

JOHN L. METCALFE.

Improvement in Boring Machines.

No. 125,828.

Patented April 16, 1872.

Fig. 1.

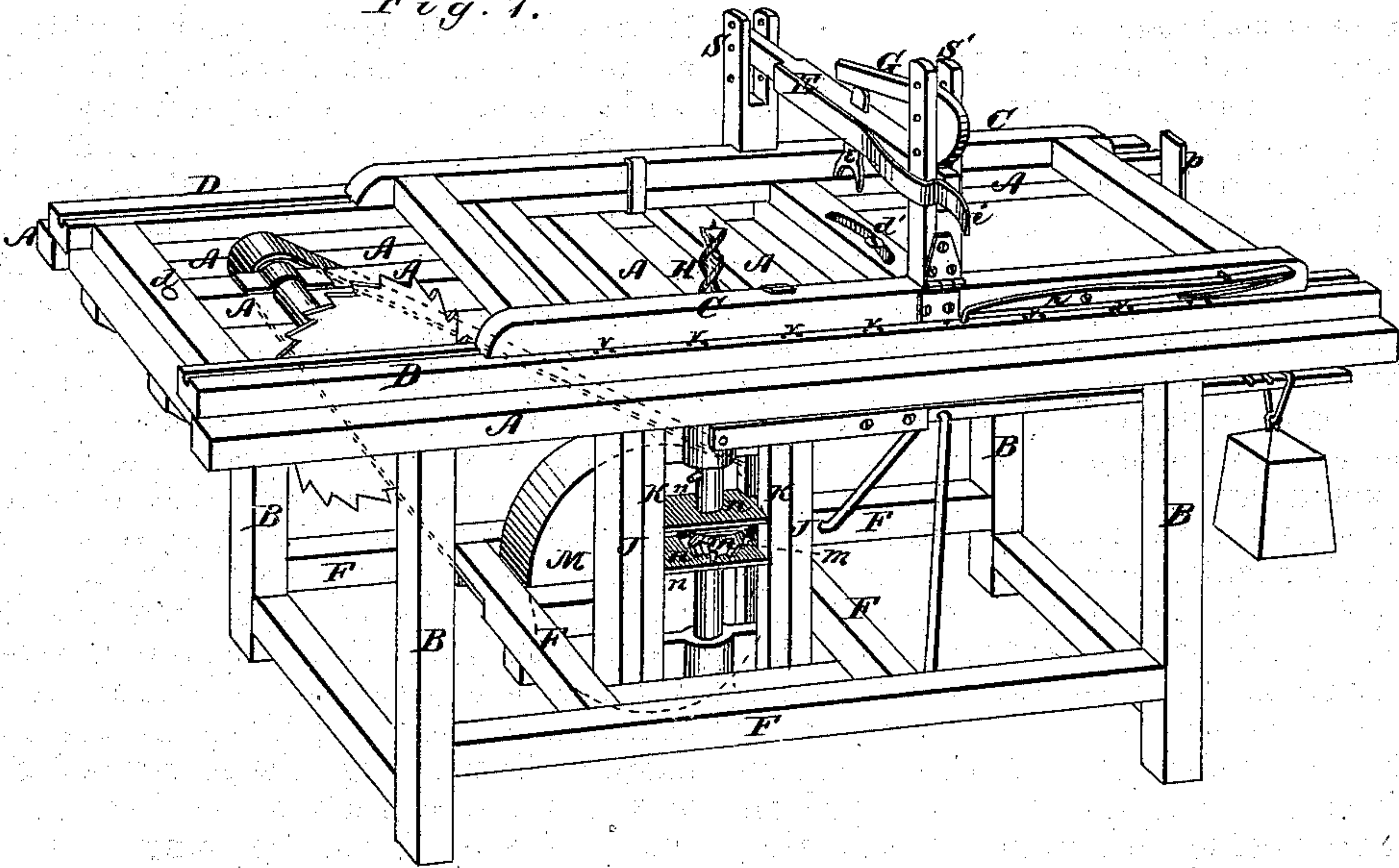
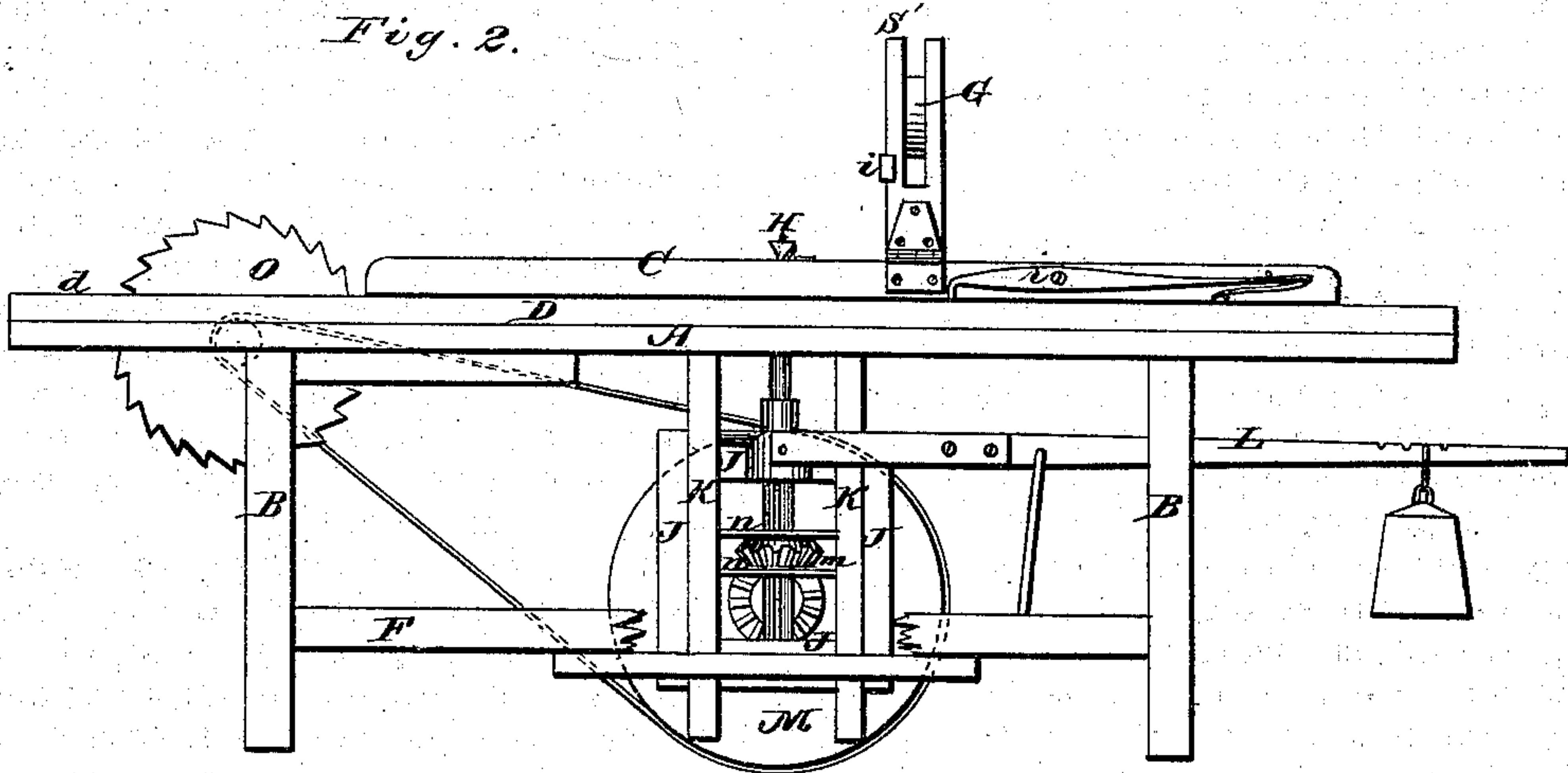


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN L. METCALFE, OF QUINCY, PENNSYLVANIA.

IMPROVEMENT IN BORING-MACHINES.

Specification forming part of Letters Patent No. 125,828, dated April 16, 1872.

To all whom it may concern:

Be it known that I, JOHN L. METCALFE, of Quincy, in the county of Franklin and State of Pennsylvania, have invented an Improved Machine for Boring Fence-Posts and other crooked timber; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view, and Fig. 2 is a side elevation, a portion of the frame having been broken away.

Similar letters of reference in the accompanying drawing indicate the same parts.

The object of this invention is to provide for public use a machine by means of which either straight or crooked timber can be more readily and easily bored transversely through its center than heretofore; and to this end the invention consists, first, in means employed for changing the position of the stick so as to bring its center in line with the auger, and secondly, in the details of construction, substantially as hereinafter set forth.

In the drawing, A is a rectangular horizontal table for supporting the carriage, the same being mounted upon legs B B, which are connected beneath the table by a frame-work, F F, that supports the auger and its operating and guiding mechanism. C is the carriage, sliding longitudinally upon a frame, D, which rests upon the table A, said frame D being pivoted at one end to the table, as shown at *d*, so that its opposite end can swing horizontally in either direction, its movement being guided by a slot and pin, *d'*, in one of its cross-bars. The post or other timber is placed upon the carriage and clamped securely in place by means of an adjustable bar, E, provided with a dog, *e*, said bar being pivoted at one end to a side standard, *s*, of the frame D, and being guided and held at the other end by a standard, *s'*, hinged to the opposite side of the frame D, as shown. An eccentric-headed lever, G, may be employed to force the bar down and lock it in position, and said lever may be made adjustable by pivoting it in different holes in the standard *s'*. The opposite end of the bar E may be adjusted in the bar by the same or other equivalent means, so as to adapt the clamp to timber of different sizes. The bar

is provided with spring-catch *i*, which locks around the standard *s'* and holds the latter up while the machine is in operation; but when it is necessary to put on or take off a log the catch is disengaged from the standard, the latter is swung outward on its hinge and allowed to drop by the side of the machine, and the end of the bar is raised and thrown over to the other side of the machine, leaving the carriage free for conveniently moving the timber. H is the auger, supported in a vertically-sliding sash, J, which is guided in its movements by grooved or slotted posts K K, the auger being pressed upward while in operation by means of an adjustable weighted lever, L. Power is communicated to the auger from the shaft of the driving-wheel M by means of a bevel-gear wheel, *m*, held between two bars or plates, *n n*, attached to the posts K K, the shaft of the auger sliding through the gear-wheel, the key of which moves freely in the key-seat of the shaft. A saw, O, may be hung at one end of the machine, for convenience in cutting the timber into suitable lengths.

When the machine is to be employed for boring fence-posts a stop, *p*, is provided at the forward end of the carriage to hold the post in such a position that the holes will come at their proper places; and a spring-catch, *r*, is attached to the side of the carriage to engage in holes *v v* in the frame D, and hold the carriage stationary while any post hole is bored. The holes *v v*, as shown by the drawing, are so arranged that as the carriage is slid along the catch will drop into one and another automatically, and cause the auger to space the post-holes properly without any care on the part of the attendant.

The method of adjusting and securing the post upon the carriage, and of removing it therefrom when properly bored, will be understood without further description; and from a glance at the drawing it will be seen that however crooked the post may be its center can be brought into line with the auger by a single lateral movement of the frame D, which is always under the control of the operator. By a turn of the pin or set-screw *d'* it can be fastened in that position, if desired, and for this purpose the screw and its slot may be applied in the end cross-bar of the frame where they will be more convenient of access. Such fast-

ening of the frame will not in general, however, be either necessary or desirable, as the auger will hold the frame and carriage in their proper places as soon as it enters the wood.

Having thus described my invention, what I claim as new is—

1. In a machine for boring wood, the swinging frame D, in combination with the carriage C and auger H, substantially as described, for the purposes specified.

2. In combination with the carriage the hinged standard s', the pivoted bar E, the lock i, and the lever G for holding the bar down, substantially as described, for the purpose specified.

3. The auger H, supported in a vertically-sliding sash, J, under the log-carriage, and operated by a gear-wheel, m, to which the shaft of the auger is keyed, and through which it freely slides, when combined with a lever, L, weighted so as to overbalance the auger and sash, and form an automatic feeding device, substantially as described, for the purposes specified.

JOHN L. METCALFE.

Witnesses:

WM. B. RABY,
C. W. GOOD.