

(No Model.)

G. E. HART.

WATCH MOVEMENT PLATE.

No. 364,110.

Patented May 31, 1887.

Fig. 1.

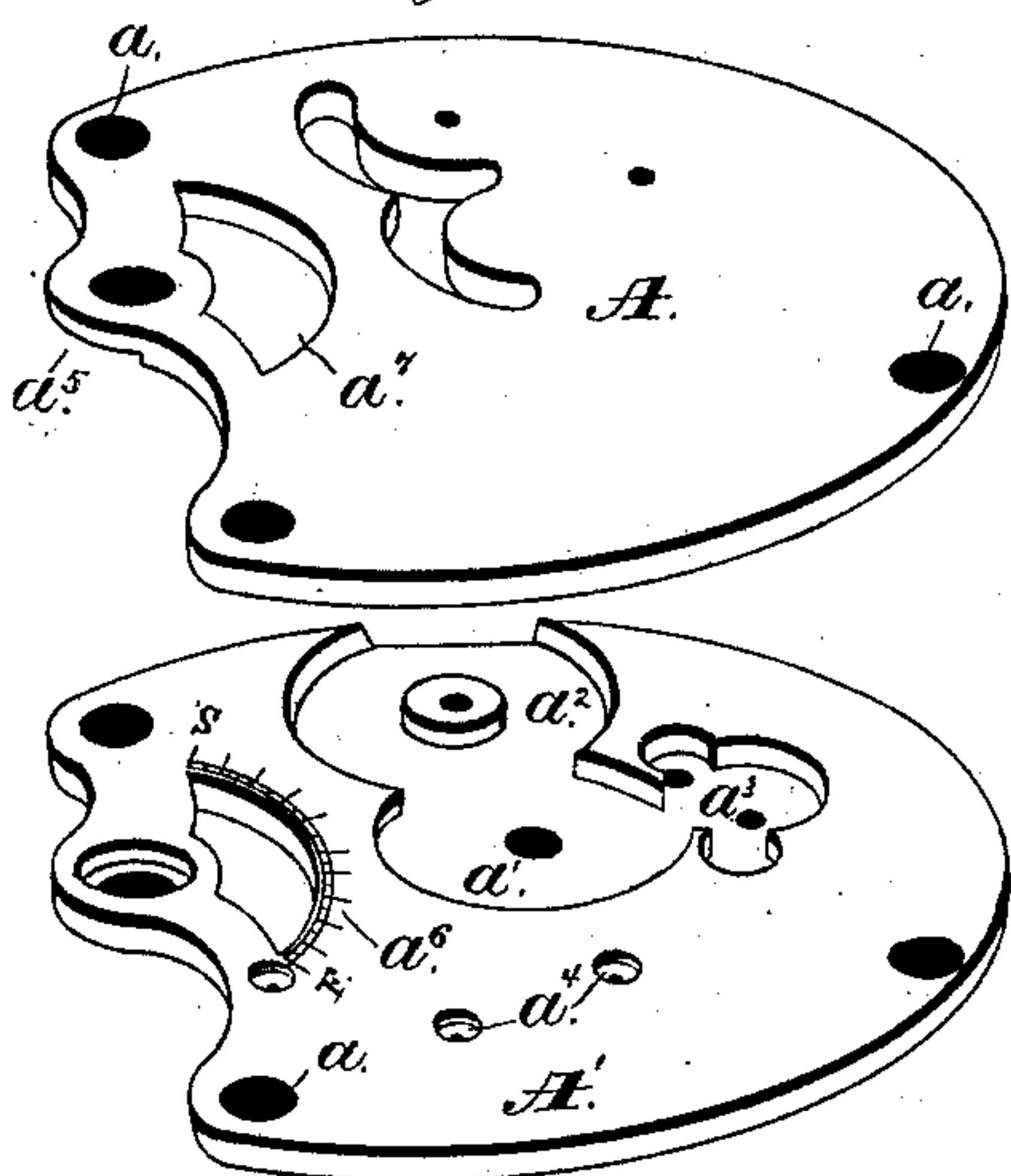


Fig. 2.

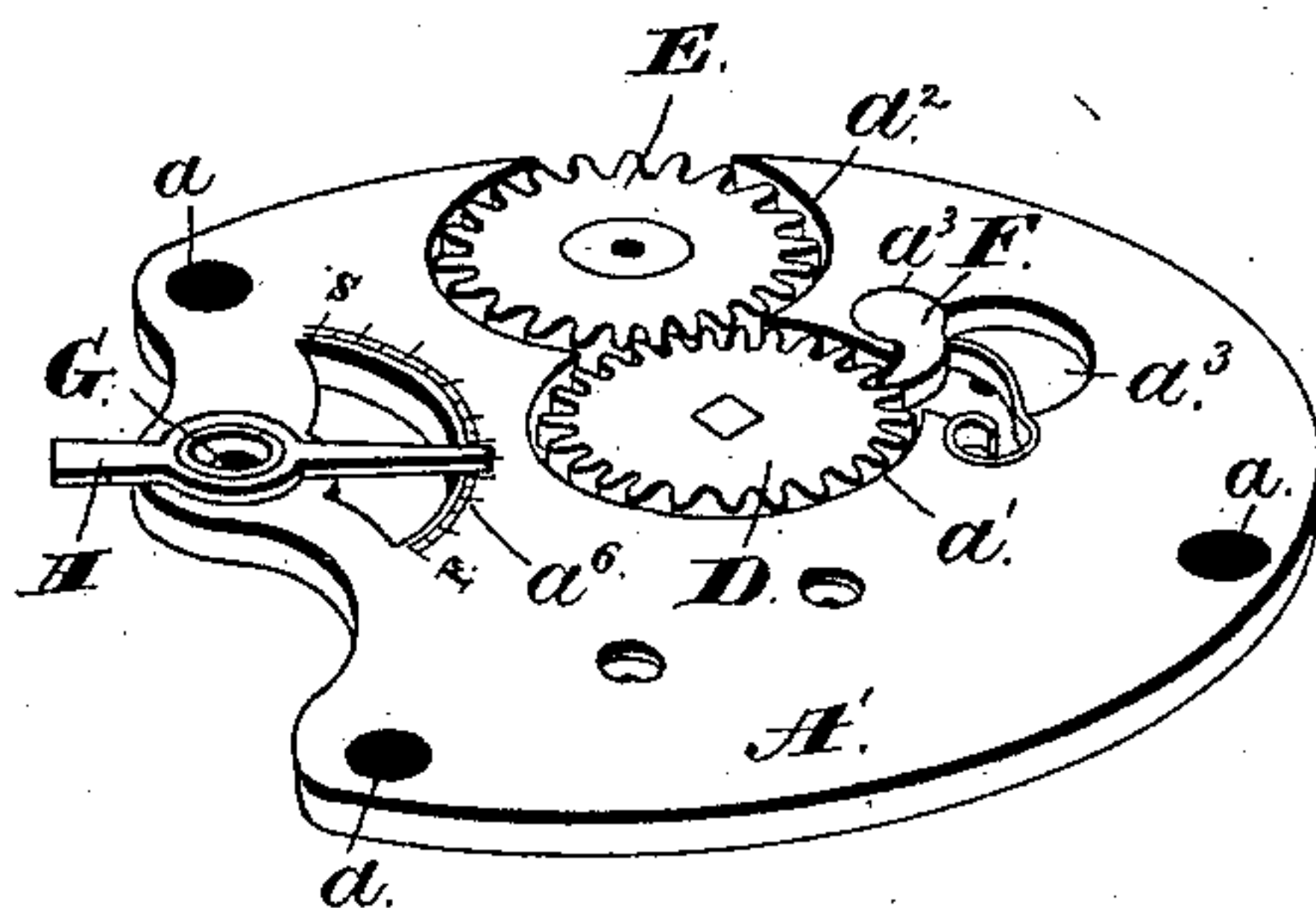


Fig. 3.

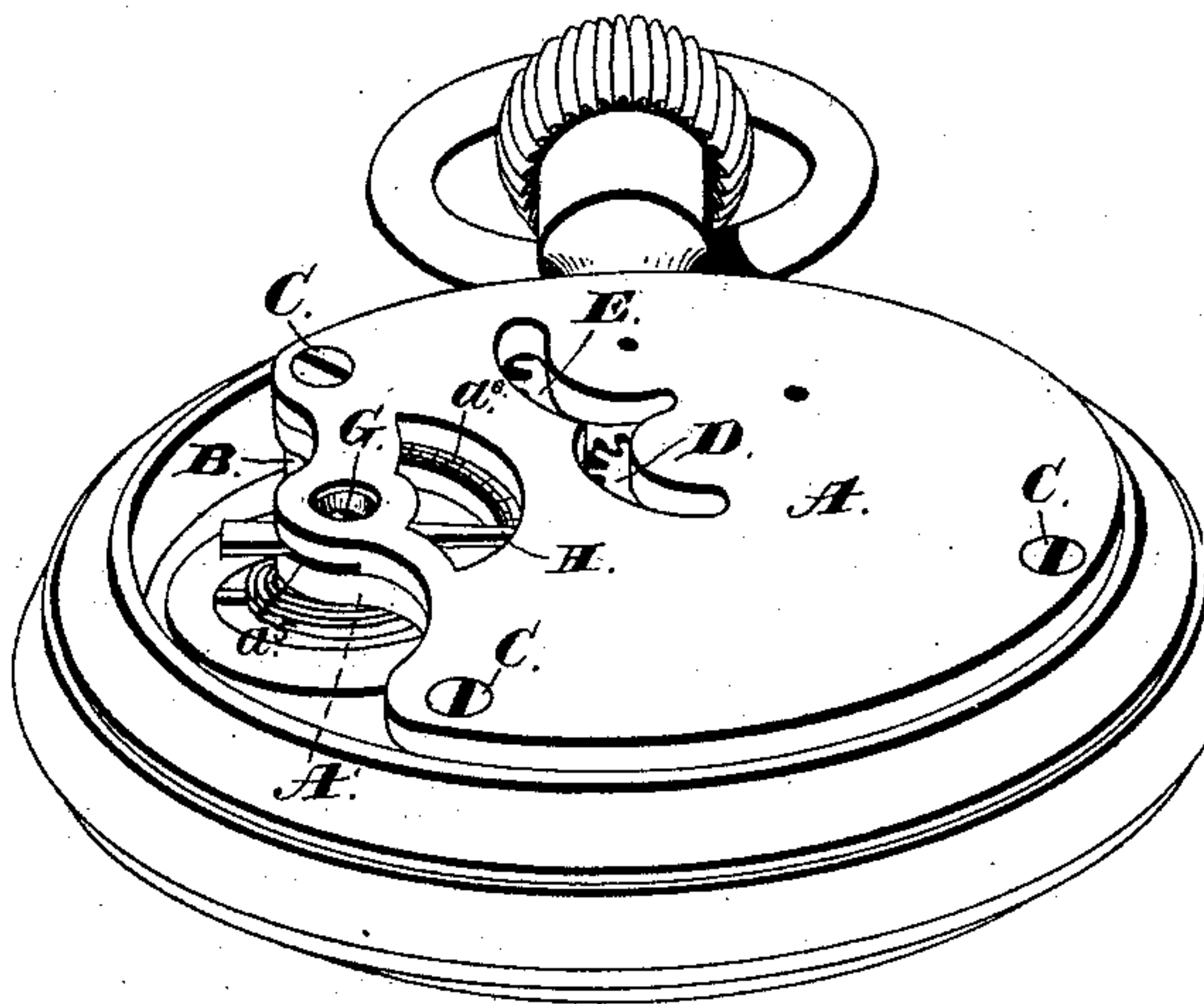


Fig. 4.

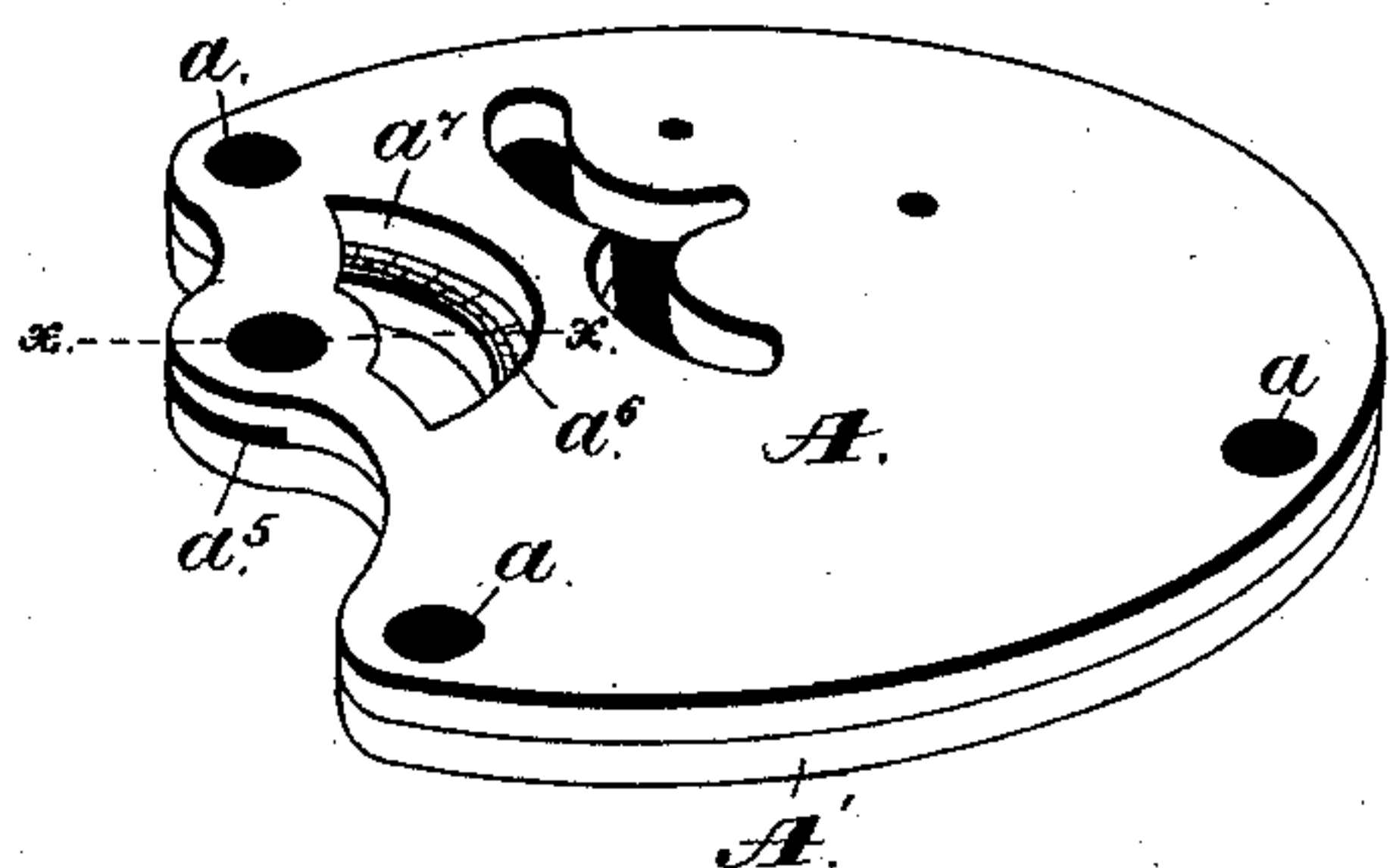
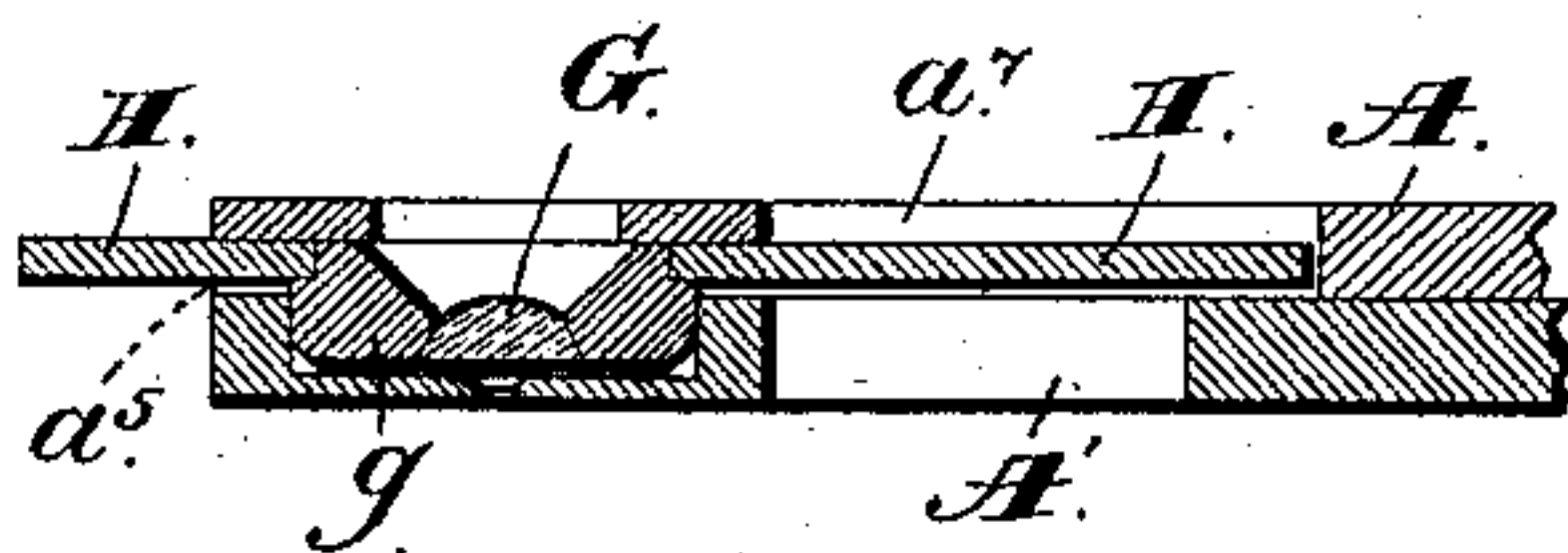


Fig. 5.



Witnesses:

Jas. C. Hutchinson.
Chas. J. Williamson.

Inventor.

Geo. E. Hart, by
Prindle & Russell, his Attys

UNITED STATES PATENT OFFICE.

GEORGE E. HART, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE
WATERBURY WATCH COMPANY, OF SAME PLACE.

WATCH-MOVEMENT PLATE.

SPECIFICATION forming part of Letters Patent No. 364,110, dated May 31, 1887.

Application filed September 6, 1886. Serial No. 212,833. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HART, of Waterbury, in the county of New Haven, and in the State of Connecticut, have invented certain new and useful Improvements in Watches; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the sections of my movement-plate separated from each other. Fig. 2 is a like view of the inner section, having in place the balance-jewel, regulator-arm, and winding-wheels. Fig. 3 is a perspective view of the sections when combined. Fig. 4 is a like view of the plate in position within a watch, and Fig. 5 is a section of the same upon line *xx* of Fig. 3.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to enable the balance-jewel, regulator, and winding-wheels of a watch to be easily secured in or removed from position; and to this end said invention consists, principally, as an improvement in watches, in a movement-plate composed of two flat sections which are adapted to be secured together with their inner faces in contact, in combination with each other and with a regulator that is pivoted between and projects from said sections, substantially as and for the purpose hereinafter specified.

It consists, further, as an improvement in watches, in a movement-plate which is composed of two superimposed separable sections, in combination with each other and with a regulator-arm and a balance-jewel that are placed between the sections and are held in place by the means employed for securing said sections together, substantially as and for the purpose hereinafter shown.

It consists, further, as an improvement in watches, in a movement-plate which is composed of two superimposed separable sections, in combination with each other and with a regulator that is pivoted at one end between said sections, and at its opposite outer end is adapted to be moved over a scale which is formed upon the inner section, substantially as and for the purpose hereinafter set forth.

It consists, further, as an improvement in watches, in a movement-plate which is composed of two superimposed separable sections, in combination with a regulator which has one end pivoted between said sections and its opposite outer end contained within a recess that is formed in the outer section and adapted to be moved over a scale which is provided upon the inner section, substantially as and for the purpose hereinafter shown and described.

It consists, finally, as an improvement in watches, in a movement-plate which is composed of two superimposed separable sections that are adapted to contain between their inner faces and to hold in operative position therein a regulator-arm, a balance jewel, and winding-wheels, in combination with said parts and with means for securing said sections together, substantially as and for the purpose hereinafter specified.

In the carrying of my invention into practice I cut by dies or construct in other ways two flat plates, A and A', which have the same size and shape of outline, and in such respect correspond to a movement-plate of usual construction when made for the movement for which said sections are designed.

The sections A and A' are provided with coinciding openings *a* near their peripheries, which fit over the reduced ends of movement-pillars B, and enable said sections to be held in relative lateral position and to be secured together and in place upon said pillars, for which purpose a screw, C, is passed downward into a threaded opening in each pillar, with its head extending over and bearing upon the outer face of the outer section, A. If desired, other means may be employed for securing said sections together, the principle being the same whatever fastening devices are used.

At suitable points within the outer face of the inner section, A', are provided recesses *a'*, *a''*, and *a'''*, for the reception of a mainspring-arbor winding-wheel, D, intermediate wheel, E, and winding-click F, which parts are contained therein, and are covered and held in place by the outer section, A. While said recesses are preferably formed entirely within said inner

section, they may, if desired, be partly formed within the same and in part within said outer section.

The inner section, A', contains the usual 5 pivot-openings, a^4 , and any or all of the same may be jeweled, if desired, in which event each jewel is placed within a suitable recess in said section, and is held in place by the outer section, A. The balance-jewel G, set in a metal 10 bushing, g , is thus arranged at a suitable point, and upon or around said bushing is pivoted one end of a regulator-arm, H. As said bushing projects above said inner section, and said regulator-arm is wholly above the same, said outer 15 section is provided within its inner face with a recess, a^5 , for their reception. As thus arranged, said jewel and regulator-arm are held in place by said outer section, and are free to be removed or replaced when said section is re- 20 moved.

The regulator arm H extends laterally over a scale, a^6 , which is provided upon the outer face of the inner section, A; and in order that said scale and arm may be seen and the latter rendered accessible, a suitable opening, a^7 , is cut 25 directly over the same in the outer section, A.

By means of the construction shown the winding-wheels, click, regulator, and jewels are securely held in place, while readily accessible, 30 and either or all of the same may be easily and quickly removed or replaced whenever necessary for the purpose of cleaning or repairs.

Having thus described my invention, what I claim is—

35 1. As an improvement in watches, a movement-plate composed of two flat sections, which are adapted to be secured together with their inner faces in contact, in combination with each other and with a regulator that is pivoted between and projects from said sections, substantially as and for the purpose specified. 40

2. As an improvement in watches, a move-

ment-plate which is composed of two super- 45 imposed separable sections, in combination with each other and with a regulator-arm and a balance-jewel that are placed between the sections, and are held in place by the means employed for securing said sections together, substantially as and for the purpose shown.

3. As an improvement in watches, a move- 50 ment-plate which is composed of two super-imposed separable sections, in combination with each other and with a regulator that is pivoted at one end between said sections, and at its opposite outer end is adapted to be moved 55 over a scale which is formed upon the inner section, substantially as and for the purpose set forth.

4. As an improvement in watches, a move- 60 ment-plate which is composed of two super-imposed separable sections, in combination with each other and with a regulator which has one end pivoted between said sections and its opposite outer end contained within a recess that is formed in the outer section and 65 adapted to be moved over a scale which is provided upon the inner section, substantially as and for the purpose shown and described.

5. As an improvement in watches, a move- 70 ment-plate which is composed of two super-imposed separable sections that are adapted to contain between their inner faces and to hold in operative position therein a regulator-arm, a balance-jewel, and winding-wheels, in combination with said parts and with means 75 for securing said sections together, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of August, 1886.

GEORGE E. HART.

Witnesses:

GEO. S. PRINDLE,
E. L. BRONSON.