

(No Model.)

R. D. FIELD.
ATTACHMENT FOR STONE WORKING MACHINES.
No. 525,700.

Patented Sept. 11, 1894.

Fig. 1.

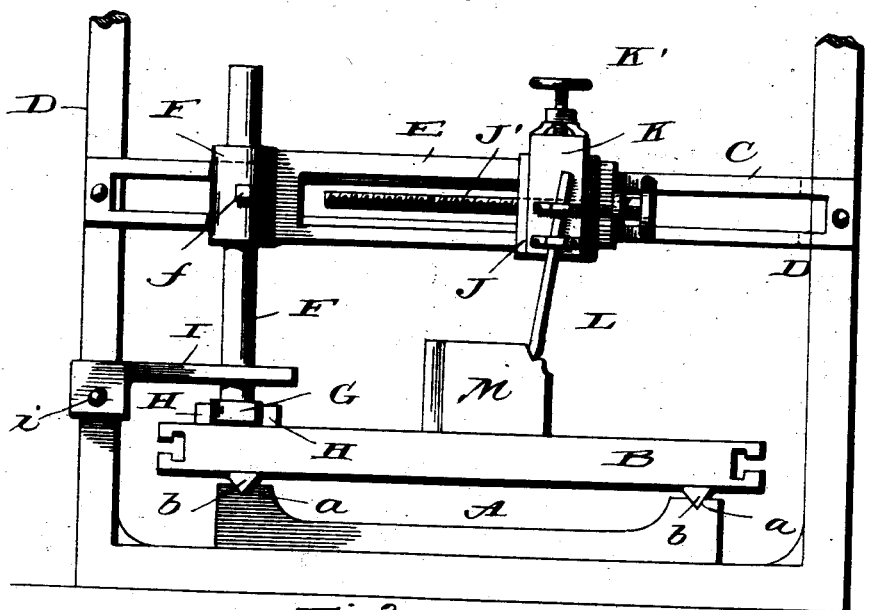
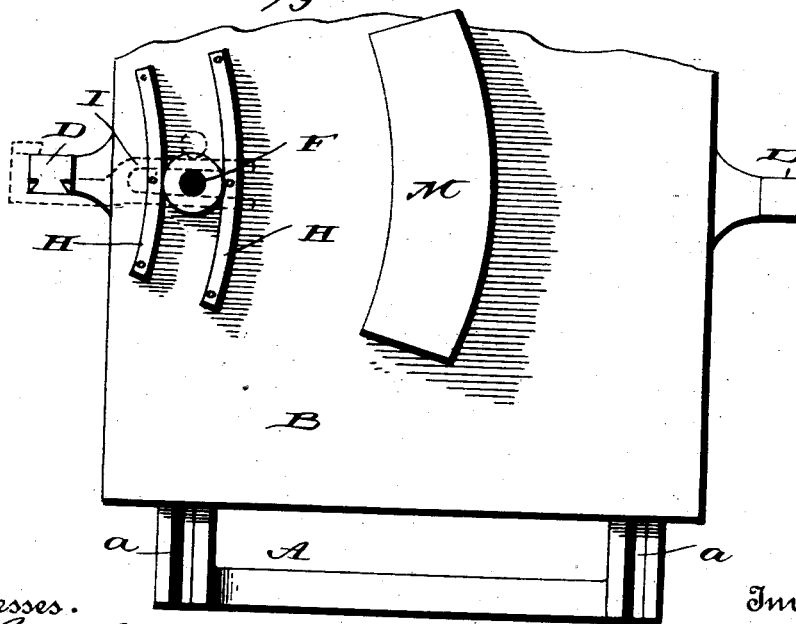


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR STONE-WORKING MACHINES.

SPECIFICATION forming part of Letters Patent No. 525,700, dated September 11, 1894.

Application filed May 26, 1894. Serial No. 512,545. (No model.)

To all whom it may concern:

Be it known that I, ROLLIN D. FIELD, a citizen of the United States, residing at Rutland, in the county of Rutland, State of Vermont, have invented certain new and useful Improvements in Attachments for Stone-Working Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in attachments for stone working machines, and it has for its objects among others to provide a simple and cheap device applicable to any stone working machine whereby stones may be given any desired configuration, and worked to any desired radius, the said device being out of the way of the operator and the work being done from the side next the operator. The work is carried upon a platen to which the pattern is detachably secured so as to be readily changed for one of another form, and depending from the cross-head which carries the cutter is a rod on which is mounted a roller working in ways in the pattern, thus reciprocating the slide on the cross-head and giving to the cutter the movement corresponding to the shape of the pattern. The rod or shaft that carries the roller is embraced by a guide arm in the slot of which the shaft or rod may work and which serves further to relieve the cross-head and slide from strain. The roller working in the way of the pattern gives movement to the slide back and forth and the cutter must necessarily be given the same motion, thus giving the stone the same configuration as the pattern.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is an end elevation of my improvements with the stone in position on the platen. Fig. 2 is a top plan of the platen with the pattern and stone thereon and the roller shown in the pattern and its shaft in section and the guide in dotted lines.

Like letters of reference indicate like parts in both of the views.

Referring now to the details of the drawings by letter, A designates the bed of the machine and B the platen adapted to be moved thereon in any suitable manner. It is shown as provided with the depending ribs *b* working in the ways or guides *a* to guide it in its movements.

C is a cross-head connecting the uprights D as shown in Fig. 1 and upon this cross-head is mounted to slide horizontally the slide E. This slide carries at one end a collar or sleeve F in which is mounted for vertical adjustment the shaft or rod F' which is held in its adjusted position by a set screw *f*, and upon the lower end of this shaft or rod is a roller G which is adapted to travel in the way of the pattern as shown best in Fig. 2.

H is the pattern. It is bolted or otherwise removably held on the planer platen to one side thereof where it will be out of the way of the work, and between the parallel portions thereof, forming a way, the roller G travels. The patterns are designed to be interchangeable and may be made to give to the stone a straight edge, a convex or a concave face or edge as may be desired, upon any desired radius. Upon the upright D adjacent to the pattern is held by a set screw *i* or otherwise a horizontal arm I the free end of which is bifurcated as shown by dotted lines in Fig. 2 and between the bifurcations of this arm is arranged the shaft or rod F' and by which arm this shaft or rod is guided and by which the cross-head and slide are relieved from the strain.

Mounted on the slide E is the tool stock J which is designed to move with the slide and at the same time has a movement thereon by means of the screw rod J', and the said tool stock has a tool-holder K which is adjustable vertically by the hand screw K', the tool or cutter L being held thereto in any suitable manner.

The stone M to be operated upon may be held to the planer platen in any suitable manner.

With the parts constructed and arranged substantially as above set forth the operation is as follows:—The pattern and stone being

secured in position upon the platen, the cross-head is raised or lowered according to the height of the stone and the cutter adjusted so as to act upon the stone at the proper point.

5 The cross-head is made adjustable for this purpose in any way. As the cross-head is raised or lowered the shaft F' must be correspondingly adjusted so as to bring the bottom edge of the roller G just clear of the platen but the
10 roller of course being between the ways of the pattern. As the platen is moved horizontally the roller working in the ways thereof is caused to move in a plane parallel therewith, and this movement of roller causes the slide
15 E to move correspondingly upon the cross-head and the cutter must of necessity follow in a path parallel with the roller G and consequently give to the stone the same contour and configuration as the pattern.

20 What I claim as new is—

1. The combination with the pattern and

the roller mounted to follow the contour thereof, of the vertically adjustable cross-head, the slide thereon and provided at one end with a vertical sleeve, the tool-stock on the slide and the adjustable tool-support, and the shaft carrying the roller adjustably mounted in the sleeve of the slide, substantially as specified.

2. The combination with the pattern and the roller, of the cross head, the vertical shaft carrying said roller, the slide carrying said shaft and the horizontal arm adjustably mounted on a fixed part and having its end bifurcated to embrace said shaft to guide the same and relieve the cross head and slide from strain, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ROLLIN D. FIELD.

Witnesses:

EDWARD DANA,

JOHN B. MOORE.