H. H. SILER & T. A. BROOKS.

CHUCKS.

No. 190,090. Patented April 24, 1877.

Fig. 1.

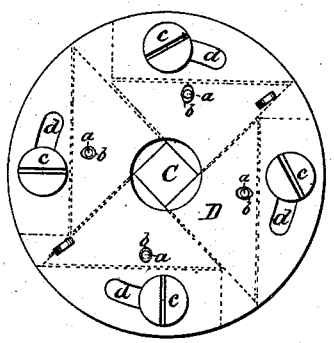
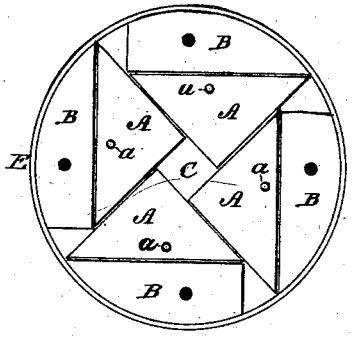


Fig. 2.



WITNESSES:

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HENRY H. SILER AND THOMAS A. BROOKS, OF ST. LAWRENCE, N. C.

IMPROVEMENT IN CHUCKS.

Specification forming part of Letters Patent No. **190,090**, dated April 24, 1877; application filed October 28, 1875.

To all whom it may concern:

Be it known that we, HENRY H. SILER and THOMAS A. BROOKS, of St. Lawrence, in the county of Chatham and State of North Carolina, have invented a new and useful Improvement in Chucks, &c.; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a face view of the device. Fig. 2 is a similar view, with the face-plate removed.

Our invention relates to certain improvements in chucks, centering-tools, &c.; and it consists in the particular construction of a rotary adjustable face-plate, combined with a series of triangular slides, the sum of whose central angles is equal to three hundred and sixty degrees, the said slides being arranged to move tangentially from the action of the face-plate, so as to have always a common center with solid boundaries or perfectly inclosed sides, whereby is secured a variable central aperture of corresponding sides, dependent for shape upon the number and dimensions of the said slides, all as hereinafter more fully described.

In the drawing, A represents four triangular slides, arranged in a ring, disk, or collet, with their inner sides in contact with each other, and their outer sides in contact with guides B. Said guides are placed a given distance apart from each other to give room for the advance of the angle of the slides during their movement for the enlargement of the central hole C.

This movement is effected by the following devices: Upon the slides A are arranged extensions or studs *a*, which project through slots *b* in a movable face plate or disk, D. This disk or plate is also provided with circular slots *d* near its periphery, and through the said slots pass screws *c*, which enter the guides B or solid parts of the frame. These screws serve to guide the plate in its rotary movement, and also to hold it with the slides to any desired adjustment.

Now, as the disk or plate D is turned, the sides of the slots *b* bear against the studs *a* and actuate the slides to produce a larger or smaller hole, C, the length of the said slots *b* compensating for the rectilinear movement of the slides. When the desired adjustment has been reached the screws *c* may be tightened to hold the slides to the adjustment.

Referring to the mechanical movement of the slides, we do not now claim it broadly, as the right to this feature, which was in controversy, has been settled by agreement between us and the other claimant, and we, therefore, confine our invention as embodied in this case to the particular means of adjustment used in connection with the slides.

Having thus described our invention, what we claim as new is—

The combination, with the triangular slides A, having studs *a*, and arranged to move tangentially, as described, of the rotary adjustable face-plate D, having slots *b d*, together with the clamping and guiding screws *c* arranged in slots *d*, and adapted to hold the plate to the frame carrying the slides, as set forth.

HENRY H. SILER.
THOMAS A. BROOKS.

Witnesses to both signatures:
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