

(No Model.)

D. O'HARA.
WATCH CASE.

No. 353,961.

Patented Dec. 7, 1886.

Fig. 1.

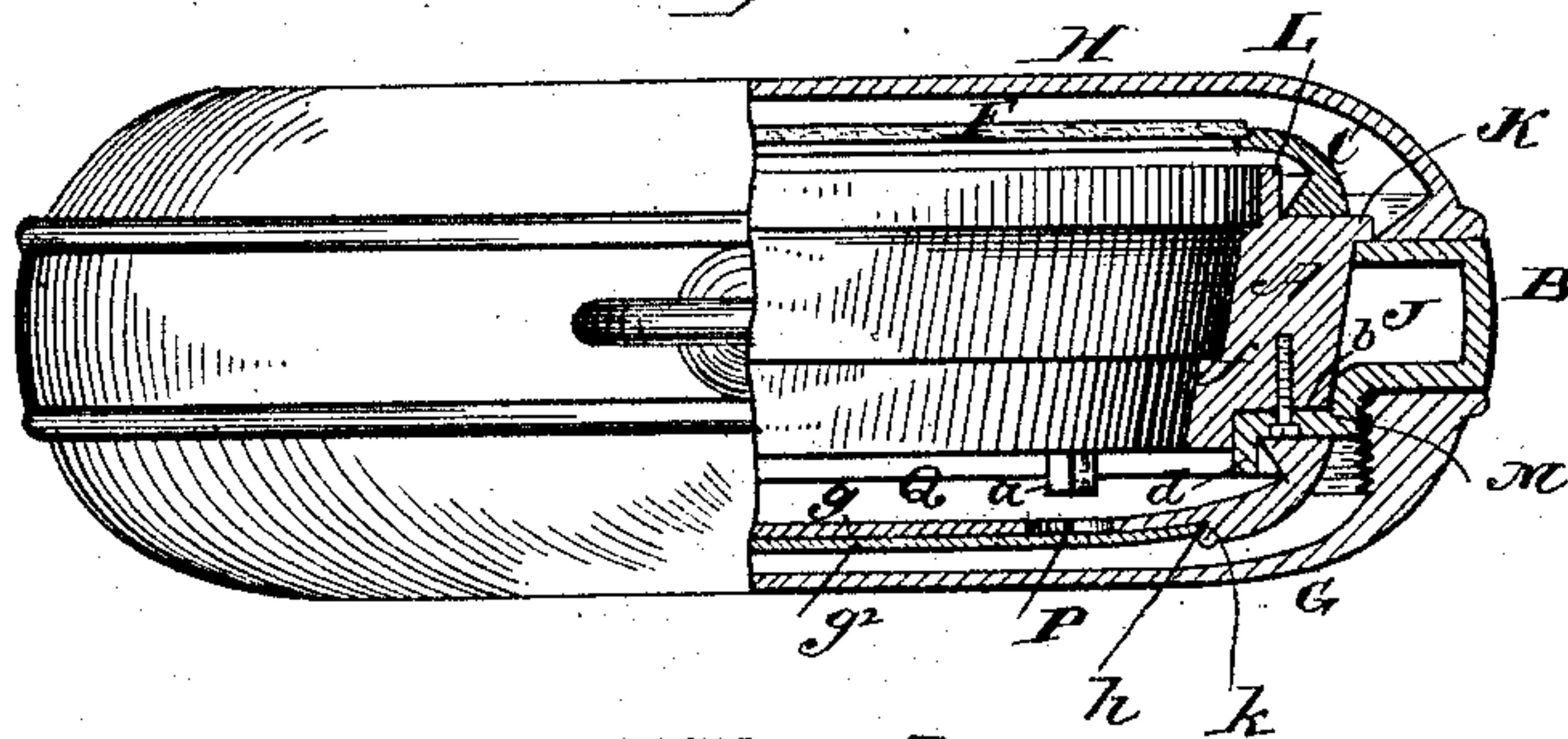


Fig. 2.

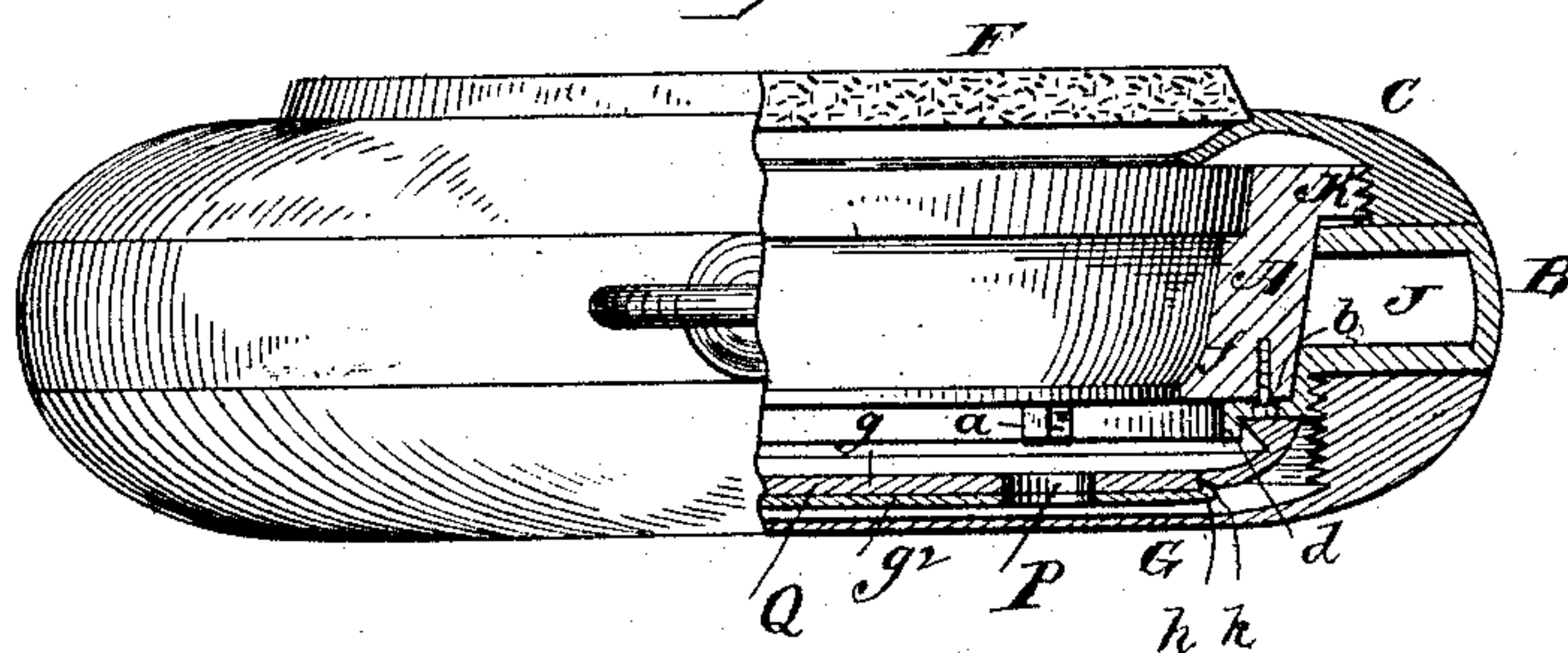


Fig. 4.

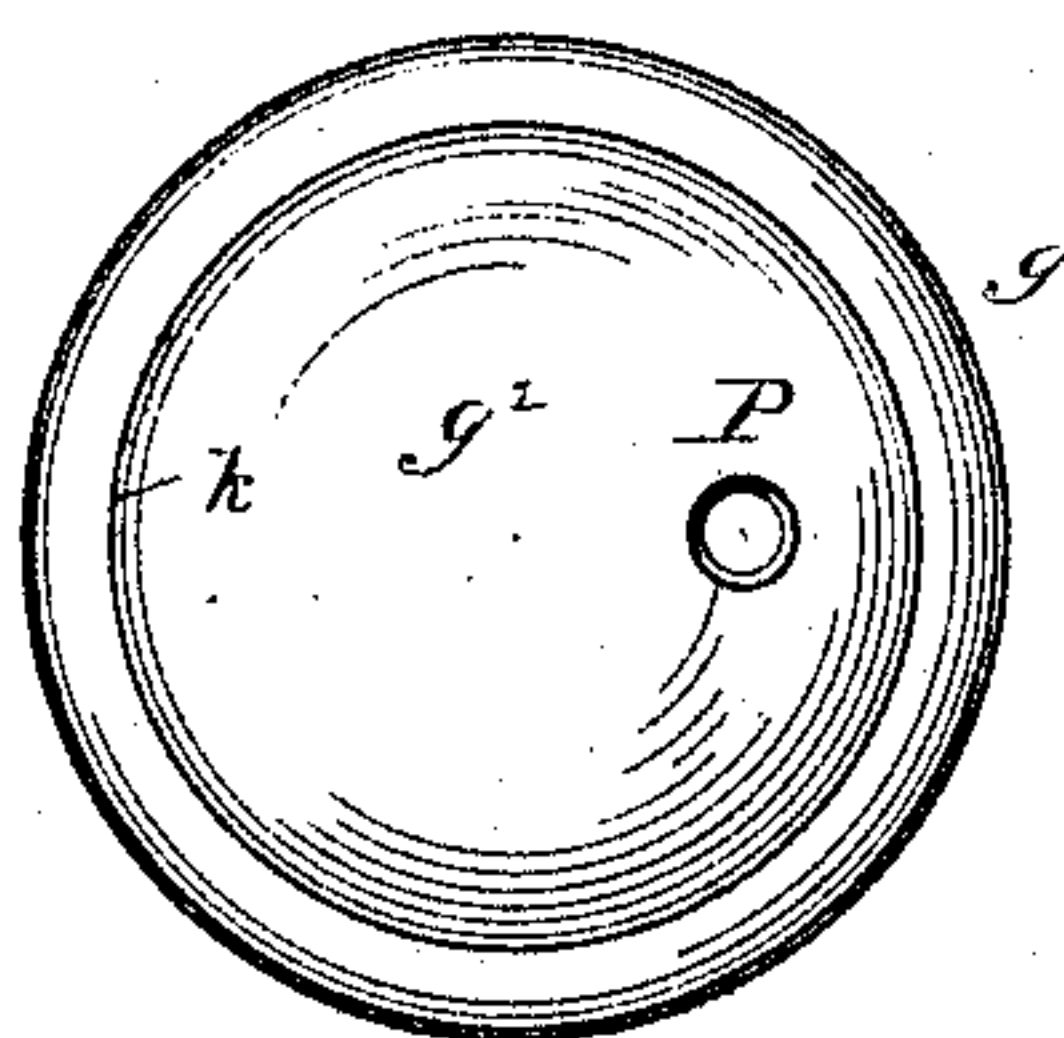


Fig. 5.

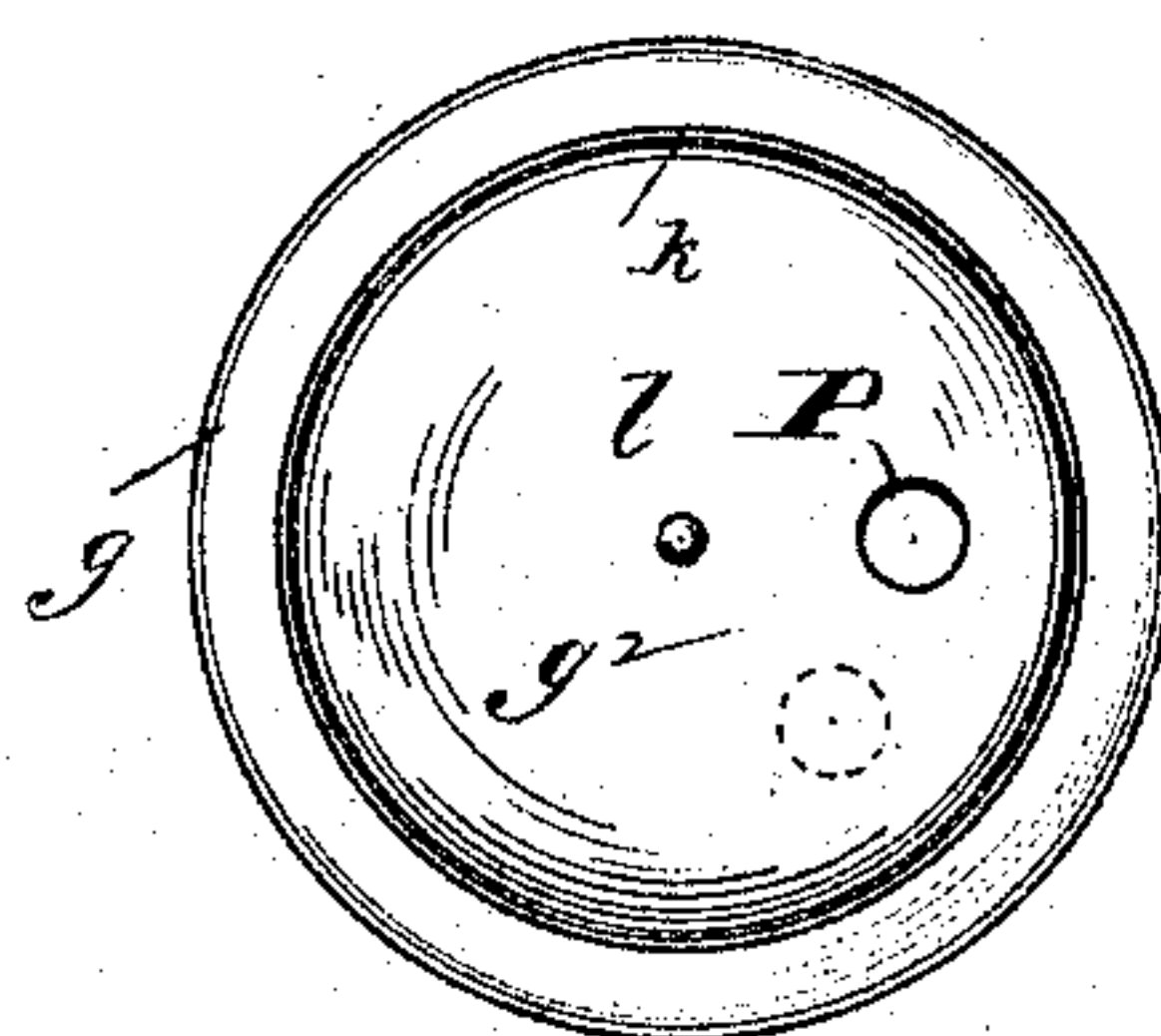


Fig. 3.

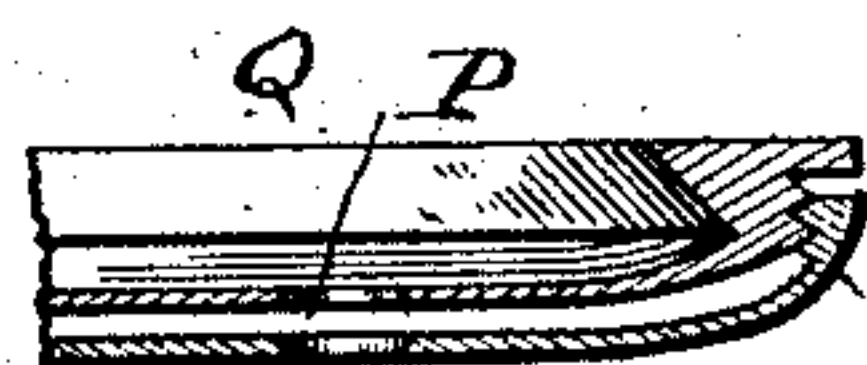
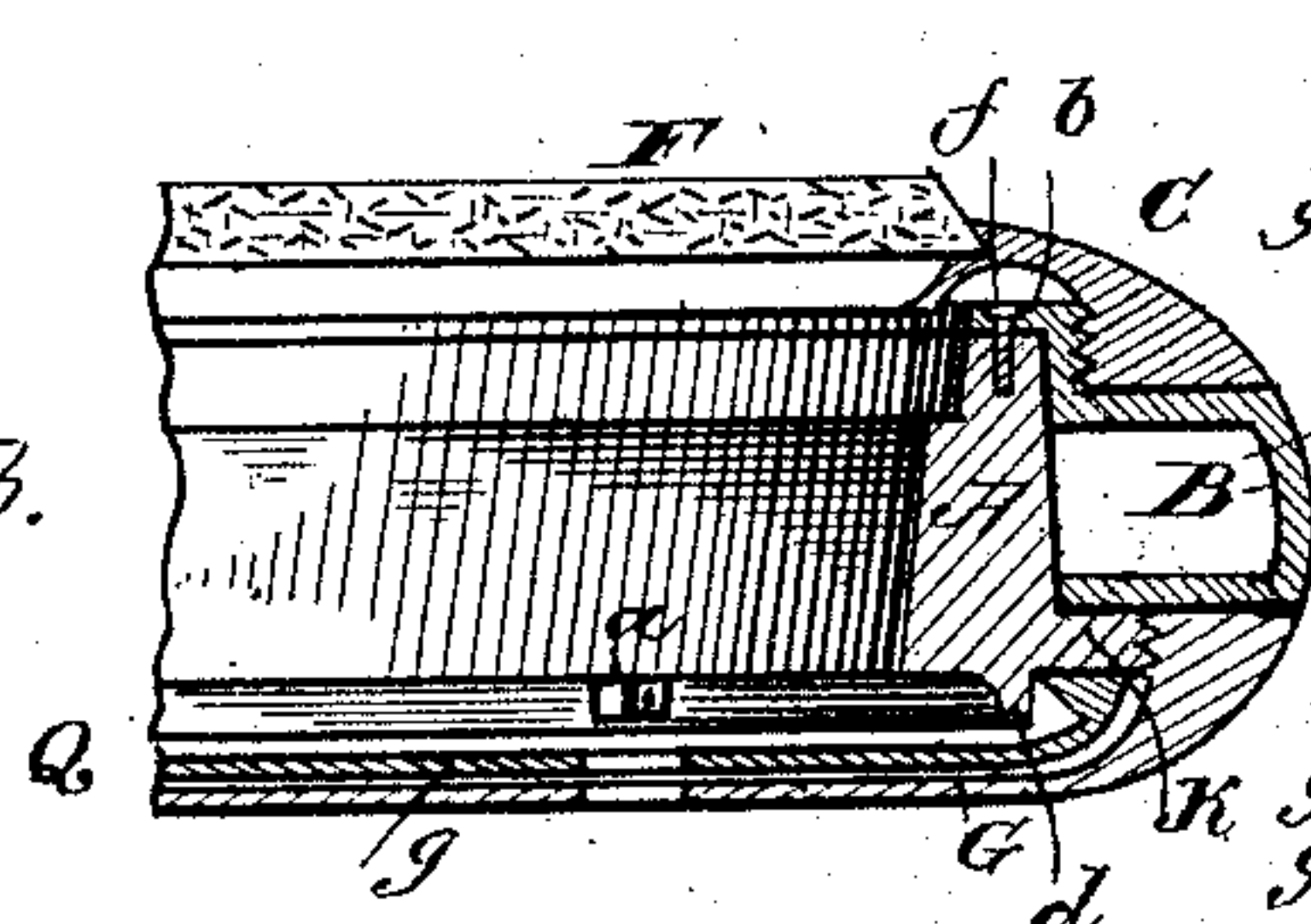


Fig. 6.

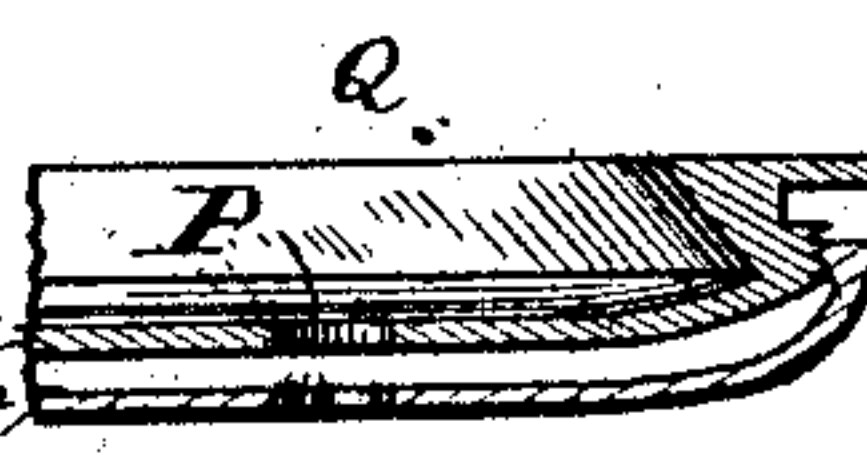


Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

DANIEL O'HARA, OF WALTHAM, MASSACHUSETTS.

WATCH-CASE.

SPECIFICATION forming part of Letters Patent No. 353,961, dated December 7, 1886.

Application filed April 27, 1885. Renewed April 9, 1886. Serial No. 198,377. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O'HARA, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Watch-Cases, of which the following is a full, clear, and exact description.

This invention in substance consists, first, in a watch-case for the movement to be wound by the use of a key which is separate from the case, and is applied to the winding-arbor of the movement through a hole made in a cap or plate covering the movement at one side of the case, of a disk shaped cap or plate having a hole through it suitable for the passage of the key and applied and attached to the watch-case to be capable of rotation thereon and otherwise, so that its said hole can be placed in and out of line with the usual winding key-hole in the cap of the case directly covering the movement, and when in line allow the key to be inserted for winding the movement, and when out of line have the case practically closed to the entrance of dust or moisture at either of said holes, or, in other words, the key-hole in the cap directly covering the movement covered or closed; second, in a watch-case adapted for its movement to be wound by the use of a key which is separate from the case, and is applied to the winding-arbor of the movement through a hole made in a cap or plate which covers the movement at such side, and is made in two thicknesses or parts each of a disk and round shape, and attached together and adapted the one to be secured to the watch-case and the other to be rotated upon its part so attached to the case, and each provided with a hole passing through its thickness and suitable for the insertion of the winding-key of the watch, and located in such relation to each other that by the rotation of the one part upon the other part of the cap said holes can be placed in and out of line with each other—in line for the winding of the movement and out of line for the covering of the key-hole of the inner part, and thus practically closing the case to the entrance of dust or moisture at either of the said holes of its said two-part cap or plate.

The figures of the accompanying plate of drawings, forming a part of this specification,

illustrate the several features of this invention.

Figures 1 and 2 are each on an enlarged scale, and they are in part a transverse vertical section and in part an edge view of a watch-case, showing in Fig. 1 a hunting and in Fig. 2 an open-face watch-case, and in both views a back cap or plate covering that side of the movement, constructed of two separate thicknesses or parts, in accordance more particularly with the second part of this invention, as hereinbefore stated. Fig. 3 is a transverse vertical section at one side only of a watch-case, and in illustration of the construction of the watch-case at the back with a cap or plate covering the movement at such side and with a back cover, each provided with a hole for the insertion of a winding-key and adapted the outer cap to cover and uncover the key-hole of the inner cap, and covering the inner hole to close the holes of both practically against the entrance of dust or moisture, as will hereinafter appear. Figs. 4 and 5 are face views of the back cap or plate in Fig. 4, adjusted for the winding-key of the movement to be inserted, and in Fig. 5 closed to the insertion of the key. Figs. 6 and 7 are sectional views in detail illustrating the construction of the back cap or plate, to be hereinafter referred to.

In the drawings, A is the band or ring to contain the watch-movement. B is the central shell or annulus or body. C is a front bezel-ring, and F its crystal. G is the back cap or plate closing the case at its back, and H, Fig. 1, is the front cover, or cap, or plate, hinged as ordinary, and otherwise adapted to be opened and closed, as well known in hunting-case watches.

The movement band or ring A interiorly is adapted in any of the usual ways, or in any other suitable way, for receiving and securing the watch-movement, (shown in edge view in the drawings,) the movement having a winding-arbor, *a*, at the back of the case. This ring A exteriorly is surrounded by the central shell or body, B, preferably made with a recess or channel, J; but it may be solid, or nearly so, using an inferior or baser metal—such as albat, nickel, brass, or other material—for the inner and unexposed portions thereof, and for its exposed sides or surfaces

silver, gold, or other precious metal, or other suitable material.

The central shell, on its inner edge, is made with a step or rest, *b*, which in Figs. 1 and 2 is shown as at the back and in Fig. 3 as at the front side of, but in both instances as within, the shell, or, in other words, inside of its outer edge or periphery, and of one piece with the shell; or if not of one piece therewith, but of a separate piece, then said separate piece attached to the shell by solder or other suitable means, so as to be incapable of detachment—in fact, so as to be practically one piece with the rest of the shell. This step *b* of the central shell makes a rest or support for the corresponding side (either back or front, as the case may be) of the movement-ring, preferably suitably shaped to closely fit the same, and also either to project or not with lip *d*, Fig. 2, through and to fit within opening, which is at the same side of the shell. *f* is a screw, of which there may be one or more, screwing through the thickness of the step *b* of the annulus, and entering into the movement-ring. These screws fasten the movement-ring and annulus together.

The movement-ring at its side (which may be either its back or front, as the case may be) opposite to that resting upon and within the step *b* of the annulus has a riser, *k*, Figs. 2 and 3, which laps over the corresponding side of the annulus, and this riser is exteriorly adapted, Fig. 1, for a front cap or plate, *H*, to be snapped over it, in Fig. 2 for the front bezel-ring, *C*, to be screwed upon it, and in Fig. 3 for the back cover or plate, *G*, closing the watch-case at that side to be screwed upon it, in such instance securing in place each part thus attached.

The movement-ring *A*, Fig. 1, has a riser, *L*, at its front and inside of the riser *K*, surrounded by the hinged front cap or plate, *H*, and this riser *L* is adapted for the front bezel-ring, *C*, to be snapped over and thus secured to it.

d is a riser at the back and inside of riser *M* of central shell. The back cap or plate, *G*, is screwed onto the riser *M*, and a back cap or plate, *Q*, directly covering the movement, is snapped upon the riser *d*.

The back cap or plate, *Q*, directly covering the back of the movement, Figs. 1 and 2 and Figs. 6 and 7, is made in two separate thicknesses or parts, as inner *g*, and an outer, *g*², each of a suitable metal or other material, and of a disk shape. The outer face, Figs. 1 and 2, of the inner thickness or part, *g*, has a recess or depression, *h*, of a circular outline, *k*, and of an inwardly-inclining hook shape at its said outline or edge. This recess, as shown in Fig. 1, includes the whole of the surface of said face inclosed by its outline or edge, and as shown in Fig. 2 it is simply a groove.

The recess *h* of the inner part, *g*, of the back cap, *Q*, receives the outer part, *g*², which is suitably shaped to be snapped into and thus engaged with the hook-shaped outline or edge

k of said recess *h*, confining it against accidental escape, and as so secured it is in close proximity, even if not in direct contact, with the inner part, *g*, and sufficiently free to be rotated thereon and within the said confining-edge *k*.

The two-part back cap or plate, *Q*, has a hole, *P*, through both of its thicknesses or parts. This hole *P* in the inner part, *g*, is in line with and directly over the winding-arbor *a* of the watch-movement, but out of line with the axial line of the watch-case, and in the outer part, *g*², it is similarly situated, and the hole in both parts is of suitable diameter, that with the holes placed in line with each other, by the rotation of the outer part upon its inner part, the winding-key can be inserted in them and engaged with the winding-arbor of the movement to turn the same to wind the movement.

The similar location of the holes in the two-part back cap or plate, *Q*, obviously enables them to be brought into and placed out of line with each other by the simple rotation of the outer part, *g*², upon the inner part, *g*, and thus in the first instance opening their winding-hole *P* to the insertion of the winding-key for winding the watch-movement, and in the second instance covering the hole of the inner part, *g*, by the outer part, and thus to the passage of dust and moisture into the watch-movement.

The back cap or plate, *Q*, in two thicknesses or parts, joined together as described, may obviously have its parts joined in other ways—as, for instance, the outer part, *g*², may be secured to the inner by a pin, *l*, Fig. 5, making the axis about which the outer part can be rotated; or the outer part may be secured or turned upon the outer edge of the inner part, as shown at *m*, Fig. 6, and at *m*², Fig. 7. Again, in Fig. 7 the inner part has a recess, *n*, in and around its outer edge, *n*², to receive the edge of the outer part when said part is screwed or turned onto the inner part sufficiently to escape from the edge and to enter into said recess of the inner part, in which it seats, and so seated is free to be rotated and confined against escape; and, again, the outer and inner parts of the two part back cap may have their bearing-surfaces, if they are made adapted to bear upon or have contact with each other, reduced to the minimum, taking care, for the best effects, that the bearing shall be sufficiently close to practically secure a closing of the communication along and between their contiguous faces against the passage of dust and moisture from the winding-hole *P* of the outer part to the winding-hole of the inner part, and the parts may be without direct contact with or bearing upon each other, as above described, and thus simply by the covering of the hole of the inner part with the outer part close communication, as aforesaid.

Again, Fig. 3, the back cover or plate, screwed to the riser *K* at the back of the annulus and closing the back of the case, may be

used in place of the outer part, g^2 , directly attached to the inner, g , of the two-part back cap or plate, Q, and if so used it should be provided with a winding key-hole, P, located 5 eccentrically and similarly to the key-hole in the inside back cap or plate, g , and adapted, as well as said inside back cap, to have a more or less close proximity to or bearing upon each other, and sufficiently so to secure the practical closing of communication between the contiguous surfaces for said passage of the dust or moisture to the movement through the key-holes of the two parts when the outer of the two is turned to place its key-hole out of line 10 with and to cover the key-hole of the inner part.

The construction of annulus or central shell herein described, and shown in the drawings, to receive and make a seat for the movement-ring, forms of itself no part of the present invention. 20

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

25 1. In a watch-case of otherwise suitable construction, a cap-plate covering one side thereof, in combination with a cap of disk shape, which covers said cap-plate, each provided with a key-hole and otherwise adapted to be 30 adjusted for the insertion of a key to wind the watch-movement and for the closing of said holes, substantially as described, for the purpose specified.

2. In a watch-case, a cap or plate covering 35 one side of the case and suitably attached thereto, made in two parts or thicknesses, each having a key-hole and adapted to be attached to each other and one to the case, substantially as described, for the purpose specified.

40 3. In a watch-case, a cap or plate covering one side of the case and suitably attached thereto, made in two parts, g and g^2 , each having a key-hole, P, and adapted the one to be attached to the case, and to be attached together by snapping the one upon the other, 45 substantially as described, for the purpose specified.

4. In a watch-case, a central shell or annu-

lus adapted interiorly and at one side to make a seat for a movement ring or band, which is 50 adapted to contain a watch-movement and to overlap the outside and at the side thereof opposite to that at which it is seated therein, and the two attached together, in combination with a cap or plate covering one side of the case, 55 and with a cap of disk shape, which covers said cap-plate, and each provided with a key-hole otherwise adapted to be adjusted for the insertion of a key to wind the watch-movement and for the closing of said holes, substantially 60 as described, for the purpose specified.

5. In a watch-case, a central shell or annulus adapted interiorly and at one side to make a seat for a movement ring or band, which is 65 adapted to contain a watch-movement and to overlap the annulus at the outside and at the side thereof opposite to that at which it is seated therein, and the two attached together, in combination with a cap or plate covering one side of the case and suitably attached 70 thereto, made in two parts or thicknesses, each having a key-hole, and adapted to be attached to each other and one to the case, substantially as described, for the purpose specified.

6. In a watch-case, a central shell or annulus having seat b within and at one side for the 75 rest of a movement ring or band, A, adapted to contain a watch-movement, and having a riser, K, overlapping the annulus at the outside and at the side thereof opposite to that at 80 which it is seated therein, and the two attached together, in combination with a cap or plate covering one side of the case and suitably attached thereto, made in two parts, g g^2 , and each having a key-hole, P, and adapted the 85 one to be attached to the case and to be attached together by snapping the one upon the other, substantially as described, for the purposes specified.

In testimony whereof I have hereunto set 90 my hand in the presence of two subscribing witnesses.

DANIEL O'HARA.

Witnesses:

WM. S. BELLOWS,

ALBERT W. BROWN.