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E. BECK.

VENEER CUTTER.

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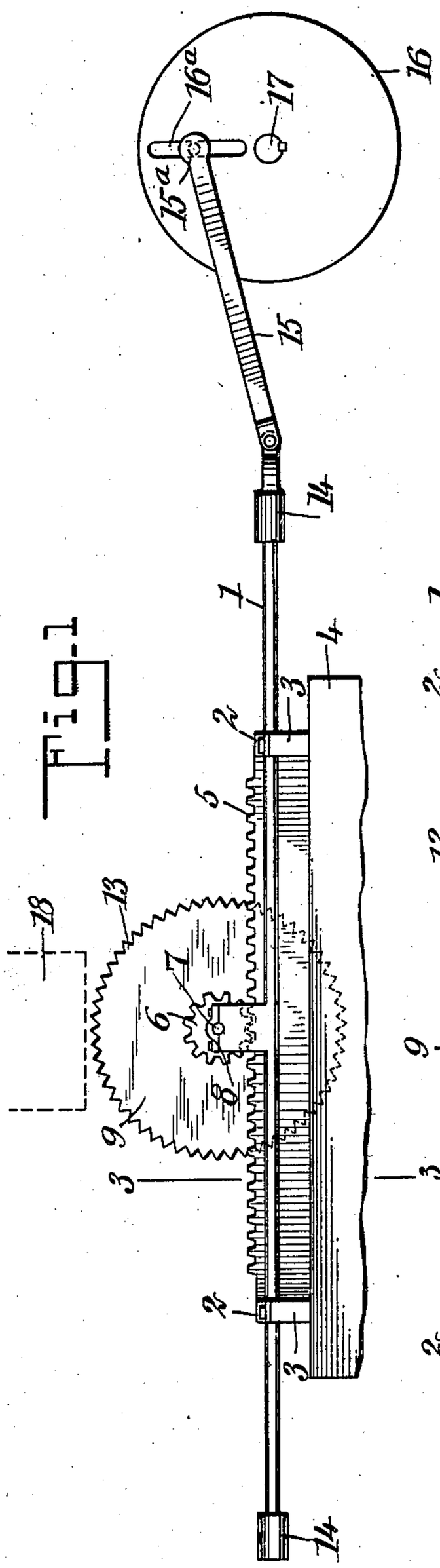

Fig. 1

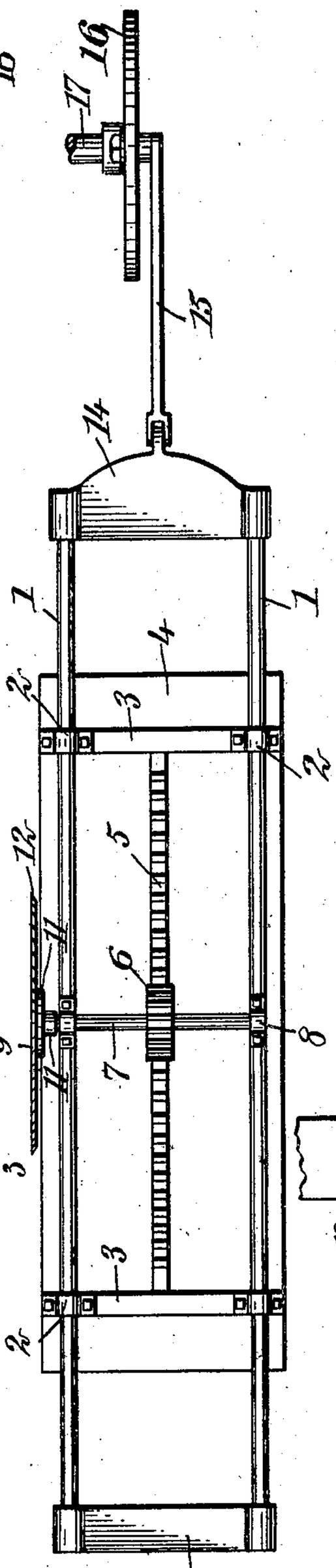

Fig. 2

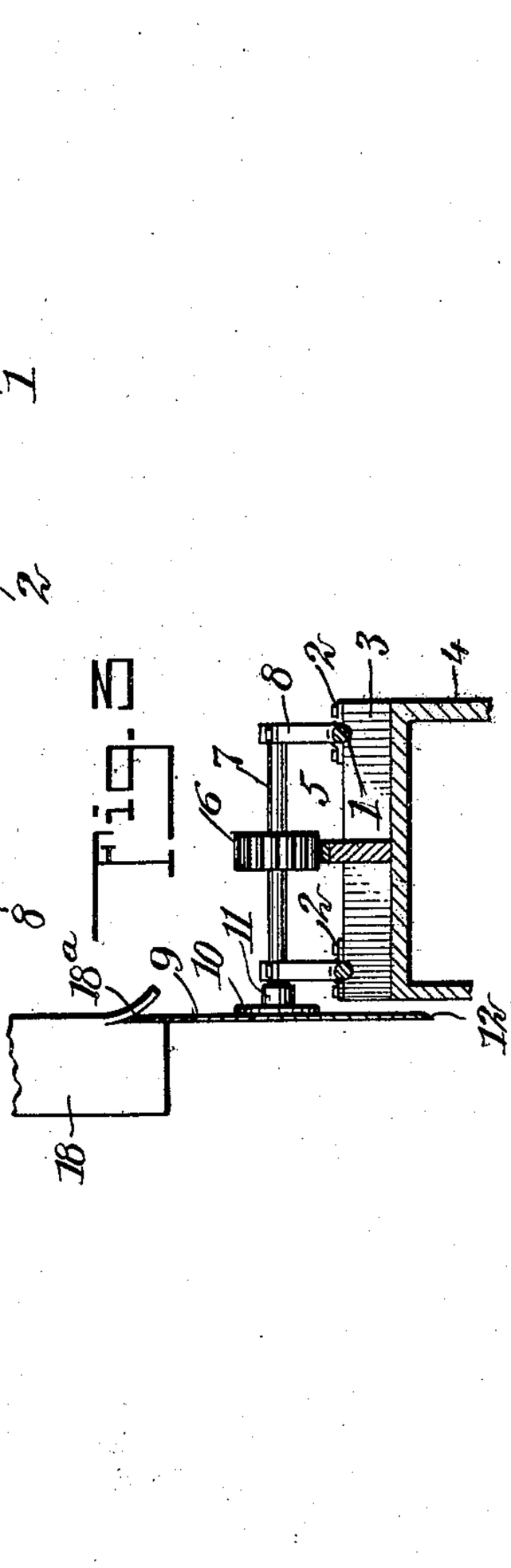

Fig. 3

WITNESSES

J. A. Boophy

R. W. Landis

INVENTOR

Edward Beck

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWARD BECK, OF NEW YORK, N. Y.

VENEER-CUTTER.

No. 847,151. Specification of Letters Patent. Patented March 12, 1907.

Application filed October 24, 1906. Serial No. 340,295.

To all whom it may concern:

Be it known that I, EDWARD BECK, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Veneer-Cutter, of which the following is a full, clear, and exact description.

This invention relates to mechanisms designed for cutting veneers from a log. In the machines now in common use for this purpose saws or cutters are used which revolve continuously in one direction and are large in size, measuring in some instances eighty-two (82″) inches in diameter, and consequently heavy and thick, thereby reducing the number of veneers that can be sawed from a log. If thinner saws of this size are used, they have a tendency in cutting into the grain to lead from the path of truth, thereby injuring both the veneer and saw. To overcome such difficulties, it is necessary to make the saws small in size and to provide means for operating the same in a rotary manner in any width of log that may be desired to be cut.

The invention has for its object to overcome such difficulties and inconvenience and to provide means adapted to enable an increased number of veneers to be cut from a log. Such results I accomplish by the means illustrated in the accompanying drawings, in which drawings like characters of reference indicate like parts throughout the views, and in which—

Figure 1 is a side elevation of a device embodying my invention. Fig. 2 is a plan of the same, and Fig. 3 is a transverse section taken on the line 3 3 of Fig. 1.

As illustrated in the drawings, parallel carrying-rods 1 have a sliding bearing in boxes 2, which are preferably secured to transverse bars 3, mounted upon a table 4. A rack 5 is secured to the top of said table, with its ends preferably connected with the transverse bars 3. The rack 5 engages a pinion 6, which is mounted upon an arbor 7, which is journaled in bearing-boxes 8, secured to the reciprocating rods 1. A cutter 9 is mounted upon one end of the arbor 7, preferably by means of a flange 10, having a collar 11 formed integral therewith and attached to the arbor 7 in any suitable manner. The arbor 7 is stopped short of the outer face of the cutter 9, so as to leave the central portion of the cutter unobstructed on its outer face. The edge of the cutter 9 is provided with a beveled edge 12, having V-shaped teeth 13 formed thereon. The reciprocating bars 1 are connected together at their ends by means of cross-bars 14, and one of said bars is pivotally connected with a pitman 15, which is adjustably attached to a rotating wheel 16 by means of a pivot-pin 15^a engaging a radial slot 16^a, formed in said wheel. The wheel 16 is mounted upon a rotating shaft 17 and when in operation gives a reciprocating movement to the carrying-arms 1, thereby rotating the pinion 6 in opposite directions as the carrying-bars 1 are moved backward and forward. The pinion 6 rotates the arbor 7, upon which it is mounted, and the cutter 9, mounted thereon.

When the device is in operation and the cutter 9 is in contact with a log 18, the carrying-frame and saw mounted thereon rotates in each direction a distance equal to half the thickness of the log, so that as the cutter 9 travels back and forth across the log the teeth of the cutter are continuously in engagement with the log. The length of the movement of the carrying-frame in opposite directions is regulated by the adjustment of the pin 15^a, which engages the slot 16^a of the wheel 16, the distance between the pin 15^a and the center of the shaft 17 being equal to half the distance traveled by the reciprocating frame. As a veneer is started on a log 18 by the cutter 9 its end 18^a curls over the edge of the saw and across the carrying-frame, which may be made as narrow as desired to facilitate such operation.

By means of such construction a small cutter may be used and as thin as may be desired, adapted to travel with its entire face across the side of a log, and the alternating rotary movement of the cutter traveling transversely of the grain of the log prevents the teeth of the cutter from becoming embedded into or under the grain of the log, thereby enabling a veneer to be cut as thin as may be desired and increasing to the maximum amount the number of veneers which may be made from a log.

As in the construction herein shown and described, the rotating end of the pitman 15 is adjustably secured to a fly-wheel 16, provided with a radial slot 16^a. It is obvious that such wheel operates as a crank and that a crank-arm may be used in place of said wheel and provided with adjusting mechanism. The main and auxiliary frames, more-

over, may also be modified, if desired, without departing from my invention.

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

1. A reciprocating cutter rotating alternately in opposite directions, and provided with a beveled edge extending inward from the outer side of the cutter, having V-shaped cutting-teeth formed therein, and an unobstructed central portion on one side thereof, and means for operating said cutter.

2. The combination with a main frame provided with a toothed rack, of an auxiliary frame having a reciprocating movement on the main frame, an arbor journaled in the reciprocating frame and provided with a pinion connected with said cutter, mechanism connected with said auxiliary frame adapted to reciprocate said frame, and a cutter mounted on said arbor adapted to rotate alternately in opposite directions and provided with a beveled edge extending inward from the outer side of the cutter, having V-shaped cutting-teeth formed thereon, and an unobstructed central portion on one face thereof.

3. A reciprocating cutter rotatable alternately in opposite directions, and provided with a beveled edge extending inward from the outer side of the cutter having V-shaped cutting-teeth formed therein, and an unobstructed central portion on one side of said cutter, and means for adjusting the reciprocating movement of said cutter, substantially as shown and described.

4. The combination with a main frame, of an auxiliary frame having a reciprocating movement on the main frame, an arbor journaled in the reciprocating frame, mechanism connected with said auxiliary frame adapted to reciprocate said frame, and a cutter mounted on said arbor adapted to rotate alternately in opposite directions and provided with a beveled edge extending inward from the outer edge of the cutter, having V-shaped cutting-teeth formed thereon, and an unobstructed central portion on one face thereof.

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

EDWARD BECK.

Witnesses:
ROBERT W. HARDIE,
JNO. M. RITTER.