

C. K. COLBY & R. A. JOHNSON.
Watch-Case.

No. 221,155.

Patented Nov. 4, 1879.

Fig. 1.

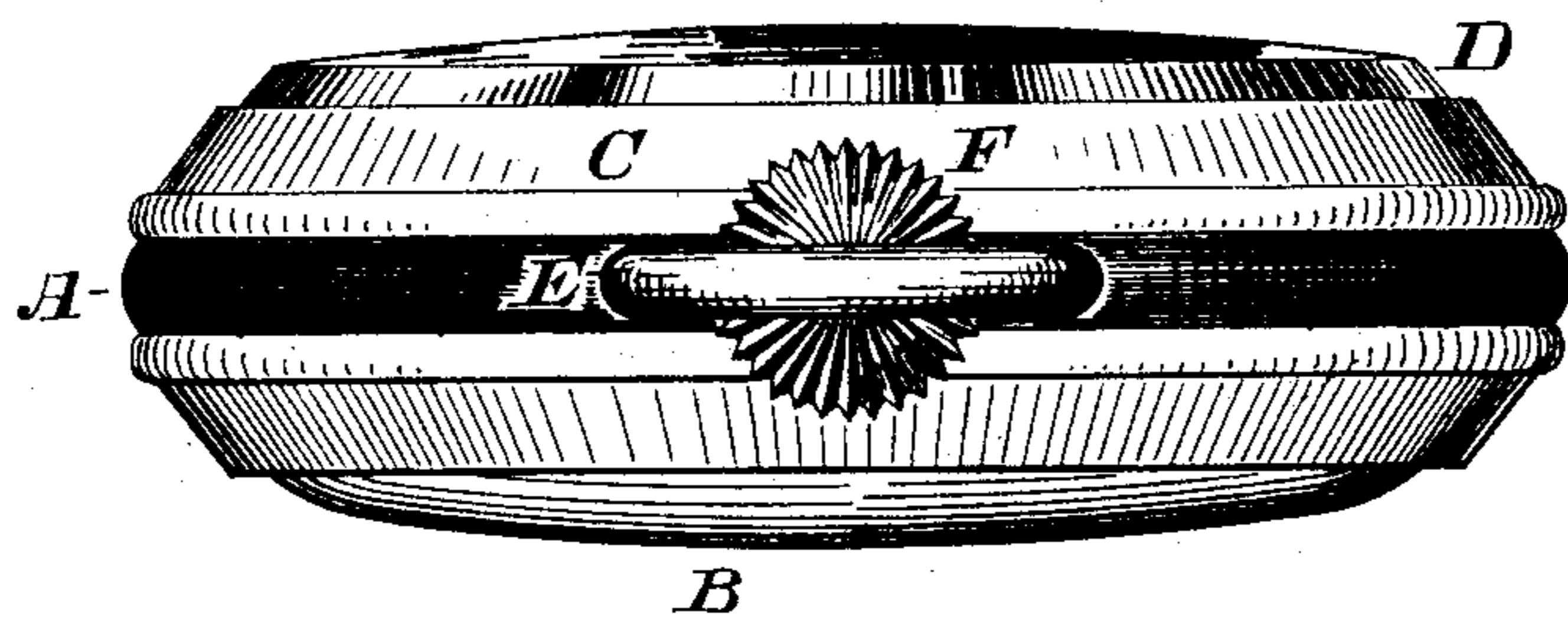
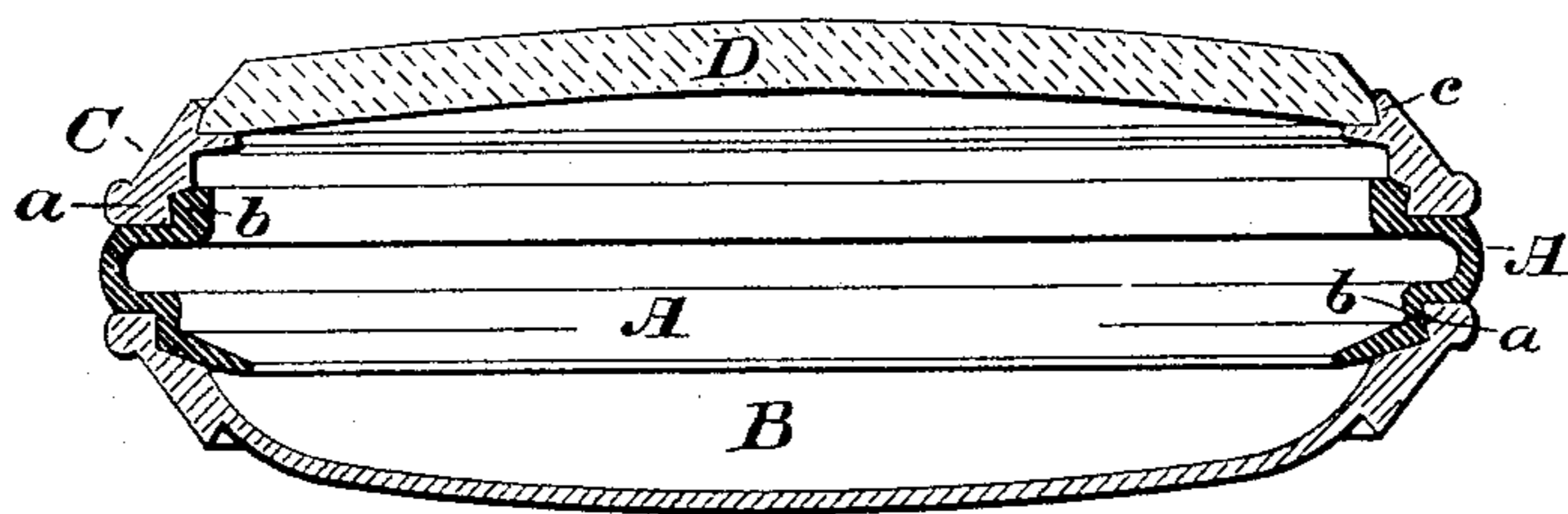


Fig. 2.



ATTEST:

Cha. Eben Brown
Wm. H. Russell

INVENTORS:

Caleb K. Colby and
Robert A. Johnson,

By their Attorneys,

Burke, Fraser & Bennett

UNITED STATES PATENT OFFICE.

CALEB K. COLBY, OF BROOKLYN, AND ROBERT A. JOHNSON, OF NEW YORK, N. Y.

IMPROVEMENT IN WATCH-CASES.

Specification forming part of Letters Patent No. **221,155**, dated November 4, 1879; application filed August 19, 1879.

To all whom it may concern:

Be it known that we, CALEB K. COLBY, of Brooklyn, Kings county, New York, and ROBERT A. JOHNSON, of the city, county, and State of New York, have jointly invented certain Improvements in the Manufacture of Watch-Cases, of which the following is a specification.

Our invention relates to the construction of cases for the reception of watch-movements, and other cases of like character, in part from celluloid, or other analogous plastic substances containing pyroxyline as its most important element, as xyloidine, crystalline, &c., and in part of metal, as gold, silver, or nickel.

We have heretofore employed celluloid in carrying out our invention, and recommend it as the best substance with which we are acquainted; but other materials composed in the main of pyroxyline and having substantially the same properties may be employed with fair results.

The material is shaped by molding with dies, by turning in a lathe, or by any other suitable method of manipulating or working the same.

Several important advantages are attained by the employment of this material for the construction of watch-cases. It is light, tough, and exceedingly strong, possessing admirable wearing qualities. It does not tarnish or become dimmed by exposure or wear; indeed, wear only serves to enhance the polish and brilliancy of its surface. It is a non-conductor or poor conductor of heat and cold, thereby making the movements of a watch not adjusted to heat and cold much less liable to be affected by the usual changes of temperature than the same when cased in metal.

To illustrate one method of construction to which our invention is especially well adapted, and which we prefer to employ, we have shown in the drawings a case having an open or crystal face, a metal center, and a back and bezel of celluloid.

Figure 1 represents an edge view of such a case; and Fig. 2, a cross-section of the same, taken through the center.

A is the center, which may be of metal. B

is the back, of celluloid, which may be molded into shape while the material is in a plastic condition, and then turned, if necessary, to complete the fittings. This back may be of any design or ornamental contour, and it is provided with a slightly-undercut flange or rim, *a*, which is sprung over a corresponding rim, *b*, on the metal center A when the parts are put together, thus producing a perfectly dust-proof joint.

C is a bezel, made from celluloid and provided with an attaching rim or flange similar to that on the back B. This bezel is recessed at *c* to receive and retain a crystal, D, which is sprung into place in the usual way. E is the suspension-ring, and F the stem, the case being adapted for stem winding and setting.

Such a case, having no hinges and close joints, is completely dust-proof, and the movements can be reached only by removing the back B, which need only be done for necessary repairs. Both back and bezel may be sprung off when it is necessary to remove them, and the resiliency and toughness of the material permits their frequent removal with little or no wear or deterioration.

The resiliency of celluloid and its renitency or power of resisting forces, tending to alter its form even though long applied and sustained, causes it to cling closely to the parts with which it is joined, and especially fits it for the manufacture of dust-proof cases, where the joints are required to be perfectly tight.

The celluloid employed in the manufacture of these cases may be given any desired tint or color of which the material is capable, and we have used white, black, and various imitations of marble in the construction of such cases.

Having thus described our invention, what we claim as new is—

1. A watch-case having a center, A, of metal, and a back and front or bezel of celluloid, or like plastic compound containing pyroxyline as its most important ingredient, the said back and front being attached substantially as shown.

2. A watch-case composed of a metal cen-

ter, A, provided with rims or flanges *b*, and a back and front, B C, of celluloid, xyloidine, or other like compound containing pyroxyline as its most important element, the said back and front being provided with undercut rims *a*, adapted to take over the rims *b* on the center, substantially as shown and described.

In witness whereof we have hereunto signed

our names in the presence of two subscribing witnesses.

CALEB K. COLBY.
ROBERT A. JOHNSON.

Witnesses:

HENRY CONNETT,
ARTHUR C. FRASER.