

(No Model.)

2 Sheets—Sheet 1.

D. O'HARA.

HINGE FOR WATCH CASES.

No. 303,881.

Patented Aug. 19, 1884. .

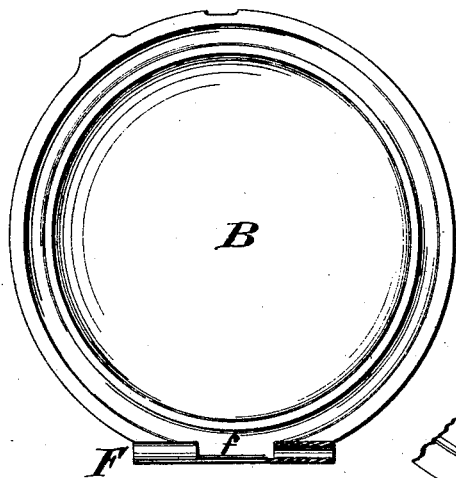


Fig. 1.

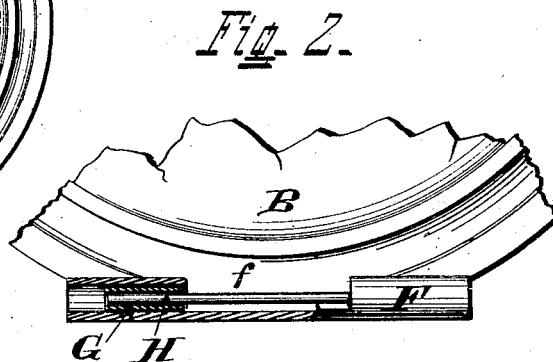


Fig. 2.

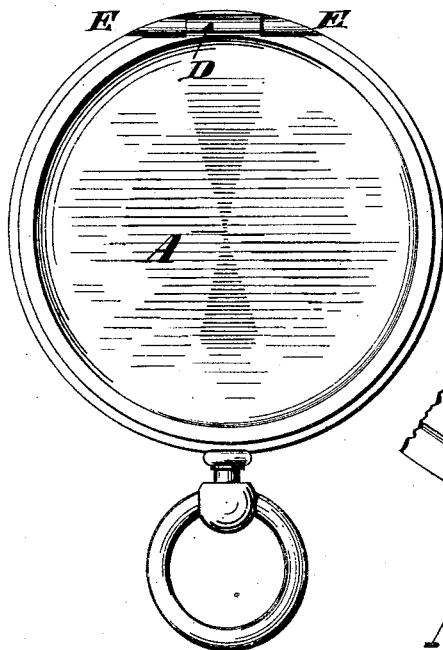


Fig. 3.

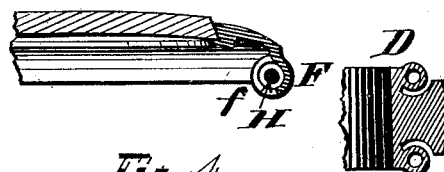


Fig. 4.

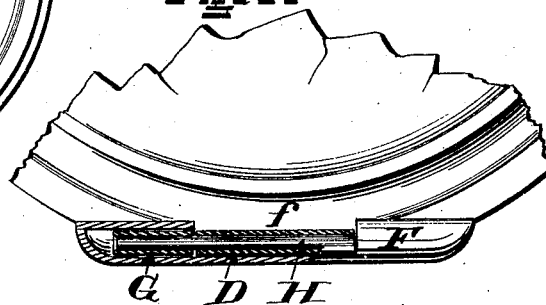
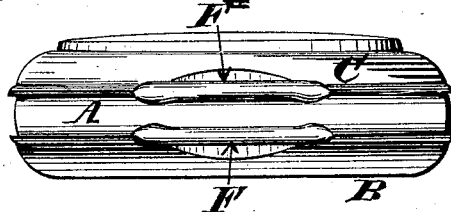


Fig. 5.



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Geo. L. Wheelock

Inventor
Daniel O'Hara
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Fig. 6.

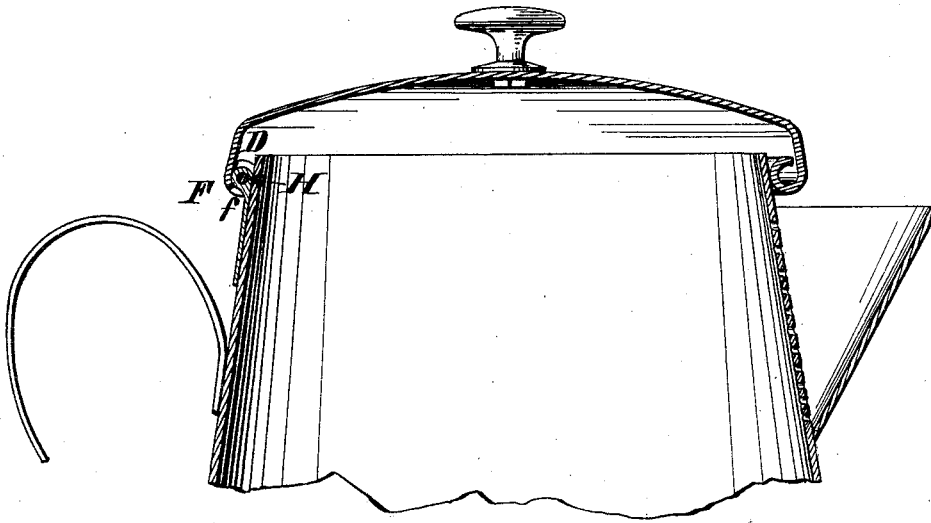
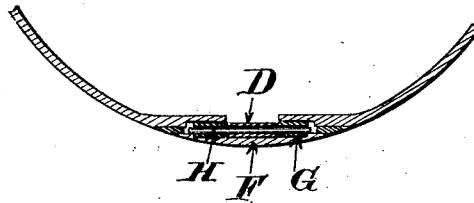


Fig. 7.



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UNITED STATES PATENT OFFICE.

DANIEL O'HARA, OF WALTHAM, MASSACHUSETTS.

HINGE FOR WATCH-CASES.

SPECIFICATION forming part of Letters Patent No. 303,881, dated August 19, 1884.

Application filed March 7, 1884. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O'HARA, of the town of Waltham, Middlesex county, Massachusetts, have invented a new and useful Improvement in Hinges for Watch-Cases, &c., of which the following is a specification.

My invention, while applicable to a variety of sheet-metal cases and vessels, is particularly designed as a mode of articulating the outer caps, backs, or bezels of watch-cases to their body-centers, by which the customary transverse joints of the hinge are completely concealed or hidden from view, so as to combine the advantages of excluding dust, moisture, &c., and of securing greater elegance and neatness of external finish.

In the accompanying drawings, Figure 1 is a partly-sectioned inside view of a watch-case cap or back and corresponding body-center embodying my invention. Fig. 2 shows partly in section an unfinished hinge part of such cap or back, together with one of the two included bushes and the coupling pin or pintle in position. Fig. 3 shows the two members of my hinge in transverse section. Fig. 4 shows my finished hinge partly in relief and partly in longitudinal section. Fig. 5 is an edge view of an open-face watch-case embodying my invention. Figs. 6 and 7 represent by vertical transverse and horizontal axial sections such a hinge applied to a sheet-metal tea-pot.

A may represent the body-center of any watch-case, B an external cap or back, C a bezel. Projecting from and preferably constituting an integral part of the body-center in the represented tangential position, is a cylindrical hinge-knuckle, D. That part of the body-center at each end of said knuckle has semi-cylindrical channels E coaxial with said knuckle. Projecting in the represented tangential position from and preferably constituting an integral part of the back or bezel, is a cylindrical sheath, F, whose interior bore corresponds in diameter, and when in place in the watch-case is coaxial with the body-center knuckle D, and whose exterior corresponds with the channels E. The inner half of this cylindrical sheath is, where it comes opposite the body-center knuckle D, cut away, as shown at *f*. Driven tightly into each end of

the sheath is a cylindrical tube or bushing, G, of identical diameter and bore with the body-center knuckle D. The two members of the hinge are coupled together by means of a pivot rod or pintle, H, which is preferably of brass or steel. The bushings G may be of brass. The above hinge members being thus secured in position the sheath ends are, by a burnishing-tool or other means, neatly closed, as shown in Fig. 5, and on the right-hand side of Fig. 4, so as to couple the back, cap, or bezel to the body-center by concealed, secret, or invisible knuckle and bushings, which, besides presenting a notably neat and elegant finish, is practically dust-proof. A substantially similar hinge is available for uniting to their bodies the lids of silver tea-pots and other sheet-metal vessels. Such application of my hinge is shown in Figs. 6 and 7, and in such applications the lid-rim may be of sufficient diameter to completely include the sheath within its periphery, as shown in said figures.

The above-described preferred form of my invention may be multiplied in non-essential particulars. For example, the sheath projection from the cap, back, or bezel may inclose a single knuckle, which may be interposed between two knuckle projections from the body-center.

I claim as new and of my invention—

1. A sheath, F, in combination with a hinge-knuckle, to conceal the transverse joints, as set forth.

2. The sheath F, constituting an integral projection from the cap, back, or bezel of a watch-case and concealing the joints, substantially as set forth.

3. The hinge-connection of a watch-case cap, back, or bezel with the body-center, consisting of hinge-knuckle D, constituting an integral projection from the body-center, cylindrical sheath F, constituting an integral projection from the cap, back, or bezel, bushings G, and the pintle H, substantially as set forth.

In testimony of which invention I hereunto set my hand.

DANIEL O'HARA.

Attest:

GEORGE H. VAN NORMAN,
B. B. JOHNSON.