

F. E. & F. O. WELLS.
Screw-Cutting Dies.

No. 199,673.

Patented Jan. 29, 1878.

Fig. 1.

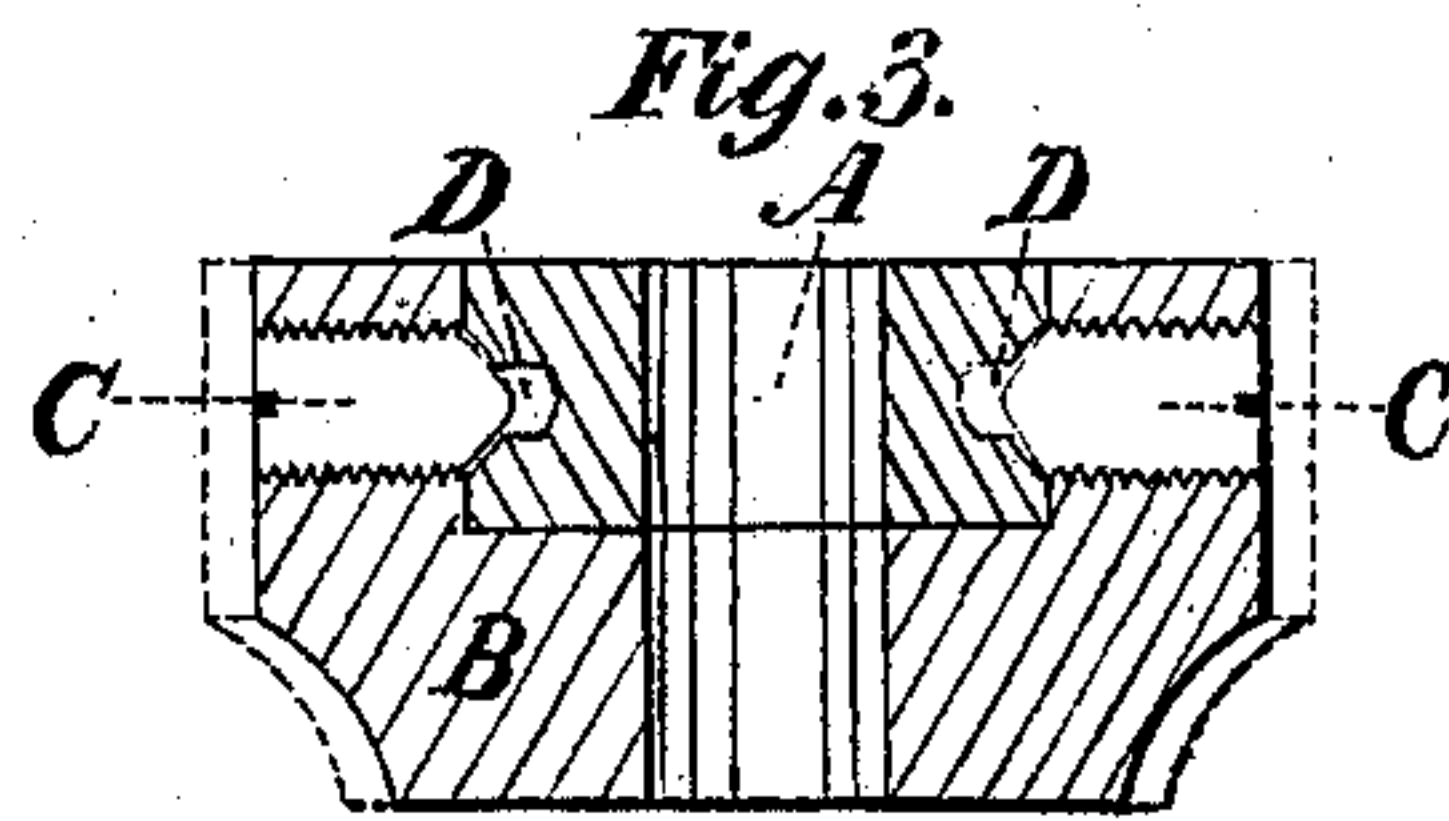
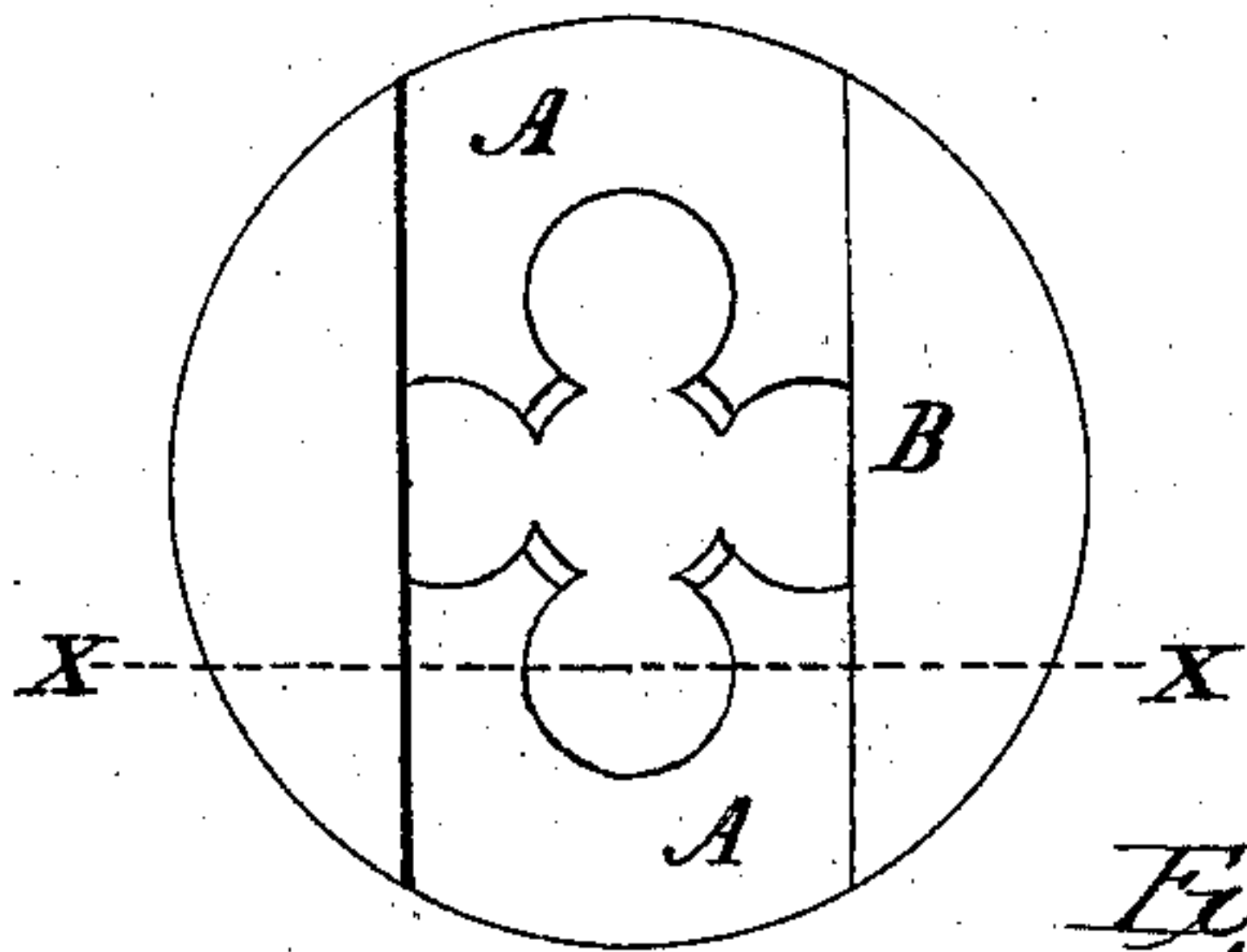


Fig. 6: A

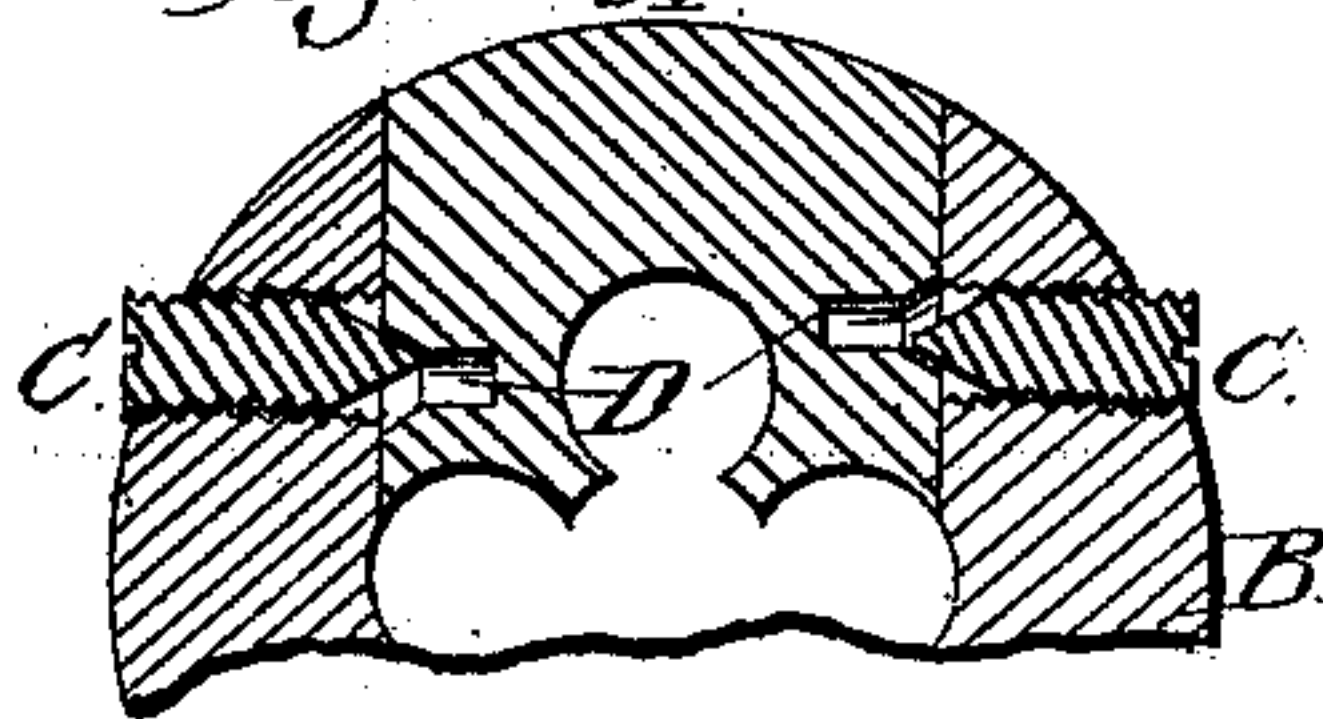


Fig. 2.

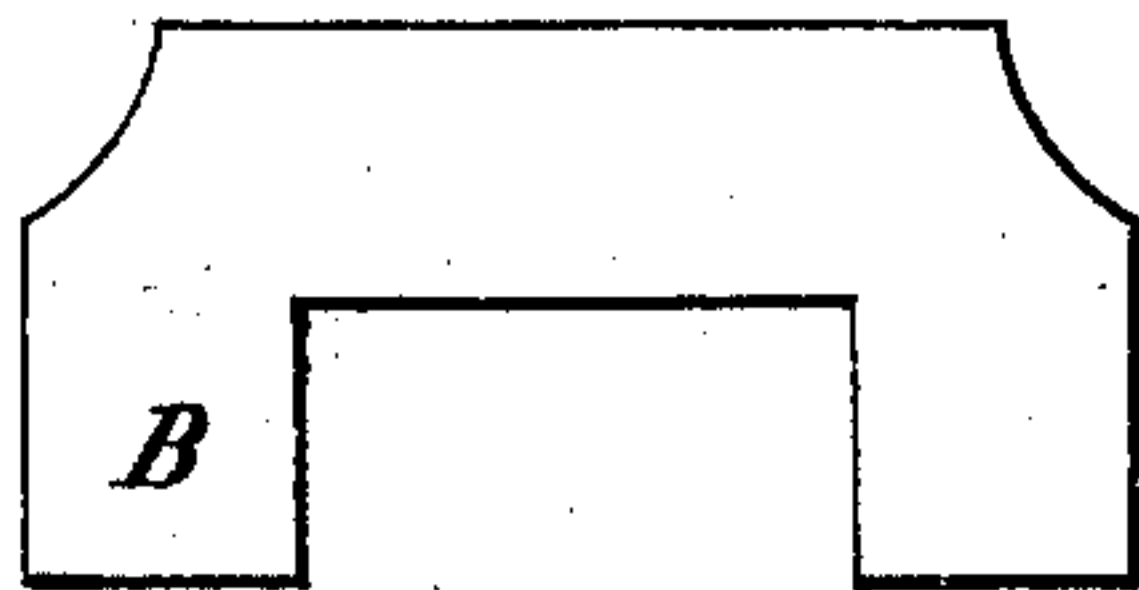


Fig. 5.

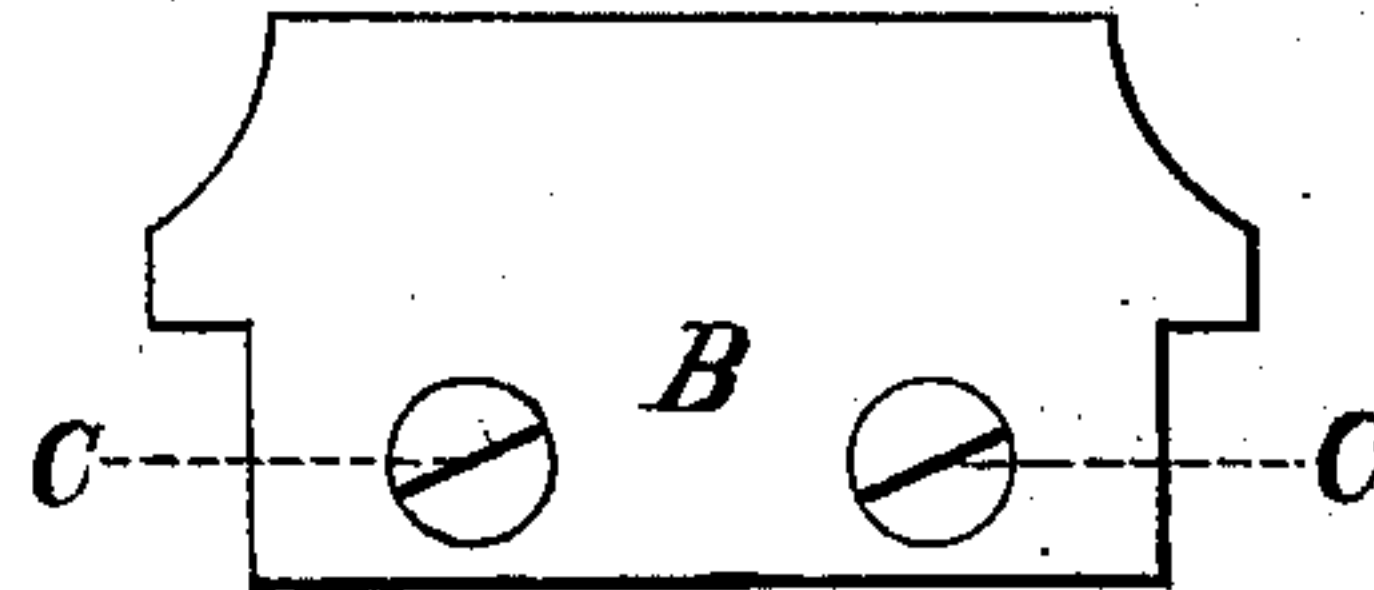
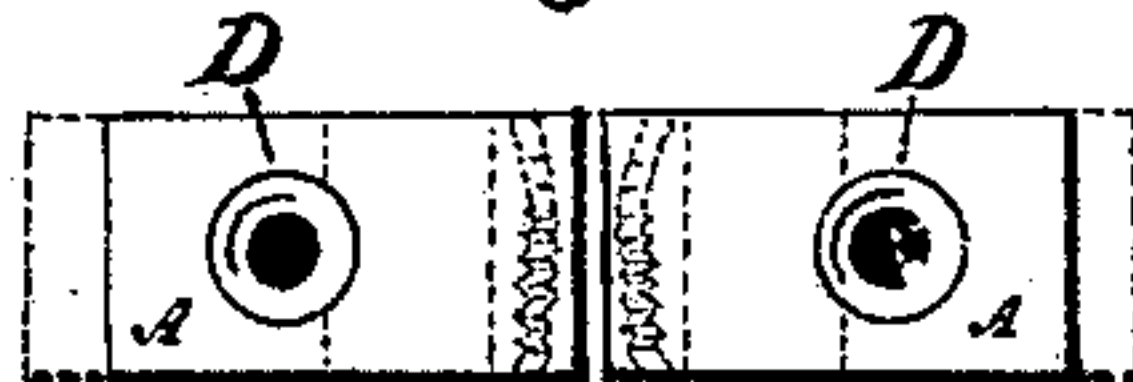


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERIC E. WELLS AND FRANK O. WELLS, OF GREENFIELD, MASS.

IMPROVEMENT IN SCREW-CUTTING DIES.

Specification forming part of Letters Patent No. **199,673**, dated January 29, 1878; application filed June 16, 1877.

To all whom it may concern:

Be it known that we, FREDERIC E. WELLS and FRANK O. WELLS, both of Greenfield, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Screw-Thread-Cutting Dies; and we do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference thereon.

Like letters in the figures indicate the same parts.

Our invention relates to that class of tools used for cutting screw-threads upon bolts; and consists in the manner of adjusting the dies to the proper size, and holding them in place.

In the accompanying drawings, Figure 1 is a top view of the dies arranged in the die-holder. Fig. 2 is a side view of the die-holder, and shows two of the screws used for holding and adjusting the dies. Fig. 3 is a vertical section taken on the line *xx*, Fig. 1. Fig. 4 is a side view of the dies removed from the holder. Fig. 5 is an end view of the die-holder. Fig. 6 is a sectional view through the cavities and screws.

A represents the dies; B, the die-holder; C, the screws for adjusting and holding the dies, the points of which are screwed into cavities in the sides of the dies; D, the cavities in the sides of the dies, which are conical, one being on each side of each die.

The screws for holding and adjusting the dies pass through the cavities C and enter cavities D. The former are all equidistant from the center of the dies; but not so with the latter, the cavity on one side being nearer the center than the corresponding cavity on the other side, and so that the point of the screw, when screwed in, impinges, on one side, on the side of the cavity in the die nearer the center, and the point of the other screw impinges on the side of the cavity farther from the center, the same being true in respect to both dies.

To adjust the dies smaller, screw in the screws that press on the sides of the cavities nearest the center of the dies; and to adjust them larger, screw in the screws that press on the sides of the cavities farthest from the center of the dies, loosening and tightening each opposite screw before and after each operation.

What we claim as our invention is—

The combination and arrangement of the dies, the holder, and the screws, in the manner substantially as shown and described.

In testimony that we claim the foregoing we have hereunto set our hands this 5th day of June, 1877.

FREDERIC E. WELLS.
FRANK O. WELLS.

Witnesses:

D. S. SIMONS,
T. D. PARK.