(No Model.)

L. F. LONGMORE.

DRILL GUIDE AND REST.

No. 284,449. Patented Sept. 4, 1883.

Fig 1

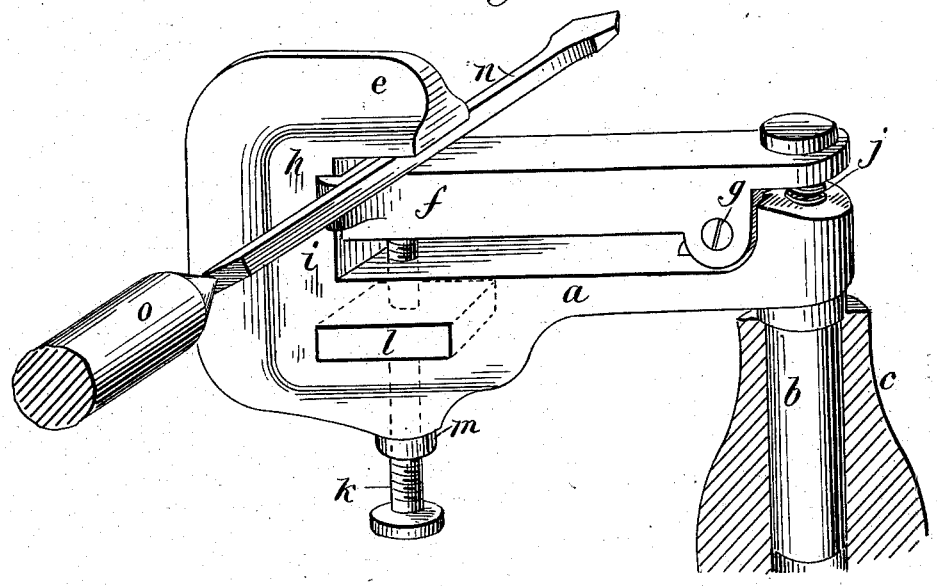
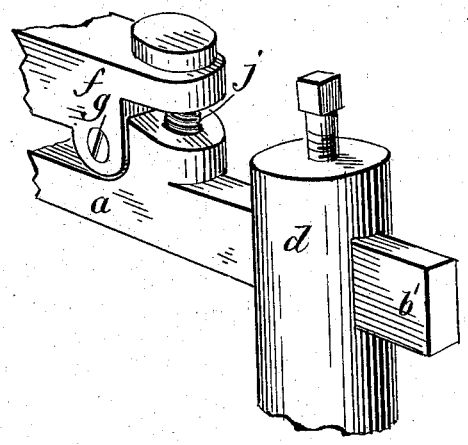


Fig 2



WITNESSES:

C. Sedgwick

INVENTOR:

L. F. Longmore

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

LEWIS F. LONGMORE, OF LOWELL, MASSACHUSETTS.

DRILL GUIDE AND REST.

SPECIFICATION forming part of Letters Patent No. 284,449, dated September 4, 1883.

Application filed May 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, LEWIS F. LONGMORE, of Lowell, Middlesex county, Massachusetts, have invented a new and Improved Drill Guide, Rest, and Holder, of which the following is a full, clear, and exact description.

My invention consists of an adjustable guide rest and holder for holding drills between the tail-center and face-plate, head-stock, or chuck of a lathe to bore pieces revolving in the lathe, the drill being held by the said holder, which is also a guide by which to enable the drill to center itself, or, in other words, to be centered by the action of the work. The adjustable contrivance for the device is designed to adapt it for holding drills of all sizes, and enabling it to take the place of the numerous slot-rests of different sizes now used for the purpose, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

Figure 1 is a perspective view of my improved guide rest and holder with a drill in position, and a sectional elevation of the tool-rest holder of a lathe, to which the said guide-rest is fitted. Fig. 2 is a perspective view of a part of the device adapted to be mounted in the tool-post of an engine-lathe.

I make a strong stock, *a*, of malleable iron or of forged metal, with a shank, *b*, at one end to support it vertically in the tool-rest socket *c*, or with a straight or any suitable shank, *b'*, to connect with the tool-post *d*. The other end has a clamp-jaw, *e*, projecting back over the upper surface of the stock and a suitable distance above it, between which jaw and said stock is a vertically-adjustable bar, *f*, hinged at *g* and projecting under said jaw, and having guide-lugs *h* fitted to the vertical part *i* of the stock for controlling the movable end of the bar. Under the outer end of said bar and beyond the pivot *g* there is a spring, *j*, fitted between the shank of the stock and the end of the bar, which presses the other end of said bar down on the adjusting-screw *k*, to hold bar *f* firmly thereon and prevent it from chattering. The adjusting-screw *k* is preferably fitted in a nut, *l*, which is inserted in a slot of the stock to enable it to be refitted and renewed when too much worn, and it allows the screw to have some play in case it may be preferred to fit the upper end of the screw in a socket in the lower side of bar *f*. A check-nut, *m*, is fitted on the screw to secure it firmly when set in the required position. The spring *j* is fitted in sockets in the stock *a* and the bar *f* for substantial control of it.

The drill *n* is to be held between jaw *e* and bar *f*, the same as in the common slot-rest, when feeding the drill by the tail-center *o* to bore a piece revolving on the face-plate or in a chuck; and it will be seen that, by the adjustable contrivance of bar *f*, drills of any size may be held, so that one tool will serve for all.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the adjustable bar *f* with the stock *a*, having jaw *e*, and being provided with a shank adapted to be supported in the rest-socket or tool-post of a lathe, substantially as described.

2. The combination of the adjustable bar *f* and adjusting-screw *k* with the stock *a*, having a jaw, *e*, and a shank, *b b'*, adapted to be supported in the tool-post or tool-rest socket of a lathe, substantially as described.

3. The combination, with the stock *a*, having jaw *e*, and a shank adapted to connect with the tool-post of a lathe, of the adjustable bar *f*, pivoted to stock *a*, spring *j*, and the adjusting-screw *k*, substantially as described.

LEWIS FRENCH LONGMORE.

Witnesses:
CHAS. W. MOREY,
GEO. H. STEVENS.