C. E. JACOT.

Watch.

No. 25,364. Patented Sept. 6, 1859.

Fig. 1.



Fig. 2.

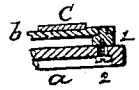
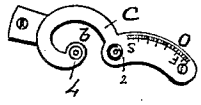


Fig. 3.



Witnesses:

Theo. S. Fay

Sam. S. Huber

Inventor:

Chas. E. Jacot

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

C. E. JACOT, OF NEW YORK, N. Y., ASSIGNOR TO SALTZMAN JACOT & CO., OF SAME PLACE.

WATCH.

Specification of Letters Patent No. 25,364, dated September 6, 1859.

To all whom it may concern:

Be it known that I, CHARLES E. JACOT, of the city and State of New York, United States, now temporarily in Chaun de Fonds, Canton of Neuchatel, Switzerland, have invented, made, and applied to use certain new and useful Improvements in Watches; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1. is a plan of the back or caliber of a watch with my improvements; and Fig. 2. is a vertical section showing the manner of securing the three quarter plate to the dial plate.

Similar marks of reference apply to the same parts.

In constructing watches it is usual in some instances to use what is termed a three quarter plate attached to the dial plate by columns passing through and riveted to said dial plate and retained by cross pins or sometimes with screws with a very thin head, in both instances the said plate is not firmly held in place for the want of strength, and if the center wheel of the watch has to be removed the face has first to be taken off and then the three quarter plate removed from the spring barrel and train of wheels involving much extra work both in taking the watch apart and putting it together, also the click and ratchet in ordinary three quarter plate watches are generally defective by their want of strength and in the way they are secured to the plate very often breaking either the click or the ratchet merely by the single pressure of the main spring, but more readily so when it happens that the person who winds the watch turns with the hand the wrong way.

The nature of my said improvements consist in the manner of constructing said three quarter plate so that it forms a bridge receiving the center, second and third wheels in such a manner that access is furnished to the center second and third wheels and pinions without disturbing the barrel and at the same time the wheels and pinions are exposed so that they can be easily inspected, and the said bridge also serves for receiving the index for the regulator providing a longer leverage for said regulator and a greater range of index than in those watches where the index is at the bracket of the balance, also in the mode of constructing the ratchet work of the main spring, which by the circular form of the click spring and being boxed up in and between the plates renders it more secure, preventing its breaking or damaging the ratchet teeth, as is the case when the click spring is bent slightly when the pressure is given too strong in winding on the wrong side as is often done by forgetting which way the watch winds.

In the drawing *a*, is the dial plate of the watch of any usual size or construction.

b, is the three quarter plate formed in such a manner as seen in dotted lines that it only serves to retain the spindle 3 of the barrel and the winding part.

c, is a bridge plate let into a recess in the surface of the plate *b*, and secured thereto by screws *o*, *o*. This plate carries the arbors 2, of the center, 4 of the second, and 5, of the third wheels, so that the removal of the screws *o*, *o*, *o*, permits the center second and third wheels to be removed without disturbing the spring barrel. In order to attach the three quarter plate *b*, I provide columns 1, 1, see section Fig. 2 riveted into the three quarter plate and passing into holes in the dial plate *a* at which point screws 2, 2, with large and thick heads and passing into the columns secure them and the three quarter plate permanently in place, thus leaving a smooth surface around the outside of the three quarter plate for the engraving of the description of the watch. The edge of the bridge plate *c*, is removed as at *i*, to furnish facilities for access to the first second and third wheels and pinions; and the said bridge plate is also formed as a curve from the center 6 of the balance and divided into an index 8, for the regulator arm 7, of the balance.

It will be seen in Fig. 2 that the bridge plate *c* rises above the three quarter plate *b*, hence giving more room for the wheels and length to the arbors and pinions as also a longer hole for the pivot of the center wheel with a deeper cup for retaining oil longer in a liquid state, it gives also more room for the balance to turn free between the dial plate and the center wheel, and by making the balance bridge to a level with the three quarter plate it leaves room for the cap jewels and regulator, thus protecting the balance staff and jewels in case of a pressure on the

cap, as it would press on the bridge plate first before pressing on the balance bridge.

d is the main spring ratchet which is made so large in diameter as to come near the edge of the center wheel and sunk under and between the two plates as will be seen by dotted marks *h*, in the bridge plate *c*.

e is the click spring attached with screw *f*, on the three quarter plate *b* and covered by the bridge plate *c*, being in a sunken place therein the shape of the spring *e* being a concentric curve of the plate and being left thicker at the point *g*, and playing in a cut place through the three quarter plate and resting against the side of said cut, when the ratchet presses on the point *g*. It will be observed that as the pressure increases, as when turned on the wrong side, the click spring *e* will bend in the middle part of its curve, thus preventing the breaking of the ratchet teeth.

In those watches that have a detached center bridge plate the same is made with the curves *i* and index 8 for the regulator indentically the same as the plate *c* as seen in Fig. 3.

What I claim as my invention and desire to secure by Letters Patent is—

1. Constructing the bridge or plate *c* with the curve *i* and index 8, for the purposes and as specified.

2. I claim constructing the bridge plate *c* separately from but screwed to the three quarter plate *b* for giving access to the center second and third wheels without removing said three quarter plate as above described and shown.

3. I claim attaching the three quarter plate *b* to the dial plate *a* by riveting the columns 1, to the plate *b*, and inserting the screws 2 at the dial plate *a* for the purposes and as set forth.

4. I claim constructing the click spring *e* as specified for preventing the ratchet teeth being broken as above specified.

In witness whereof I have hereunto set my signature this eleventh day of May 1859.

CHAS. E. JACOT.

Witnesses:
THEO. S. FAY,
SAM. I. HUBER.