

[66.]

George E. Johnson and William Boston.

Centring Tool-holder

for

Lathes.

No. 118,614..

Patented Aug. 29, 1871.

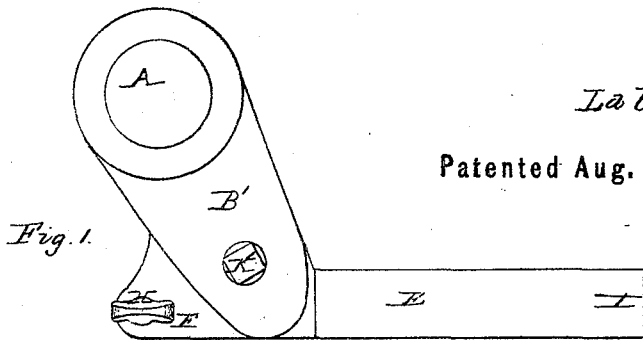


Fig. 1.

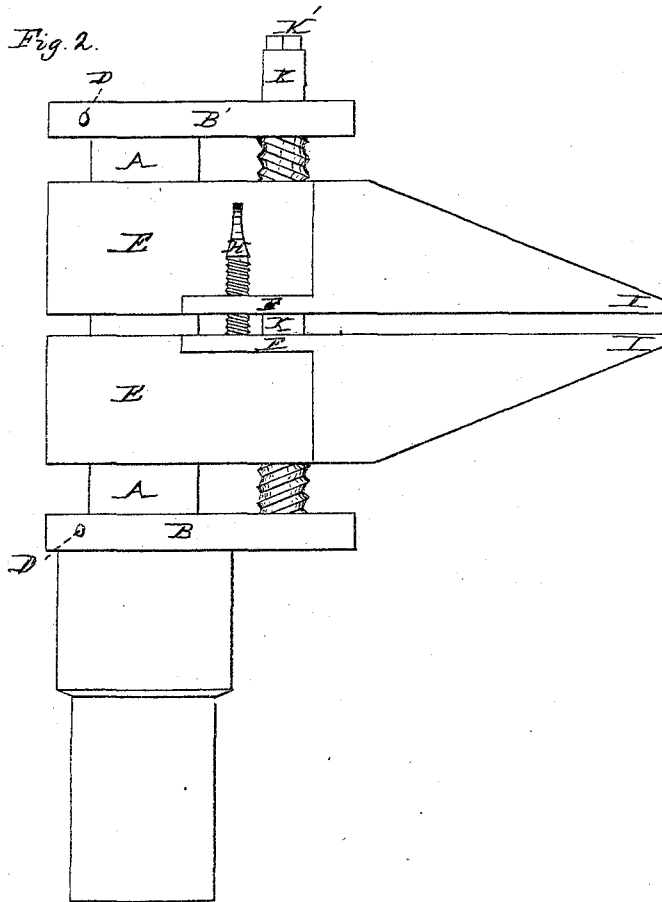


Fig. 2.

Witness  
*Wm. H. Clifford*  
*Geo. E. Johnson*

Inventor  
*Geo. E. Johnson and*  
*Wm. Boston*  
 Per *Wm. H. Clifford* atty.

# UNITED STATES PATENT OFFICE.

GEORGE E. JOHNSON AND WILLIAM BOSTON, OF BIDDEFORD, MAINE.

## IMPROVEMENT IN DRILL-RESTS FOR CHUCKING-LATHES.

Specification forming part of Letters Patent No. 118,614, dated August 29, 1871.

*To all whom it may concern:*

Be it known that we, GEORGE E. JOHNSON and WILLIAM BOSTON, both of the city of Biddeford, in the county of York and State of Maine, have invented a new and useful Improvement in Centering-Rest for Chucking; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top plan, and Fig. 2 a side elevation of our device, the same parts being designated by the same letters.

It is the purpose of our invention to provide a rest for chucking-lathes which shall entirely obviate the difficulties now experienced in the use of the common rest. It is now necessary whenever a tool is changed for one of a different size, to change the rest also, the insertion of which into the stand requires much nicety of adjustment, experience, and time.

A is a rod or shaft, of suitable size and length, having at either extremity the oval plates B and B'. (See Fig. 1.) These plates are firmly secured in place by the pins or studs D D. Below the plate B the rod A is somewhat enlarged, while at the proper distance below the plate the diameter is again reduced, leaving the shoulder shown in the drawing. Moving freely on this rod are the two jaws, E E. (See Fig. 2.) Extending from the lower edge of the upper and upper edge of the lower jaw are the ears F F. The upper of these ears has a threaded aperture, into which is inserted the thumb-screw H, to receive which the lower ear is provided with a socket. Passing through the jaws, at a point between the thumb-screw H and the ends I I of the jaws, is the rod K, the upper and lower portions of which rod are threaded, one as a left-hand and the other as a right-hand screw. The extremities of this rod have bearings in the plates B B', the upper extremity passing through the latter and terminating in the graduated end K'.

The operation of this device is as simple as its construction. When the rest is first applied to a lathe the shoulder upon the lower part of the rod A is placed at such a point as to allow of its insertion into the stand resting on the bed-plate of the lathe just far enough to bring the center of the face plate and the jaws E E upon the same horizontal line. It is then secured in place by the set-screw, and whenever inserted needs no adjustment. Whenever the jaws E E are moved by the rod K they are each moved to the same extent but in opposite directions. Consequently the space between the jaws must always have the same center, and, therefore, the centers of all things held between the jaws must invariably be in the same horizontal line. The length of the jaws permit the requisite lateral adjustment.

The office of the thumb-screw H is to counteract the strain upon the outer parts of jaws.

I am well aware that the combination of two jaws and a right-and-left-hand screw for operating them is a very common device found in lathe-chucks and lathe-rests; but I am not aware of any device made and arranged in all respects as I have herein described and shown.

What we claim as our invention, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the supporting-rod A, flanges B B, the two jaws E arranged thereon at right angles to the rod A, and the right-and-left-hand screw K, as described and shown.

2. The combination of the jaws of the angular form herein described and shown, and with legs F, and combining with the same the set-screw H, substantially as set forth.

GEO. E. JOHNSON.  
WM. BOSTON.

Witnesses:

E. W. WEDGWOOD,  
EDWIN STONE.