

M. B. AKAHORI & M. MOCHIZUKI.

HAND WARMER.

APPLICATION FILED AUG. 5, 1910.

1,015,661.

Patented Jan. 23, 1912.

Fig. 1.

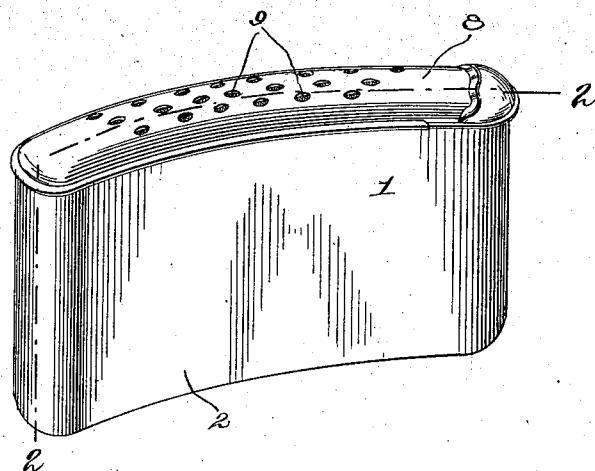


Fig. 2.

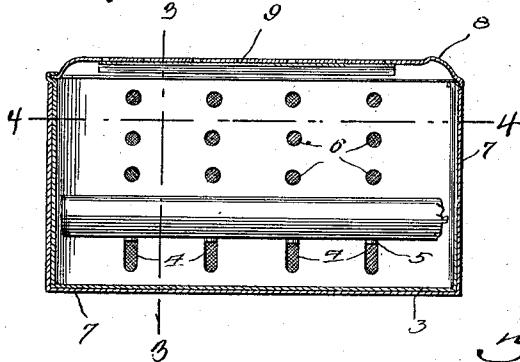


Fig. 3.

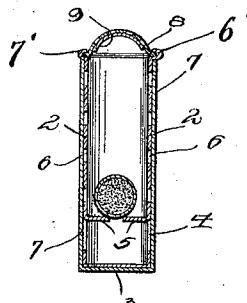
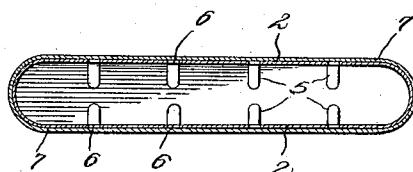


Fig. 4.



Witnesses

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HAND-WARMER.

1,015,661.

Specification of Letters Patent.

Patented Jan. 23, 1912.

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To all whom it may concern:

Be it known that we, MASARU B. AKAHORI and MASAHIRO MOCHIZUKI, subjects of the Mikado of Japan, residing at Sacramento, 5 in the county of Sacramento and State of California, have invented new and useful Improvements in Hand-Warmers; of which the following is a specification.

This invention relates to hand warmers, 10 and the object of the invention is to provide a device of this character which can be conveniently carried in the pocket and which is of a construction which will permit the use of small fuel cartridges which may be carried on the person and used as the occasion requires.

A still further object of the invention is to construct a device of this character wherein a grate is formed for the reception of the 20 cartridges and arranged to hold them spaced from the bottom so as to provide an air space for the purpose of furnishing a perfect draft to insure combustion of the fuel.

In the drawing, forming a portion of this 25 specification and in which like numerals of reference indicate similar parts in the several views: Figure 1 is a detail perspective view of our improved hand warmer. Fig. 2 is a longitudinal section on line 2—2 of Fig. 1. 30 Fig. 3 is a vertical section on line 3—3 of Fig. 2. Fig. 4 is a horizontal section on line 4—4 of Fig. 2.

Our improved hand warmer consists of a receptacle 1 having side walls 2 which are 35 curved longitudinally throughout and arranged in parallel relation with respect to each other. This construction is such that the receptacle will readily conform in shape to that part of the body near the hip should 40 the article be carried in the hip pocket. The opposite side walls are stamped to form draft openings 4 which are located near the bottom 3 and in alinement with one another and the material which is stamped from the 45 openings is extended inwardly to form lugs 5 which form in their entirety a grate on which the fuel cartridges may be placed. The lugs 5 carried by one side of the recep-

tacle align with those carried by the opposite side and are spaced therefrom. This construction is such that the grate is arranged immediately above the openings 4 so that a perfect draft is established to promote good combustion and in view of the fact that the lugs 5, which form the grate, are spaced 55 from one another, the fuel cartridges set between said lugs and are supported thereby on the minimum bearing surface of the lugs whereby the heat contained in the cartridges will be retained for a greater length of time 60 than if the grate-forming elements were not spaced. The side walls are perforated, as shown at 6, and these perforations are preferably closed by a cloth or similar covering 7 which extends entirely around the side walls 65 and beneath the bottom.

The upper edges of the side walls are formed to provide guide grooves 61 which receive the guide flanges 71 on the longitudinal edges of a closure 8. This closure is 70 perforated and such perforations are closed by suitable fabric material 9. If desired the cloth which covers the hereinbefore described perforations may be chemically treated so as to be fire-proof, as is obvious. 75

We claim:

A device of the class described comprising a rectangular receptacle, the opposing side-walls of said receptacle being stamped to form draft openings, the material stamped 80 from said draft openings being bent upwardly and extended inwardly and occupying the same plane so as to form a grate, the stamped portions of one wall being in alinement with those of the opposite wall and 85 spaced therefrom, said stamped portions adapted to support a heating cartridge on and between their free ends.

In testimony whereof we affix our signatures in presence of two witnesses.

MASARU B. AKAHORI.
MASAHIRO MOCHIZUKI.

Witnesses:

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