(No Model.)

# R. J. CLAY.

## TOY WATCH.

No. 258,280. Patented May 23. 1882.

FIG. 1.

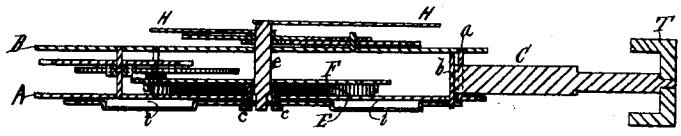



FIG. 2.

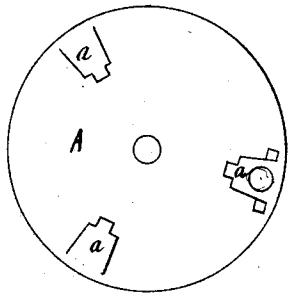



FIG. 3.

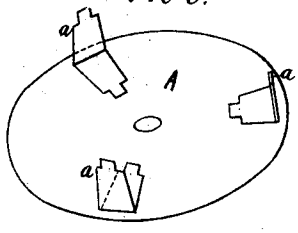



FIG. 6.

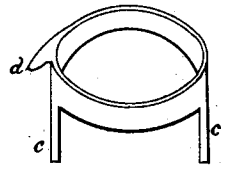



FIG. 8.

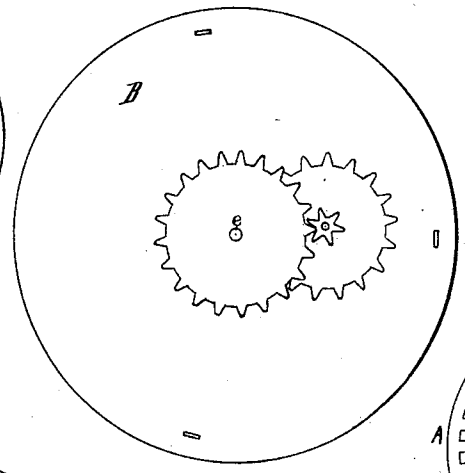



FIG. 4.

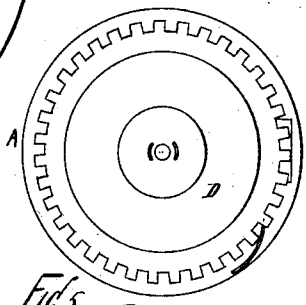



FIG. 5.

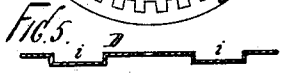



FIG. 7.




Attest-
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# UNITED STATES PATENT OFFICE.

ROBERT J. CLAY, OF ARLINGTON, NEW JERSEY.

## TOY WATCH.

SPECIFICATION forming part of Letters Patent No. 258,280, dated May 23, 1882.

Application filed March 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT J. CLAY, of Arlington, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Watches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has relation to watches, especially to that class known as "toy watches;" but the improvements might be employed in connection with toy clocks and other mechanical structures wherein they may be found advantageous.

The object of my invention is to simplify and improve the construction and arrangement of various parts of the mechanism, rendering the whole more firm and durable, easier to make and to assemble for use, and withal less expensive than other watches or movements of like quality heretofore made.

To accomplish all of this my improvements involve the mounting of the winding-shaft in one of the standards struck from the material of the base-plate, the application of an open ring or eyelet, with suitable appendages for holding the winding-wheel in place upon the base-plate and for connecting said wheel with the actuating-spring, the striking up of the winding-wheel in such form as to accommodate the prongs of the above-named eyelet and to clear the shafts of the wheels which project through the base-plate, and certain novel and useful peculiarities of construction and relative arrangements or combinations of parts, all of which will be herein first fully described, and then pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional view of a watch embodying my improvements, the view being taken upon a plane passing through the winding-shaft. Fig. 2 is a plan view of the blank for the base-plate, the posts or standards being outlined thereon, but not bent up into position for use; and Fig. 3 is a perspective view of this base-plate as it appears when finished. Fig. 4 is a plan showing the under side of the winding-wheel in position on the base-plate, and Fig. 5 a section the winding-wheel. Fig. 6 is a perspective of view enlarged, showing the construction of the eyelet employed for uniting the winding-wheel and base-plate, and serving as a means for connecting the spring with the winding-wheel. Fig. 7 is a plan view of the movement, the top plate being removed, and Fig. 8 is a plan of the top plate with the wheels thereon, both of scale to correspond with Fig. 1.

In all these figures like letters of reference, wherever they occur, indicate corresponding parts.

A is the base-plate or foundation of the watch-movement, united with the top plate, B, by the standards *a a*, as many as may be necessary, generally three in number. The standards are preferably punched in the material of the base-plate, and then bent up, as shown, into position to secure the two plates together, and the two plates in their turn are made to sustain the shafts of the various wheels comprising the watch-movement.

C is the shaft of the winding-pinion *b*, passing through one of the standards *a*, by which it is maintained in proper working place for engagement with the winding-wheel. Heretofore it has been customary to unite the top and bottom plates by separate studs, and to erect an independent bearing for the winding-shaft. By making one of the standards *a* form also the bearing or support for the winding-shaft, as indicated, I am enabled to make and mount these parts more easily and quickly, and consequently with less expense, than required in former constructions, preserving at the same time the requisite stability and accuracy of fitting, and effecting a saving in material employed.

To connect the winding-wheel D with the spring E in a substantial manner, I employ a coupling-piece. (Best shown at Fig. 6.) This may be conveniently made from an ordinary eyelet by cutting the barrel thereof so as to leave the prongs *c c*, and cutting the rim so as to form the catch or hook *d*. The base-plate is perforated to permit the passage of the eyelet through it. The prongs *c c* enter the slots cut or punched for them in the winding-wheel D, after which the prongs are turned down or bent—a simple and expeditious operation, requiring no special tools. The rim of the eyelet bears upon the top of the base-plate, so that

when the eyelet is in place the plate and winding-wheel are properly coupled together. Of course the eyelet turns with the winding-wheel. The end of the spring E is suitably fashioned to engage with the hook or catch *d* upon the eyelet, preferably being slotted at the end, so that it is only necessary to hook it upon the eyelet. The shaft *e* of spring-wheel F passes through the open eyelet, and is stepped upon the winding-wheel below and sustained by the top plate above, as will be readily seen. The means employed for attaching the spring to the winding-wheel obviate the necessity of squaring the block heretofore used for the purpose, which required to be upset in order to make the fastening secure, and afterward to be drilled or otherwise fashioned to receive and hold the lower end of shaft *e*. The two prongs *c c* make the union more secure than the square block, and are much easier to locate and fasten. The winding-wheel is struck up in such form as to afford an annular recess, *i*, which allows the wheel to ride clear of any shafts which may project through the base-plate. The central part of the wheel so formed constitutes a diminished bearing-surface for contact with the under side of the base-plate, and the prongs *c c*, like the projecting ends of the shafts, are out of the way, being located in the recess formed in the under side of the wheel.

H H are the hands, and T the thumb-piece by which the winding-shaft is turned.

It has not been deemed necessary to show the watch-casing or the dial-plate, which may be of any desired pattern.

These watches are made in considerable numbers, and even a trifling saving in material or in time required for forming the parts, as well as putting them together, amounts to a great deal in the course of the manufacture.

Although it has been preferred to show the improvements upon a watch-movement, it should be understood that they are to be applied in other devices or toys as well.

The improvements above pointed out are found to admirably answer the purposes or objects of the invention, as previously stated.

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

1. The combination, with the standards cut out of the material of the base-plate and bent up as shown, of the shaft of the winding-pinion projecting through one of the said standards, substantially as shown and described.

2. In combination with the winding-wheel, the open ring or eyelet connected therewith by the two prongs or projections, and provided with a hook or catch for connecting the main-spring and winding-wheel, substantially in the manner and for the purposes set forth.

3. The combination, with the winding-wheel, of the open ring or eyelet attached thereto, and the shaft of the spring-wheel projecting through said eyelet and resting upon the winding-wheel, substantially as shown and described.

4. The combination of the base-plate, the winding-wheel struck up with a central bearing-surface for contact with said plate, and the open ring or eyelet having prongs projecting through the winding-wheel and located in the central recess formed in said wheel, substantially as shown and described.

5. The combination, with the base-plate, of the winding-wheel having the annular recess formed therein to escape the projecting shafts of the wheels above said plate, and the central bearing-surface for contact with the base-plate, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

ROBERT J. CLAY.

Witnesses:
F. W. HANAFORD,
WORTH OSGOOD.