

E. BOILEAU.
LAMP BURNER.

No. 182,635.

Patented Sept. 26, 1876.

FIG. 1.

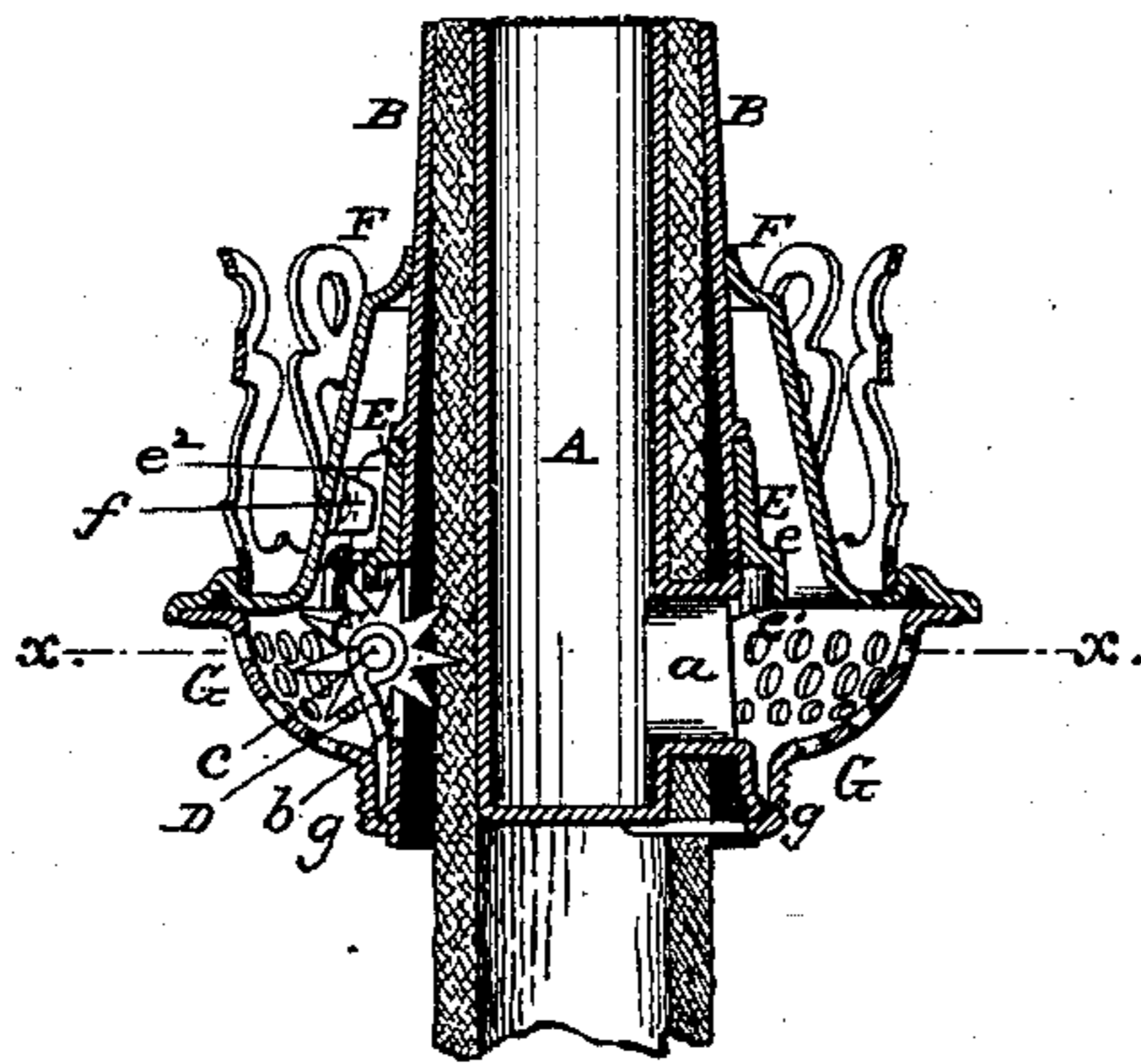


FIG. 2.

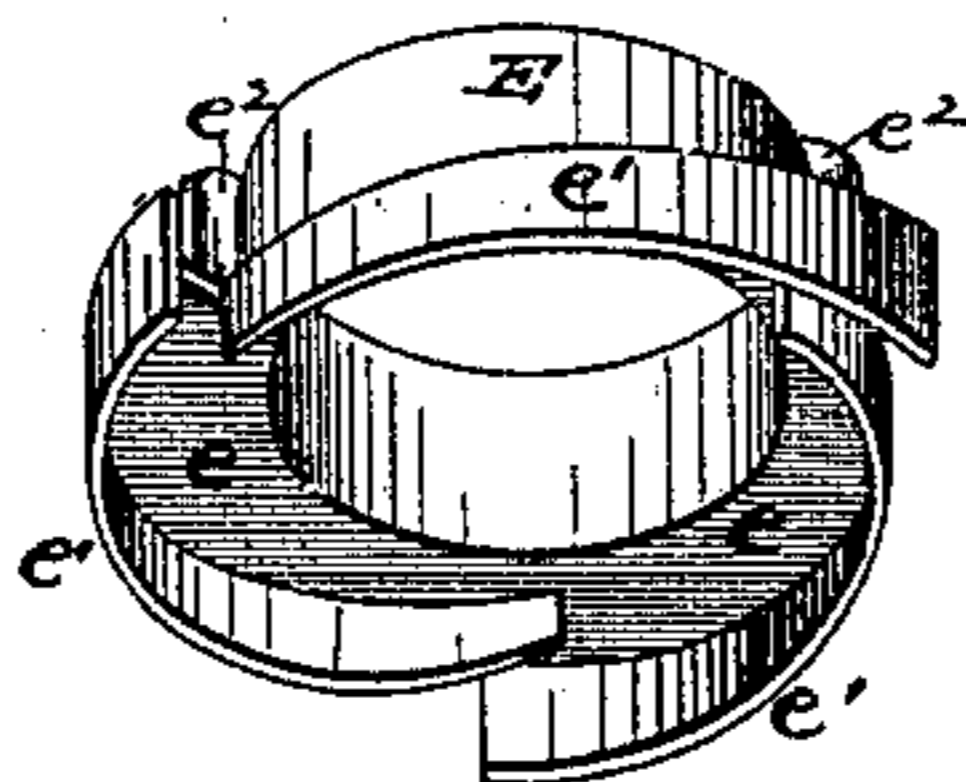
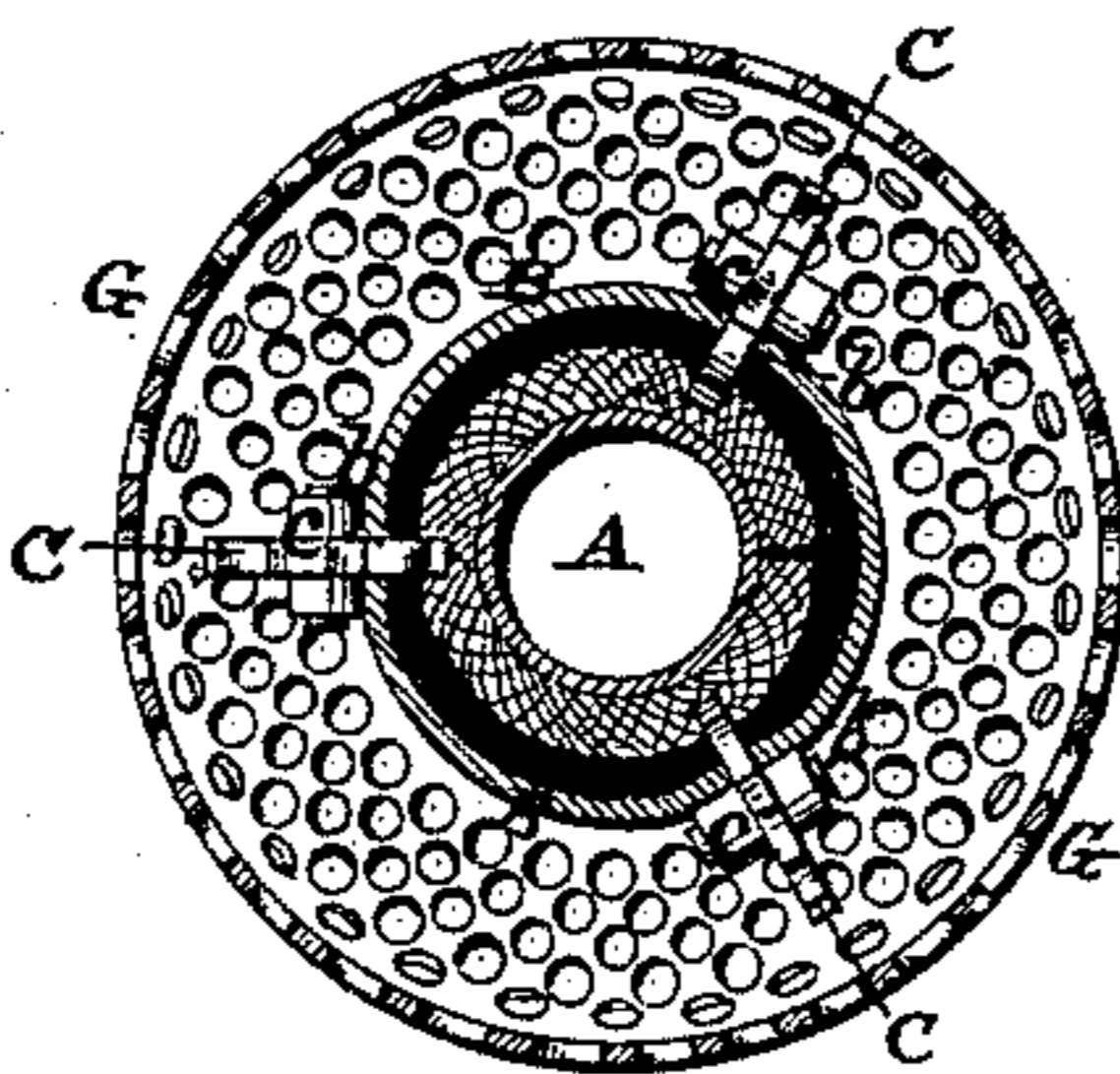


FIG. 3.



ATTEST:

Robert Burns.
Chas J Gooch

INVENTOR:

Etienne Boileau
By Knight Bros.
Atty

UNITED STATES PATENT OFFICE

ETIENNE BOILEAU, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 182,635, dated September 26, 1876; application filed March 22, 1876.

To all whom it may concern:

Be it known that I, ETIENNE BOILEAU, of the city and county of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Lamp-Burners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making a part of this specification.

This invention relates to an improvement on Argand burners.

My improvement consists in the combination of three or more star-wheels with volute cams, by which said wheels are simultaneously turned in either direction, as described.

Figure 1 is an axial section. Fig. 2 is an under perspective view of the cam-collar. Fig. 3 is a horizontal section through the wick-tubes at *x x*, Fig. 1.

The burner has the usual interior air-tube A, with side branch *a*, through which the air enters the tube. The air-tube forms the interior support of the wick. The tube A is surrounded by concentric frusto-conical tube B, as usual, and which forms the outer support of the wick. *b b b* are three vertical slots in the tube B, in which turn the three star-wheels, C C C, by which the wick is raised or lowered. These wheels turn on journals *c*, having journal-bearing at the upper ends of the springs D, so as to allow of the wheels moving outward or inward in conformity with the thickness of the wick. E is the cam-collar, turning freely on the tube B, and having a horizontal annular flange, *e*, whose outer edge is formed into down-turned volute cams *e¹ e¹ e¹*, which engage with the spur-points of the

wheels C, and, on the turning of the collar, cause the simultaneous rotation of said wheels.

I have shown my preferred number of wheels and their operating-cams; but the number may be varied without changing the essential feature of the invention.

The cams *e¹* are over the wheels C, this position allowing the outward or inward movement of the wheels on their spring-bearings without affecting the action of the cams on the wheels. The collar E has projections *e²*, which are engaged by the inner projection *f* of the burner-top F, so that as the top F is turned it causes the rotation of the cam-collar E. This cap F has the usual appliances for the support of the chimney, and turns on the marginal edge of the perforated cup G, which, as usual, is fixed to the tube B, and has at its bottom the screw-threaded part *g*, by which the burner is secured to the lamp, as usual. The cams *e¹* extend past each other at the ends, so that the wheels C come under the influence of a succeeding cam before the escape from the one preceding it.

I claim—

1. The combination, in a lamp-burner, of star-wheels C and volute cams *e¹* on collar E, substantially as set forth.
2. The combination of the volute cams *e¹*, star-wheels C, and spring-bearings D, substantially as and for the purpose set forth.

ETIENNE BOILEAU.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.