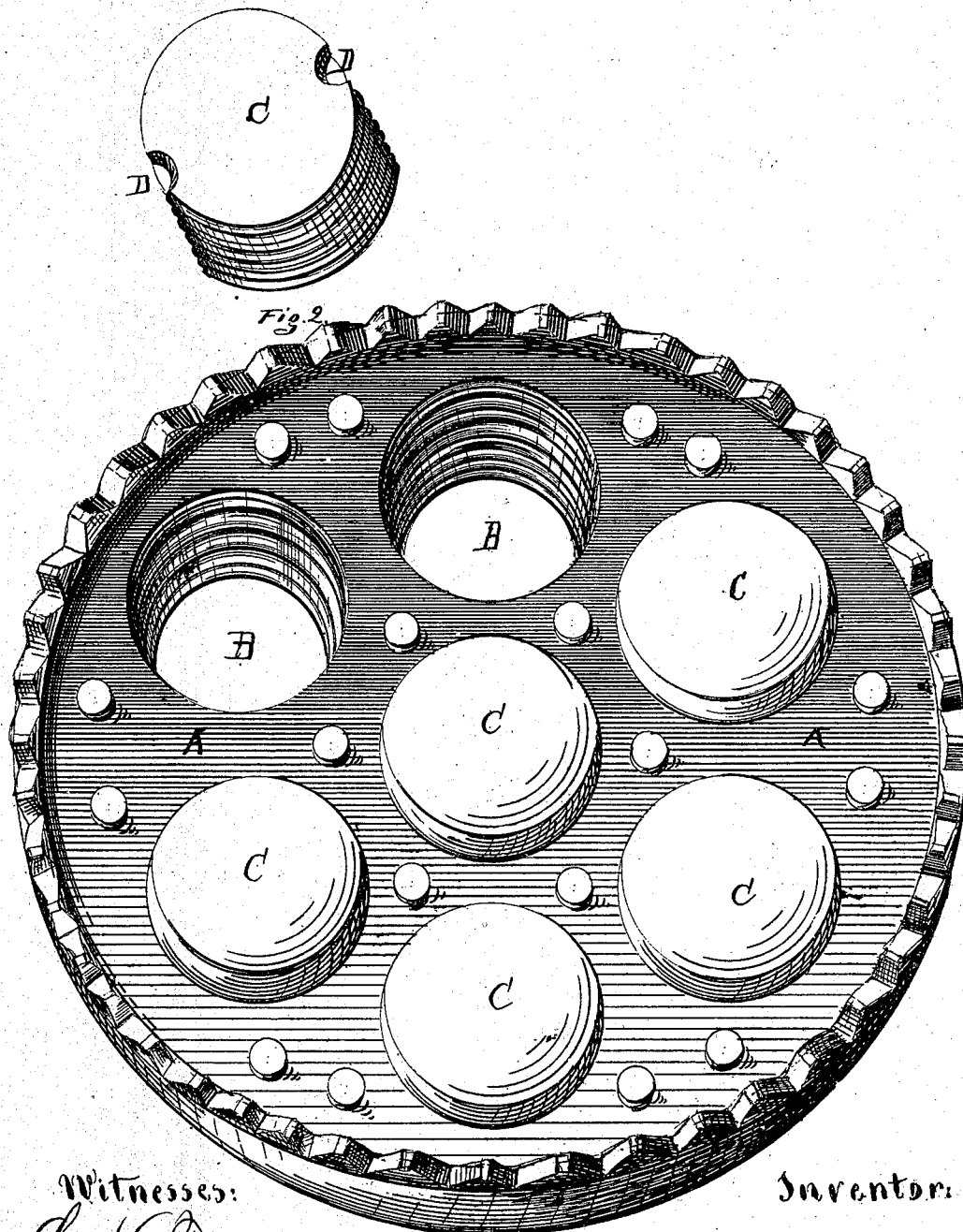


*Z. Cobb,*

*Vault Cover.*

*No. 107,663.*

*Patented Sep. 27. 1870.*



Witnesses:

*E. N. Frost.*  
*J. H. Cressworth*

Inventor:

*James Cobb*

# United States Patent Office.

ZENAS COBB, OF CHICAGO, ILLINOIS.

Letters Patent No. 107,663, dated September 27, 1870.

## IMPROVEMENT IN MODES OF INSERTING GLASS IN VAULT-LIGHTS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, ZENAS COBB, of the city of Chicago, in the county of Cook, in the State of Illinois, have made certain new and useful Improvements in Vault-Lights; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a perspective view of a vault-light, constructed in accordance with my invention; and

Figure 2 is a perspective view of one of the glasses detached from the metal plate.

Similar letters of reference in the drawing denote corresponding parts.

My invention has for its object to improve the means for inserting the glass in vault-covers, which are used for the transmission of light to vaults, cellars, &c.; and

It consists in adapting the glass plugs or lenses to be screwed directly into the metal or other cover, by forming the openings in the latter with screw-threads, either cut or cast, and in constructing the plugs with exterior screw-threads to fit such openings.

In vault-lights of the usual construction, the plugs are beveled somewhat to correspond with beveled openings in the covers. They are then surrounded with a hoop of lead or other soft substance, and driven firmly into the openings. When so applied, but little provision is made for the expansion and contraction of the metal, nor can they be removed from the cover without being broken out. Great care must, also, be exercised in applying them, otherwise the glass will be broken, or at least fitted irregularly, or in an imperfect manner.

By my improvement the plugs or lenses can be ap-

plied to or removed from the covers with the greatest facility, and without danger of breaking.

In the accompanying drawing—

A is a metal vault-cover, cast, or otherwise formed, with circular openings, B, which openings are provided with female screw-threads to receive the glass plugs.

C are the glass plugs or lenses, made cylindrical in shape, with a peripheral screw-thread, by which they are adapted to be screwed into the openings B in the cover.

The plugs are formed with the screw-thread by casting or pressing in molds, and are provided, upon their lower ends, with recesses, D, to receive the points of a suitable instrument for screwing them in or removing them from the cover.

The plugs are applied from the under side of the cover, and, before being screwed in, the threads may be coated with any suitable substance, to render the joints water-tight.

If desired, a wooden plate may be covered with a thin plate of cast or wrought metal, after the glass has been inserted in the former.

Having thus described my invention,

What I claim as new therein, and desire to secure by Letters Patent, is—

1. A vault-light, composed of a metal or other plate, having a series of screw-threaded openings cast or cut therein, and a series of glass plugs or lenses, adapted to screw into said openings, for the transmission of light, substantially as described.

2. The glass plugs or lenses, constructed with peripheral screw-threads, for the purpose specified.

Witnesses:

G. H. FROST,

E. A. ELLSWORTH.

ZENAS COBB.