S. E. THOMPSON.

TIME ASCERTAINING AND RECORDING BOOK OR DEVICE.

APPLICATION FILED SEPT. 10, 1900.

956,230. **Patented Apr. 26, 1910.**

2 SHEETS—SHEET 1.

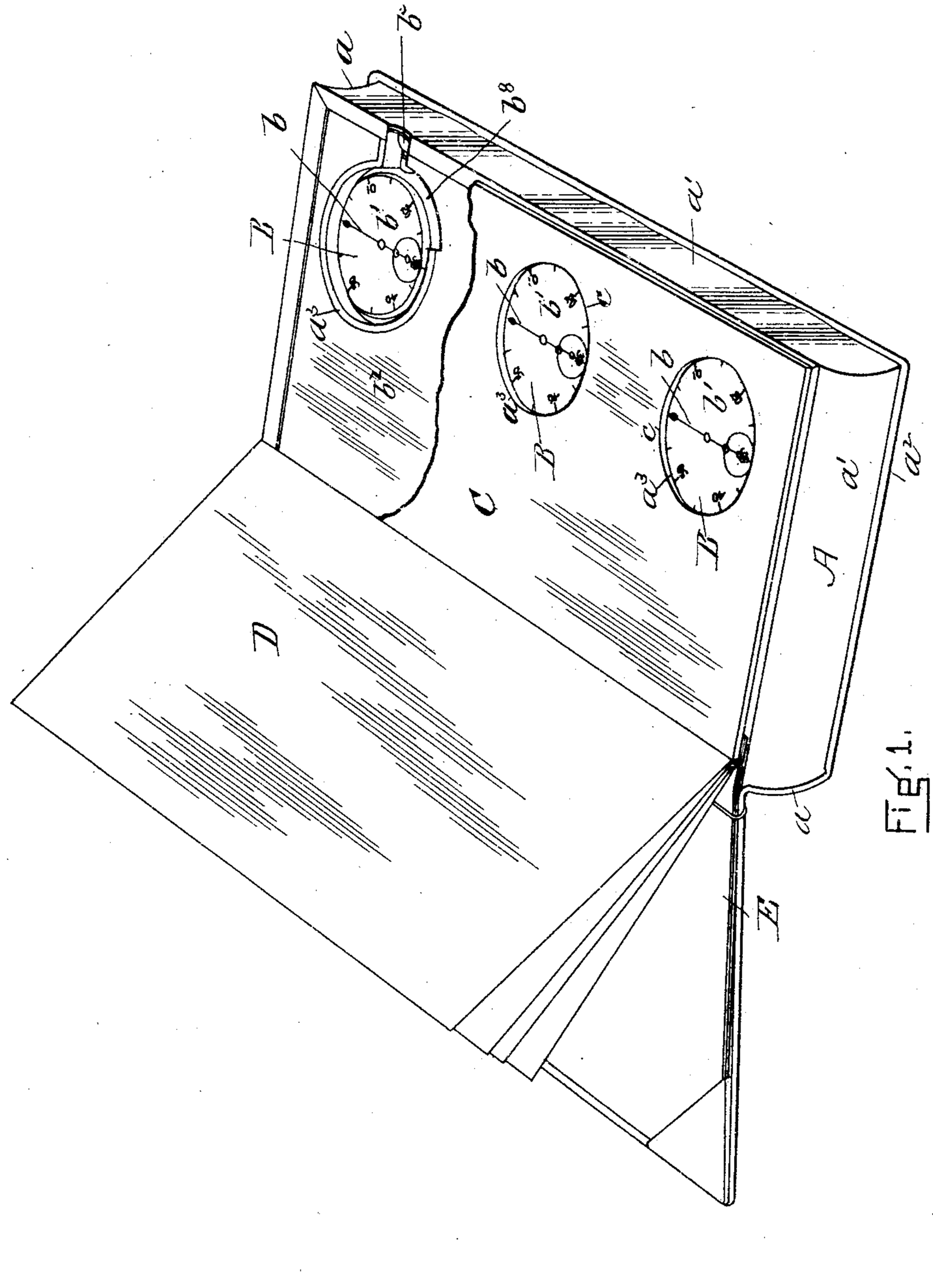

Fig. 1.

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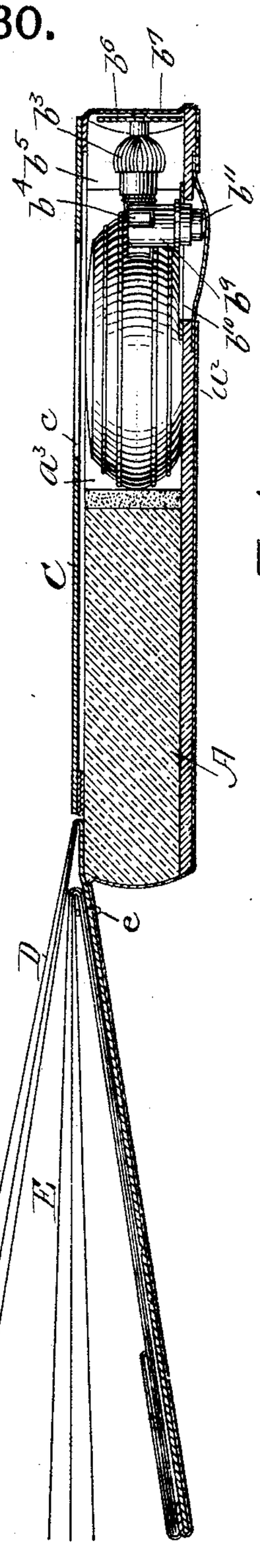

Fig. 2

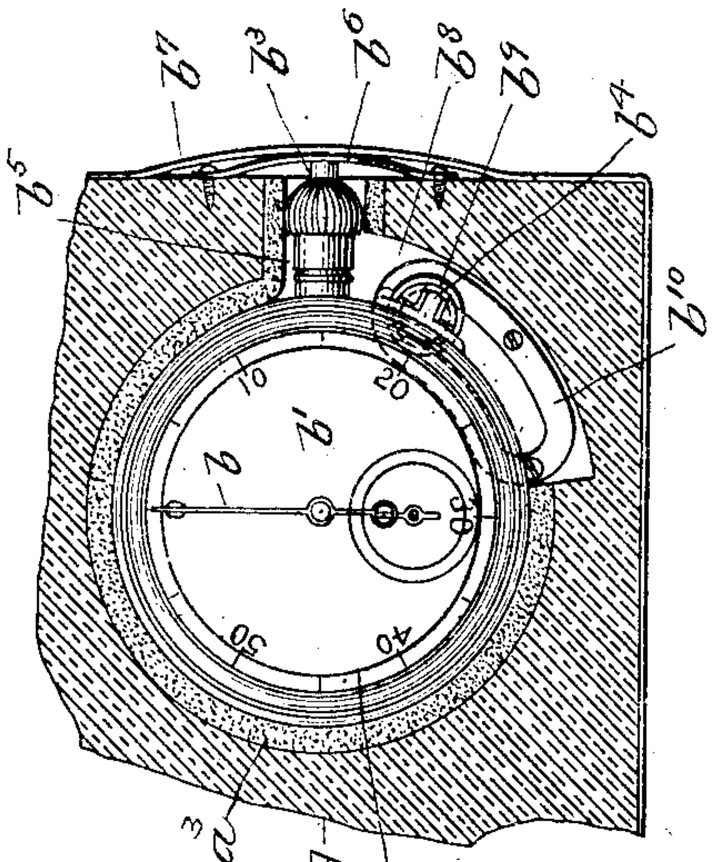

Fig. 3

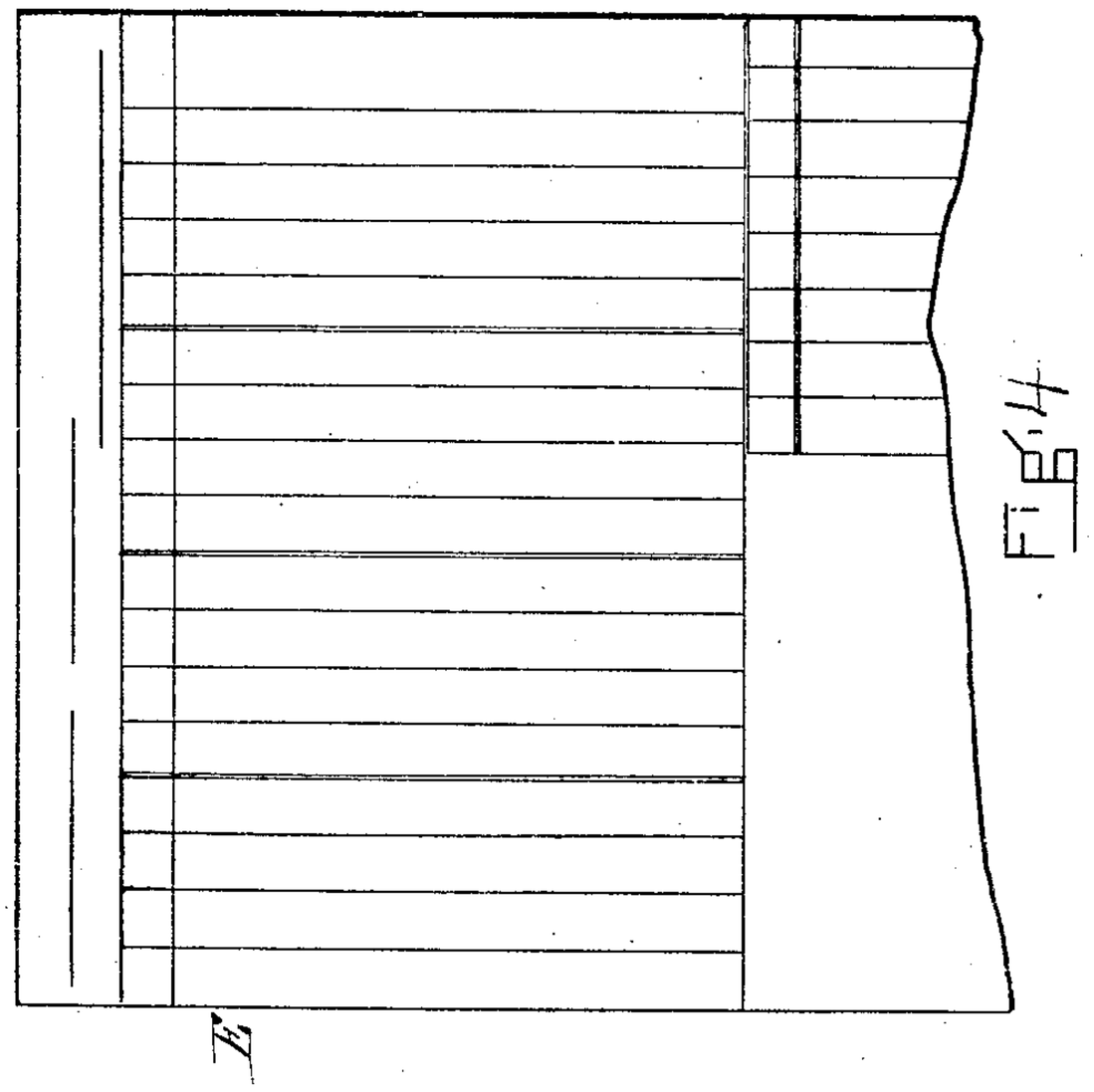

Fig. 4

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UNITED STATES PATENT OFFICE.

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TIME ASCERTAINING AND RECORDING BOOK OR DEVICE.

956,230. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed September 10, 1900. Serial No. 29,537.

To all whom it may concern:

Be it known that I, SANFORD E. THOMPSON, of Newton, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Time Ascertaining and Recording Books or Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to the herein-described time ascertaining and recording book or device which comprises one or more time indicators like stop watches for indicating the duration of time, held in a position more or less concealed in a book or other device, which indicator or indicators are provided with means whereby they may be actuated without attracting attention and which indicator or indicators preferably are combined with means upon which information given by them may be noted.

I have illustrated the invention as applied to a book, but I do not wish to be understood as limiting it to such a use. I have also shown it as embodying the use of three time indicators, but one time indicator or any other number of time indicators may be employed.

I will now describe the invention in connection with the drawings where—

Figure 1 is a view of my time ascertaining book in an open position to represent the position of the indicators and also the relation which they bear to the recording sheets or pages. Fig. 2 is a view in cross-section taken through the open book. Fig. 3 is a detail view to show a time indicator and manner of holding it and its operating means. Fig. 4 is a view illustrating a portion of a recording sheet or leaf.

The book has a holder or frame A which is made to simulate in its exterior finish a part of an ordinary book, that is, it has the curved back a, top, bottom and front edges a^1 and back cover a^2, all of the shape and appearance of an ordinary book. This holder or frame A has the cavities a^3 which are open at the top and closed at the bottom by the back a^2 or in any other desired way and the cavities are of a size to receive time indicators B and to hold them so that their hands b and indicating dials b^1 will be practically flush with the surface b^2 of the holder or frame and thus be in a position to be covered by the leaves of the book or its front cover. The cavities B preferably are of a shape and size to permit the ready removal of the time indicators in order that they may be removed for winding from time to time and readily replaced but of course they may be made so that the indicator may be wound in place, and I prefer that their actuating devices be supported by the frame or holder and so organized and held that the indicators may have a detachable relation to them as well as without requiring a removal of any of the parts of either. These actuating devices are also concealed or partially concealed and they comprise means for starting the operation of the indicator, for stopping its operation and for returning the indicator hand to zero, each of which means is independently operated. I prefer that the divisions of the dial of each indicator be numbered upon decimal system, beginning with five or ten, and I may use for indicators any common form or type of stop watch or one having the construction and operation herein described. The type of indicator which I have shown is started by the movement in one direction of a lever and is stopped by the movement of the said lever in a reverse direction and the indicator hand is returned to zero by means of an inward movement of the winding stem.

In the drawings:—The starting and stopping lever b^4 is movable in the extension b^8 of the cavity and upon an arc and it is detachably connected with a slide b^9 mounted on a plate b^{10} secured to the holder. This slide is shaped to allow of the engagement and disengagement of the said lever with its inner end by the movement of the indicator from or to its cavity and its outer end b^{11} extends into or through the back cover of the book to a position which enables it to be moved to start or stop the indicator from the back and it may be in whole or in part covered by the covering of the back (see Fig 3).

b^3 represents the setting push pin and b^4 the starting and stopping lever. The push pin is contained in the extension b^5 of the cavity a^3 and its outer end is a trifle above the top edge of the holder. It is covered by a flat spring b^6 secured at each end to the side edge of the holder in a manner to permit it to be flattened and the spring in turn is covered by the material b^7 representing the side edge of this portion of the book.

By compressing this edge inward at a point opposite the push pin the spring is flattened and coming in contact with the push pin pushes it inward and sets or returns the indicator hand to zero. Upon the removal of pressure from the side edge of the book the spring plate b^6 resumes its original shape and the push pin is moved outward automatically by a spring. The spring b^6 simply serves to hold the covering b^7 from the end of the push pin in order that the push pin may not be accidentally operated and in order also that its spring may not have the additional work of moving outward the covering b^7. The extension b^5 of the cavity is open on top so that the indicator is removable and replaceable without disconnecting any part.

Each of the indicators shown has substantially the same means for starting and stopping them and for setting their hands, adapted to be operated from the edges or back of the book, and which are more or less concealed. The holder is adapted to be covered by a leaf C having in it holes c of the size of the dials of the indicators and this leaf C is in turn adapted with the indicators to be concealed by one or more full leaves D. The book may also have removable leaves E secured thereto by an elastic or strap e or other means and upon which a record of the intervals of time ascertained by the time indicators may be noted and these leaves, whether removable or a fixed part of the book, may have any desired ruling or arrangement of tables for assisting in the recording of information obtained by the time indicators.

In operation, the user of the device may entirely conceal the time indicators by closing the book or its cover D and then manipulating the indicators by the pressure of his fingers upon the edges and the back of the book and in such a manner as to entirely escape observation, and in this way the time taken for any operation may be correctly ascertained without the knowledge of any person other than the one employing the device. The time indicator can be started and stopped when desired and may be then read and its communication noted on the recording sheet or it may be subsequently read and after reading the indicating hand may be returned to zero also without observation.

I have represented the book as provided with three time indicators as it is often desirable to ascertain the times of different operations and this arrangement permits this to be done. It also permits three observations to be made successively or in any other order without requiring that an indicator be set.

While I have described the invention as embodied in a book, I would say that any other form of holder calculated to conceal the time indicator and to permit of its unobserved actuation may be employed, and I would further say that I do not limit the invention to organizations which employ concealment of the time indicator or indicators or secrecy of their actuation.

While I have represented the cavity or holder for containing the time indicator as having extensions or openings for the means for starting, stopping it and for setting it, yet my invention will be practiced if the said starting, stopping and setting means were contained in one opening or extension.

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

1. In a time ascertaining book or device of the character specified the holder or frame having the cavity a^3 open at one end and provided with an extension b^5 to the edge of the holder and the extension b^8 with a slide attached to said holder and an indicator having a lever for starting and stopping the same and a setting push pin, which indicator is adapted to be held in the cavity of the holder or frame with the push pin in the extension b^5 and in a position to be moved from the edge of the frame and with the lever held by the slide.

2. A time ascertaining device comprising a frame or holder adapted to simulate some well known article, having a cavity for a time indicator, in combination with a time indicator located therein, and means for starting, stopping, and setting it, said cavity being provided with two openings extending to the surface of said holder, one opening located to receive the starting and stopping mechanism, and the other to receive the setting mechanism, whereby the means for starting, stopping, and setting said indicator may be reached from without the holder and operated without disclosing the existence of the indicator to any bystander, as and for the purposes described.

SANFORD E. THOMPSON.

Witnesses:
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J. N. Dolan.