(No Model.)

U. EBERHARDT.

SHAPING MACHINE.

No. 438,613. Patented Oct. 21, 1890.

Fig. 1.

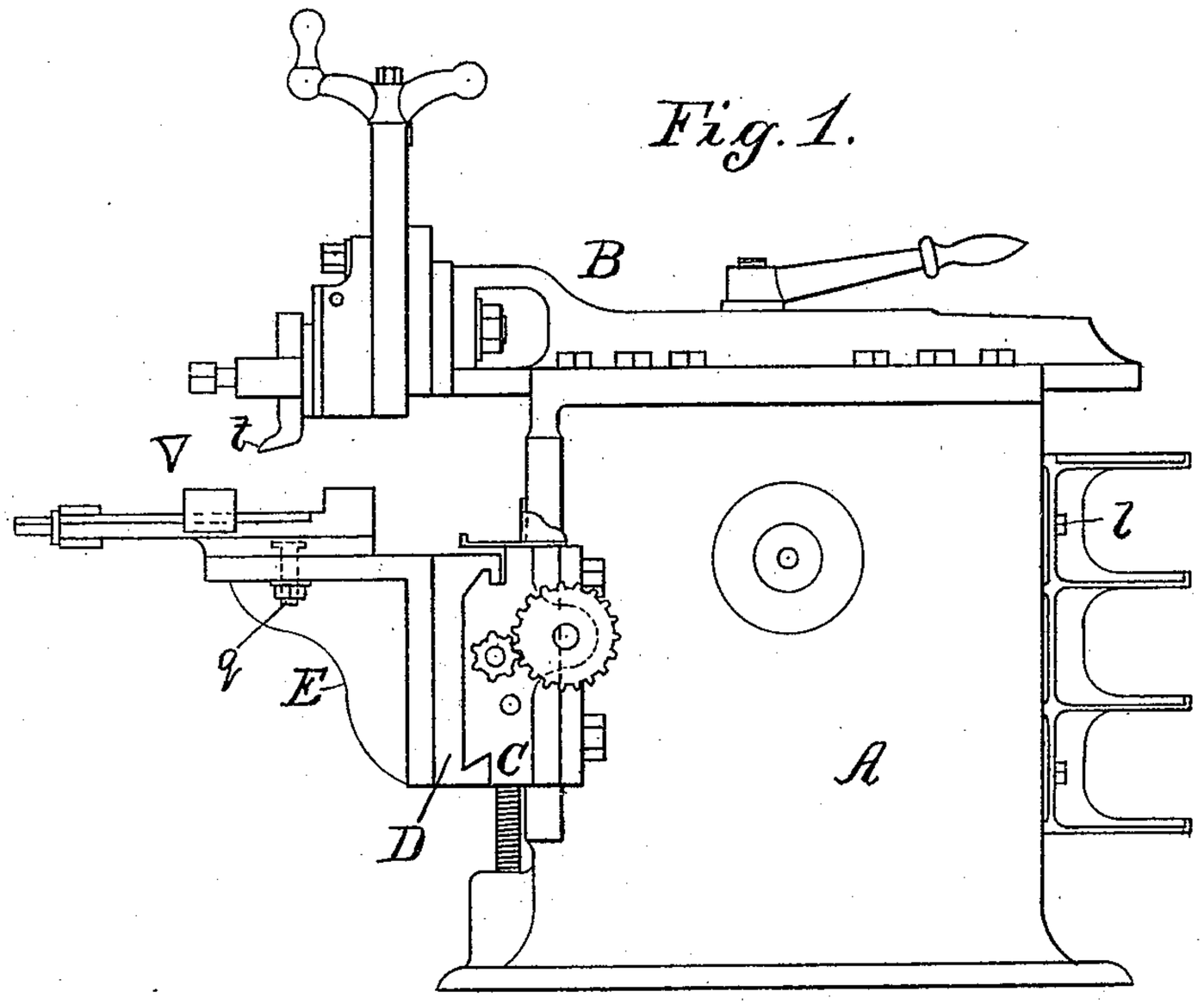


Fig. 3.

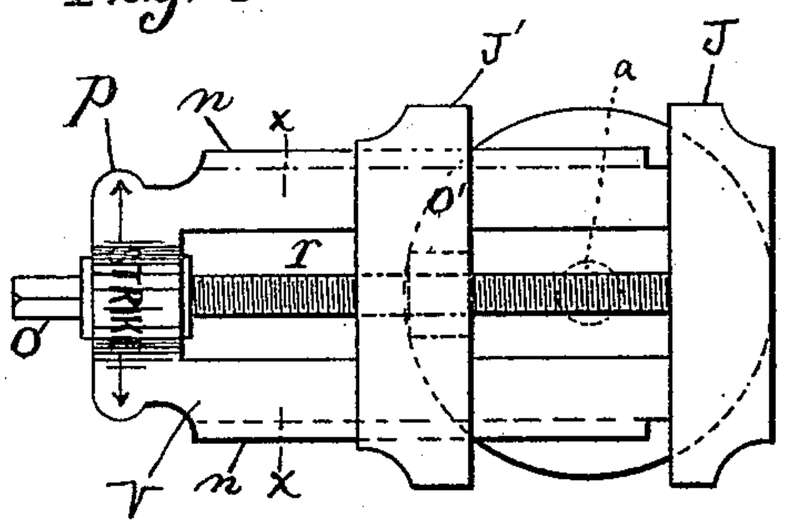


Fig. 4.

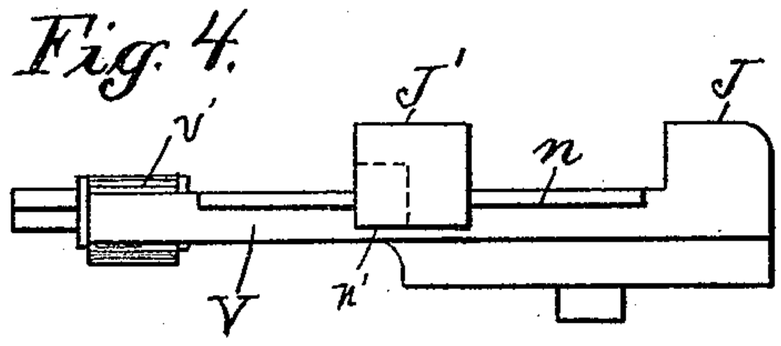


Fig. 5.

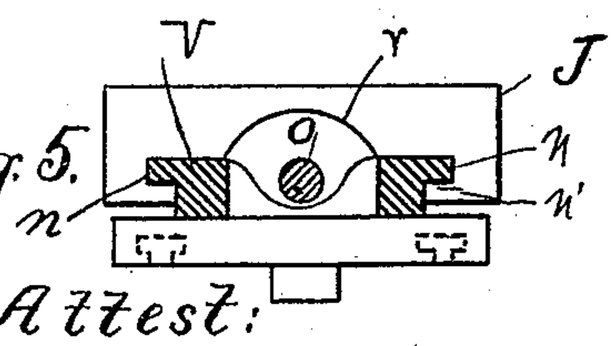
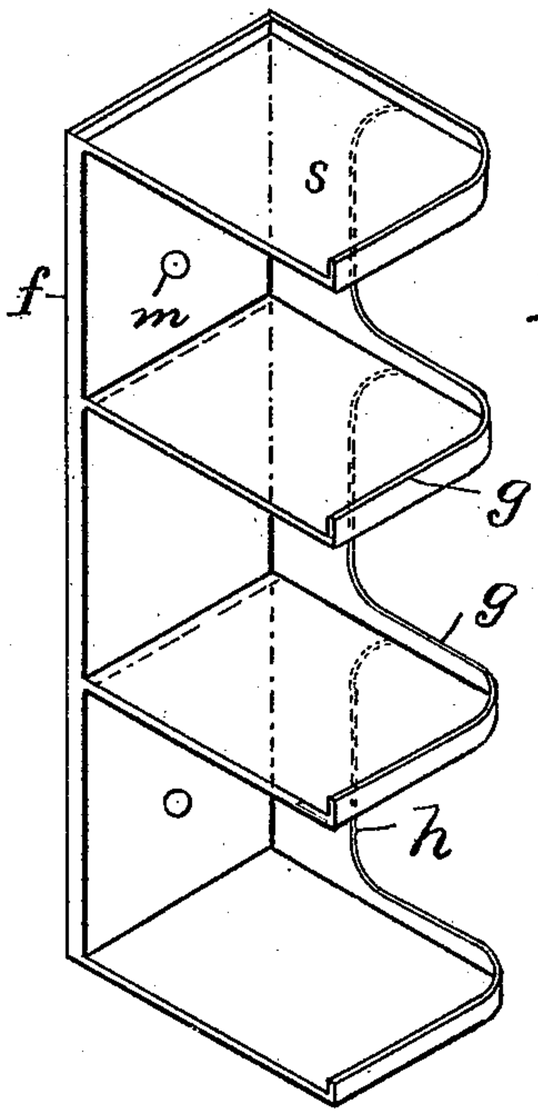


Fig. 2.



Attest:
L. Lee
J. Van Nest Jr.

Inventor.
Ulrich Eberhardt, per
Crosby Miller, Attys.

UNITED STATES PATENT OFFICE.

ULRICH EBERHARDT, OF NEWARK, NEW JERSEY.

SHAPING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 438,613, dated October 21, 1890.

Application filed July 12, 1890. Serial No. 358,542. (No model.)

To all whom it may concern:

Be it known that I, ULRICH EBERHARDT, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Shaping-Machines, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The present invention relates to certain attachments of a shaping-machine or crank-planer, such attachments being adapted to the same machine and rendering it more convenient and durable in use.

The first attachment consists in a series of shelves projected from a common foot-plate and secured to the frame of the shaping-machine by such foot-plate.

The second attachment consists in a striking-seat formed upon the outer end of the vise to prevent the latter from being bruised when knocked by the workman to adjust it from time to time.

The vise of a shaping-machine is commonly pivoted upon a bracket and secured thereon by suitable clamping-bolts. It is thereby adapted for holding work at different angles to the path of the tool, and in setting it in different positions it is common for the workman to tap the outer end of the frame with a hammer to turn it slightly upon its pivot in making its final adjustment. The slides upon which the vise-jaw is guided are constantly bruised by such blows of the hammer, and the movement of the jaw is thereby obstructed. To prevent such injury to the slides, they are in the present invention cut back from the front end of the vise a suitable distance to leave a rough seat, to which the hammer may be applied without injury.

These improvements will be understood by reference to the annexed drawings, in which—

Figure 1 is a side elevation of a shaping-machine provided with these improvements. Fig. 2 is a perspective view of the series of shelves. Fig. 3 is a plan of the vise; Fig. 4, an edge view of the same detached from its bracket; and Fig. 5 is a section on line *x x* in Fig. 3. Figs. 2 to 5, inclusive, are drawn upon a larger scale than Fig. 1.

In Fig. 1, A is the frame of the shaping-machine; B, the ram; C, the cross-head, and D the carriage upon the same sustaining bracket E, upon which the vise V is secured.

t is the tool reciprocated by the ram over the vise to operate upon the work-piece clamped between its jaws.

The series of shelves are shown attached to the rear side of the shaping-machine frame, four shelves *s* being shown cast in one piece with a foot *f* and braced by a vertical rib or bracket *h*, extended vertically between the rear edges of the shelves and cast integral upon the foot with the shelves.

The side of the frame A exposed in Fig. 1 is the side upon which the workman usually stands to operate the feed, and the various tools and fixtures required by the workman would therefore be applied to the edges of the shelves adjacent to such side of the frame. The other edges of the shelves are provided with a raised flange *g* to hold the articles thereon, the flange being shown in Fig. 2 continuous with the bracket or rib *h*.

The series of shelves is shown secured to the frame by bolts *l*, inserted into the frame through holes *m* in the foot. Such a series of shelves is readily cast in one piece when made separate from the frame A, and the whole series may be readily fastened by a couple of bolts inserted through the foot *f* into any convenient points upon the frame, the foot being adapted to span the openings that are frequently made in the frame for access to the driving mechanism.

It would be difficult and expensive to fasten an entire series of separate shelves to the machine if made with separate feet, and it would be difficult with many frames to find suitable bearing-surfaces to apply such a series of feet. It would also be difficult to cast such shelves integral with the frame with the flanges upon the edges of the shelves, which flanges are very desirable to prevent the tools and fixtures from slipping off.

By the process of casting the shelves are readily united to a common foot and supported thereon with sufficient strength by the intermediate bracket-ribs *h*, and such a series of shelves furnishes ample accommodation for all the fixtures required with a shaping-machine.

In Figs. 3 and 4, V is the body of the vise,

J the fixed jaw, and J′ the movable jaw held upon the ribs *n* along the edges of the body V by gibs *n′* in the usual manner. A pivot-pin *a* is shown in dotted lines in Fig. 3, by which the vise is centered upon the bracket E, and a bolt *q* is shown in Fig. 1 for clamping the vise to the bracket when properly adjusted; but the means for clamping the vise forms no part of the present invention. *o* is the vise-screw fitted to a nut *o′* within the movable jaw, the nut being fitted to move in a longitudinal opening *r* inside the body of the vise, as usual.

In Fig. 5 the movable jaw is shown with a recess *v* above the nut to clear the bearing *v′*, in which the screw is journaled to permit the vise to slide backward over such bearing.

The ways *n* are commonly extended to the extreme outer end of the vise to guide the jaw when thus moved outward; but in the present construction are cut short, so as to leave a striking-seat at each side of the body V beyond the ends of the slides, and the end of the vise-body is extended beyond the farthest travel of the jaw J′ to expose such striking-seats when the jaw is moved entirely outward. The striking-seats are thus exposed for use at all times, and the workman is not compelled to apply his hammer to any portion of the vise to adjust the same.

In order to direct the attention of the operator to the striking-seats, I cast the word "Strike," in letters of sufficient prominence, upon the outer end of the vise-body and apply arrows at either side of the same to indicate that the seats are provided, which may be struck by the hammer without injury to the machine. The blows of the hammer when adjusting the vise upon the bracket E are applied to the surface of such striking-seat upon either side of the vise, as may be required, and the outer ends of the slides *n* are thus preserved from injury. It will be understood that it is necessary that the outer end of the vise-body should have such striking-seats upon both sides, as the vise in practice requires adjustment in either direction upon the pivot *a*.

Having thus set forth the invention, what is claimed is—

1. A shaping-machine provided with a series of shelves cast integral with a common foot and secured thereby to the frame of the machine, as and for the purpose set forth.

2. A shaping-machine provided with a vise pivoted upon a supporting-bracket and having striking-seats upon the opposite sides of the vise-body at its outer end, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ULRICH EBERHARDT.

Witnesses:
THOS. S. CRANE,
JOS. B. PIERSON.