

T. O. Oliver,
Bottle Stopper,
N^o 53,659. *Patented Apr. 3, 1866.*

Fig. 1.

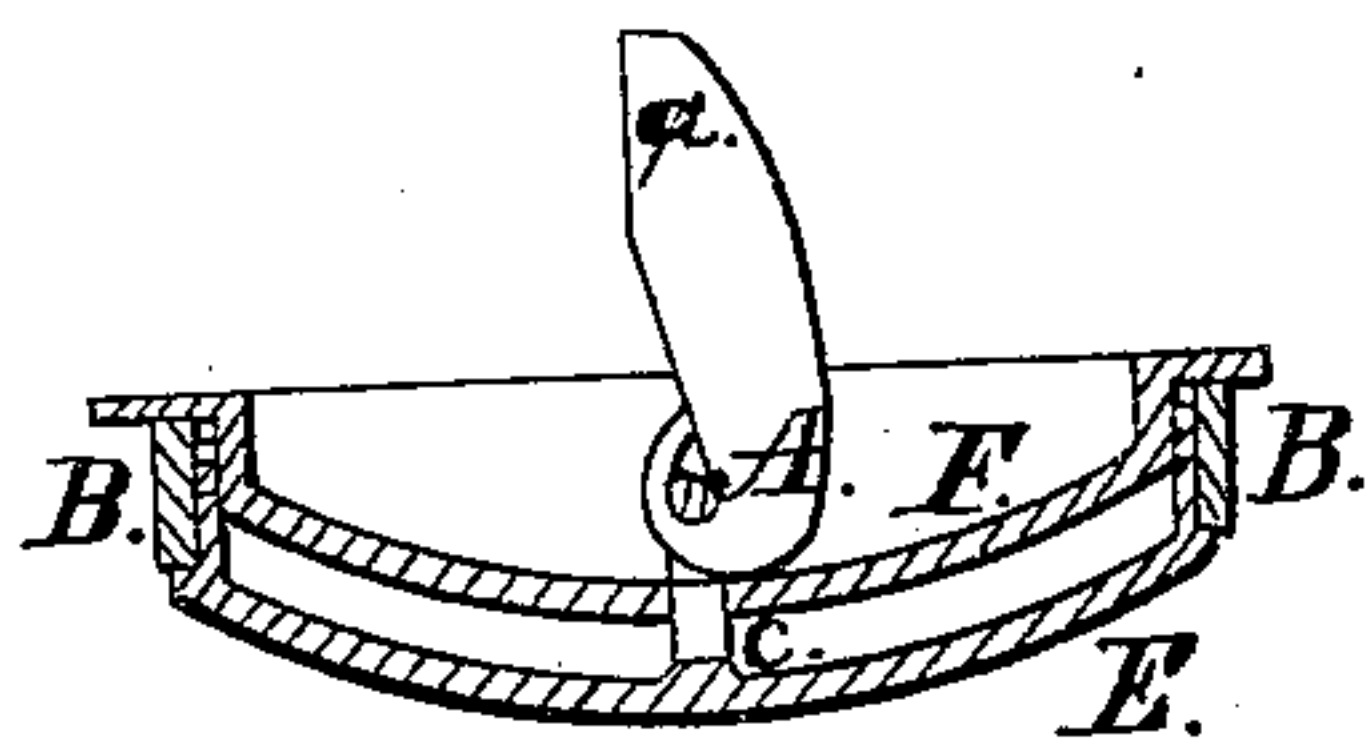


Fig. 2.

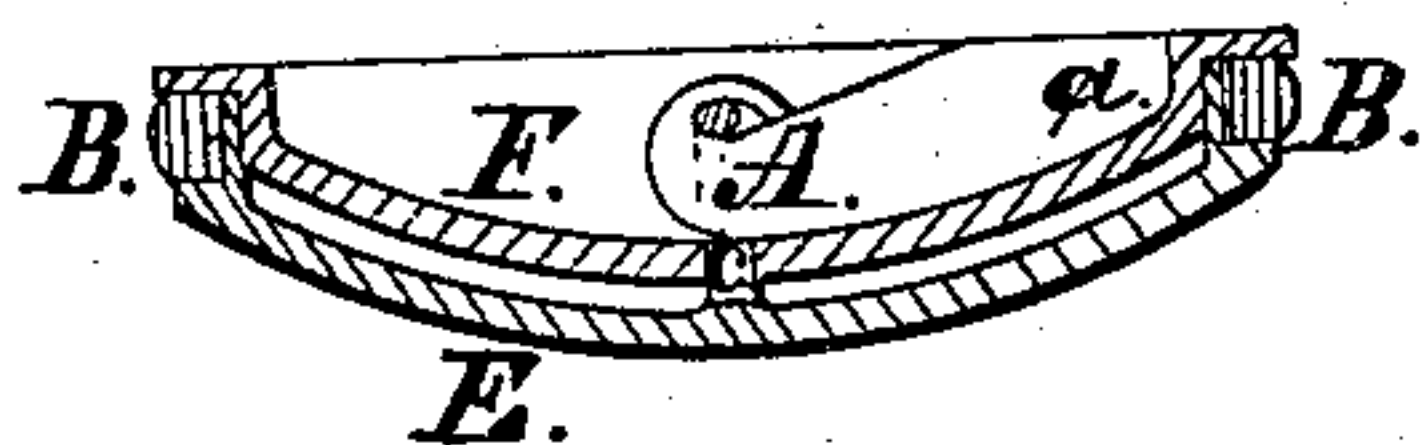


Fig. 3.

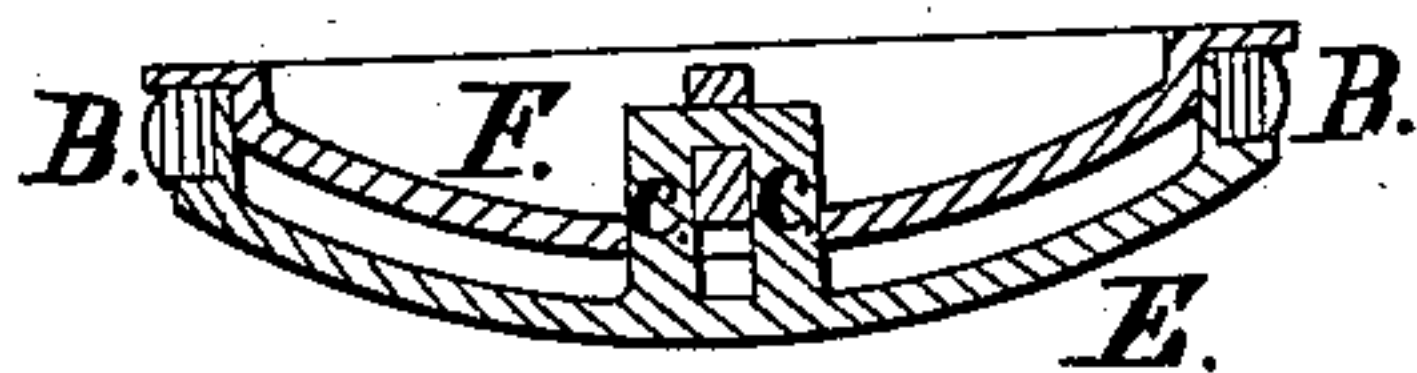
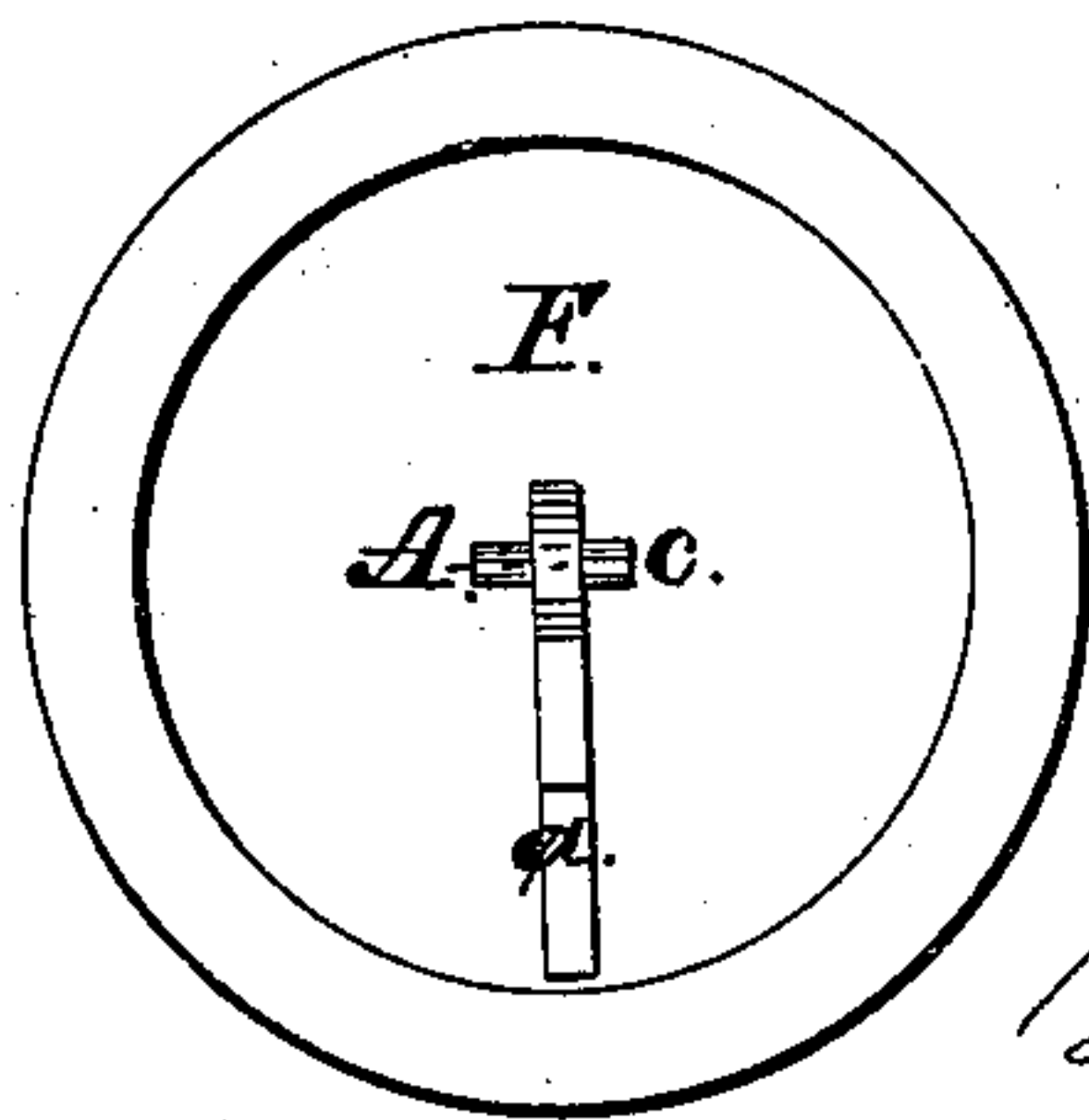


Fig. 4.



Attest:

L. A. Murphy
J. A. Connolly

Thomas O. Oliver
by his Attorney-
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UNITED STATES PATENT OFFICE.

THOS. O. OLIVER, OF NEW YORK, N. Y.

IMPROVED STOPPER FOR JARS AND BOTTLES.

Specification forming part of Letters Patent No. 53,659, dated April 3, 1866.

To all whom it may concern:

Be it known that I, THOS. O. OLIVER, of the city, county, and State of New York, have invented a new and useful Improvement in the Mode of Constructing Air-Tight Stoppers for Bottles or other vessels having apertures intended to be closed air-tight and opened at pleasure; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a cross-section of a stopper, showing the eccentric A (with arm *a* attached) in position for placing the stopper in the aperture to be closed. Fig. 2 is also a cross-section on the same line, showing the eccentric A in position after the stopper has been placed in the aperture and the elastic ring B expanded by compression, so as to form an air-tight joint. Fig. 3 is a cross-section at right angles to the line of the former two, showing the staple C, to which the eccentric A is secured, as shown in the drawings. Fig. 4 is a top view of the stopper complete, with the eccentric A and arm *a* in the same position as shown in Fig. 2.

The operation of this device is as follows: The stopper, with the arm *a* in an upright po-

sition, as shown in Fig. 1, is placed in the aperture to be closed, and the arm of the eccentric is then pushed down to the position shown in Fig. 2. This movement draws the lower disk, E, up toward the upper one, F, and compresses the elastic ring, causing it to expand in an outward direction, thus forming an air-tight joint by coming in contact with the surface of the aperture. To remove the stopper the arm *a* is seized by the thumb and forefinger and brought to an upright position, which frees the elastic ring from compression and allows the stopper to be easily removed.

The whole stopper, with the exception of the elastic ring, may be constructed of any metal suitable for the purpose for which the stopper is proposed to be used.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the eccentric A (with arm *a* attached) with the staple C, firmly attached to the lower disk, E, of the stopper, substantially as described, and for the purpose set forth.

THOS. O. OLIVER.

Witnesses:

W. S. WILKINSON,
I. WILKINSON.