W. E. HARRIS.

Machine for Cutting Veneers.

No. 198,019. Patented Dec. 11, 1877.

Fig: 1.

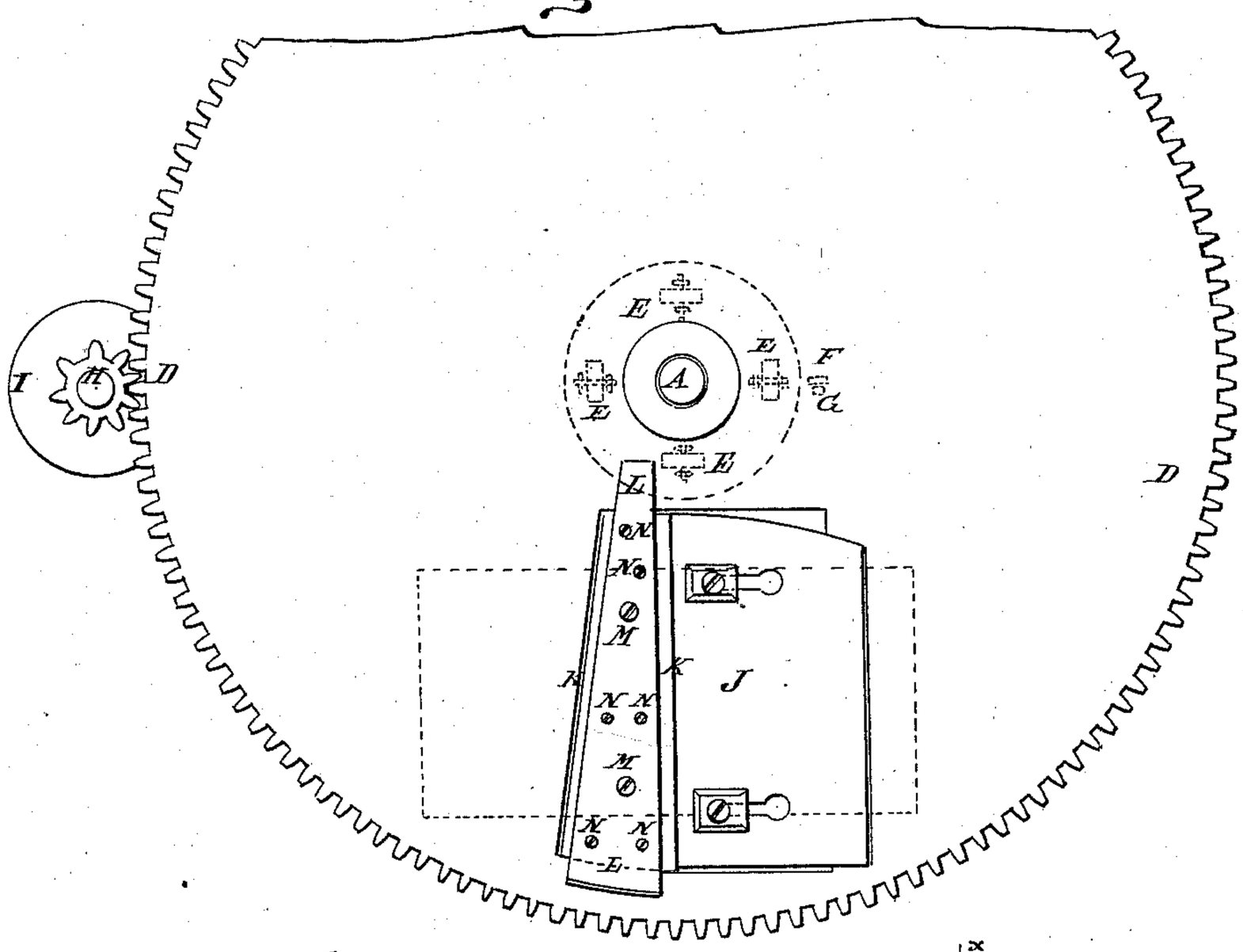


Fig: 2.

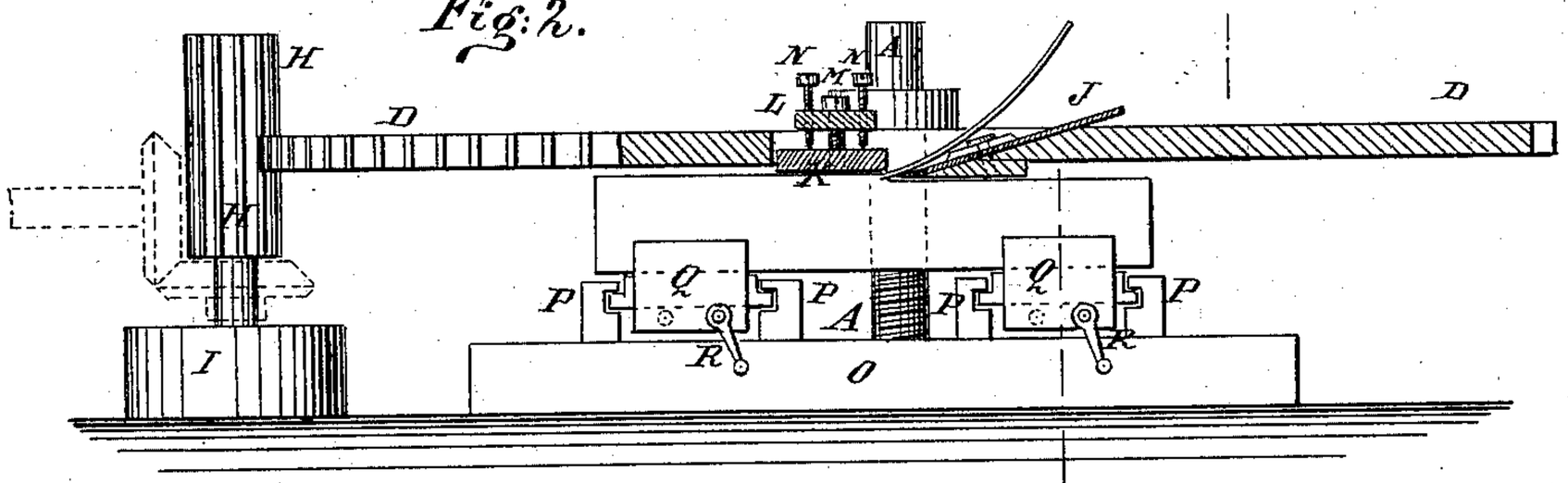
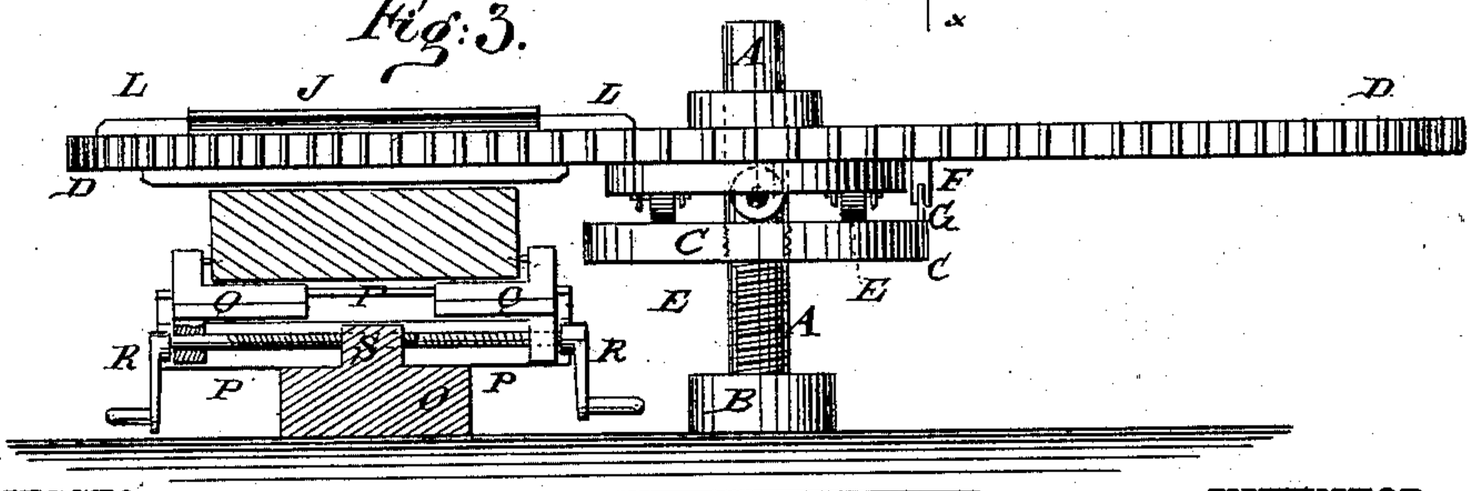


Fig: 3.



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WILLIAM E. HARRIS, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR CUTTING VENEERS.

Specification forming part of Letters Patent No. **198,019,** dated December 11, 1877; application filed November 2, 1877.

To all whom it may concern:

Be it known that I, WILLIAM E. HARRIS, of the city, county, and State of New York, have invented a new and useful Improvement in Veneer-Cutting Machine, of which the following is a specification:

Figure 1 is a top view of my improved machine. Fig. 2 is a side view of the same, part of the knife-wheel being shown in section to show the construction. Fig. 3 is a side view of the same, part of the log-carriage being shown in section to show the construction.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved machine for cutting veneers, which shall be so constructed as to cut the veneers without breaking them, which will cut almost the whole log into veneers, leaving only a thin slab, and which shall be simple in construction and effective in operation.

The invention consists in the combination of the upright shaft having a screw-thread cut upon its lower part, the screw-disk, and the horizontal wheel provided with the rollers, the tappets, and one or more knives, and the long pinion-wheel meshing into gear-teeth formed in the rim of the said horizontal wheel.

A is an upright shaft, the lower end of which is firmly secured to a base or frame, B. Upon the lower part of the shaft A is cut a screw-thread, the pitch of which is such that the distance between the threads may be exactly equal to the thickness of the veneers to be cut.

C is a disk, having a screw-hole cut through its center to receive and fit upon the screw-thread of the shaft A. D is a large horizontal wheel or disk, the hub of which fits and revolves upon the upper part of the shaft A.

To the lower side of the middle part of the wheel D are pivoted a number of rollers, E, which rest and roll upon the disk C, to support the said wheel D. The wheel D is made to carry the disk C with it in its revolution by having a tappet, F, attached to its lower side, to strike against a tappet, G, attached to the said disk C.

In the rim of the wheel D are formed gear-teeth, which mesh into teeth of a long pinion-wheel, H, which revolves in bearings in a base or frame, I, and to which motion is given by any suitable gearing from any convenient power.

J is the knife or cutter, which is secured to the inclined side of a radial slot in the wheel D, which incline is so formed as to bring the knife J as near horizontal as possible. The knife J is slotted transversely to receive the bolts by which it is secured in place, so that it can be moved forward as it wears.

By this construction the veneer will not be raised so far above the log from which it is being cut as to break, split, or injure it.

The thickness of the veneers is regulated by a gage-block, K, placed in the forward part of the knife-slot, and connected with a bar, L, attached to the wheel D by the swiveled screws M, by which it is raised and lowered, and by the set-screws N, by which it is leveled and held firmly in place.

O is the base or frame of the log-carriage, to which are attached a number of pairs of cross-bars, P, upon which the log rests, and which are grooved longitudinally upon their inner sides to receive the tongues formed upon the sides of the base or horizontal arms of the clamps Q.

To the inner side of the upper parts of the upright arms of the clamps Q are attached points to enter the log and hold it against springing or slipping.

The upright arms of the clamps Q extend below the horizontal arms, and to said downwardly-projecting parts are swiveled crank-screws R, which pass through screw-holes in blocks S, attached to the bases O, between the middle parts of the grooved cross-bars P.

The sets of clamps are placed so close together as to prevent the timber from springing, even when it becomes very thin.

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

The combination of the upright shaft A, having a screw-thread cut upon its lower part, the screw-disk C, provided with tappet G, and the horizontal wheel D, provided with the rollers E, the tappet F, and one or more knives, J, and the long pinion-wheel H, meshing into gear-teeth formed in the rim of the said horizontal wheel D, substantially as herein shown and described.

WM. EDWARD HARRIS.

Witnesses:
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