

(No Model.)

FRITZ BARON VON WECHMAR.

WATCH.

No. 365,032.

Patented June 14, 1887.

FIG-1

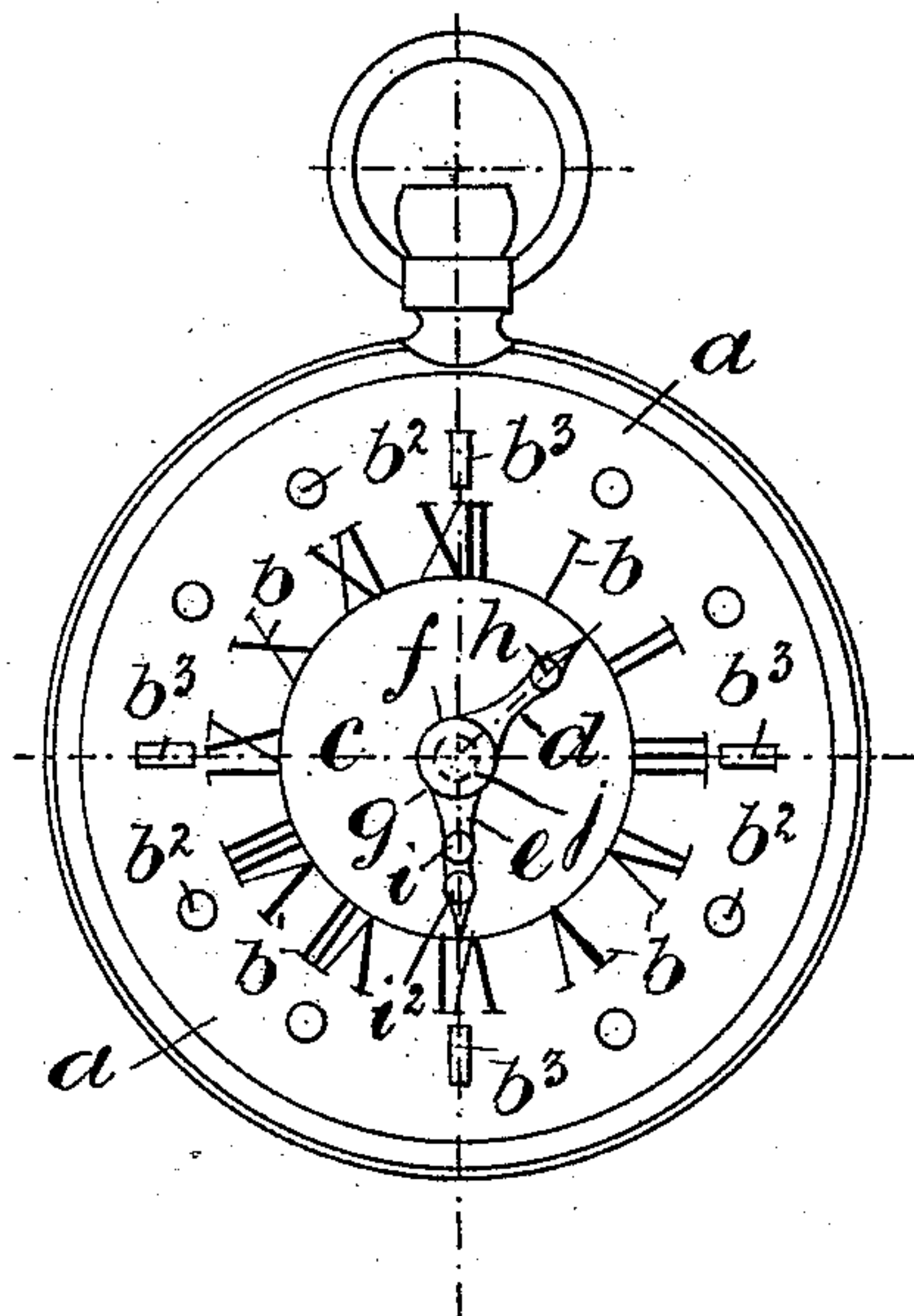


FIG-2

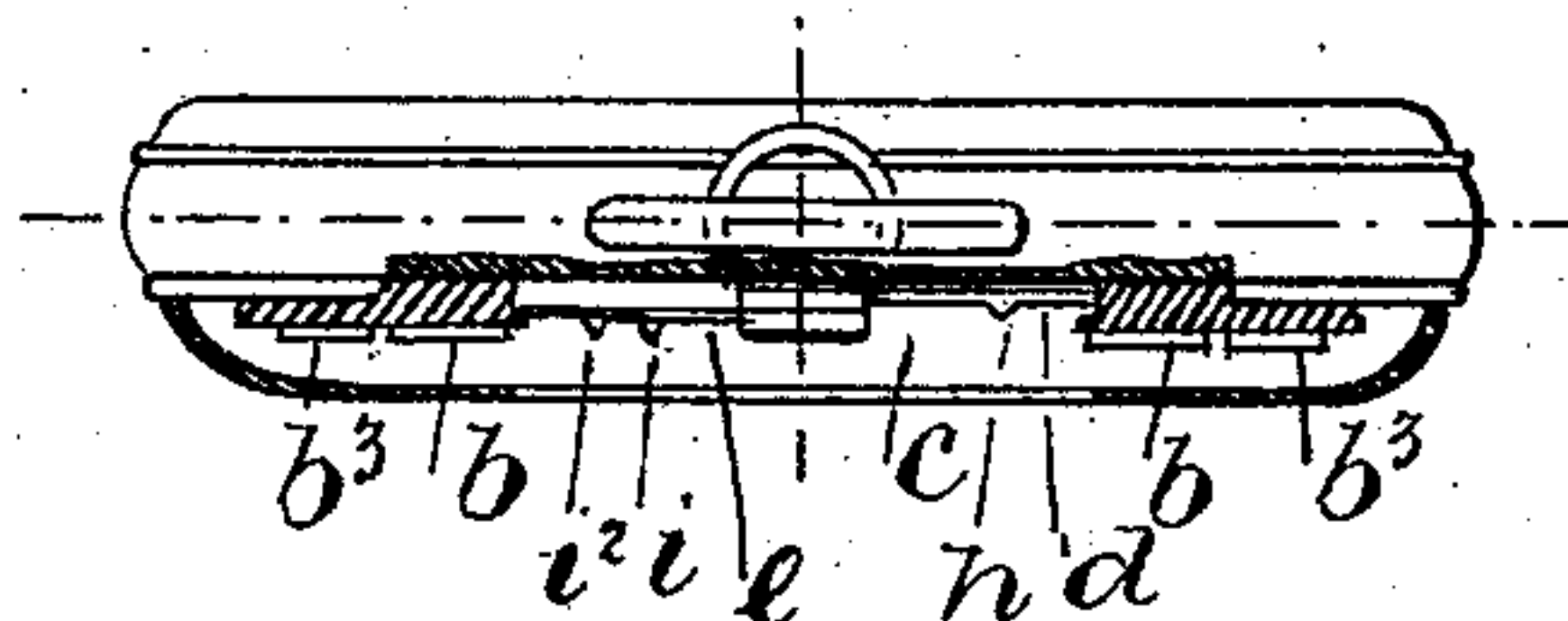


FIG-3

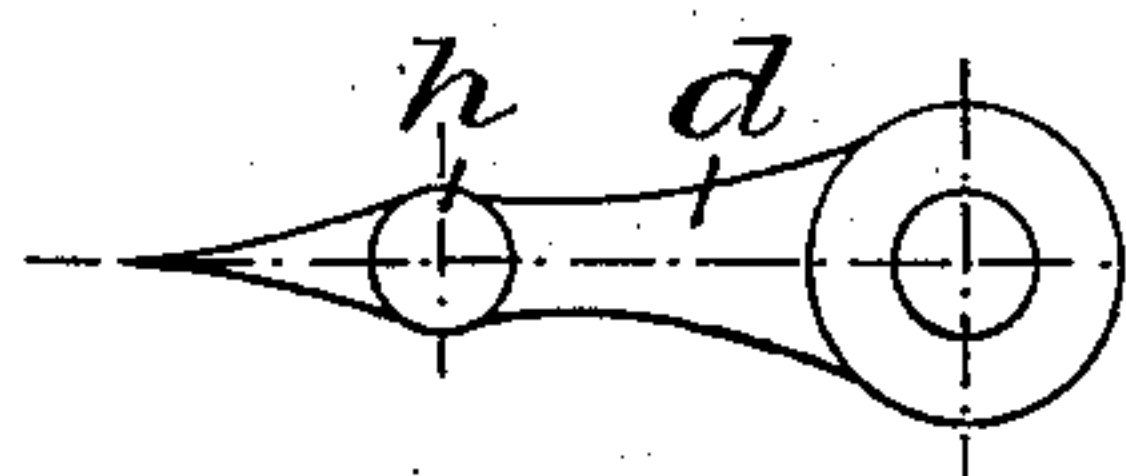


FIG-4

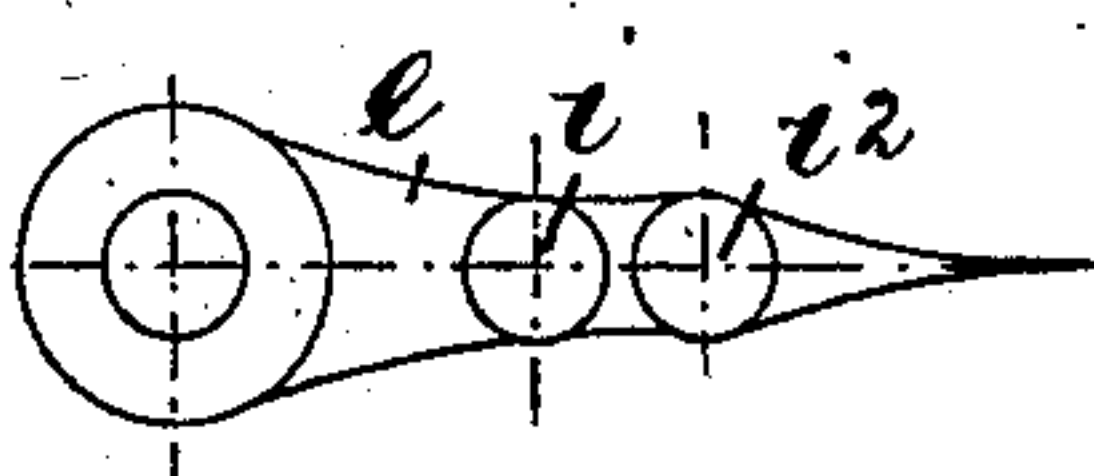


FIG-5

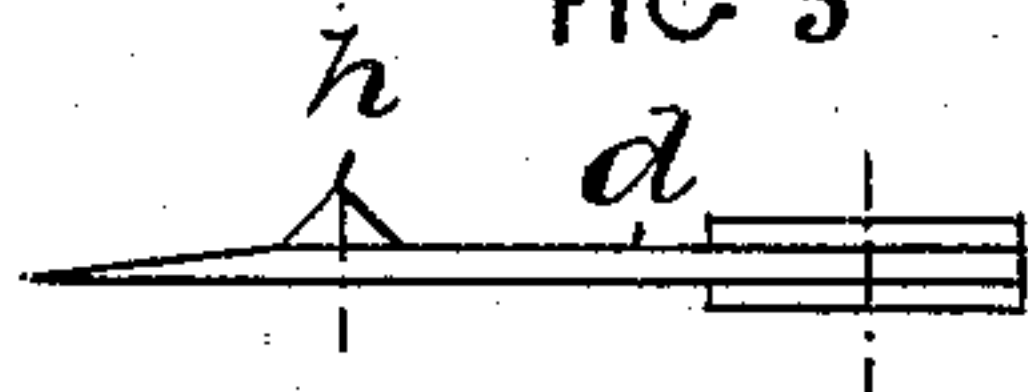
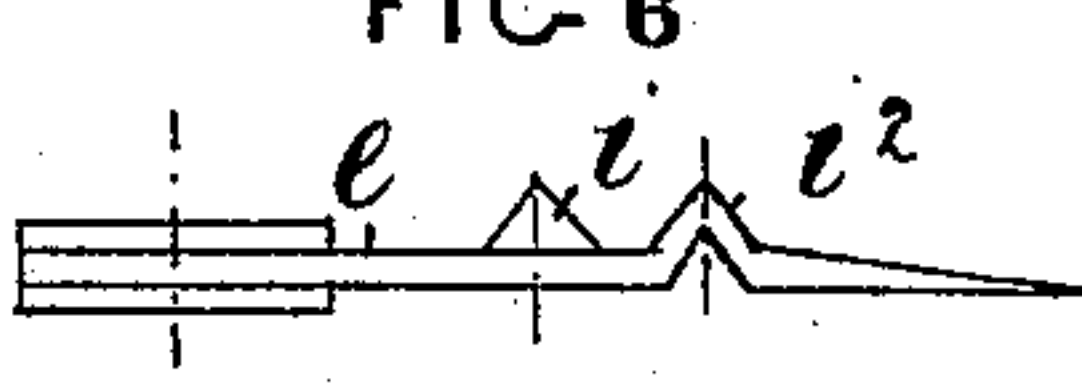


FIG-6



WITNESSES

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# UNITED STATES PATENT OFFICE.

FRITZ BARON VON WECHMAR, OF HANOVER, GERMANY.

## WATCH.

SPECIFICATION forming part of Letters Patent No. 365,032, dated June 14, 1887.

Application filed January 25, 1887. Serial No. 225,466. (No model.) Patented in Germany November 18, 1886, No. 4,432, and in England December 9, 1886, No. 16,126.

*To all whom it may concern:*

Be it known that I, FRITZ BARON VON WECHMAR, a subject of the Emperor of Germany, residing at Hanover, in the Empire of Germany, have invented certain new and useful Improvements in Watches and other Time-Keepers, (for which I have obtained patents in Great Britain, No. 16,126, of 1886, and in Germany, No. 4,432, of 1886;) and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

My invention has for its object to indicate or to tell, approximately, the time of day or the exact time in the dark; and this I do or carry out by the sense of touch.

I will describe my improvements in connection with a watch.

I take an ordinary watch, or a watch provided with the usual time mechanism and dial, but with the figures or indications on the said dial raised or embossed, and which said embossed figures or other indications are preferably disposed about midway between the middle of the watch and its outer circumference, and between the said outer circumference of the dial and the raised figures or markings aforesaid studs or raised points are disposed, which serve as guides or position-marks to the figures, and which said studs or guide-marks are dissimilarly shaped at the four quarters to the others. The center or middle part of the dial is pierced with a circular opening or made in the form of a well, and through the open top of which the positions of the hands of the watch are felt, and which said hands lie below the level of the top of the face or the top of the opening in the face. The figures are also in juxtaposition to the boundary edges of the opening or well wherein the hands work. It is necessary that the hands and figures should be in close proximity to each other in order to admit of the hands and the figures pointed at by the hands to be felt at the same time.

The hands of the watch are provided with knobs or protuberances upon their top surfaces in order to determine the minute from the hour hand. Thus the former is provided

with one raised part, while the latter has two, and with one of them arched or channeled on its under side for the raised part on the other to pass thereunder or therethrough, in order to pass one another on the hands lying flat or working upon each other. The top of the arbor or hand's axis or axes is or are provided with a flat plate at its top to prevent the axis end or the axes ends confusing itself or themselves with the hand protuberances. The central opening may be provided with a lid or cover for protecting the hands and preventing dust or dirt entering the watch or getting into the movements. The pierced or well part wherein the hands work and the dial-plate with raised letters may be made in one piece, or the dial may be simply provided with a middle piercing.

Figure 1 represents, in front elevation, a watch provided with improvements made according to my invention. Fig. 2 is a part vertical section of the same, and Fig. 3 is the hour-hand and Fig. 4 is the minute-hand. Fig. 5 is an edge view of Fig. 3, and Fig. 6 is an edge view of Fig. 4.

*a* is the dial or front part of the watch, provided with raised figures or time-indicators and position-studs raised or embossed upon its surface. The center or middle part of said dial, with figures *b* raised or embossed thereon, is pierced with a circular recess, *c*, and which said opening may be made in the form of a well with a closed bottom; or it may be simply pierced, as represented, and through said piercings the axes *f g* of the hands *d e* pass, and through the open top of which the positions of the hands with respect to the figures and studs are felt. Between the said outer circumference of the dial and the raised figures *b* aforesaid the studs or raised points *b<sup>2</sup> b<sup>3</sup>* are disposed, which serve as guides or position-marks to the figures, the studs or raised points *b<sup>3</sup>*, which are situated at the four quarters, being of a dissimilar shape to the others. It is also necessary that the hands and figures should be in close proximity to each other, as represented, in order to admit of the hands and the figures pointed at by the hands being felt at the same time.

The hour and minute hands are provided



with protuberances or raised points, in order to determine one from the other and in order to assist the sense of touch.

The hour-hand *d* has one point or protuberance, *h*, while the minute-hand *e* has two points or protuberances, *i* *i'*. *i'* is concaved or *V*d upon its under side for the passage thereunder of the point on the top of the other hand.

10 The top of the arbor or hand's axis or axes is or are provided with a flat plate, *j*, at its top to prevent the axis end or ends being confused, or being mistaken for the points or protuberances on the hands.

15 The lid for covering up the opening *c* is not shown.

Having thus described my invention, I claim as new and desire to secure by Letters Patent--

1. In a watch or time-keeper in which time 20 is determined by touch or feeling, the combination of a plain dial or front, *a*, with figures

or other time-markings *b* *b'* *b''* embossed or raised thereon, said dial being provided with a central recess or depression, *c*, wherein the hands are placed, substantially as shown and 25 described.

2. The combination, with a plain dial, *a*, of raised figures *b*, with raised studs *b'* *b''* in front of the said figures, substantially as and for the purpose herein described and set forth. 30

3. The combination, with the exposed hands *d* *e*, of a watch, the studs or points *h* *i* *i'*, and plate *j*, substantially as and for the purpose as set forth.

In testimony that I claim the foregoing I 35 have hereunto set my hand this 17th day of December, 1886.

FRITZ BARON VON WECHMAR.

Witnesses:

JOHN H. SCHNABEL,  
W. G. GERLACH.