(No Model.)

D. H. CHURCH.

WATCH DIAL FASTENER.

No. 556,303. Patented Mar. 10, 1896.

FIG. 1.

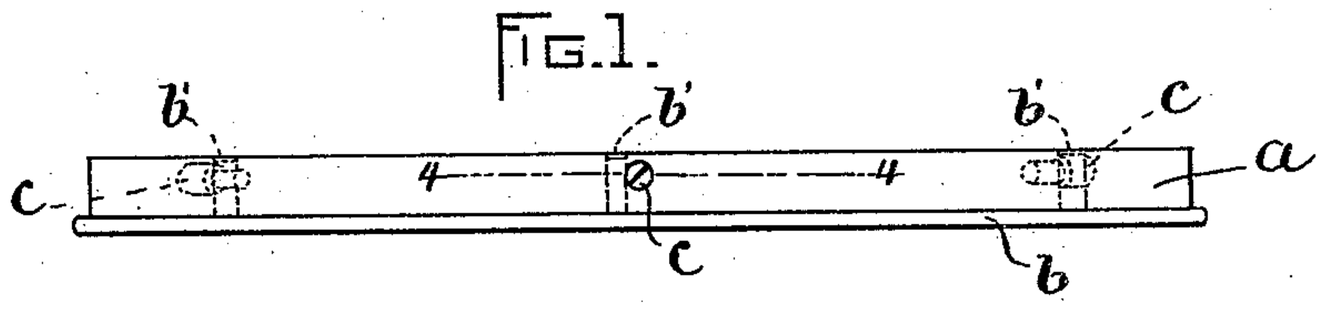


FIG. 2.

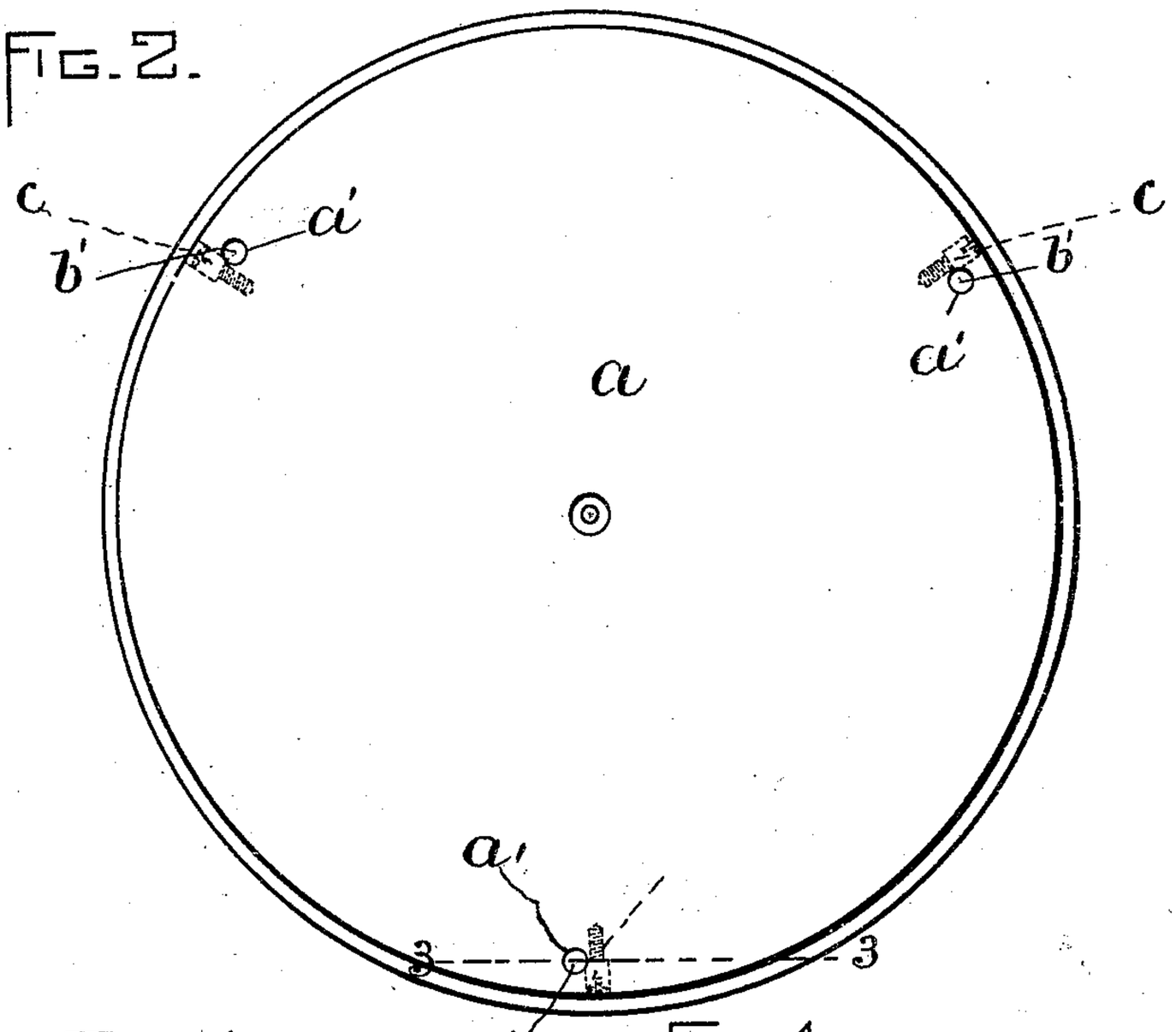


FIG. 3.

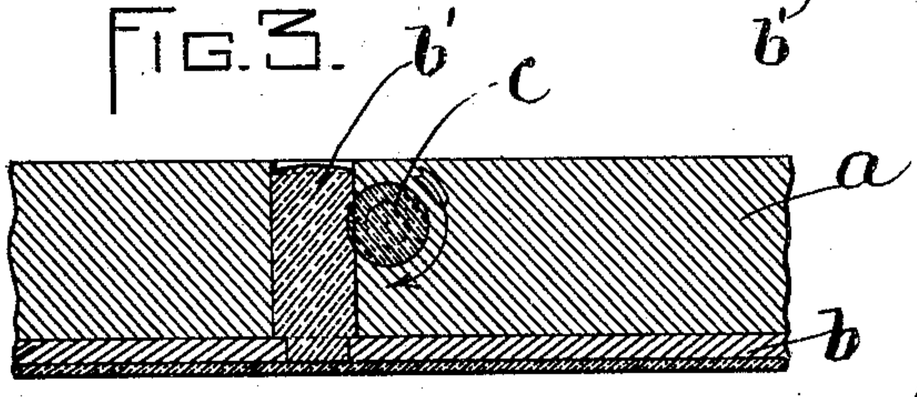


FIG. 4.

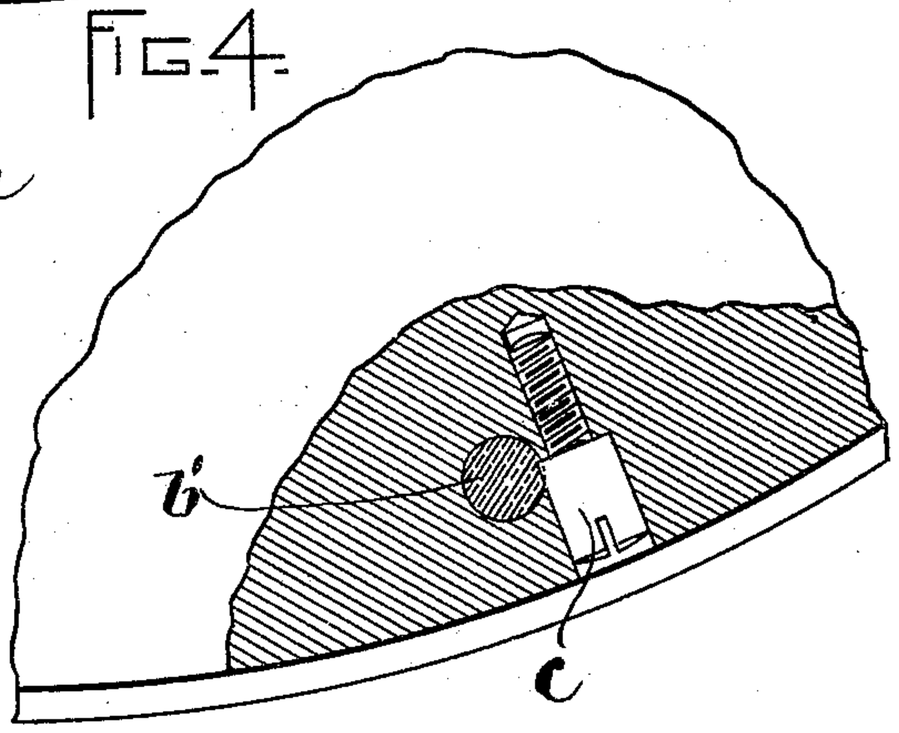
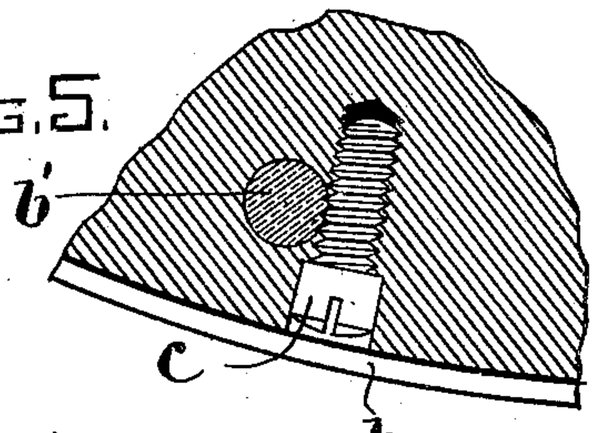


FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DUANE H. CHURCH, OF NEWTON, MASSACHUSETTS.

WATCH-DIAL FASTENER.

SPECIFICATION forming part of Letters Patent No. 556,303, dated March 10, 1896.

Application filed July 15, 1895. Serial No. 555,992. (No model.)

To all whom it may concern:

Be it known that I, DUANE H. CHURCH, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Dial-Holders for Watch-Movements, of which the following is a specification.

This invention has for its object to provide means for fastening a watch-dial securely to the dial-holding plate of a watch-movement with the minimum risk of breaking the dial. Watch-dials are provided with pins which project from their rear or inner surfaces and enter sockets in the watch-plate. These pins are ordinarily secured in their sockets by means of set-screws entered through the periphery of the plate and abutting directly against the pins. The direct pressure of the screws against the pins in many cases causes sufficient flexure of the copper plate forming the body of the dial to crack the enamel coating constituting the face of the dial, said coating being very delicate and brittle.

My invention consists in arranging the feet-attaching screws tangentially to the sockets which receive the feet, so that the screws instead of abutting directly against the feet and exerting lateral pressure upon them will extend across the feet in light contact with one side of each foot, thus securely holding the feet without the above-mentioned liability of cracking the enamel, the arrangement of the screws being such that their rotation while they are being entered into the plate will serve to draw the pins into their sockets and thus draw the dial down to the plate.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents an end view of a watch-plate provided with my improvement, the dial being shown in place upon the plate. Fig. 2 represents a plan view of the under side of the plate. Fig. 3 represents a section on line 3 3 of Fig. 2. Fig. 4 represents a section on line 4 4 of Fig. 1. Fig. 5 represents a section similar to Fig. 4, showing the threaded body of the screw in engagement with a dial-foot.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the part of the movement-holding frame known as the "watch-plate," the same having the usual sockets *a'*, which receive the feet *b'* attached to the dial *b*.

c c represent the attaching-screws which secure the dial-feet to the plate *a*.

In carrying out my invention I form the tapped holes which receive the screws *c* tangentially to the sockets *a'*, as shown in Figs. 2, 4, and 5, the arrangement being such that each screw *c* extends across one side of the foot and slightly enters the socket which receives the foot, so that the screw makes a slight indentation in one side of the accompanying foot and is, therefore, sufficiently engaged with the foot to hold it securely in place without exerting that injurious pressure upon the foot which is involved by the direct bearing of the inner end of the screw against the foot. I prefer to arrange the screws so that their rotation while they are being entered into the plate will be in the direction of the arrow in Fig. 3, each screw being thus caused to exert an inward drawing force upon the accompanying foot, thus drawing the dial against the watch-plate.

The holding-screws may be arranged so that the head of the screw will engage the foot, as shown in Fig. 4, or so that the threaded portion will engage the foot, as shown in Fig. 5.

I claim—

A watch-plate having sockets for the dial-feet, and tapped holes arranged tangentially to, and extending across said sockets, each hole intersecting one side of the accompanying socket, whereby screws engaged with said holes are caused to extend across, and slightly indent the dial-feet, and to draw the same into their sockets.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 5th day of July, A. D. 1895.

DUANE H. CHURCH.

Witnesses:
A. D. HARRISON,
W. P. ABELL.