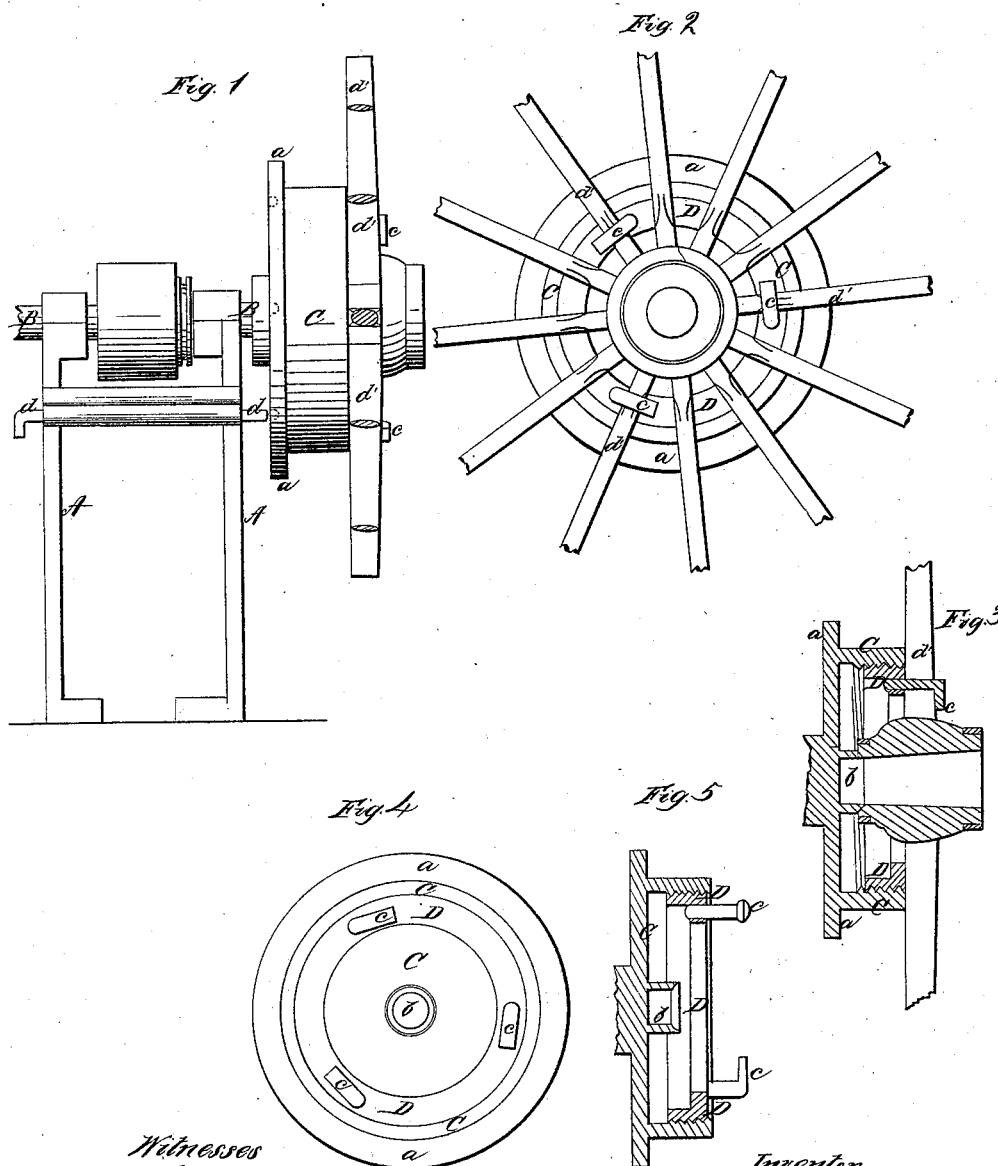


P. Schuttler,
Boring Hubs.

N^o 46,501.

Patented Feb. 21, 1865.



Witnesses
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UNITED STATES PATENT OFFICE.

PETER SCHUTTLE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MACHINES FOR HOLDING HUBS WHILE BEING BORED.

Specification forming part of Letters Patent No. 46,501, dated February 21, 1865.

To all whom it may concern:

Be it known that I, PETER SCHUTTLE, of Chicago, Cook county, State of Illinois, have invented a new and Improved Hub-Holder for Boring-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of one side of my hub-holder having a hub clamped to it. Fig. 2 is a front view of the holder. Fig. 3 is a diametrical section through Fig. 2. Figs. 4 and 5 are views similar to Figs. 2 and 3 without the hub.

Similar letters of reference indicate corresponding parts in all the figures.

In the operation of boring the hubs of wheels I have found it desirable to rotate the wheels instead of rotating the boring-tool, and for this purpose it is necessary to provide for readily attaching the wheels centrally to a shaft which receives a rotary motion.

The object of my invention is to construct a hub-holder in such manner that the hub will be centered in the act of clamping it in place, and also so that provision will be made for allowing the tool to bore completely through the hub, as will be hereinafter described.

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

In the accompanying drawings, A represents the frame for supporting the horizontal shaft B, which may be rotated in any convenient manner.

C represents a cylindrical box, which is constructed with an annular flange *a*, projecting from its periphery, and a central tube *b*, projecting from its inner face, as shown in Figs. 3, 4, and 5.

D represents a flanged ring, which has a screw-thread cut around its circumference to allow it to be screwed within the box C, as shown in Figs. 3 and 5. Three hooked projections *c c c* are rigidly secured to the flange of ring D at regular intervals apart, for the purpose of receiving the spokes of a wheel the hub of which it is desired to bore.

The box or hub-holder C, which I have above described, is rigidly secured on the end of shaft B, so that the axis of said holder will be coincident with that of this shaft,

and when it is desired to prevent the hub-holder from turning a sliding bolt *d* is inserted into a hole in the back face of the holder. This bolt is attached to the frame A, and can be withdrawn from the hub-holder, when the latter will rotate freely with its driving-shaft.

By my invention it will be seen that the hub is confined in place against the open side of the box C by means of the clamps *c c c*, acting upon the spokes *d' d' d'*, as clearly shown in Figs. 2 and 3. These clamping-hooks *c c c* being secured to the screw-ring D, and the latter being screwed into the open end of the box C, it will be seen that the hooks will forcibly draw the spokes against the edge of the cylinder, and thus clamp the hub rigidly to this box.

Before applying a hub to the hub-holder the smaller end of the hub should be bored out so as to leave a slight concave depression in it, which receives the tubular center *b* as the hub is clamped to its holder, and causes said center piece to adjust the hub in its proper position with respect to the axis of the shaft B and holder C.

In screwing the clamping-ring D into the holder C this ring should be turned in an opposite direction to the motion given to the hub in the operation of boring it. This will prevent the ring from turning and the hub from working loose during the action of the boring-tool. The bore of the center piece *b* should be somewhat larger in diameter than the smallest diameter of the hole which is to be made through the hub, for the purpose of allowing the tool to pass entirely through the hub without coming in contact with this center piece.

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

1. The application of a screw-ring D, which is provided with clamps *c c c*, to a holder C, which is applied to a rotatory shaft B, substantially as described.

2. The tubular center *b*, in combination with a contrivance for clamping the hub to the holder C, substantially as described.

PETER SCHUTTLE.

Witnesses:

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