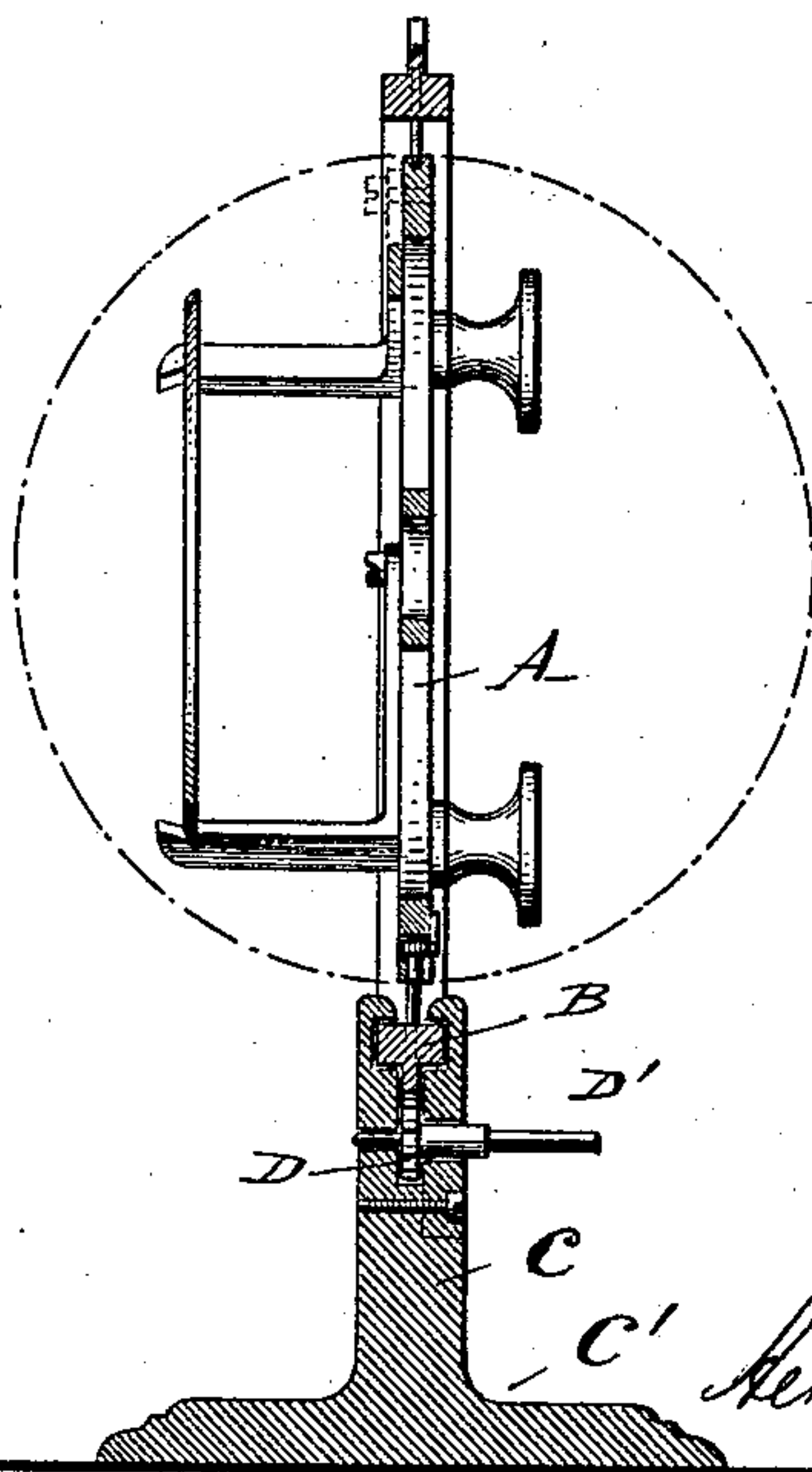
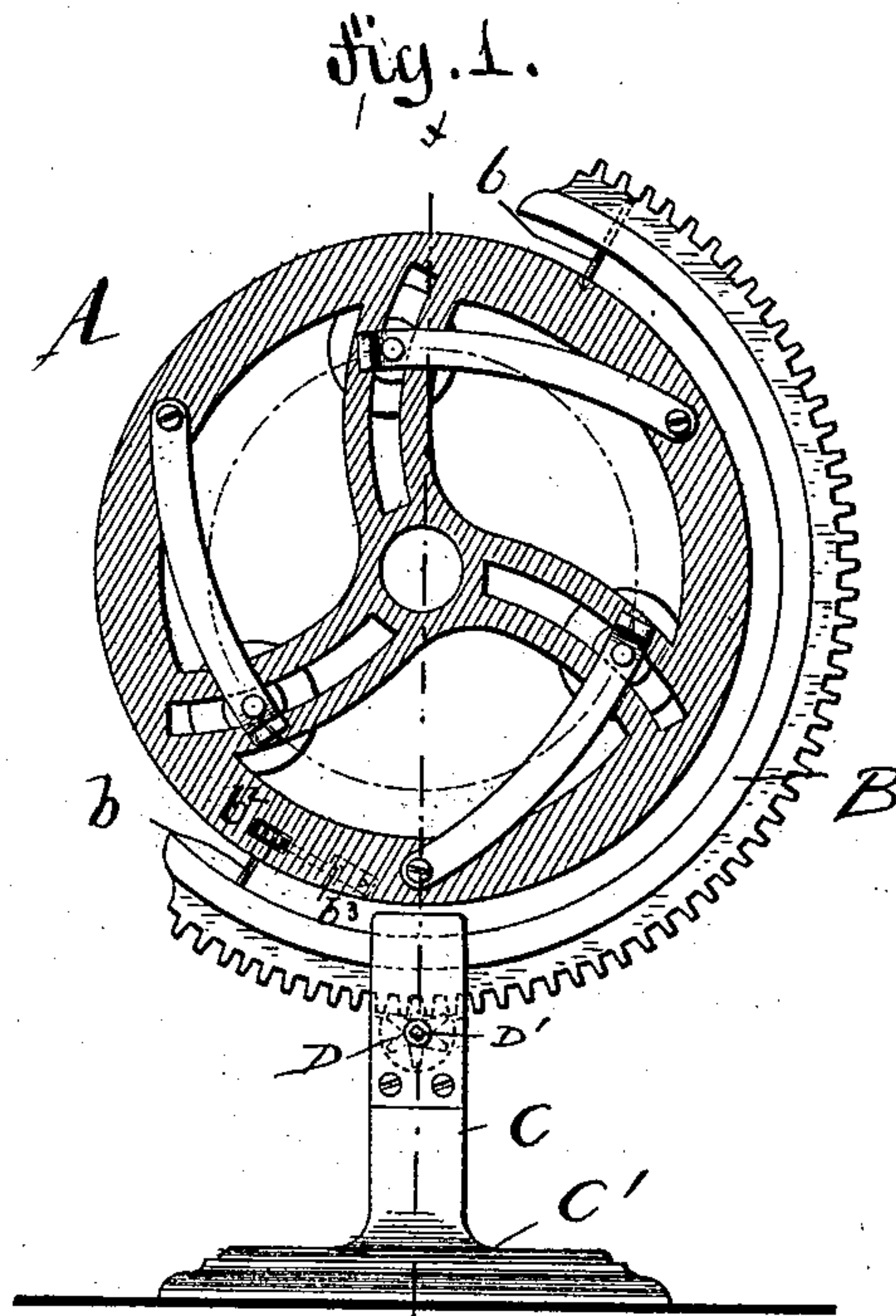


(No Model.)

H. HEIDENREICH.  
WATCH MOVEMENT HOLDER.

No. 407,481.

Patented July 23, 1889.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HEINRICH HEIDENREICH, OF NEW YORK, N. Y., ASSIGNOR TO HENRY ZIMMERN, OF SAME PLACE.

## WATCH-MOVEMENT HOLDER.

SPECIFICATION forming part of Letters Patent No. 407,481, dated July 23, 1889.

Application filed April 24, 1889. Serial No. 308,381. (No model.)

*To all whom it may concern:*

Be it known that I, HEINRICH HEIDENREICH, of the city, county, and State of New York, a citizen of the Empire of Germany, have invented certain new and useful Improvements in Watch-Movement Holders, of which the following is a specification.

This invention relates to an improved holder for watch-movements to be used by watch-makers and others in repairing watches, said holder being so arranged that the movement can be held in any position and at any suitable inclination, as required, for inspecting and handling the same; and the invention consists of a watch-movement holder composed of a movement-holder proper, which is pivoted at diametrical opposite points to a toothed segment and secured thereto and retained in position thereon by a pawl-and-ratchet device, the supporting-segment being again adjusted by a pinion meshing with the toothed circumference of the segment and supported in bearings of the supporting-standard in which the segment is guided.

In the accompanying drawings, Figure 1 represents a side elevation of my improved watch-movement holder. Fig. 2 is a vertical transverse section of the same on line  $x x$ , Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a holder for watch-movements of any approved construction, that shown in the drawings being formed of a main plate having arc-shaped slots, through which clamping-posts pass that are retained by set-screws. The posts are made integral with arms extending at right angles thereto, which arms are pivoted equidistantly from each other to the main plate of the holder at the circumference, as shown in Fig. 1. The movement is placed between the recessed ends of the posts and retained firmly between the same after setting the posts to the circumference of the movement by tightening the clamping-screws of the posts to the main plate.

The watch-movement holder described is well known and forms no part of my invention.

The main plate of the watch-movement holder A is pivoted at diametrically-opposite points to fixed pins  $b$  of a toothed segment B, the end of one pin being conically tapered, while the end of the other pin is provided with a pinion  $b^2$ , that projects through a recess or slots of the main plate A, said pinion being engaged by a spring-pawl  $b^3$ , attached to the main plate A, the pinion and pawl serving to retain the watch-movement A at any suitable inclination to the plane of the segment B, according to the position required by the watch-movement.

The segment B is supported in guideways of a post C, provided with a base  $C'$ , which serves to support the entire device. The outer circumference of the segment B is toothed, the toothed portion being of less thickness than that portion guided in ways of the standard C. The toothed circumference of the segment B meshes with a pinion D, the shaft  $D'$  of which turns in bearings of the standard C, and is operated by a key applied to said shaft, or by a handle (not shown) applied permanently thereto. By turning the pinion the segment B may be adjusted in the guideways of the standard C, so as to move the segment B from a position near the vertical position into a horizontal position or more or less inclined position, and vice versa, and support thereby, in connection with the axial adjustment of the main plate of the movement-holder, the movement into any suitable position as required by the workman, so as to permit the inspection or adjustment of the movement in the proper light, &c. By thus supporting the movement in a position facilitating the adjustment of the same to any suitable angle or inclination toward the vertical or horizontal axis of the device, the work of assembling the parts of the movement in repairing, inspecting, and mounting the same is greatly facilitated and the usefulness of the holder thereby increased.

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

1. A watch-movement holder composed of a supporting-standard, a toothed segment guided in ways of said standard, a pinion for adjusting said segment, and a movement-

holder proper that is pivoted to said segment so as to be adjustable on its axis, substantially as set forth.

2. The combination of a supporting-stand-  
5 and having guideways, a toothed segment guided in said ways, a pinion meshing with the toothed circumference of said segment, and a movement-holding device that is piv-  
10 oted at diametrically-opposite points to said segment and provided with a pawl - and -

ratchet device for retaining the holding device at any suitable inclination to the segment, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in pres- 15  
ence of two subscribing witnesses.

HEINRICH HEIDENREICH.

Witnesses:

PAUL GOEPEL,  
MARTIN PETRY.