

JOHN C. MILLER.

Improvement in Lathe-Chucks.

No. 114,700.

Patented May 9, 1871.

Fig. 1

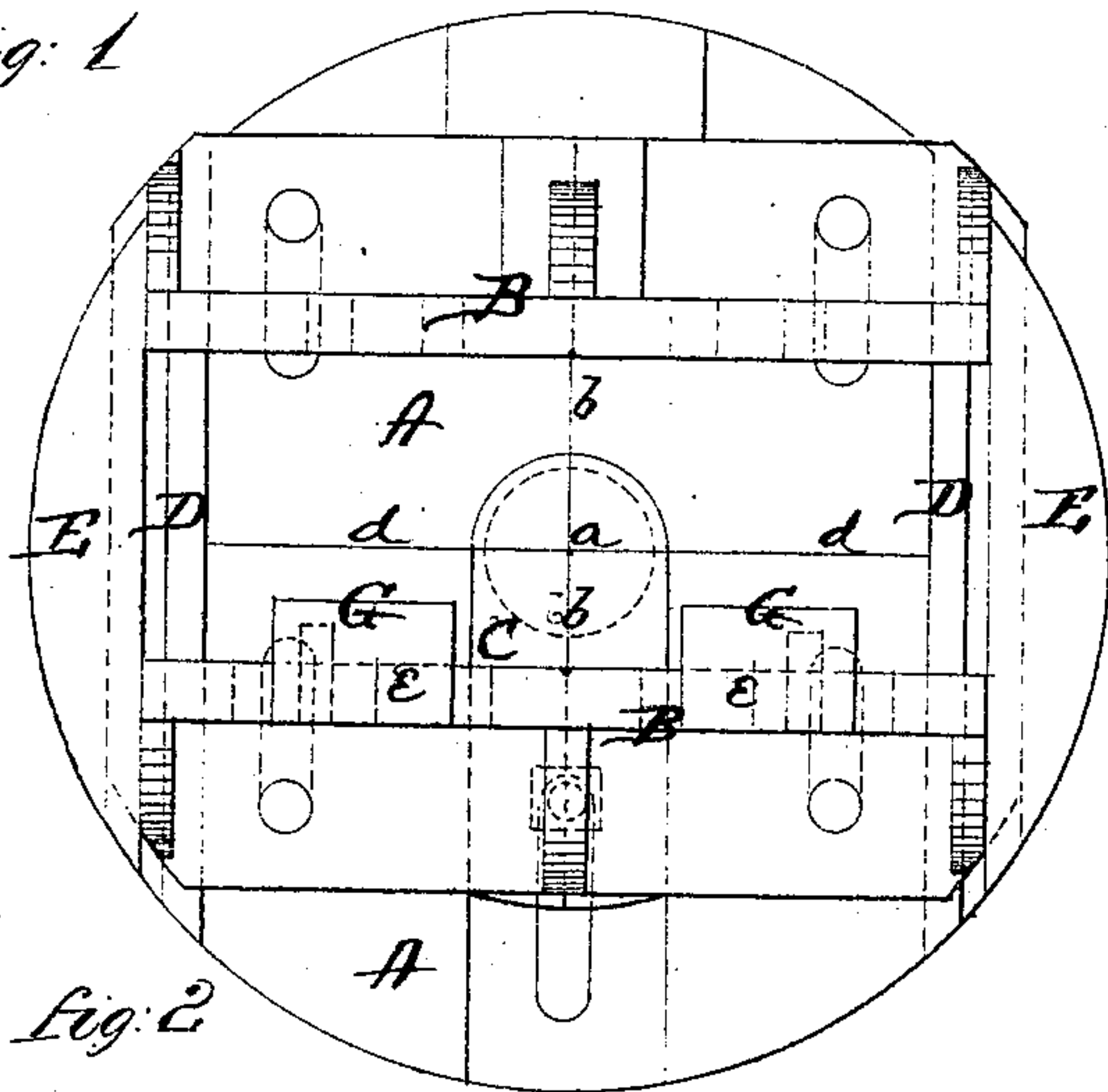
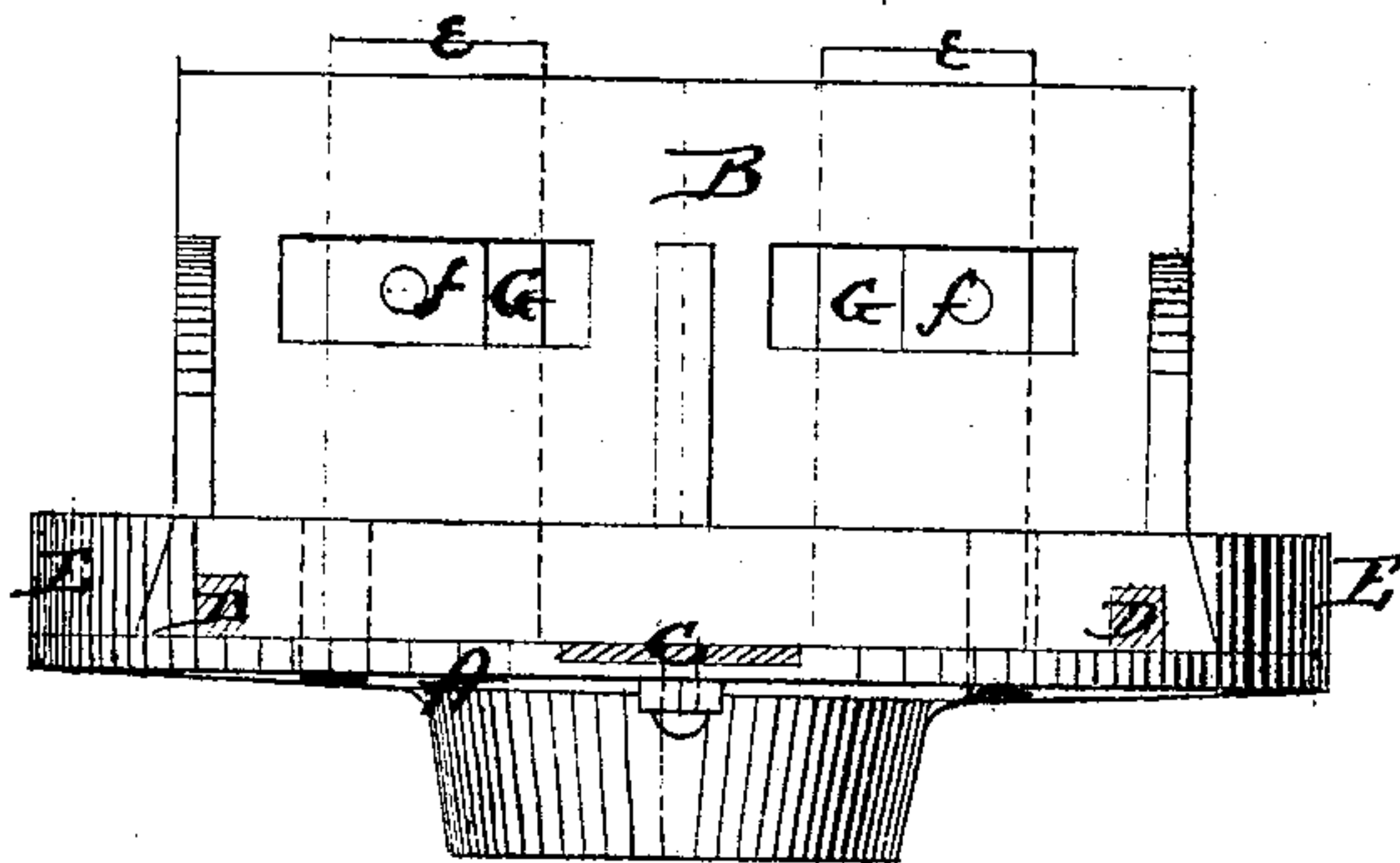


Fig. 2



Witnesses.

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JOHN C. MILLER, OF DANVILLE, KENTUCKY.

Letters Patent No. 114,700, dated May 9, 1871.

IMPROVEMENT IN LATHE-CHUCKS.

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, JOHN C. MILLER, of Danville, in the county of Boyle and in the State of Kentucky, have invented certain new and useful Improvements in Face-Plate for Lathes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a face-plate for lathes, whereby the work can always be adjusted with ease and correctness, so as to bring the same true with the center, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and

Figure 2 a side view.

A represent the ordinary face-plates used in lathes, and

B B the angle-plates used for adjusting and holding the work in position after it has been set.

In the old method of adjusting the work to the face-plate it was necessary to try whether the center would come in the exact position where wanted, and very often—in fact, almost invariably—it had to be changed several times before it came in the proper position.

To obviate these difficulties is the object of my invention, and it is accomplished in the following manner:

A groove or recess is made in the face-plate A, extending from around the center opening to the outer edge, in which groove or recess is placed a sliding rule, C, as shown in fig. 1.

This rule, when moved inward, covers the center opening of the face-plate, and has a point, *a*, which is the exact and true center of said center opening in the face-plate.

From or through this point *a* lines *b* and *d* are made in the face of the rule C, exactly at right angles with each other, said lines being continued in the face-plate A.

The sliding rule C is held in position by a thumb-screw from underneath, which passes through a slot in the face-plate, as shown.

On opposite edges of the face-plate, and running parallel with the line *b*, and, consequently, at right angles with the line *d*, is a flange, E, and bar D, the inner sides of the flanges E E being beveled, as shown, so as to form, with the edges of the angle-plates B B, dovetails to hold them onto the face-plate.

Grooves are also made in the under sides of the angle-plates for the bars D D.

These flanges and bars thus form guides, upon which the angle-plates can be moved, and from their position and peculiar construction it will be seen that the angle-plates must at all times be parallel with the line *d*, and at right angles with the line *b*.

These angle-plates are secured in any position desired on the face-plate—that is, at any distance from the line *d*, by means of bolts passing through them and through slots in the face-plate.

Upon the inner side of one of the angle-plates are placed two parallel bars, G G, provided at their upper ends with flanges *e e*, which overlap the upper edge of the angle-plate.

The bars G G are also provided with square blocks or projections *f f*, which are inserted in horizontal slots on the angle-plate.

These blocks and the flanges *e e* act as guides for the bars G G to slide the same to or from the line *b* on the face-plate, and the bars are held at any position desired by thumb-screws passing into the blocks *f f*.

On the inner side of each angle-plate B is made a line, forming a continuation at right angles with the line *b* of the face-plate.

To set the work on this face-plate, place the desired center directly on the point *a* of the sliding rule C, after the same has been moved into its position over the central opening of the face-plate. Then adjust the angle-plates B B and bars G G close to the work, which holds it in proper position.

It can then be still further secured by thumb-screws passing through one of the angle-plates. Then draw out the sliding rule C away from the central opening, when the tool can be at once applied to make the desired hole.

By this means it will be seen that the work can be adjusted in proper position without loss of time, and always exact; whereas, by the old method, where there was only one angle-plate, which had to be buckled on, the operator had to guess at the position of the work, try if it was right, change it again, and so on, losing always considerable time.

Back of each of the angle-plates B should be a block, H, through which to pass a screw to move the plates back and forth.

Having thus fully described my invention,

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

1. The sliding rule C, provided with point *a* and lines *b d*, and sliding in a groove or recess on the face-plate A, substantially as and for the purposes herein set forth.

2. The sliding parallel bars G G, arranged upon one

of the angle-plates B, substantially as and for the purposes herein set forth.

3. The flanges E E and parallel bars D D, arranged as herein described upon the face-plate A, in conjunction with the angle-plates B B, correspondingly grooved to insure the true movement of said plates, substantially as described.

4. The combination of the face-plate A, angle-

plates B B, sliding rule C, bars D D, flanges E E, and sliding bars G G, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of March, 1871.

Witnesses:

JOHN C. MILLER.

A. N. MARR,

ASA JOHNSON.