

No. 670,786.

Patented Mar. 26, 1901.

E. T. KEENER.
HEATER FOR BEDS AND FEET.

(Application filed May 14, 1900.)

(No Model.)

Fig. 1.

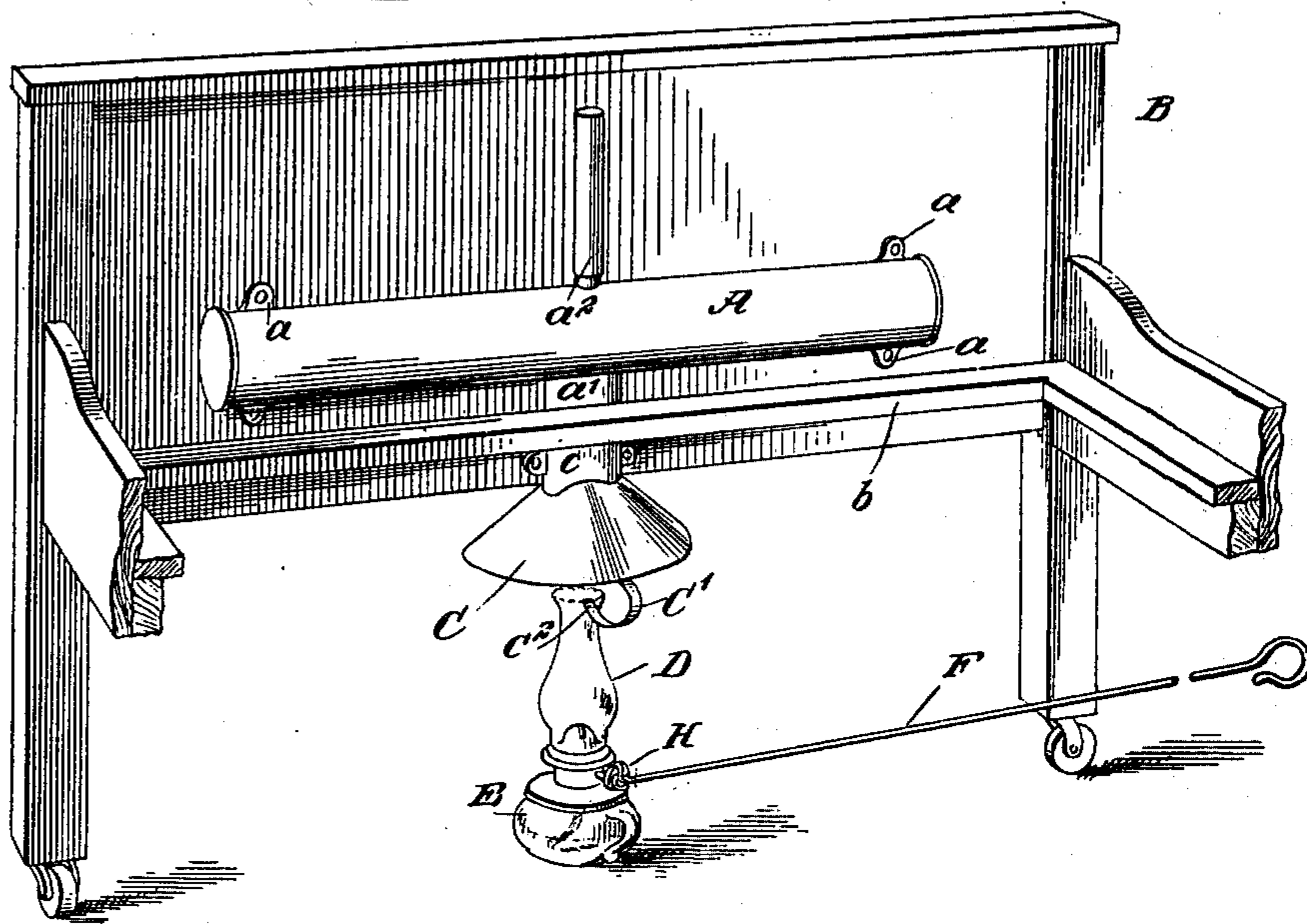


Fig. 2.

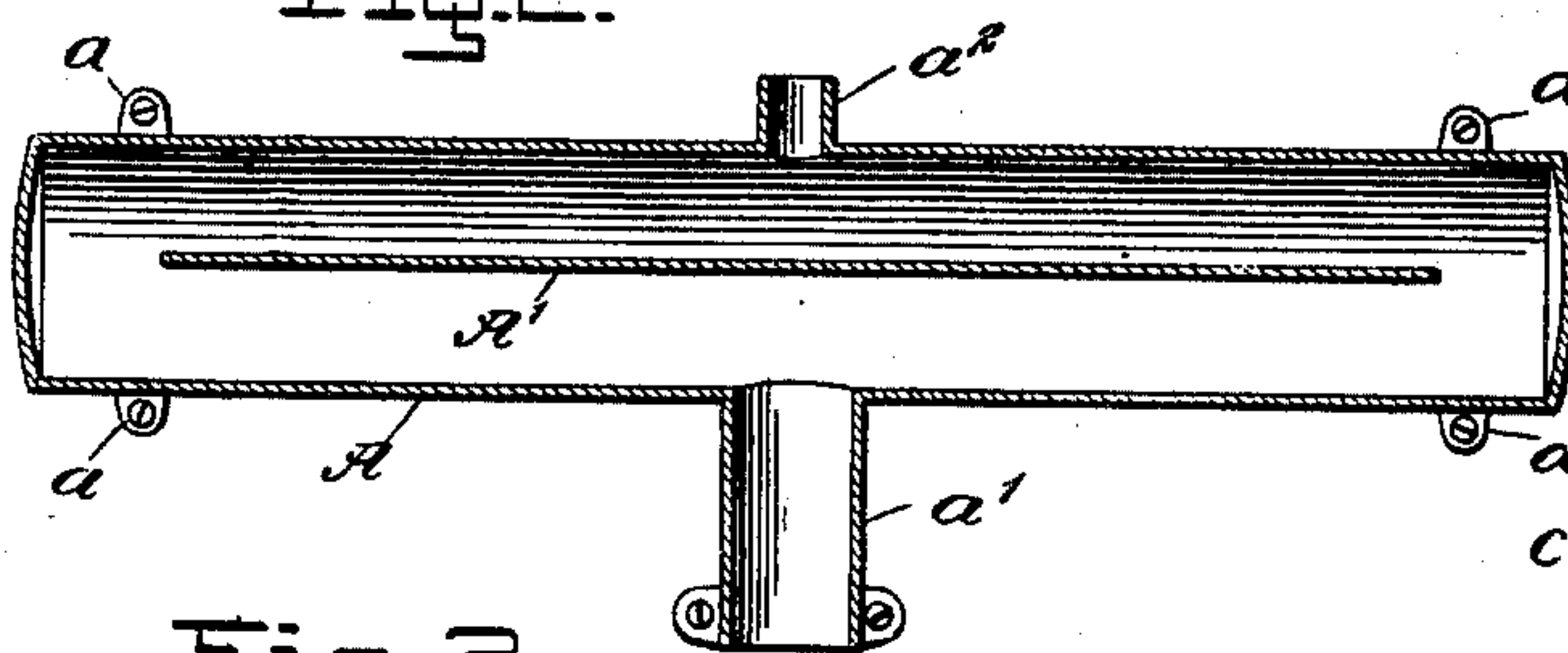


Fig. 6.

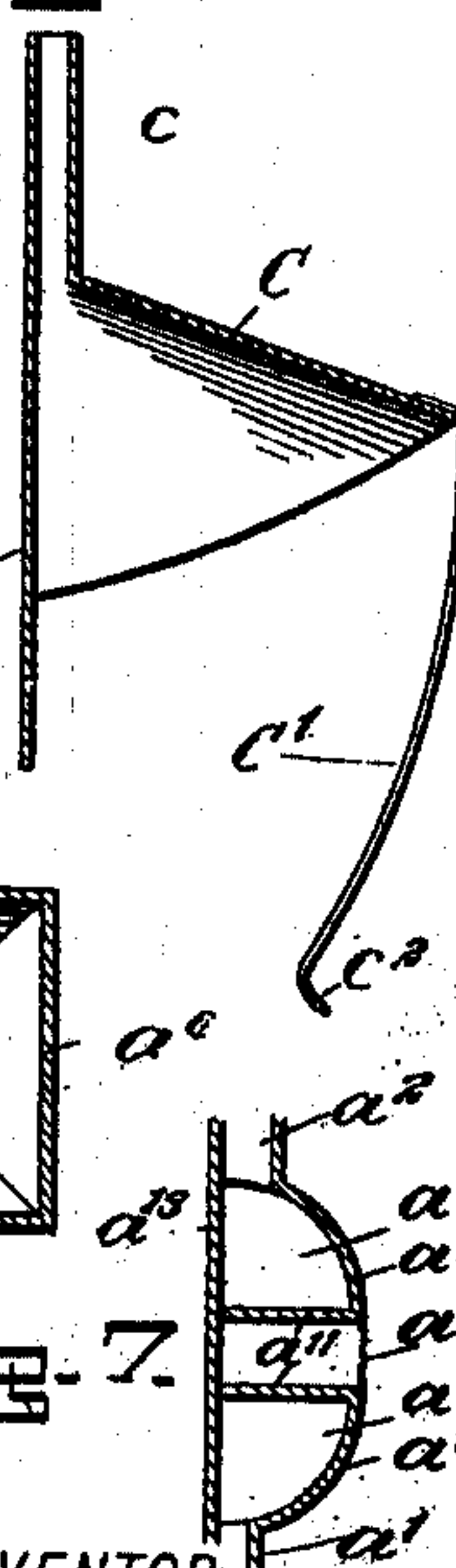


Fig. 5.

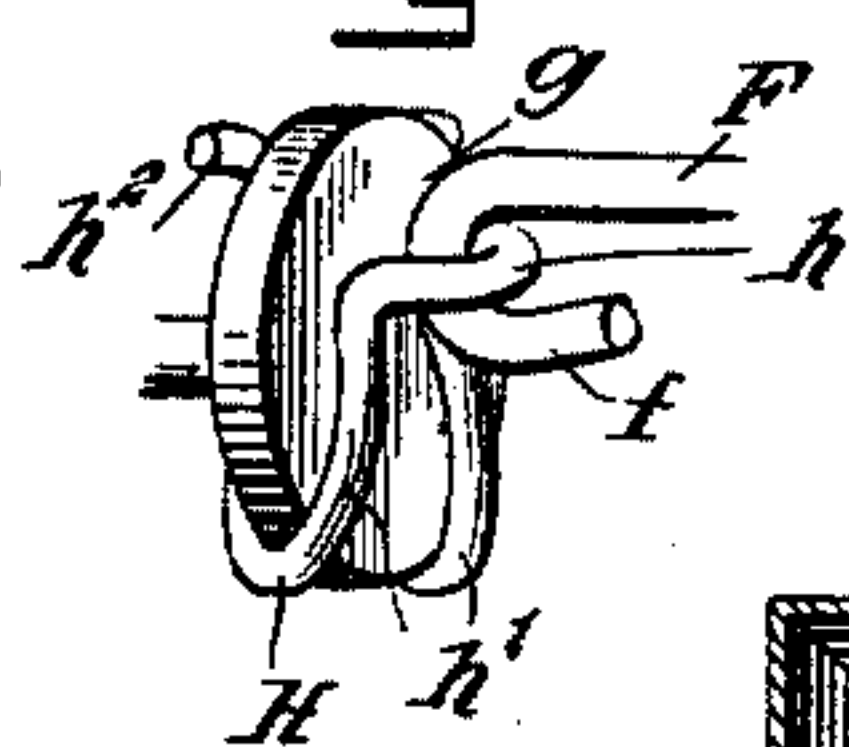


Fig. 3.

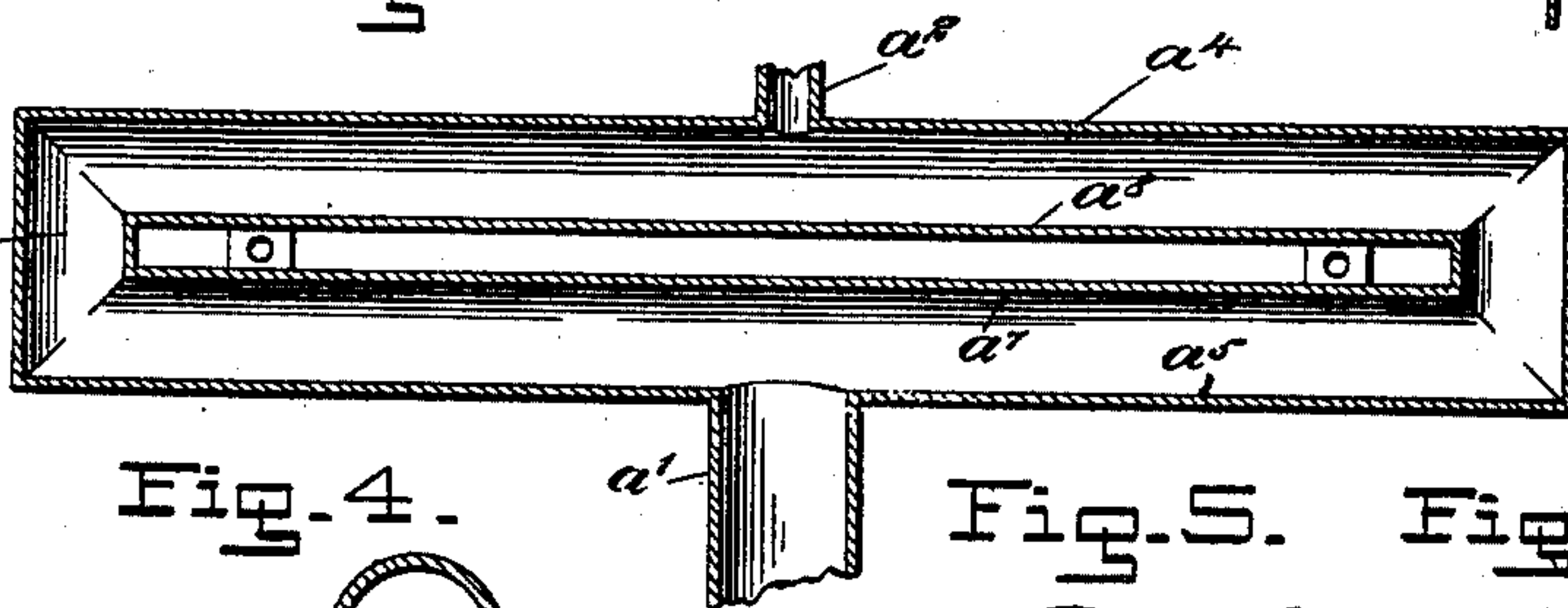


Fig. 4.

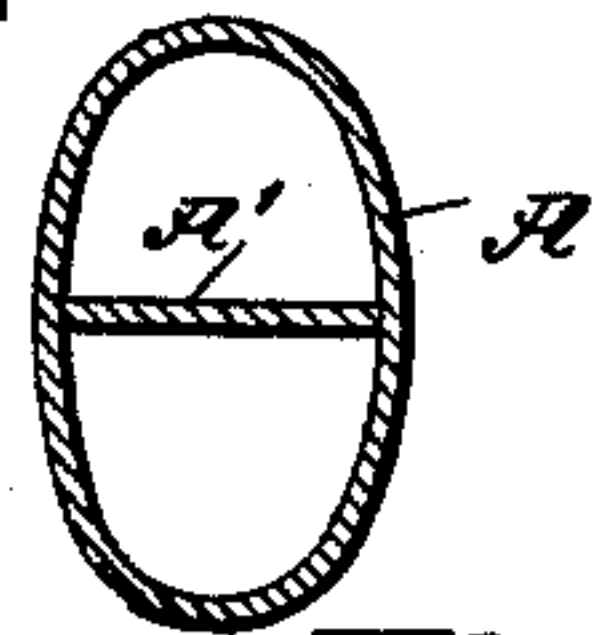


Fig. 5.

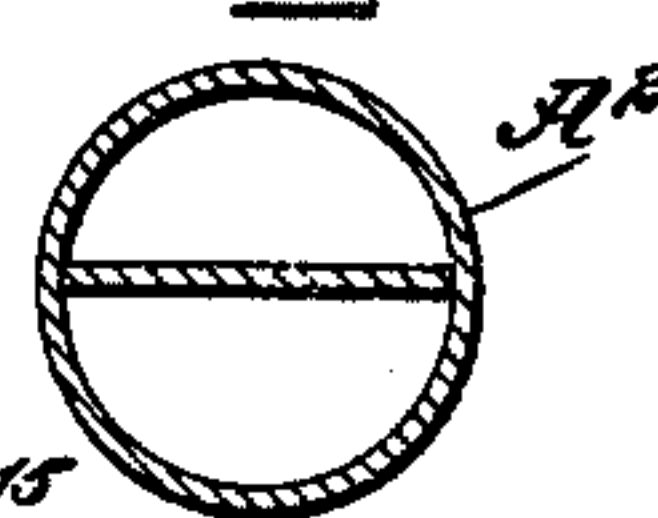
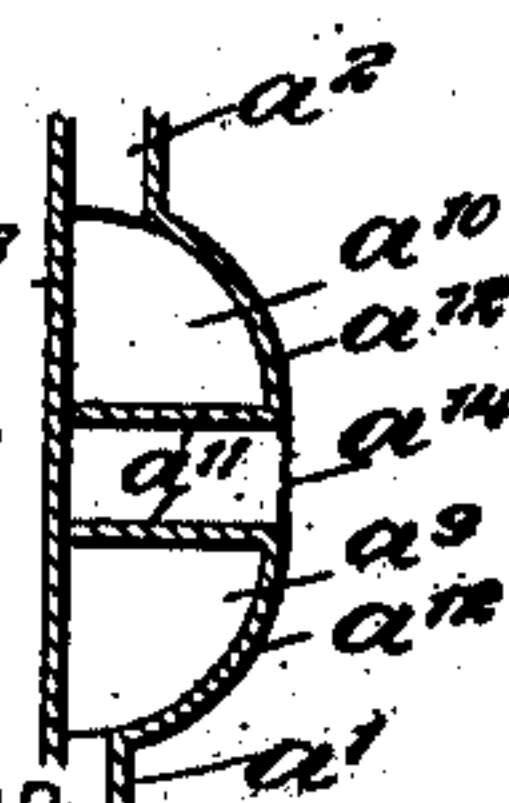


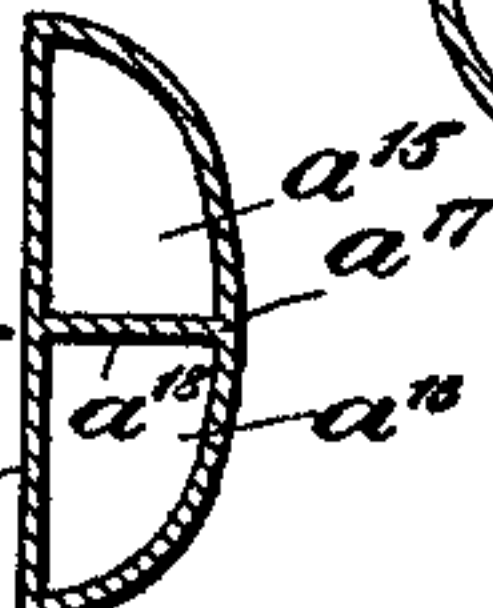
Fig. 7.



WITNESSES:

James F. Duhamel.
J. L. McLaughlin.

Fig. 8.



INVENTOR

Edwin T. Keener.

BY

Mumford

ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN T. KEENER, OF DELAWARE, OHIO.

HEATER FOR BEDS AND FEET.

SPECIFICATION forming part of Letters Patent No. 670,786, dated March 26, 1901.

Application filed May 14, 1900. Serial No. 16,656. (No model.)

To all whom it may concern:

Be it known that I, EDWIN T. KEENER, a citizen of the United States, and a resident of Delaware, in the county of Delaware and State of Ohio, have invented new and useful Improvements in Heaters for Beds and Feet, of which the following is a full, clear, and exact description.

The object of the invention is to provide a heater of novel form adapted to be secured to the footboard of a bedstead or the sides, or both, and constructed to receive the products of combustion and hot air produced by a lamp.

The invention will be described in the following specification and then defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my improved heater in position on a bedstead. Fig. 2 shows a longitudinal vertical section of the drum. Fig. 3 is a view similar to Fig. 2, illustrating a slight modification. Fig. 4 is a cross-section of the drum shown in Figs. 1 and 2 on a slightly-enlarged scale. Fig. 5 is a cross-section illustrating a further modification. Fig. 6 is a perspective view of the improved hood or funnel which sits over the lamp. Figs. 7 and 8 are vertical sections of further modifications of the heating-drum, and Fig. 9 is a detail of the device for operating the wick-raising spindle.

The heater-drum A is provided with upper and lower ears a at each end for securing the same to a bedstead B and has an inlet a' at the bottom and an outlet a^2 at the top for the hot air and gases. The inlet and outlet are at about the center of the drum, and in the interior is a horizontal partition or baffle A' , which terminates short of the ends, causing the hot products to traverse the drum and return to the central outlet a^2 . The drum is preferably oval, as shown best in Fig. 4, to project a minimum extent from the face of the footboard, to which it is attached, and to a like end the inlet a' is flattened, so as to be readily received between any suitable bed-spring frame b and the footboard of the bedstead.

In connection with the heating-drum a funnel or hood C is employed, the upper end of the funnel having an extension or neck c of a form and size to telescope in the inlet a' of the drum. The back c' of the hood C is flattened, as seen in Fig. 6, to lie snugly against the bedstead, and the funnel at the front projects downwardly and outwardly, while the back c' extends below the said front, so that a clear space is afforded at the front, whereby the adjustment of a lamp beneath the hood is facilitated, while the downwardly-extending back acts as a protector for the adjacent edge portion of the bedstead. At the lower side of the funnel a sustaining-spring C' is secured, the spring being formed with an inward curve and having formed on its free end a downwardly-disposed hook c^2 , which presses down on the top edge of a lamp-chimney D, thereby holding the lamp against displacement and sustaining the hood C in position by exerting an upward pressure thereon to press the said hood into proper engagement with the inlet or flue a' of the drum.

The cross-section of the drum may be round, as indicated by the letter A^2 , Fig. 5, or the drum may be formed, as in Fig. 3, of a continuous tube having upper and lower parallel members a^4 a^5 , united by vertical end members a^6 , the opposing sides a^7 a^8 of the tubes forming, in effect, a partition, as in the form shown in Figs. 1, 2, and 4.

Further modifications of the drum are shown in Figs. 7 and 8. In Fig. 7 the lower and upper members a^9 a^{10} are spaced apart, being each closed at the top and bottom, respectively, by separated walls a^{11} . The front walls a^{12} and the flat back wall a^{13} form a half-oval, the continuity of which is broken at the front by the space a^{14} between the walls a^{11} .

In Fig. 8 the drum has its top and bottom members a^{15} a^{16} separated by a single partition a^{18} , and the front wall a^{17} is curved and continuous, forming, with the flat back wall a^{19} , a half-oval.

The lamp E may be controlled by a rod F, which reaches from the bed side to the head g of the connection with the wick-raising spindle. The rod F has a hook f , which carries a clamp H, formed of a single piece of wire, in general of U shape, the bend h of which clamp is offset to engage the hook f .

From the bend *h* the wire arms *h'* of the clamp diverge and embrace both faces of the head *g*, the ends *h²* of the arms lying at the sides of the head *g*. A turning of the rod *F* serves
5 to turn the head *g* to raise and lower the wick.

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

10 1. The combination with the heating-drum having a hot-air inlet, of an air funnel or hood having connection with the said air-inlet and carrying a spring for engagement with a lamp-
15 chimney, the spring being curved inward and having a hook at its free end for bearing down on the upper edge of the chimney.

2. The combination with a heating-drum having an inlet projecting from the same at the bottom, the neck being flattened at the
20 back, of a funnel the front of which projects outwardly and downwardly in the form of a hood and has a vertical neck extension at the top, and a flat back extending at the bottom below the lower end of the hood and extend-
25 ing at the upper end to form a neck in connection with the vertical front extension, the neck telescoping with the inlet of the drum.

3. The combination with a heating-drum having an inlet projecting from the same at

the bottom, the neck being flattened at the
30 back, of a funnel the front of which projects outwardly and downwardly in the form of a hood and has a vertical neck extension at the top, and a flat back extending at the bottom below the lower end of the hood and extend-
35 ing at the upper end to form a neck in connection with the vertical front extension, the neck telescoping with the inlet of the drum and a spring carried by the lower end of the funnel and acting to bear down on a lamp-
40 chimney.

4. The combination with the heater-drum having a downwardly-projecting inlet, of a funnel having an outlet fitting the inlet of the drum and provided with a spring for en-
45 gaging the lamp-chimney, the spring exerting its pressure on the funnel in an upward direction when engaging the chimney and serving to retain the chimney and to press the funnel into engagement with the inlet of
50 the drum.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWIN T. KEENER.

Witnesses:

ELMER D. SPANGLE,
CHARLES H. BRUCE.