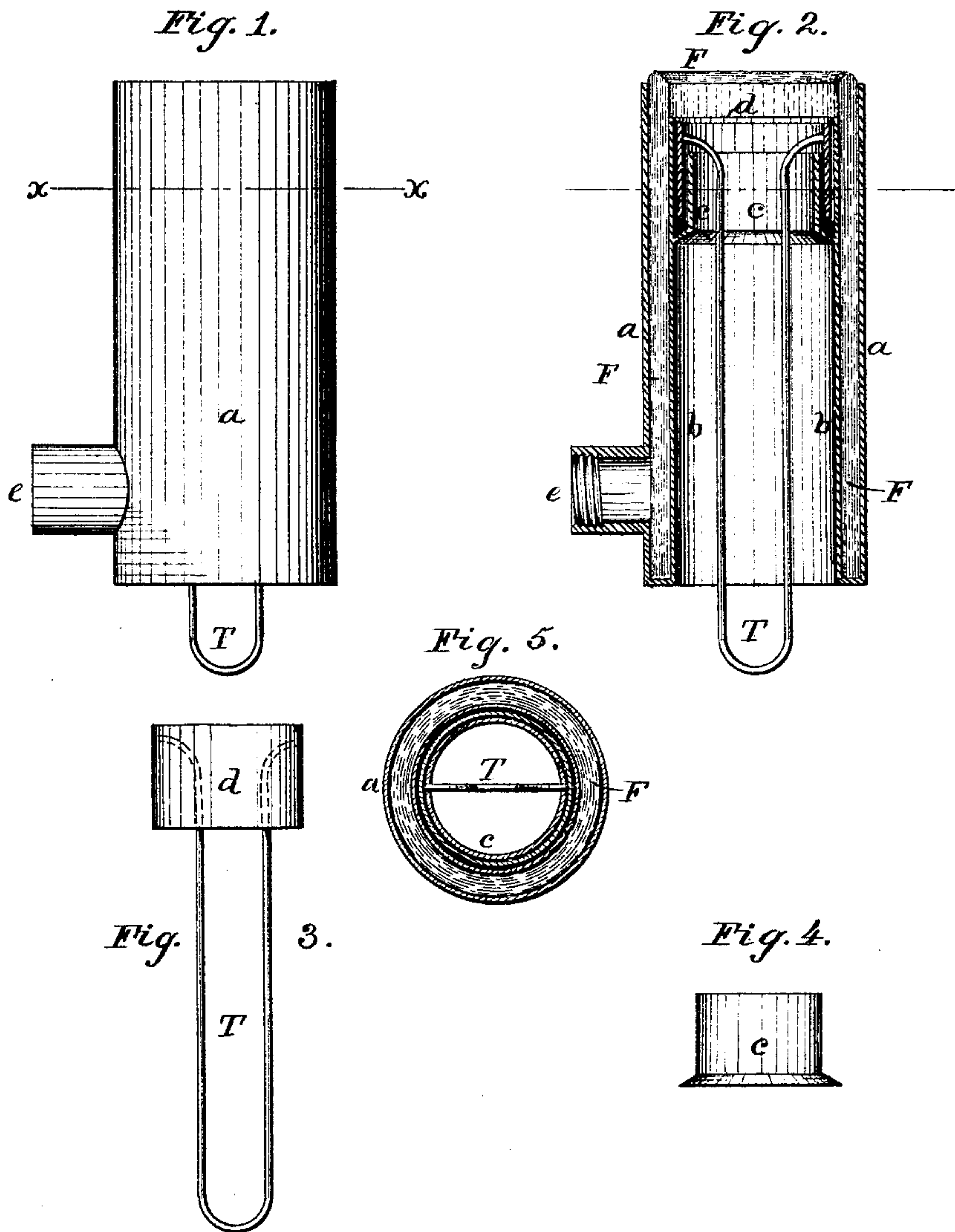


G. K. OSBORN.
OIL-BURNERS.

No. 183,814.

Patented Oct. 31, 1876.



Witnesses:

Abraham W. Andrews
Thomas Rouse

Inventor:

G. K. Osborn

UNITED STATES PATENT OFFICE.

GEORGE K. OSBORN, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HORACE B. THOMPSON, OF SAME PLACE.

IMPROVEMENT IN OIL-BURNERS.

Specification forming part of Letters Patent No. 183,814, dated October 31, 1876; application filed March 22, 1876.

To all whom it may concern:

Be it known that I, GEORGE K. OSBORN, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Oil-Burners, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to construct an Argand oil-burner in which may be used a permanent fixed wick, which will give a steady light and emit little or no odor.

Figure 1 is an outside view of my burner. Fig. 2 is a sectional view of Fig. 1. Fig. 3 shows the slide *d d* removed from the rest of the burner. Fig. 4 shows the drip-cup *c* removed from the burner. Fig. 5 is a vertical view of Fig. 1 bisected on the line *x x*.

T is the handle, by means of which the slide *d d* is moved. *a a* is the outer cylinder of the burner. *b b* is the inner cylinder. *F F* is a permanent fixed wick, and is merely a cylinder filling the space between the cylinders *a a* and *b b*. *d d* is a sliding tube fitting snugly inside *b b*, and is raised and lowered by means of its handle *T*, thereby regulating the amount of flame.

The advantage gained by having the permanent wick exposed on the inside, instead of the outer or both sides, as is usually the case, is that it secures a steady light, the current of air on the inside being more uniform than on the outside, and less affected by drafts of air. With a common cotton wick the advantage is not so marked, as the burning-surface is not so great.

c c is a drip-cup placed inside the inner tube *b b*, and near the top, so that the slide *d d* enters it, conveying sufficient heat to the oil that collects in it to vaporize it. The vapor is discharged into the flame and is consumed, thereby avoiding the odor arising from drip-cups when placed at the bottom of the burner. *e* is the inlet to the burner for oil.

When a common cotton wick is used with the inside slide-tube, the oil overflows the tube rapidly, and would be useless for any illuminating liquid other than those which vaporize easily, as naphtha, burning-fluid, &c.; but with a permanent wick, which must stand a greater degree of heat, owing to the larger burning-surface, the inside slide has marked advantages over exposing the wick on the outside, or on both sides.

I claim and desire to secure by Letters Patent—

1. The slide *d*, placed within an Argand burner, and worked as and for the purposes set forth.

2. The combination of the drip-cup *c* with the sliding tube *d*, arranged as and for the purposes set forth.

3. A combination of the slide *d* and the permanent fixed wick *F*, operating as and for the purposes set forth.

GEO. K. OSBORN.

Witnesses:

J. B. MILLER,
A. H. ANGELL.