

No. 891,097.

PATENTED JUNE 16, 1908

W. E. PORTER.

MOVEMENT PLATE FOR WATCHES, CLOCKS, AND THE LIKE.

APPLICATION FILED NOV. 11, 1907.

Fig 1.

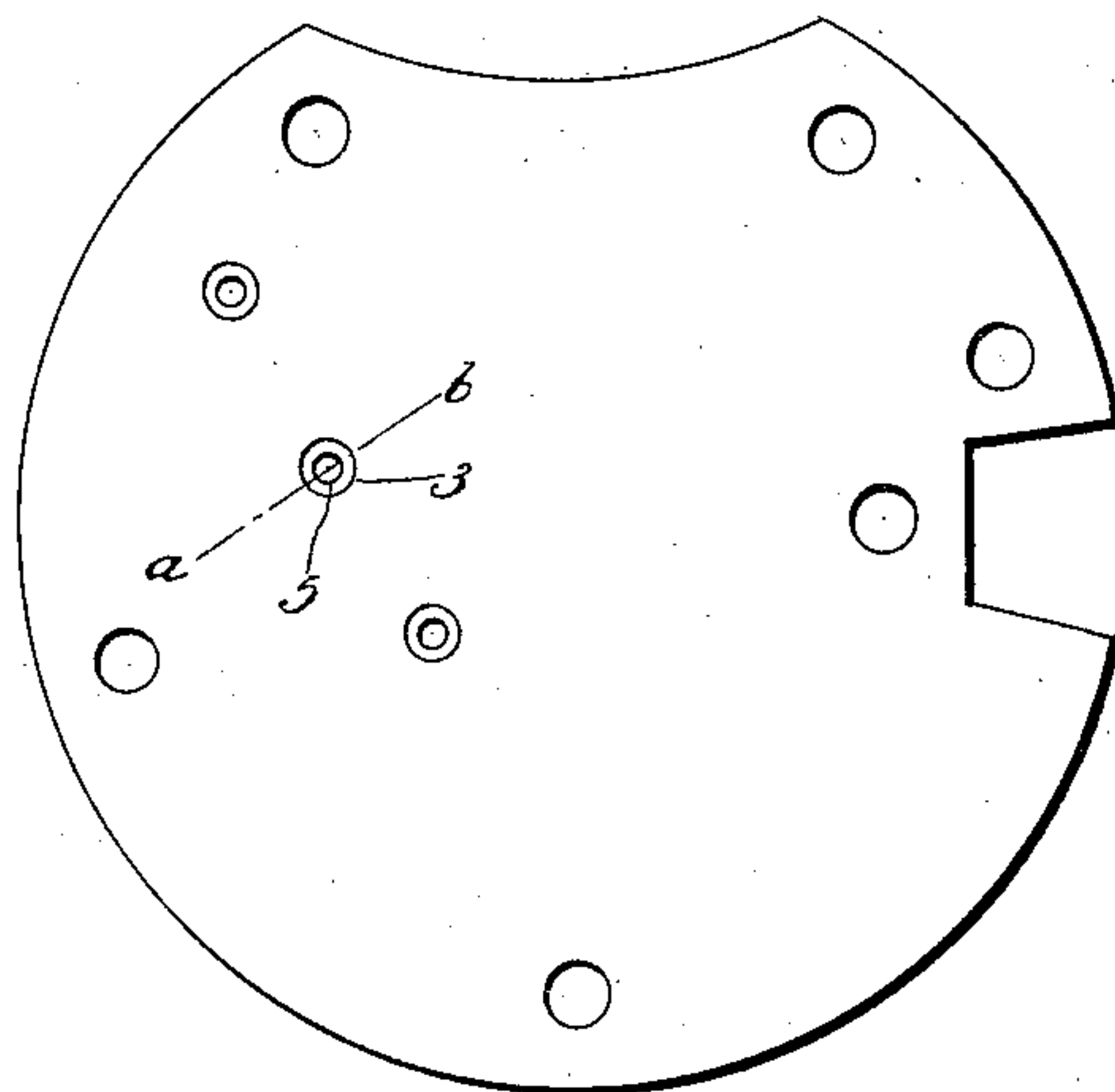
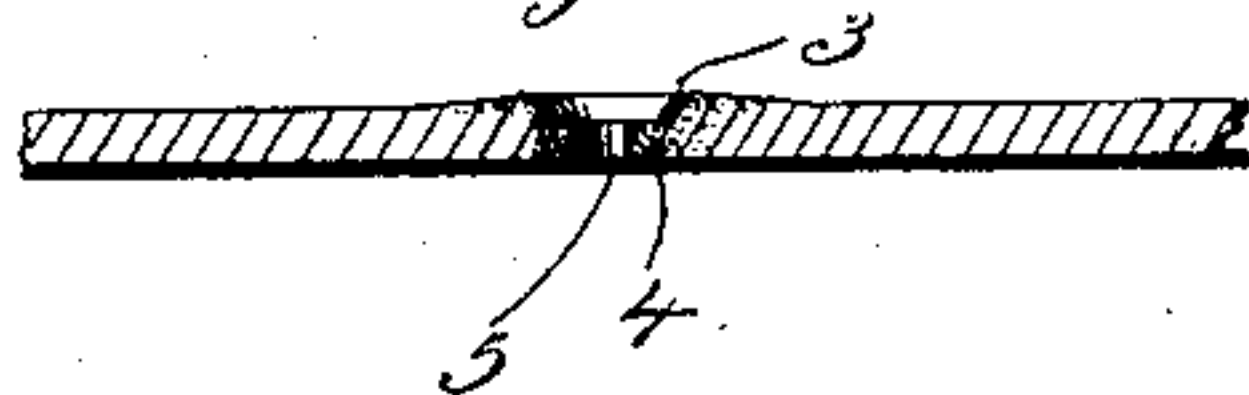


Fig 2.



Fig 3.



Witnesses
C. J. Reed.
G. A. Hatch

Wilson E. Porter
Inventor
by Seymour T. Carey
attys

UNITED STATES PATENT OFFICE.

WILSON E. PORTER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO NEW HAVEN CLOCK CO.,
OF NEW HAVEN, CONNECTICUT, A CORPORATION.

MOVEMENT-PLATE FOR WATCHES, CLOCKS, AND THE LIKE.

No. 891,097.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed November 11, 1907. Serial No. 401,700.

To all whom it may concern:

Be it known that I, WILSON E. PORTER, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Movement-Plates for Watches, Clocks, and the Like; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent in—

Figure 1 a view of a movement-plate showing it after it has been subjected to pressure in accordance with my invention preparatory to punching its pivot-holes. Fig. 2 a sectional view on an enlarged scale on the line *a—b* of Fig. 1. Fig. 3 a view on a corresponding scale showing the same part after it has been punched to form a pivot-hole through the hardened and thin area in the plate.

My invention relates to an improvement in movement-plates for watches, clocks and the like. Heretofore such plates have had their pivot-holes formed either by drilling or punching, drilling being resorted to in handling thick plates and drilling or punching in handling thin plates. The drilling of each pivot-hole separately is so time-consuming that it cannot be employed in cheap work, while it has been found not feasible in practice to punch holes in plates thicker than the diameter of the punch. To obviate the difficulty last mentioned it has been customary to remove by a "sweeping" tool a portion of the metal at each point to be punched so as to reduce the thickness of the plate to the diameter of the punch. The operation of "sweeping out" portions of the plate preparatory to punching the same is, however, not only expensive, but also one of extreme delicacy as the "sweeping" tool must be accurately made and kept accurately adjusted in order that its work may be uniform.

The object of my invention is to avoid the objections above recited and to produce a

movement-plate of superior character without resorting to "sweeping" it preparatory to punching it.

With these ends in view my invention consists in a movement-plate for watches, clocks and the like, the said plate having one or more hardened pivot-bearings integral with the body of the plate but thinner than the same, and each having a pivot-hole.

In carrying out my invention as herein shown, I subject the plate to pressure in lines at right angles to its plane to form isolated hardened areas 2 set below the outer surface of the plate and thinner than the body of the same, these areas being circular in form and surrounded by slightly elevated rims 3 produced by the setting back of the metal, as it were, under the action of the tool used to compress the plate. It will be understood that these hardened areas coincide with the pivot-holes required, the center of each circular hardened area being coincident with the axis of the pivot. Portions of the plate having been reduced in this way to a thickness at which it is feasible to employ a punch, the plates are punched in the ordinary way by punches set to perforate the centers of the hardened areas. In this way I secure a pivot-bearing 4 having a pivot-hole 5 which is formed in a portion of the plate integral with the body of the plate but thinner and harder than the same owing to the pressure to which this particular area has been subjected. I thus secure a very superior movement plate because the integral hardened areas virtually form bushings for the pivots.

I claim:—

A movement-plate for watches, clocks and the like, the said plate having one or more pivot-bearings made integral with the body of the plate and harder and thinner than the same.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WILSON E. PORTER.

Witnesses:

GEORGE D. SEYMOUR,
CLARA L. WEED.