H. W. OSTER.

DIE STOCK.

APPLICATION FILED MAY 27, 1909.

965,404. Patented July 26, 1910.

Fig. 1

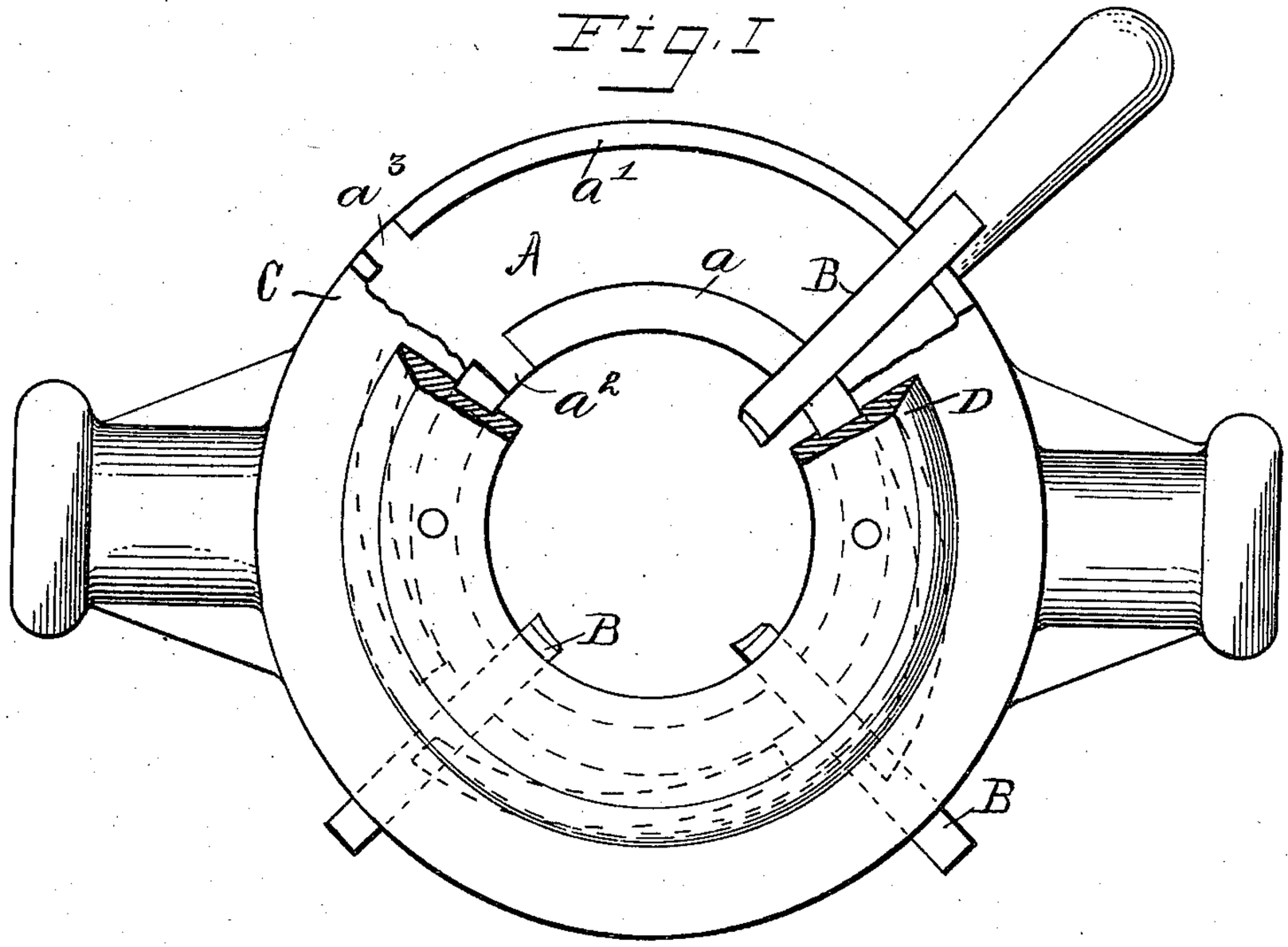
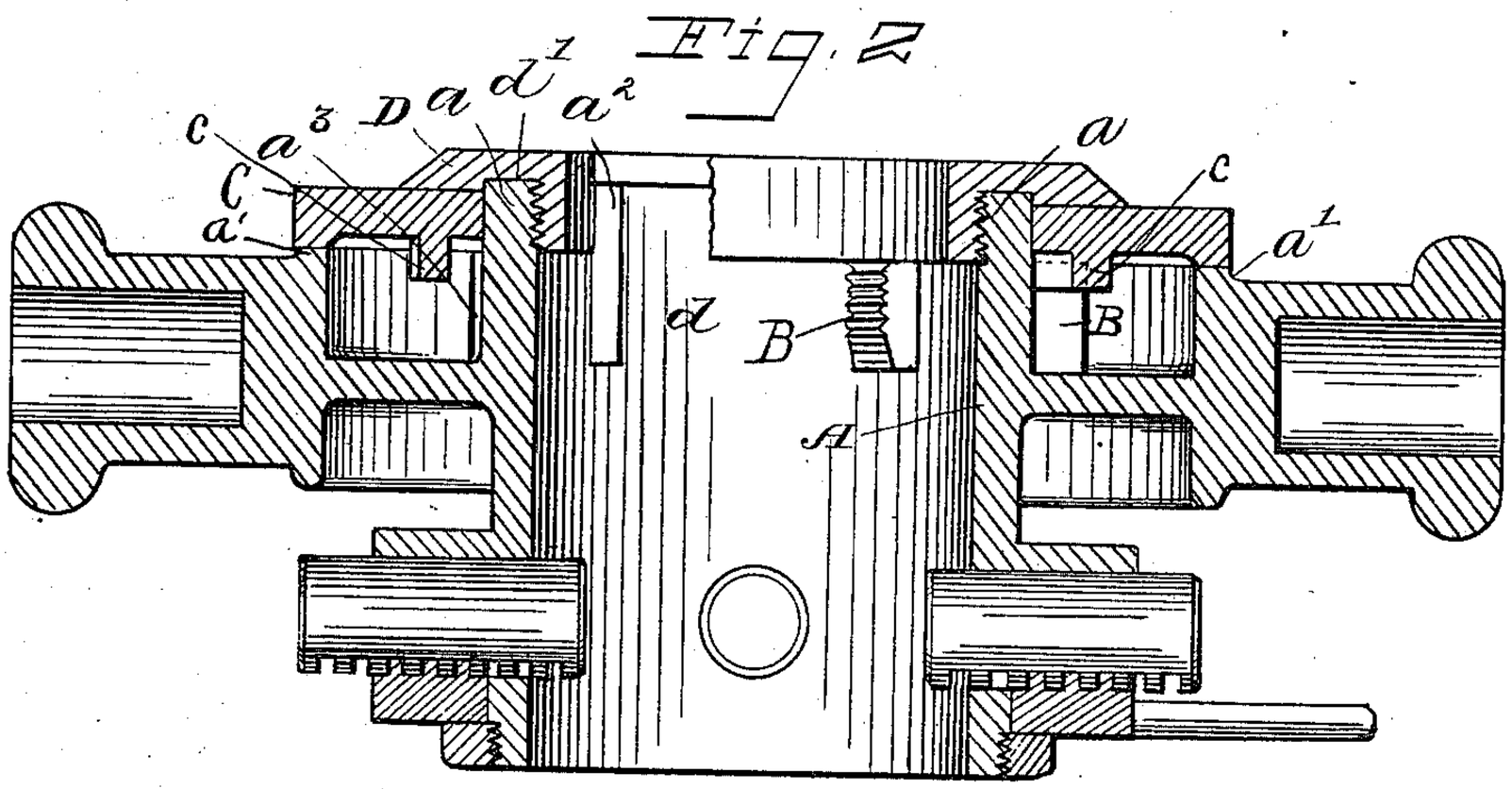


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

HERMAN W. OSTER, OF CLEVELAND, OHIO, ASSIGNOR TO THE OSTER MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

DIE-STOCK.

965,404. Specification of Letters Patent. Patented July 26, 1910.

Application filed May 27, 1909. Serial No. 498,758.

To all whom it may concern:

Be it known that I, HERMAN W. OSTER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Die-Stocks, of which the following is a full, clear, and exact description.

The object of this invention is to provide a die stock so constructed that if the guide-ways for the dies are accurately constructed to fit the dies, they will continue to fit after the parts of the die stock are assembled and while the die stock is in use.

The invention consists in the combination with the die stock body having a forwardly projecting cylindrical flange, in which radial slots extending from its end rearward are cut to serve as guide-ways for the dies, a cam plate rotatably mounted upon this cylindrical flange and engaging the dies, and a cap ring which screws into this flange and has an annular groove in its inner face into which the end of a slotted cylindrical flange projects, whereby any springing of the flange sections inward or outward is effectually prevented.

In the drawing Figure 1 is a front end view of a die stock embodying the invention when a part of the cap plate D and cam plate C are broken away; and Fig. 2 is a central longitudinal sectional view of the same with a small portion of the cap plate broken away, and with one die B removed.

Referring to the parts by letters, A represents the body of the die stock having at its front end the forwardly projecting cylindrical flange *a*, and, concentrically located outside of and at a distance therefrom, the other cylindrical flange *a'* which is shorter than the flange *a* by a little more than the thickness of the cam plate C. Radial slots a^2, a^3 are cut in these two flanges *a* and *a'* respectively, from their front ends inward a suitable distance, and these slots serve as guide-ways in which the dies B are radially movable. These guide-ways should be of such width that the dies B fit nicely in them and have no lateral play. Especially is this true of the guide-slots a^2 in the inner flange *a*.

C represents a cam plate of ordinary construction, as, for example, one with cam scrolls *c* on its rear face, for engagement with notches in the edges of the dies, whereby the dies may be moved inward and outward by the turning of said cam plate. It is rotatably mounted upon the slotted cylindrical flange *a*, and bearing against a front end of the flange *a'*. In order to get the best and most accurate results this cam plate must be a nice moving fit upon the flange *a*,—that is to say, it must be incapable of any lateral movement and yet must turn easily.

D represents a cap plate which is in the form of a ring having a rearwardly projecting annular flange *d* which is externally threaded and is adapted to screw into the threaded end of the slotted cylindrical flange *a* of the die stock. In the under or rear face of this plate is an annular groove *d'* into which, when said plate has been screwed into the proper position, the front ends of the slotted cylindrical flange *a* will project and fit. With the described construction the segments of the cylindrical flange *a*, formed by slotting the same, as stated, to form guide-ways for the dies, can neither be distorted inwardly, which would result in contracting the slots a^2 upon the dies, nor outwardly, which would result in enlarging the slots for the dies, and also so enlarge the diameter of the flange *a* that it would make the turning of the cam plate difficult, if not impossible.

Having described my invention, I claim:

In a die stock, the combination of the body thereof having a forwardly projecting cylindrical flange which is internally threaded and has a plurality of radial slots extending from the front end of said flange inward a suitable distance, a cam plate rotatably mounted upon this slotted cylindrical flange, radially movable dies mounted in said slots and operatively engaging said cam plate, and an annular cap having a rearwardly projecting and externally threaded portion which screws into the slotted flange and which also has on its inner face an annular groove into which the end of said slotted flange projects when said cap has been screwed into place.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

HERMAN W. OSTER.

Witnesses:
H. R. SULLIVAN,
E. L. THURSTON.