

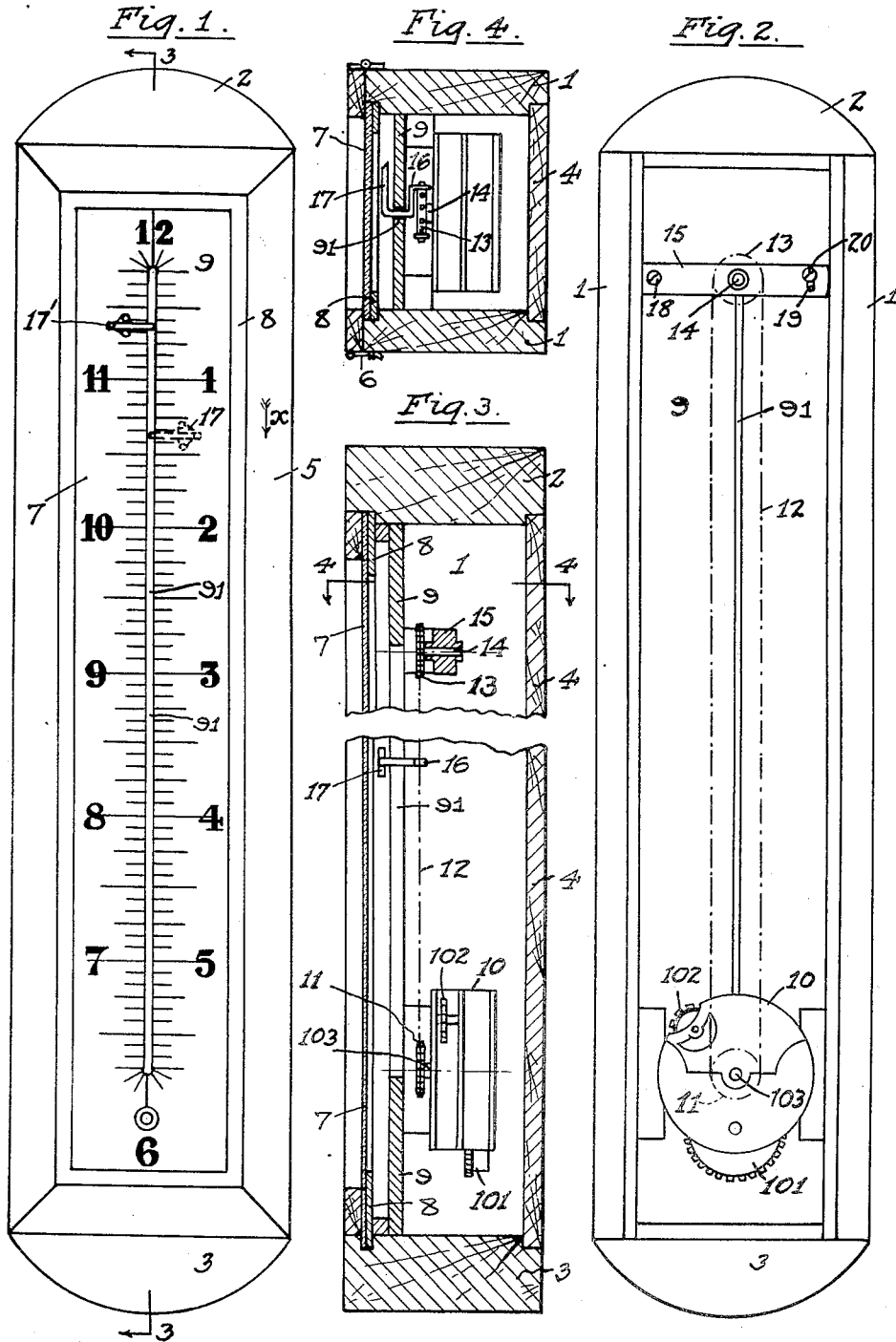
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STRAIGHT-LINE CLOCK

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STRAIGHT-LINE CLOCK

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1 Claim. (Cl. 58—2)

My invention relates to straight-line clocks, and its principal object is to provide a clock wherein a figure or pointer is carried over the face of a vertical scale indicating hours and divisions thereof, instead of being carried around a circular dial as is the case in clocks of conventional construction.

Clocks made according to my improved design have a considerable advantage over ordinary clocks due to the fact that the body of the same, instead of being in general of circular shape having a large diameter, can be provided with a body of narrow rectangular shape disposed either horizontally or vertically, thus providing a design which lends itself to a large variety of artistic designs. This construction is of particular advantage when it is desired to combine a clock with some other instrument, such as for example a thermometer which is also of straight-line shape and can be arranged horizontally or vertically as desired.

My improved design has, moreover, the advantage that a clock constructed in accordance therewith is better adapted to uses wherein the time mechanism is required to operate some mechanical or electrical device, such as for example an electric switch.

Another object of my said invention is to provide a construction wherein a clock mechanism of relatively small size may be used to operate a pointer or indicator over a scale in which the twelve hours cover a much greater circumference, so that the divisions which represent hours and fractions thereof can be made much larger and consequently much easier to read.

With these and other objects in view, I will now describe a preferred embodiment of my invention with reference to the accompanying drawing, in which—

Figure 1 is a front elevation showing a clock constructed in accordance with my invention.

Figure 2 is a rear elevation of the same with the cover removed.

Figure 3 is a fragmentary vertical section taken on line 3—3 of Figure 1, and

Figure 4 is a transverse section taken on line 4—4 of Figure 3.

Like characters designate corresponding parts throughout the several views.

In the drawing, which illustrates a simple form of my improved clock, 1, 1 are the side members of the casing closed at top and bottom by end pieces 2, 3, respectively, and at the back by a flat cover 4, the parts being secured together by screws or other means so as to form a solid framework for

the mechanism. The front of the clock is provided with a framework 5 preferably hinged to the side members 1 and kept in closed position by any suitable fastening such as indicated at 6. Within the frame 5 is a window 7 backed up by a sub-frame or mat 8, and in parallel spaced relation thereto is a dial 9 provided with a vertical slot 91 within which the hour hand or pointer travels in a manner to be hereinafter explained. Supported in the lower end of the casing is a clock mechanism 10 provided with a going barrel 101 having the usual winding mechanism and the escape wheel 102, and in the center of the said mechanism is a shaft 103 which corresponds to the regular hour shaft. Upon this hour shaft is secured a sprocket wheel 11 with which engages a chain or other flexible member 12, the upper end of which passes around an idler sprocket 13 mounted upon a shaft 14 which rotates in bearings in a cross member 15.

Rigidly secured to a link of the chain 12 is a member 16 which extends inwardly to the center of the sprocket and passes outwards through the slot 91, terminating in a pointer 17, which, by this construction, passes downwards in the direction of the arrow x in Figure 1 and on arriving at the bottom of the slot turns through 180 degrees and then travels upwards so as to indicate the second half of the twelve hours for which the dial in the present instance is designed. The pointer on the downward travel is indicated at 17 and in the upward travel at 17' in Figure 1.

In order to adjust the tension in the chain 12 and to compensate for wear thereof, the cross member 15 is pivoted to the frame at one end as by the screw 18 and has its other end slotted as at 19 and held in adjusted position by the screw 20.

While I have herein described and shown a preferred embodiment of my invention, it will be readily understood by those skilled in the art to which the same relates that various changes and modifications may be made to suit any particular or peculiar requirement without departing from the spirit of my invention as defined in the appended claim. For example, the dial, instead of being disposed vertically as shown, may be arranged horizontally or at any angle, also an electrically operated clock mechanism may be employed in place of the conventional mechanism herein shown and described.

Having thus described my said invention, what I claim and desire to secure by Letters Patent of the United States is:

A clock of the character described comprising

a clock movement including a continuously rotating hour shaft; a driving wheel rotatively secured to said shaft; an idler wheel arranged in spaced relation to said driving wheel; an endless flexible member trained around said driving and idler wheels; a dial having a slot coincidental with the centers of said wheels and having graduations and indicia showing hours and divisions thereof arranged upon the marginal edges of said slot; and an indicator rigidly connected to said flexible member and having a portion extending in front of and parallel to the plane of the said member, a portion at right angles thereto and adapted to travel within said slot, and a pointer adapted to lie over the face of said dial and to register with said graduations.

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