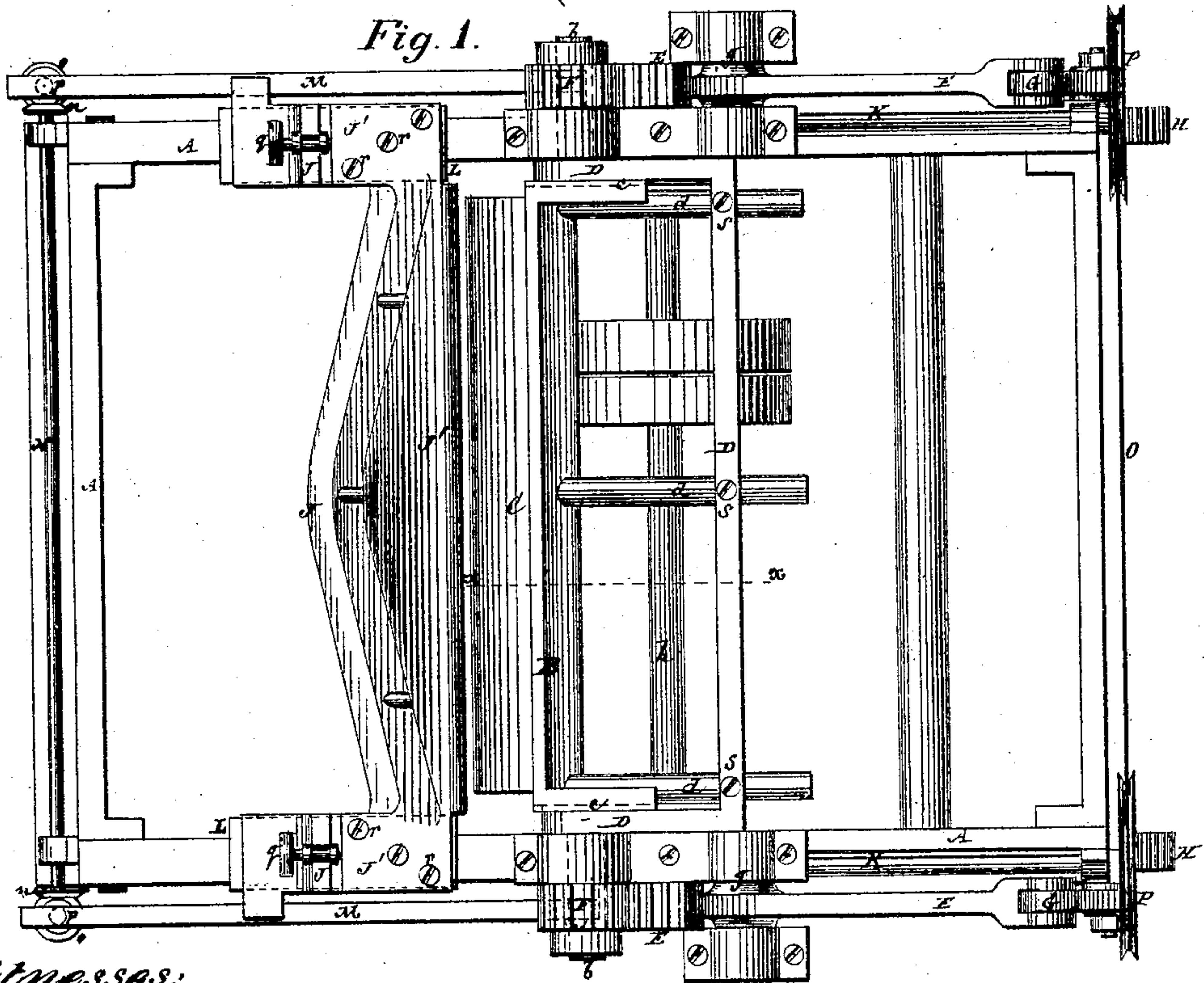
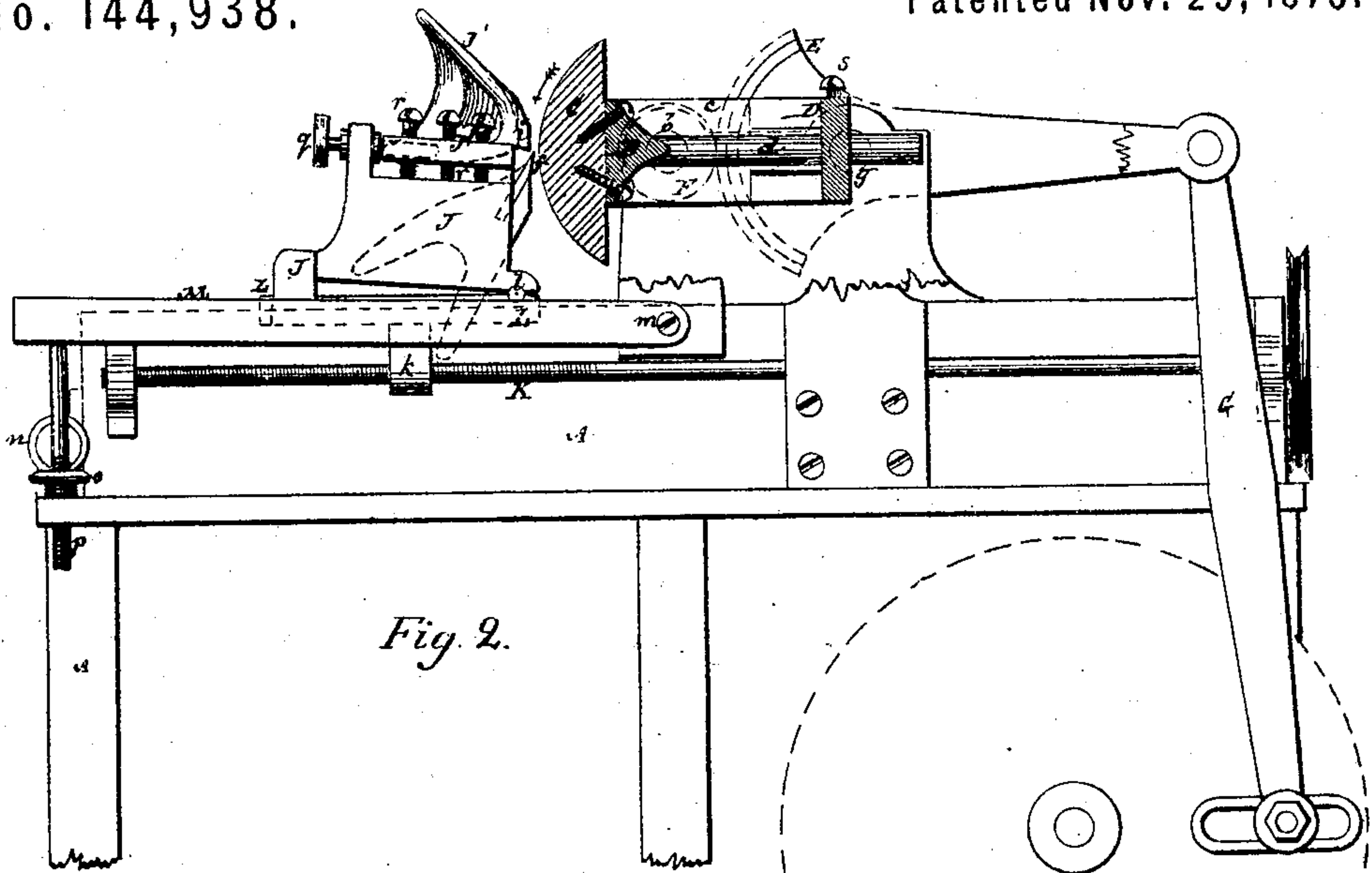


W. H. WILLIAMS.
Machines for Cutting Veneers.
 No. 144,938. Patented Nov. 25, 1873.



Witnesses:
Jos. Wagner
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IMPROVEMENT IN MACHINES FOR CUTTING VENEERS.

Specification forming part of Letters Patent No. **144,938**, dated November 25, 1873; application filed September 2, 1872.

To all whom it may concern:

Be it known that I, WILLIAM H. WILLIAMS, of Green Point, (Brooklyn,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Cutting Veneers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a plan of a veneer-cutting machine constructed in accordance with my invention; and Fig. 2, a partly sectional side elevation of the same, the section being taken as indicated by the line *x x*.

Similar letters of reference indicate corresponding parts.

My invention has for its object the cutting of veneers from logs having different peripheral curvatures, the cut being made from the outside of a round, or partly round, log; and it relates to machines in which a curvilinearly-reciprocating log-holder is used. The invention consists in a novel construction of a rocking log-holder frame, and of the log-holder carried thereby and adjustable within it, subject to support at the back throughout the length of the frame, to provide for bringing the log-holder closer to or farther from the rocking axis of said frame, according to the diametrical size of the log or log-section under operation, and whereby great strength is obtained for the log-carrying devices without interfering with the general action. The invention also consists in certain means for varying the inclination of the knife by which the veneer is cut from the log. The invention likewise consists in a certain combination of means for actuating the moving parts, or certain of them.

Referring to the accompanying drawing, A represents the frame of a veneer-cutting machine employing a curvilinearly-reciprocating or rocking log-holder, designed to make the cut in its down-stroke. B is the log-holder proper, on which the one-half or portion C of a longitudinally-divided log is secured, the flat surface of such log-section resting against the face or flat surface of the holder. This log-holder B is carried by a frame, D, extending back of the

trunnions *b b*, and virtually composing part of the reciprocating log-carrier, the whole rocking together on or by the trunnions *b b*, as a center of motion, but the log-holder B being adjustable by sliding ways *c c* and guides *d d* within the frame D, to set it and the log farther in or out relatively to the trunnions *b b*, according to the thickness or size of the log, such construction also giving steadiness and strength to the log-holder without interfering with the working of the parts, and offering every provision for adjustment of the log to the cutter. This stiffening of the log-holder B at its back and throughout its length is due to the peculiar construction of the log-holder frame D, which is not only formed with ends for the adjustment of the log-holder B within it, but also with a back bar or brace connecting said ends, and which, by the guides *d d* at intermediate points throughout the length of the log-holder, and set-screws *s s* for locking the guides with the frame after the adjustment has been made, effectually brace the log-holder throughout its length, as it were. Any suitable mechanical devices may be employed for thus adjusting the log-holder B in or out within the frame D.

Said log-holder B, or frame D carrying it, is rocked or reciprocated, to effect a succession of cuts by the knife *f* from the outer or curved surface of the log-section C, by means of toothed segments or segment-levers E E on either side of the machine, arranged to gear with pinions F F upon the trunnions *b b*, said toothed segments working upon fulcrums *g g*, and receiving their motion by pitmen G G from spur-wheels H H, driven by pinions I upon a cross-shaft, *h*, which may be fitted with a fast and loose pulley, to put the machine in or out of operation from any suitable main driving-shaft. The pitmen G G are adjustable in a radial direction within the wheels H H, to increase or diminish the reciprocating stroke of the segments E E, according to the size of the log being worked. The knife-carriage J J', the one portion, J, of which carries the knife *f*, and the other portion, J', the gage-plate *i*, is moved at intervals toward the log, to make a succession of cuts, as required, by means of screws K K, arranged to work through nuts or boxes *k*, attached to sliding bases L L, on which

the front lower portion J of the carriage rests, or to which it is hinged at *l*, the back ends of said portion J resting and sliding upon inclines M M, that serve to automatically tip the knife *f*, or vary its tangential position relatively with the outer surface of the log, to adapt its cutting-edge to the varying curvature and size of the log each succeeding cut, as heretofore effected by a hand-screw adjustment, which, by the automatic means here provided, is dispensed with and a greater certainty or correctness attained. The inclines M M are pivoted at *m*, and adjustable up or down by hand from the rear, to give the knife *f* its proper inclination in starting on a log, by means of a cross-shaft, N, bevel-wheels *n n o o*, and screws *p p*. The screws K K are rotated by hand or otherwise to advance the carriage J J' at intervals to make a succession of cuts, as required, and to run it back prior to inserting a new log by means of an endless band or belt, O, and pulleys P P on the ends of the screws K K. The portion J' of the carriage is adjustable, as usual, by screws *q q* and *r r*, to vary the inclination and forward adjustment of the gage-plate *i* relatively to the knife *f*.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The log-holder frame D, constructed of a back bar or brace arranged in rear of the trunnions *b b*, and radial projections from the trunnions at the ends of the frame, in combination with the log-holder B, with its end ways or slides *c c*, intermediately-arranged sliding guides or stays *d d*, and the set-screws *s s*, the whole being arranged for operation substantially as specified.

2. The adjustable inclines M M, in combination with the cross-shaft N, the bevel-wheels *n n o o*, the screws *p p*, and the sliding or reciprocating knife-carriage J J', whereby the angles of both inclines may be simultaneously changed, essentially as and for the purpose herein set forth.

3. The combination of the toothed segments or segment-levers E E, the pitmen G G, the wheels H H, the pinions F F, and the curvilinearly-reciprocating log-carrier B D, substantially as specified.

Witnesses: W. H. WILLIAMS.

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