J. D. McEACHREN.
Machine for Cutting Veneers.

No. 200,467. **Patented Feb. 19, 1878.**

Fig. 1.

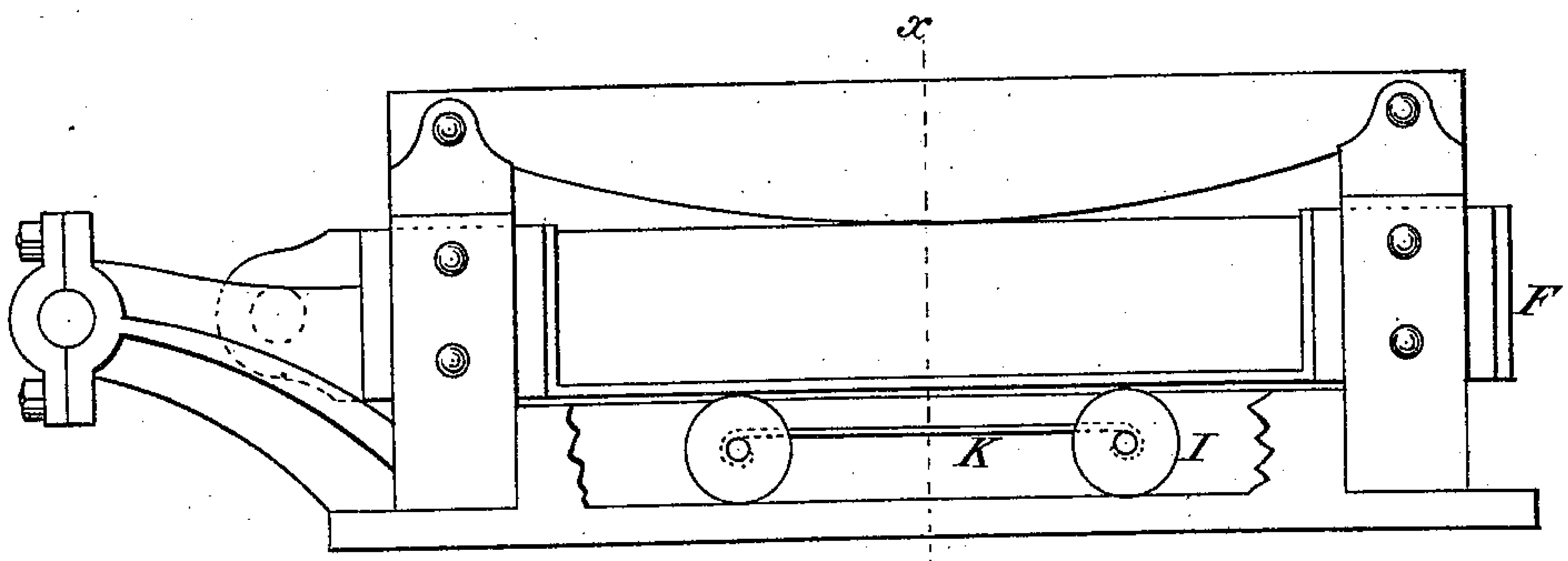


Fig. 2.

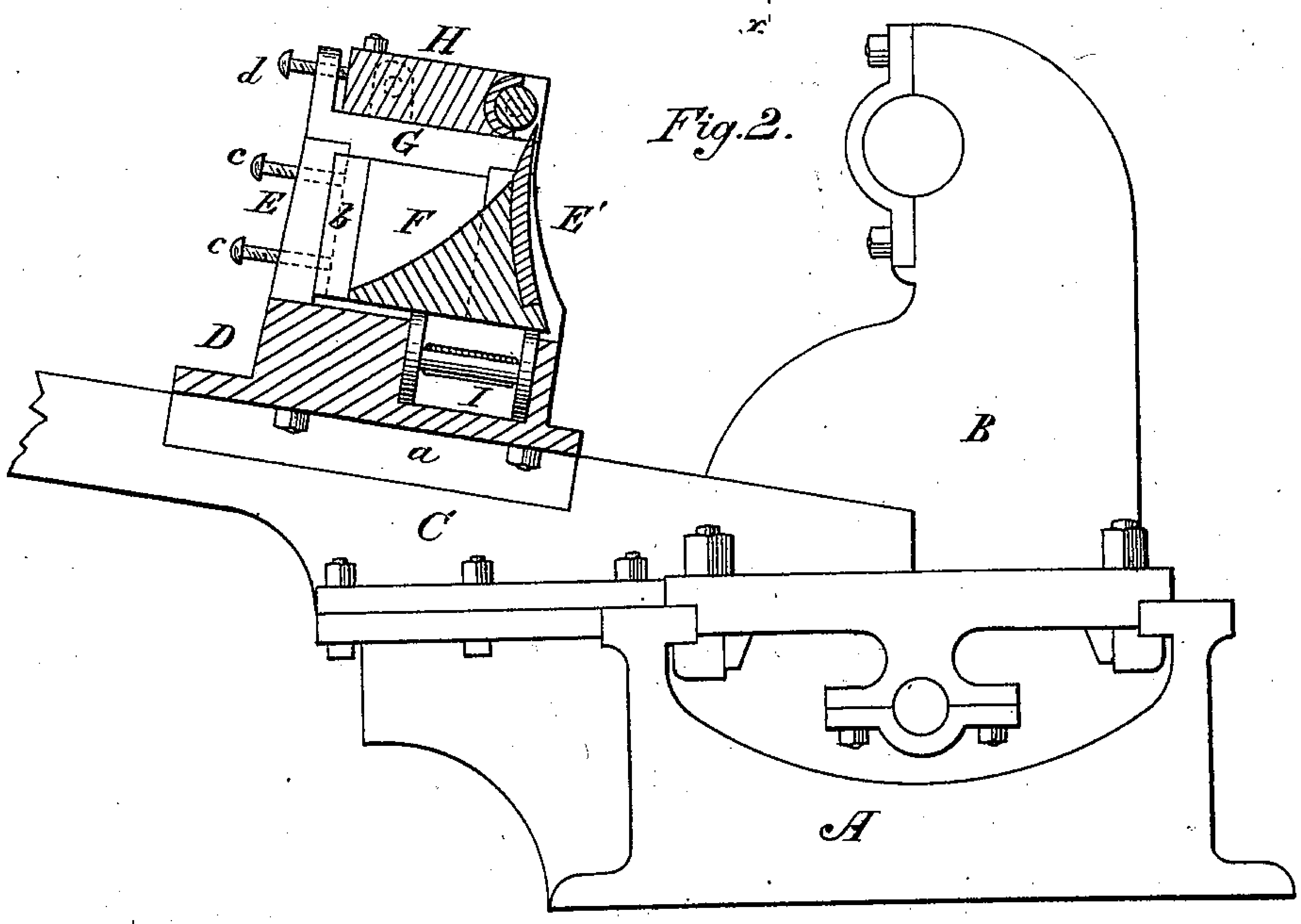
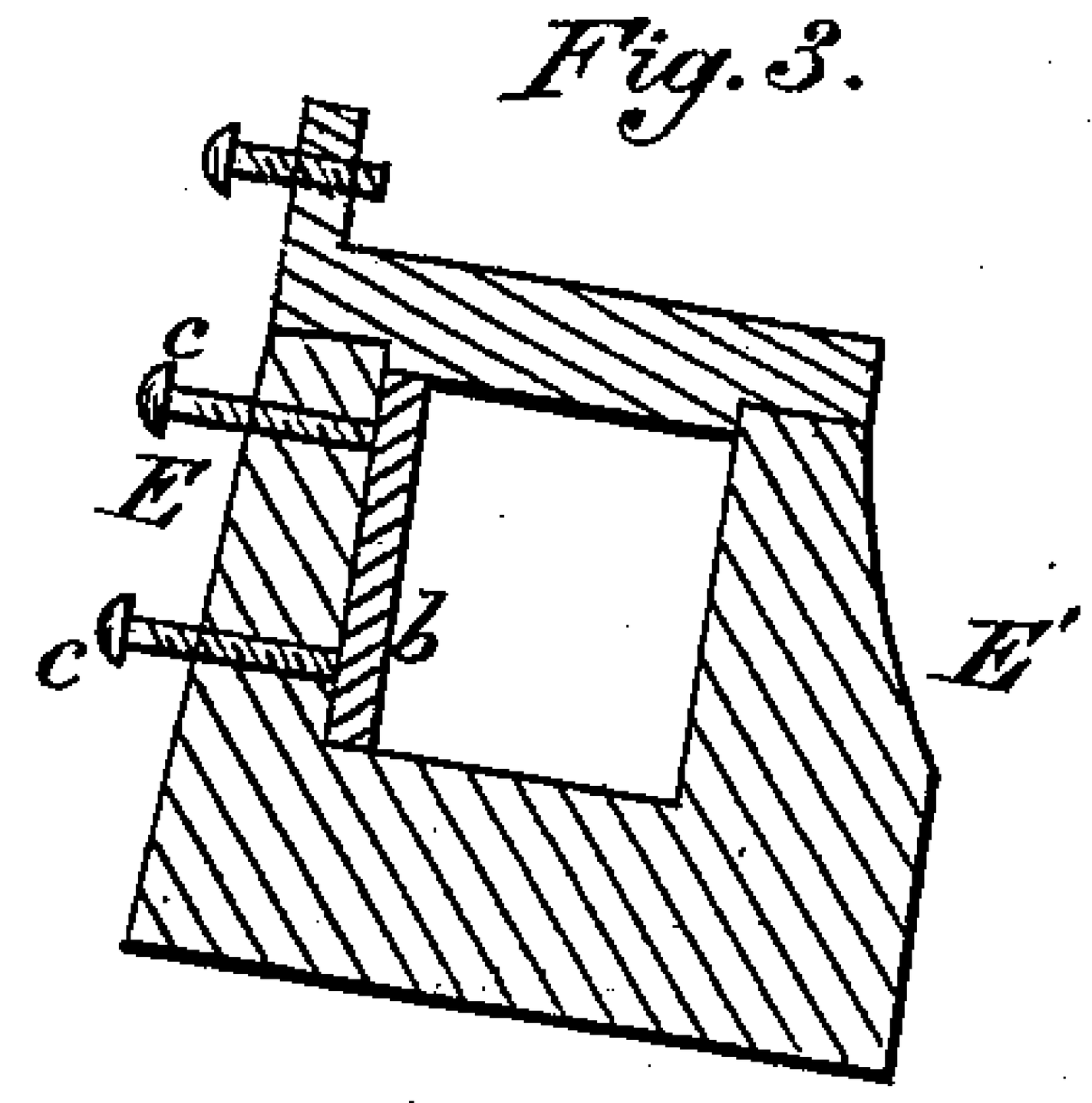


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN D. McEACHREN, OF GALT, ONTARIO, CANADA.

IMPROVEMENT IN MACHINES FOR CUTTING VENEERS.

Specification forming part of Letters Patent No. **200,467,** dated February 19, 1878; application filed January 14, 1878.

To all whom it may concern:

Be it known that I, JOHN D. McEACHREN, of Galt, county of Waterloo, Province of Ontario and Dominion of Canada, 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 thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to improve that class of veneer-cutters which cut the veneer by means of a reciprocating knife from a revolving log, as in my Patent No. 198,404, granted the 18th day of December, 1877; and the present invention consists in the means provided for preserving the direct longitudinal movement of the knife-bar, notwithstanding its great liability to wear loose in its guides, owing to the pressure of the log against the knife; also, in the means employed for relieving the friction which would ensue from the great downward pressure upon the knife and bar in the act of cutting.

In the accompanying drawings, Figure 1 is a side view of the supporting-frame and knife-bar, a part of the frame being broken away to show the relieving-rollers. Fig. 2 shows a portion of the frame of the machine, with a section of the knife-bar and its immediate support, on the line *x x* of Fig. 1. Fig. 3 is a vertical section through one of the end supports of the knife-bar, showing the adjustable gibs, by means of which the side wear and slack of the knife-bar is taken up.

The frame A, which carries the working parts of the machine, may be constructed of wood or metal, preferably the latter, as giving greater stiffness and affording greater facilities for attaching and securing the working parts in position. Head-blocks B support the centers, by means of which the log is held in position and revolved. Inclined ways C are also attached to the frame A and support the carrier-frame D, which is held in place upon the ways by suitable guides *a* upon the under side of the carrier-frame. Standards E and E′ rise at each end of the frame, leaving between them a rectangular space for the passage of the knife-bar F. As it is absolutely necessary that this bar should reciprocate freely, and at the same time be prevented from having any shake or side motion, gibs *b* are provided, the jaws clasping the standards E, through which pass the adjusting-screws *c*. These adjusting-screws enable the gibs to be always kept in close contact with the knife-bar, so as to prevent all lateral movement of the latter, but not interfering in any way with its longitudinal reciprocations. Caps G are placed above the standards, and are secured to them by screw-bolts, the lower side of the caps coming down upon the top of the knife-bar and preventing any vertical movement of the latter during its reciprocations. Mounted upon the cap G, and made adjustable upon it by the adjusting-screws *d*, is the pressure-bar H, which may be provided with a pressure-roll or other suitable bearing-surface, for giving the necessary compression to the fibers of wood at the point of severance to prevent checking or splitting the veneer.

A longitudinal recess in the lower part of the carrier D receives a set of friction-rollers, I, which sustain the great downward pressure of the knife-bar during the act of cutting veneers. These rollers may be of equal diameters throughout, connected by end bars, and an axle passing through them; or their middle portion may be reduced in size, so as to afford suitable journals for the connecting-bar K, as shown in Figs. 1 and 2 of the drawings. The number of rollers employed will, of course, depend upon the size of the machine and length of the knife-bar, sufficient space being always left at the extremities of the recess to prevent the rollers striking against its ends as the bar reciprocates. If desired, the bottom of the recess may be formed of a separate plate, secured in place by screws or bolts, so that it may be adjusted vertically to compensate for wear of the parts.

It will be apparent that this arrangement of devices affords a complete relieving mechanism for the great friction which would inevitably be the result of the pressure of the rotating log upon the knife during the operation of cutting the log into veneers.

Having thus described my invention, I claim

as new, and desire to secure by Letters Patent, the following:

1. The carrier-frame provided with standards E and E′, in combination with the gib *b* and adjusting-screws *c*, for the purpose of preserving the rectilinear movement of the knife-bar, as set forth.

2. The supporting-rollers I and connections K, in combination with the carrier-frame and knife-bar, as set forth.

3. The combination of a recessed carrier-frame and reciprocating knife-bar, supported upon friction-rollers and prevented from undue lateral movement by adjustable gibs, as shown and described.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

J. D. McEACHREN.

Witnesses:
J. H. HINMAN,
A. C. MOREY.