

(No Model.)

2 Sheets—Sheet 1.

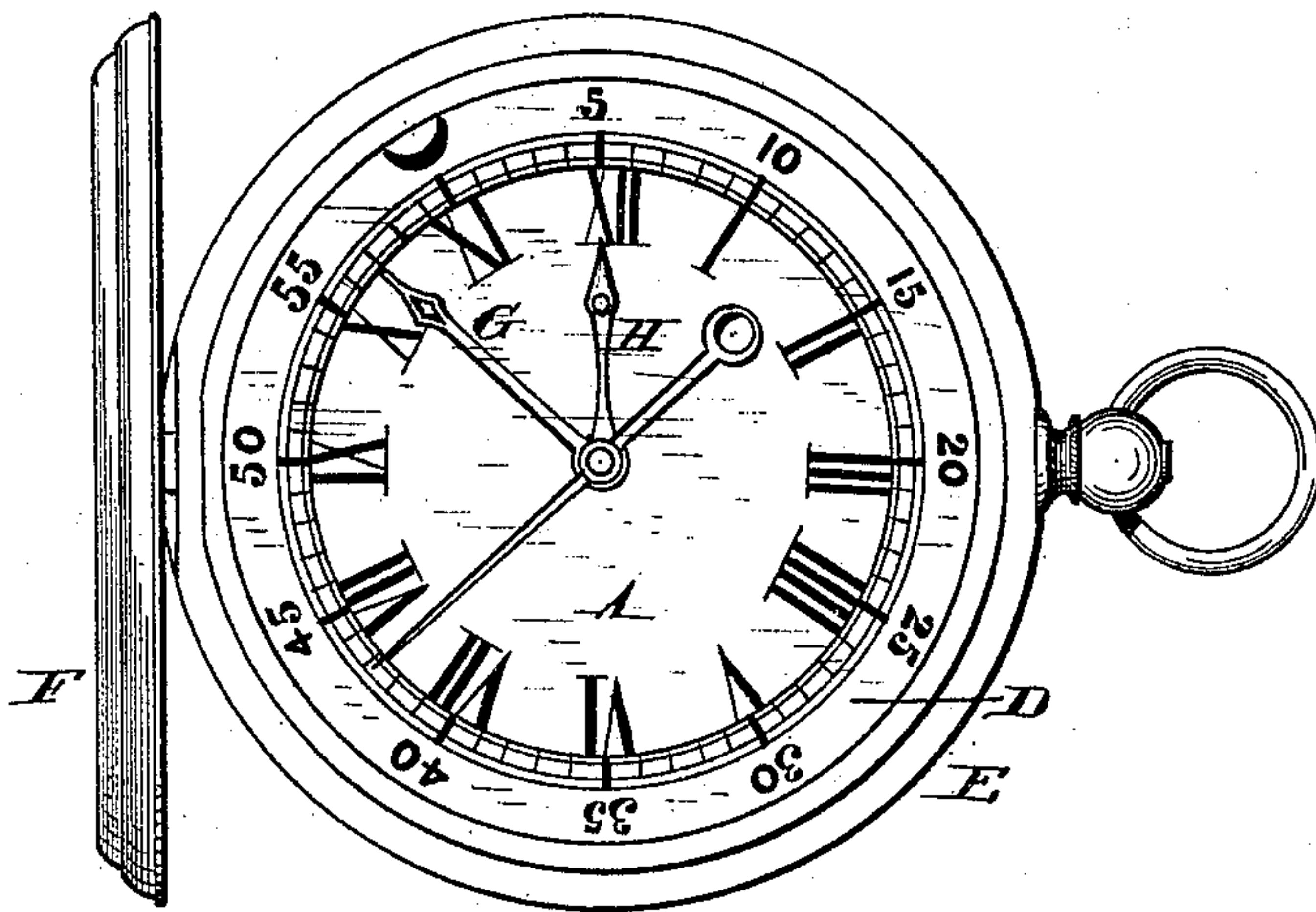
H. B. COBB.

ADJUSTABLE MINUTE DIAL FOR WATCHES.

No. 250,886.

Patented Dec. 13, 1881.

Fig. 1



Witnesses.

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(No Model.)

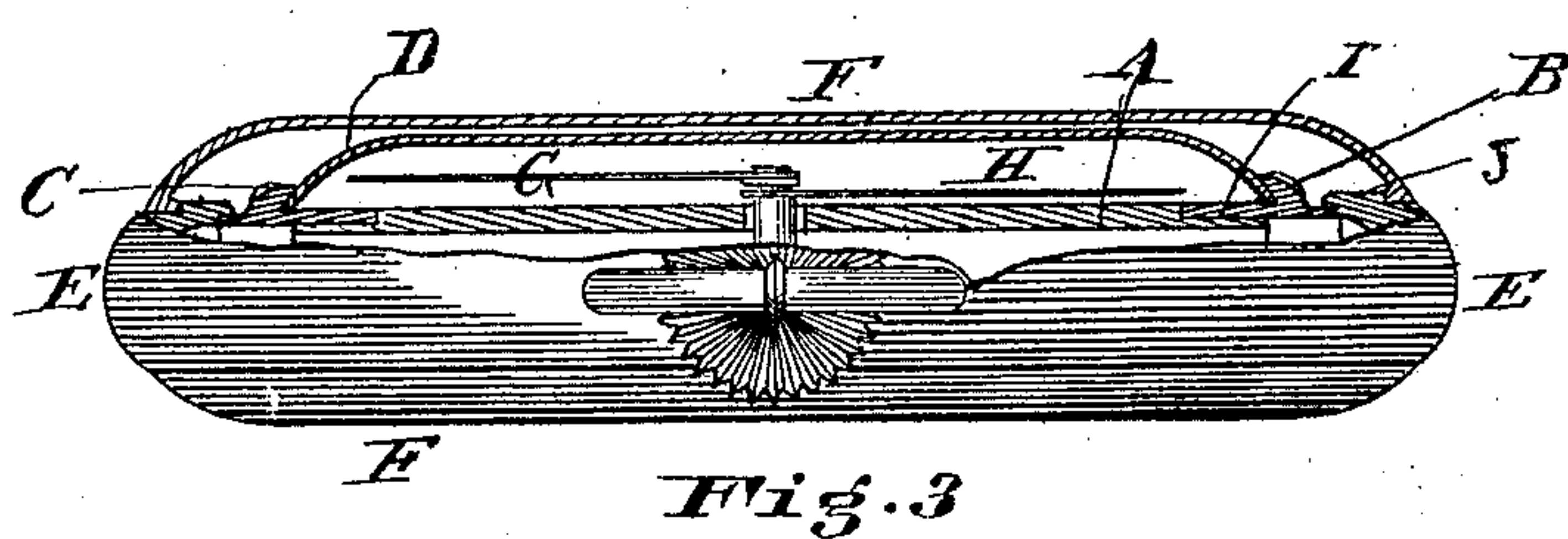
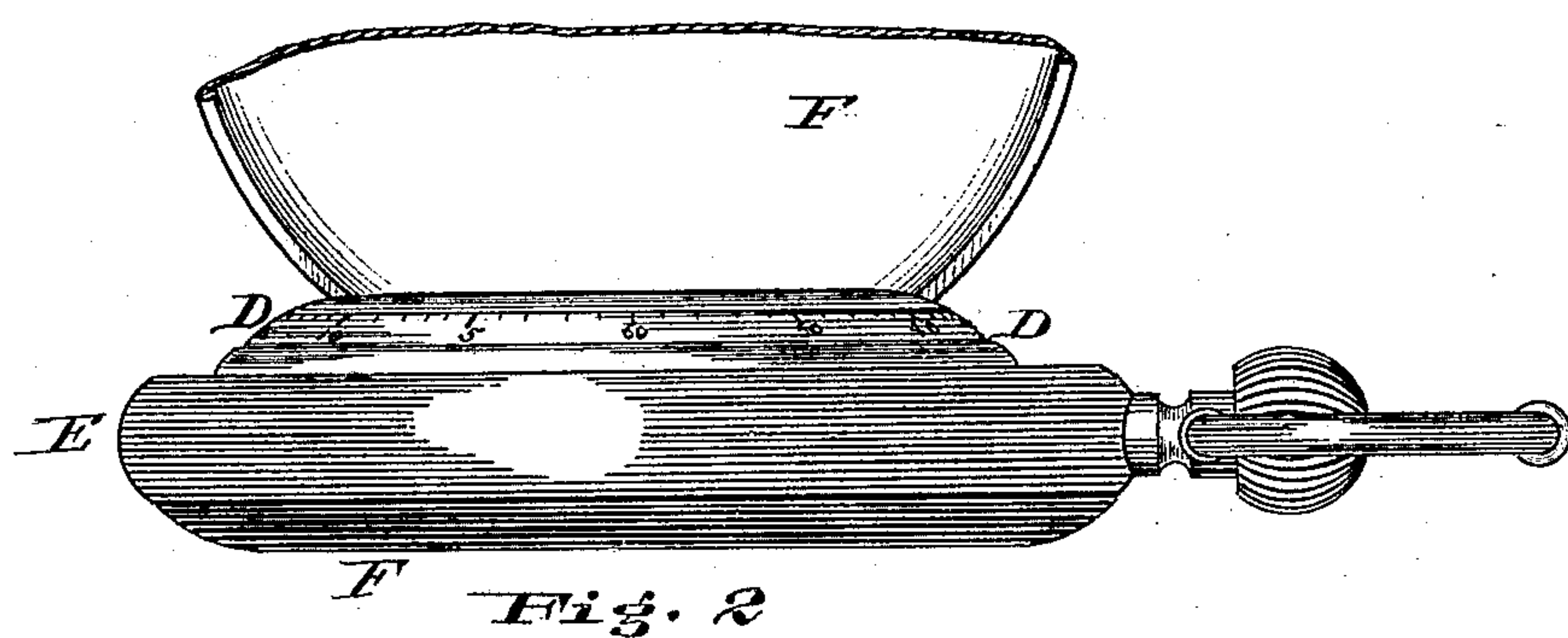
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Attests

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UNITED STATES PATENT OFFICE.

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ADJUSTABLE MINUTE-DIAL FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 250,886, dated December 13, 1881.

Application filed March 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, H. B. COBB, of Wilmington, Delaware, have invented a new and useful Improvement in Watches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part hereof.

The nature of my invention will be fully understood from the following description and claim.

The object of my invention is to readily set an ordinary stationary-faced watch to the time of a locality situated at any point east or west of the meridians of Washington or Greenwich, as the case may be, and at the same time to preserve the time of the city or locality which constitutes the traveler's starting-point, without changing the hands or interfering with the internal mechanism of the watch, by providing such ordinary watch with a movable transparent crystal, which is furnished with a minute-dial concentric with the dial of the watch. This crystal may be movable in the frame which holds it, or it may be made stationary in a movable frame.

Figure 1 is a view of a watch and ordinary face having a crystal with a minute-dial marked upon it. Fig. 2 is an elevation showing the movable crystal with its minute-dial. Fig. 3 is an elevation or side view of a watch with a part broken away, showing in cross-section a stationary watch-face and a movable rim in which the crystal, with its dial, is set.

A is the stationary face of the watch, having the ordinary hour and minute dial.

B is a movable rim to hold the crystal, the outer surface, C, of which rim is milled or roughened.

D is an ordinary glass watch-crystal containing a minute-dial.

E is the side or outer circular rim of the watch.

F F is the outer metallic casing of the watch.

G is the minute-hand of the watch, and H the hour-hand.

The minute-dial upon the crystal should be placed on the inside thereof, either engraved, printed, painted, impressed by the process known as the "sand-blast," "decalcomanie,"

or by printing the dial upon paper and pasting it in, printing by a rubber block or die, upon the face of which a dial is impressed, either in relief or sunken. The movable rim B encircles the stationary dial-face of the watch, and is sustained by a flange, I, projecting beneath from the periphery of watch-face, and is held down by an inwardly-projecting ring or flange, J. (See Fig. 3.) This rim and its crystal can be easily revolved by the friction of the thumb or finger on the milled or roughened surface.

The operation is as follows: Taking the time indicated by the stationary dial-plate shown in Fig. 1 as representing Philadelphia time, we will suppose that the person carrying the watch is making a stay in New York city, where the time is five minutes ahead of that in Philadelphia, the crystal D is turned back or to the left until the character "60" is over the eleventh hour of the watch-dial, instead of over the twelfth hour, as is the case in ordinary dials. The proximity or distance of the point of the minute-hand G to or from the said character 60 will indicate how many minutes before or after a certain hour is the time in New York, while the hour-hand H will indicate the hour approximately, so that the exact time can always be ascertained as to both places, for the hands maintain their relative positions on the stationary dial-plate as to Philadelphia time. Thus in Fig. 1, the above changes having been made, the hands indicate that it is eight minutes of twelve in Philadelphia, while the large or minute hand indicates by its proximity to the character 60 that it is three minutes of twelve in New York.

In traveling farther east than New York it is plainly apparent that the crystal-dial would have to be set still farther to the left to a distance corresponding to the difference between Philadelphia time and that of the place which it is desired to keep.

If, on the other hand, the traveler goes west of Philadelphia, the dial is turned to the right as many minutes as there are minutes of difference between Philadelphia and the place of which it is desired to keep the time.

Having thus described my invention, what I claim as new is—

In combination with the ordinary fixed or stationary dial-face of a watch, a movable transparent crystal containing a minute-dial face concentric with the dial of the watch,
5 whereby the hour-hand indicates about the hour on the watch-face dial, while the minute-hand indicates the minute of the hour upon

the watch-crystal dial, both dials being observable simultaneously, substantially as described.

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Witnesses:

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