

(No Model.)

W. F. FOLMER.

LAMP BURNER.

No. 365,739.

Patented June 28, 1887.

Fig. 1.

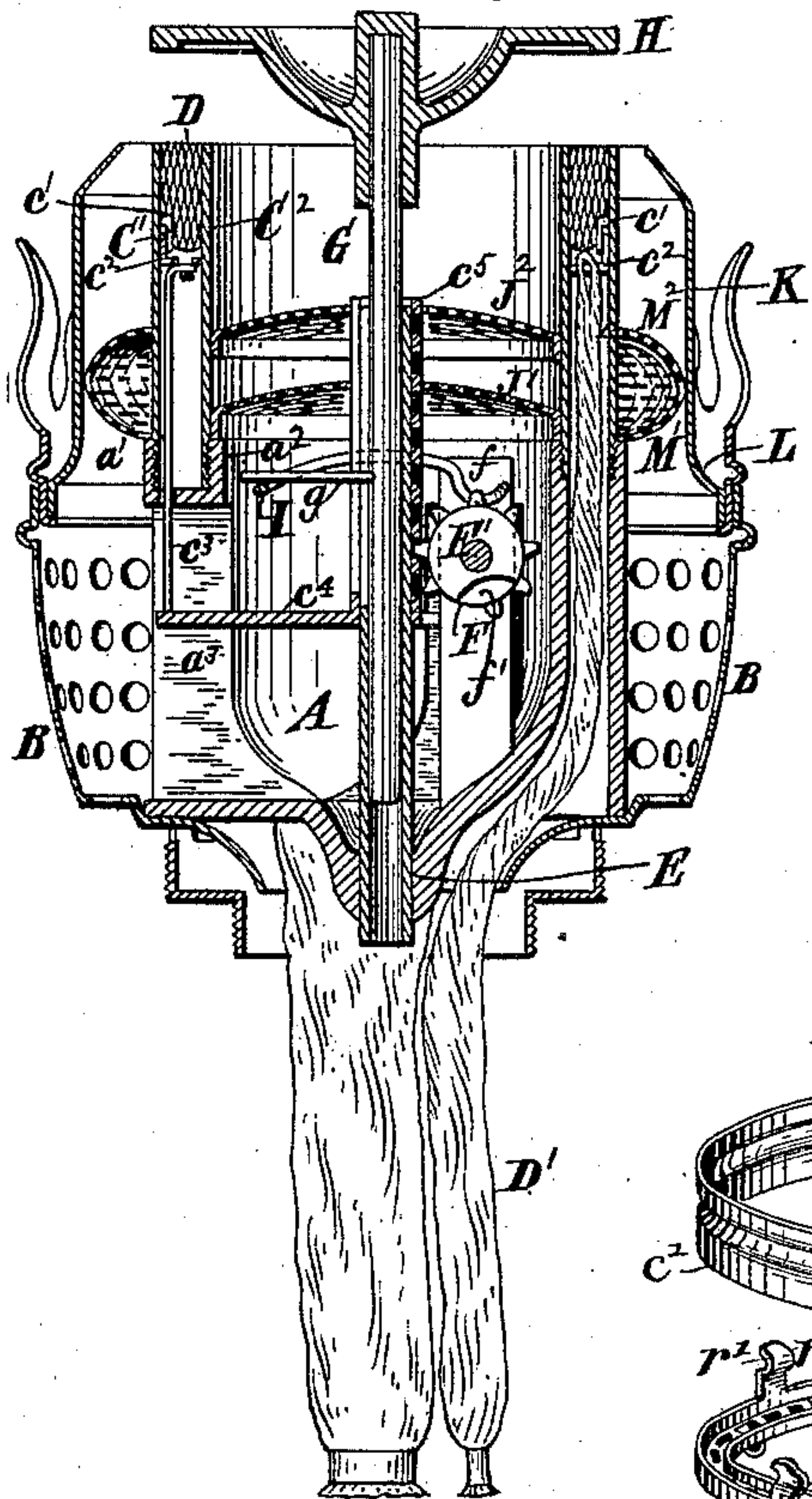


Fig. 2.

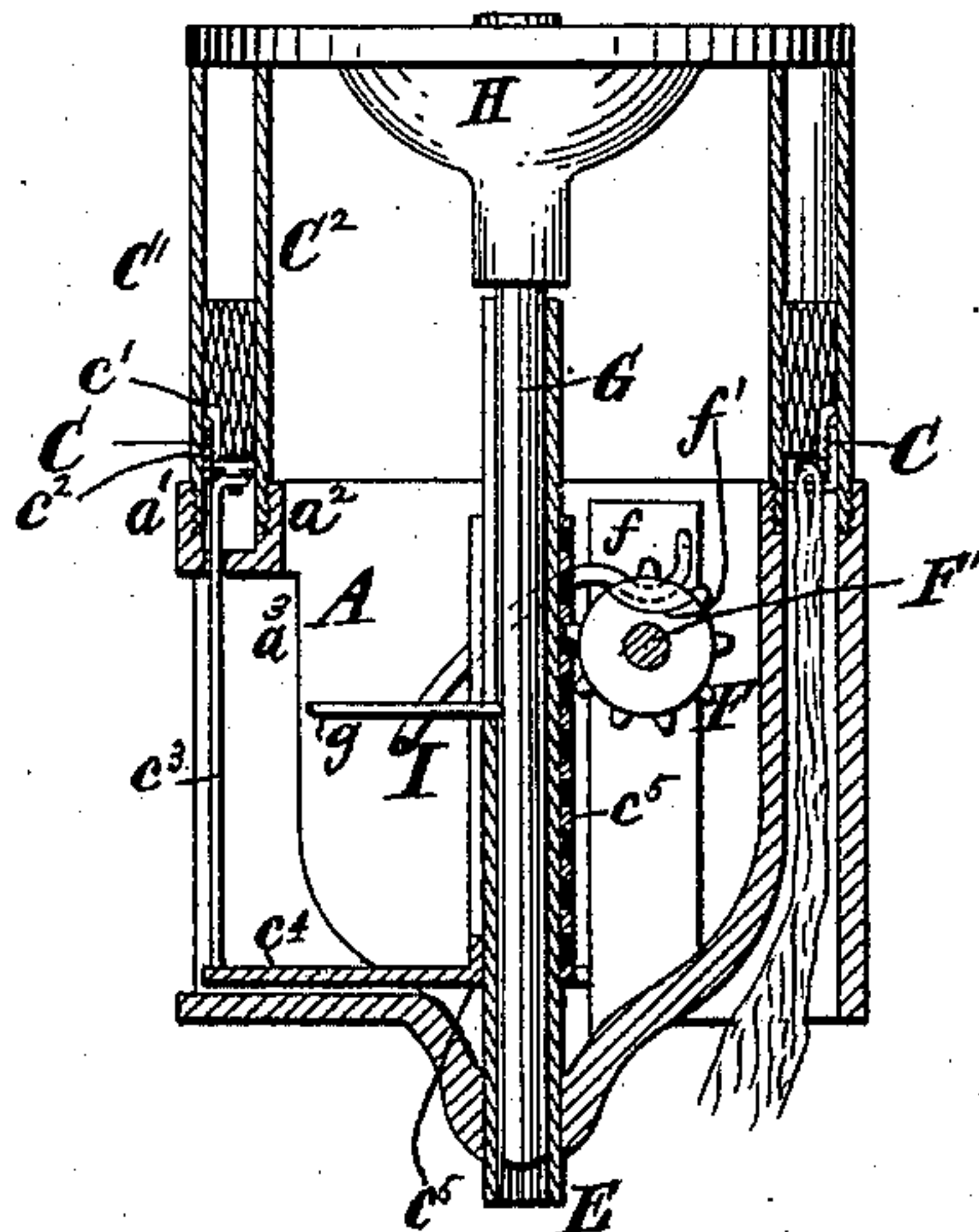


Fig. 5.

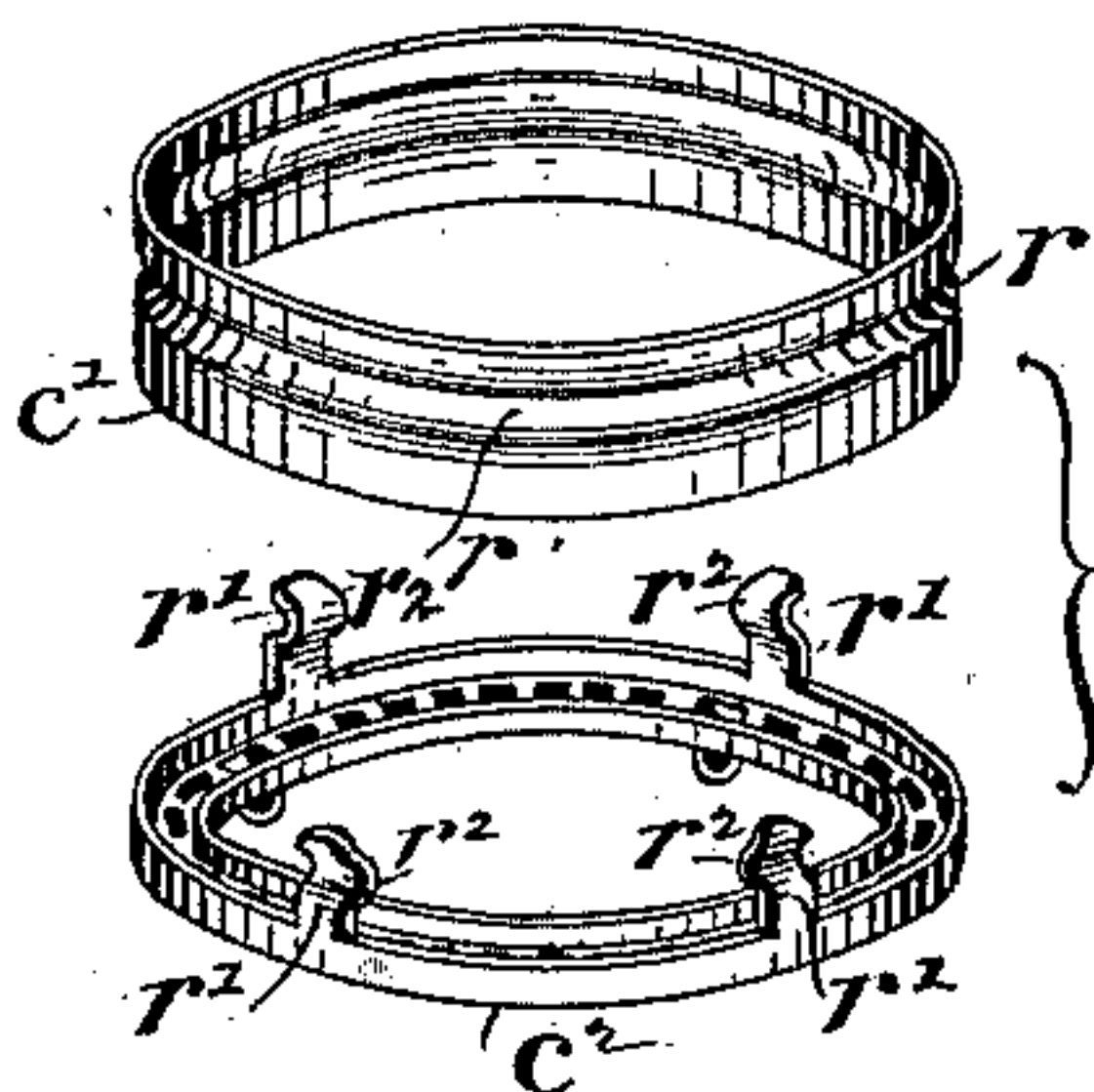


Fig. 4.

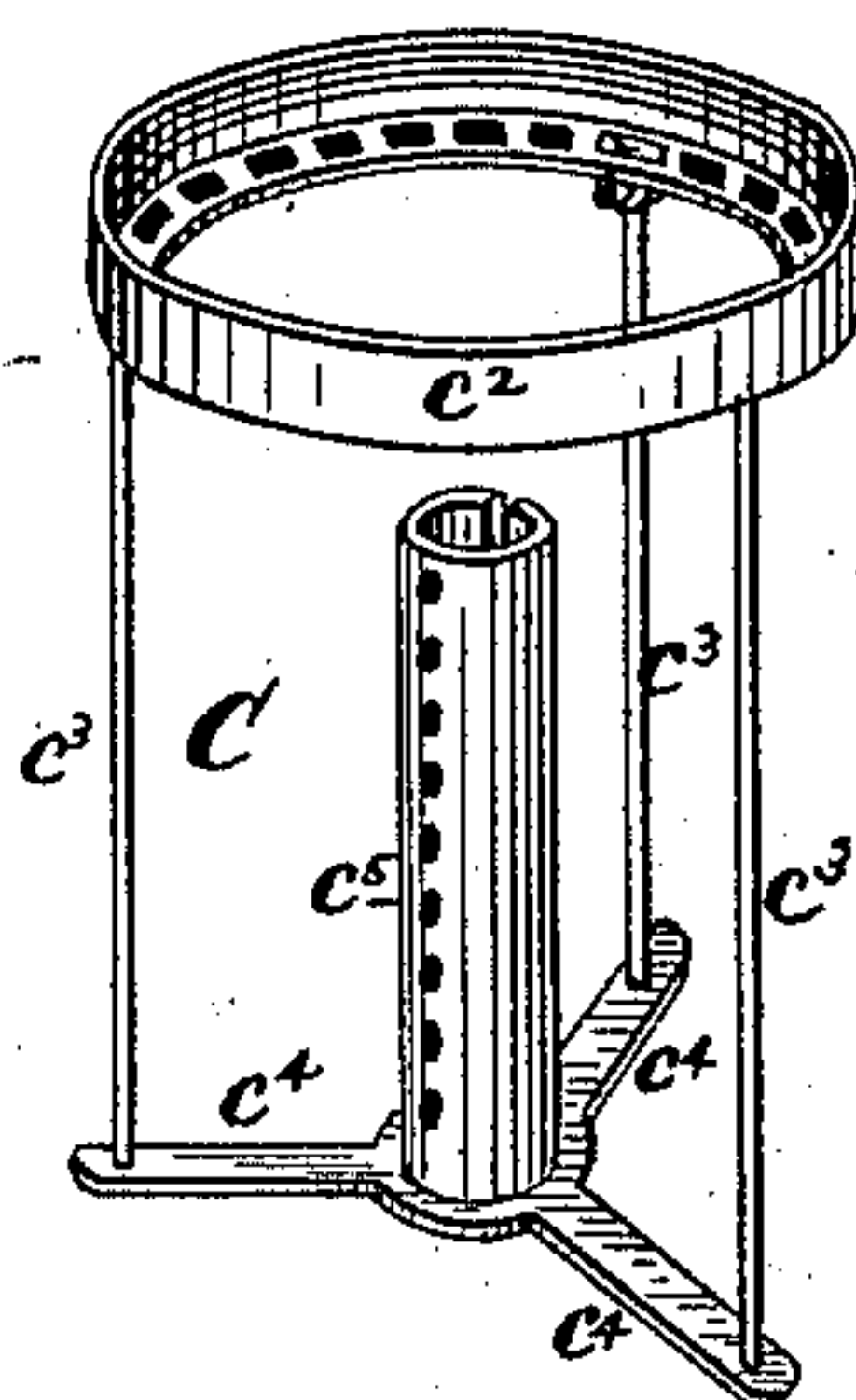
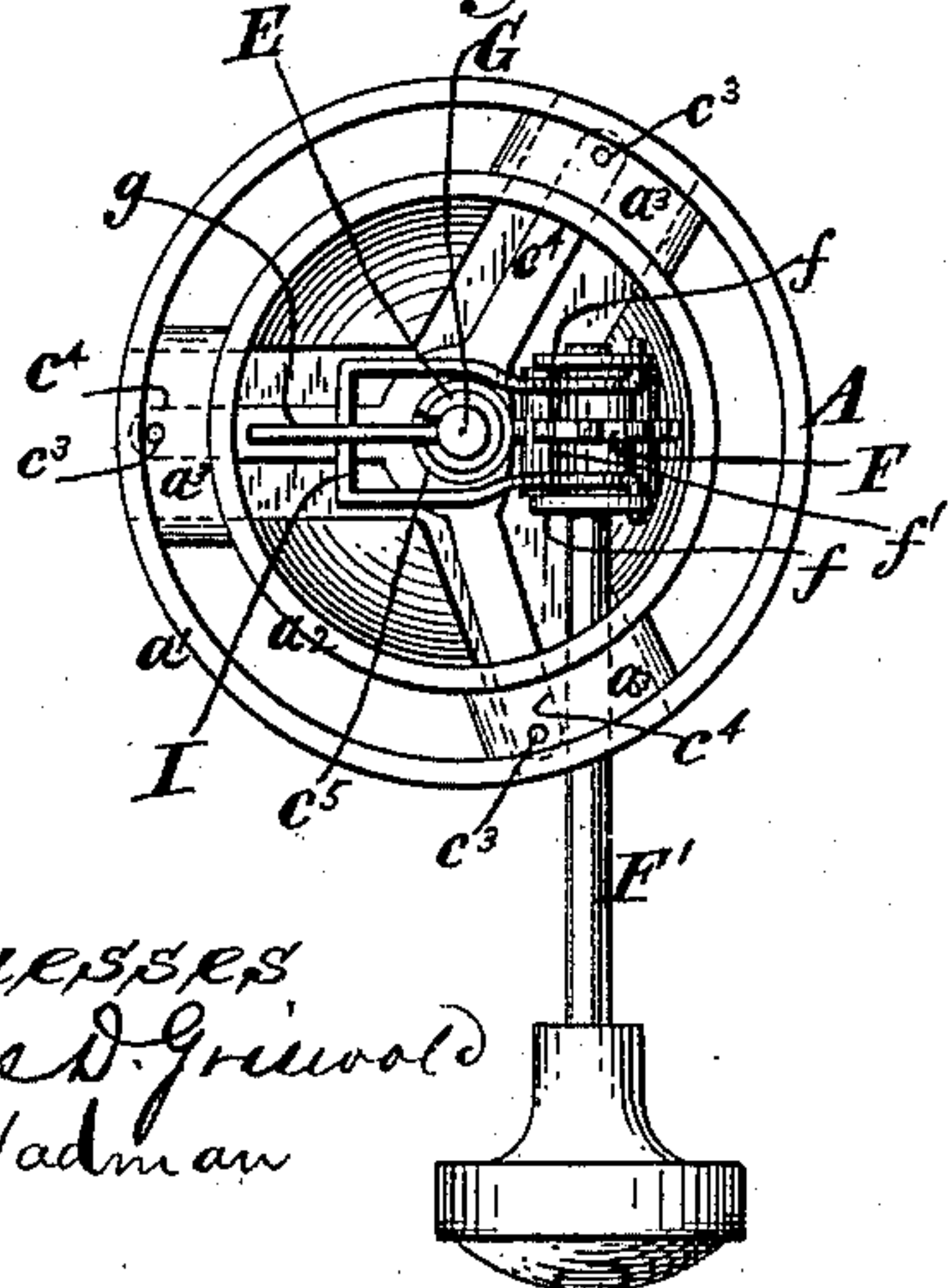


Fig. 3.



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WILLIAM F. FOLMER, OF BROOKLYN, ASSIGNOR TO THE HEKTOGRAPH COMPANY, OF NEW YORK, N. Y.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 365,739, dated June 28, 1887.

Application filed June 8, 1886. Serial No. 204,456. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. FOLMER, of Brooklyn, in Kings county and State of New York, have invented a certain new and useful Improvement in Lamp-Burners, of which the following is a specification.

In the accompanying drawings, Figure 1 is a vertical section of a lamp-burner embodying my improvement. Fig. 2 is a vertical section showing certain parts in a different position. Fig. 3 is a top view of certain parts of the burner, the wick-tube tips, the wicks, the deflectors, and a chimney-gallery being removed. Fig. 4 is a perspective view illustrating certain parts of a wick-carrier comprised in the burner. Fig. 5 is a perspective view of certain modified parts of a wick-carrier.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body of the burner, consisting, as here shown, of a single structure of cast metal, comprising parallel tubular portions a' a^2 , intersected by passages a^3 , of which three are shown extending from the inner tubular portion, a^2 , to the outer portion, a' . This body-piece is open both at the top and bottom. It is secured within an air-distributor, B, which preferably will be made of sheet metal suitably perforated, of a cup or basket shape, and is provided at the lower end with a screw-threaded boss or bosses, whereby the burner may be secured to an oil reservoir or fount. The body may be secured in the air-distributor B by solder or otherwise.

C' C² designate wick-tube tips, made of sheet metal—such as brass—and secured to the tubular portions a' a^2 of the body A of the burner. As shown, the wick-tube tip C² is screwed onto the tubular portion a^2 , and the wick-tube tip C' is screwed into the tubular portion a' of the body A.

C designates a wick-carrier, comprising two rings, c' c^2 , of sheet metal, one of which may be screwed into or out of the other, and one of which has secured within it a cylindrical burning-wick, D, and the other of which has secured in it strands of a feeding-wicking, D'.

The rings c' c^2 and the feeding wick and wicking fit within the wick-tube tips C' C² and the tubular portions a' a^2 of the body A, the burning-wick extending up through the wick-tube

tips when the burner is in use, and the wick extending down through the bottom of the burner into the oil reservoir or fount. The ring c^2 has secured to it rods c^3 of wire. These rods extend downwardly through holes in the tops of the passages a^3 of the body A, and are secured to arms c^4 , which extend into the passages a^3 of the body A from a tubular rod, c^5 , to which they are affixed. The tubular rod c^5 is free to move up and down upon a tubular guide, E, which is affixed to the bottom of the body A of the burner.

The tubular rod c^5 has in it, at one side, a number of holes, so that it is made to form a rack. A toothed wheel, F, engages with it. This toothed wheel is mounted upon a shaft, F', supported in bearings f , affixed to the body A, and extending out through one of the passages a^3 of the body and through the air-distributor B, where it may be grasped by hand, for the purpose of operating it. By rotating the shaft in one direction the wheel F may be made to elevate the wick-carrier, and by rotating it in the reverse direction the wick-carrier may be lowered. In this way the wick may be adjusted.

The tubular rod c^5 on the side opposite to that along which it is perforated with holes to form a rack has a slot formed longitudinally in it. The guide E, upon which this tubular rod fits, is provided with a similar slot. In the guide E a rod, G, is fitted loosely, so that it may be raised and lowered therein. This rod is provided with a pin or arm, g , that extends through the slot in the guide E and the corresponding slot in the tubular rod c^5 . On its upper end is mounted a button or spreader, H, whereby air, entering the air-distributor B, and passing thence through the passages a^3 of the body A, and ascending the space within the tubular portion a^2 of the body and the wick-tube tip C², is deflected outwardly against the inner surface of the flame. The rod G constitutes a shank for the button or spreader.

I designates a bow-shaped lever, consisting, as here shown, of a piece of wire pivotally connected at the ends to the bearings f , in which the wick-adjusting shaft F' is supported. Close to the ends of this bow-shaped lever it has bearings upon the wick adjusting wheel F, at the sides of the teeth of the latter, said wheel

being shaped or constructed so as to admit of this. Just beyond the portion of the bow-shaped lever which bears upon this wheel the bow-shaped lever is bent upwardly, and then
 5 extends transversely across the tubular portion a^2 of the body A and under the arm or pin g . At a certain portion in its circumference the wheel F, at the sides of its teeth, is provided with cavities f' . When this portion
 10 of the wheel is beneath the bow-shaped lever, the latter drops, and thereupon the rod G drops with it, so that the button or spreader H will descend upon the wick and extinguish the flame. When the wheel F is rotated into a
 15 different position, it will raise the bow-shaped lever and elevate the button or spreader into the position which it is to occupy while the burner is in use. As the cavities in the wheel are but of short extent, the wheel may be ro-
 20 tated for a considerable distance for the purpose of adjusting the wick without lowering the button or spreader H.

I have shown arranged within the wick-tube tip C^2 two perforated air-distributers, $J' J^2$.

25 Mounted on the air-distributer B is a deflector, K, for directing air to the exterior surface of the flame, and the base of this deflector is provided with a chimney-gallery, L. Between the wick-tube tip C' and the deflector
 30 K air-distributers $M' M^2$ are arranged.

In Fig. 5 I have shown rings $c' c^2$ of modified construction for the wick-carrier. The ring c' has a groove, r , formed circumferentially in it. The ring c^2 has not a deep upturned flange,
 35 as in the former example, illustrated more particularly in Fig. 4; but in lieu thereof it has a number of upwardly-extending resilient fingers, r' , which have transverse ribs r^2 . The ring c' may be inserted between the fingers r'
 40 of the ring c^2 , whereupon the ribs r^2 of the latter will engage with its groove. It may be pulled out when it is to be separated. When the two rings are fitted together, the rounded lower portion of the ribs r^2 will tend to force
 45 the ring c' down into its proper place. The outer wick-tube tip, C' , will, when in place, prevent the disengagement of the two rings $c' c^2$, because it will prevent the fingers r' from moving outwardly.

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

1. In a lamp-burner, the combination of a vertically-movable button or spreader, a shank upon which said button or spreader is mounted,
 55 a projection on said shank, a lever contacting with the projection for sustaining the button or spreader, a wheel for controlling the position of the lever provided with a cavity in its circumference, and a shaft or journal upon which

said wheel is mounted, which when rotated 60 sufficiently far will bring the cavity in the wheel into such position that the lever will descend and allow the button or spreader to fall, substantially as specified.

2. The combination, in a lamp burner, of a 65 wick-adjusting wheel having a cavity in its circumference, a vertically-movable button or spreader, a shank upon which said button or spreader is mounted, a projection on said shank, a lever contacting with said projection 70 for supporting the button or spreader, and a shaft upon which said wheel is mounted, which when rotated a certain distance will cause the wheel to raise or lower the wick, but which when rotated sufficiently far will bring the 75 cavity in the wheel into such position that the lever will descend and allow the button or spreader to fall, substantially as specified.

3. The combination, in a lamp-burner, of a 80 vertically-movable button or spreader, a shank upon which said button or spreader is mounted, a projection on the shank, a lever contacting with the projection for sustaining the button or spreader, a wheel for controlling the posi- 85 tion of the lever, provided with a cavity in its circumference, a shaft or journal upon which said wheel is mounted, a wick-raising device, a rod with which said wick-raising device is connected, and a rack on said rod engaging said wheel, substantially as specified. 90

4. A wick-carrier comprising rings detachably secured together and attached to wicks, rods extending from one of the rings, arms attached to the lower ends of the rods and extending inward therefrom in a horizontal di- 95 rection, and a rod to which the inner ends of said arms are secured, substantially as specified.

5. The combination, with a body-piece, A, having tubular portions $a' a^2$ and intersecting 100 passages a^3 , of a wick-carrier, C, comprising a ring for attachment to a wick, rods extending from the ring down through the tops of the passages a^3 , arms attached to the lower ends of the rods and extending inwardly there- 105 from in a horizontal direction into the passages a^3 , and a rod to which the inner ends of these arms are secured, substantially as specified.

6. The combination of two interlocking wick-connecting rings, one provided with a 110 groove and the other with ribbed resilient fingers, and mechanism connected with one of the rings for raising and lowering them both, substantially as specified.

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Witnesses:

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