(No Model.)

E. J. ENGELMANN.

WOOD FLUTING MACHINE.

No. 283,874. Patented Aug. 28, 1883.

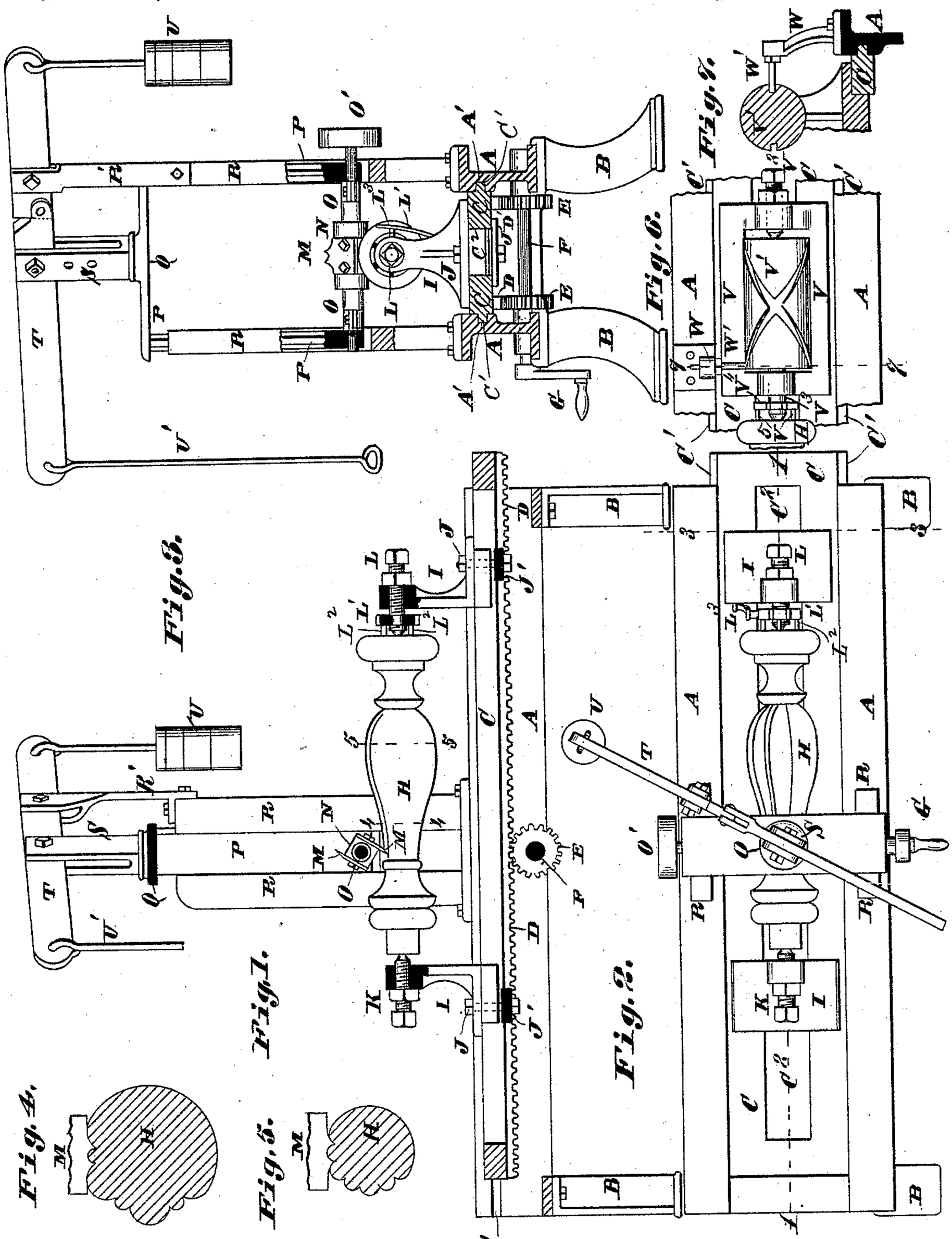

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 6.

Fig. 4.

Fig. 5.

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ETIENNE I. ENGELMANN, OF ST. LOUIS, MISSOURI.

WOOD-FLUTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,874, dated August 28, 1883.

Application filed April 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, ETIENNE I. ENGELMANN, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Wood-Fluting Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a longitudinal section taken on line 1 1, Fig. 2. Fig. 2 is a top view. Fig. 3 is a transverse section taken on line 3 3, Fig. 2, part being broken away to show how the cutter is vertically adjustable. Figs. 4 and 5 are transverse sections of the wood being fluted, being taken on lines 4 4 and 5 5, respectively, Fig. 1, and showing the cutter in side view. Fig. 6 is a top view of an attachment to my machine for forming spiral flutes; and Fig. 7 is a transverse section of same, taken on line 7 7, Fig. 6.

My invention relates to a machine for forming longitudinal flutes in table-legs, &c.; and my invention consists in points of novelty hereinafter fully described, and pointed out in the claim.

Referring to the drawings, A represents side pieces supported by legs B. The side pieces have grooves A′, in which fit feathers C′ of a carriage, C, which has a longitudinal opening, C^2, and racks D, secured beneath it. The carriage is free to be moved endwise in the frame or side pieces, A, and it is moved by means of cog-wheels E, (see Fig. 3,) which engage with the racks D on a shaft, F, journaled in the side pieces, A, and having a hand-crank, G. The carriage carries the wood to be fluted, and it can thus be moved back and forth beneath the revolving or turning knife.

H represents the leg or piece of wood to be fluted, supported by adjustable clamps I, secured in the opening C^2 of the carriage by bolts J and cross-pieces or washers J′. (See Figs. 1 and 3.) The leg is held between the clamps at one end by a set-screw, K, and at the other end by a set-screw, L, with a disk, L′, on its inner end, which is so secured as not to turn with it, having prongs L^2, that engage with the wood.

M represents the knives or cutters, secured to a head, N, on a shaft, O, journaled in hangers P, suspended from a cross-beam, Q, and guided by uprights R, supported on the side pieces, A, of the machine, and with which they have feather-and-groove connection. Secured to the top of the cross-beam Q is an upright, S, to which is pivoted a lever, T, fulcrumed on an extension, R′, of one of the uprights R. One end of the lever, which I prefer to make in two parts, as shown, has a weight, U, which draws the cutters up out of contact with the wood, except when pulled down by a cord or rod, U′, secured to the other end of the lever. The edges of the cutters are formed to fit or to form the proper kind of flutes, as shown in Figs. 4 and 5, and any form may be made.

The cutter-shaft O is provided with a drive-pulley, O′. (See Figs. 2 and 3.)

When it is desired to form spiral flutes, I remove one of the clamps I and secure in its place a frame, V, (see Figs. 6 and 7,) supporting a former, V′, which is held at one end by a set-screw, V^2, and has at the other end a short shaft, V^3, with a disk, V^4, rigidly secured to it, with prongs V^5, that engage with the leg or piece of wood H. When the former is turned, the leg is thus made to turn with it, and the former is turned by means of a pin, W′, secured to and projecting inward from a stationary bracket, W, secured to one of the side pieces, A. The former is of course carried back and forth with the carriage, as it is secured to it.

I reserve the right to claim the frame V in another application.

The leg or piece of wood being fluted is held from turning by a spring-catch, L^3, secured to one of the clamps I, and engaging with notches on the periphery of the disk L′, (see Figs. 2 and 3,) and when one flute is finished and the leg is to be turned for another the spring-catch is simply pulled back, the leg turned, and the catch allowed to engage with the next notch of the disk.

I claim as my invention—

In a wood-fluting machine, the combination of suitable support, B, side pieces, A, resting

thereon, a suitable carriage for holding the wood to be fluted, uprights R R, supported on the side pieces, cross-beam Q, the hangers P P, suspended from the cross-beam and guided by the uprights, shaft O, journaled in the hangers, provided with head N, having cutters M, upright S on the cross-beam, extension R′ on one of the uprights R, and lever T, hinged to the upright S and extension R, and carrying at the rear of the extension a weight, U, and at its forward end a device for pulling down the lever, as set forth.

ETIENNE I. ENGELMANN.

In presence of—

SAML. KNIGHT,

GEO. H. KNIGHT.