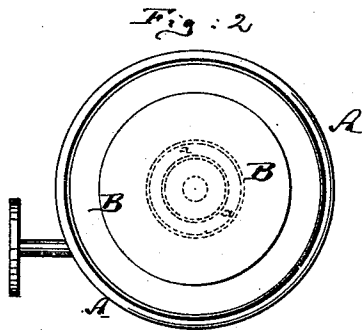
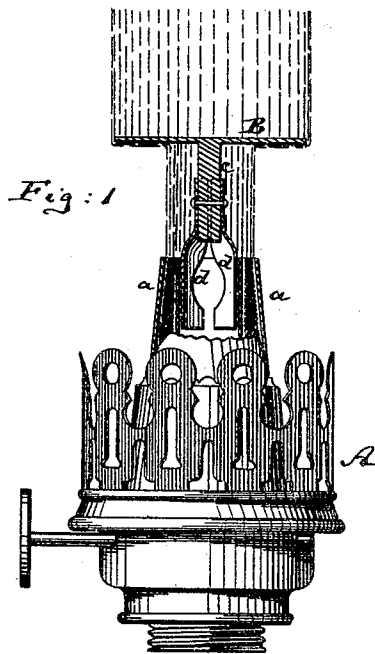


F. DAMCKE.
LAMP-BURNER.

No. 179,685.

Patented July 11, 1876.



Witnesses:

A. Briesen
A. Moraga

Inventor

F. Damcke
by his attorney
A. Briesen

UNITED STATES PATENT OFFICE.

FERDINAND DAMCKE, OF ST. PAUL, MINNESOTA.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **179,685**, dated July 11, 1876; application filed June 8, 1876.

To all whom it may concern:

Be it known that I, FERDINAND DAMCKE, of St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and Improved Lamp-Burner, of which the following is a specification:

This invention relates to an improvement on the class of lamp-burners that are provided with annular wick-tubes adapted to receive cylindrical wicks.

The invention has for its object to increase the illuminating capacity of such burner by increasing the diameter of the flame; and consists in applying, above the burner, a removable horizontal disk, of a diameter larger than that of the wick-tube, in the manner herein-after more fully described.

In the accompanying drawing, Figure 1 is a side view, partly in section, of my improved burner. Fig. 2 is a top view of the same.

The letter A represents a burner of suitable construction, provided with an annular wick-tube, *a*, to receive a cylindrical wick, *b*, in the customary manner. Above this burner A is applied a disk, B, made of metal or equivalent material, and of a diameter considerably larger than that of the wick-tube *a*, so as to project beyond the circumference of the same. The disk B is held in place above the burner by a central downwardly-projecting stem, *c*, to the lower end of which are applied spring-jaws *d d*, which bear against the inner side of the wick-tube *a*, as clearly shown in Fig. 1.

By this construction the disk B may be raised or lowered to suit convenience, and may, also, be entirely removed from the burner, if desired; but in place of the spring-jaws *d d* other suitable fastening devices may be substituted for attaching the disk B to, and holding it above, the burner.

By the use of the disk B above the burner A I cause the flame to impinge on and strike the lower side of the disk, then to assume a horizontal direction until it reaches the circumference of the disk, whereupon it turns upward and burns around the disk. Now, as the diameter of this disk B is much larger than that of the wick-tube *a*—preferably, about twice as large—the diameter and the surface of the flame are greatly increased without increasing the size of the wick, or adding to the consumption of fuel.

It is well known that the amount of light produced by a flame is proportionate to the surface of the same, and not to its thickness. In fact, a thin sheet of flame will yield as much light as a thicker one having the same area of surface.

In the annular burners heretofore used, the diameter of the flame was never larger than that of the wick-tube, and the surface and consequent lighting capacity of the flame was therefore comparatively small. By increasing the diameter and surface of the flame by the disk B, I increase its lighting capacity without increasing the consumption of fuel or otherwise changing the structure of the burner. The disk B may also be applied to other burners than those having wicks, such as argand gas-burners.

I claim as my invention—

The disk B, provided with the stem *c* and spring-jaws *d d*, and combined with the burner A, substantially as herein shown and described.

FERD. DAMCKE.

Witnesses:

GEO. C. WECKERLE,
CARL DAMCKE.