C. FITCH.

AUTOMOBILE CLOCK CASE.

APPLICATION FILED MAY 19, 1913.

1,112,280. Patented Sept. 29, 1914.

Fig. 1.

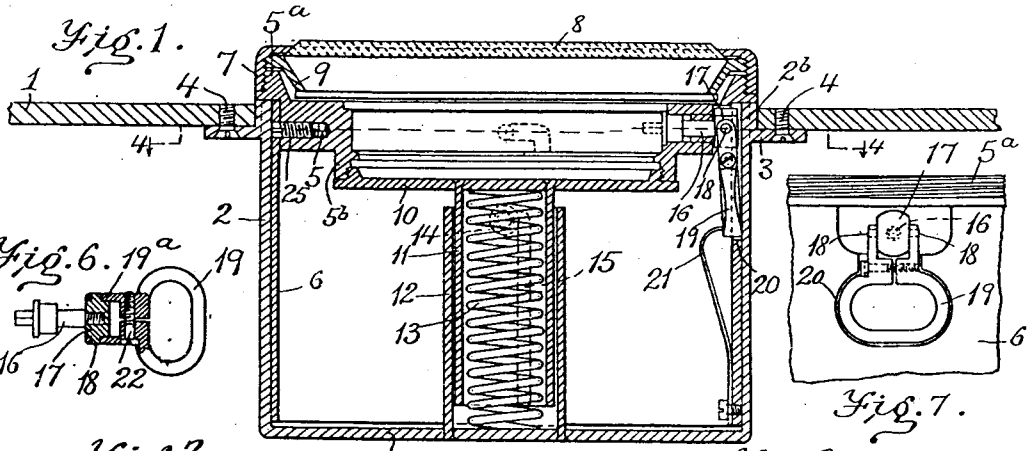


Fig. 6.

Fig. 7.

Fig. 2.

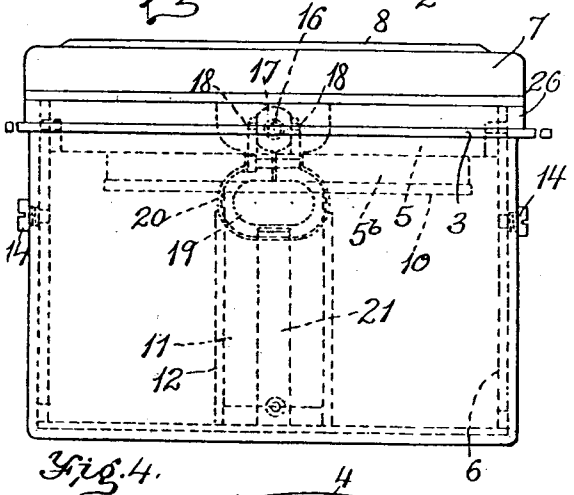


Fig. 3.

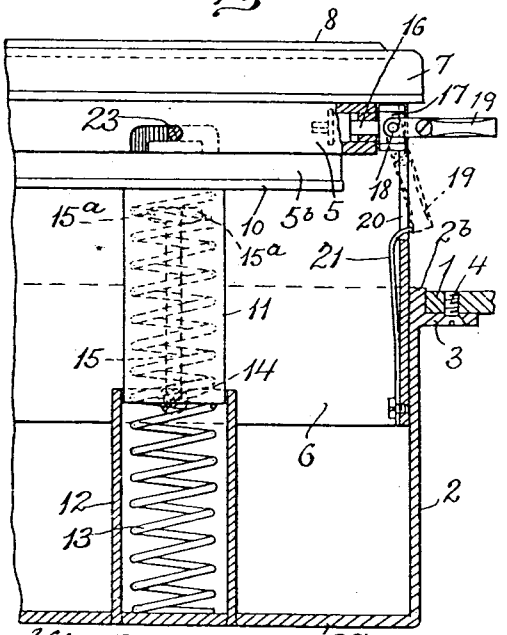


Fig. 4.

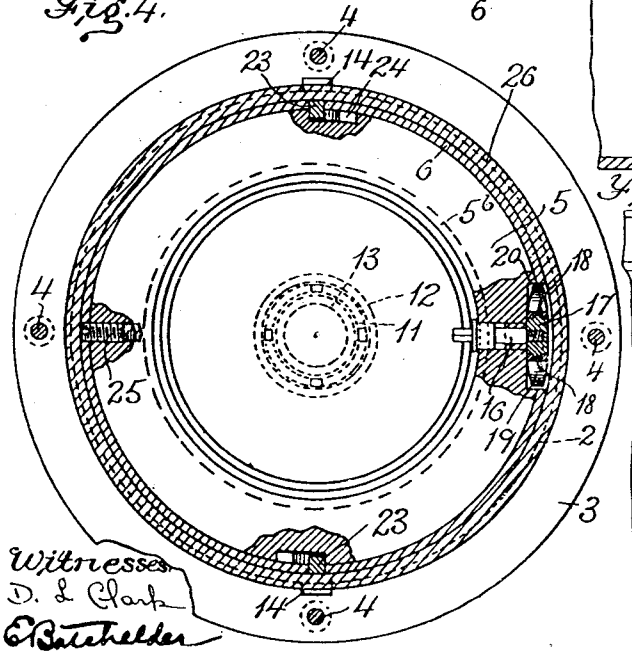
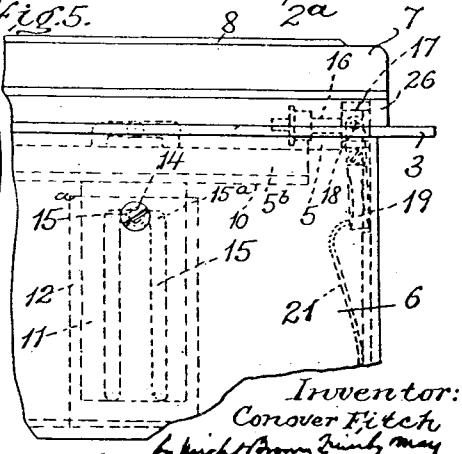


Fig. 5.



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UNITED STATES PATENT OFFICE.

CONOVER FITCH, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO WALTHAM WATCH COMPANY, OF WALTHAM, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

AUTOMOBILE CLOCK-CASE.

1,112,280. Specification of Letters Patent. Patented Sept. 29, 1914.

Application filed May 19, 1913. Serial No. 768,445.

To all whom it may concern:

Be it known that I, CONOVER FITCH, a citizen of the United States, and resident of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Automobile Clock-Cases, of which the following is a specification.

This invention relates to an improved case for watches and clocks such as are used with automobiles and other vehicles.

The principal object of my invention is to make the case in such fashion that when put in place upon the vehicle it is almost entirely concealed and only its face is visible.

In automobile construction particularly, there is at present a tendency to conceal the accessories of the automobile as far as possible within or through the dash or front wall on which they are usually mounted, leaving only so much exposed as must necessarily be seen.

My present invention, therefore, is a solution of the problem of how to conceal all of a clock except its face, and at the same time enable the clock to be wound and set at need without requiring the face of the clock to be opened.

In the accompanying drawing, Figure 1 is a sectional group of my improved case mounted in a dash or front wall of an automobile. Fig. 2 is an elevation as seen from the right of Fig. 1 of the complete top case. Fig. 3 is a view generally similar to Fig. 1, but showing the clock in a position for setting, and showing also some details not illustrated in Fig. 1. Fig. 4 is a horizontal section on line 4—4 of Fig. 1. Fig. 5 is a partial elevation as seen from the left of Fig. 2. Figs. 6 and 7 are details of the winding and setting key.

Referring to the drawings, the numeral 1 designates a plate which may be considered as the dash board of an automobile, or in other words, the front wall of the body structure which rises between the driver's seat and the motor, and upon which are mounted most of the auxiliaries and accessories of the car. 2 represents a cylindrical shell having an end wall 2^a, which is set into the wall 1 with its rim 2^b passing through such wall from front to rear, and its flange 3 lying at the rear side of the wall 1 and secured thereto by screws 4. Within the shell 2 is the mounting for a watch or clock, such mounting consisting of a relatively massive ring 5 and a sleeve 6 secured to such ring. The ring has a lip 5^a, threaded externally, on which there is screwed a bezel 7, carrying a glass plate 8 and a beveled ring 9. At its opposite side or end the ring 5 has an internally threaded lip 5^b in which there is screwed a plate 10, having a central outwardly extending tube 11 which is contained within a tube 12, secured to the end wall 2^a of the shell 2, and projecting inwardly. The tubes 11 and 12 constitute a telescopic holder and guide for a spring 13 which presses against the watch mounting and reacts against the end of the shell with a tendency to project the watch mounting out of the shell. This tendency is resisted and overcome normally by studs 14 (Figs. 2 and 4) of which there may be two or more, which are mounted in the shell 2 and pass into slots in the sleeve 6. These slots, shown at 15, are parallel to the axis of the shell and of the sleeve, and at the end next to the watch mounting are abruptly offset, as shown at 15^a. The watch mounting may turn as well as move endwise within the shell 2 as far as permitted by these slots, and when so turned that the studs 14 enter the parts 15^a of the slots, it is held so that it cannot be projected by the spring 13. When turned so that the studs lie in the longitudinally extending parts of the slots, the watch mounting is free to be projected by the spring, and is so projected as far as permitted by the inner limit of the slot, being then brought into the position shown in Fig. 3. This is the position into which the watch is brought for winding and setting.

Mounted in the ring 5 is a winding and setting stem 16 on which there is secured a head 17 having trunnions 18 whereon is pivoted a key 19. The key 19 may thus be swung out in line with the stem, as shown in full lines in Fig. 3, or it may be brought perpendicular to the stem, as shown in the other figures. In the latter position it occupies a suitably formed recess 20 in the guide sleeve 6, shown best in Fig. 7, and is adapted to lie within the shell 2, as shown in Figs. 1 and 4. The key is held in this position by the shell under normal conditions, even though a spring 21 secured within the guide sleeve 6 presses outwardly on the swinging

part of the key. When the watch mounting has been projected from the outer shell far enough for the end of the key to clear the lip 2^b of the shell, the key is thrown outward by the spring 21 into the position shown by dotted lines in Fig. 3, and may be thence brought into the full line position for operation. The stem may be moved into different positions for winding and setting and turned in either of these positions by manipulation of the key, in the same way that the stem of any pendant set watch is operated by the crown of the stem. The only difference involved in the present invention is that the key may be turned down out of the way within the shell 2.

From the description already given, it will be appreciated that all that is necessary to be done in bringing the timepiece into winding position is to grasp the part of the case which projects accessibly beyond the plate 1, this being the bezel 7, and to turn such part, whereupon the inner portion of the case or watch mounting is thrown outwardly by the spring 13. Then the key is exposed and may be operated as need requires. Thereupon the watch is returned to the normal position, after first pushing back the key into its recess 20 against the spring 21, by pushing back the watch mounting into the shell 2 as far as it will go, and finally giving the mounting a short turn at the end of its inner movement.

The construction of the key which adapts it to the particular use for which it is required is clearly shown in Figs. 6 and 7. The key has separated ears 19^a adapted to embrace the block 17 and perforated to receive the trunnions 18. Between the ears the key is divided so that the ears may be sprung apart far enough to pass over these trunnions, and a clamp screw 22 is provided for drawing the divided parts together far enough to retain the lugs on the trunnions. The block 17 is itself detachably mounted on the stem 16 by being screwed upon the threaded end of the latter, as indicated in Fig. 6.

A mode of attaching the mounting ring 5 in the sleeve 6 detachably so that it may be removed from the sleeve without requiring the latter to be withdrawn from the shell 2 or the shell to be dismounted from the plate 1, is provided in the pins or studs 23, which are riveted in the sleeve 6 and project into bayonet jointed grooves 24 of the ring 5. A screw 25 with a conical head is mounted in the ring 5 with its head fitting a conical hole in the sleeve 6, holding the ring and sleeve firmly together and preventing rattling. When the screw is turned into the ring far enough for its end to pass from the sleeve 6, the ring may be turned far enough to disengage its bayonet grooves from the studs 23, and the ring with the watch mounted therein may then be withdrawn. This manner of attachment forms a very convenient and necessary device for permitting removal of the watch from its mounting. When the mounting, including the sleeve 6, is projected in the manner already described, the screw 25 is accessible for manipulation, and it is then a simple matter to remove the ring 5 and the watch. Otherwise the watch could not be taken out for inspection and attention without much greater difficulty, necessitating an excursion into the hood where the motor is contained in order to reach either the screws 4 or the studs 14, which would otherwise require to be withdrawn. When the ring 5 is withdrawn in the manner described, the tube 11 comes with it and the spring 13 is then released.

The case or mounting above described is adapted to contain any sort of timepiece. Such timepieces, when adapted for use with vehicles, are usually termed clocks, although as they are governed by a balance wheel and hair spring, they are more analogous to watches. In the foregoing description I have used both terms "watch" and "clock", intending thereby to define any sort of timepiece whatever which might be used in my case.

Realizing that the case which I have above described might be used to contain other things than the movement of a timepiece, and when thus used to have the same functions and capacities described, I therefore do not limit my invention to a case intended and adapted solely to use in connection with the movement of a timepiece.

What I claim and desire to secure by Letters Patent is:—

1. The combination of a stem winding and stem set timepiece, and a mounting for the same, said mounting comprising telescopic members, the outer one of which is adapted to be secured to a wall, and to the inner one of which the timepiece is secured, the inner member being movable endwise out of the outer member to permit manipulation of said stem.

2. The combination of a wall, a timepiece, and a mounting for the timepiece, said mounting comprising an outer shell secured to the wall and having an open end substantially flush with the wall, and an inner member contained in said shell and movable endwise into and out of the open end of the latter, said timepiece being secured to said inner member adjacent to the open end of the shell and having a winding and setting stem, said stem being at the side of the timepiece, and the latter with the said inner member being movable outwardly with respect to the shell to give access to the stem.

3. An automobile clock case comprising

a shell adapted to be mounted upon a wall or plate of the automobile structure, and having an open end passing through said plate, a watch mounting comprising in part a sleeve having a bearing within said shell, and being movable into and out of the same, and a winding and setting member connected with said mounting and brought into accessible position when the mounting is withdrawn from the shell.

4. The combination with a supporting wall, of a timepiece, having its face only visible at one side of said wall, a case for said timepiece comprising a shell projecting through the wall from that side at which the clock face is visible, and a mounting for the timepiece contained in said shell, said mounting being arranged for withdrawal to a certain extent from the shell to permit winding and setting of the timepiece.

5. A case for a timepiece comprising a shell open at one end, a sleeve fitting slidingly within said shell, a mounting frame for a timepiece secured to said sleeve, a setting stem for the timepiece normally contained within the shell and rendered accessible by withdrawal of the mounting frame from the shell, yielding means tending to eject the mounting frame from the shell, and a positive lock adapted to be released at need for restraining the action of said yielding means.

6. The combination of a holder, a guide contained in said holder, a watch mounting attached to said guide, a setting and winding stem carried by said mounting and normally contained inaccessibly within the holder, a key connected with said stem and also normally inaccessible within the holder, and locking means for retaining the mounting within the holder adapted to be released to permit the ejection of the mounting from the holder to an extent sufficient to render the stem key accessible.

7. A watch case comprising in combination a shell open at one end, a sleeve having a sliding fit within said shell, a watch mounting secured to said sleeve, the shell and sleeve having a coöperative stud and slot, said slot being in part longitudinally arranged with respect to the shell, and having a transverse offset so arranged as to lock the sleeve within the shell by coöperation with the stud, a spring tending to force the watch mounting from the shell, and a setting stem contained inaccessibly within the shell when the sleeve is locked therein and rendered accessible outside of the shell when the watch mounting is projected therefrom, the watch mounting having a portion which is accessible at all times for manipulation to release said lock.

8. The combination of the outer shell, a sleeve having a sliding fit within said shell and having a longitudinal slot of which a portion is laterally offset, a stud in the shell entering said slot and adapted to be brought into said offset portion by rotation of the sleeve, whereby to lock the sleeve within the shell, a watch mounting contained within the sleeve and having a portion extending out from an open end of the shell, said mounting having a bayonet groove and the sleeve having a stud entering said groove and detachably locking the mounting within the shell, said mounting being disengageable from the sleeve without requiring the removal of the sleeve from the shell.

In testimony whereof I have affixed my signature, in presence of two witnesses.

CONOVER FITCH.

Witnesses:
BEATRICE E. MOSHER,
E. A. MARSH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."