April 1, 1930. W. E. PORTER 1,752,652

CLOCK

Filed April 4, 1927

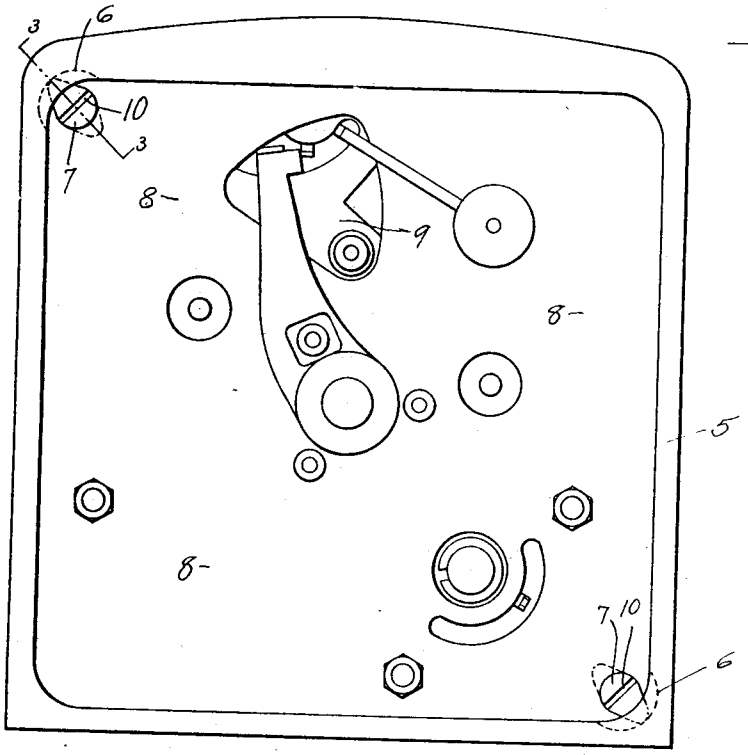


Fig. 2.

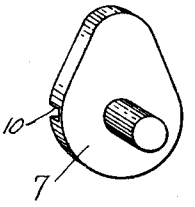


Fig. 4.

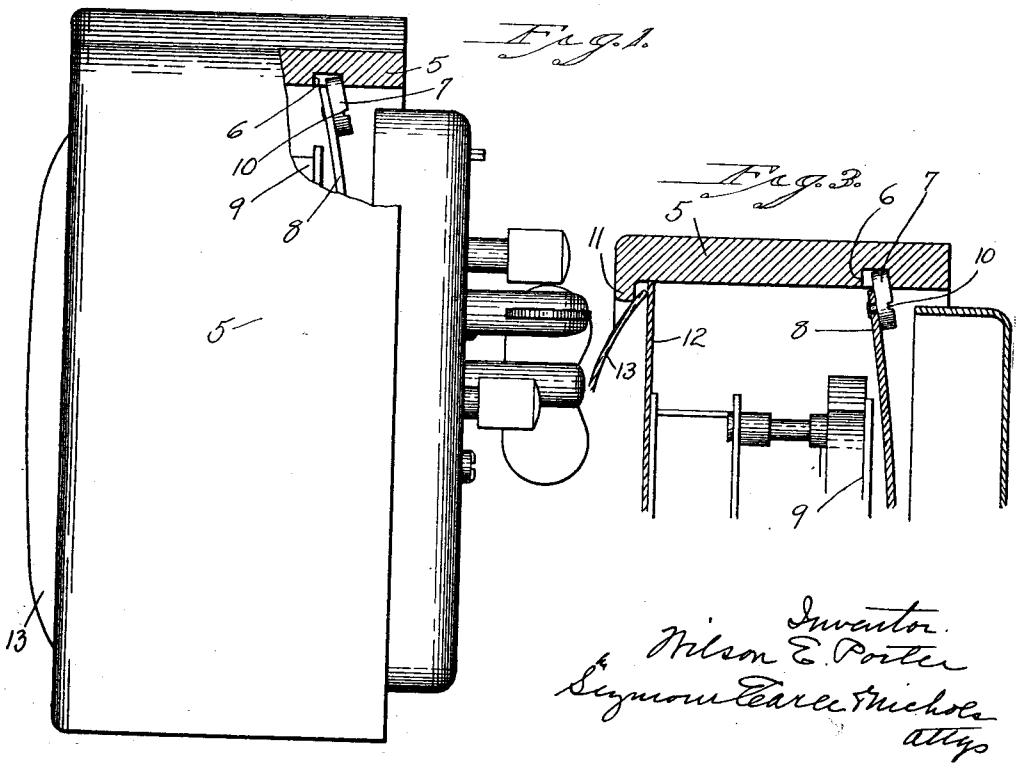


Fig. 1.

Fig. 3.

Inventor.
Wilson E. Porter
by Seymour Earle Nichols
Attys

Patented Apr. 1, 1930

1,752,652

UNITED STATES PATENT OFFICE

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

CLOCK

Application filed April 4, 1927. Serial No. 180,709.

My invention relates to an improvement in that class of small portable clocks having one-piece cases made of molded or pressed bakelite or other similar composition, the object being to provide simple, effective and convenient means for mounting a time-movement in such a one-piece case.

With these ends in view, my invention consists in a clock having a case-unit, a time-unit, turn-buttons for engagement with the case-unit, and forwardly-yielding means carried by the time-unit at the rear end thereof for mounting the said buttons, whereby the same are sprung forwardly into position to be engaged under tension with the case-unit for holding the time-unit therein.

My invention further consists in a clock characterized as above and having certain other details of construction as will be hereinafter described and pointed out in the claims.

In the accompanying drawings:

Fig. 1 is a view in side elevation of a clock embodying my invention, with one corner of the case broken away;

Fig. 2 is a view thereof in rear elevation with the bell removed;

Fig. 3 is a broken sectional view on the line 3—3 of Fig. 2; and

Fig. 4 is a detached perspective view of one of the pivotal locking-dogs.

The clock-case 5 is molded or pressed in one piece in any attractive form from bakelite or some similar composition. Within two diagonally-opposite corners of its open back it is formed with two segmental retaining-notches or grooves 6 for the reception of turn-buttons 7 pivotally mounted upon the corresponding diagonally-opposite corners of a yielding assembly-plate 8 organized with the unitary time-movement 9 and adapted in form and dimensions to fit snugly within the said case 5, near the open back thereof. The said parts are so proportioned and positioned that when the button-carrying corners of the said plate 8 are flexed or sprung forward, as shown in Fig. 3, the turn-buttons mounted upon them may be turned by the insertion of a screw-driver into their kerfs 10, so as to enter their outer ends into the notches 6 in the case 5, whereby the unitary time-movement is installed within the unitary case under the tensional engagement of the outer faces of the said buttons 7 with the rear faces of the notches 6, the tension of the plate exerting a constant effort to move the movement forward in the case and seat it deeper therein. This forms a cheap, convenient and effective means of installing a time-movement in a one-piece composition case without the use of screws or superfluous parts, and, moreover, takes up any back-lash and prevents rattling.

As shown, the case 5 is formed at its forward end with an integral inwardly-projecting crystal-retaining flange 11, between which and the edge of the dial-plate 12, the edge of a concavo-convex yielding clock-crystal 13 of celluloid or equivalent transparent material is bound, the said dial-plate 12 being carried in the usual manner by the unitary time-movement, which being constantly under the forward urge of the assembly-plate, its dial-plate is crowded upon the edges of the crystal, which, in turn, is crowded against the flange 11 of the case, so that the crystal is constantly held in place under tension. Instead of relying upon the flexing of the assembly-plate 8 for maintaining the tension between the turn-buttons 7 and the case 5, the structure may be organized so as to sufficiently compress the yielding crystal 13 when the clock is assembled as to maintain the said frictional engagement, or both the crystal 13 and the plate 8 may be utilized for that purpose.

I claim:

1. A clock, comprising a case-unit, a time-unit, a crystal, a stop-abutment carried by the case-unit for limiting the forward movement of the said crystal and time-unit therein, a forwardly-facing locking-abutment carried by the case-unit for acting in opposition to the said stop-abutment, a free-edged assembly-plate located at the rear end of the time-unit and having capacity for having its edge forwardly-flexed bodily, and a turn-button mounted upon the said flexible free edge of the said plate for engagement with the forwardly-facing locking-abutment of the

case-unit when the edge of the said plate is forwardly-flexed for the purpose.

2. A clock-structure as defined in the preceding claim and having its assembly-plate shaped to fit snugly into the rear open end of the case-unit to form a closure therefor.

3. A clock comprising a time-unit, a crystal, a one-piece molded case open front and rear and having its forward end formed with a stop-abutment for limiting the forward movement of said crystal and time-unit therein, and its rear end formed with an assembly-notch producing a locking-abutment for acting in opposition to the stop-abutment aforesaid, a free-edged assembly-plate located at the rear end of the time-unit and having capacity for having its edge forwardly-flexed bodily, and a turn-button mounted upon the said free edge of the assembly-plate for engagement with the locking-abutment produced by the said assembly-notch when the edge of the said plate is flexed bodily forward.

In testimony whereof, I have signed this specification.

WILSON E. PORTER.