

(Model.)

F. RAPP.
WATCH CASE HINGE.

No. 313,448.

Patented Mar. 3, 1885.

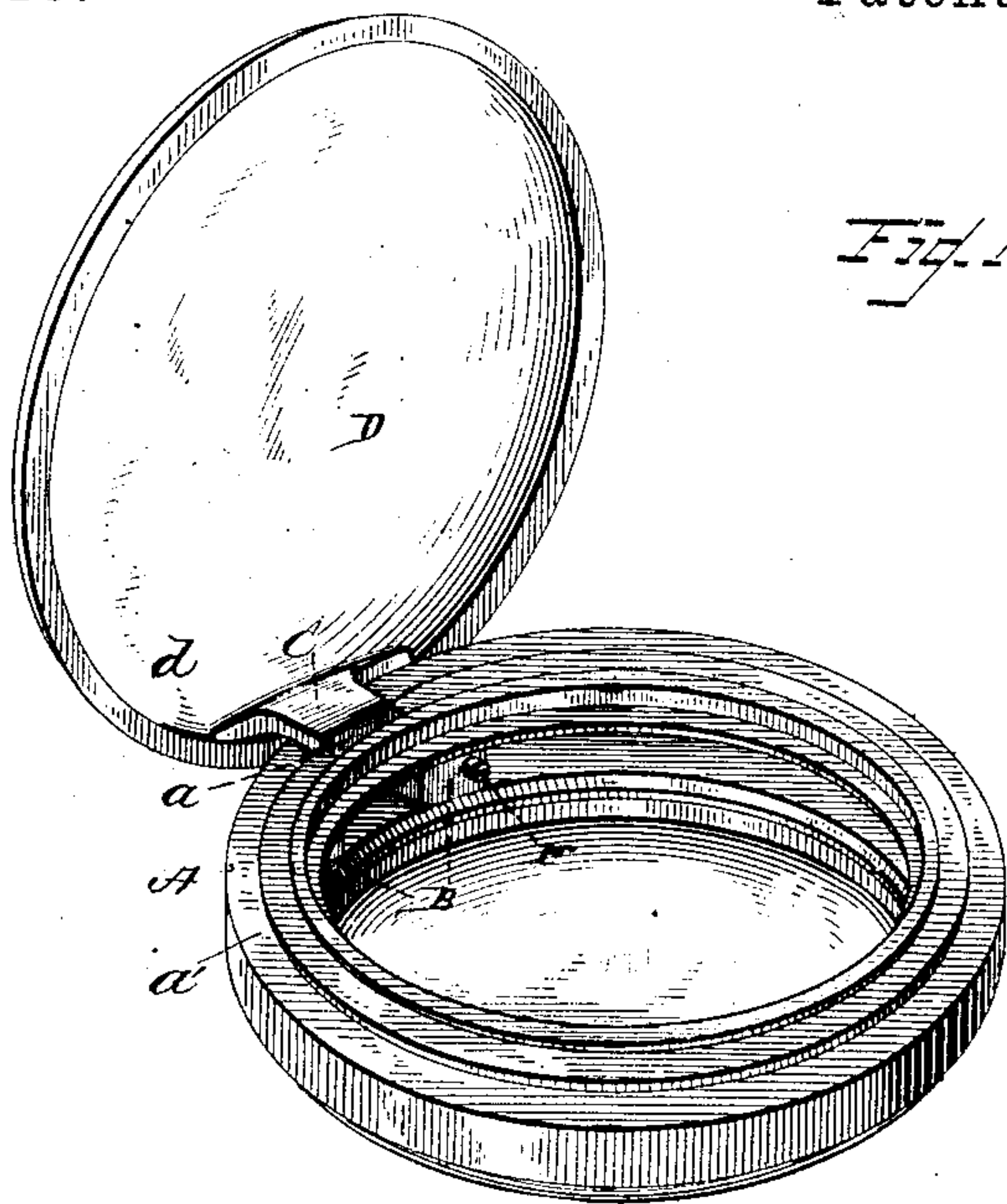


Fig. 2

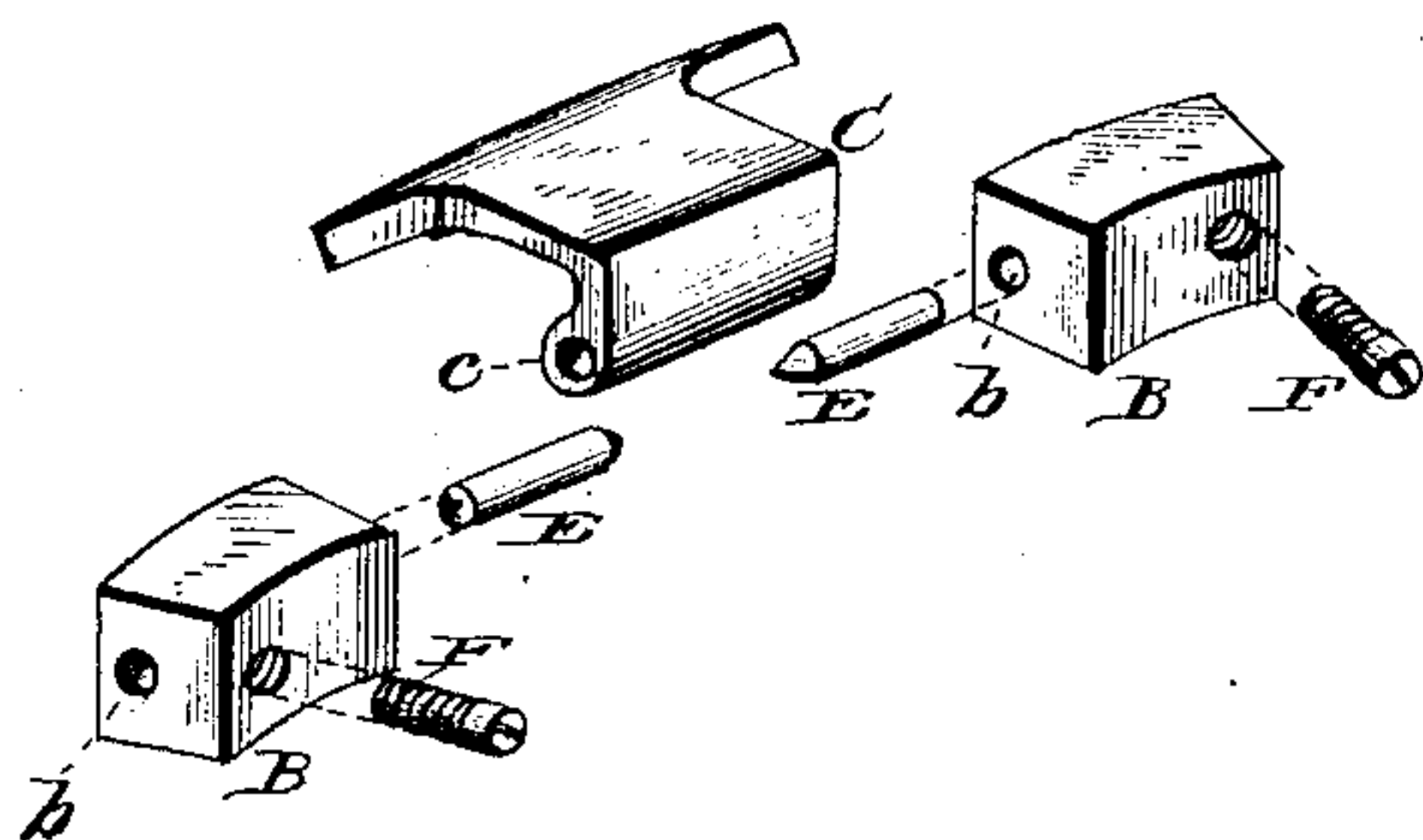


Fig. 3

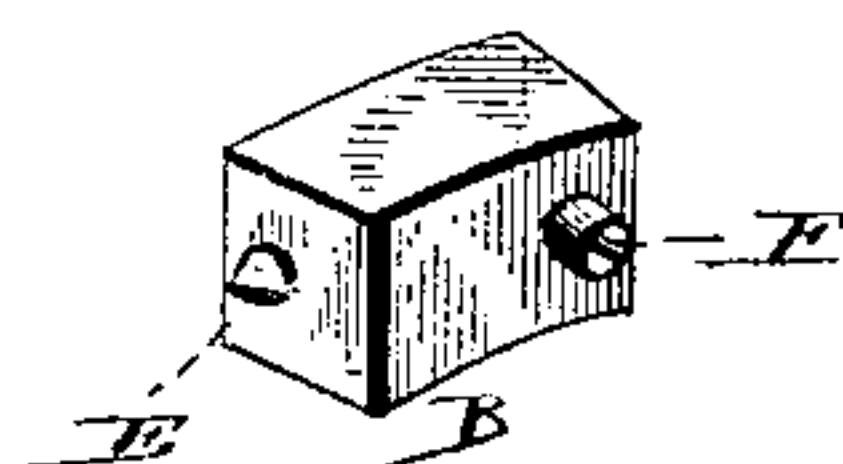


Fig. 4

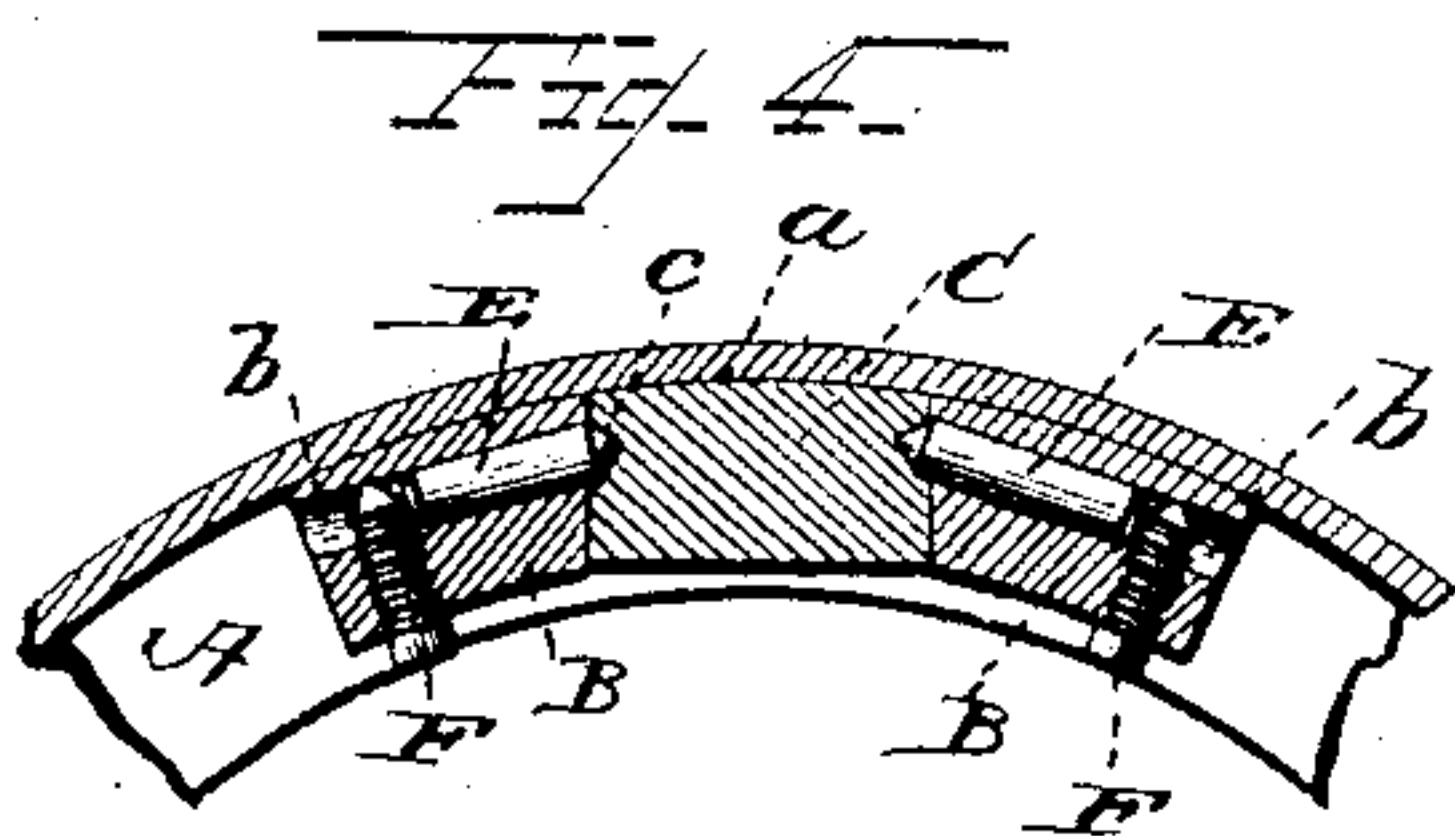
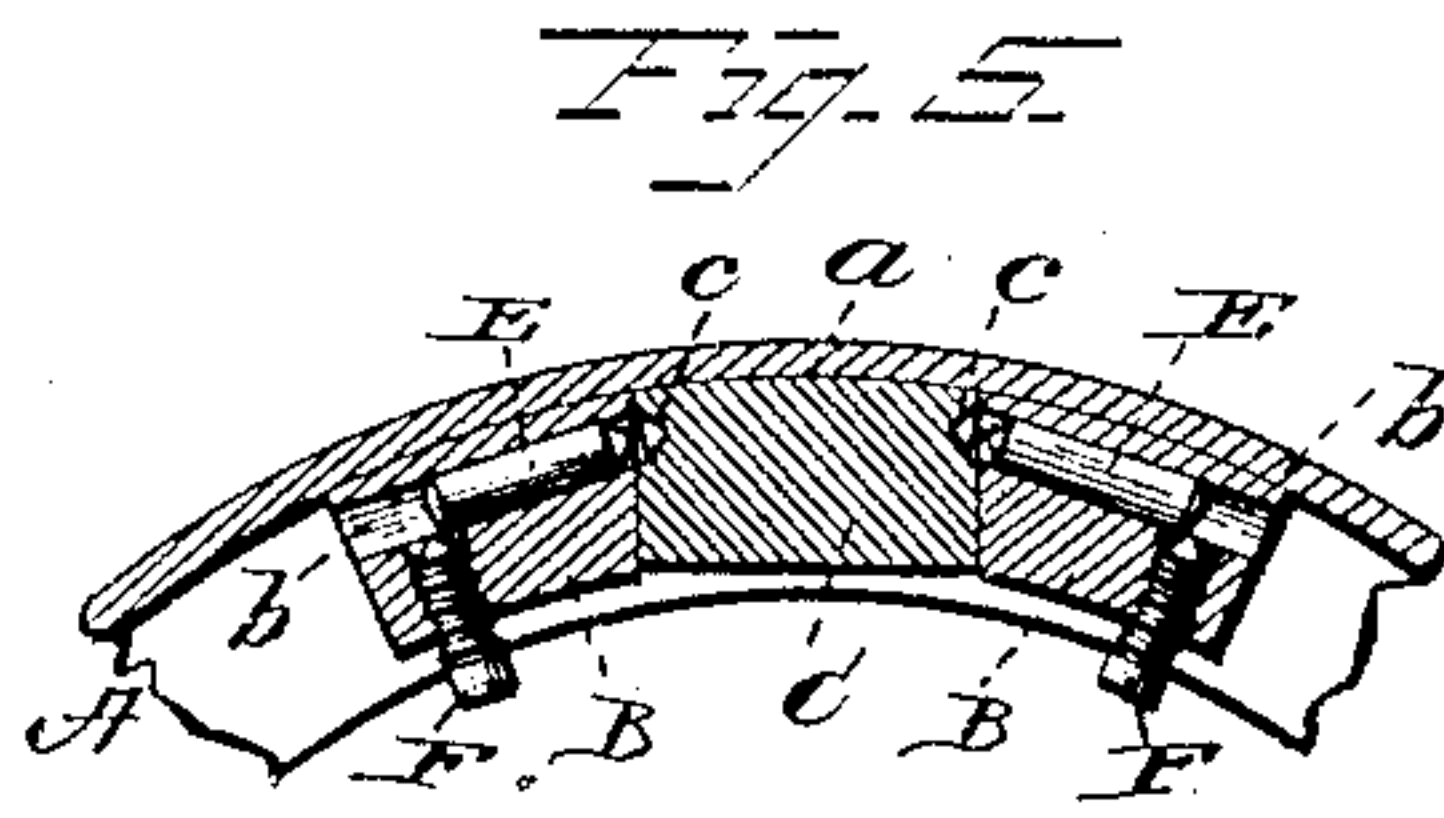


Fig. 5



Witnesses:
C. J. Williamson.
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UNITED STATES PATENT OFFICE.

FREDERICK RAPP, OF CHICAGO, ILLINOIS.

WATCH-CASE HINGE.

SPECIFICATION forming part of Letters Patent No. 313,448, dated March 3, 1885.

Application filed August 28, 1884. (Model.)

To all whom it may concern:

Be it known that I, FREDERICK RAPP, of Chicago, in the county of Cook, and in the State of Illinois, have invented certain new and useful Improvements in Hinge-Joints for Watch-Cases; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a watch-case containing my improved hinge, the cover being opened. Fig. 2 is a like view of the parts of the hinge separated from each other. Fig. 3 is a perspective view of the cover portion of said hinge, with the pivotal pins in the positions occupied when said cover is connected with the case-center; and Figs. 4 and 5 are sections upon a line passing through the axes of said pivotal pins, and show, respectively, the positions of the latter when engaged with and disengaged from the case-center portion of the hinge.

Letters of like name and kind refer to like parts in each of the figures.

My invention relates to a watch-case hinge which is entirely within the case, and has for its object the ready connection or separation of the cover and case-center portions of the same; to which end said invention consists, principally, in a hinge for watch-cases in which the pivotal pin is constructed in two sections that are contained within the axial opening of the center lug, and may be moved longitudinally outward from the same until their outer ends enter into and engage with the axial openings of the adjacent outer lugs, substantially as and for the purpose hereinafter specified.

It consists, further, in a hinge for watch-cases in which the pivotal pin is constructed in two sections that are contained within the axial opening of the center lug, and by means of a screw, which is arranged to pass between their inner contiguous ends, may be forced longitudinally outward until their outer ends enter into and are contained within the axial openings of the adjacent outer lugs, substantially as and for the purpose hereinafter shown.

In the carrying of my invention into effect two lugs, A and A, are secured within the recessed interior of a case-center, B, at a suitable distance apart, to permit of the insertion between their inner ends of a third lug, C, which is attached to a cover, D. Said lug C is se-

cured at one end to the inner side of said cover, inside of the bearing-edge *d* of the latter, and extends in a curve downward and outward, so as to bring its opposite outer end into position between said lugs A, while for its passage an opening, *b*, is formed within said case-center partly or wholly within the bearing-face *b'*, that is provided for said bearing-edge *d*, the arrangement being such that the hinge-lugs are contained wholly within the case and are not seen when said case is closed.

Within each lug A is provided an opening, *a*, which coincides axially with a similar opening, *a*, in the opposite lug A, and with a like opening, *c*, in the center lug, C, and in connection with said openings serves to contain the pivotal or axial hinge-pins E.

In order that the pins E may be readily inserted, they have a united length which corresponds with the width of the center lug, C, and enables them to be contained within and just fill the opening *c* in and through the same. A screw, F, having a rounded or pointed end, passes radially inward through said lug, and, by being turned inward, passes between the contiguous inner ends of said pins, and, forcing each outward, causes its outer end to project from said opening *c*.

To connect the cover with the case-center, the screw F is withdrawn until the pins E can be pushed together and be wholly contained within the opening *c*. The lug C is then placed in position between the lugs A, and said screw then turned inward until said pins are forced outward and the outer end of each caused to enter into and engage with the opening *a* of the contiguous lug A. In order that said pins may not work outward farther than is desired, the said openings *a* have but slightly greater depth than is necessary to permit of the entrance of said pins. While the center lug of the hinge is preferably attached to the cover, and the other lugs are attached to the case-center, the positions of said parts may, if desired, be reversed.

I do not herein claim, specifically, pivotal pins arranged to move longitudinally outward into engagement with the adjacent hinge-lugs, such construction being covered by another application for patent, Serial No. 141,648.

Having thus fully set forth the nature and merits of my invention, what I claim is—

1. A hinge for watch-cases in which the piv-

otal pin is constructed in two sections that are contained within the axial opening of the center lug, and may be moved longitudinally outward from the same until their outer ends enter into and engage with the axial openings of the adjacent outer lugs, substantially as and for the purpose specified.

2. A hinge for watch-cases in which the pivotal pin is constructed in two sections that are contained within the axial opening of the center lug, and by means of a screw, which is arranged to pass between their inner contigu-

ous ends, may be forced longitudinally outward until their outer ends enter into and are contained within the axial openings of the adjacent outer lugs, substantially as and for the purpose shown. 15

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of August, 1884.

FREDERICK RAPP.

Witnesses:

JOHN J. KEHOE,
JULIUS SCHNEUNG.