2 Sheets—Sheet 1.

H. C. SCOTT.

LAMP-WICK AND BURNER.

No. 181,284. Patented Aug. 22, 1876.

Fig. 1

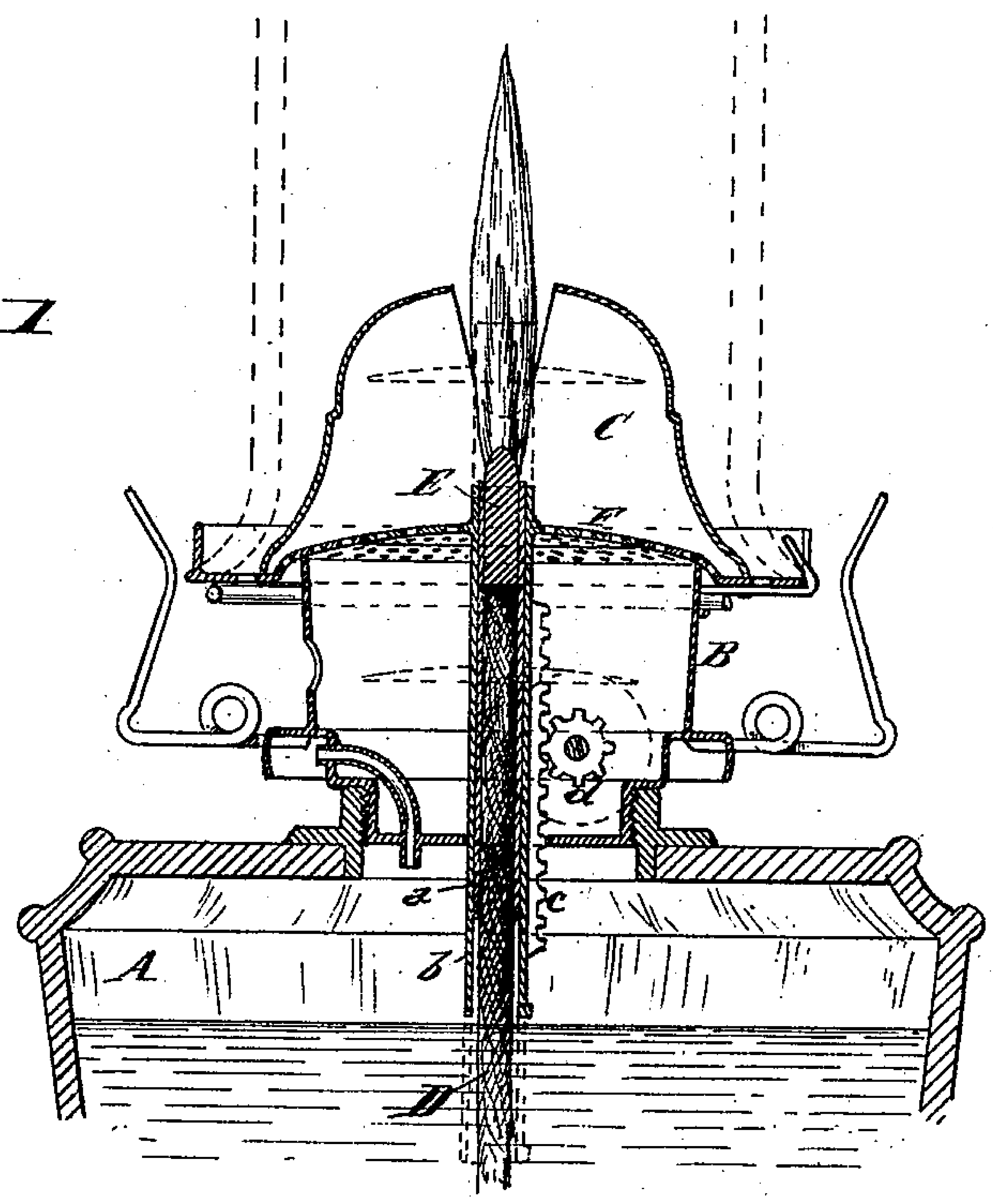
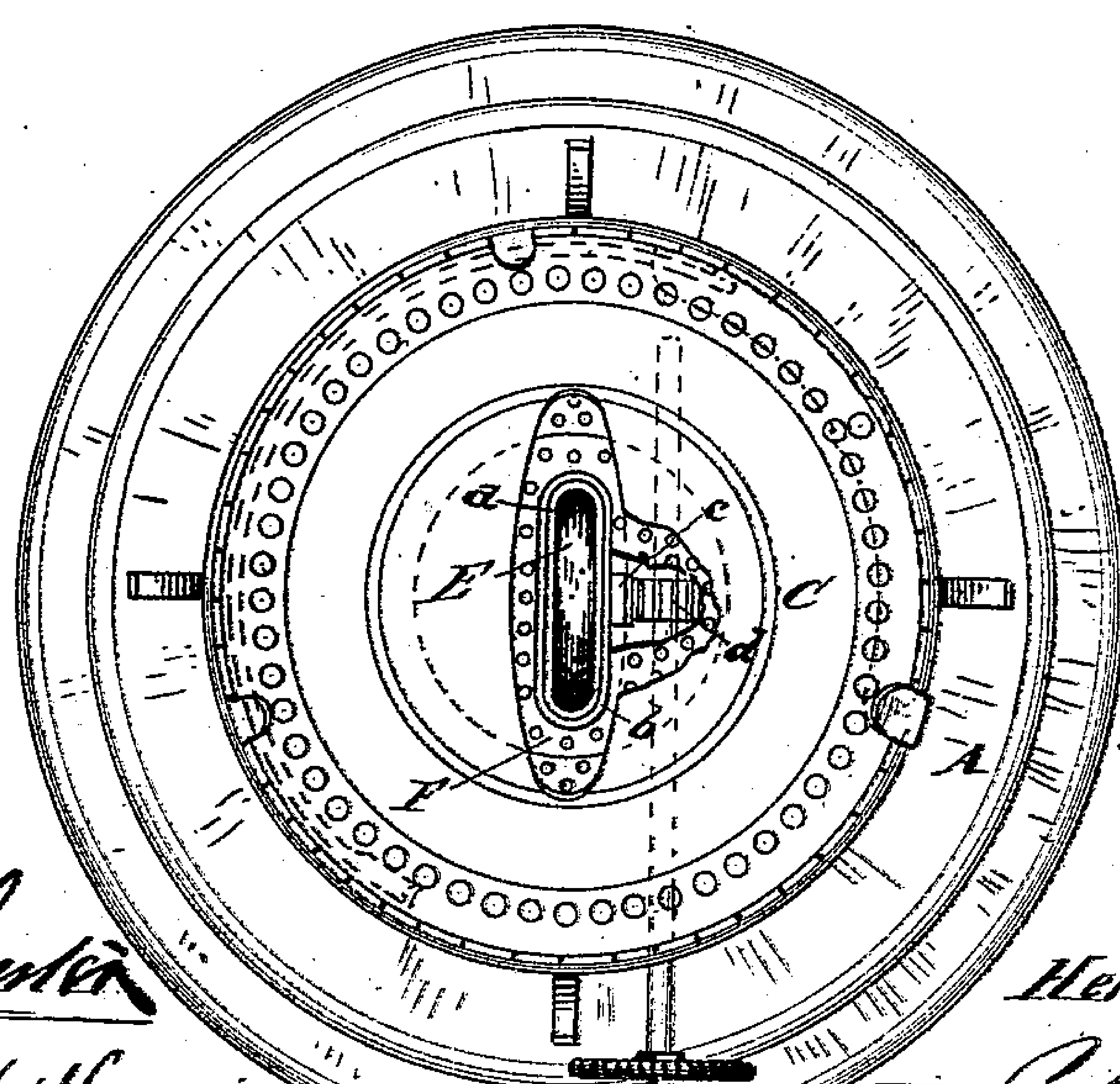


Fig. 2



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2 Sheets—Sheet 2.

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LAMP-WICK AND BURNER.

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Fig. 5

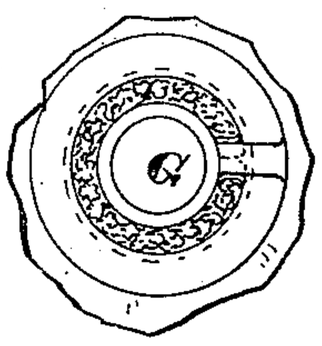


Fig. 3

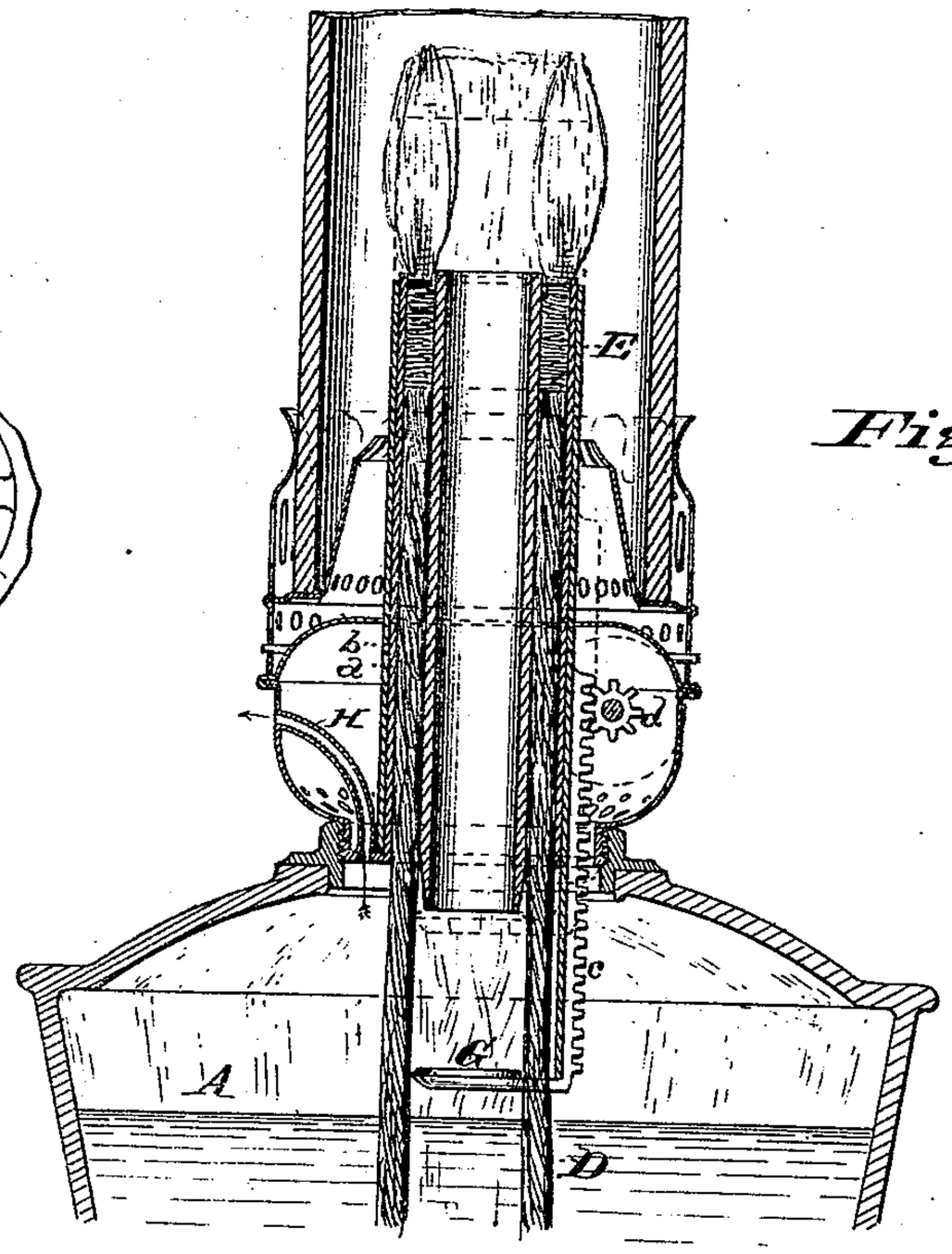
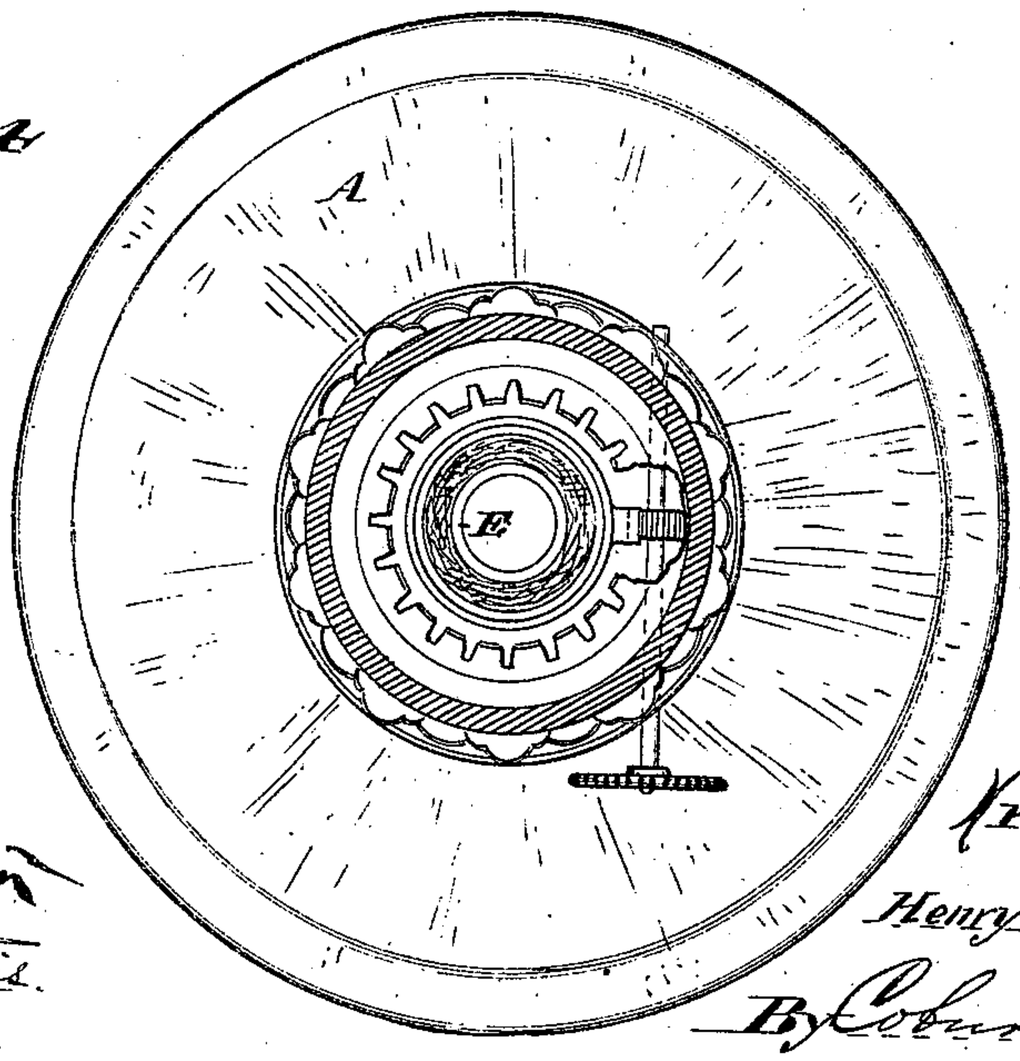


Fig. 4



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UNITED STATES PATENT OFFICE.

HENRY C. SCOTT, OF CLINTON, IOWA.

IMPROVEMENT IN LAMP WICKS AND BURNERS.

Specification forming part of Letters Patent No. **181,284**, dated August 22, 1876; application filed May 2, 1876.

To all whom it may concern:

Be it known that I, HENRY C. SCOTT, of Clinton, in the county of Clinton and State of Iowa, have invented a new and useful Improvement in Lamp Wicks and Burners, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a sectional view of the burner and oil-fount; Fig. 2, a plan view of the same; Fig. 3, a sectional view of an Argand burner with my wick applied; Fig. 4, a plan view of the same, and Fig. 5 a bottom view of the wick-tube.

The object of my invention is to obtain an indestructible wick, which may be applied to lamps and burners of ordinary construction.

The invention consists in the combination of a wick, constructed in two sections, the upper one of which is asbestus, with a stationary wick-tube, regulating-slide, and sectional flame-protecting plate; and also in the combination of other devices belonging to the burner, as will be hereinafter fully set forth.

In the drawings, A represents the oil-fount of a lamp of any ordinary construction, and B a burner applied thereto in the usual way, and surmounted by a cone, C. The wick I construct in two parts, the lower portion, D, being made of cotton, woolen, or any other substance such as is generally used for ordinary lamp-wicks. This portion of the wick dips into the oil in the fount, and extends up the wick-tube *a* to within a short distance of the top, as seen in Fig. 1 of the drawings. The upper portion of this tube is filled with another wick-section, E, which is made of asbestus. The asbestus is molded and baked in the form desired, to adapt it to fit the wick-tube used, and in the process of molding should be compressed, so as to retain its shape perfectly in handling and in use. The asbestus section E is inserted in the top of the wick-tube, and the two sections arranged so that the upper one will rest immediately upon the section D, and at the same time project a slight distance above the top of the wick-tube. The section D feeds the oil to the asbestus section E; but as it does not reach the flame is not consumed thereby, and will, therefore, last an indefinite period. As asbestus is fibrous, the oil is regularly fed to the flame, and as it is indestructible by fire, a small section, E, is sufficient to constitute a permanent wick.

In order to regulate the light a slide, *b*, is placed upon the wick-tube *a*, on the outside thereof, and a rack, *c*, attached to one of its sides, with which a small pinion, *d*, engages, operated in the usual manner. A spring or other suitable device may be employed instead. By raising and lowering the slide *b* so that it will project more or less upon the asbestus wick-section E, the height of the flame is regulated perfectly, the effect being the same as that obtained in ordinary burners by raising and lowering the wick. In order to accommodate the motion of the slide *b*, the perforated flame-protecting plate F is made in two parts, the outer portion being annular in form, and attached to the outer casing of the burner, while the inner portion, circular in form, and exactly fitting within the annular portion, is attached to the slide and moves with it, as shown in dotted lines in Fig. 1, in which it is represented both elevated above and depressed below the annular piece.

When it is desired to extinguish the light, it is only necessary to raise the slide so that it projects considerably above the top of the wick-tube and wick, as shown in the upper part of Fig. 1 of the drawings, and the light will be extinguished.

In Figs. 1 and 2 of the drawings, I have shown my invention adapted to a flat wick-tube; but it is equally applicable to the circular wick-tube used in Argand burners. I have shown it thus applied in Figs. 3 and 4 of the drawings. It is only necessary in this application to mold the asbestus section of a suitable form to fit the tube. This may be done by making it one piece or in sections, as may be most convenient. It is necessary, however, to extinguish the flame in this burner, to close the lower end of the circular tube. This is accomplished by attaching a small disk, G, to the lower end of the regulating-slide, arranged at such a distance below the tube that the slide may be elevated some distance above the tube before the disk will be brought up against the lower end of the latter. When,

however, the disk G is brought up against the lower end of the tube, so as to close it perfectly, the light will be immediately extinguished.

My invention provides a cheap and indestructible wick, which enables the lamp to be used for an indefinite period without the trouble and annoyance of trimming the wicks daily, and changing them every few days.

I have shown several novel features in the construction of the burner, which, however, will not be fully described in this application, as they constitute the subject-matter of another application. Among these is a vent-tube, H, which permits the escape of gas from the oil-fount, the eye in the casing of the burner for lighting the lamp without removing the chimney, and the construction of the burner adapting it for use with different chimneys—such, for instance, as those known as the "sun hinge," and "sun chimneys." It is evident that my invention is equally applicable to wicks made entirely of asbestus, woven, plaited, or felted, so as to make a continuous wick.

The regulating-slide used in connection with such a wick obviates the necessity of raising and lowering the latter, which is objectionable with an asbestus wick, as the fiber is easily torn, and the wick, therefore, in a short time destroyed by the operation of the toothed raising and lowering wheels. A lever or spring may, however be used, which will obviate this objection.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A stationary lamp-wick composed of an upper asbestus section, E, and a lower section, D, of common wicking, in combination with a stationary wick-tube, *a*, section of the flame-protecting plate, and a regulating-slide, *b*, fitted around and moving upon the outside of the tube, substantially as and for the purpose set forth.

2. The combination of the stationary wick-tube *a*, regulating-slide *b*, and stop-disk G, attached to the lower end of the slide, substantially as and for the purpose set forth.

HENRY C. SCOTT.

Witnesses:

CHAS. M. BICE,

H. F. BOWERS.