J. M. BATCHELOR.

Wick Raiser.

No. 24,711. Patented July 12, 1859.

Fig. 4

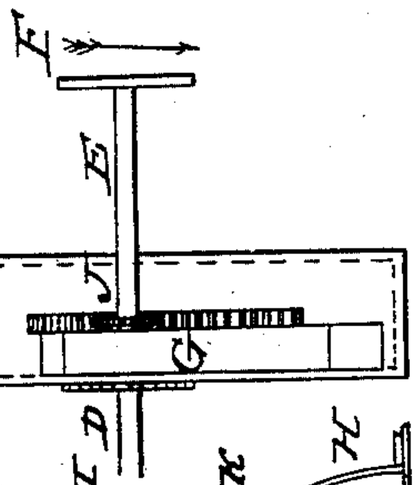


Fig. 3

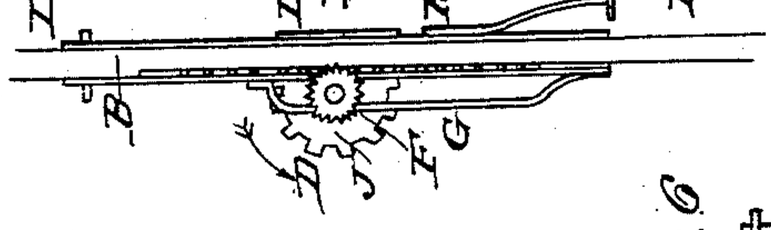


Fig. 7

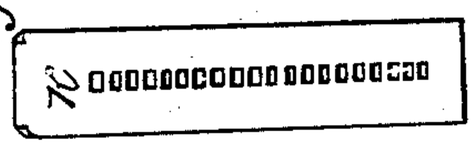


Fig. 6

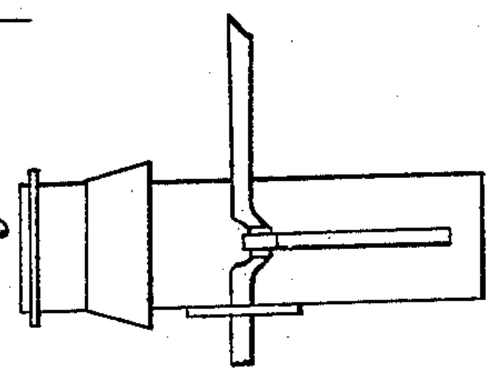


Fig. 2

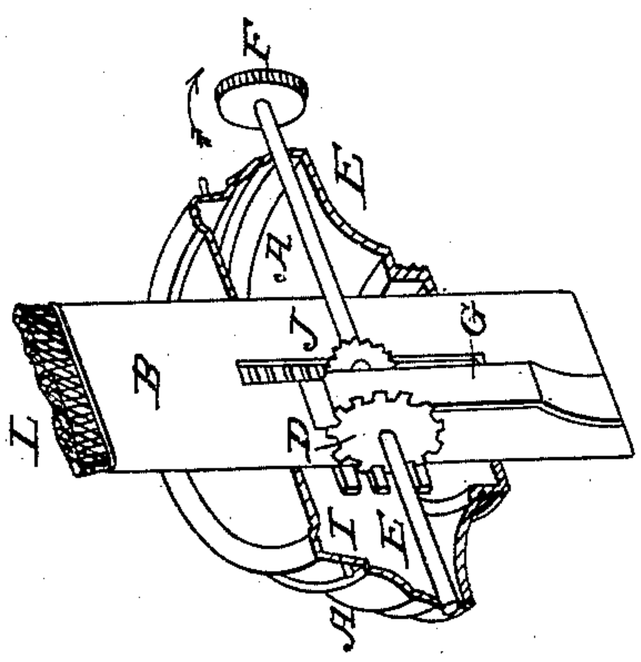


Fig. 5

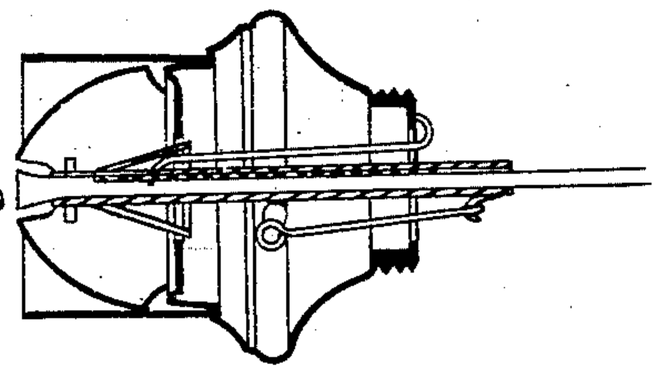
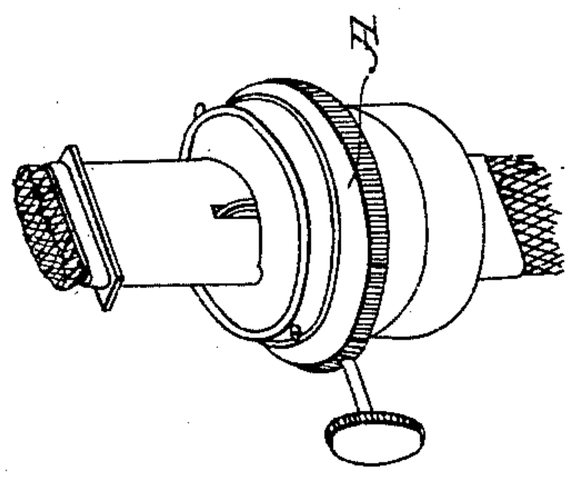


Fig. 1



Witnesses

R. S. Campbell

Mich. Hughes

Inventor

Joseph M. Batchelor,

UNITED STATES PATENT OFFICE.

JOSEPH M. BATCHELOR, OF FOXCROFT, MAINE.

LAMP.

Specification of Letters Patent No. 24,711, dated July 12, 1859.

To all whom it may concern:

Be it known that I, J. M. BATCHELOR, of Foxcroft, in the county of Piscataquis, in the State of Maine, have invented a new and improved method of adjusting the wick and adjustable tube of a coal-oil lamp by means of one button spindle and one or two spurs attached thereto, or a catch or a spring bearing upon the adjustable tube or their equivalents; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the figures of reference marked thereon.

Figure 1, shows a perspective view of the lamp cap and adjustable wick tube. Fig. 2, shows a section in perspective of the cap, and the manner of adjusting the wick and tube. Fig. 3, is a vertical cross section of the wick tube and wick of Fig. 2. Fig. 4, is a side elevation of Fig. 3. Fig. 5, is a vertical cross section of Fig. 1. Fig. 6, is a side view of the wick tube of Fig. 5. Fig. 7, shows the wick plate.

The nature of my invention consists in arranging upon the stem of the button spindle, in connection with the small spur wheel commonly employed for adjusting the wick, a larger spur wheel meshing into a rack projecting from the side of the wick tube, so that the wick and tube can be both raised or depressed, by turning the button spindle, in exact relative distances to produce the proper amount of light required, described as follows:—

A, represents the tube cap, through which passes, vertically, the wick tube B. This tube, being of the flat kind, is made to move up and down in the cap A, by a spur wheel D, which is fixed to the stem E of the button F.—The stem having its bearings in either side of the cap A, passes on the outside of the wick tube, which is steadied in raising or depressing by a guard plate G, and by a friction spring H, placed on the opposite side of the wick tube and fixed to the bottom of the cap A, as shown by Fig. 3. The spur wheel D, meshes into a short rack I, fixed to one side of the wick tube and as the spur wheel D, is turned in either direction the tube is moved up or down. On the opposite side of the guard plate G, a smaller spur wheel J, is fixed to the stem E, which passes through a slot in the wick tube and meshes into a rack in the center of wick plate K, shown detached by Fig. 7. This wick plate K, operates the wick so as to raise and lower it in the tube by the action of the spur wheel J; the corners on the top of the plate are turned over so as to hold the wick and operate it with certainty.

The operation of the tube is as follows:— By turning the button F, in the direction indicated by the arrows of Figs. 2, 3 and 4, the action of the spur wheel D, will raise the tube until the bottom of the guard plate G, reaches the stem E. The tube will then cease to move and the spur will clock over the lower tooth of the rack plate I, allowing the wick L, to be raised in the tube by the spur wheel J, when it can be properly trimmed; the button is then moved in the opposite direction and the tube lowered to its proper position.

A modification of this principle is represented by Figs. 1, 5 and 6, in which a crank and connecting arm are employed to raise and depress the wick tube, while the wick is kept stationary by a spring sweep which is fixed to the bottom of the cap and passes up through the top of the cap and hooks into the rack plate. By removing this spring from the rack the wick and tube may both be raised or depressed together, and by changing the hook with respect to the position of the tube the wick may be raised or lowered in the tube as occasion may demand.

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

The arrangement and combination of adjustable tube B with the wick L, button spindle F spur wheels D, J, and friction spring H, or the equivalents thereof, as set forth.

JOSEPH M. BATCHELOR.

Witnesses:
M. HUGHES,
R. L. CAMPBELL.