F. B. Mattson,

Lathe Tool.

No. 104,751. Patented June 28, 1870.

Fig. 1.

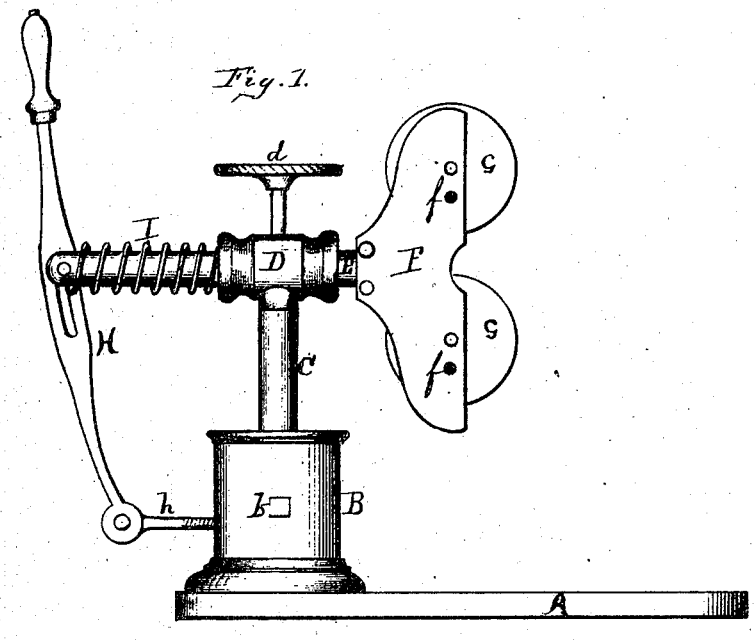


Fig. 2.

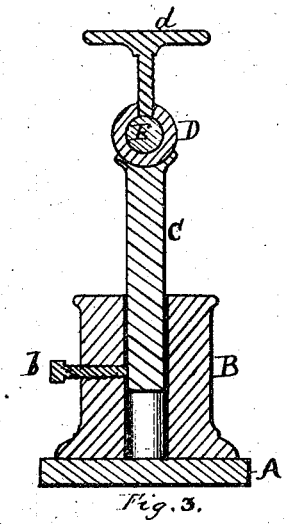
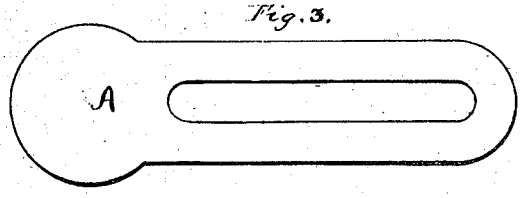


Fig. 3.



Witnesses.
H. W. Beadle
C. A. Clarkson

Inventor:
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H. W. Beadle atty

United States Patent Office.

FRANCIS B. MATTSON, OF ROCKFORD, ILLINOIS, ASSIGNOR TO HIMSELF AND WILLIAM P. DENNIS.

Letters Patent No. 104,751, *dated June* 28, 1870.

IMPROVEMENT IN LATHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, FRANCIS B. MATTSON, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Back-Rest for Turning-Lathes; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention has for its object the production of an adjustable rest for lathes, which shall be capable of supporting the work without undue friction, and without injuring its surface, and to that end

It consists principally in the employment of adjustable rollers upon a sliding shaft, in combination with a vertically-adjustable standard. The details of construction and manner of operation will be fully described hereinafter.

In the drawing—

Figure 1 represents a side elevation of my improved rest;

Figure 2, a sectional view; and

Figure 3, a plan view of the base.

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

A represents a slotted base, which rests upon the lathe, and is secured thereto in the usual manner.

B represents a socket, rigidly secured to the base A, in which rests the upright standard C.

This standard may be moved vertically in the socket, and secured in any desired position by means of the set-screw *b*, upon the top of the standard C, and at right angles to it is rigidly secured a socket, D, in which is held the shaft E.

This shaft is enabled to move freely through the socket, and is secured in any desired position by the thumb-screw *d*.

To the front end of the shaft E is attached the wings F, between which, at each end, are secured the rollers G G, as shown.

f f represent additional orifices for the bearings of the rollers, so that they may be adjusted nearer together or further apart, at will.

The rear end of the shaft is attached to the lever H by means of a pin, which moves in a slot in the lever, as shown in fig. 1.

The lower end of this lever is rigidly secured to the arm *h*, extending from the socket B. Its upper end is provided with a suitable handle.

I represents a spring, located upon the shaft E, between the lever H and the socket D.

The operation is as follows:

The tool itself is adjusted upon the lathe, in any desired position, by means of its slotted base, it being so located however, as to bring the rollers in rear of the object to be turned, usually at about its center. A space on the stick, sufficient for the roller to pass against, should be previously rounded off. The rollers, having first been adjusted properly, relatively to each other, should now be brought into contact with the stick by operating the lever, and be secured in place by means of the thumb-screw. The position of the rollers, vertically, should be adjusted by moving the standard C in its socket. The rest, when accurately placed in position, will furnish a firm and steady support to the stick to be turned, with but little if any friction, as the rollers revolve freely as the stick revolves, and also without marring at all the surface of the work. It is simple in construction and efficient in operation.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the rollers G G, shaft E, and standard C, when constructed as shown and described, and for the purpose specified.

2. A back-rest for turning-lathes, composed of the slotted base A, socket B, standard C, socket D, shaft E, wings F F, adjustable rollers G G, lever H, and spring I, when combined, arranged, and operating as described, for the purpose set forth.

This specification signed and witnessed this 2d day of September, 1869.

FRANCIS B. MATTSON.

Witnesses:

G. W. FORD,

E. A. NICHOLS.