

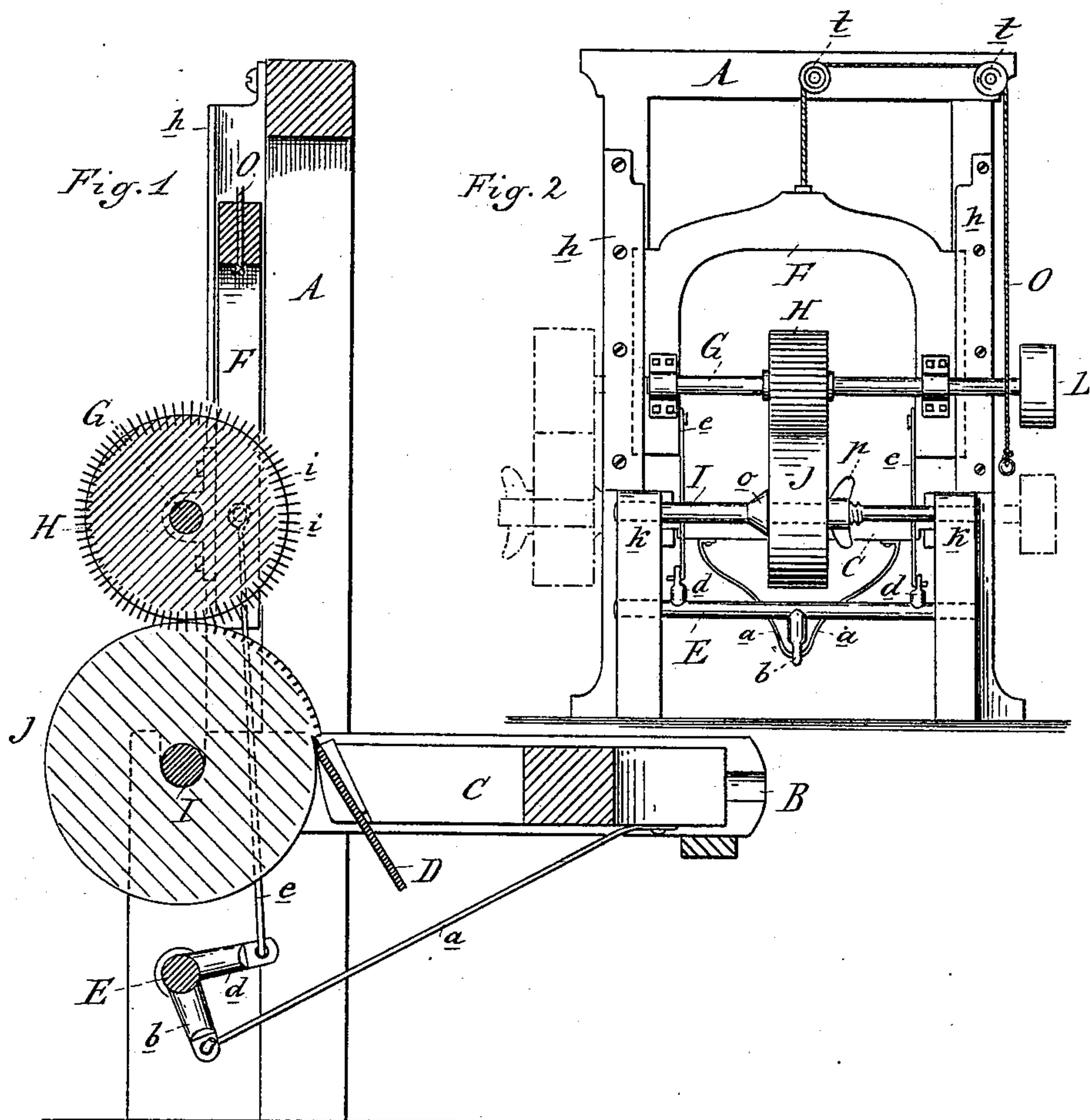
(No Model.)

I. PIERCE.

MACHINE FOR CUTTING MATCH SPLINTS.

No. 250,676.

Patented Dec. 13, 1881.



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UNITED STATES PATENT OFFICE.

ISAAC PIERCE, OF ALMA, MICHIGAN.

MACHINE FOR CUTTING MATCH-SPLINTS.

SPECIFICATION forming part of Letters Patent No. 250,676, dated December 13, 1881.

Application filed May 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, ISAAC PIERCE, of Alma, Gratiot county, Michigan, have invented an Improvement in Machines for Cutting Match-Splints, of which the following is a specification.

The nature of this invention relates to certain new and useful improvements in the construction of machines designed for cutting match-splints from a round log; and the invention consists in the peculiar construction, arrangement, and various combinations of the parts, all as more fully hereinafter described.

Figure 1 is a central vertical section. Fig. 2 is a front elevation.

In the accompanying drawings, which form a part of this specification, A represents a suitable frame which carries the working parts of my machine, and in the rearward-projecting guides B of which is arranged the gate C, which carries the knife D. This gate C is connected by means of rods *a* to the center arm, *b*, of the rock-shaft E, which is properly journaled across the lower part of the frame A.

The arms *d* of the rock-shaft E are connected by means of the rods *e* to the gate F, which has a vertical sliding movement in the guides *h* in the frame A. In the lower portion of this gate F is properly journaled the shaft G. Upon the shaft G is secured a cutting-wheel, H, the periphery of which is formed of cutters *i*, which are designed to cut the face of the log in advance of the knife D, as hereinafter set forth.

I is a shaft, which finds bearings in the frame, as at *k*, and is designed to receive the section or log J, which is of the length of the desired splint or splints. This log or bolt is clamped against the shoulder *o* of the shaft by means of the thumb-nut *p*, as is clearly shown in Fig. 2, in practice the parts being arranged substantially as described.

The shaft G and the cutting-wheel H are rotated from any convenient source of power by means of a belt upon the pulley L on the end of the shaft, the face of the cutting-wheel H coming in contact with the face of the log J in the rotation of the shaft. A like movement is imparted to such log and its shaft, while it is

designed that the weight of the gate F, with its shaft and cutting-pulley, shall be sufficient to embed the cutting-knives *i* in the timber or face of the log J. The continued rotation of this log J causes the knife D to cut a veneer from the log at the base of the cut formed by the knives *i*, the action of the two cutting devices upon the log being such as to cut square match-splints from the face of the log in its rotation. As the log decreases in size the cutter H, with its frame F, slides downward in the guides *h*, so that the rotated cutter H will continually rest upon the log, and in this movement of the frame F the rock-shaft E by means of the rods *e*, is caused to partially rotate, thereby drawing the frame C forward by means of the rods *a*, so as to keep the cutter-knife D in engagement with the log. After the log has been cut up the gate F, with its attachments, may be raised by means of a suitable cable, O, passing over suitable pulleys, *t*, which will at the same time retract the knife D and its frame, in which position they may be retained by securing the end of the cable O to any proper stop or pin.

If desired, the shafts G and I may be formed so as to project beyond the sides of the frame in which they are journaled and receive upon their respective ends the cutting-wheel H and the round bolt or log J, and at the same time the power may be applied directly to the shaft I, compelling the bolt to turn the cutting-knife H, although I now prefer the arrangement of parts as shown and described.

What I claim as my invention is—

1. In a machine for cutting match-splints from a round block, the rotating knives H and the sliding knife D, in combination with the rock-shaft E, arms *b d* on said rock-shaft, frames C and F, carrying the knives, and suitable connections between the frames and the rock-shaft arms, substantially as described.

2. In a machine for cutting match-splints, the rotary cutter H, constructed to slide in vertical guides, and adapted to fall and cut into the face of a match-block by its own weight, in combination with the sliding cutter D and the rock-shaft E, arms *b d*, and connecting-rods *e a*, for causing the cutter D to move si-

multaneously with the cutter H toward the center of the match-block, substantially as described.

5 3. In a machine for cutting match-splints, and in combination with the frame A thereof and the sliding frames F and C, the rock-shaft E, connected to said frame by the rods e and

a, for compelling the simultaneous advancement or retraction of the cutters H and E, substantially in the manner described.

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Witnesses:

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