A. NOETEL.

HEAT GENERATOR.

APPLICATION FILED MAY 16, 1908.

912,879. Patented Feb. 16, 1909.

Fig. 1.

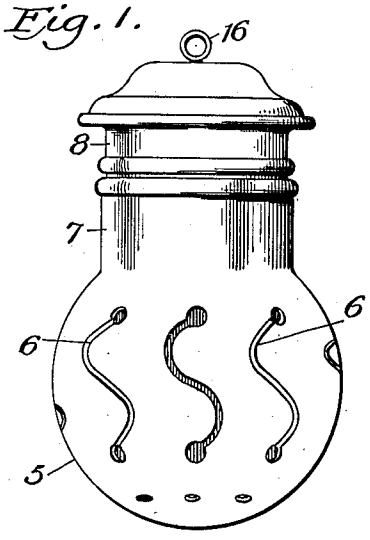


Fig. 2.

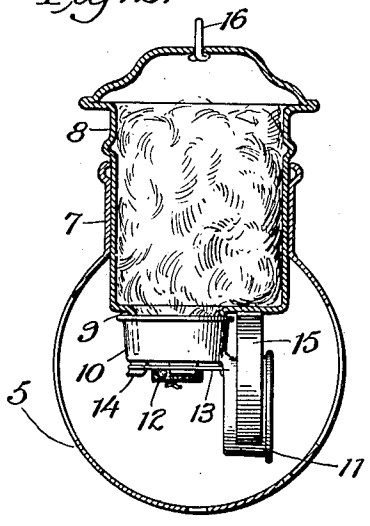


Fig. 3.

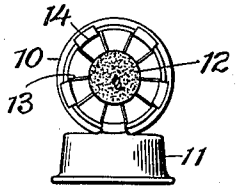
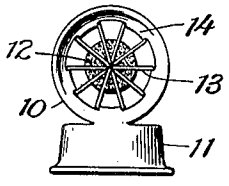


Fig. 4.



WITNESSES

James F. Duhamel

Fred. Ackmann Jr.

INVENTOR,

August Noetel,

By Victor J. Evans

ATTORNEYS

UNITED STATES PATENT OFFICE.

AUGUST NOETEL, OF NEW YORK, N. Y.

HEAT-GENERATOR.

No. 912,879. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed May 16, 1908. Serial No. 433,275.

To all whom it may concern:

Be it known that I, AUGUST NOETEL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Heat-Generators, of which the following is a specification.

This invention relates to heat generators and more especially to devices in which a small degree of heat may be generated by certain chemicals which may be used in small receptacles for application to various parts of the body to impart heat thereto, and may be used to warm the hands in cool weather or may be applied to the face in cases of tooth-ache, ear-ache or neuralgia, as will be more fully described in the following specification, set forth in the claims and illustrated in the drawings forming a part of this application.

Figure 1 is a side elevation of the hand warmer constructed in accordance with this invention. Fig. 2 is a vertical sectional view of same. Fig. 3 is a plan view of the heating substance. Fig. 4 is a bottom view of the same.

This device is intended to be constructed in portable form and is of small dimensions on account of the moderate heat which it is designed to impart and is shown in the drawings as being enveloped in a metallic bulb 5 with perforations 6 for the admission of air and also escape of heat. The neck 7 of this bulb fits about a receptacle 8 filled with raw cotton or other fibrous substance and into which is to be poured a certain amount of alcohol or similar spirits which it absorbs and gives out in the form of vapor. On the lower end of the receptacle 8 is a nipple 9 over which fits one of the caps 10 or 11, the latter being closed to prevent the escape of the vapor when the device is not in use, but when it is desired to allow the vapor to escape the cap 10 which is open is applied to the nipple. Over the opening of the cap 10 is suspended a button 12 of platen and phosphor sulfur by means of wires 13 passing over hooks 14 at the upper edge of the cap. This platen and phosphor sulfur is sensitive to the vapor of the alcohol and when exposed for a short time to these vapors becomes warm and glows, in a short time becoming sufficiently hot to throw out considerable heat. The formation of the bulb 5 and its location around the button 12 not only protects it against injury but also prevents any damage to outside substances by the redhot button.

In Fig. 2 it will be seen that the cap 11 is embraced by one of a pair of spring fingers 15 which encircle it and serve to retain the cap 10 in its position on the nipple and when it is desired to remove the cap 10 and substitute the cap 11 which puts the button out of commission the cap 10 is also held by these spring fingers 15 and serves to hold the cap 11 in its place. The upper end of the receptacle 8 is provided with a loop or eye 16 by which it may be suspended from a chain or cord.

This device may be used in winter and carried in the pocket so that it may be held in the hand and serve to warm the same, but the shape may be slightly varied to apply the device to other parts of the body and especially the face where it may be used for certain ailments to keep the flesh of these parts warm.

It is obvious that other modified constructions of this device may be resorted to so that a gentle heat may be applied to the body where it is necessary to apply the same for surgical purposes.

What I claim as new and desire to secure by Letters Patent is:

1. In a heat generator, the combination with a hollow spherical body, of a receptacle removably engaged with the said body adapted to contain an absorbent substance to be saturated with a volatile liquid, and substance located within the said hollow body disposed directly in line with the said receptacle, said substance being sensitive to the vapor of the liquid and adapted to be heated thereby.

2. In a heat generator, the combination with a receptacle having a nipple at one end, of a hollow body inclosing the nipple and communicating with the receptacle, absorbent material in the receptacle adapted to contain a volatile liquid, and means removably engaged with the nipple adapted to glow when subjected to the vapor of the liquid to heat the said hollow body.

3. A heat generator comprising a hollow perforated spherical body, a receptacle carried by said body adapted to contain an absorbent substance to be saturated with a volatile liquid, and a button of platen and phosphor sulfur located within the said hollow body and disposed in line with the said receptacle to be chemically acted upon by the liquid in said absorbent substance so that it will become heated.

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

AUGUST NOETEL.

Witnesses:
MAE W. CLINTON,
JAMES F. DUHAMEL.