

No. 654,782.

Patented July 31, 1900.

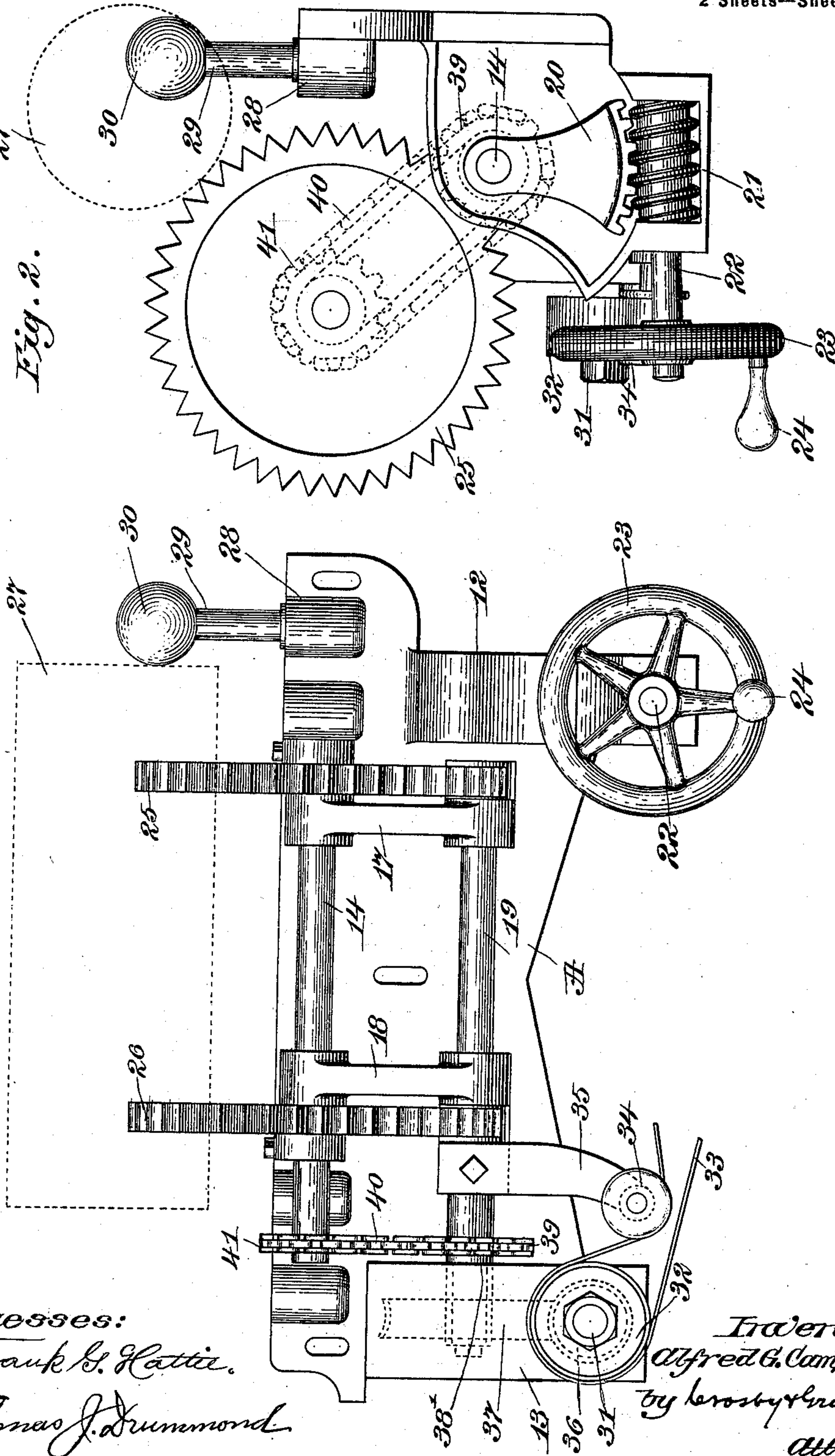
A. G. CAMPBELL.
LOG TURNING ATTACHMENT.

(Application filed Jan. 29, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses:

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Thomas J. Drummond.

Inventor:
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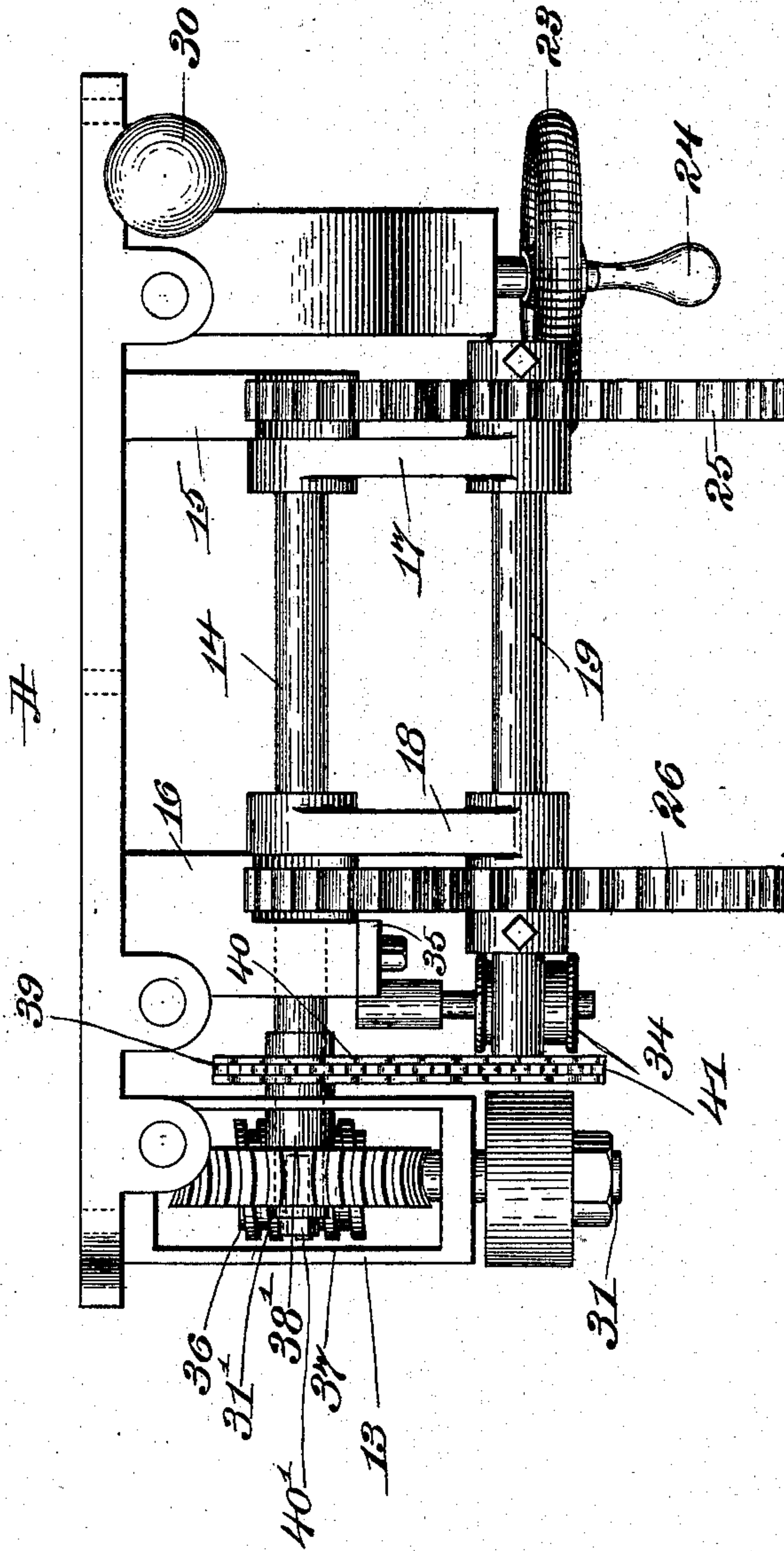
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(No Model.)

2 Sheets—Sheet 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

ALFRED G. CAMPBELL, OF SHERBROOKE, CANADA.

LOG-TURNING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 654,782, dated July 31, 1900.

Application filed January 29, 1900. Serial No. 3,110. (No model.)

To all whom it may concern:

Be it known that I, ALFRED G. CAMPBELL, a subject of the Queen of Great Britain, residing at Sherbrooke, county of Sherbrooke, Province of Quebec, Dominion of Canada, have invented an Improvement in Log-Turning Attachments, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a log-turning attachment; and the object of the invention is to provide a simple and compact appliance of this character constructed to receive logs, sticks, or other objects of like kind of different sizes and to present all parts of the surfaces thereof to knives or cutting mechanism by which the bark can be peeled off uniformly and cleanly from such surfaces or the latter dressed.

The invention involves as one of its features a swinging frame, a shaft carried by said swinging frame, and means upon the shaft to turn a log to present different portions of the latter to the cutting mechanism, and these parts may be of any suitable character, though I have represented the machine in the drawings in one simple and convenient embodiment thereof.

Figure 1 is a side elevation of the machine. Fig. 2 is an end elevation of the same as seen from the right in Fig. 1, and Fig. 3 is a plan view of the same.

The frame for supporting the different parts of the machine may be of any suitable character. It is denoted in a general way by A, and includes in its construction boxes or casings, as 12 and 13, in which certain of the operating mechanism may be housed to protect the same from flying particles, &c., and which serve as suitable receptacles to contain lubricant in sufficient quantity to apply the same to gearing inclosed therein, as will hereinafter appear. The said bearing-boxes support the rock-shaft 14, also sustained by brackets, as 15 and 16, upon the frame A intermediate said boxes. The rock-shaft in the present case is manually operative, and it carries a swinging frame of some suitable kind. The swinging frame is represented as consisting of the parallel arms 17 and 18, fixed to the rock-shaft 14 and having hubs or bearings at

their upper ends to receive the continuously-rotative shaft 19, carrying suitable means to support and rotate a log or stick, whereby all parts of the latter can be brought into position for action by barking-knives or other tools. The boxing 12 contains the segmental worm-gear 20, secured to the rock-shaft 14 and adapted to mesh with the worm or screw 21 upon the shaft 22, provided at its outer end with the wheel 23, equipped with a handle 24. The two arms 17 and 18, comprising the swinging frame, move in unison, and by grasping the handle 24 and turning the wheel 23 said frame through the intermediate gearing can be swung down or up, as may be required. The shaft 19 carries the parallel wheels 25 and 26, shown as peripherally toothed or serrated, this construction serving to afford a firm purchase upon the log and to turn the same. As the shaft 19 is continuously rotative, the wheels 25 and 26 will of course be rotated therewith, so as to turn the log (shown by dotted lines 27 in Figs. 1 and 2) in such manner that all parts of the same may be brought under the operation of the knives.

By swinging the arms 17 and 18 down the attachment may be made to accommodate a log or stick of a larger size than that represented, and the reverse result can be obtained by oppositely moving said arms, whereby the log holder and turner is rendered adjustable.

I have deemed it unnecessary to illustrate the knives or cutting mechanism, for these may be of the kind usually employed in this class of apparatus.

The framing has an offset 28 near the upper right-hand corner thereof which supports the vertical post 29, having an end stop 30, shown as spherical and against which the end of the log is adapted to abut, whereby said log is held against longitudinal movement. The spherical end stop will not interfere with the free rotation of the log.

The boxing 13 sustains the shaft 31, provided at its outer end with the pulley 32, around which the belt 33 is passed, one of the runs of said belt also traveling against the direction or guide roll 34, supported at the lower end of the bracket 35. The belt is connected with a suitable driver upon the main or bark shaft of the machine to which it is

attached, whereby the shaft 31 will be given a continuous motion so long as the knives are in motion. The mechanism for driving the shaft 31 is a convenient one, but the invention is not limited to the same, for other equally-simple means may be employed for securing the function specified. The transverse shaft 31 is provided with a worm or screw 36, meshing with the worm-gear 37, loosely carried by the shaft 14 at what is represented as the left-hand end of the shaft. The worm-gear has an elongated hub or sleeve 38', with which a driver (shown as a sprocket-wheel 39) is rigidly united, said sprocket-wheel being connected by the sprocket-chain 40 with the sprocket-wheel 41 upon the shaft 14, that carries the log-turning means. The sprocket-wheel is held in place by the bolt 40' in threaded engagement with said shaft 31, and between the head of the bolt and the worm-gear the washer 31' is disposed and serves its usual function. The worm-gear referred to is a very simple and convenient mechanism for reducing the speed of the shaft 14, and consequently that of the log-turning wheels 25 and 26, to the proper extent. The sprocket-39 is concentric with the shaft 31, and hence the continuous motion of the log-turning wheels 25 and 26 is in no wise affected when the swinging frame is actuated.

In operation the log-carrying frame, consisting of the arms 17 and 18, will be swung down by the hand-wheel 23 and intermediate connections a proper distance to receive the log, after which said frame will be returned into position to present said log to the knives. (Not shown.) As the belt 33 during this time is in motion, the log will be rotated by the two toothed-wheels 25 and 26, so as to bring all parts of said log into position for operation by said knives. When the bark is completely removed, the frame can be swung down a very short distance to take off said

log and place another upon the wheels for treatment.

The invention is not limited to the precise construction hereinbefore specified, for this may be modified within the scope of the accompanying claims.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an apparatus of the class specified, a rock-shaft, a worm-gear segment fixed to said rock-shaft, a worm meshing with said segment, a shaft carrying the worm and provided with means for turning the same, a swinging frame rigid with the rock-shaft, a rotative shaft carried by said swinging frame and provided with log-turning means, a driven and a driving member fixedly connected with each other and both loose on the rock-shaft, connections between said driving member and the rotative shaft for operating the latter and thereby the log-turning means, and means to actuate said driven member.

2. In an apparatus of the class specified, a rock-shaft, a swinging frame rigid with the rock-shaft and provided with a rotary shaft having log-turning means, a worm-gear and a sprocket-wheel rigidly connected with each other and both loose upon the rock-shaft, a sprocket-chain connecting the sprocket-wheels, a shaft having a worm to rotate the worm-gear, a worm-gear segment, a shaft having a worm meshing with said worm-gear segment and provided with means for rotating the same, and boxings to support the worm-gearing.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED G. CAMPBELL.

Witnesses:

CHARLES WALTER CATE,
JOHN P. WELLS.