(No Model.)

P. E. McKEE.

FOOT WARMER.

No. 418,743. Patented Jan. 7, 1890.

FIG. 1.

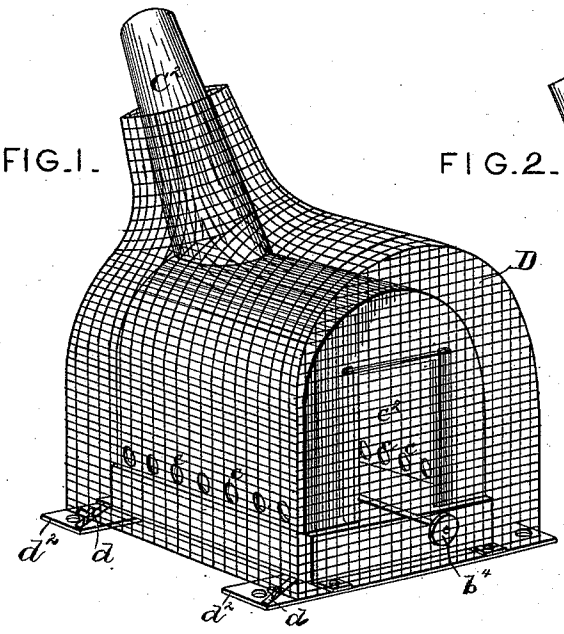


FIG. 2.

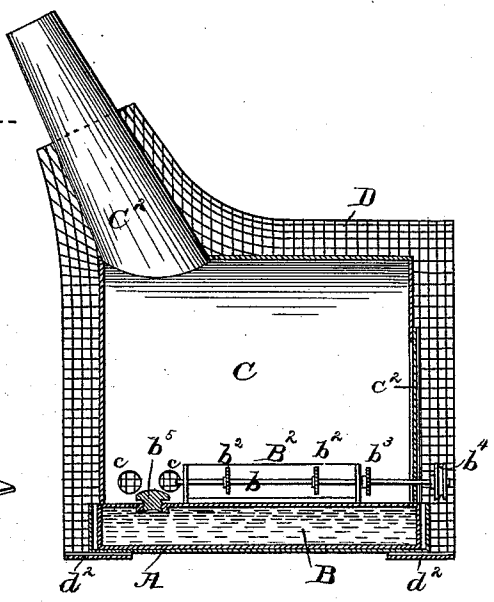


FIG 4

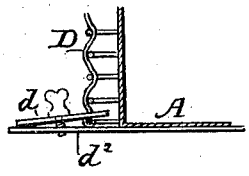
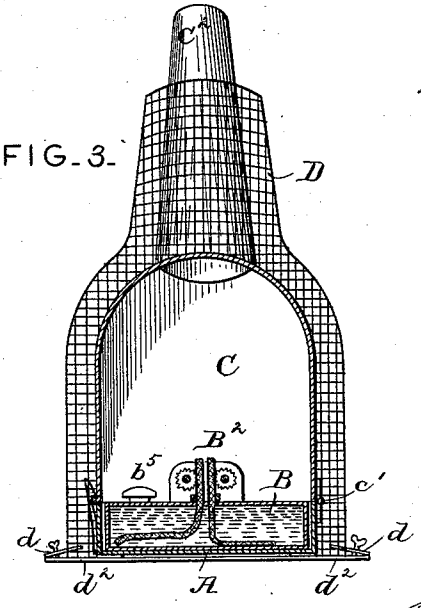


FIG. 3.



ATTEST.

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atty.

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UNITED STATES PATENT OFFICE.

PATRICK E. McKEE, OF ROYALTON, MINNESOTA.

FOOT-WARMER.

SPECIFICATION forming part of Letters Patent No. 418,743, dated January 7, 1890.

Application filed May 13, 1889. Serial No. 310,503. (No model.)

To all whom it may concern:

Be it known that I, PATRICK E. McKEE, a citizen of the United States of America, residing at Royalton, in the county of Morrison and State of Minnesota, have invented certain new and useful Improvements in Foot-Warmers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in foot-warmers in which oil-lamps are used to produce the desired heat; and the objects of my improvement are to produce a foot-warmer of this class capable of being carried with safety in a sleigh or cutter that may be subjected to rough roads, and in which the products of combustion are carried to the outside of the vehicle. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure is a perspective view of a foot-warmer constructed in accordance with my invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse vertical section of the same. Fig. 4 is a side view of one of the screen-securing clamps.

In said drawings, A represents the lamp-holder, within which is placed the lamp, consisting of a flat rectangular oil-reservoir B, surmounted by a double-wick burner B^2, of great length, each wick being regulated by a spindle b, provided with serrated wheels b^2, and said spindle carries also small gear-wheels b^3, that are geared together so that when a spindle is rotated by means of the button b^4 thereon both spindles are equally rotated. The oil-reservoir is provided with a screw-cap b^5, that closes an opening through which it may be filled. The lamp-holder is provided with a cover C, having vertical sides and a semi-cylindrical top, and the latter has at one end a flue or pipe C^2 for the escape of the products of combustion from the interior of the foot-warmer. Said pipe is preferably inclined forward to facilitate its introduction into the lower end of a pipe passing through the dash-board of a cutter or other vehicle. The cover C is hinged at c' to the lamp-holder, and has in its sides, close to its bottom, a series of perforations c, to admit air therein to the lamp. It has also in its front end a vertically-sliding door c^2, preferably of isinglass, through which the combustion can be watched; and the lamp can be lighted through the opening closed by said sliding door.

To prevent the clothes of the occupants or the lap-robe of a sleigh in which the foot-warmer may be placed from coming in contact with the highly-heated surface of the cover C or the flue C^2 of the device, a wire screen D is placed over it and made to encircle the lower portion of the flue C^2. Said screen is of such size as to leave a space of about an inch between it and the foot-warmer, and to keep it evenly at that uniform distance the lower edge is secured by means of screw-clamps d to metal straps d^2, secured to the bottom of the lamp-holder and extending beyond its sides; and said straps are also perforated to receive screws by which the device may be secured to the floor of a sleigh or of any other conveyance.

To facilitate the lighting of the lamp the front of the screen may be hinged to the side thereof, and the door c^2 may also be hinged to the front of the lamp-cover C, or the screen may be lifted entirely off from over said lamp-cover.

I am aware that wire screens have been used over foot-warmers to keep clothes or lap-robes from coming in contact with the lamp-cover; and I do not broadly claim said devices.

Having now fully described my invention, I claim—

1. In a foot-warmer, the combination of the lamp-holder having lateral straps d^2, a lamp within said holder, a cover hinged thereto and provided with an inclined flue, and a wire screen inclosing the sides, top, and flue of the foot-warmer and secured to its lateral straps, substantially as described.

2. The combination of a lamp-holder having a semi-cylindrical top and an inclined flue thereon, a lamp within said holder, and a wire screen inclosing the lamp-holder, substantially as and for the purpose described.

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

PATRICK E. McKEE.

Witnesses:
R. L. CLARKE,
W. W. LANE.