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A CLOCK THAT SHOWS TIME IN TWO DIFFERENT PLACES AT THE SAME TIME

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Abstract
This article presents ideas about the construction of a watch that simultaneously shows the user's permanent residence and temporary residence (on a trip, as a tourist, travel) and constructive solutions to the problem.

Keywords: clock, time, time belts, mechanical clocks, electronic clock, minutes, seconds, hour arrows.

Introduction

It is known that to keep track of the time in a designated place, wristwatches of various shapes, hanging on the wall, standing on the table, and pocket watches are used. Basically, these watches consist of mechanical and electronic watches showing seconds, minutes, and hours. Usually, there is a need for people who frequently change their permanent place of residence on a trip or vacation, and are on a tourist trip, to keep track of their time in their place of residence and time in their temporary place of residence at the same time.

To achieve this goal, wristwatches, wall clocks, table clocks and other clocks of different shapes and mechanisms are used. There are also wristwatches that show different time zones and show world time. But these models are electronic watches, designed in the form of a numerical index, that is, a digital index. The disadvantage of this watch is that it does not allow to see the time in permanent and temporary residences at the same time.

Electronic-mechanical hand watches are based on the working principle of multi-hand watches. These have a basic fixed dial with a moving marker that shows the time of the desired location. The disadvantage of this watch is that it is necessary to add or subtract amounts of time to the second band when determining the time indicated by the mark on the desired band.

The closest analogue of the proposed clock that shows the time in two different regions at the same time is a clock that shows the time in several regions at the same time [1-4]. In addition to the main dial, this watch has a rotating dial, and to determine the required time, the second dial must be turned to a certain angle by hand. The disadvantage of this watch is that you have to manually rotate the rotating dial relative

to the main dial to determine the required time. If the second dial touches something, it can slide and show the wrong time [5-10].

In order to eliminate the above shortcomings, a clock showing the time of two addresses at the same time is offered, which is convenient for business people who frequently change their place of residence and travel, who are in contact with foreign countries [12-14]. If such clocks are installed as wall clocks in airports, train stations, and hotels, users will be more comfortable.

Mechanism of operation of the device

Commonly used wristwatches, wall clocks and other appearance, shaped clocks are achieved by making the following structural changes as an addition to the proposed clocks (Figure 1).

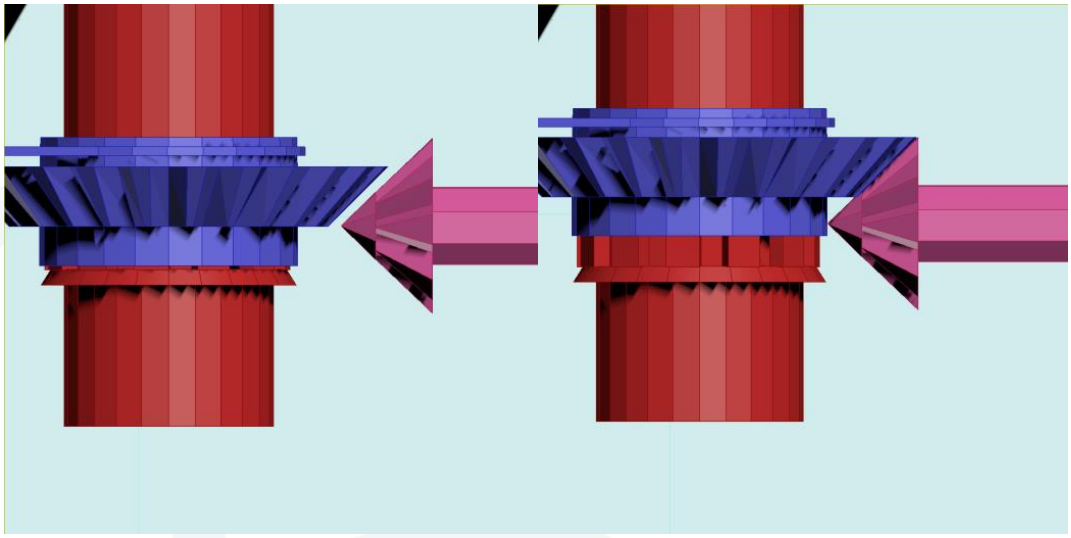

Figure 1. Constructed view of a clock showing the time in two different places at the same time.

In the implementation of such a goal, the second and minute hands of the clock will continue to work without changes as usual, and the following changes will be made to the clock axis.

For this, the second and minute hands on the clock are left unchanged, and only the second hour hand is put on the hour hand, which is cylindrical, with teeth on the lower side, and an additional time hand is placed on top (Figure 2). In order for this additional arrow axis to rotate in sync with the main clock hand, slits are drawn (made) along the rotating axes that fit together outside the main clock axis and inside the additional axis. As a result, the additional fourth hour hand rotates in unison with the main hand.

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In order to see the additional time needed by the user, with an additional cylindrical arrow, it is raised to a certain height with the help of a cone device, and with the help of an external cone, the additional hour hand is placed at the desired place (number) by a certain angle. Placement is done using a scroll wheel. Then the gear cone is pushed back, as a result, the shaft with an additional arrow begins to rotate in unison with the main axis, the arrows of which differ by a certain angle. As a result, the user will have the opportunity to see and track two necessary times (Figure 2).

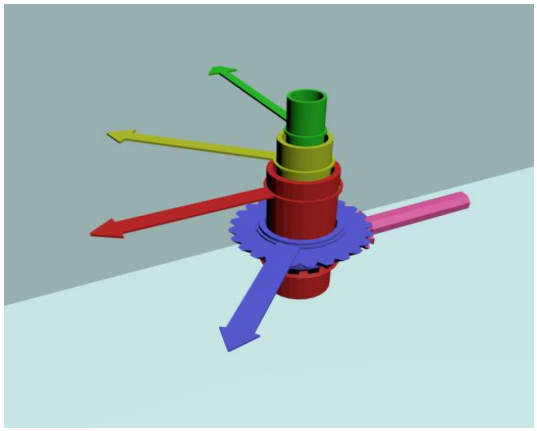

Figure 2. Constructed view of a clock showing the time in two different places at the same time.

Thus, the user will have the opportunity to see the time of two addresses at the same time.

If the user moves to the next time zone again, the clock will adjust the additional hour hand to the time of the new location.

An example of a watch made by the author using the modifications suggested above is shown in Figures 3.

Figure 3. A sample view of a clock showing the time in two different places at the same time on offer.

Conclusion

When using the offered watch in accordance with the place and region, people who are on a permanent trip or business trip and who have international relations with foreign companies or firms will achieve high efficiency in developing work plans with business partners and in efficient use of time. In short, watches with such a design are important for people who value their time to make plans for the correct distribution of time and to increase work efficiency during the day.

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