

THOMAS HIPWELL.

Improvement in Lamp Burners.

No. 120,383.

Patented Oct. 31, 1871.

Fig. 1.

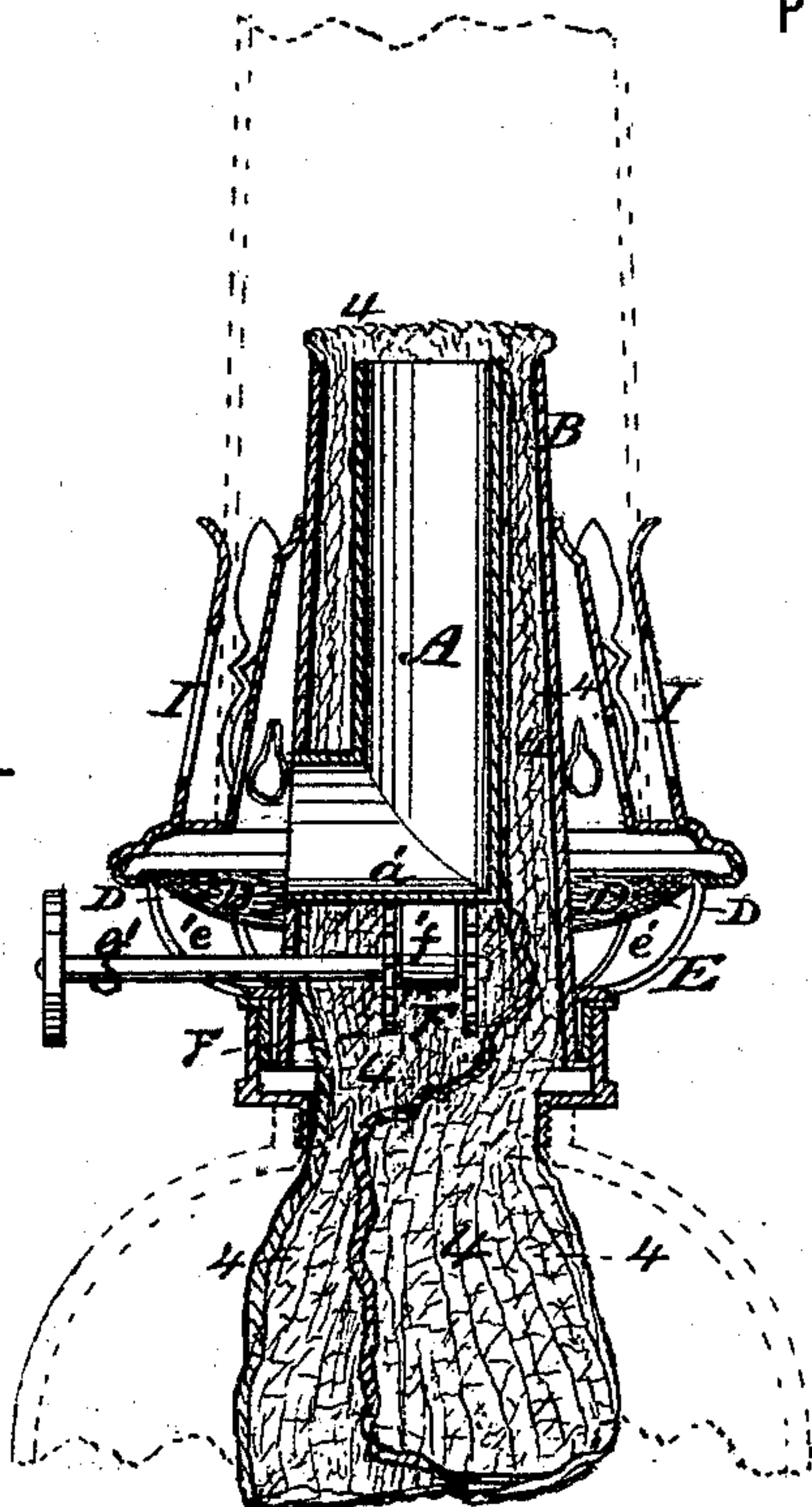


Fig. 2.

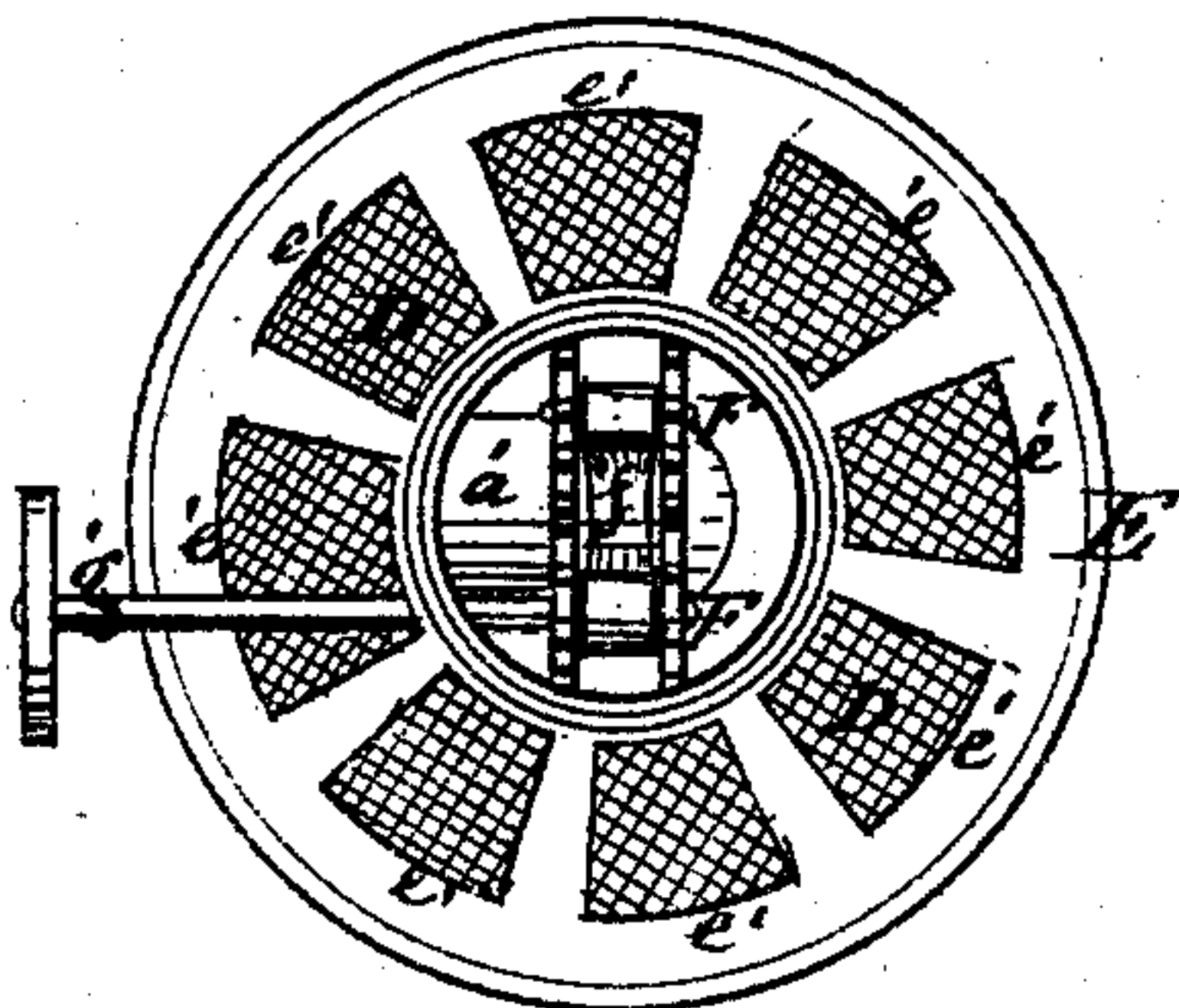
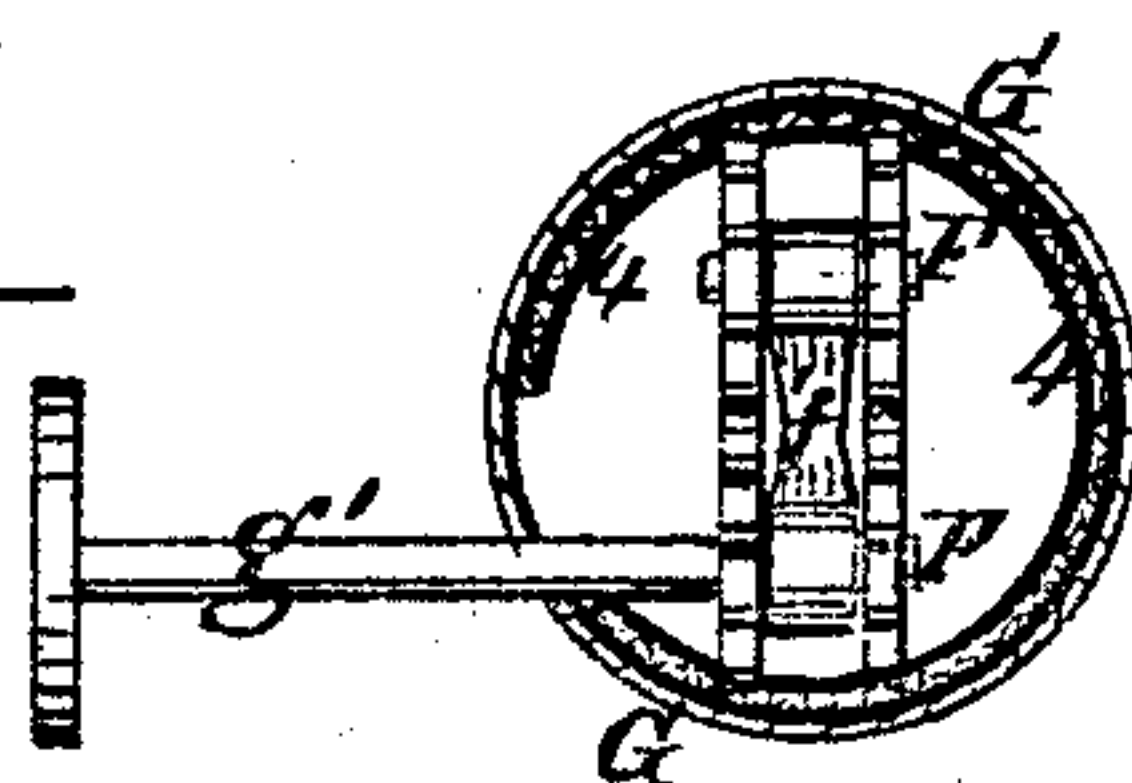


Fig. 3.



Witnesses:

My Commission.
Wm. H. Morrison.

Inventor:

Thomas Hipwell

UNITED STATES PATENT OFFICE.

THOMAS HIPWELL, OF CAMDEN, NEW JERSEY, ASSIGNOR TO HIMSELF AND
HENRY COULTER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 120,383, dated October 31, 1871.

To all whom it may concern:

Be it known that I, THOMAS HIPWELL, of Camden, in the county of Camden and State of New Jersey, have invented certain Improvements in the Round-Wick Lamp-Burner, of which the following is a specification:

My invention relates to the combination, with the spur-wheels and the bottom of the central air-tube of the burner, of a springy bearing-plate for the axles of the spur-wheels, for the purpose of allowing the latter to adapt themselves automatically to wicks of different thicknesses.

Figure 1 is a vertical longitudinal central section of a lamp-burner embodying my invention. Fig. 2 is a plan view of the under side of the open shell, the wire-gauze screen, and the wick-adjusting spur-wheels. Fig. 3 is a plan view of the under side of the wick-adjusting spur-wheels with a transverse section of the wick and its external supporting-case.

The interior air-tube A opens through the side of the encircling wick-tube B at a point immediately above the wire-gauze screen D, which is supported upon the upper rim of the open shell E, *e' e'* being the large openings in the under side of the said shell. The wick-operating spur-wheels consist of two pairs of spur-wheels, F F, each pair connected by its respective axle, and both axles supported by a springy plate, *f*, at a proper distance apart to keep their respective spur-teeth in gear, and the said spring fixed to the under side *a'* of the side opening of the central air-tube A. The diameters of the spur-wheels F are such that, when the two pairs are geared together,

their furthest separated spur-teeth nearly touch the opposite inner sides of the wick-supporting case G, so that the wick H (which is a flat woven fabric) will be penetrated by the spur-teeth in contact with it when the latter is inserted in a curved or circular form (see Fig. 3) around between its supporting-case G and the connected pair of spur-wheels F F. The axle of one pair of the spur-wheels F extends through the case G and forms the handle *g'*, whereby the wheels are operated to raise or lower the wick, which latter, extending upward, passes on each side of the side opening *a'* into the contracted annular space between the inner air-tube A and the wick-encircling tube B, and is brought thereby into what is called a round or hollow cylindrical wick at the top of the burner. (See Fig. 1.)

The air enters the ring of the large openings *e'*, passes through the wire-gauze screen D into the space between the chimney-holder I and the burner, where one portion ascends through the central air-tube A and the other portion up and around between the burner and the usual chimney.

I claim as my invention—

The springy bearing-plate *f*, in combination with the axles of the spur-wheels F F and the bottom *a'* of the central air-tube A, substantially as and for the purpose hereinbefore set forth and described.

THOMAS HIPWELL.

Witnesses:

BENJ. MORISON,
WM. H. MORISON.

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