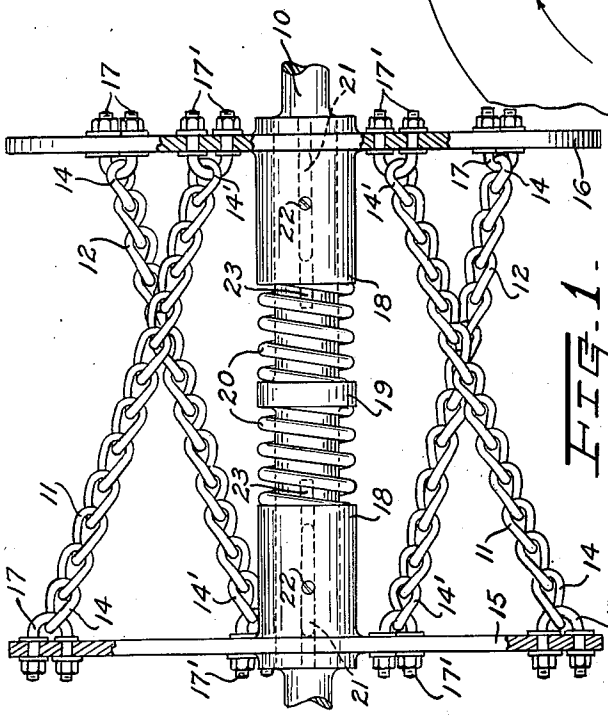


FIG. 1.

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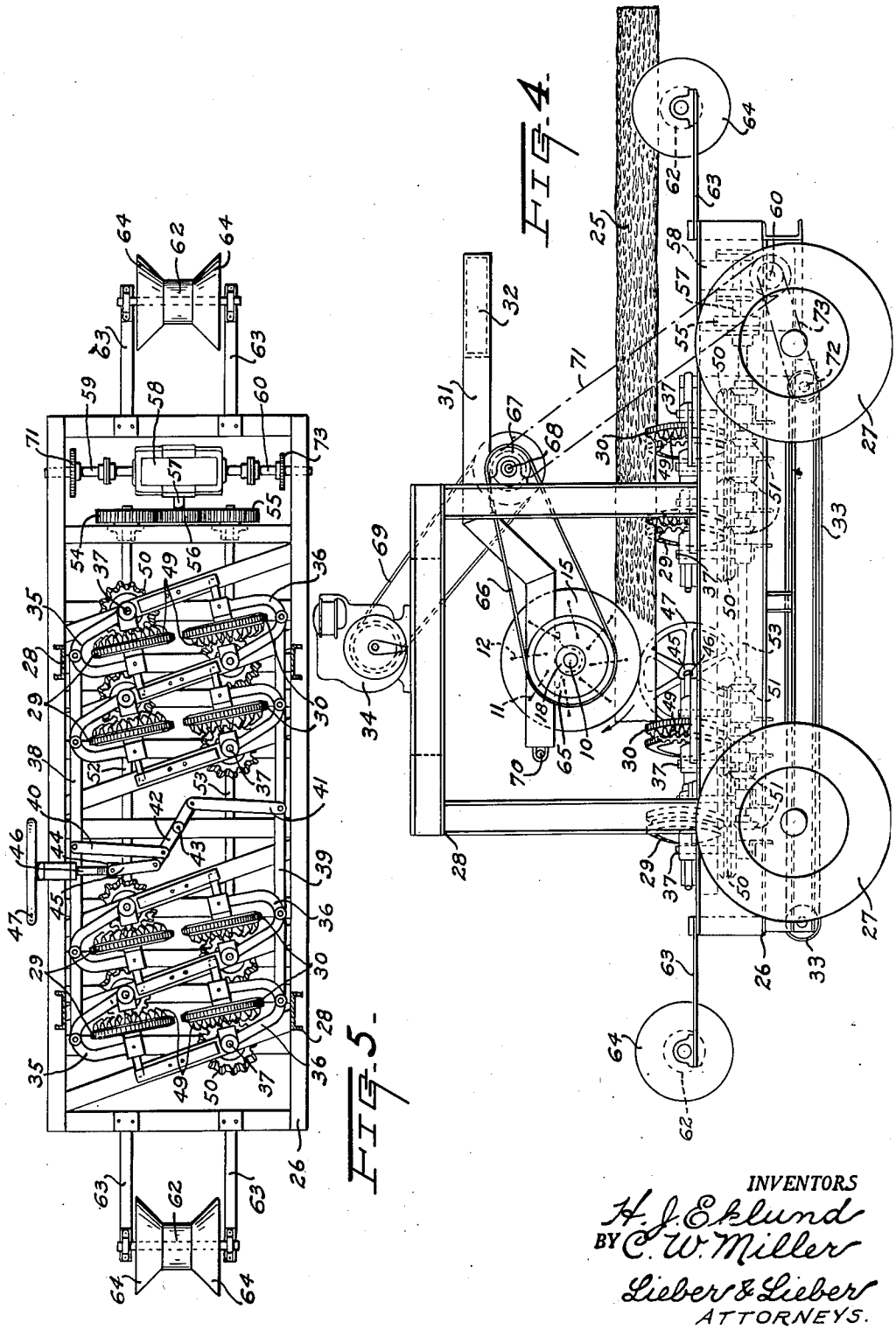


FIG. 4.

FIG. 5.

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FIG. 9.

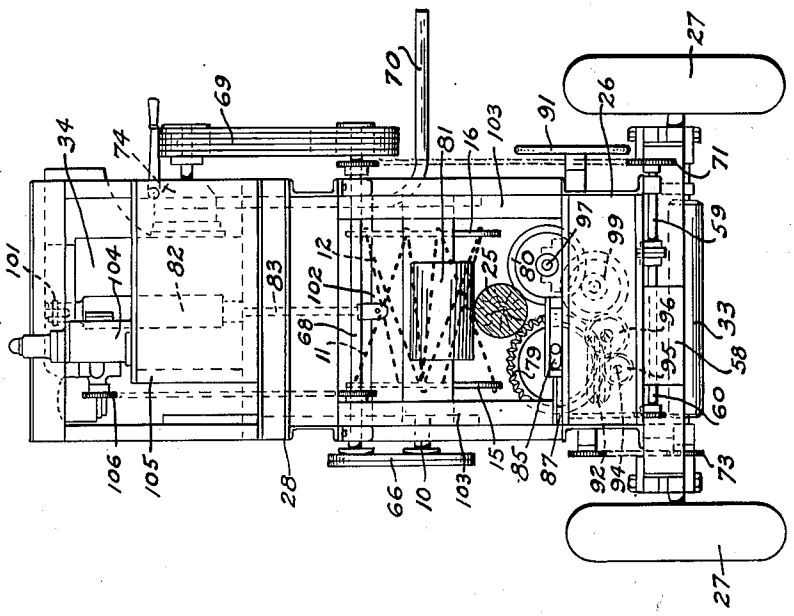
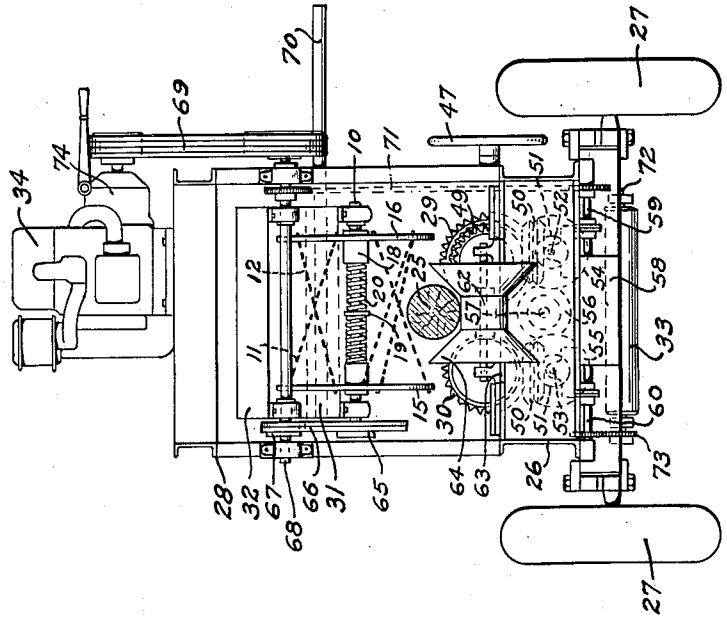


FIG. 6.



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CHAIN-TYPE LOG BARKER

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FIG. 7.

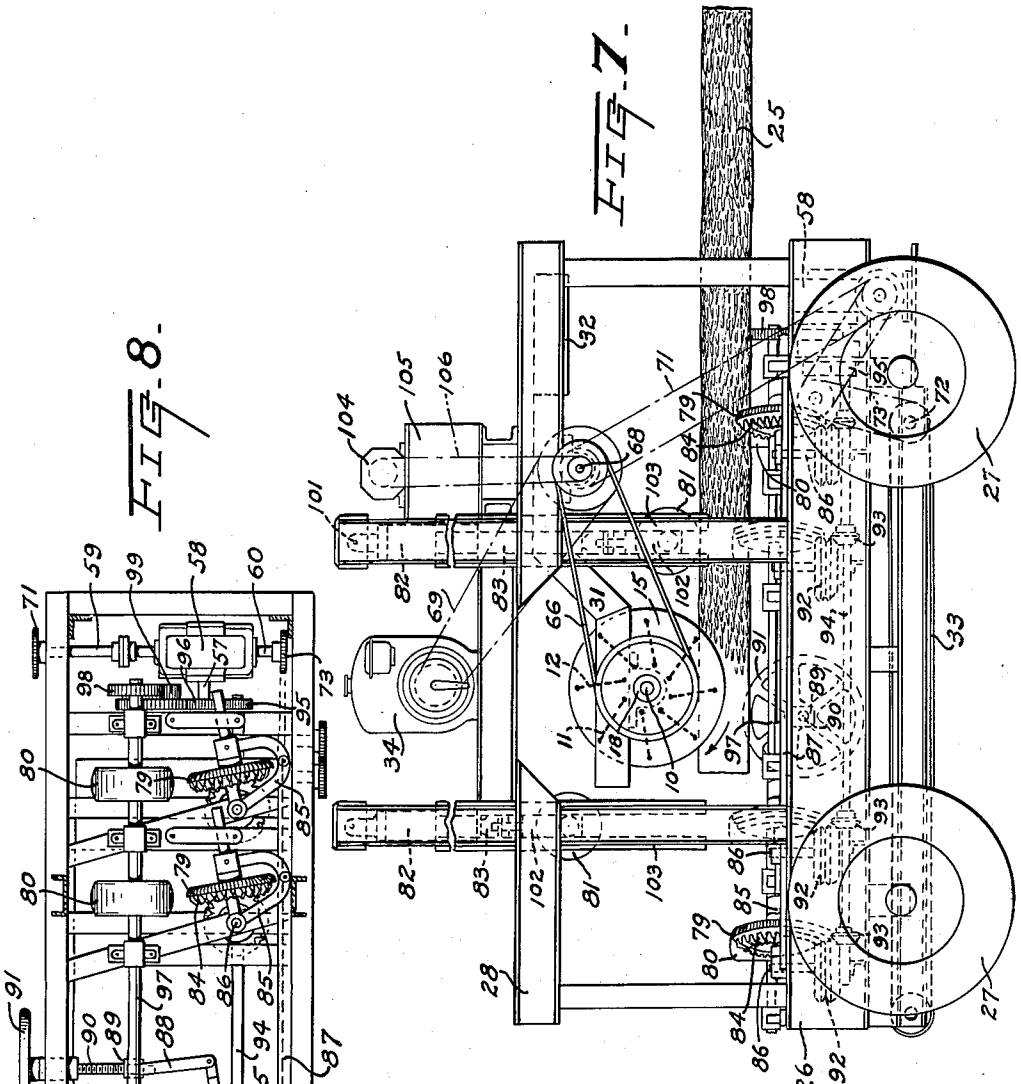


FIG. 8.

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2,608,224

UNITED STATES PATENT OFFICE

2,608,224

CHAIN-TYPE LOG BARKER

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Application November 28, 1949, Serial No. 129,864

9 Claims. (Cl. 144—208)

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Our present invention relates generally to improvements in the art of removing coverings such as bark from round elongated bodies such as logs, and relates more especially to improvements in the construction and operation of mechanical log barkers or bark removers.

The principal object of our invention is to provide various improvements in mechanism for removing coverings such as bark from elongated cylindrical bodies such as logs, whereby the utility and efficiency of such mechanisms is enhanced to a maximum.

It is very desirable, especially in the paper industry, to remove the bark from logs before the wood is utilized for other purposes, and although many different types of so-called log barkers have heretofore been proposed and used commercially; none have proven entirely satisfactory under all conditions of use. Perhaps the most successful of these prior devices for debarking small logs is shown and described in our co-pending application Serial No. 74,838, filed February 5, 1949, wherein a portable unit consists of a rotary support for the successive logs and a chain rotor manually movable along the rotating logs resting upon the support, are utilized for the treatment of pulpwood logs and fence posts at the site of initial cutting of the trees.

In this prior machine the chain rotor has two series of oppositely inclined chains spanning the gap between two side disks, one of these disks being firmly attached to the rotor shaft while the other is movable therealong so as to permit the chains to engage and wrap themselves about the periphery of the rotating log when the rotor is lowered into active position. Since the vertical plane of the axis of rotation of the logs is fixed and the position of the central vertical plane of the rotor between the disks varies as the chains are flexed and the two disks approach and recede from each other when treating logs of varying diameters and when exerting more or less downward pressure on the rotor, the chains of this prior rotor structure do not always exert uniform pressure around the log peripheries, thus reducing the effectiveness of the rotor whenever these two vertical planes are not coincident.

Then too, because of the fact that the debarking rotor of our prior portable log peeler must be manually advanced along the rotating logs and offers considerable resistance to such advancement when the bark is firmly affixed, the job of advancing the rotor becomes quite strenuous and tedious as the successive logs are treated. This prior portable debarking machine moreover is quite difficult to load and to unload because the logs are applied laterally and are fixed against axial shifting while they are being debarked. However, this previous equipment does provide for mechanical rotation of both the rotor and the logs, and the entire unit is portable, but we have found that the chain rotor efficiency, and the ease and safety of operation, and the capacity of these portable outfits may be greatly enhanced so as to increase the general utility thereof.

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It is therefore an important object of the present invention to provide an improved chain rotor for debarking logs, wherein an annular series of alternate oppositely inclined chains is revolvably suspended so that the rotor assemblage will automatically centralize itself relative to the logs as it is brought into active position.

Another important object of this invention is to provide a log peeling rotor comprising a series of chains spanning the gap between two side chain-supporting disks mounted upon a propelling shaft, and wherein both disks are movable along the shaft axis so as to cause the chains to most effectively cooperate with the bark or peripheries of the logs which are being peeled.

A further important object of the invention is to provide an improved log barking rotor of the chain and suspension shaft type, in which the successive chains are maintained taut at all times and are uniformly distortable by both centrifugal force and by the logs to which they are applied, so that they will most efficiently act upon all portions of irregular logs as well as logs of varying diameters.

Still another object of our invention is to provide various improvement in the construction and operation of portable log debarking units whereby the efficiency and capacity of such devices is augmented to a maximum, while the utility thereof is greatly enhanced.

These and other objects and advantages of the invention will be apparent from the following description.

A clear conception of the several improved features constituting our present invention, and of the construction and operation of typical portable log debarkers incorporating these features, may be had by referring to the drawings accompanying and forming a part of this specification wherein like reference characters are used to identify the same or similar parts in the various views.

Fig. 1 is a relatively large front view of our improved self-centering chain rotor, the chains in front of the central rotor plane represented by the view, having been omitted in order to avoid complications;

Fig. 2 is an end view looking toward one end disk of the rotor of Fig. 1, and shows the chain end attachments associated with that end disk;

Fig. 3 is an end view looking toward the opposite end disk of the same rotor, and shows the chain end attachments associated therewith;

Fig. 4 is a side elevation of one type of our improved portable log barker provided with a mechanical log rotating and feeding device;

Fig. 5 is a top view of the mechanical log rotating and feeding device of the unit shown in Fig. 4;

Fig. 6 is an end view of the portable outfit of Figs. 4 and 5, but merely showing the center lines of the rotor chains in heavy dotted lines;

Fig. 7 is a side elevation of another type of our improved portable log barker provided with pressure rolls in addition to modified mechanical log rotating and feeding mechanism, for holding the logs down against the feeding device;

Fig. 8 is a top view of the modified log rotating and feeding mechanism of Fig. 7; and

Fig. 9 is an end view of the modified assemblage of Figs. 7 and 8, again showing only the center lines of the rotor chains in heavy dotted lines.

While the invention has been shown and described as having special utility when applied to portable units for debarking relatively small pulpwood logs and fence posts, it is not our desire or intent to limit the improved features to such specific use since some of them may obviously be utilized more generally; and it is also contemplated that descriptive terms used herein be given the broadest possible interpretation consistent with the disclosure.

The improved portable log barking units constituting our present invention, each comprise, a portable framework having thereon means for positively rotating the successive logs about their longitudinal axes and for simultaneously feeding them along these axes through a debarking zone, an improved chain rotor assemblage revolvable upon the framework for stripping the bark from the rotating logs as they are propelled through the debarking zone, and means also carried by the framework for withdrawing the removed bark from the zone.

Since the improved chain rotor assemblage may be utilized in various types of log barkers including portable machines such as shown herein, its structure and operation will first be described. This improved log debarking rotor is shown in detail in Figs. 1, 2, and 3, and comprises in general a driving shaft 10 having an annular series of any suitable number of oppositely inclined elongated bark stripping elements or normally taut chains 11, 12 revolvably suspended from and disposed about the shaft axis so that the successive chains 11, 12 of the series form a central trough or valley surrounding the carrying shaft 10. The outer ends 14 of the successive oppositely inclined chains 11, 12 are secured to the peripheries of spaced supporting members or disks 15, 16 respectively, by means of U-bolts 17, while the inner ends 14' of the alternate chains are likewise secured to these disks 15, 16 considerably nearer the supporting shaft axis by similar U-bolts 17', and the chains thus span the space between the two disks and are inclined both inwardly and helically relative to the shaft axis. Each of the disks 15, 16 is provided with a rigid hub 18 which snugly embraces and is slidable toward and away from a central flange 19 formed integral with or firmly secured to the shaft 10, and a helical compression spring 20 is interposed between this flange 19 and the adjacent end of the hub 18 of each chain suspension disk 15, 16 in order to maintain the chains 11, 12 normally taut and to resiliently resist deflection thereof. The two springs 20 should exert approximately equal spreading pressure against the two disks 15, 16, and in order to prevent these disks from rotating relative to the shaft 10, each hub 18 and the adjacent enlarged shaft portion is provided with a spline 21 which, in the specific structure shown, is secured to the hub by a screw 22 and coacts with a groove 23 in the shaft 10.

When this improved rotor assemblage is revolved the chains 11, 12 will tend to initially deflect outwardly due to centrifugal force acting thereon, thereby compressing the springs 20 and pulling both disks 15, 16 a short distance toward each other and toward the central shaft flange 19. However, when a log 25 is positioned within the valley formed by the revolving chains 11, 12, and pressure is applied tending to force the log periphery into this valley, the chains will deflect inwardly and wrap themselves about the adjacent log surface as the successive chains of the series are revolved into engagement with the log. As each of these successive chains 11, 12 approaches the log 25 it delivers an impact blow to the bark, and it is thereafter bowed inwardly by pressure and is dragged along the log periphery thereby effectively tearing the bark which has been loosened by the impact, from the body of the log. This bark removing action is accomplished by each of the successive rapidly revolving chains 11, 12, so that the bark is gradually removed by increments as the rotor and log are relatively advanced, and while the rotor specifically illustrated embodies eight chains 11, 12 any desired number of these oppositely inclined bark removing elements may be utilized. The improved rotor may either be advanced along the rotating log as in our co-pending application hereinabove referred to, or this rotor may be revolved about a normally fixed axis while the logs 25 are advanced longitudinally therebeneath.

Figs. 4, 5 and 6 illustrate more or less diagrammatically an improved portable unit wherein the successive logs 25 are transported longitudinally beneath such a revolving chain rotor, and this particular embodiment of the invention comprises in general a rigid elongated log support or bed 26 mounted upon transporting wheels 27 and having an upper frame 28 fixedly secured thereto; two sets of angularly adjustable spur wheels 29, 30 carried by the bed 26 and adapted to rotatably support the successive logs 25 while feeding them longitudinally through the debarking zone located within the upper frame 28; one of the improved chain rotors revolvably and swingably suspended within the debarking zone by one end of a swing beam or lever 31 having its medial portion pivotally secured to the frame 28 while its opposite end carries a rotor counter balancing weight 32; an endless conveyor 33 for the removed bark and refuse mounted on the bed 26 beneath the debarking zone; and a propelling engine or motor 34 carried by the upper frame 28 and being drivingly connected to the spur wheels 29, 30, to the debarking rotor, and to the conveyor 33.

The elongated support or bed 26 may be durably constructed of any desired length from standard channel and angle bars, and the upper frame 28 may be likewise fabricated while the wheels 27 provide for convenient transportation of the unit to the site of cutting of the trees from which the logs 25 are produced, or to any other source of supply. Each of the spur wheels 29 is journalled for rotation in a yoke 35 while each of the other set of spur wheels 30 is likewise journalled in a reversely disposed yoke 36, and these yokes 35, 36 are swingable about upright pivot shafts 37 journalled for rotation on the bed 26, see Figs. 4 and 5. The yokes 35 are pivotally connected to a bar 38 extending along one side of the bed 26, and the yokes 36 are likewise pivotally connected to another bar 39 at the opposite side of this bed. These bars 38, 39 are parallel to each other and the medial portions thereof are interconnected by a pair of links 40, 41 and an intervening lever 42 which is swingably mounted upon the bed 26 by a pin 43, and one extreme end of which is connected to a block 44 by means of another link 45. The block 44 is internally screw threaded for coaction with a threaded spindle 46 journalled for rotation on the bed 26 and having a hand wheel 47 at its outer end, so that rotation of the hand wheel 47 will swing the lever 42 about the fixed pin 43 and will cause the bars 38, 39 to move laterally toward or away from each other and longitudinally in opposite directions, thereby swinging the yokes 35, 36 about their pivot shafts 37 and simultaneously varying the angularity of all the log supporting spur wheels 29, 30 while still maintaining them parallel to each other.

Each spur wheel 29, 30 has a bevel gear 49 secured to one side thereof, and each of these gears 49 meshes with the upper teeth of a double bevel pinion 50 secured to the fixed upright pivot shaft 37 of the corresponding spur wheels 29. The bevel gears 49 which are attached to the spur wheels 29 have their teeth directed in the opposite direction from the teeth of the gears 49 which are attached to the other spur wheels 30; and the lower teeth of the pinions 50 on one side of the bed 26 mesh with bevel pinions 51 secured to a horizontal shaft 52 while the lower teeth of the pinions 50 on the opposite side of this bed likewise mesh with similar bevel pinions 51 secured to another horizontal shaft 53. These shafts 52, 53 are parallel and are rotatable in the same directions by means of two gears 54, 55 at the forward shaft ends, which mesh with a pinion 56 carried by a driving shaft 57 and the latter is rotatable at relatively low speed by a speed reducer 58 of well known construction and operation and which has a power shaft 59 protruding from one of its sides and another slow speed driven shaft 60 projecting from its opposite side. Since the shafts 52, 53 are rotatable in the same directions, the log supporting spur wheels 29, 30 are all simultaneously rotatable in the same direction to positively rotate the logs 25 about their own longitudinal axes, and the angular disposition of these spur wheels 29, 30 causes the logs to advance longitudinally through the debarking zone. The speed of rotation of the logs may be varied by setting the speed reducer 58, and the rate of advancement of the logs 25 may also be varied by manipulating the hand wheel 47 so as to change the angularity of the spur wheels 29, 30, thus providing simple and effective means for positively revolving and feeding the successive logs through the unit at any desired speed.

When the logs 25 are relatively long, it is also desirable to provide some means for guiding and supporting the overhanging ends thereof or for holding them against the spur wheels 29, 30, as they approach and leave the debarking zone. Such means for guiding the logs 25 is shown in Figs. 4, 5, and 6, and comprises an idler roller 62 supported by means of spaced leaf springs 63 considerably beyond each end of the bed 26. Each of these rollers 62 is freely rotatably mounted upon the free ends of the adjacent springs 63, and has tapered opposite side flanges 64 forming a log guiding valley the central vertical planes of which is approximately coincident with the central vertical longitudinal plane of the log supporting cradle formed by the two sets of spur wheels 29, 30. The successive logs 25 are effectively supported and guided by the rollers 62 as these logs are admitted to and ejected from the machine, and the roller carrying springs 63 will deflect so as to compensate for varying log diameters as well as for crooked logs. The rollers 62 also greatly facilitate loading of the bark covered logs longitudinally upon the rotating and revolving table, and subsequent removal of the stripped or debarked logs 25.

The shaft 10 of the improved debarking rotor which is journalled in and suspended from the lower end of the lever 31 within the frame 28, is provided with a driving sheave 65 which is engaged by one or more V-belts 66 coacting with another sheave 67 mounted upon the lever supporting pivot shaft 68, and this shaft 68 is adapted to be positively rotated at a relatively high speed by another multiple V-belt drive 69 operable by the propelling motor 34, see Figs. 4 and 6. The counter balancing weight 32 which is carried by the end of the lever 31 remote from the chain rotor, serves to balance the weight of this rotor; and the extreme end of the lever 31 beyond the debarking rotor is provided with a manipulating arm 70 for effecting lowering of the chains 11, 12 against the work. The motor 34 may be an internal combustion engine, an electric motor, or any other suitable source of rotary motion, and the counter shaft 68 is also drivingly connected to the power intake shaft 59 of the speed reducer 58 by a chain drive 71, while the power off-take shaft of the reducer 58 is connected to the drive shaft 72 of the refuse conveyor 33 by another chain drive 73. The propelling motor 34 may also be provided with a manually controlled clutch 74, and the bark removing conveyor 33 which is suspended from the bed 26 beneath the debarking zone may be of the endless type having an upper stretch or run adapted to receive the gravitating refuse and deliver it toward the rear end of the unit beyond the wheels 27.

When the portable barker of Figs. 4, 5, and 6 has been properly constructed as above described, it may be readily transported with the aid of the pneumatic tired wheels 27 to any locality for supplying the successive logs 25 thereto. The motor 34 may then be operated to simultaneously and rapidly revolve the chain rotor in the direction indicated by the arrows, to rotate all of the spur wheels 29, 30 in the same direction, and to actuate the conveyor 33, whereupon the successive logs may be transferred from a loading platform or feed table over the front guide roller 62 and onto the first set of spur wheels 29, 30. These wheels due to their angular disposition will feed the entering log 25 toward the debarking zone while also rotating it about its horizontal axis of

advancement, and the speed of advancement of the log can be regulated by manipulating the hand wheel 47. The arm 70 may then be utilized to bring the rotor chains 11, 12 into engagement with the log periphery and to wrap them more or less about the log. The rapidly revolving relatively rough flexible elements or chains 11, 12 will then pound and tear the bark from the advancing and rotating log and the removed refuse will drop upon the conveyor 33 which removes it from the unit. As the advancing end of the stripped log 25 leaves the spur wheels 29, 30 it engages the guide roller 62 at the delivery end of the machine, and these rollers 62 will rise or fall so as to accommodate logs of varying diameter due to the deflection of their supporting springs 63.

While the improved barking unit shown in Figs. 4, 5, and 6 embodies two sets of cooperating angularly disposed spur wheels 29, 30 for feeding the logs, and merely depends upon the weight of the logs 25 and upon the downward pressure applied by the chain rotor, to hold the logs within the supporting cradle, only one set of feed wheels is actually required and it is also desirable in some cases to positively press and hold the logs against the spur wheels. Such modifications are illustrated in Figs. 7, 8 and 9 wherein the log supporting and feeding cradle comprises a single series of angularly disposed rotatable spur wheels 79 cooperating with a series of coaxial rolls 80 to form the log rolling and conveying trough, while the logs 25 are pressed into contact with the spur wheels 79 and rolls 80 by means of rollers 81 which may be forced downwardly at will with the aid of hydraulic cylinders 82 and pistons 83 mounted upon the portable deck frame 28. Since the major portion of this modified unit is the same as that previously described, only the differences between the two portable log barkers will be described.

Each of the log rotating and feeding spur wheels 79 is journalled for rotation in a yoke 85 and is provided on one face with a bevel gear 84, and each yoke 85 is swingable about an upright shaft 86 and is pivotally attached to a connecting rod 87 at one side of the bed 26, so that longitudinal shifting of this rod will swing all of the yokes 85 about their pivot shafts 86 to a like extent. One of the spur wheel supporting shafts is elongated and connected by a link 88 with an internally threaded block 89 which coacts with a threaded rod 90 journalled for rotation in the bed 26 and having a handwheel 91 at its outer end whereby turning of the handwheel 91 will simultaneously vary the angularity of all of the spur wheels 79 by shifting the rod 87. The bevel gear 84 of each spur wheel 79 coacts with the upper teeth of a double bevel pinion 92 mounted upon the adjacent shaft 86, and the lower teeth of each of these pinions 92 mesh with a bevel pinion 93. All of these latter pinions 93 are secured to a common drive shaft 94 journalled on the bed 26 and having a gear 95 secured to one end thereof and the gear 95 meshes with a driving gear 96 secured to the power delivery shaft 57 of the speed reducer 58, and it should be noted that all of the spur wheels 79 are thus positively rotated whenever the shaft 57 is rotating. The coaxial rolls 80 which cooperate with the spur wheels 79 to form the log supporting or carrying cradle, are all mounted upon a common shaft 97 which is rotatably mounted at the opposite side of the bed 26 and has a driving gear 98 at its end coacting with the driving gear 96 through a pair of speed changing idler gears 99, so that all of the rolls 80 will also be simultaneously rotated whenever the spur wheels 79 are being rotated.

The cylinders 82 of the improved mechanism for positively holding the logs 25 against the feed wheels 79 and rolls 80, are pivotally suspended from the upper frame 28 by means of pins 101, and the pistons 83 are provided at their lower ends with cross-heads 102 which are guided for vertical movement in guideways 103, as shown in Figs. 7 and 8. The pressure rollers 81 which are cooperable with the logs 25 at the opposite ends of the debarking zone, are rotatably suspended from the cross-heads 102, and the hydraulic pressure for actuating the pistons 83 is created by a rotary pump 104 mounted upon a liquid supply tank 105 carried by the upper frame 28, and which is driven by the propelling motor 34 through the pivot shaft 68 and a chain drive 106. The two rollers 81 may be raised or lowered independently of each other by the attendant, so as to firmly seat the logs 25 within the log rotating and advancing cradle in horizontal position and to prevent tilting thereof.

During normal operation of the modified portable log barking unit shown in Figs. 7, 8 and 9, the unit may be transported to the locality of the log supply and after the motor 34 has been placed in operation so as to rotate the feed wheels 79 and rolls 80 and to actuate the refuse conveyor 33, the successive bark coated logs 25 may be delivered longitudinally from a loading platform or table onto the first wheel 79 and roll 80 of the log rotating and feeding cradle. This initial spur wheel 79 due to its angular disposition, will advance each log 25 horizontally along the supporting cradle, and as the fresh log approaches the debarking zone, the front pressure roller 81 may be lowered hydraulically to prevent tilting and to hold the log in firm contact with the feeding element. The chain rotor may thereafter be revolved and lowered against the log periphery with the aid of the handle 70 to gradually remove the bark, and as the stripped end of the log 25 emerges from the debarking zone the other pressing roller 81 may be lowered into engagement therewith so as to prevent undesirable tilting of the trailing end of the stripped log. The resilient pressure applied by the rollers 81 will also cause the single set of spur wheels 79 to effectively grip and rotate the logs about their longitudinal axes, and by varying the angularity of these feed wheels 79 with the aid of the hand-wheel 91 the rate of advancement of the logs may be varied as desired.

From the foregoing detailed description of the construction and operation of our invention, it should be apparent that we have in fact provided an improved portable log barker which is simple and durable in construction, and which is also highly efficient in use and flexible in its adaptations. The portable unit may be readily transported to the site of cutting of the trees from which the logs are derived thereby saving on cost of transportation by eliminating necessity of carting the useless bark, or the outfit may be transported bodily to any other place of log concentration. The equipment is adapted to handle logs of various diameters and of diverse lengths, in a safe and expedient manner, and has enormous capacity considering its size and the power required to operate the mechanism.

Our improved rotor assemblage wherein both of the chain supporting disks 15, 16 are movable along the driving shaft 10, will permit the annu-

lar valley formed by the oppositely inclined chains 11, 12 to center itself with respect to irregular logs 25; and the helical disposition of these chains combined with their inward inclination toward the shaft axis, causes these elongated flexible bark stripping elements to most effectively wrap themselves around the log periphery after each impact blow has been delivered. These impact blows tend to split and loosen the bark, while the subsequent dragging of the chains along the log will strip the loosened bark therefrom, and the rotor may be conveniently manipulated with the aid of the handle 70. The springs 20 coacting with the flange 19 on the shaft 10 tend to constantly maintain the chains taut, but will permit outward deflection thereof due to centrifugal force, as well as inward deflection due to lowering of the rotor against the work.

The improved mechanism for positively advancing the logs 25 through the debarking zone while also rotating them about their own axes, may be quickly and easily adjusted to vary either the rate of feed or the speed of rotation. The assemblage wherein two sets of spur wheels 29, 30 are provided will perhaps insure more positive driving of the logs; but the assemblage which utilizes only one set of spur wheels 79 cooperating with rolls 80 to support the logs is somewhat simpler, and will function effectively especially if press rollers 81 are utilized. Both of these log rotating and feeding mechanisms provide elongated cradles for safely and effectively supporting logs of varying diameter.

The guide rolls 62 with their tapered side flanges 64, and the press rollers 81 coacting with the upper portions of the logs, both provide effective means for preventing the elongated logs from tilting longitudinally. The leaf spring supports 63 for the guide rolls 62, permit these rolls to assume various positions so as to compensate for irregular logs 25 and logs of different diameters, and these rollers tend to maintain the logs in horizontal position and effectively guide them toward and away from the feeding cradle. The fluid pressure actuated press rollers 81 are resiliently urged toward the logs by the cylinders 82 and pistons 83, and likewise assist in preventing the logs from tilting while also augmenting the feeding or log advancing action of the spur wheels.

The bark conveyor 33 beneath the bed 26 and the debarking zone, prevents refuse from accumulating to an extent whereby the bark removal is interfered with, and this conveyor is confined in a safe place and is operable by the same motor 34 which drives the other mechanisms. Suitable protective covers for exposed drives and mechanism may also be provided, and while the improved portable unit is especially adapted to debark pulp wood logs and fence posts it is also useful for stripping larger logs.

It should be understood that it is not desired to limit this invention to the exact details of construction and to the precise mode of operation of the typical portable log debarkers herein specifically illustrated and described, for various modifications within the scope of the appended claims may occur to persons skilled in the art.

We claim:

1. A log barker comprising, a log support, means for rotating and for axially advancing a log resting upon said support while preventing lateral displacement of the log, and a power driven barking rotor having a shaft disposed transversely of the log and a pair of spaced coaxial disks both mounted upon and movable along the shaft laterally of the log and also having an annular series of oppositely inclined normally taut elongated flexible chain elements spanning the gap between said disks.

2. A log barker comprising, a portable bed, a cradle for simultaneously rotating and feeding the logs along said bed while preventing lateral displacement of the logs, a shaft journalled upon said bed above and extending across said cradle, a pair of spaced disks slidably mounted upon and revolvable by said shaft, and an annular series of oppositely inclined taut chains secured to said disks and providing a circular valley adapted to engage the log peripheries, said disks being movable to cause the valley to shift laterally of the logs advancing along said bed.

3. A log barker comprising, a log support, means for rotating and for axially advancing a log resting upon said support while preventing lateral displacement of the log, and a power driven barking rotor having a shaft disposed transversely of the log and a pair of coaxial disks both mounted upon and movable along the shaft laterally of the log, said rotor also having an annular series of oppositely inclined elongated flexible chain elements spanning the gap between said disks and means for constantly urging said disks apart to normally maintain said elements in taut condition.

4. A log barker comprising, a log support, means for rotating and for axially advancing a log resting upon said support while preventing lateral displacement of the log, and a power driven barking rotor having a shaft disposed transversely of the log and a pair of coaxial disks both mounted upon and movable along the shaft laterally of the log, said rotor also having an annular series of oppositely inclined normally taut elongated flexible chain elements spanning the gap between and secured to said disks with the opposite ends of each element disposed at different distances from the shaft axis.

5. A log barker comprising, a log support, means for rotating and for axially advancing a log resting upon said support while preventing lateral displacement of the log, and a power driven barking rotor having a shaft disposed transversely of the log and a pair of coaxial disks both mounted upon and movable along the shaft laterally of the log, said rotor also having an annular series of normally taut elongated flexible chain elements spanning the gap between said disks and disposed helically with respect to the shaft axis.

6. A log barker comprising, a log support, means for rotating and for axially advancing a long resting upon said support while preventing lateral displacement of the log, and a power driven barking rotor having a shaft disposed transversely of the log and a pair of coaxial disks both mounted upon and movable along the shaft laterally of the log, said rotor also having an annular series of elongated flexible chain elements spanning the gap between and secured to said disks helically with respect to the rotor axis.

7. A log barker comprising, a cradle for simultaneously rotating and feeding a log longitudinally while preventing lateral displacement thereof, a shaft journalled for rotation above and extending across said cradle, spaced disks slidably mounted upon and revolvable by said shaft, and an annular series of normally taut chain elements each having its opposite ends secured to said disks at different distances from

the axis of said shaft and disposed helically with respect to said axis.

8. A log barker comprising, a cradle for simultaneously rotating and feeding a log longitudinally while preventing lateral displacement thereof, a shaft journalled for rotation above and extending across said cradle, spaced disks slidably mounted upon and revolvable by said shaft, an annular series of oppositely inclined chain elements each having its opposite ends secured to said disks at different distances from the axis of said shaft, and means for constantly resiliently urging said disks apart to normally maintain said elements in taut condition.

9. A log barker comprising, a cradle for simultaneously rotating and feeding a log longitudinally while preventing lateral displacement thereof, a shaft journalled for rotation above and extending across said cradle, spaced disks slidably mounted upon and revolvable by said shaft, and an annular series of helical and oppositely inclined and normally taut chain elements secured to said disks and providing an annular valley engageable with the log periphery, both of said disks being slidable along said shaft to permit said valley to shift laterally of the advancing log.

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