

(No Model.)

M. MORTON.

ATTACHMENT FOR KEY SEAT CUTTING MACHINES.

No. 453,654.

Patented June 9, 1891.

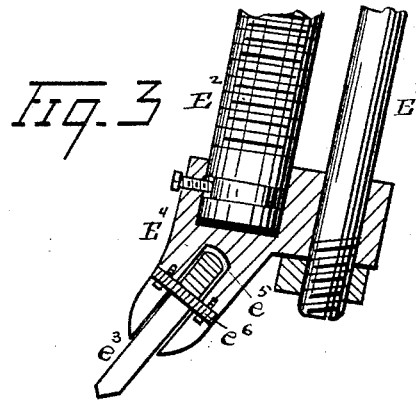
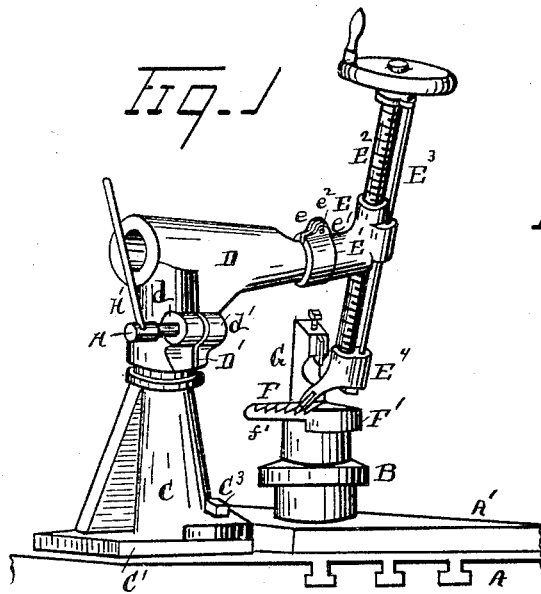
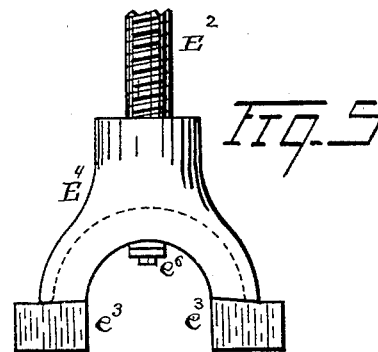
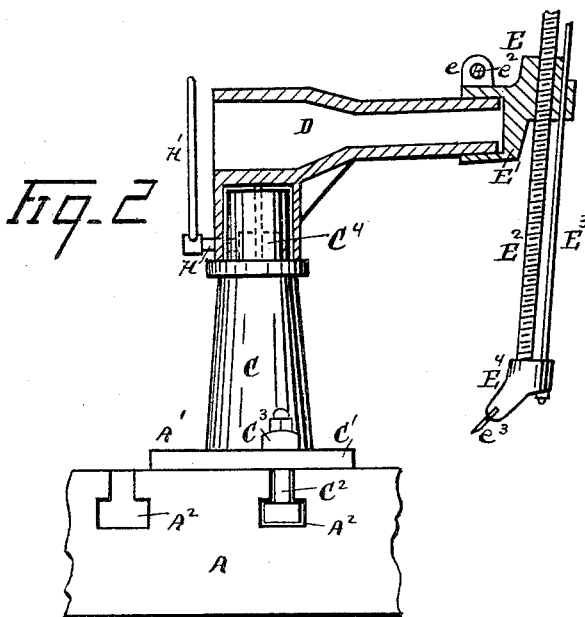
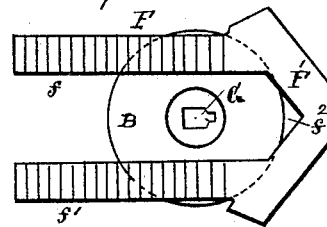


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

MATTHEW MORTON, OF ROMEO, MICHIGAN.

ATTACHMENT FOR KEY-SEAT-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 453,654, dated June 9, 1891.

Application filed October 18, 1890. Serial No. 368,585. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW MORTON, a citizen of the United States, residing at Romeo, county of Macomb, State of Michigan, have invented a certain new and useful Improvement in an Attachment to a Key-Seat-Cutting Machine; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in an attachment to a key-seat-cutting machine; and it consists of the devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective embodying my invention. Fig. 2 is a view partly in elevation and partly in section. Fig. 3 is a detail view showing the pressure-foot in section. Fig. 4 is a plan view of the work with the bearing-plate located thereupon, and Fig. 5 is a detail view of the pressure-foot, showing the same in elevation.

The particular object of my invention is to provide novel and efficient means of holding the work firmly upon the table of the key-seat-cutting machine while the keyway is being cut therein. To this end, A represents said table; B, the work thereupon through which the keyway is to be cut, preferably mounted on a movable bed A', engaged with said table.

My improved attachment for holding the work consists, essentially, of a supporting-base C, engageable upon said table, an arm D, having a jointed engagement with said base, and a pressure device E, also having a jointed connection with said arm, together with a bearing-plate F, upon which said pressure device operates. Said bearing-plate is made, as shown in Fig. 4, with arms *ff'* to rest upon the upper end of the work astride the cutter-bar shown in Fig. 4 at G, said arms being united by a flanged connection F', preferably of angular form on its inner face, as shown at *f*². Said arms are also preferably corrugated upon their upper surfaces, as

shown. These arms rest upon the face of the work, the flanged connection F' extending downward adjacent to the side of the work. The angular form fits the plate more snugly against the work, while also allowing for the projection of a cog in case the work is constructed therewith.

The supporting-base C may conveniently be extended at the base to form a base-plate C', united to the table by a bolt C² and nut C³, the table being constructed with suitable recesses A² to receive the head of the bolt. The arm D is of angular form, the lower extremity being made hollow to rest upon and over the upper end C⁴ of the supporting-base. Said lower end is also divided vertically, as shown at D', and provided with screw-threaded lugs *d d'*. It is a screw, for convenience preferably provided with an operating-lever H', engaging said lugs, and whereby the said arm may be tightly set in a given position upon said base C. By reversing the movement of said screw the arm is loosened, and can then be swung around out of the way of the work when it is being placed in position upon the table or removed therefrom.

The pressure device E consists, essentially, of an arm E', having a jointed engagement on the outer end of the arm D. I prefer to divide the inner end of the arm E', the same being provided with screw-tapped lugs *e e'*, having a screw *e*² engaging them, so that the arm E' can be readily loosened and tightened upon the arm D. The outer end of the arm E' is screw-tapped to receive a pressure-screw E², and also supports a strengthening guide-rod E³, which engages the pressure-screw at its upper end. The lower extremities of said pressure-screw and guide-rod are engaged with a pressure-foot E⁴, provided with an angularly-projecting toe, as shown at *e*³, said toe preferably provided with a forked bearing, the sharpened points of which engage the bearing-plate F, the points engaging the arms *ff'* at an angle, as above specified, and projecting into the corrugations thereof, if the arms are formed therewith. I do not, however, limit myself to the construction of said plate with corrugated arms. To receive the forked bearing-toe, the foot is preferably recessed, as shown at *e*³, said bearing being

held in place in said recess in any suitable manner, as by a retaining-bar e^6 , which may be secured to the foot over said bearing, leaving the bearing free to adjust itself upon the plate at both extremities evenly, so as to communicate the pressure more uniformly. The forked bearing may be made of steel or other desired metal.

The operating-screw is preferably provided with a hand-wheel, by means of which the screw is tightened upon the bearing-plate or loosened therefrom. The force being applied at an angle to the bearing-plate, the same is not only held down thereupon, but also firmly crowded forward to bring the flange of the plate forcibly against the work, thereby holding it rigidly while being cut.

What I claim as my invention is—

1. In a key-seat-cutting-machine attachment, a supporting-base C, provided with an arm D, having a jointed engagement therewith, and an arm E', provided with a pressure device, said arm E' having a jointed engagement with the arm D, substantially as set forth.

2. In a key-seat-cutting-machine attachment, a supporting-base C, an arm D, having

a divided socket engaging the upper end of said base, means for tightening said socket upon said base, an arm E', having a divided socket engaging the adjacent end of the arm D, means for tightening said socket upon the arm E', substantially as set forth.

3. In a key-seat-cutting-machine attachment, a movable arm E', an operating-screw E², having a screw-threaded engagement therewith, a guide-rod supported by said arm and engaging said screw, and a foot engaged with said rod and operating-screw, substantially as set forth.

4. In a key-seat-cutting-machine attachment, a bearing-plate and a pressure device provided with a foot to engage said plate and projecting at an angle thereto, and an operating-screw to control said foot, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

MATTHEW MORTON.

Witnesses:

N. S. WRIGHT,
JOHN F. MILLER.