(No Model.)

J. H. WESTCOTT.

Chuck.

No. 228,426. Patented June 1, 1880.

Fig. 1.

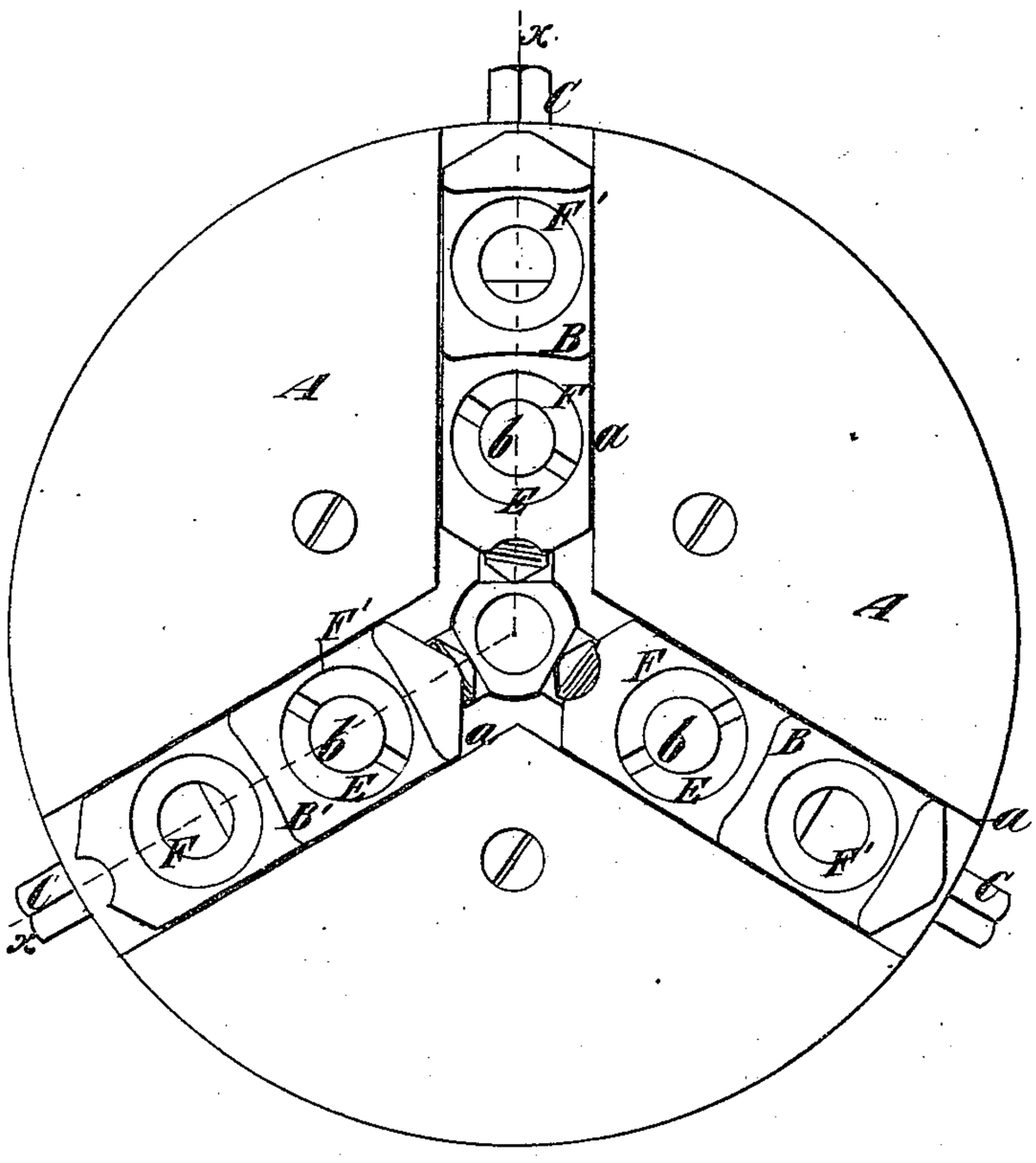
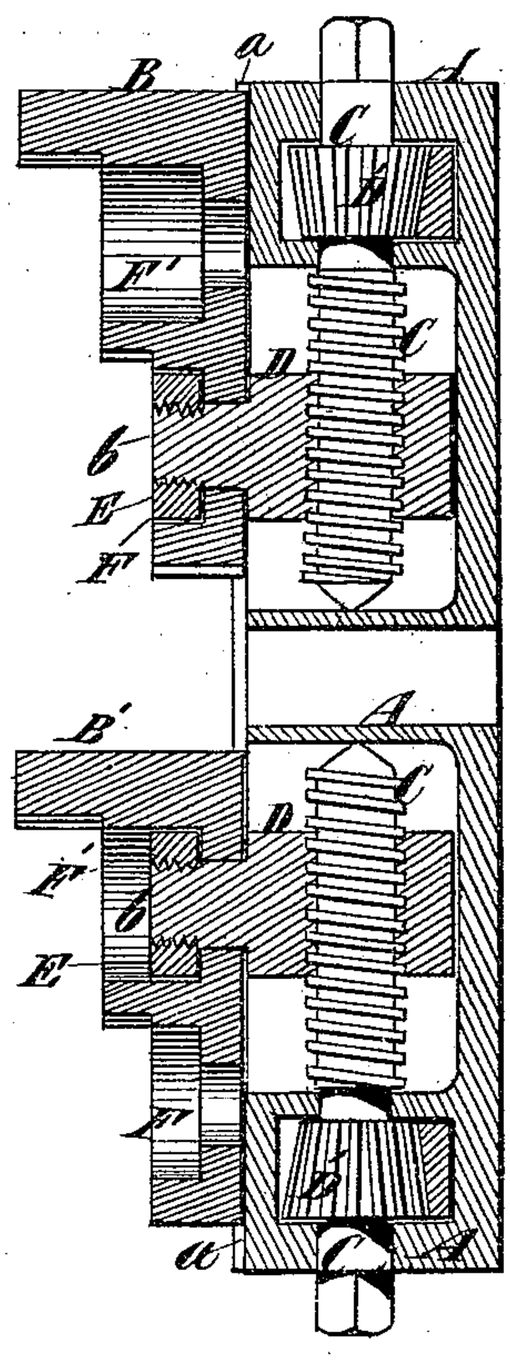


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN H. WESTCOTT, OF ONEIDA, NEW YORK.

CHUCK.

SPECIFICATION forming part of Letters Patent No. 228,426, dated June 1, 1880.

Application filed March 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. WESTCOTT, of Oneida, in the county of Madison and State of New York, have invented a certain new and useful Improvement in Chucks, of which the following is a specification.

My invention relates to chucks which are provided with holding-jaws and with screws for adjusting said jaws toward and from the center of the chuck.

In order to adapt such chucks for holding articles of different forms, the two ends of the jaws are of different shape, and the jaws are made reversible by turning them end for end upon the studs of the sliding boxes which receive the screws.

In chucks of the kind above described, when the jaws are provided with one socket only for the reception of the stud and nut for securing it to the sliding box, if said jaw is long and the socket is at the middle of its length, the inner end of said jaw will have a tendency to spring away from the face of the chuck in the operation of chucking, creating lost motion between the jaw and the face of the chuck and greatly impairing the accuracy of the work performed.

My invention consists in the combination, in a chuck, with the adjusting-screws and sliding boxes for said screws, of reversible holding-jaws, each secured to its sliding box by means of a stud and nut, and each provided in its face with two sockets for the reception of said stud and nut, one near each end of the jaw, so that in whichever position the jaw is used the stud and nut for securing it to its sliding box and clamping it to the face of the chuck will be near its inner end.

In the accompanying drawings, Figure 1 represents a face view of a chuck embodying my invention; and Fig. 2 represents a section thereof upon the lines *x x*, Fig. 1.

Similar letters of reference designate corresponding parts in both the figures.

A designates the shell or body of the chuck, which may be made in two sections, secured together by screws or otherwise, as is commonly done. B B′ designate holding-jaws, (here represented as three in number,) adapted to be adjusted upon the face of the chuck toward or from its center, preferably in shallow grooves or slideways *a* in the face of the chuck. C designates screws by which the holding-jaws may be adjusted, and D designates sliding boxes, to which said jaws are secured by means of studs *b*, projecting from the said boxes, and which are actuated by the screws C.

As here represented, the adjusting-screws C are provided with bevel-pinions D′, which may all engage with a bevel-toothed ring, so as to render the operation of all the jaws simultaneous, in a manner common in universal chucks; but my invention is equally applicable to chucks in which each holding-jaw is adjusted independently.

The construction of the adjusting-screws C and sliding boxes D is the same as in chucks commonly in use, and hence a further description thereof is unnecessary.

In order to provide for chucking articles of different forms, the two ends of the holding-jaws B B′ are differently shaped, and by unscrewing the nut E from the stud *b*, by which each jaw is secured to its sliding box, the jaw may be reversed and its outer end brought to bear upon the work in chucking.

In order to prevent the inner ends of the holding-jaws from springing outward from the face of the chuck as they are brought to bear on the work, it is desirable that the connection between the sliding box and jaw should be as near the inner end of the jaw as possible in whichever position the jaw is placed. In order to provide for this I furnish each holding-jaw with two sockets, F F′, one near each end of the jaw.

When the jaws are in the position of the jaws B the stud *b* and nut E fit in the socket F; but when they are reversed, like the jaw B′, the said stud and nut fit in the socket F′.

By my invention the inner end of the holding-jaws are at all times held closely against the face of the chuck, and their tendency to spring outward is counteracted, and the accuracy of the work performed is much increased.

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

The combination, in a chuck, with the ad-

justing-screws and sliding boxes for said screws, of reversible holding-jaws, each secured to its sliding box by means of a stud and nut, and each provided in its face with two sockets, one near each end of the jaw, in either of which said stud or nut may fit, so that in whichever position the jaw is used the stud of the sliding box is near its inner end, substantially as specified.

JOHN H. WESTCOTT.

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