

E. C. DONALDSON.  
ELECTRIC HEATER.

APPLICATION FILED NOV. 5, 1910. RENEWED JUNE 3, 1912.

1,035,555.

Patented Aug. 13, 1912.

Fig. 1.

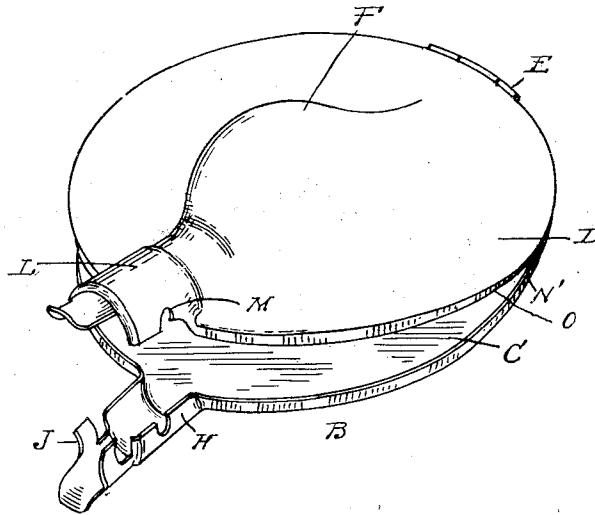


Fig. 2.

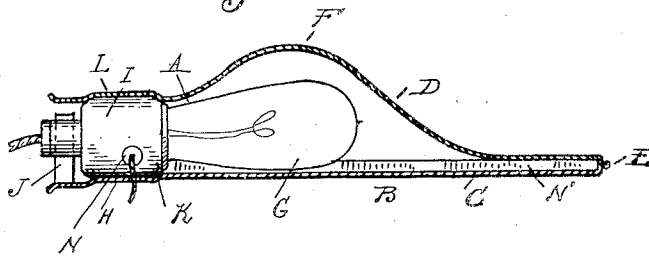
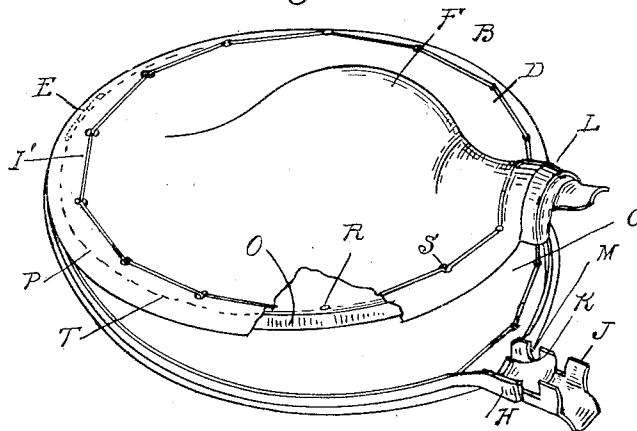


Fig. 3.



Witnesses  
A. K. Ford  
James P. Barry.

Inventor  
Elizabeth C. Donaldson  
By *Whitney Hubert Whitney*  
Attys.

# UNITED STATES PATENT OFFICE.

ELIZABETH C. DONALDSON, OF DETROIT, MICHIGAN.

ELECTRIC HEATER.

1,035,555.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed November 5, 1910, Serial No. 590,885. Renewed June 3, 1912. Serial No. 701,433.

*To all whom it may concern:*

Be it known that I, ELIZABETH C. DONALDSON, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Electric Heaters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to electric heaters and has for its object to provide a heater in which an incandescent lamp is employed as a heating element that will be an efficient substitute for hot-water bags, bottles or the like.

The invention resides in the peculiar construction, arrangement and combination of parts as more fully hereinafter described and particularly pointed out in the claims.

In the drawings,—Figure 1 is a perspective view of my improved heater with the casing thereof partly open; Fig. 2 is a central longitudinal section of the same; and, Fig. 3 is a sectional perspective view illustrating a modification.

A represents the incandescent lamp which may be of any suitable construction, and B the casing inclosing the lamp comprising complementary sections C and D hinged together at E. The casing sections are in the form of thin metallic disks, one of the sections as C being flat while the other is provided with an outwardly projecting hollow enlargement F which serves as a housing for the lamp bulb G.

H is a semi-circular extension or neck portion projecting laterally from the disk C and shaped to form a seat for the usual lamp socket I. This neck portion is provided, adjacent the outer edge thereof, with a pair of spring clips J adapted to engage the outer end of the lamp socket and hold the same to its seat, and at the inner end with the ridge K for positioning the lamp socket so that the bulb will be slightly spaced from the body of the disk C. The section D is also provided with a semi-circular extension L which communicates with the housing F and in the closed position of the casing members forms with the extension H, an inclosure for the lamp socket. Recesses M are formed in the neck sections for permitting the usual switch connection N of the lamp socket to extend without the same, and the walls of the semi-circular extensions are formed so as to automatically interlock when

the casing sections are moved to their closed position.

Extending around the periphery of the disks C and D are oppositely disposed flanges N' and O which form a tight joint between the disks, the flange N' serving the additional function of limiting the closing movement of the disk sections. The latter flange however, is comparatively narrow and the flat portion of the casing when closed is only about a quarter of an inch in thickness.

In the construction shown in Fig. 3 each of the disks is provided with a fabric facing P which is secured to the casing member by lacings I' passing through alining apertures R and S in the facing and disk section. This facing is of slightly greater diameter than the casing member so as to provide an annular portion T which projects beyond the periphery of the casing member and the facing of one disk is preferably entirely independent of the facing of the other. Such a construction of parts prevents the metallic casing from directly contacting with the body of the user. If desired the facing could be omitted from one of the sections.

My peculiar construction and shape of heater is exceedingly desirable since the flat disk C forms a suitable surface for engaging the body and not only is a better radiation of heat obtained by using a thin casing than where a thick wide casing is used, but also the device is not cumbersome as it occupies but a very small space.

What I claim as my invention is:

1. In an electric heater, the combination with the lamp socket and the bulb of an incandescent lamp, of a casing for said socket and bulb comprising a flat disk, a second disk hinged to the first mentioned disk and provided with an enlargement forming a housing for the lamp bulb, complementary neck portions upon the disk sections forming in the closed position of the latter an inclosure for the lamp socket, and means carried by one of said neck portions for detachably clamping a lamp socket to said section.
2. In an electric heater, the combination with the lamp socket and the bulb of an incandescent lamp, of a casing for said socket and bulb comprising a flat disk, a second disk hinged to the first mentioned disk and provided with an enlargement forming a housing for the lamp bulb, and

complementary neck portions upon the disk sections forming in the closed position of the latter an inclosure for the lamp socket, one of said neck portions having a flange engaging over the rear of the lamp socket and the other neck portion having oppositely disposed spring arm extensions engaging over opposite sides of said socket.

3. In an electric heater, the combination with an incandescent lamp, of a casing inclosing the same comprising a flat disk, a complementary disk, provided with an enlargement forming a housing for the lamp bulb and having a wide flat portion extending from the housing to the marginal edges of the disk, the wide flat portion being spaced but a slight distance from the first mentioned disk, means for securing said disks together, and complementary neck portions upon the disk sections forming an inclosure for the lamp socket, one of the neck portions having means for retaining the socket within the same in either the opened or closed relation of the casing parts.

4. In an electric heater, the combination with an incandescent lamp, of a casing inclosing the same comprising a flat disk, a complementary disk provided with an enlargement forming a housing for the lamp

bulb and having a wide flat portion extending from the housing to the marginal edges of the disk, the wide flat portion being spaced but a slight distance from the first mentioned disk, means for securing said disks together, and complementary neck portions upon the disk sections forming an inclosure for the lamp socket, one of said neck portions being provided with spaced resilient lugs engaging the socket for retaining the latter within said neck portion in either the opened or closed relation of the casing parts.

5. In an electric heater, the combination with an incandescent lamp, of a casing inclosing the same comprising a flat disk and a complementary disk, provided with an enlargement forming a housing for the lamp bulb and having a wide flat portion extending from the housing to the marginal edges of the disk, the wide flat portion being spaced by a slight distance from the first mentioned disk.

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

ELIZABETH C. DONALDSON.

Witnesses:

JAMES P. BARRY,  
AUBREY PULLEYBLANK.