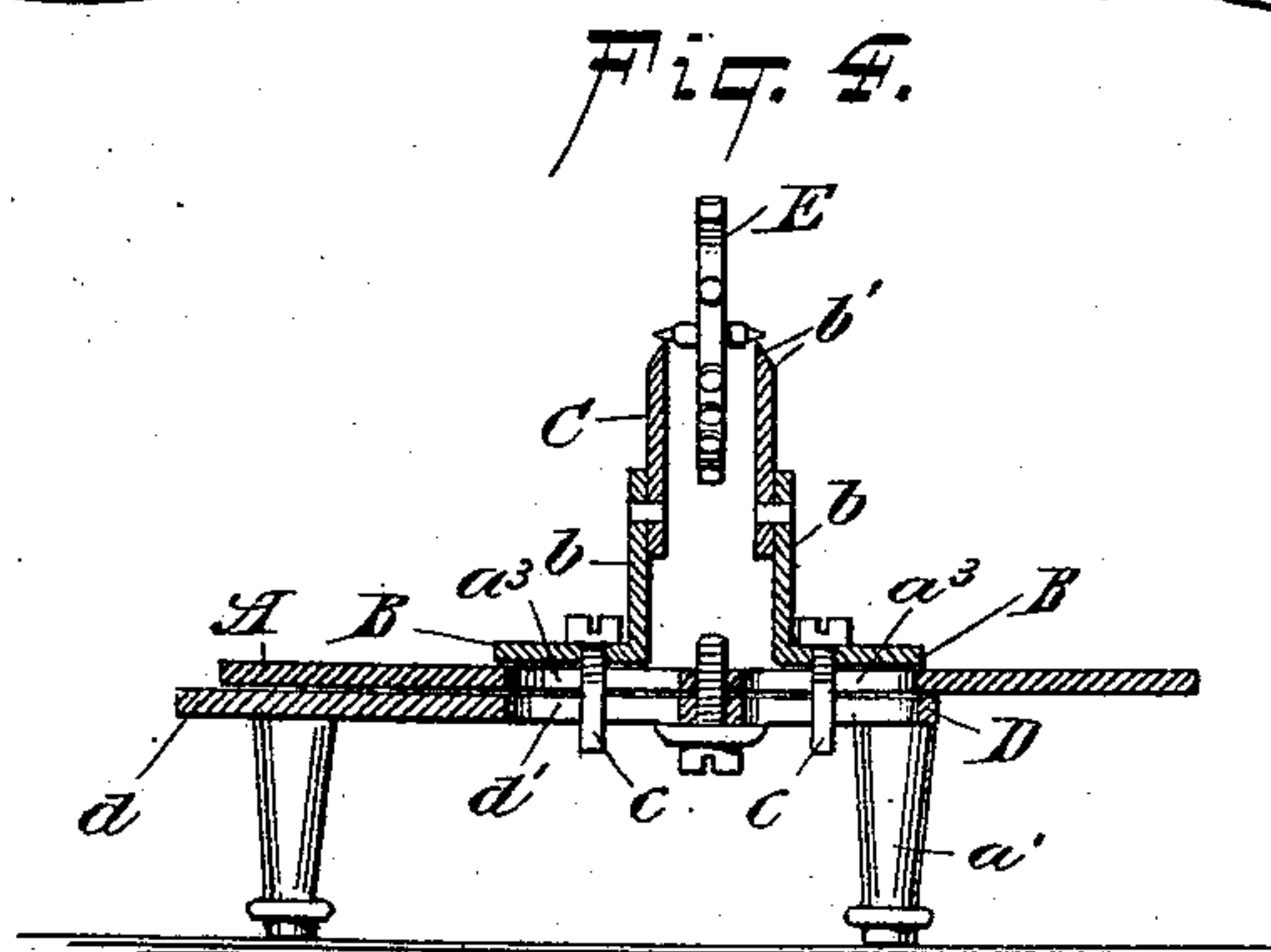
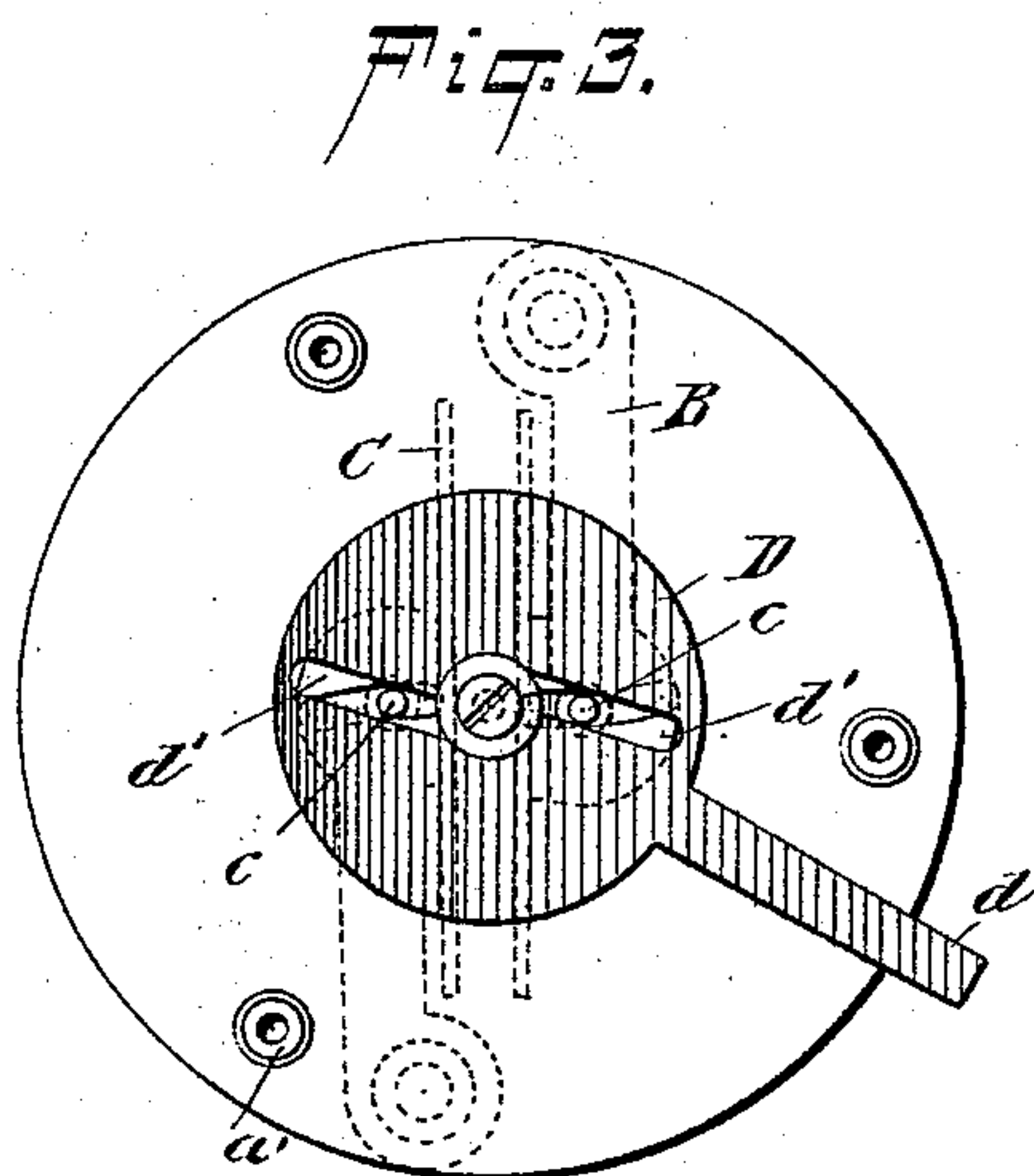
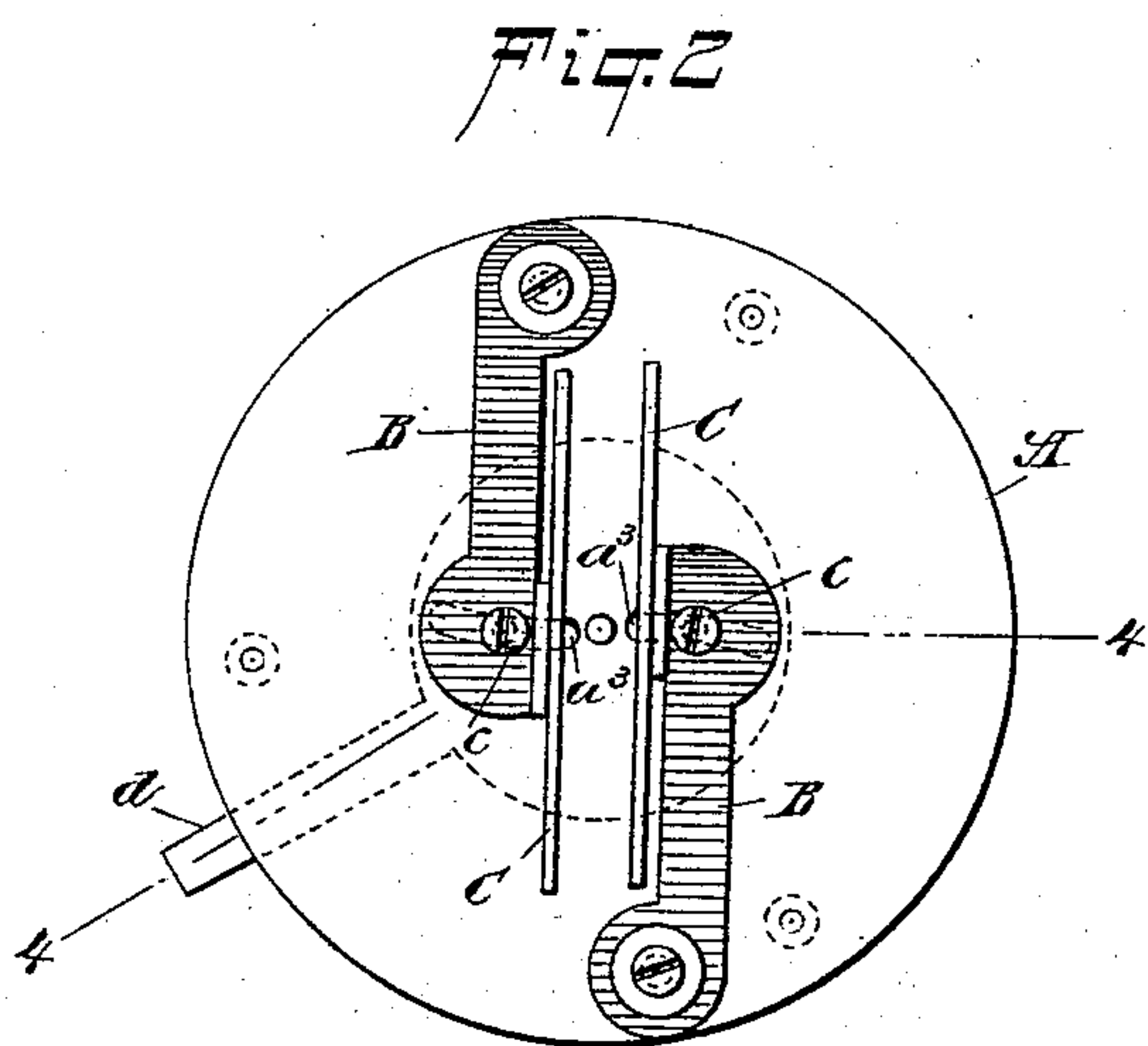
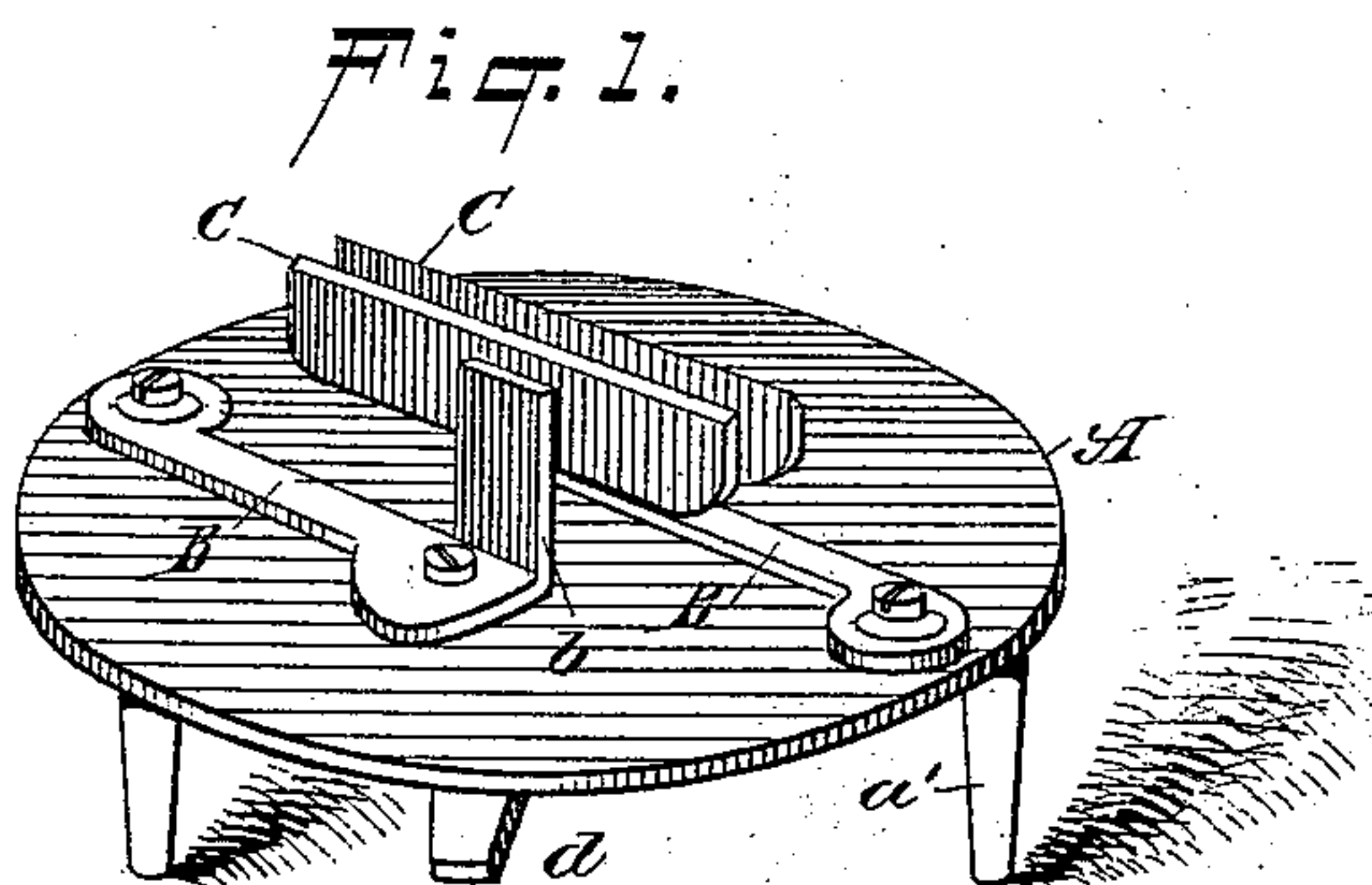


(No Model.)

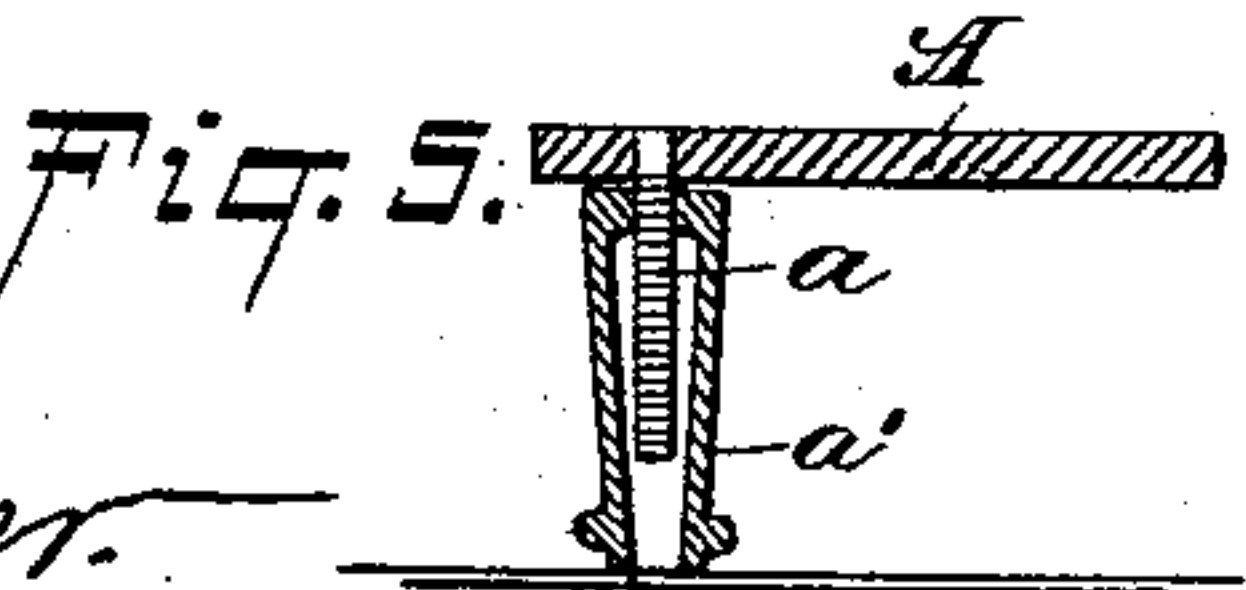
C. H. LANDGRAF.
WATCHMAKER'S POISING TOOL.

No. 529,178.

Patented Nov. 13, 1894.



WITNESSES:
William Goebel.
Simon J. Cooper.



INVENTOR
Carl H. Landgraf
BY George Cook.
ATTORNEY.

UNITED STATES PATENT OFFICE.

CARL H. LANDGRAF, OF NEW YORK, N. Y., ASSIGNOR TO HENRY ZIMMERN & CO., OF SAME PLACE.

WATCHMAKER'S POISING-TOOL.

SPECIFICATION forming part of Letters Patent No. 529,178, dated November 13, 1894.

Application filed June 1, 1894. Serial No. 513,119. (No model.)

To all whom it may concern:

Be it known that I, CARL H. LANDGRAF, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Poising-Tools for Watchmakers, of which the following is a specification.

My invention relates to an improvement in poising tools for watch makers, and more particularly to tools or devices used by watch makers for truing the balance wheel of a watch movement, the object of the invention being to provide an article of this kind which shall be simple and cheap to construct, and effective in use, and by means of which the slightest deviation in the poise or balance of the wheel may be detected, and with these and other ends in view, my invention consists in certain novel features of construction and combinations of parts as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a view in perspective of a poising tool constructed in accordance with my invention. Fig. 2 is a top plan view thereof. Fig. 3 is a bottom plan view thereof. Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2. Fig. 5 is a sectional view taken through one of the legs or standards.

Referring to the drawings A represents the bed plate or table of the device, preferably constructed of a circular piece of metal. Formed on or secured to the under side of this circular disk are three pins α onto which latter are threaded the legs or standard α' , by means of which the support or bed plate may be lengthened or shortened at will, in order to allow of the unevenness, or possible slant, of the work bench or table, and admit of the disk A being brought to a true level.

On the upper surface of the disk A and near the outer edge thereof are pivoted the two arms B, said arms being pivoted upon opposite sides of the center of said disk, and at points equally distant therefrom. The inner free ends of these arms B are curved or bent upwardly as shown at b , and have formed thereon or secured thereto the supports C, preferably provided with knife edges b' as shown in Fig. 4 to prevent as much friction

as possible when the balance wheel is supported and revolved thereon.

It will be understood that by pivoting the arms B at equally distant points and upon opposite sides of the center of the disk A, the supports C will always remain parallel when caused to travel toward or away from each other, if moved simultaneously and over the same extent of surface. In order to operate these supports I pivot to the under side or surface of the plate A and concentrically therewith a disk D, provided with the lever or handle d , and with elongated slots d' on opposite sides of the center of said disk and parallel with each other. In the disk A are also formed the slots α^3 curved in opposite directions and upon opposite sides of the center, through which slots α^3 and d' are passed the pins or screws c , the latter being also passed through the inner or free end of the arms B.

It will be understood from the above description that upon turning the lever or handle d the pins c are caused to simultaneously travel toward or away from the center of the disk A, this movement being also imparted to the supports C through the medium of the arms B, said supports consequently moving toward or away from each other in parallel planes. In practice these supports C are adjusted to within the proper distance of each other in order to allow the extreme ends of the shaft of the balance wheel E (Fig. 4) to rest on the knife edges thereof, and by slightly revolving said wheel E the perfect balance thereof may be determined and effected, as will be readily understood by those skilled in the art.

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

1. In a poising tool the combination with the table or support A, of the adjustable supports C adapted to move toward or from each other in parallel planes, a disk D provided with a handle or lever and indirectly connected with said supports C, substantially as described.

2. In a poising tool the combination with the disk A, of the arms B pivoted to said disk A and upon opposite sides and equally dis-

tant from the center thereof, supports C secured to said arms B and a disk D pivoted to said disk A and adapted to simultaneously adjust said supports toward or away from each other in parallel planes, substantially as described.

3. In a poising tool the combination with the disk A, of the arms B provided with support and pivoted from opposite sides of and at points equally distant from the center of said disk, a disk D provided with a handle or

lever and pins passing through said arms B and through slots formed in said disks A and B, substantially as described.

Signed at New York, in the county of New York and State of New York, this 24th day of May, A. D. 1894.

CARL H. LANDGRAF.

Witnesses:

M. J. LAMPERT,
GEORGE COOK.