

No. 643,897.

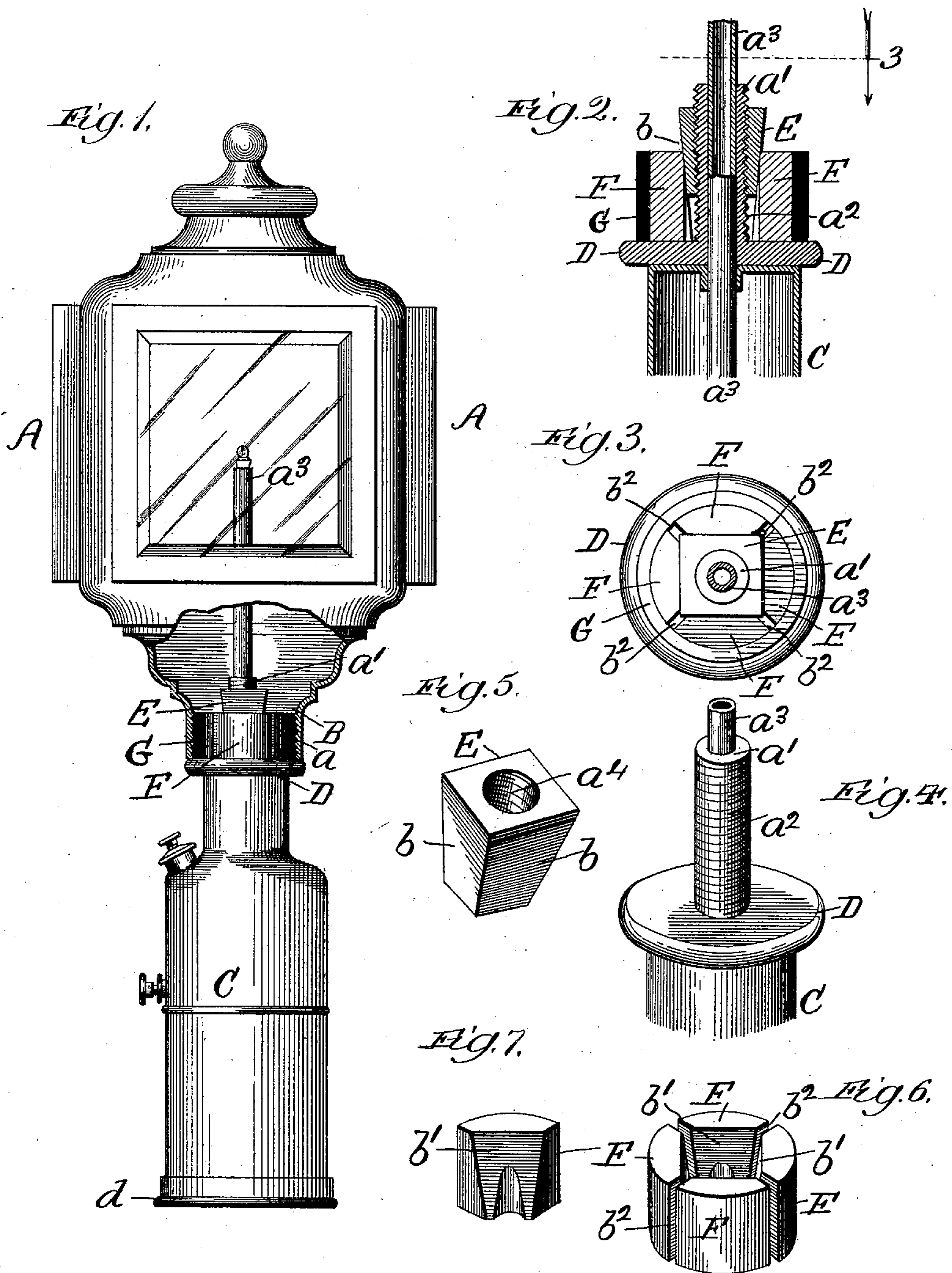
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F. W. HEDGELAND.

LAMP ATTACHMENT.

(Application filed Oct. 23, 1899.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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LAMP ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 643,897, dated February 20, 1900.

Application filed October 23, 1899. Serial No. 734,508. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. HEDGELAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lamp Attachments; and I 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.

This invention relates to an improvement for securing a lamp in the ordinary lantern or hood commonly used on carriages and other vehicles. Under the ordinary arrangement the lamp or candle holder has a threaded engagement with the lantern, which is provided with a throat-aperture in the bottom threaded either exteriorly or interiorly. The throat-aperture or threaded parts are often of different diameters in different forms of lanterns, so that in using a new style of lamp the same difference would have to be provided for, making it both inconvenient and more expensive.

The object, therefore, of this invention is to provide a means in the form of an expansible-joint connection for securing a lamp in any of the ordinary forms of lanterns already in use, no matter what the diameter of the throat-aperture may be, and also to dispense with the necessity of providing new lanterns with threaded engaging surfaces.

In the accompanying drawings, Figure 1 is an elevation of a lantern and lamp embodying the improved features. Fig. 2 is a broken-away vertical section. Fig. 3 is a plan section on line 3, Fig. 2, looking in the direction indicated by the arrow. Fig. 4 is a broken-away perspective, some of the parts being removed. Fig. 5 is a view in perspective of an expanding-plug. Fig. 6 is a perspective of the expanding segments; and Fig. 7 is a detail in perspective of one of the expanding segments, looking at the inner side.

A represents the ordinary lantern-body commonly used and which is provided in the bottom with a throat-aperture B. This aperture is threaded, as at a , for the engagement of the correspondingly-threaded part of the lamp or candle holder used.

The lamp-body C illustrated is of the new type of acetylene-gas lamps, and their application for use in connection with the al-

ready-attached lanterns of carriages and similar vehicles brought out the necessity of the present invention, which permits of a lamp being secured in either a threaded or smooth surface of the apertured throat and of different diameters.

A cap or disk D is rigidly secured to the top of the lamp. A sleeve a' forms an integral part of the cap D and extends upwardly therefrom, as shown in Figs. 3 and 4. This sleeve is provided exteriorly with the threaded surface a^2 and loosely incloses the gas or burner tube a^3 , which extends down into the gas-generating chamber of the lamp through the cap D.

A plug E, Fig. 5, is provided longitudinally with a threaded aperture a^4 and engages with the correspondingly-threaded sleeve a' . This plug has four equal sides b , which gradually taper or slope from the top to the lower end and provide for an expansible wedging action.

An expansible socket is composed of a number of segmental sections F, Figs. 2, 3, 6, and 7, the inner sides of which are beveled, as at b' , from the lower end to the top. These sections are retained loosely in place by an inclosing elastic band G, which may be of rubber or any other material suitable for the purpose that will provide for expansion and contraction in accordance with the direction in which the plug E is moved on its threaded sleeve. When in the working position, (shown in Figs. 1, 2, and 3,) the sloping sides of the expanding-plug have frictional contact with the adjacent beveled surfaces of the segmental sections F. b^2 represents spaces between the adjacent edges of these sections when expanded.

In operation the rubber band should be clasped in one hand and the lamp turned with the other, which will have the effect of moving the plug upwardly or downwardly in accordance with the direction in which the lamp-body is turned and expanding or contracting the joint-connection parts accordingly. To place the lamp in the lantern, the parts should be expanded to nearly the diameter of the throat-aperture in the bottom of the lantern, then insert the upper end, as shown by the broken-away parts in Fig. 1, then force the rubber band against the wall on one side by pressing on the lamp near the top with one hand

as the lamp is turned with the other to draw the plug downwardly and expand the segmental sections and lock the lamp firmly in place by frictional contact.

5 The bottom *d* of the lamp unscrews, which provides for the removal of the exhausted carbid and renewal of the charge, so that the upper portion of the lamp need not ordinarily be removed from the lantern part.

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

1. A lamp attachment, comprising an expansible socket, composed of a number of segmental sections, and means for expanding said socket-sections to engage the inclosing walls of an aperture in supporting an object by frictional contact, substantially as described.

20 2. A lamp attachment, comprising an expansible socket-joint, composed of a number of segmental sections, an expanding-plug, inclosed by said sections, and means for loosely retaining the said sections in position to be operated upon by the expanding-plug, substantially as described.

3. In a lamp attachment, the combination with an expansible socket-joint, consisting of

a number of segmental sections, means for loosely retaining said sections in position and an adjustable plug, adapted to expand said sections, substantially as described. 30

4. In a lamp attachment, the combination with an expansible socket, consisting of a number of segmental sections loosely retained in position, of an expanding-plug, inclosed by said sections, a threaded sleeve with which said plug has a threaded engagement, and the burner-tube, on which said sleeve is loosely mounted substantially as described. 40

5. The combination with a lamp, of a threaded sleeve rigidly secured thereto, an expanding-plug having sloping sides and a threaded engagement with said sleeve, a number of segmental sections, having their inner faces beveled and loosely surrounding said plug, and means for retaining said sections in position to be spread by the expanding-plug, substantially as described. 45

In testimony whereof I affix my signature in presence of two witnesses. 50

FREDERICK W. HEDGELAND.

Witnesses:

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