

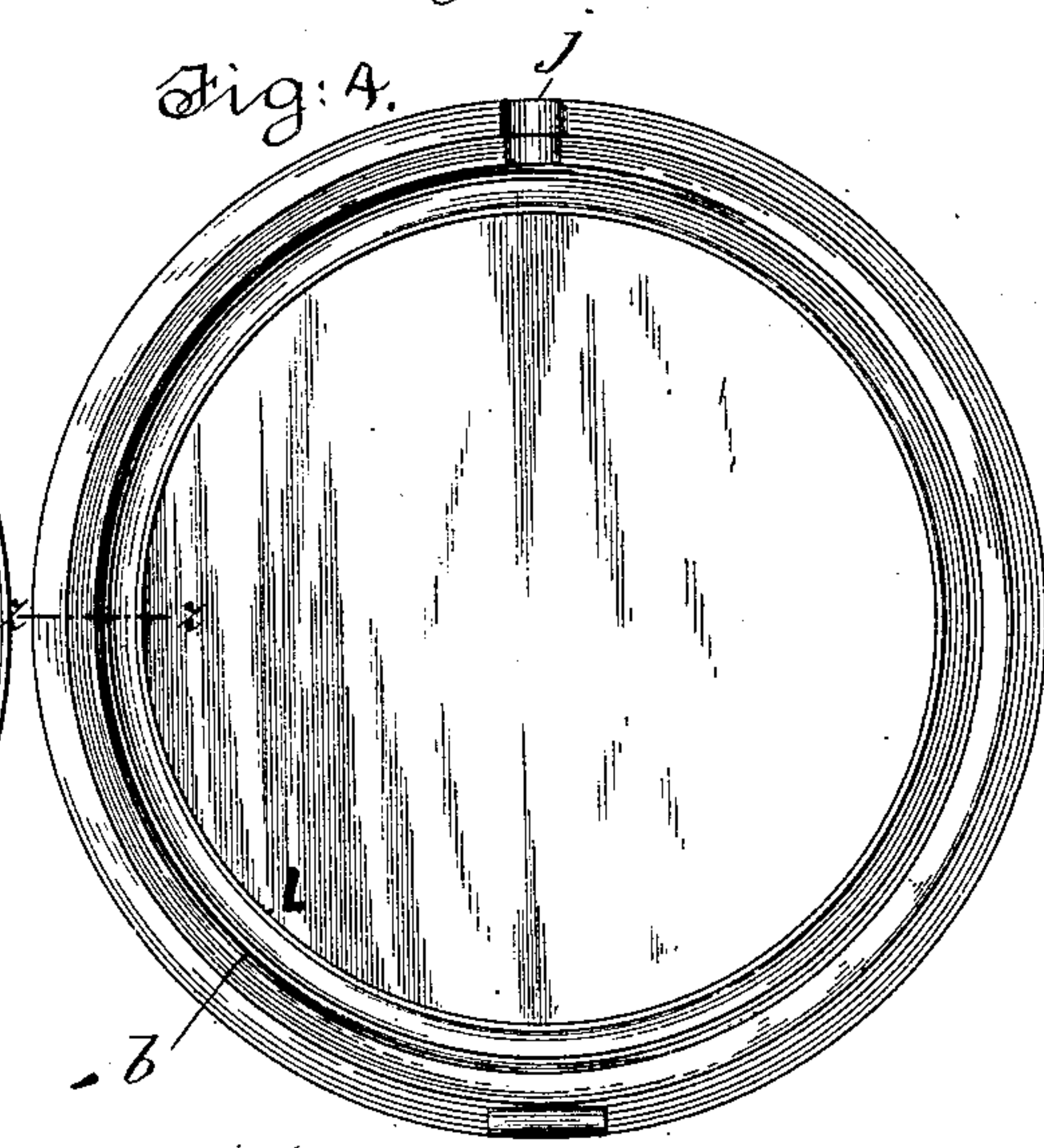
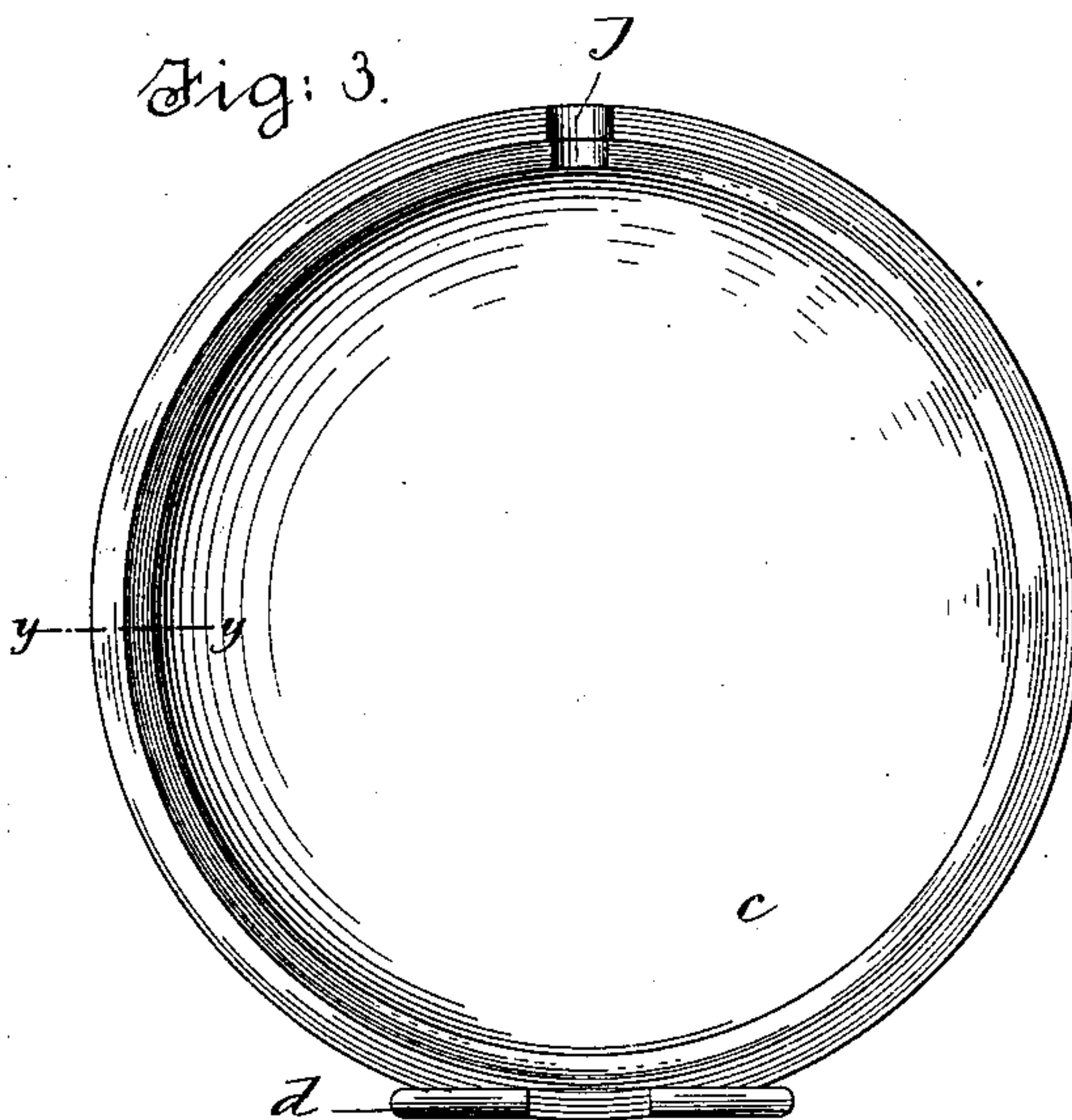
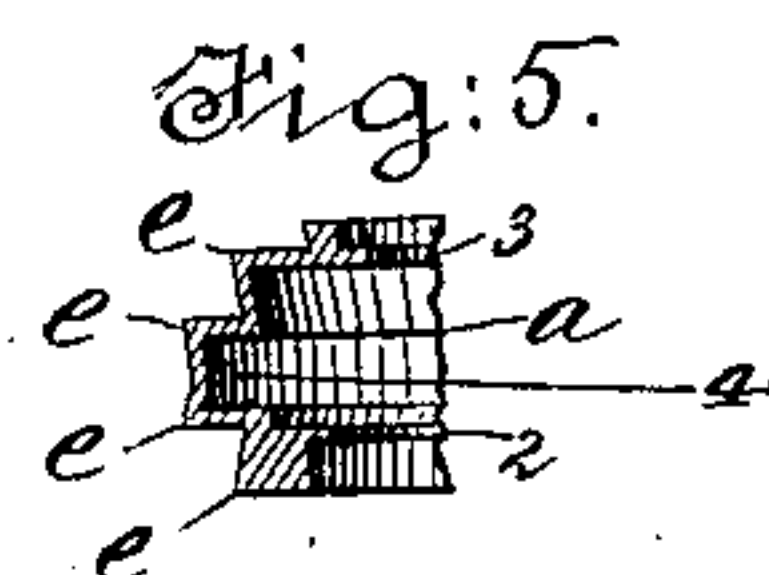
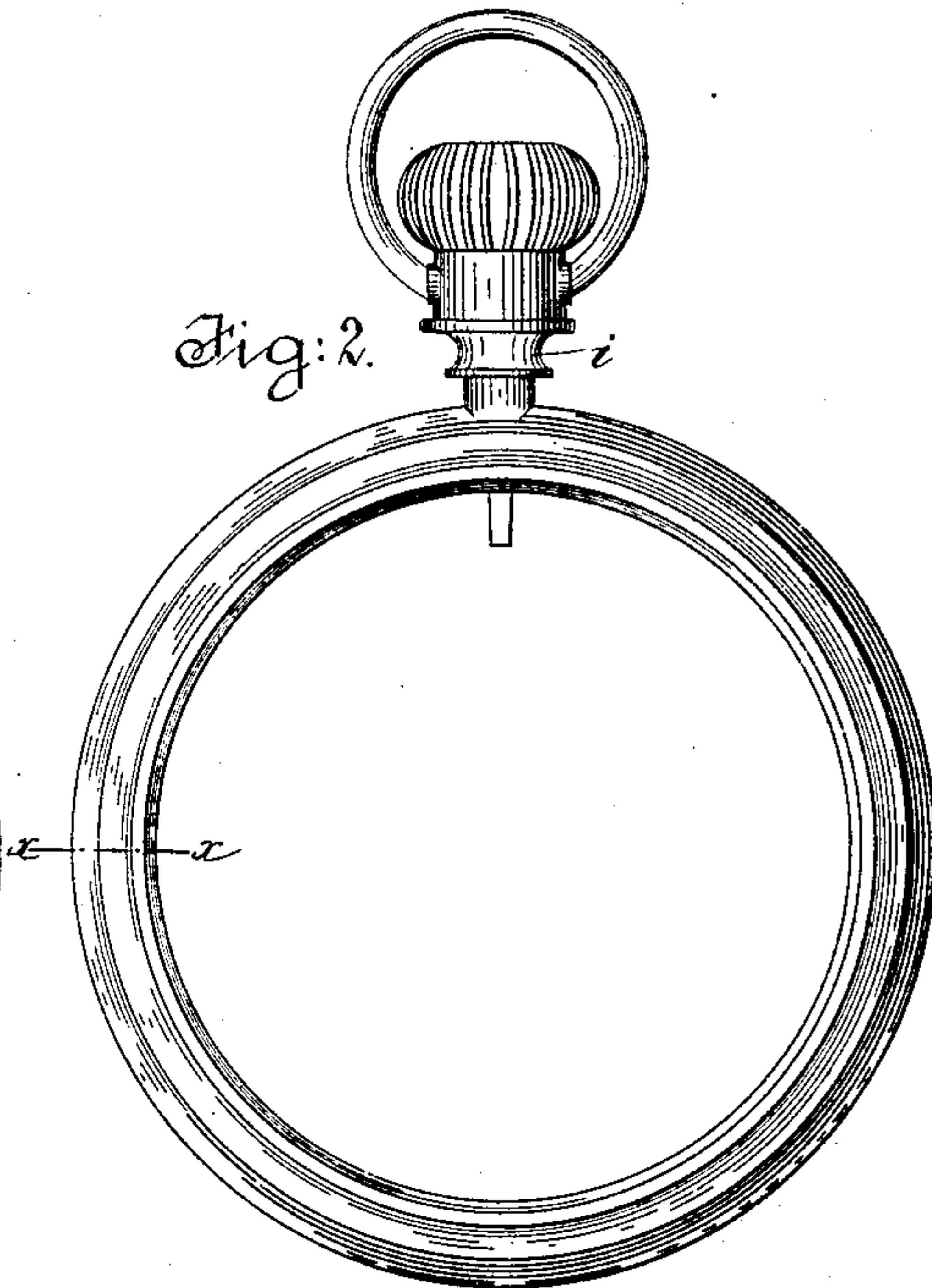
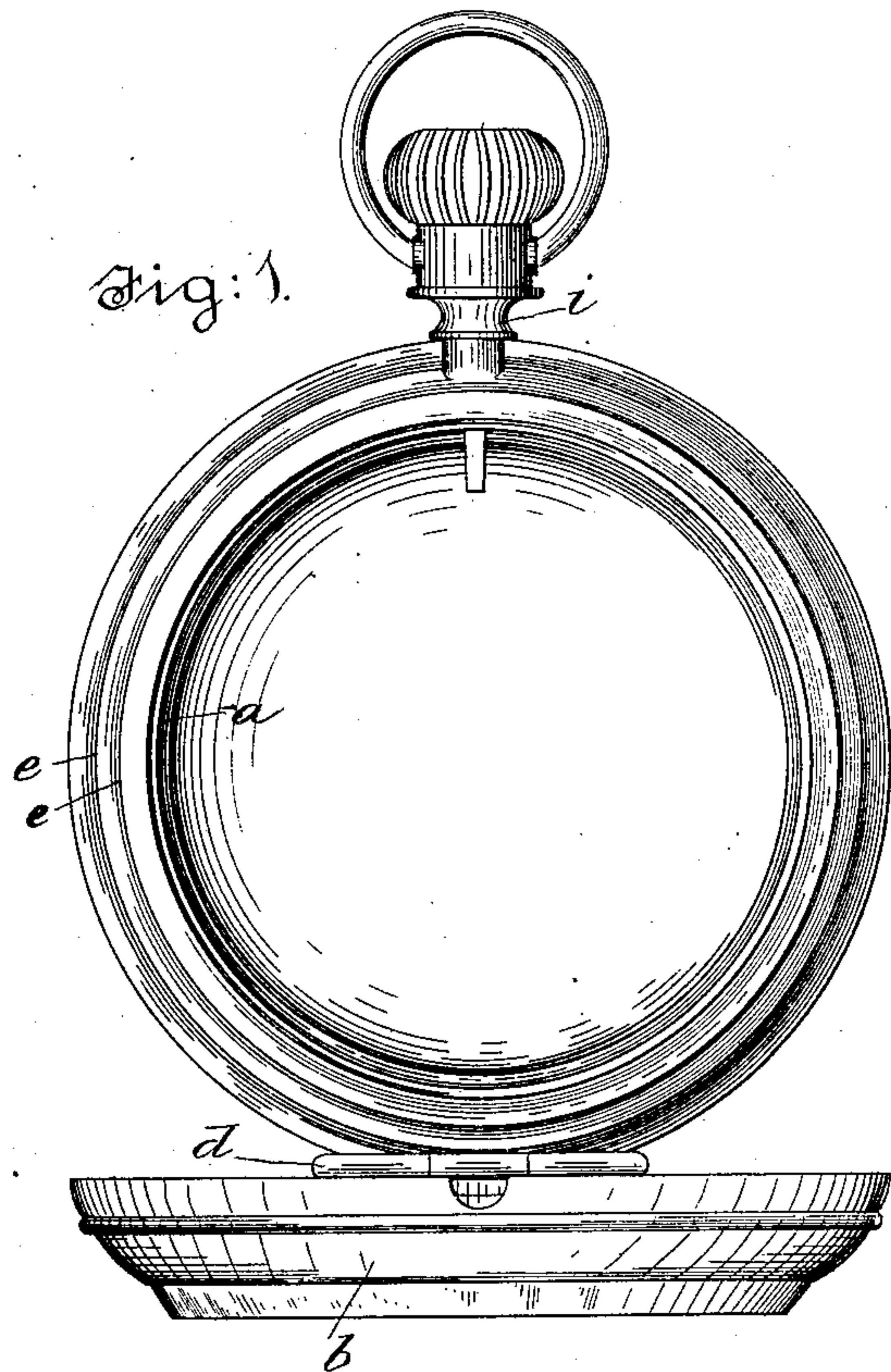
(Model.)

3 Sheets—Sheet 1.

C. F. MORRILL.
WATCH CASE.

No. 358,403.

Patented Feb. 22, 1887.



Witnesses:
John A. Rennie
John Long.



Fig: 7.

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Atty.

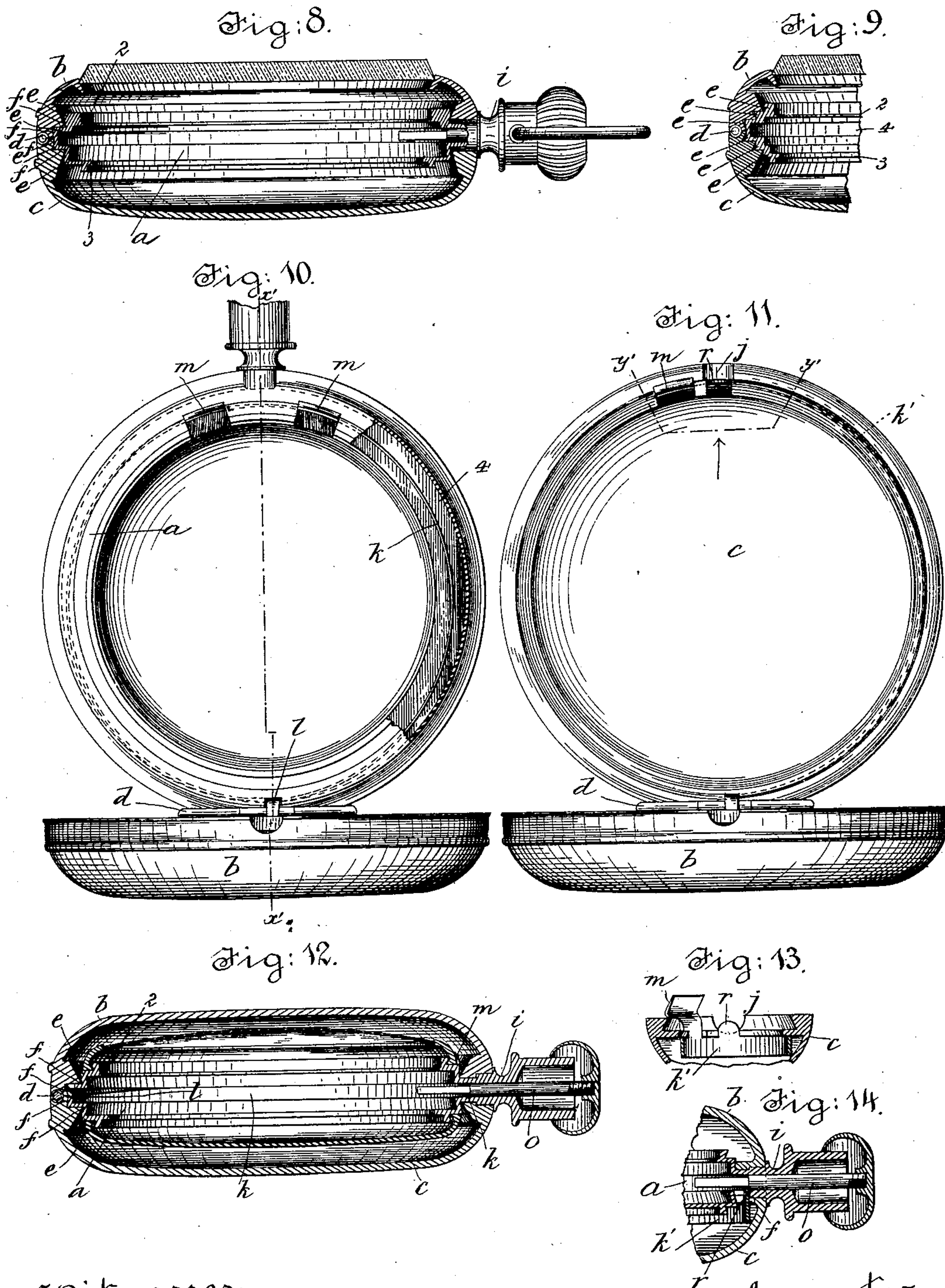
(Model.)

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(Model.)

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Fig: 17.

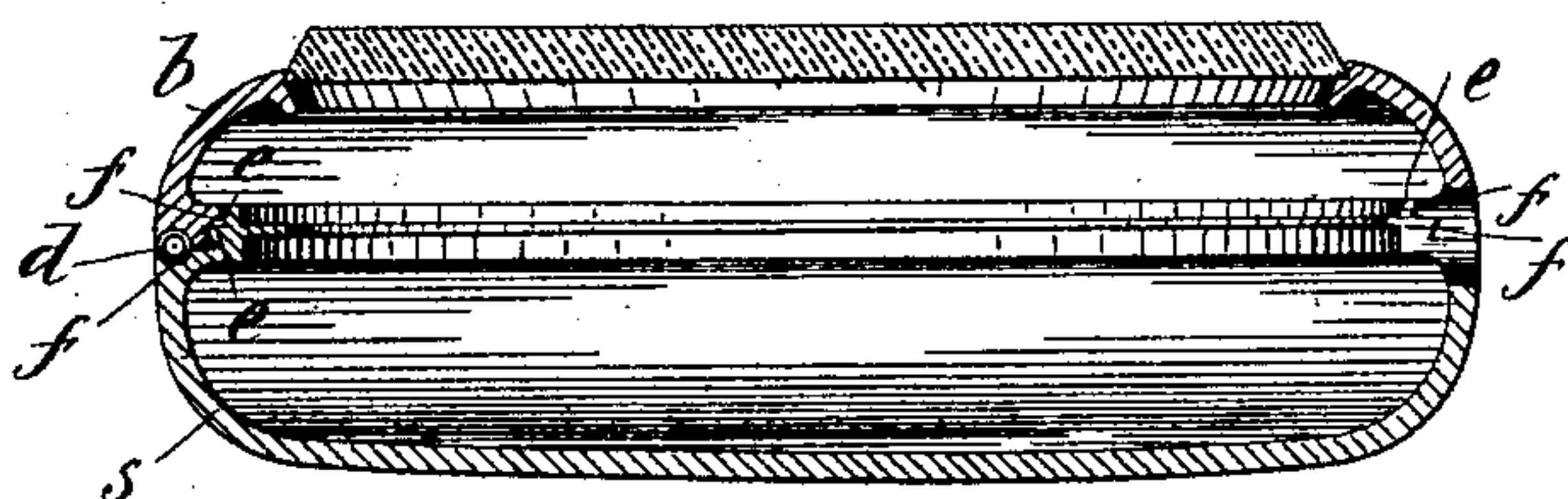
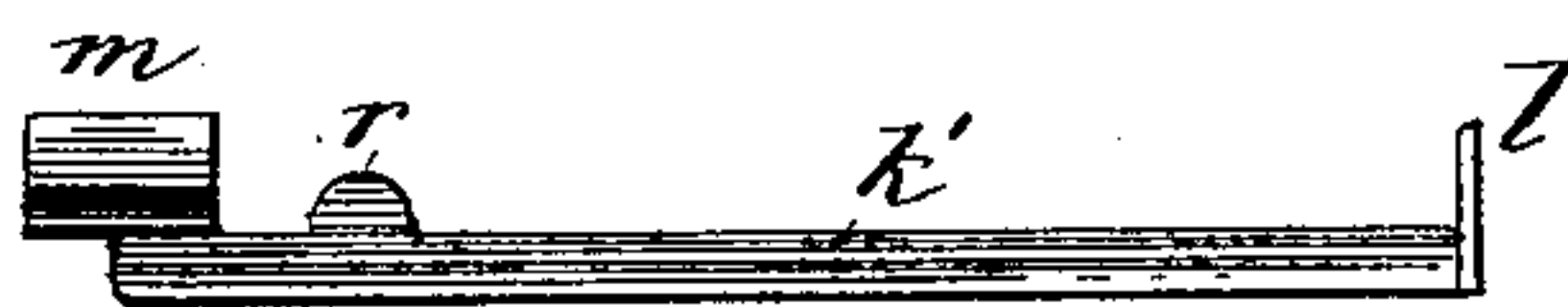


Fig: 15.



Fig: 16.



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UNITED STATES PATENT OFFICE.

CHARLES F. MORRILL, OF BOSTON, MASSACHUSETTS.

WATCH-CASE.

SPECIFICATION forming part of Letters Patent No. 358,403, dated February 22, 1887.

Application filed September 4, 1886. Serial No. 212,674. (Model.)

To all whom it may concern:

Be it known that I, CHARLES F. MORRILL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Watch-Cases, of which the following is a specification.

This invention has for its object to provide certain improvements in the construction of watch-cases, whereby greater tightness and better protection of the movement against dust, &c., are secured; also, to provide certain improvements in the springs which retain and open the covers of the watch-cases.

To these ends my invention consists in the several improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a front view of an open-face watch-case embodying my improvements, the bezel or front cover being open. Fig. 2 represents a front view of the movement-holding portion detached from the covers. Figs. 3 and 4 represent, respectively, inside views of the back cover and the bezel. Figs. 5, 6, and 7 represent, respectively, sections on lines $x x$, $y y$, and $z z$, Figs. 2, 3, and 4. Fig. 8 represents a transverse section of the case shown in the preceding figures, the bezel or front cover being closed. Fig. 9 represents a slight modification of the construction shown in Fig. 8. Fig. 10 represents a front view of a hunting-case having my improvements, the front cover being open. Fig. 11 represents a similar view to Fig. 10, the movement-holding portion being removed and the opening and catch spring being inclosed in the back, instead of in the movement-holding portion. Fig. 12 represents a section on line $x' x'$, Fig. 10, the case being closed. Fig. 13 represents a section on line $y' y'$, Fig. 11, looking in the direction indicated by the arrow in said figure. Fig. 14 represents a sectional view of the pendant and a part of the case. Figs. 15 and 16 represent case-springs. Fig. 17 represents a sectional view of a case of modified form.

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

In the drawings, a represents the movement-holding portion of the case, which is shown in Figs. 1, 8, 9, 10, 12, and 14 as in the form of an ordinary case-center, so far as its interior sur-

face is concerned, narrow flanges or shoulders 2 3 being provided to support the watch-movement in the usual manner, and a central annular recess, 4, to receive the case-spring, said recess surrounding the movement-holding space of the movement-holding portion.

b represents the front cover, (shown as a glass-holding bezel in Figs. 1, 4, 8, and 9, and as a hunting-case lid in Figs. 10, 11, 12, and 14,) and c represents the back cover. Said covers b and c are connected by a hinge-joint, d , of any suitable kind, said joint connecting the covers to each other. The exterior of the movement-holding portion and the internal surfaces of the covers $b c$ are so formed that the said covers entirely inclose the movement-holding portion, as shown in Figs. 8, 9, and 12. The movement-holding portion is provided with risers or shoulders e , formed to coact with similar risers or snap-edges, f , on the covers $b c$, said covers being detachably secured to the movement-holding portion by the engagement of their risers or snap-edges with those of the movement-holding portion. The covers are so formed that when thus engaged with the movement-holding portion their edges will abut against each other, and will be held together by the described engagement with the movement-holding portion, and either cover may be opened independently of the other, there being no direct connection between the two covers, excepting that afforded by the hinge-joint.

An important part of my invention consists in providing each of the covers $b c$ with a set or plurality of risers or snap-edges, f , and the movement-holding portion with a corresponding set or plurality of risers, e , arranged to coact with those of the covers, so that each cover is engaged with the movement-holding portion by not less than two risers or snap-edges. The joint between the covers and movement-holding portion is therefore made doubly tight and dust-proof.

It will be seen that by constructing the covers $b c$ to entirely inclose the movement-holding portion and meet outside of the edge of the same I am enabled to provide each of the covers and the movement-holding portion with a plurality of risers without increasing the thickness of the movement-holding portion, the entire outer surface of the movement-

holding portion being available, as none of it is exposed as in ordinary watch-cases. Each cover may therefore have two risers or snap-edges, or even more if desired, the movement-holding portion having, of course, a corresponding number.

In Figs. 1 to 8, inclusive, two risers or snap-edges for each cover are shown, while in Fig. 9 three risers or snap-edges are shown for each cover. I do not limit myself, however, to the employment of a plurality of risers or snap-edges for all the covers, as one cover may have but one riser or snap-edge and the other a plurality.

In a hunting-case watch the front cover, which is of necessity frequently opened, may have but one riser or snap-edge, while the back cover may have two or more. The movement-holding portion is preferably separable from the covers *b c* and has a pendant, *i*, which passes through recesses *j j*, formed for it in said covers. If desired, however, the movement-holding portion may be connected by a hinge to one of the covers, or may be connected to both covers by the joint *d*.

The movement-holding portion in the hunting-case shown in Figs. 10 and 12 has a spring, *k*, located in the annular recess 4 of the movement-holding portion, and preferably of such length that it extends entirely around the movement-holding portion, as shown in full and dotted lines in Fig. 10. Said spring is provided with an arm or offset, *l*, which bears against the front cover, *b*, as shown in Fig. 12, and presses the latter open, and with two catches, *m m*, at opposite sides of the pendant, said catches being formed to engage the front cover, two openings being formed in the movement-holding portion for said catches. It will be seen that the two catches formed on one spring hold the front cover more securely than a single catch, and are capable of being displaced simultaneously to release the front cover by the inward movement of the winding bar or stem *e* in the pendant, a shoulder on said bar bearing on the spring between the catches *m m*, as shown in Fig. 12.

Figs. 11, 13, 14, and 16 show a spring, *k'*, applied to the cover *c* under the inner riser or snap-edge, *f*, thereof. Said spring has a single catch, *m*, and an offset, *r*, projecting toward the stem *o*, so as to be acted on by the shoulder thereon. (See Fig. 14.) The rear side of the pendant *i* is cut away to allow the offset *r* to project into the pendant.

I do not limit myself to the plurality of

risers in a watch-case, in which a movement-holding portion is employed which is entirely inclosed by the covers. In Fig. 17 I have shown a case which is composed of but two parts—viz., a seamless shell, *s*, which holds the movement, and a front cover or bezel, *b*, hinged to the shell at *d*. The cover *b* and shell *s* have each two risers or snap-edges, *f f* and *e e*, the result being the same as in the construction previously described so far as the tightness of the fit of the cover upon the movement-holding portion of the case is concerned.

I claim—

1. A watch-case in which the risers or seats for the external parts or covers are arranged in sets, each set comprising two or more risers formed to engage simultaneously with two or more corresponding risers or snap-edges on one of the external parts or covers of the case.

2. In a watch-case, the combination of a movement-holding portion having a set or plurality of risers arranged to engage simultaneously with a corresponding series of snap-edges on a single cover or hinged portion, and a cover or hinged portion having a plurality of risers or snap-edges adapted to simultaneously engage the said set of risers on the movement-holding portion, as set forth.

3. A movement-holding portion having a set or plurality of risers for each cover or hinged portion, combined with the covers or hinged portions formed to entirely inclose and cover the movement-holding portion when closed, and each having a set or plurality of snap-edges formed to engage simultaneously with the corresponding set of risers on the movement-holding portion.

4. A watch-case in which the back and front covers are hinged together and formed to entirely inclose the movement-holding portion, one or both of said covers being provided with a plurality of risers or snap-edges formed to snap onto corresponding risers on the movement-holding portion, as set forth.

5. A watch-case back, bezel, or cover having a plurality of risers or snap-edges adapted to simultaneously engage corresponding risers on a movement-holding portion, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 1st day of September, 1886.

CHARLES F. MORRILL.

Witnesses:

C. F. BROWN,
JOHN LONG.