

G. E. STEVENS.
ARC LAMP.

APPLICATION FILED SEPT. 27, 1906.

900,793.

Patented Oct. 13, 1908.

Fig. 1.

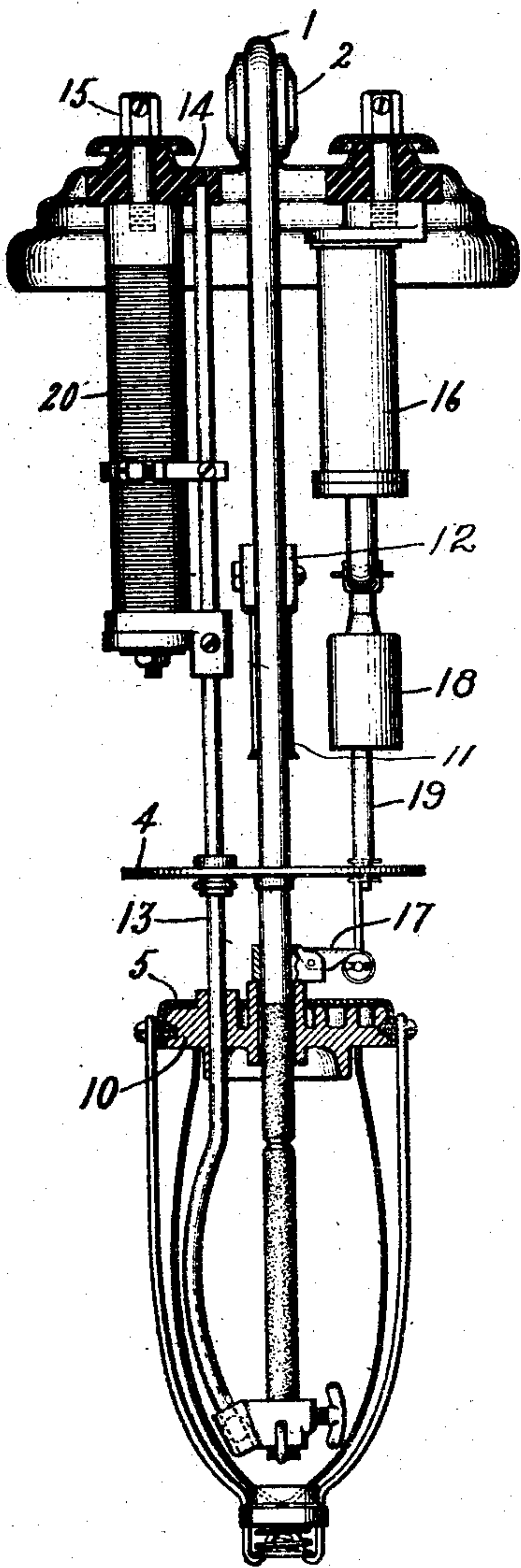
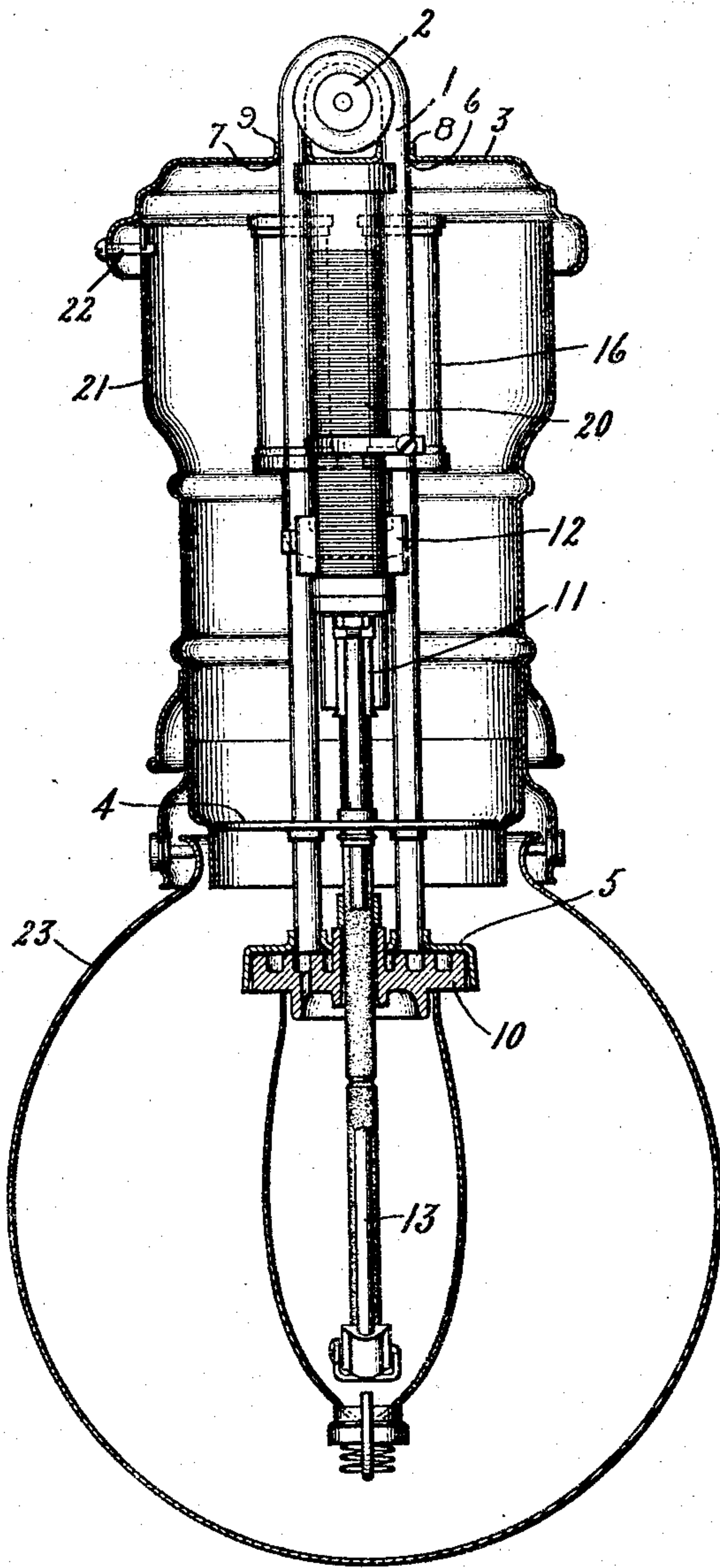


Fig. 2.



Witnesses:

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Inventor:

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by *Albert B. Davis*
Att'y.

UNITED STATES PATENT OFFICE.

GEORGE E. STEVENS, OF LYNN, MASSACHUSETTS, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

ARC-LAMP.

No. 900,793.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed September 27, 1906. Serial No. 336,383.

To all whom it may concern:

Be it known that I, GEORGE E. STEVENS, a citizen of the United States, residing at Lynn, in the county of Essex, State of Massachusetts, have invented certain new and useful Improvements in Arc-Lamps, of which the following is a specification.

My invention relates to electric arc lamps and has for its object to simplify and cheapen the construction of the same.

To the above end my invention consists in certain novel features of construction and arrangement of parts to be hereinafter particularly pointed out in the claims.

For a full understanding of my invention, however, and of its objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawing, wherein

Figure 1 shows, partly in side elevation and partly in section, a lamp embodying my improvements, the casing and main globe being omitted; and Fig. 2 is a longitudinal section taken at right angles to the plane on which Fig. 1 is taken.

Referring to the drawing, 1 represents an elongated U-shaped member which is preferably formed by bending into shape a rod of iron or other metal having any suitable or desired cross-section. This U-shaped member forms the main support or backbone of the lamp and the lamp may conveniently be hung from the yoke thereof. For example, a bushing of insulating material 2 may be slipped into the closed end of the backbone before the remaining parts of the lamp frame are assembled on this member and the lamp may be supported by some means engaging with or passing through this bushing. Upon the backbone are assembled a hood member 3 and two platforms 4 and 5. Since the hood does not have to bear the weight of the entire lamp, as is usually the case, it may be made of thin sheet metal, as shown, having openings 6 and 7 punched therein for receiving the two legs of the back-bone. The metal which is removed from the hood to form the openings 6 and 7 is preferably struck up into the form of flanges 8 and 9, whereby long bearing surfaces are obtained between the hood and the back-bone. The members 4 and 5 may also be formed of sheet metal, the member 5 being secured to the lower end of the legs of the back-bone

and serving to support a gas-cap 10 of any usual construction.

11 is the holder for the upper electrode; this holder being provided with a cross-head 12 which engages and slides between the legs of the back-bone. The rod 13 which supports the lower electrode may conveniently pass through the gas-cap and be secured to the platform 4 in the usual manner, extending, however, beyond this latter platform into proximity to the hood, where it is secured in any suitable manner, as by having its end embedded in a block of insulation 14 surrounding one of the lamp terminals 15. The regulating magnet 16, for operating the clutch 17 to feed the upper electrode, may be supported from the hood and have associated therewith a dash-pot 18, the fixed member of which, 19, is secured to the platform 4 in the usual manner. The resistance coil 20 may be supported partly from the hood and partly from the rod 13, as shown. The lamp casing 21 is suspended from the hood, as by means of screws 22 engaging slots in the casing. The lamp globe 23 may in turn be supported from the lower end of the casing in any suitable way.

It will be seen that by building up the frame of the lamp upon a back-bone of the character disclosed, a light and compact lamp is secured and one which is much cheaper than lamps as heretofore constructed, without loss of strength or stiffness.

Although I have shown and described only the best form of my invention now known to me, I do not desire to be limited to this particular form, since in its broader aspects my invention may be embodied in various other forms.

What I claim as new and desire to secure by Letters Patent of the United States, is,—

1. An arc lamp frame composed of a back-bone made of a rod bent into the form of a yoke having depending legs, a sheet metal hood having holes through which said legs pass, and one or more platforms carried upon said legs.

2. An arc lamp frame composed of a back-bone made of a rod bent into the form of a yoke having depending legs, a sheet metal hood having holes through which said legs pass, and a platform connected to the lower ends of said legs.

3. In an arc lamp, a backbone consisting

of a rod bent into the form of a yoke having two depending legs, a platform secured to the lower ends of the said legs, and a hood mounted on the backbone intermediate the
5 ends thereof.

4. In an arc lamp, a backbone comprising a yoke and a pair of legs depending from said yoke, a hood mounted on the backbone intermediate the ends thereof, a platform
10 mounted on said legs, a crosshead located above said platform and arranged to slide between said legs, and an electrode carried by said crosshead and extending through said platform.

15 5. In an arc lamp, a backbone consisting of a piece of metal bent into the form of a yoke having depending legs, a hood having openings through which said legs pass, a platform secured to said legs, electrodes, one of said
20 electrodes being arranged between said legs and extending through said platform, and a crosshead slidingly mounted on said legs and carrying said latter electrode.

25 6. In an arc lamp, a backbone composed of a yoke member having depending legs, a

hood mounted on said backbone intermediate the ends thereof, a platform mounted on the lower ends of said legs, a crosshead located above said platform and arranged to slide between said legs, an electrode carried by
30 said crosshead and projecting through said platform, a rod connecting said hood and said platform and extending to a point beneath said platform, and a second electrode supported on the lower end of said rod. 35

7. In an arc lamp, the combination of an inverted U-shaped backbone the upper end of which forms an eye or hanger for the lamp, a hood supported on the backbone, and an insulated eye-bushing fitted into the yoke
40 and held in position by the hood, substantially as described.

In witness whereof, I have hereunto set my hand this twenty-fifth day of September, 1906.

GEORGE E. STEVENS.

Witnesses:

JOHN A. McMANUS, Jr.,
HENRY O. WESTENDORP.