W. McBRIDE.

MACHINE FOR MAKING BED PINS.

No. 10,577. Patented Feb. 28, 1854.

Fig. 1.

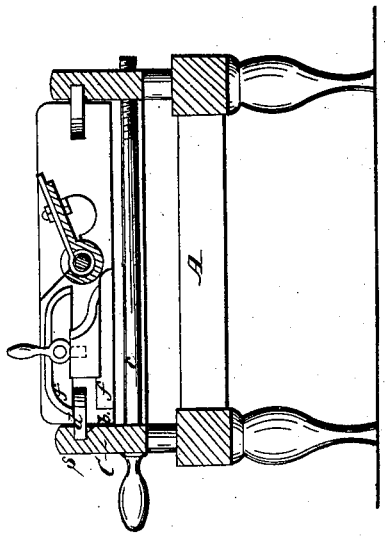


Fig. 2.

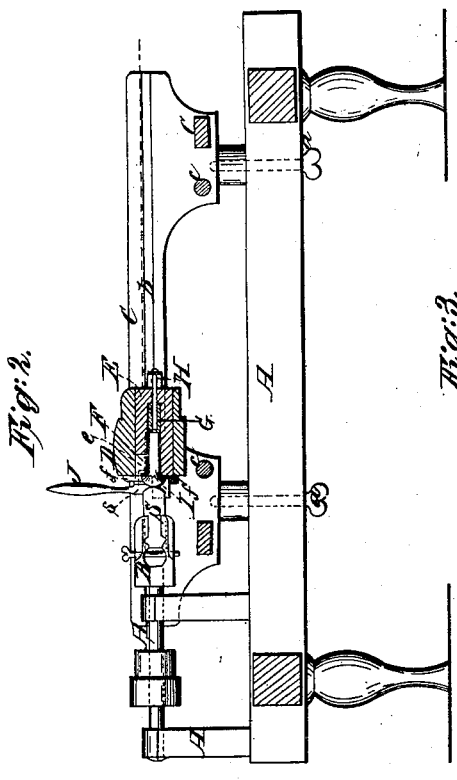
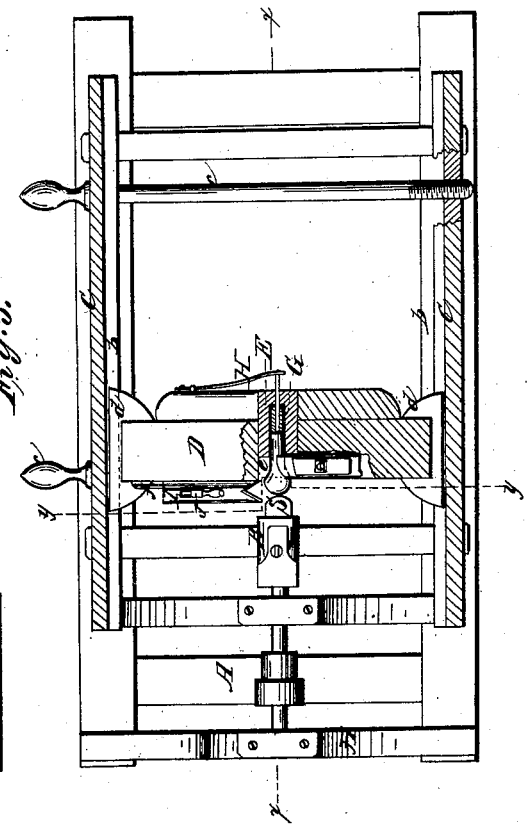


Fig. 3.



UNITED STATES PATENT OFFICE.

WILLIAM McBRIDE, OF BRISTOLVILLE, OHIO.

MACHINE FOR MAKING BED-PINS.

Specification of Letters Patent No. 10,577, dated February 28, 1854.

To all whom it may concern:

Be it known that I, WILLIAM McBRIDE, of Bristolville, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Machines for Making Bed-Pins; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical transverse section of the machine, through the line *y*, *y*, in Fig. 3. Fig. 2 is a vertical longitudinal section of the same through the line *x* in Fig. 3. Fig. 3 is a partial plan and partial horizontal section of the machine through the lines *s*, *s*, in Figs. 1 and 2.

Similar letters of reference in each of the several figures indicate corresponding parts.

My invention consists first in attaching to a common turning lathe a cutter stock or sliding block and providing said stock with two peculiarly shaped cutters, one stationary, and the other movable, the stationary cutter being of such shape that it forms the tapering part of the pin, while the movable cutter is of a proper shape and construction to form a round head on the pin and simultaneous therewith cut off the pin from the block ready for being discharged.

My invention consists, 2nd, in making all the pins of a set of a uniform length by employing a spring plug or gage, and by the same means effecting their discharge after they have been turned headed and cut off.

To enable others skilled in the art, to make and use my invention I will proceed to describe its construction and operation.

A represents an ordinary turning lathe having my improvement attached to it; the lathe is shown as it appears when in operation; a block S from which pins are to be turned being shown secured in the chuck B of the same. A pin is also represented as completed and cut off and ready for discharge.

C represents a frame carrying my improvement. This frame is secured by the set screws *a*, *a*, to the top of the lathe. It has two ways *b*, *b*, for the cutter stock D to slide in; these ways can be moved nearer together or farther apart by the set screws *c*, *c*, and thereby the sliding block or cutter stock can be kept in place while the heading and cutting off of the pin is being performed.

D, is the cutter stock. It has tongues *d*, *d*, which fit and move in the ways *b*, *b*, as the pin is turned. This stock has a circular horizontal recess cut in its center in which a barrel E, fits snugly. This barrel is just large enough for the pin to move freely in and is made of a gradually tapering shape to correspond to the desired shape of the pin, as seen in the drawing. This barrel has an open space *e*, cut in its top for the cutting edge of the inclined cutter F to pass through, and turn the pin to the right size as it passes into the circular recess or barrel E. This barrel is open at its front and wide end; and closed at its back or taper end.

G is a spring plug which moves and plays freely in the barrel E. This plug is forced against the back end of the barrel by means of the pin as it is gradually turned; this plug serving to gage the length of all the pins and make them of a uniform length, the spring H of the plug yielding as the pin is forced into the barrel and consequently is expanded as seen in Fig. 3. By thus expanding the spring the discharge of the pin after being finished can be easily effected for by sliding the block D, from toward the chuck space will be made and the pin will have a chance and be caused to escape, it being forced out of the barrel by the contraction of the spring, this contraction taking place as soon as space is formed between the chuck and the stock. The arrangement and shape of the cutter F will be clearly seen in Figs. 1, 2, and 3.

I, is a V shaped or a similar cutter; it is connected loosely to the cutter stock as seen in Figs. 2 and 3; and is made to slide in dovetail, or other ways *f*, *f*; when the lever J is operated. This V shaped cutter is moved up to the block by means of the lever J, after the taper portion of the pin is turned and cuts the round head on the pin and simultaneous therewith cuts off the pin from the unturned block. After the V cutter has performed its duty it is moved back to the position shown in Fig. 3, and at the same time the screws *c*, *c*, are slackened and the cutter stock which was secured fast for the heading operation, loosened and moved back a short distance simultaneous with the backward movement of the cutter stock; the discharge of the pin is effected by means

of the spring plug or gage in the manner before stated. After the pin is discharged the cutter stock is again moved up to the block, until the cutter F, turns off another pin when the stock is clamped tight between the ways so that the heading and cutting-off operation may again be performed and so the operation is continued and bed pins produced very rapidly and perfectly. Any shaped pin or knob may be produced by this machine by changing the form of the cutters.

What I claim as my invention and desire to secure by Letters Patent, is,

1. Attaching to a common turning lathe a sliding cutter stock D, and providing said stock with two peculiarly shaped cutters, one stationary, and the other movable; the stationary cutter being of such shape that it forms the tapering part of the pin, while the movable cutter is of a proper shape and construction to form a round head on the pin and simultaneous therewith cut off the pin from the block ready for being discharged; substantially as herein described.

2. I also claim making all the pins of a set of a uniform length by employing a spring plug or gage in the manner described, and by the same means effecting their discharge after being turned, headed and cut off, as herein described.

WILLIAM McBRIDE.

Witnesses:
F. H. CORRY,
C. J. KIBBE.