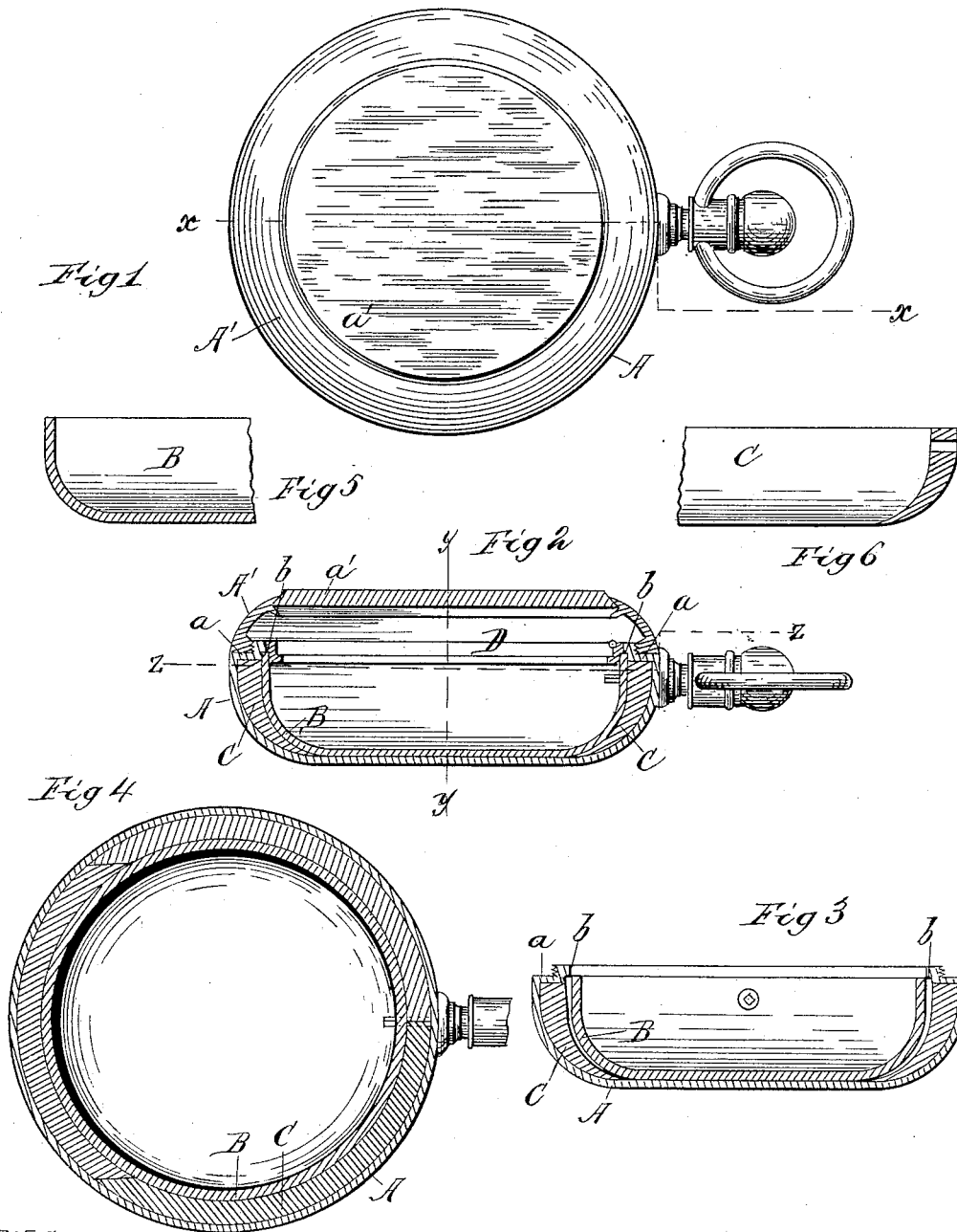


C. K. GILES.

WATCH CASE.

No. 385,612.

Patented July 3, 1888.



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UNITED STATES PATENT OFFICE.

CHARLES K. GILES, OF CHICAGO, ILLINOIS.

WATCH-CASE.

SPECIFICATION forming part of Letters Patent No. 385,612, dated July 3, 1888.

Application filed January 29, 1887. Serial No. 225,915. (Model.)

To all whom it may concern:

Be it known that I, CHARLES K. GILES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Watch-Cases, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a face view of a watch-case having my improvement applied thereto; Fig. 2, a sectional view of the same, taken on the line *xx* of Fig. 1; Fig. 3, a transverse sectional view taken on the line *yy* of Fig. 2, with the front cap removed; Fig. 4, a plan section taken on the line *zz* of Fig. 2; Fig. 5, a detail sectional view of the cup; Fig. 6, a detail view of one of the filling-pieces; Fig. 7, a face view of a modified form of case having my improvement applied thereto; Fig. 8, a sectional view of the same, taken on the line *uu* of Fig. 1; Fig. 9, a plan sectional view of the same, taken on the line *vv* of Fig. 8; Fig. 10, a detail sectional view taken on the line *ww* of Fig. 8, and looking in the direction of the arrow 1, the cup being shown partly in elevation and partly in section; Fig. 11, a detail plan view of one of the filling-pieces, and Fig. 12 a detail view in elevation of the same.

Like letters refer to like parts in all the figures of the drawings.

My invention relates to watch-cases, and more particularly to that class of cases in which the case proper consists of a light concave shell composed of a center and back formed in a single piece and open at the front to receive the movement.

My invention has for its object to provide means for stiffening and supporting a case of this description, so that a strong and at the same time light case requiring the use of a minimum quantity of precious metal will be produced; and to this end my invention consists, essentially, in a cup-shaped lining or shield fitted within a case of the description mentioned and expanded laterally at its upper margin, so as to fit and catch underneath the inner margin of the case and be retained firmly in position, said cup at the same time bearing against the back of the case and strengthening and stiffening the same.

My invention further consists in a sectional filling arranged in the unoccupied space between the cup and case, to further strengthen this latter and protect it from injury and de-
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facement.

My invention further consists in certain details of construction, which will be hereinafter described, and then particularly pointed out in the claims.

In the drawings I have shown in Figs. 1 to 6, inclusive, a construction in which my invention is applied to one well-known form of case of the description specified, in which A represents the case proper, consisting of a back and center formed in a single piece or shell, and having the inwardly-extending flange *a* at its upper margin. The front cap, A', provided with a suitable crystal, *a'*, is screwed, snapped, or otherwise suitably secured upon a suitable seat formed upon the upper margin of the case A, as clearly shown in Fig. 2 of the drawings.

B represents a cup shaped shield, constructed, preferably, of some strong and cheap material—such, for instance, as sheet-iron, steel, or the like. This cup is open at the front, as shown, and is of such dimensions that before being expanded it may be readily placed in position within the case A. In the form of case shown in Figs. 1 to 6, inclusive, this cup is of sufficient height to extend about half-way up the margin of the flange *a*, which latter is provided with a seat, *b*, at this point, formed in its under side and of a depth sufficient to receive about one-half of the thickness of the material from which the cup B is constructed.

C represents a filling formed of any inexpensive material of sufficient strength, said filling being composed of a series of sections, two or more in number, in order that it may be readily placed in position within the case B. This filling is of a conformation which adapts it to snugly occupy and fill the space between the case A and the cup B when the latter is in position within the former.

In the assembling of the parts above described the sectional filling C is first placed in position within the case A, and the cup B then inserted within the case. If the filling were in a single piece, it would of course be impracticable to place it in position within the case;

but, being sectional, the various sections may be introduced singly into the case and placed in proper position, so that when the parts are assembled the filling will occupy the space between the cup and case. The upper portion of the cup B is then expanded outward in all directions by means of a suitable tool until its upper margin rests firmly and snugly within the seat *b* in the upper margin of the case A, where it will be firmly retained in position, and will serve to strengthen and stiffen the case by the extended bearing which its body portion has against the back or rear surface of the case proper. The filling C will support and strengthen that portion of the case against which the cup B does not bear, and will prevent injury thereto by indentation or otherwise. That portion of the cup B which projects inward beyond the flange *a* of the case proper, A, forms a seat to receive the movement, which is mounted upon the ring D, the said movement not being shown in the present instance, as it forms no part of my present invention. It will thus be seen that the cup B not only serves to strengthen the case, but also to form a seat for the movement, the supporting-ring D of which rests upon said seat, as shown, and is secured in any suitable manner.

In Figs. 7 to 12 of the drawings I have shown my invention applied to another well-known form of case of the description specified. In this construction, A represents the case proper, which consists of a back and center formed in a single piece and open at the front to receive the movement, and having the inwardly-projecting flange *a*. The front cap, A', provided with a crystal, *a'*, is hinged or otherwise secured to the case, the manner of securing the same forming no part of my present invention.

B represents the cup, which is constructed at hereinbefore described, the securing-seat, however, being formed in this instance upon the upper outer margin of the cup, as shown at *b'*, so that when the said cup is expanded the said seat will rest against the flange *a*, and will hold the cup firmly in position within the case.

In the form of case shown the movement is mounted in a movement-holding ring, E, to which the pendant E' is attached directly, said movement-holding ring being also provided at a point diametrically opposite said pendant with a supporting-lug, *e*, adapted to catch under the flange *a* of the case. In order to receive this movement-holding ring a seat, *b''*, is formed in the inner upper margin of the cup B, which latter is also provided with a notch or recess, *b''*, on one side to receive the pendant E, and with a slot or recess, *b''*, diametrically opposite thereto to receive the retaining-lug *e*. A sectional filling, C, is also employed in this form of case, it being in all respects identical with that already described, except that it is provided with a notched or cut-away portion, *c*, to receive the pendant E, and a

similar recess or seat, *c'*, to receive the end of the retaining-lug *e*. It will thus be seen that a light case of precious metal, inexpensive on account of the small amount of the said metal employed, may be used in conjunction with my improvement, and that the strengthening-cup may be readily placed in position within the same and expanded, when it will be held firmly seated within the case under the flange thereof and will effectually stiffen the case. Moreover, the edge or side of the case will be strengthened and preserved from injury by means of the filling C, although this latter filling may of course be dispensed with without departing from the principle of my invention. In case the cup B is constructed of some highly-magnetic metal or material, which I prefer for the purpose, it will form an anti-magnetic shield, such as is set forth in Letters Patent No. 289,742, granted to me December 4, 1883, and will provide for all the benefits to be derived from such a shield.

I am aware that it is not new to insert within a case of the description hereinbefore set forth a stiffening-piece to bear against the back of the case, said stiffening-piece having elastic arms, which of their own elasticity spring outward and engage under the margin of the case, such a construction being set forth in Letters Patent No. 324,675, granted August 18, 1885, to E. C. Fitch.

I am also aware that it is not broadly new to employ a cup-shaped inner "cap" to bear against the back of the case, as the same is set forth in Letters Patent No. 316,767, granted April 28, 1885, to said Fitch. In this construction, however, the watch-case is made in separate parts to permit the introduction of the cup, which latter is not expanded into position.

It is obvious that various modifications in the details of construction and arrangement of the parts may be made without departing from the principle of my invention, and I therefore do not wish to be understood as limiting myself strictly to the precise details hereinbefore described, and shown in the drawings.

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

1. In a watch-case, the combination, with the case proper, consisting of a back and center formed in a single piece, and provided with an integral flange projecting inward from its margin, of the internal strengthening-cup formed in a single piece, bearing against the back of the case, and having its continuous upper portion expanded to catch under the flange, substantially as and for the purposes specified.

2. In a watch-case, the combination, with the case proper, consisting of a center and back formed in a single piece, and provided with an integral inwardly-projecting flange on its margin, of the strengthening-cup having its continuous upper portion expanded to catch un-

der the flange, and provided with a seat to receive the movement, substantially as and for the purposes specified.

3. In a watch-case, the combination, with
5 the case proper, consisting of a center and back formed in a single piece, of the strengthening-cup secured within the same and a sectional filling occupying the space between the cup and case, substantially as and for the purposes specified.
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4. In a watch-case, the combination, with the case proper, A, consisting of a back and

center formed in a single piece, and provided with the integral inwardly-projecting flange *a*, of the internal strengthening-cup, B, bearing 15 against the back of the case and having its upper portion expanded to catch under the flange, and the sectional filling C, occupying the space between the cup and the case, substantially as and for the purposes specified.

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