

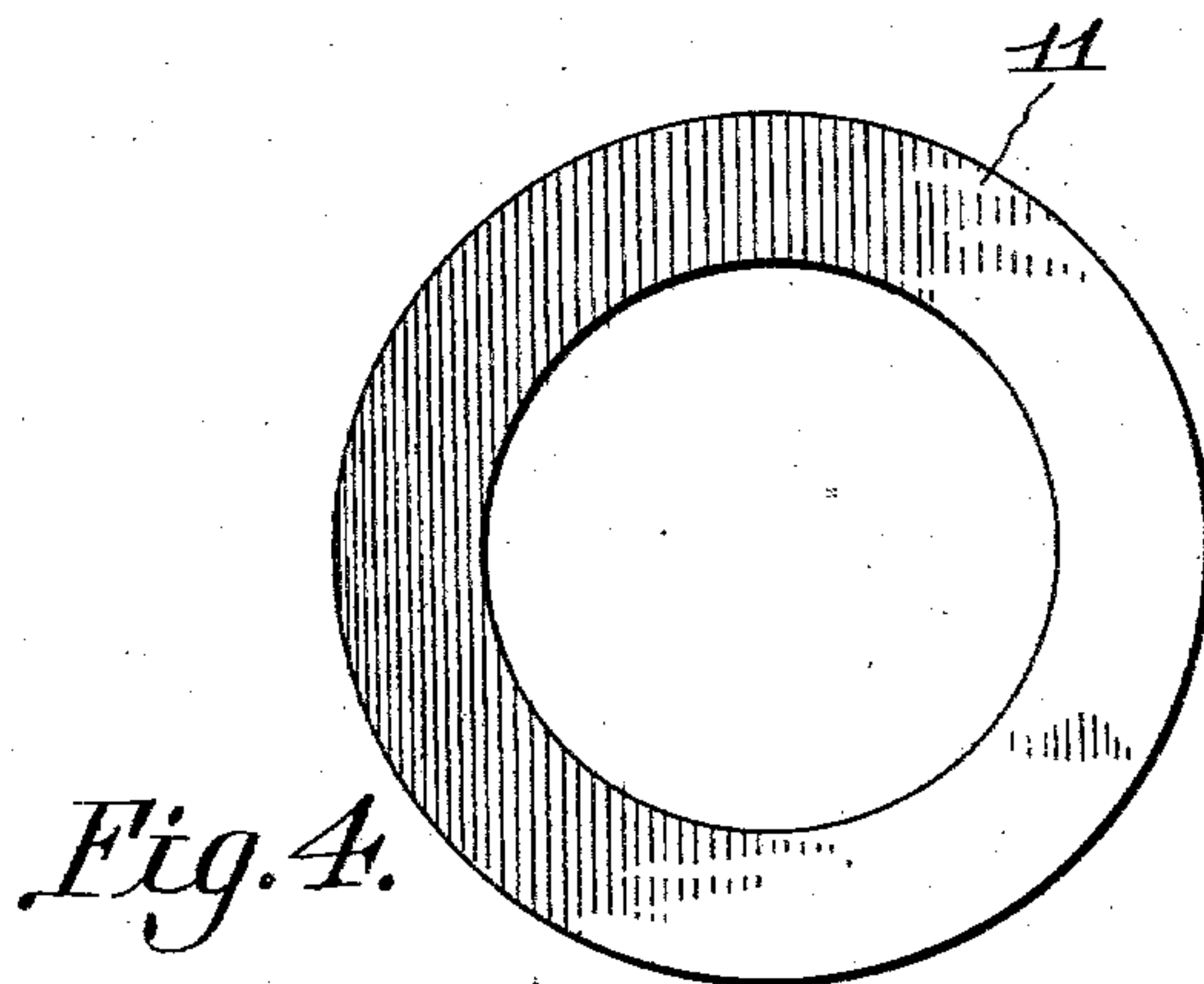
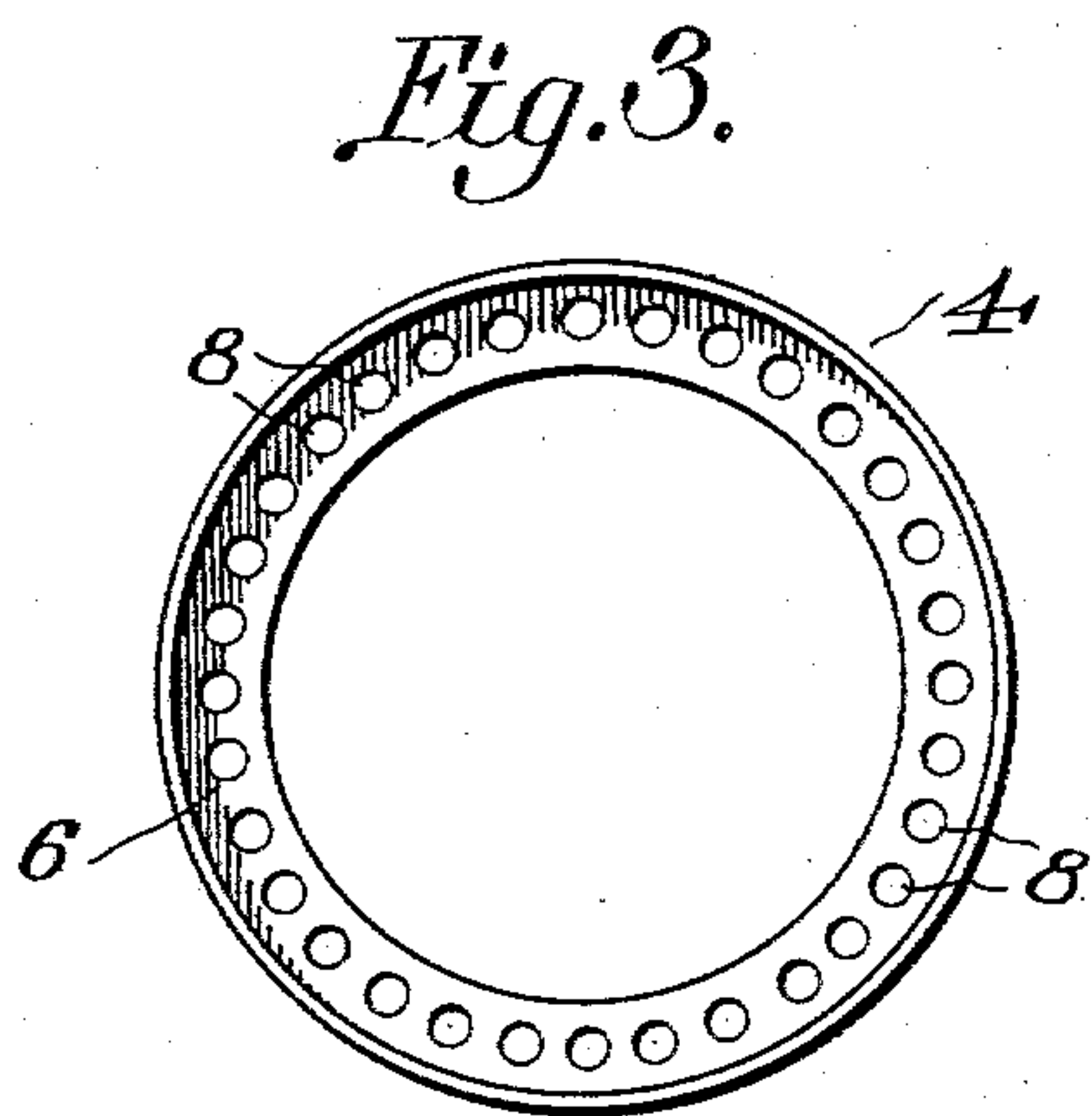
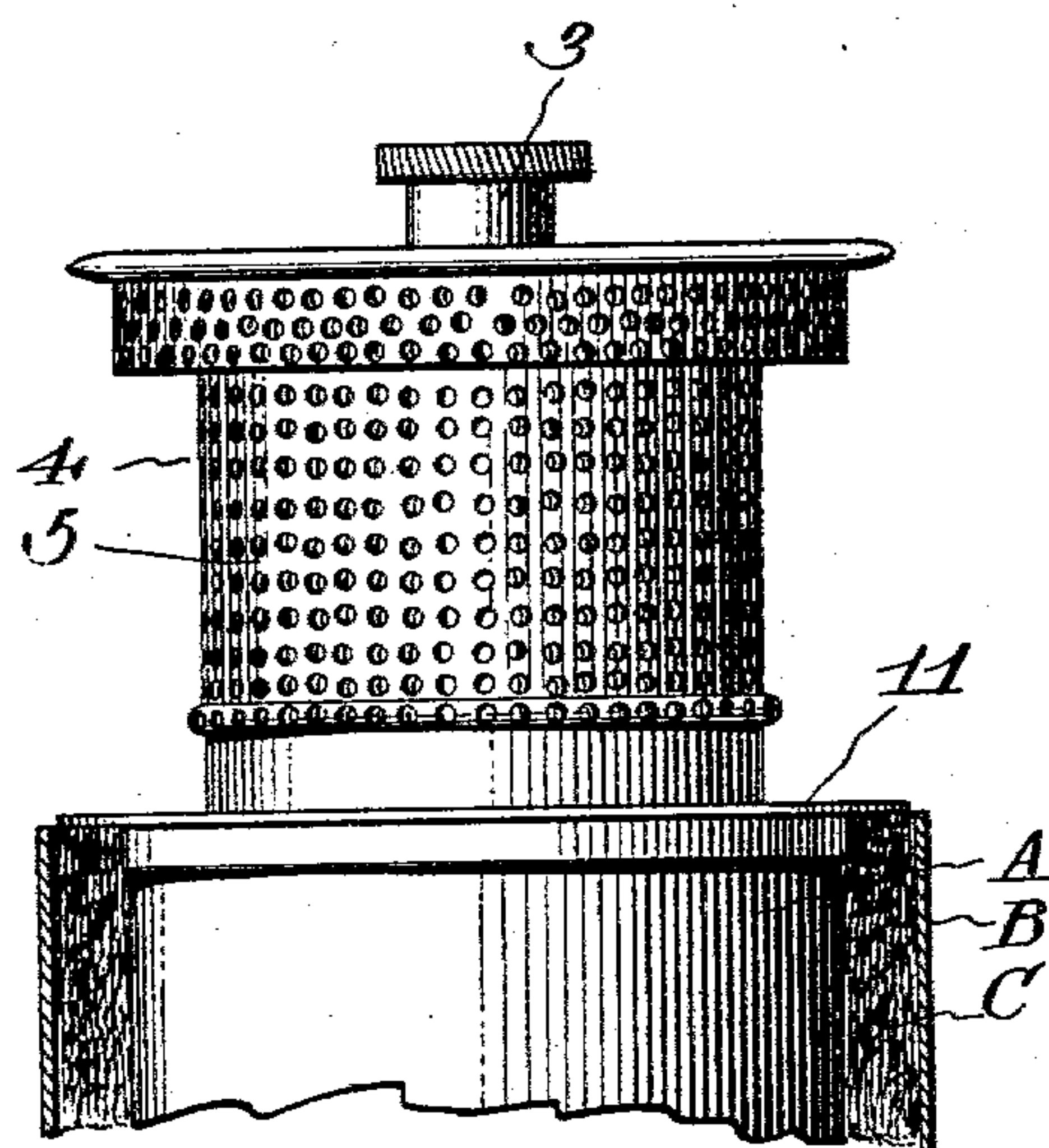
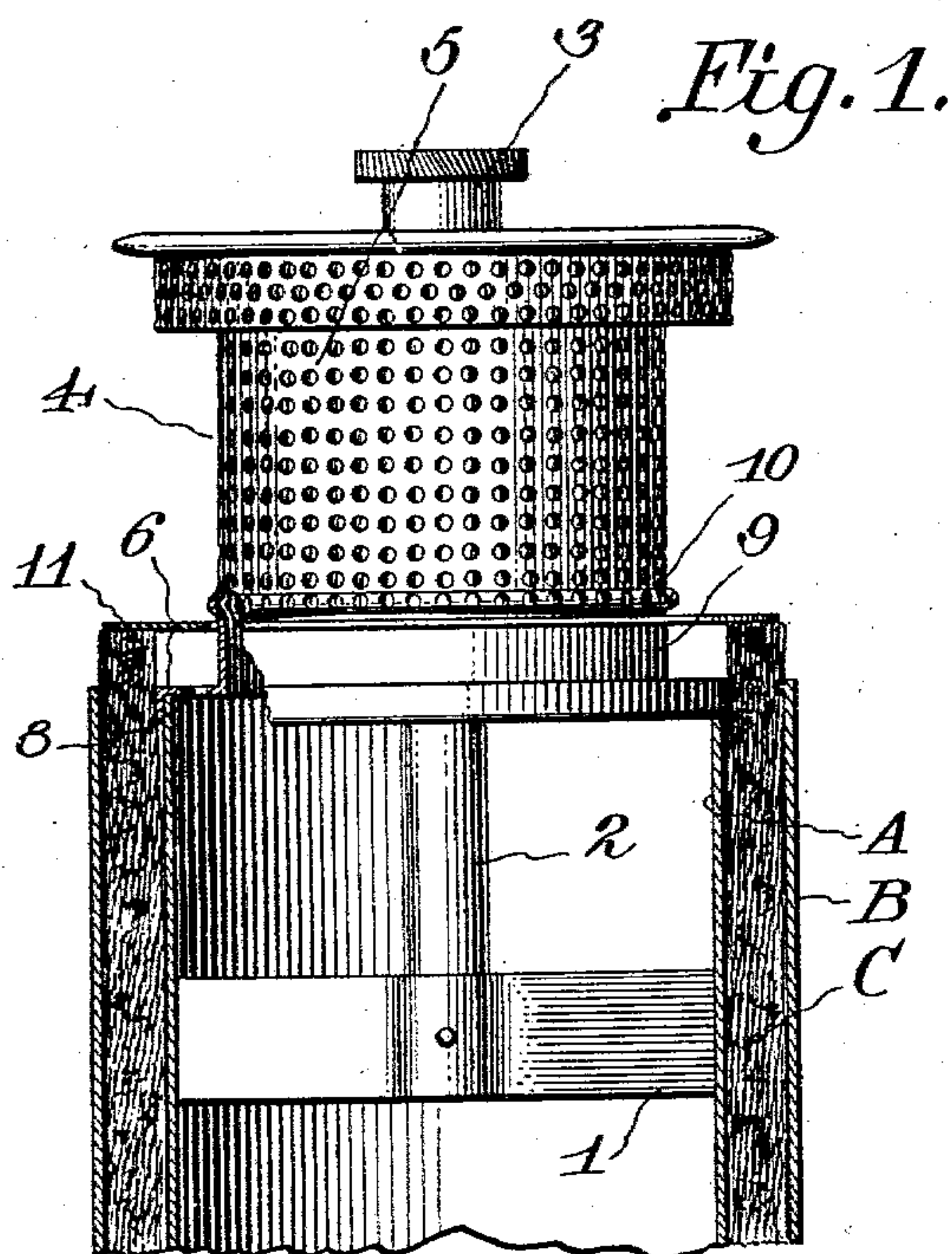
No. 752,901.

PATENTED FEB. 23, 1904.

J. GREGORY.
LAMP BURNER.

APPLICATION FILED NOV. 24, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH GREGORY, OF JERSEY CITY, NEW JERSEY.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 752,901, dated February 23, 1904.

Application filed November 24, 1903. Serial No. 182,510. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH GREGORY, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Lamp-Burner, of which the following is a specification.

This invention relates to improvements in lamp-burners, and has for its principal object to provide a novel form of flame-spreader of that general type in which a wick-guard and extinguisher rests on top of the wick in order to confine the flame to the outer surface of said wick.

The principal object of the invention is to provide a stationary spreader carried by the inner wick-tube and serving as a guide for a light metallic ring forming a wick-guard that rests on and is movable with the wick independently of the spreader.

A further object of the invention is to provide a device of this class in which that portion of the spreader on which the guard moves is perfectly smooth and without perforations in which dirt may accumulate, so that there will be nothing to interfere with the free movement of the guard.

A further object of the invention is to provide a novel form of flame-spreader in which the amount of metal is reduced to a minimum in order thus to reduce the conduction of heat to the wick and at the same time to economize in manufacture.

A still further object of the invention is to provide a novel form of spreader and guard in which provision is made for the formation of a space between the inner wall of the wick and the spreader and to provide the latter with passages to permit free circulation of air around the lower portion of the spreader and lessen conduction of heat to the inner wick-tube and wick.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of

the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is an elevation, partly in section, of a burner constructed in accordance with the invention. Fig. 2 is a similar view showing the guard in its lowest position. Fig. 3 is an inverted plan view of the spreader. Fig. 4 is a detail plan view of the preferred form of guard.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In the drawings, A represents the inner wick-tube of an ordinary form of burner, B the outer wick-tube, and C the wick. Within the inner wick or draft tube is a spider 1, carrying a pin or spindle 2, on the upper threaded end of which is mounted a nut 3. The flame-spreader 4 is, as usual, formed of die-cut metal, and its main body portion 5 is much less in diameter than the internal diameter of the inner wick-tube. The spreader is provided with an annular flange 6, having a depending portion forming a ring that fits over the top of the inner wick-tube and prevents any lateral play of the spreader after the latter has been clamped in place by turning the nut 3. The annular flange at the lower end of the spreader is provided with perforations 8 of a diameter as large as the width of the flange will permit in order to permit the free circulation of air around the lower portion of the spreader and lessen conduction of heat to the inner wick-tube and wick. The main body portion 5 of the spreader is perforated for the greater portion of its area, but has an imperforate band or ring 9 to form one of the walls of the gas-space. This band or ring extends from the bottom of the spreader to a knurl or crimp 10, formed on the body or spreader and also provided with suitable perforations to permit the passage of air.

On the imperforate band 9 at the lower portion of the spreader is guided a guard of suitable construction, the preferred form being that shown in Fig. 4, wherein 11 designates a ring of metal, the internal diameter of the ring being slightly greater than the diameter of the band 9, so that it may move freely thereon.

The guard or extinguisher rests lightly on top of the wick and rises and falls with the latter to expose a greater or less portion of the outer surface of the wick above the outer wick-tube, and thus control the intensity of the flame. The guard properly slides freely on the spreader, owing to the fact that the guiding-surface of the latter is imperforate, and thus affords no roughened surfaces for the accumulation of particles of carbon or dirt.

In use the gas from the annular space between the inner surface of the wick and spreader passes through the space between the inner edge of the guard and the outer face of the spreader to the flame, while the openings will permit free circulation of air around the lower portion of the spreader and keep the inner wick-tube and wick at a comparatively low temperature.

Having thus described the invention, what is claimed is—

1. In lamp-burners, a stationary spreader, a ring-like guard guided thereby and forming an extinguisher, that portion of the spreader on which the guard is movable being imperforate.

2. In a lamp-burner, a stationary spreader, having a flanged lower end seated on the inner wick-tube, said spreader having a lower imperforate portion within the limit of movement of the wick, and a wick-operated guard guided by the imperforate portion of the spreader.

3. In a lamp-burner, an approximately cylindrical body portion having at its lower end an outwardly-extending annular flange resting on the inner wick-tube, the lower portion of the cylindrical body being imperforate and divided from the perforated portion by a knurl or crimp, and a ring-like flame-guard and extinguisher guided by the imperforate portion of the spreader.

4. In a lamp-burner, a spreader including an approximately cylindrical body portion having at its lower end an outwardly-extended annular flange for connection with the inner wick-tube, the flange being provided with perforations, the lower portion of the body of the spreader being imperforate and divided from the perforated portion by a horizontally-disposed knurl or crimp, and a flame-guard in the form of an imperforate ring guided by the imperforate portion of the spreader.

5. In a lamp-burner, the combination with the inner and outer wick-tubes, of a spreader

spaced inward from the inner wall of the wick to thereby form an annular gas-space, said spreader being provided with openings for placing the bottom of the gas-space in communication with the central draft-tube of the burner.

6. In a lamp-burner, the combination with the inner and outer wick-tubes, of a stationary spreader having the lower portion of the cylindrical wall imperforate and provided with a horizontally-disposed perforated flange resting on the inner wick-tube, and a movable flame-guard supported by the wick, the lower wall of the spreader, the upper wall of the flange and the opposing walls of the spreader and wick forming a gas-space that communicates with the central draft-tube through the perforations of the flange.

7. In a central-draft lamp, an outer and inner wick-tube, a wick movable between said tubes, a stationary flame-spreader fitting on and supported by the inner wick-tube, and a wick-guard coacting with the flame-spreader to limit the upward movement of the wick.

8. In a lamp-burner as described, a stationary flame-spreader fitting on and supported by the inner wick-tube, an imperforate wick-guard serving in connection with an imperforate band to form the upper and inner walls of a gas-space.

9. In a lamp-burner of the kind described, a flame-spreader having its lower end flanged outwardly and seated upon the upper end of the inner wick-tube, a wick-guard serving in connection with an imperforate band to protect the upper inner edge of the wick from the flame.

10. In a central-draft lamp, an outer and inner wick-tube, a wick movable vertically between said tubes, a stationary flame-spreader fitting on and supported by the inner wick-tube, a wick-guard serving in connection with an imperforate band to form the upper and inner walls of a gas-space and coacting with the spreader to limit the vertical movement of the wick.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH GREGORY.

Witnesses:

LAURA A. BACHER,
ANDREW KRENKEL.