

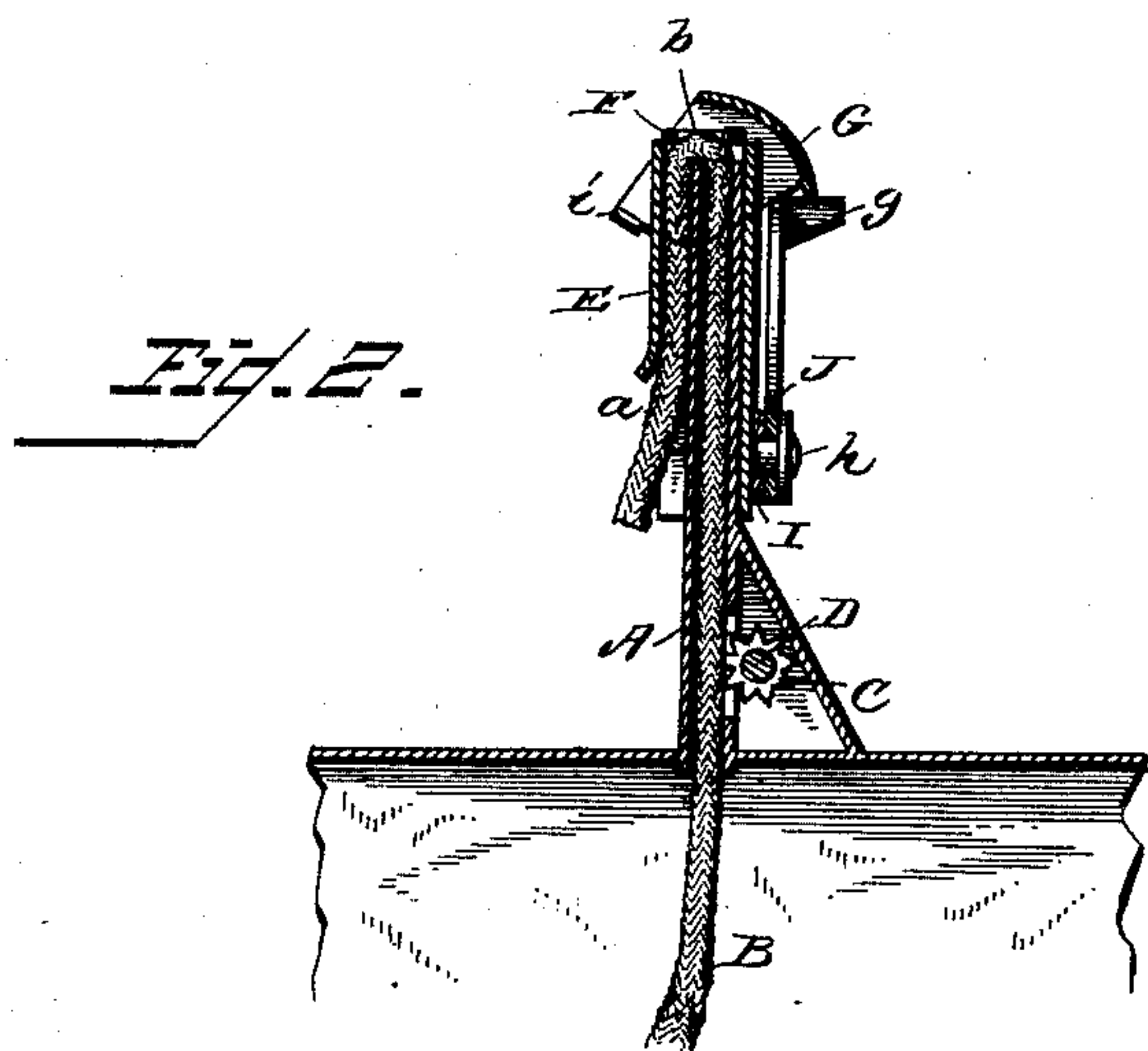
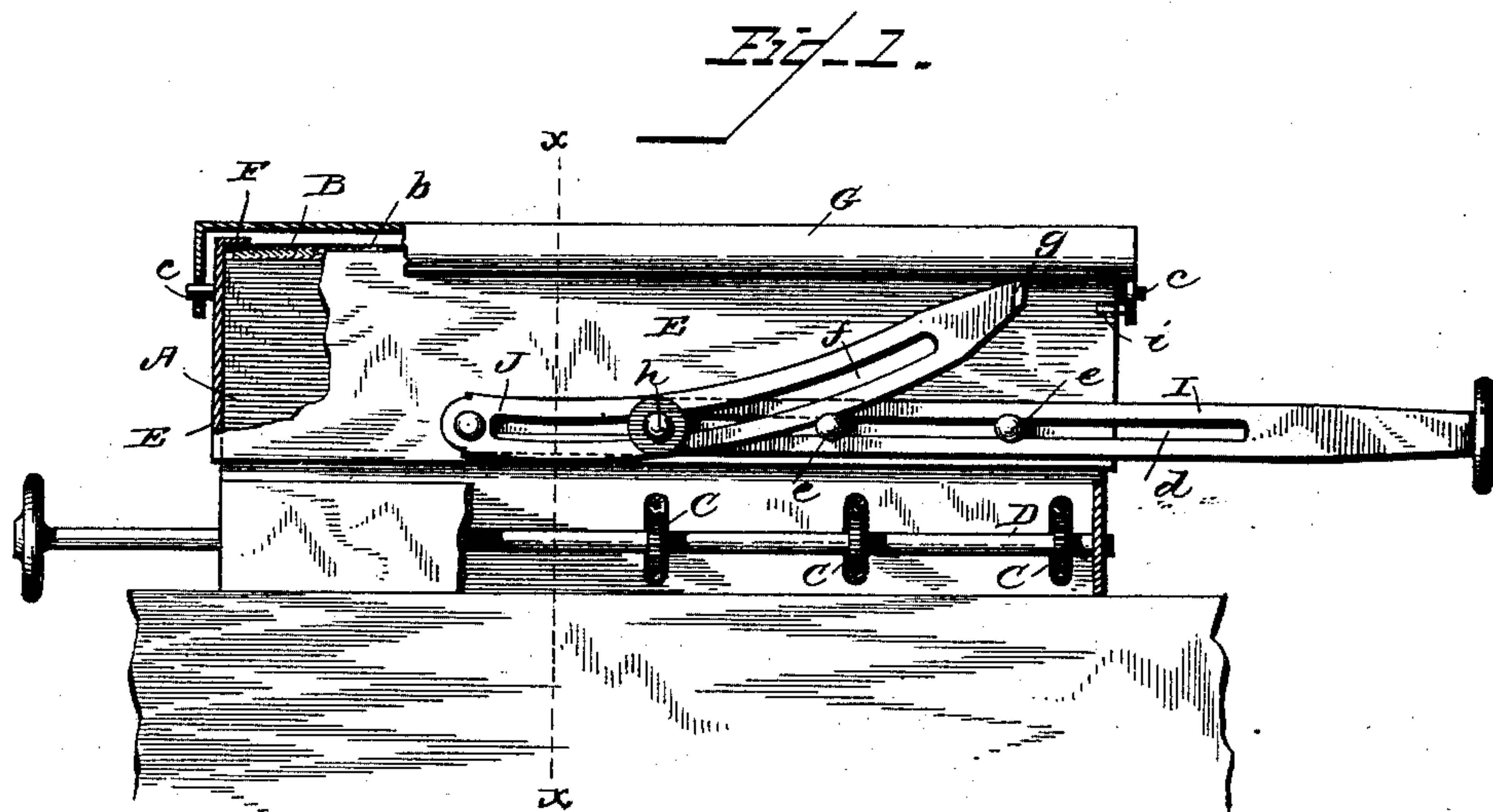
(No Model.)

C. W. STIFF & J. WATROUS.

FLAME REGULATOR AND EXTINGUISHER FOR LAMP BURNERS.

No. 354,268.

Patented Dec. 14, 1886.



Witnesses
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UNITED STATES PATENT OFFICE.

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FLAME REGULATOR AND EXTINGUISHER FOR LAMP-BURNERS.

SPECIFICATION forming part of Letters Patent No. 354,268, dated December 14, 1886.

Application filed January 9, 1886. Serial No. 188,050. (No model.)

To all whom it may concern:

Be it known that we, CHARLES W. STIFF and JOSEPH WATROUS, citizens of the United States, residing at Foxborough, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Burners for Lamps and the Like, and Flame Regulators and Extinguishers for Use in Connection Therewith; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to burners for lamps and the like, and to flame regulators and extinguishers for use in connection therewith, and has for its object to provide a construction which will permit the wick to be folded over the tube so as to form a folded or rounded edge to be lighted, instead of a cut edge, as heretofore, whereby is obtained a more uniform and even flame, and the exposed edge will burn and last longer than when a cut edge is used.

It has also for its object to provide means for regulating the size of the flame, and extinguishing the same when desired; and to such ends the invention consists in the construction, and also in the combination of parts hereinafter particularly described, and then sought to be specifically defined by the claims.

Figure 1 is a side elevation of a portion of an oil-stove with our burner applied, parts being broken away. Fig. 2 is a cross-section on line *x x* of Fig. 1.

In the following description the invention will be described as applied to an oil-stove burner; but it will be understood that it may be applied to lamps and other kinds of oil-burners, so as to operate in the same manner.

In the drawings, the letter A designates the ordinary wick-tube of an oil-stove detached from the stove, and B the wick which passes through the same from the oil-reservoir, the wick being raised by a toothed wheel, C, and shaft D, as usual.

The letter E designates a slide, clasp, or collar designed to fit down over the wick-tube; and is preferably formed with inwardly-projecting lips F at both ends, so as to extend over the wick and thus insure the wick being

the same height at both ends. These lips, however, may be omitted. In using this slide the wick is raised and its end *a* turned down or folded alongside the tube, and the slide fitted down over the tube and turned-down portion of the wick, so as to hold the folded portion of the wick in place. This forms a folded or rounded edge, *b*, to be lighted. This edge is uniform and firm, and gives a regular flame, and burns longer than when a selvage edge is exposed. When the edge becomes so much burned that it cannot be longer used, the slide is removed, the wick raised, and the burned portion carried farther down, and, when necessary, trimmed off and the slide again applied. The wick-tube is set at such a height that the flame will be at its highest point with the tube so set. In order to regulate this flame a shield or cap, G, is applied or attached to the slide and actuated by a lever, so as to be adjusted more or less over the wick, and thus regulate the size of the flame. The farther the cap is advanced over the wick the smaller the flame is made. In the form illustrated the cap is journaled on pins *c* to the end of the slide, and is so weighted or balanced that normally it will fall or drop backward, so that a support must be afforded for it. This cap is raised and supported by means of a lever adapted to bear against it and press it upward. A suitable lever is composed of a sliding arm, I, formed with a slot, *d*, and secured to the slide E by headed pins *e*, which also serve as guides for the arm in its movement. To the inner end of this arm is pivoted an arm, J, formed with a curved slot, *f*, and having a finger, *g*, projecting from its free end, which is adapted to bear against the lower part of the hinged cap. A headed pin, *h*, passes through the slots *f* and *d*, and serves to deflect the arm J upward and downward in the back-and-forth movement of the arm I. In the upward movement of the arm J it strikes the cap G and throws it over the wick proportionately to the movement of the arm, and to that extent reduces the size of the flame. The cap is held at its adjusted position by the arms I and J, the weight of the cap not being sufficient to overcome the friction between the parts which holds the arm J in its raised position. The cap can by the movement

of the lever, composed of the two arms, be thrown far enough over the wick to extinguish the flame entirely. A lip, *i*, on the cap strikes against the edge of the slide so as to prevent the cap from going too far over. When the arm *J* is drawn down, the cap falls back by its own weight. It will thus be seen that the size of the flame is regulated and also extinguished by the same cap.

10 The parts are simple in construction, effective in operation, cheap to produce, not liable to get out of order, and may be made of various sizes, and may be altered in some details of construction without departing from the spirit of our invention.

Having described our invention and set forth its merits, what we claim is—

1. In an oil-burner, the combination thereof with of a wick-tube, a wick fitted therein and folded over the upper end of the tube onto the outside thereof, and a clasp fitted over the tube and outside portion of the folded wick, substantially as described.

2. The combination, with an oil-burner, of a wick-tube, and a clasp fitted over the tube at its upper end to hold a turned-down end of a wick against the tube, the said clasp being of a

greater diameter than the tube to leave a space between the clasp and tube to receive the turned-down portion of a wick, substantially as described.

3. In an oil-burner, the combination, with a wick-tube, of a slide fitted over the tube and provided with inwardly-turned lips at the ends thereof, said slide being of greater diameter than the tube to permit a wick to be passed between it and the side of the tube, substantially as described.

4. The combination of a slide to fit over a wick-tube, an adjustable cap hinged to the slide, a slotted sliding arm, pins connected to the slide for guiding the arm along the slide, and a secondary arm pivoted to the main arm and formed with a curved slot, through which a pin connected to the slide passes and guides the arm, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES W. STIFF.
JOSEPH WATROUS.

Witnesses:

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