

No. 739,495.

PATENTED SEPT. 22, 1903.

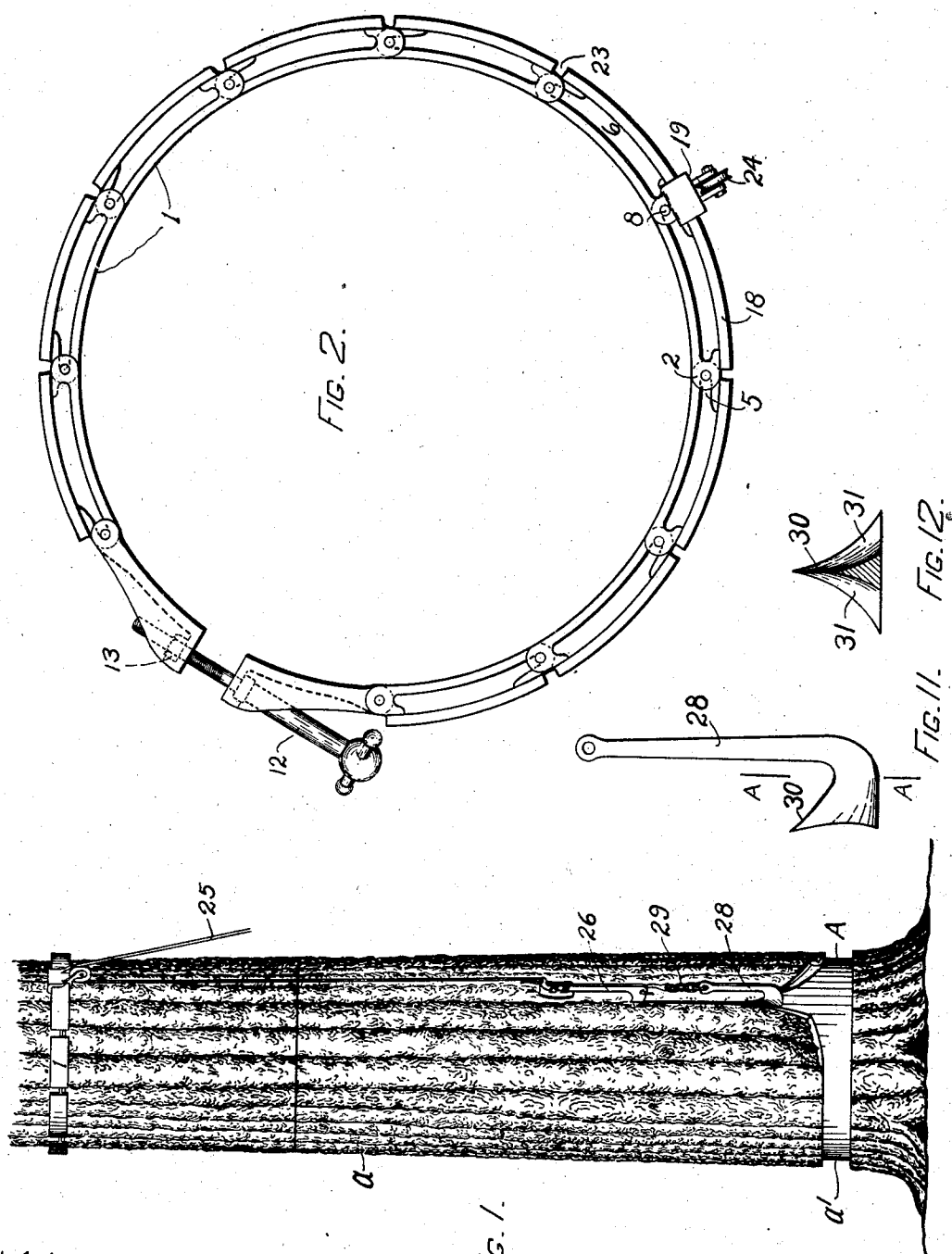
W. P. KIDDER.

APPARATUS FOR REMOVING BARK FROM STANDING TREES.

APPLICATION FILED JULY 5, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES
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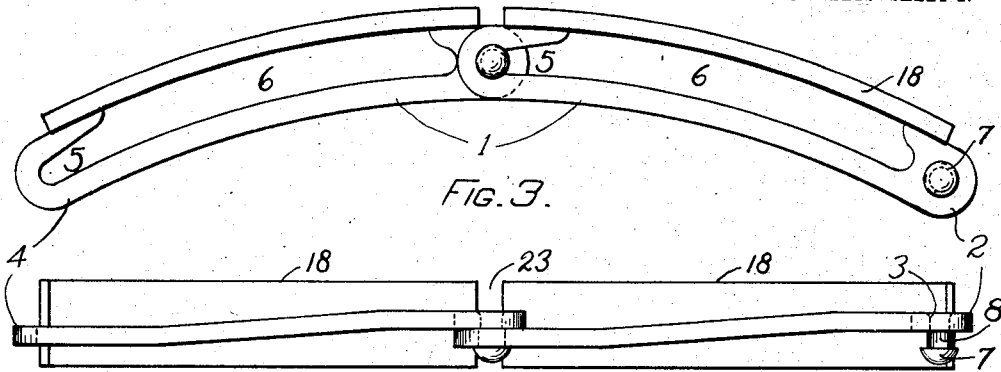


FIG. 4.

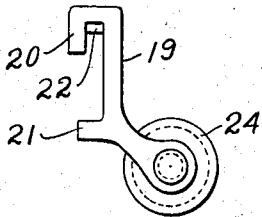


FIG. 7.

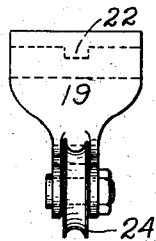


FIG. 8.

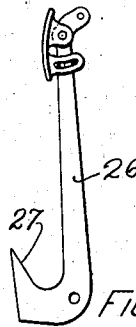


FIG. 9.

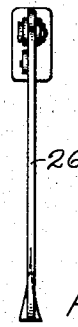


FIG. 10.

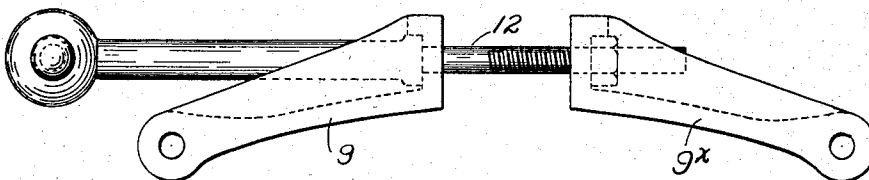


FIG. 5.

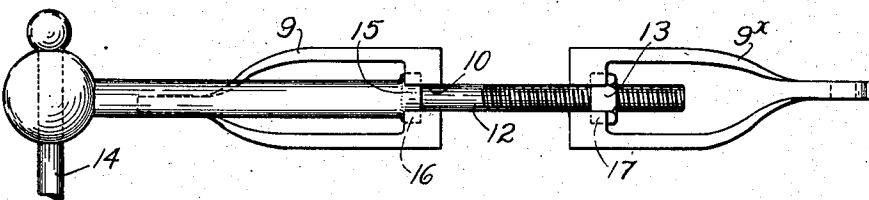


FIG. 6.

WITNESSES

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UNITED STATES PATENT OFFICE.

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OF ELEVEN-TWENTIETHS TO F. H. & C. W. GOODYEAR, A FIRM, AND
GEORGE E. MATTHEWS, OF BUFFALO, NEW YORK.

APPARATUS FOR REMOVING BARK FROM STANDING TREES.

SPECIFICATION forming part of Letters Patent No. 739,495, dated September 22, 1903.

Application filed July 5, 1902. Serial No. 114,387. (No model.)

To all whom it may concern:

Be it known that I, WELLINGTON PARKER KIDDER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Removing Bark from Standing Trees, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of my invention is to produce an improved apparatus for removing bark from standing trees.

My present invention is in the nature of an improvement on that set forth in my United States Letters Patent No. 707,428, granted August 19, 1902.

In the drawings illustrating the principle of my invention and the best mode now known to me of applying that principle, Figure 1 is a general perspective view showing my new bark-removing apparatus in use. Fig. 2 is a plan view of the track-chain assembled with the traveler in place. Fig. 3 shows in plan, and Fig. 4 in side elevation, two links secured together. Fig. 5 is a plan, and Fig. 6 a side elevation, of the coupling device which secures the end links of the chain together. Fig. 7 is a side elevation, and Fig. 8 a front elevation, of the traveler. Fig. 9 is a side elevation, and Fig. 10 a rear elevation, of the splitter. Fig. 11 is a side elevation of the separator, and Fig. 12 is a sectional view on line A A of Fig. 11.

A shows a standing tree-trunk, *a* the bark thereon, and *a'* a narrow space from which the bark has been removed circumferentially of the tree-trunk for the readier application and operation of my new apparatus.

The links 1 (see Figs. 3 and 4) of the track-chain are each provided at one end with an ear 2, in which is formed a bolt-hole 3 and at the other end with an ear 4, formed with a recess 5, which opens out into a central longitudinal slot 6, the width of said slot 6 taken the narrowest way being greater than the diameter of the head 7 of the bolt 8, by means of which adjacent links are secured together. The bolts 8 are riveted in the bolt-holes 3.

To join two links together, the bolt 8 of one

link is passed through the slot 6 of the other link and is then slid along into the recess 5, so that bolt-head 7 overhangs the walls of the recess 5, thereby locking the two links together.

To dismantle the chain, the adjacent links are moved toward each other until the bolt 8 passes out of the recess 5 into the slot 6, the narrow width of which is greater than the diameter of the bolt-head 7, thus permitting the bolt-head 7 to be slipped therethrough to separate the adjacent links.

To secure the track-chain in place on the tree, as shown in Fig. 1, any suitable coupling device to join the end links together may be provided; but I prefer the coupler shown in Figs. 5 and 6.

To one of the end links of the chain is bolted an arm 9, formed with an open slot 10, through which is passed the screw 12, engaged by the nut 13 at one end and provided with a handle-bar 14 at its other end. About midway of the screw 12 is formed thereon a boss 15, which is seated in the socket 16, the walls of which socket support the screw and keep it from displacement when the chain is under strain. To the other end link is secured an arm 9^x. The nut 13 is seated in the socket 17, the walls of which serve as a nut-lock to prevent its rotation. Arms 9 and 9^x differ in that the walls of the socket 16 permit the screw 12 to turn, while the walls of the socket 17 act as a nut-lock for nut 13. By turning the screw 12 by means of its handle-bar 14 in one direction, the nut 13 being held from rotation in its socket 17, the arms 9 and 9^x are drawn toward each other, and the chain is tightened about the tree. By turning the screw 12 in the opposite direction the boss 15 may be drawn out of its socket 16 sufficiently to permit the screw 12 to be pushed longitudinally, so as to disengage the nut 13 from its socket 17 for the removal of the arm 9^x at that end of the screw. The arms 9 and 9^x and the links 1 are curved concave on their inner side, so that they may adjust themselves more readily to the curvature of the trees. (See Figs. 2, 3, and 5.)

The outer side of the links 1 (see Figs. 3 and 4) are formed with a projecting edge 18,

which serves as a track for the traveler 19, (see Figs. 7 and 8,) the upper end 20 of which is in the form of a hook and the lower part of which is provided with a lug 21, that projects inwardly under the lower edge of the links 1 when the traveler 19 is hooked upon its track 18. Accidental displacement of the traveler 19 is prevented by the fact that the distance from the end of hook 20 to the lug 21 is less than the height of the outer side of the links 1.

In the bend of the hook 20 is formed a tooth 22, adapted to engage in the spaces 23 between the links when the hook 20 is brought over one of the spaces 23. This engagement of the tooth 22 in the spaces 23 prevents the undue swinging movement of the bark-removing instrumentalities when in use. Over a pulley 24, mounted on the traveler 19, is rove a flexible reach 25, to which is attached the bark-splitter 26. (See Fig. 1.) This bark-splitter 26 is illustrated in Figs. 9 and 10 and is a narrow hook having the inner side of its bend formed with a cutting edge 27.

When the free end of the bark-splitter is inserted in the bark, as at the upper side of space a' , and moved up the trunk, the bark thereon is split vertically. To the lower end of the bark-splitter I may attach and usually do attach a bark-separator 28 (see Fig. 11) by a chain 29. (See Fig. 1.) Separator 28 is hook-shaped and provided on its inner side with a rib 30, which follows in the split through the bark made by the bark-splitter 26. The separator has lateral wings 31 on each side of the rib 30. (See Fig. 12.) These wings pass between the bark and trunk on each side of the split when moved up the trunk. By shifting the traveler 19 from place to place around the trunk the bark thereon may be cut into strips and removed from the trunk wholly by my new apparatus

or partially by it and partially by hand, according to circumstances and the width of the bark strip cut as compared with the width of the separator.

What I claim is—

1. The combination of means for supporting a reach-guide on a tree-trunk; a reach-guide; a reach; a bark-splitter and a bark-separator; the bark-splitter being hook-shaped and the bark-separator being hook-shaped and having lateral wings, the bark-splitter being connected with the reach, and the bark-separator being connected with the bark-splitter, whereby the splitter and separator act successively.

2. The combination of a track-chain and means for clamping it on a tree-trunk; of a traveler mounted on the track-chain; a reach-guide on the traveler; a flexible reach and a rossing implement on said reach.

3. The combination of a track-chain and means for clamping it on a tree-trunk; of a traveler mounted on the track-chain; a reach-guide on the traveler; a flexible reach and a rossing implement on said reach; said track-chain being made up of a plurality of links detachably connected at their ends and formed with tracks.

4. In a rossing apparatus, the combination of a trunk-engaging track-chain having spaces between the opposed ends of its links with a traveler mounted on the track-chain and formed with a tooth to enter said spaces; and a rossing mechanism supported on said traveler.

In testimony whereof I affix my signature in presence of two witnesses.

WELLINGTON PARKER KIDDER.

Witnesses:

M. E. COVENEY,
E. A. ALLEN.