H. C. ROSIN.

Circular-Saw Tables.

No. 142,733. Patented September 9, 1873.

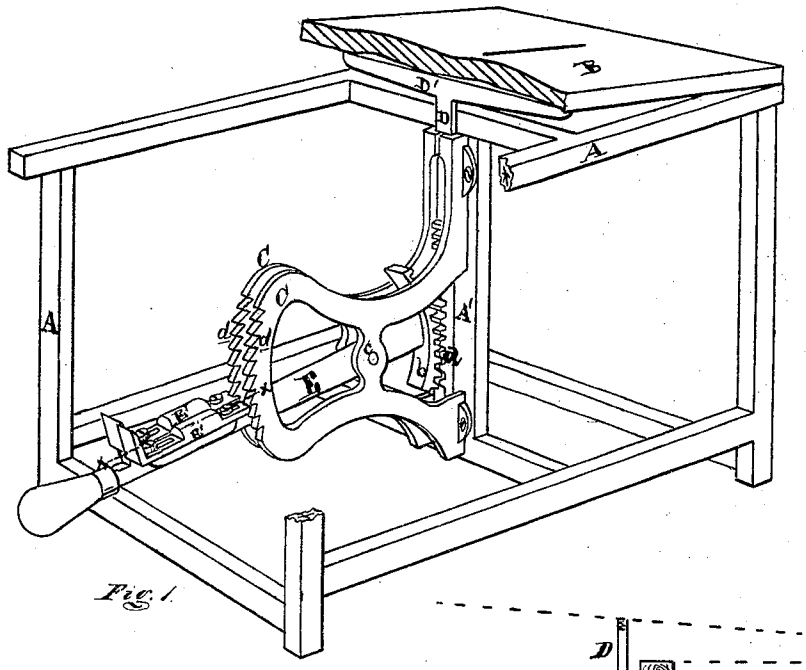

Fig. 1.

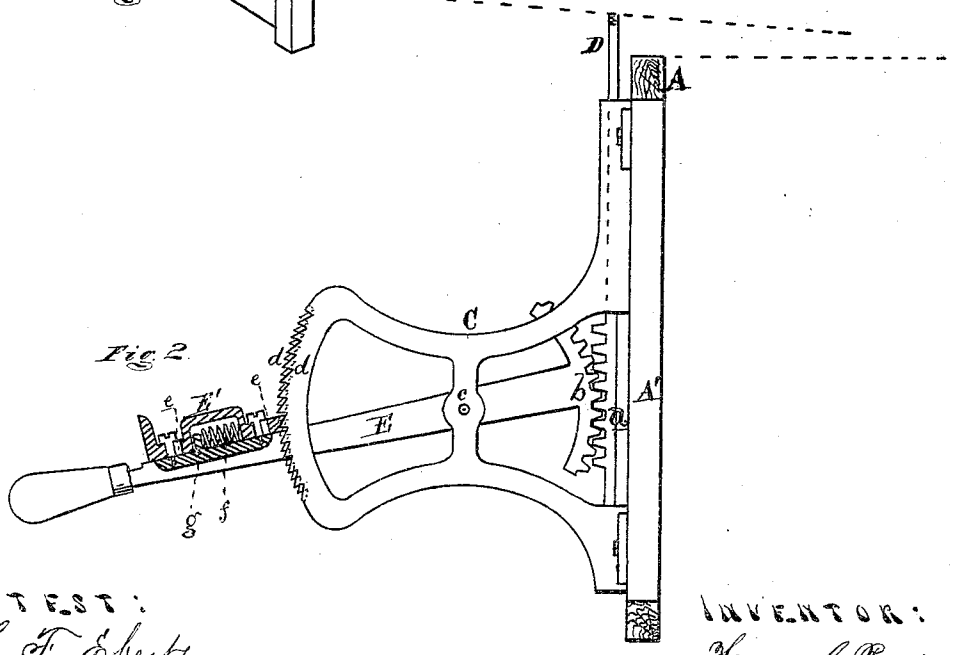

Fig. 2.

ATTEST:
H. F. Eberts.
A. J. Sprague

INVENTOR:
Henry C. Rosin.
per Attorney
Thos. J. Sprague

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

HENRY C. ROSIN, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM L. BEARD, OF SAME PLACE.

IMPROVEMENT IN CIRCULAR-SAW TABLES.

Specification forming part of Letters Patent No. 142,733, dated September 9, 1873; application filed July 31, 1873.

To all whom it may concern:

Be it known that I, HENRY C. ROSIN, of Detroit, in the county of Wayne and State of Michigan, have invented certain Improvements in Circular-Saw Tables, of which the following is a specification:

The nature of this invention relates to an improved means for raising and lowering the tables of circular-saw sawing-machines, having for its object to enable the operator to graduate the angle of inclination of the table with great nicety, and to afford a broad bearing for it, thus insuring stability. The invention consists in a pair of quadrant-frames, having pivoted between them a lever with a geared sector at the inner end actuating a T-headed bearing, which supports the table. The outer end of the lever carries a pair of pawls, which engage with the ratchets on the quadrants, the teeth of which ratchets are "staggered" so as to permit of adjustments equal to one-half the height of a ratchet-tooth.

Figure 1 is a perspective view of a saw-table fitted with my improved adjusting devices. Fig. 2 is a detail view in elevation of the quadrant and lever, with a section on the line *x x* in Fig. 1.

In the drawing, A represents the frame of a saw-table, and B the table proper hinged thereto at its back end. C C are two quadrants bolted together to form a frame, bolted to a strut, A′, in the frame of the table. The quadrant-frame incloses a bar, D, which has a vertical movement therein, and terminates at the top in a long horizontal support, D′, for the table. In the lower part of the bar D is formed a toothed rack, *a*, with which engages a geared sector, *b*, at the end of a lever, E, pivoted at *c* between the quadrants, whose outer edges are cut into ratchet-notches *d*—those of the one quadrant being on different horizontal planes from those of the other, or staggered, as seen in Fig. 2. E′ are two pawls, secured to the top side of the lever E through set-screws passing into it through longitudinal slots *e* cut in the ends of said pawls, each pawl being pushed into engagement with one of the ratchets by a spiral spring, *f*, inclosed in it, and interposed between a stud, *g*, on the lever and the front end of the spring-casing. When one pawl is engaged with a ratchet-tooth the other is at mid-length of a tooth. This enables the operator to make fine and accurate adjustments of the table and consequent depth of cut of the saw, without using fine or small ratchet-teeth on the quadrant, which are liable to be broken from the weight of the table and work. The long T-head of the table-support prevents any "canting" of the table toward the side of the imposed work, and thus insures absolute accuracy in execution.

This improvement can be readily applied to saw-tables of the various patterns already in use.

What I claim as my invention, and desire to secure by Letters Patent, is—

The quadrants C provided with the ratchet-teeth *d* cut on different planes, the bar D provided with the rack *a*, the lever E pivoted between the quadrants C, having the geared sector *b* at one end, and the pawls E′ and the springs *f* at the other, constructed and arranged substantially as and for the purpose set forth.

H. C. ROSIN.

Witnesses:
H. S. SPRAGUE,
H. F. EBERTS.