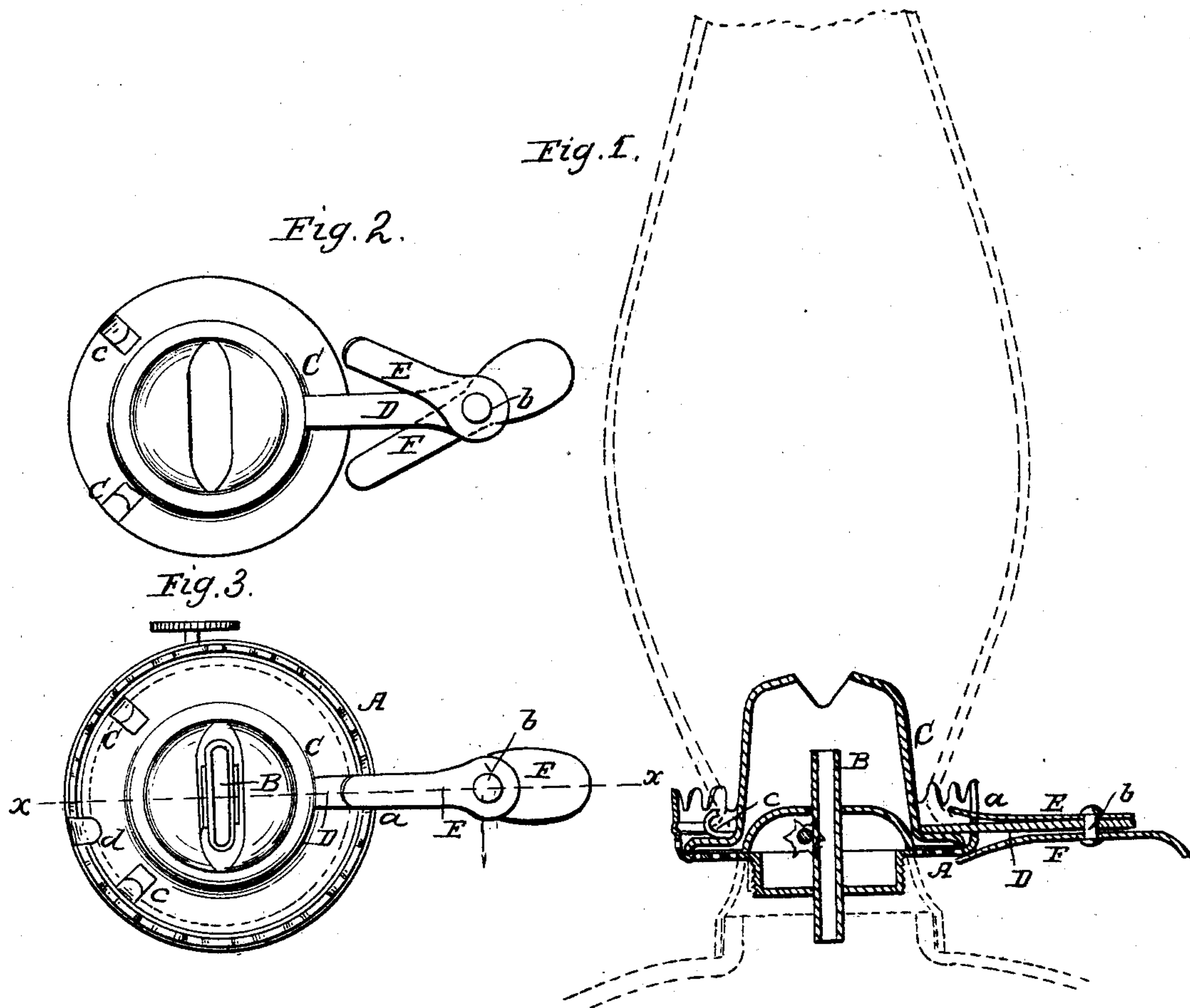


A. J. GIBSON.
Lamp Chimney Holder.

No. 34,831.

Patented April 1, 1862.



Witnesses:
Geo. Coombs.
Geo. Reed.

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UNITED STATES PATENT OFFICE.

A. J. GIBSON, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN BURNERS FOR COAL-OIL LAMPS.

Specification forming part of Letters Patent No. 34,831, dated April 1, 1862.

To all whom it may concern:

Be it known that I, A. J. GIBSON, of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Burners for Coal-Oil Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of my invention, taken in the line *x x*, Fig. 3; Fig. 2, a detached plan or top view of the cone of the burner with the clamp and catch attached; Fig. 3, a plan or top view of the burner.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved mode of securing the chimney to the cone, and of securing the cone to the burner, as hereinafter fully shown and described, whereby the chimney is allowed to expand as it heats and thereby prevented from breaking or fracturing, a result which would occur if a rigid or unyielding chimney were employed, the invention at the same time admitting of the cone being firmly secured to the burner, and serving as a handle to allow of the chimney and cone being removed from the burner while hot, so that the wick-tube may be exposed and the wick trimmed with facility at any time.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the burner, which may be constructed in any of the forms used for burning coal-oil. B is the wick-tube, and C the cone. The cone C fits loosely on the burner A within its upper part, and to the base of the cone there is attached a radial arm D, which projects outward a suitable distance from the cone and passes through or is fitted in a recess *a* in the top of the burner. To the outer end of this arm D, on its upper surface, there is secured by a rivet *b* an elastic plate E, which is equal in length to the arm D, and is curved slightly upward at its inner end, as shown in Fig. 1. The plate E is allowed to turn freely on its rivet *b*, and said plate, when in use or performing its proper func-

tion, is also fitted in the recess *a* of the burner, and is consequently directly over the arm D of the cone.

To the base of the cone C and at the side opposite to the arm D there are attached or formed two hooks *c c*, which are designed to catch over the flange at the lower end of the glass chimney, which is shown by dotted lines in Fig. 1, and this flange also fits underneath the inner end of the elastic plate E, between it and the arm D, as shown in Fig. 1. This elastic plate E, it will be seen, presses down on the top of the flange, and in connection with the hooks *c c* firmly secures the chimney to the cone, and the plate E, it will also be seen, admits of the chimney freely expanding while heating, as the flange of the chimney as the latter expands merely extends or spreads outward underneath the plate E, the side of the chimney not being allowed to come in contact with the inner end of the plate. This will be fully understood by referring to Fig. 1. The hooks *c c* do not require to be yielding, a free movement or expansion at one side of the chimney, as at plate E, being sufficient to prevent fracture.

To the outer end of the arm D, at its under side, there is attached an elastic plate F. This plate may be secured to the arm D by the same rivet *b* which secures the plate E to its upper surface. The plate F is somewhat larger than E, and projects some distance beyond the outer end of the arm D, and also projects a trifle beyond its inner end. The plate F, like E, is elastic, and is also allowed to turn on the rivet *b*, and when adjusted in line with the arm D its inner end fits under the lower edge or part of the burner A, as shown in Fig. 1, and secures the cone and chimney to the burner, the base of the cone at a point opposite to the arm D fitting under a hook *d* at the upper edge of the burner. (See Fig. 3.)

From the above description, therefore, it will be seen that in order to attach the chimney to the cone C the flange at the bottom of the chimney is inserted under the hooks *c c* of the cone and the elastic plate E then turned over the flange, said plate being adjusted in line with the arm D, and that to secure the cone and chimney to the burner the cone is fitted in the burner underneath the

hook *d*, and the elastic plate *F* turned so that its inner edge will catch under the bottom of the burner, as shown in Fig. 1. In order to detach the cone and chimney from the burner, all that is required is to grasp the end of arm *D*, or rather the outer ends of the plates *E E*, and turn the elastic plate *F* to one side, so as to remove its inner end from underneath the burner, and the cone, with the chimney attached, may be readily removed, however warm or hot the chimney may be. The wick-tube consequently may be exposed and the wick rendered accessible at any time for trimming, lighting, &c. By this arrangement the operator is not compelled to touch the chimney while removing it from the burner and replacing it thereon, and the

arm *D* and plates *E F* are never sufficiently warm to prevent being handled and adjusted in the way and for the purpose specified.

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

The removable cone *C*, provided with the hooks *c c* and arm *D*, in combination with the elastic adjustable plates *E F*, attached to the arm and arranged in relation with each other and respectively with the chimney and burner *A*, substantially as and for the purpose herein set forth.

A. J. GIBSON.

Witnesses:

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