No. 803,545. PATENTED NOV. 7, 1905.

C. H. BOECK.

FOOT WARMER.

APPLICATION FILED APR. 16, 1904.

Fig. 1.

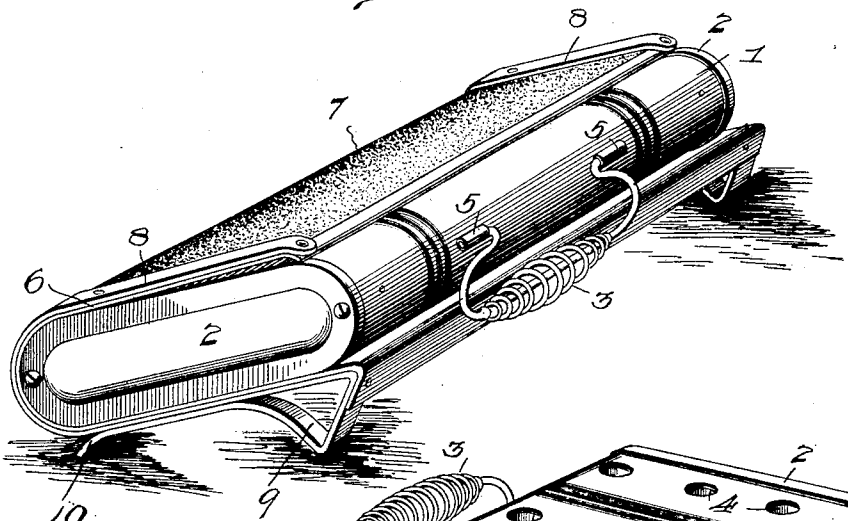


Fig. 2.

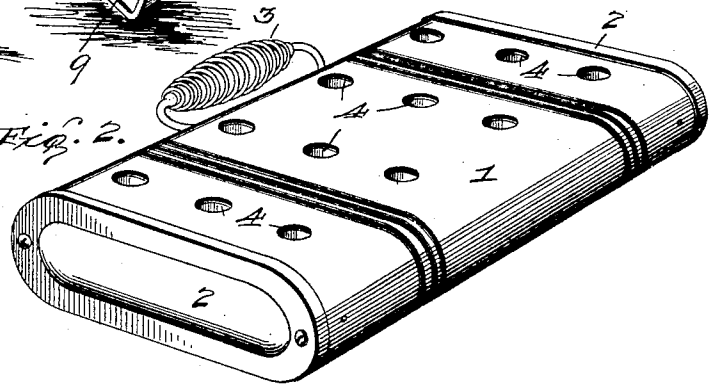


Fig. 3.

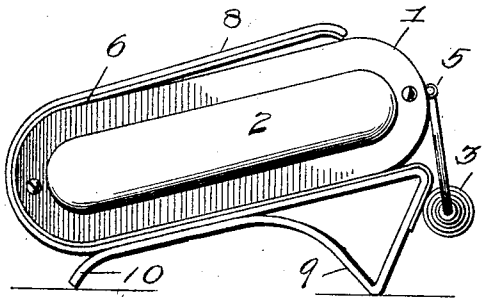
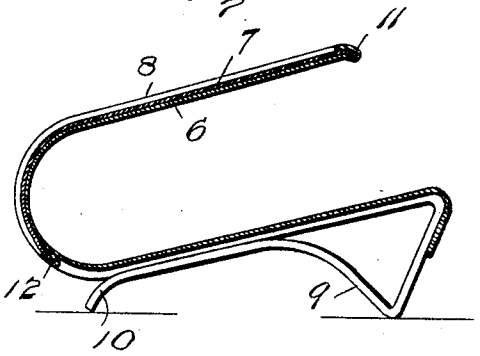


Fig. 4.



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FOOT-WARMER.

No. 803,545. Specification of Letters Patent. Patented Nov. 7, 1905.

Application filed April 16, 1904. Serial No. 203,506.

To all whom it may concern:

Be it known that I, CHARLES H. BOECK, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Foot-Warmers; 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.

My invention provides an efficient foot-warmer of simple and inexpensive construction, attractive design, and highly serviceable, convenient, and satisfactory quality.

The device in its preferred form comprises principally a heating-pad or heat-retaining block or member of flattish shape, preferably a metal shell containing a filling of heat-retaining substance adapted to be preheated, and a clasping stand or holder therefor adapted to support the heating-pad in convenient position as a rest for one's feet, also to protect the feet from direct contact therewith, and adapted to be lifted, together with the heating-pad, when it is desired to change the position of the device or to carry it from one place to another.

In the accompanying drawings, which are to be taken as part of this specification and wherein corresponding parts in the several views are indicated by the same reference-numerals, Figure 1 is a perspective view of a foot-warmer embodying my invention, comprising an inclined U-shaped stand or case and a flattish heating-pad or heat-retaining device mounted therein. Fig. 2 is a perspective view of the said heating-pad alone. Fig. 3 is an end view of the stand or case and its inclosed heating-pad. Fig. 4 is a cross-section of the stand or case.

As a heat-retaining device any appropriate oblong or flattish member having the essential properties may be employed—such, for example, as a slab or block of clay, soapstone, brick or the like material, or, as is preferable, a metal shell inclosing such a block or containing a filling of like or other suitable material. A pad of the latter type is herein illustrated, and designated by the numeral 1. This pad consists of a sheet-metal shell in the form of an oblong flat-sided tube with stiff flanged end pieces or caps 2 fitted tightly over and closing its ends, said shell containing a filling of heat-retaining substance and having a suitable bail or handle 3 attached to one of its long curved edges. The filling consists of a suitable substance or composition adapted to absorb, retain, and impart heat—such as a suitable cement, clay, soapstone, or plastic—which is preferably placed in the shell in plastic condition and afterward allowed to set or harden. The particular filling which I preferably use is a plastic compound possessing great heat absorbing and retaining properties, the composition of which is, however, a trade secret and need not be disclosed here. The filling is heated by placing the pad on a stone or over a lamp or fire, and then the pad may be used for various purposes besides that of a foot-warmer, as in the present instance. A very efficient way of filling such a shell is described in my copending application for heater, filed January 11, 1904, Serial No. 188,557, and also in my copending application for heat-retainer and method of making the same, filed October 19, 1904, Serial No. 229,182. In said latter application I specifically claim *per se* the method here to be described and the resultant article. According to this method, the shell, from which one of the end pieces or caps 2 is removed, is completely filled with the plastic substance, and after this substance is suitably packed the end piece is secured in place. Then by means of plugs or pins inserted or driven into the substance through apertures 4 in the shell the material is rendered denser and expanded so as to fill up the shell in every part with great solidity and compactness, thus rendering the pad hard and solid and preventing its shell from liability of becoming dented or depressed out of shape by accident or otherwise. After the filling has sufficiently set the said plugs are withdrawn, leaving cells in the filling corresponding with the apertures in the shell, into which cells the heat or flame enters when the pad is placed on a stove or over a fire, thus serving to heat the filling uniformly and quickly. The apertures 4 referred to are shown formed in one of the flat sides of the pad, which rests on that side when placed on a stove. The body of the shell is shown formed with ribs or corrugations which strengthen the shell and form internal grooves or means for en-

gagement by the filling, so that when the latter sets it becomes firmly bound in its receptacle.

The bail or handle 3 is desirable for lifting the pad on and off the stove, as well as for transporting the whole foot-warmer. This bail is shown attached to the shell by having its ends engaged in bands or loops 5, inserted in slits in one of the longer curved edges of the shell and having their inner ends spread back and embedded in the plastic substance. This means of attachment is quite simple and dispenses with the necessity of riveting ears or other projecting parts to the shell.

The stand or holder in the present illustration consists of a U-shaped metal case 6, horizontally disposed and preferably mounted on supporting-legs which hold the case inclined upward toward its open end. The heating-pad fits in this case, as shown in Fig. 1, and thus provides a convenient foot-rest for one's feet. The heat from the pad is prevented from scorching any surface on which the device may rest by virtue of the lower side of its case 6, while the person's feet are prevented from direct contact with the hot pad by the upper side of the case, on which a carpet covering 7 may be conveniently arranged. The case is preferably adapted as a spring to clasp or embrace tightly the heating-pad, which when lifted thus carries the stand therewith unless the stand is held and the pad forcibly withdrawn. The necessary spring for the holder may be obtained from a single piece of flat folded metal; but in this instance the spring is facilitated by U-shaped sprung-end bands or strips 8, to which the opposite ends of the case are attached or riveted. These strips are continued under the case to form the supporting-legs, being bent to provide V-shaped legs 9 at the back or open side of the case and continued or curved around to form short legs 10 at the front. The slight downturn noticed at the upper ends of the strips 8 above the pad are formed for increasing the pressure against the pad and preventing the case or stand from dropping off when the device is carried about by the handle 3. The carpet or covering 7 is clenched between the ends of the thin metal casing 6 and the strips 8. Its rear edge is secured in the bent or folded edge 11 of the casing, and its front edge is secured in a doubled strip 12, which is secured between the strips 8.

This device is very convenient and serviceable. The heating-pad may be used for various purposes alone or in its case as a foot-warmer and foot-rest. The inclination of the case is conducive to comfort. The pad can be easily pulled out from the case, placed on a stove or over a fire and heated, and in a few minutes will be hot enough to retain and give out heat several hours. Then it can be inserted in its case and the whole device can be lifted by the handle of the pad, which the case embraces, for carrying the foot-warmer to a carriage, room, or other desired place.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. A foot-warmer comprising a flattish heat-retaining pad or block having a suitable handle, and a U-shaped case therefor adapted to act as a spring to clasp or embrace said pad.

2. A foot-warmer comprising a doubled or U-shaped thin metal case mounted on supporting-legs which hold it in inclined position with one flat side uppermost, and a flattish heat-retaining pad or block tightly but removably mounted in said case.

3. A stand for a heating-pad as herein described, comprising a U-shaped or doubled metal case, and end strips to which the metal is attached also folded under the case and bent into supporting-legs.

4. A foot-warmer comprising a heating-pad and an inclosing case therefor adapted as a spring to clasp or embrace the pad.

5. A foot-warmer comprising a doubled or U-shaped case having legs to support it in inclined position and a removable heating pad or block adapted to rest in said case.

6. A stand for a heating-pad comprising a metal case to receive the pad, said case having end strips attached to its edges and bent under the same into supporting-legs, and a carpet or covering having its edges engaged between the said edges and strips.

7. A stand for a heating-pad comprising a doubled or U-shaped metal case, end strips to which the edges of the metal are attached also folded under the case and bent into supporting-legs, and a carpet or covering for the upper side of the case, having its side edges secured between the edges of the case and said strips, its rear edge secured in the rear edge of the case which is folded thereover, and its front edge secured in a doubled strip extending between the end strips.

8. A heating-pad consisting of a metal shell having a filling of solidified plastic heat-retaining material, a bail, and fastenings for the bail comprising loops engaging its ends and inserted through slits in the shell and having their ends spread and embedded in the plastic filling.

9. A stand for a heating-pad comprising U-shaped strips connected by a cover for the pad and having their lower ends bent under into supporting-legs.

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

CHARLES H. BOECK.

Witnesses:
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GRACE E. DOW.