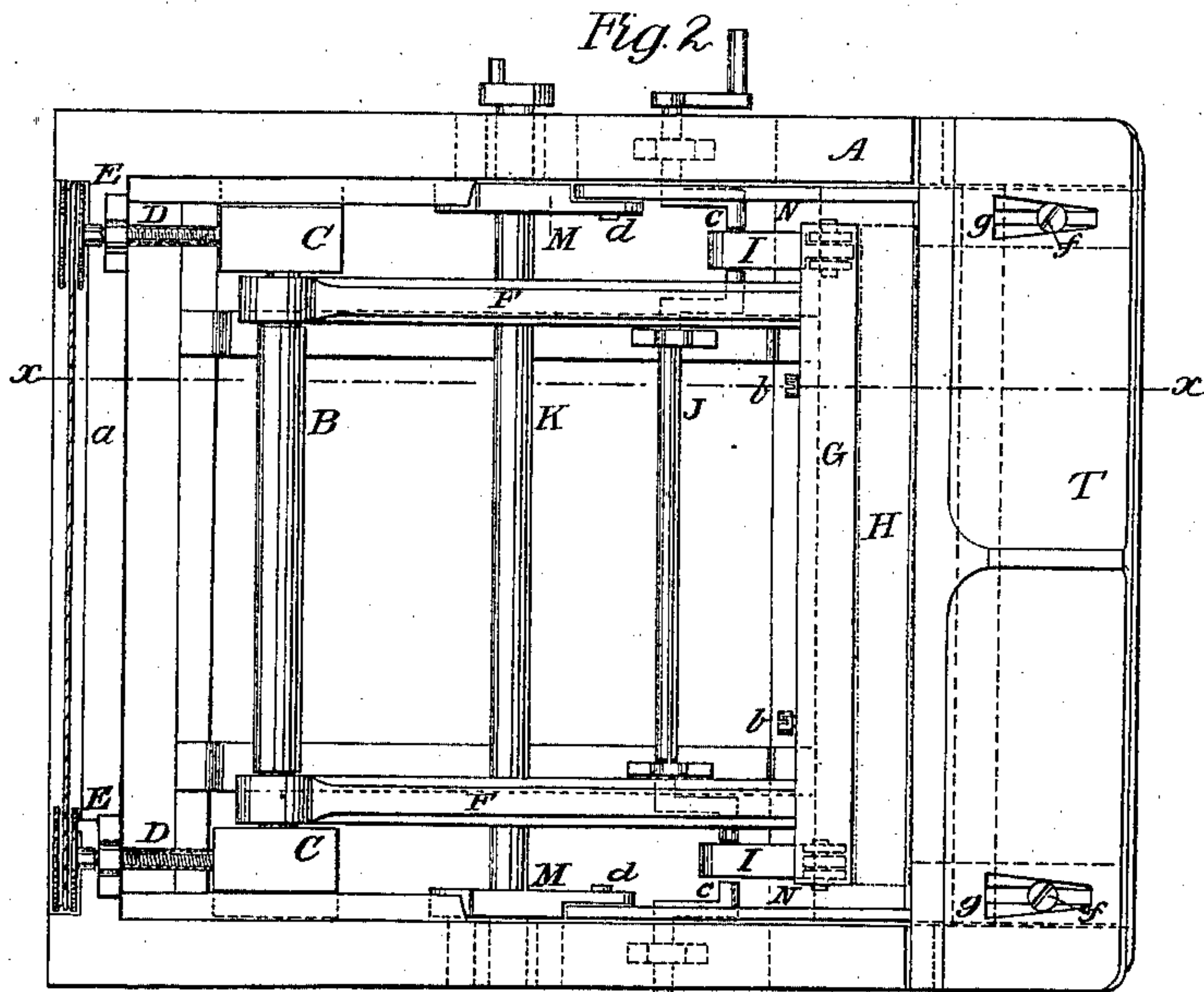
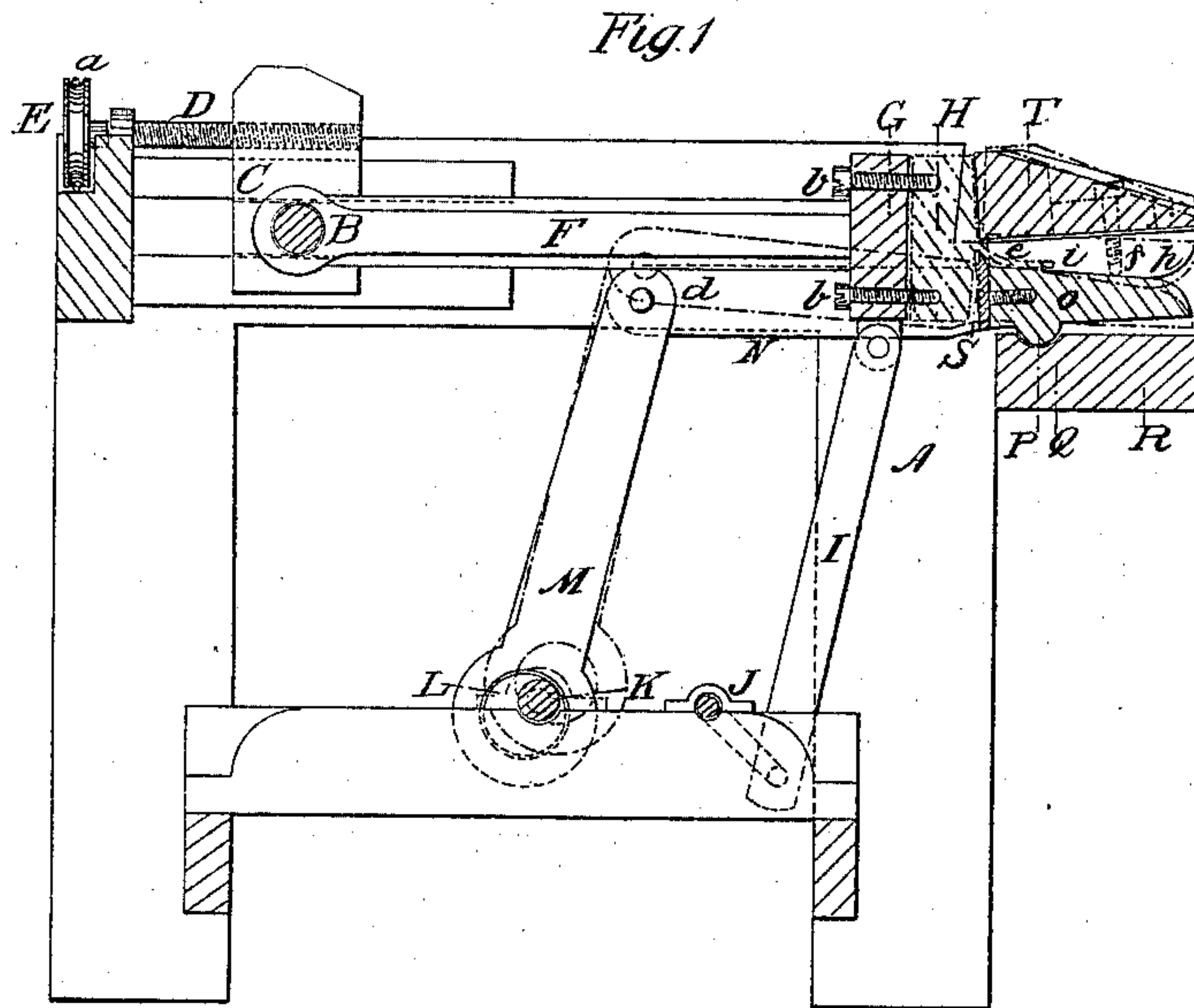


I. I. Cole,
Cutting Veneers,

Nº 33,279.

Patented Sep. 10, 1861.



Witnesses
J. F. Buckley
managing

Inventor
Isaac I. Cole

UNITED STATES PATENT OFFICE.

ISAAC I. COLE, OF NEW YORK, N. Y., ASSIGNOR TO S. B. WILSON, OF SAME PLACE.

IMPROVED MACHINE FOR CUTTING VENEERS.

Specification forming part of Letters Patent No. 33,279, dated September 10, 1861.

To all whom it may concern.

Be it known that I, ISAAC I. COLE, of the city, county, and State of New York, have invented a new and Improved Machine 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 annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x* of Fig. 2; and Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improved machine for cutting veneers of that class in which a vibrating bolt-frame is used in connection with a stationary cutter or knife.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, which may be constructed in any proper way to support the working parts of the machine.

B is a shaft which is placed in the upper part of the frame A, and has its ends fitted in slides C C, which are allowed to work freely back and forth in the upper part of frame A. Each slide C has a screw D passing into it, said screws having their bearings on the upper part of frame A and pulleys E on their outer ends, the pulleys having a belt *a* passing around them.

On the shaft B there are placed loosely two arms F F, the outer ends of which are connected by a cross-bar G. The cross-bar G extends nearly the whole width of the frame A, and has the bolt H, from which the veneers are cut, attached to it by screws *b*, which pass through the bar G, as shown clearly in Fig. 1. The bar G, and consequently the bolt H, has a vibratory movement given it by means of connecting-rods I I, the lower ends of which are connected to cranks *c c* on a shaft J at the lower part of frame A.

K is a shaft, which is also placed on the lower part of frame A, parallel with shaft J. The shaft K has two eccentrics L L upon it, and these eccentrics are fitted in the lower ends of arms M M, one at each side of the frame A. The upper end of each arm M is connected by a joint or pivot *d* to a bar N.

These bars N are secured at their outer ends to a metallic bed or block O, the under side or surface of which is provided with a longitudinal rib P, of semicircular form in its transverse section, and this rib fits in an inversely corresponding groove or recess Q in a metallic cross-piece R of frame A. The bed or block O has a knife or cutter S secured to its front surface. This knife or cutter extends the whole length of the bed or block and has its cutting-edge formed by a "basil" *e* at its outer edge. (See Fig. 1.)

To the upper surface of the bed or block O there is attached a cap T, which is also a metallic block, and it is secured to the bed or block O by set-screws *f*, which pass through oblong slots *g* in the cap and into side strips *h* at each end of bed O. The cap T serves to regulate the depth of the cut of cutter S, and consequently the thickness of the veneers to be cut, as will be fully understood by referring to Fig. 1.

From the above description it will be seen that each time the bolt H descends a veneer will be cut from it, the veneers passing through the space or throat *i* between the bed or block O and cap T; and it will also be seen that by simply turning the shaft K, and consequently the eccentrics L L, the cutter S may be adjusted more or less obliquely with the bolt H, as occasion may require. This is an essential feature, for in certain cases it is necessary that the cutter have more "rake"—that is to say, a greater inclination than at other times, the proper inclination or rake depending on the hardness or density of the wood or bolt H, as well as the conditions or quality of the wood. The position of the cutter S may be varied at any time, even while the machine is in operation, and consequently the cutter may always be properly adjusted to suit precisely the nature or character of the wood H, which can only be ascertained correctly by cutting it.

With the ordinary machines considerable time is expended in adjusting the cutter, as set-screws are employed for the purpose, and each screw requires to be adjusted separately. In order to avoid this loss of time, the cutters are frequently not properly adjusted and inferior work is produced.

The bolt H is fed to the cutter S by turn-

ing the screws D during the upward movement of the bolt. This may be effected automatically by any arrangement, or it may be done manually. The screws D D, it will be understood, when turned in the proper direction shove the slides C C forward, and consequently the shaft B, arms F F, and bolt H are moved toward the cutter, the distance of each movement of the bolt being equivalent of course to the thickness of the veneer to be cut.

I do not claim an adjustable cutter-block; but

I claim—

Operating the same by the eccentric adjustment L L M M N N, in combination with the twofold feed motions of the bolt H, in the manner described.

ISAAC I. COLE.

Witnesses:

J. F. BUCKLE,
M. M. LIVINGSTON.