

April 4, 1950

E. C. CREITZ
STOVE

2,502,434

Filed April 8, 1944

2 Sheets-Sheet 1

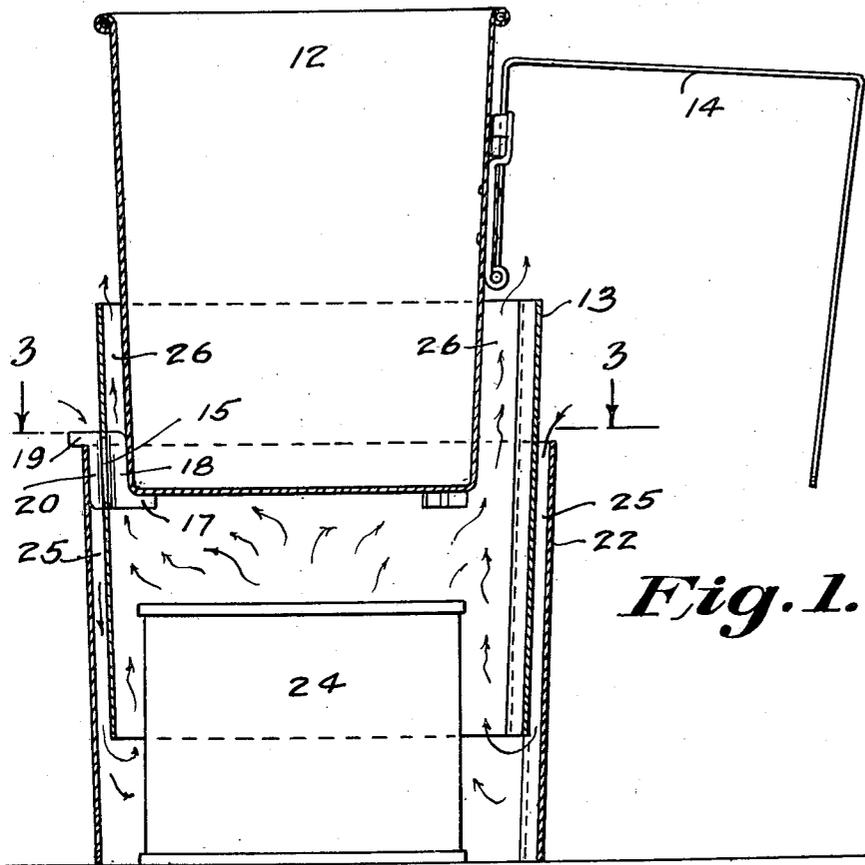


Fig. 1.

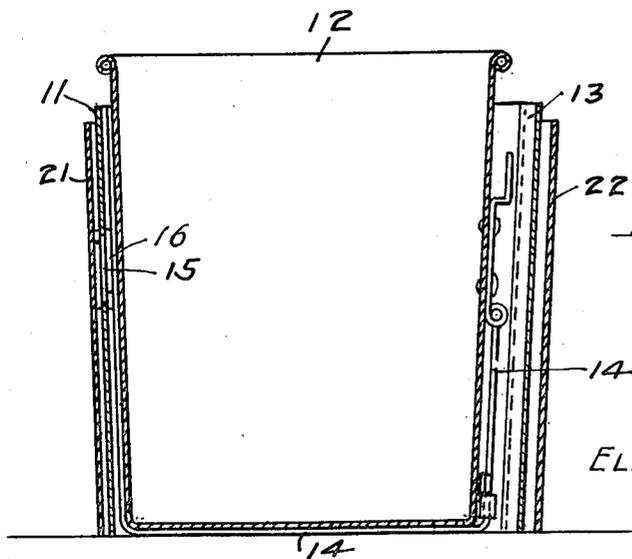


Fig. 2.

INVENTOR
ELMER CARROLL CREITZ
BY
J. J. Motherhead
ATTORNEY

April 4, 1950

E. C. CREITZ

2,502,434

STOVE

Filed April 8, 1944

2 Sheets-Sheet 2

Fig. 3.

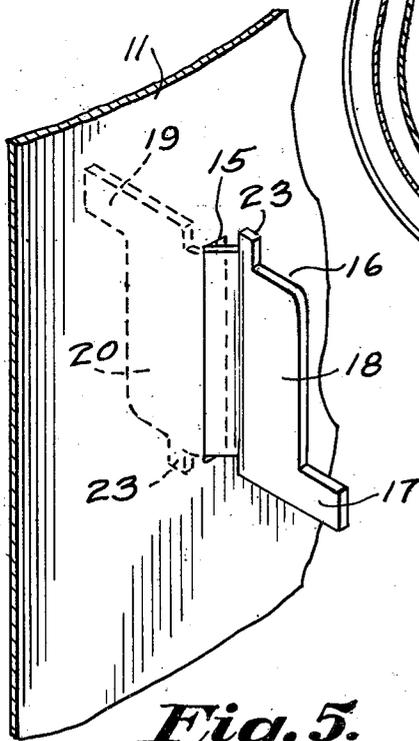
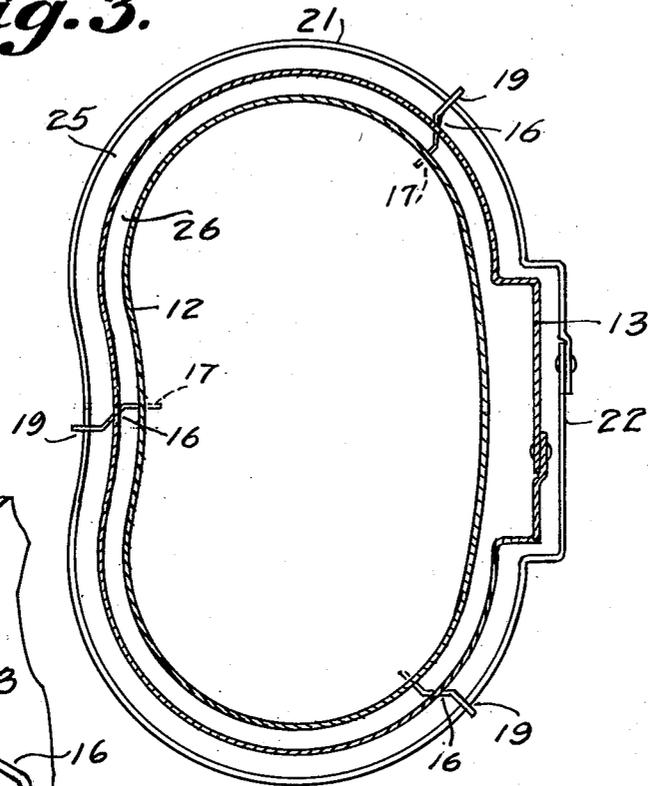


Fig. 5.

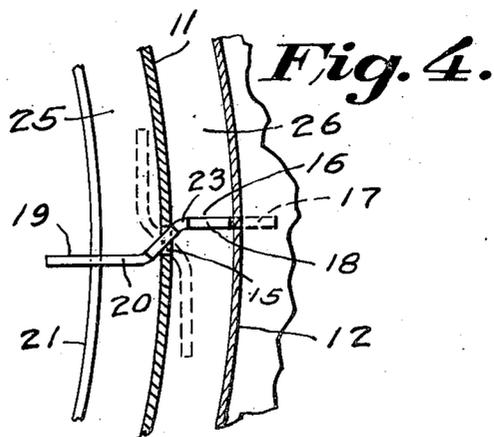


Fig. 4.

INVENTOR
ELMER CARROLL CREITZ
BY
J. J. Mohrhead
ATTORNEY

UNITED STATES PATENT OFFICE

2,502,434

STOVE

Elmer Carroll Creitz, Beloit, Kans., assignor to
the United States of America as represented
by the Secretary of Commerce

Application April 8, 1944, Serial No. 530,082

6 Claims. (Cl. 126—266)

(Granted under the act of March 3, 1883, as
amended April 30, 1928; 370 O. G. 757)

1

The invention described herein may be manufactured and used by or for the Government of the United States for governmental purposes without the payment to me of any royalty thereon in accordance with the provisions of the Act of April 30, 1928 (Ch. 460, 45 Stat. L. 467).

My invention relates to stoves and particularly to one adapted to heat a single Army field ration in a standard Army drinking cup.

My stove is designed to use "solidified" alcohol or the like as well as other easily carried concentrated fuels such as briquettes of sawdust impregnated with paraffine or the like. Prior to my invention stoves have been designed for use with "solidified" alcohol in which the flame is exposed to cross currents of air which deflect the heat from the vessel being heated, thus wasting heat, while gusts of wind often extinguish the flame. Prior stoves also emit light which may reveal to the enemy the location of a soldier.

My stove is designed to overcome both of these defects.

In the accompanying drawings:

Figure 1 is a central longitudinal section of my stove with a canteen cup supported therein;

Figure 2 is a similar view with the parts telescoped;

Figure 3 is a section on line 3—3 of Figure 1;

Figure 4 is a detail of one of my supports, the folded position of which is indicated in dotted lines;

Figure 5 is a fragmentary perspective view of my sleeve and one support.

In these drawings:

An inner sleeve 11 is downwardly tapered and is curved in transverse section to correspond with the taper and curvature of a standard army canteen cup 12 modified by an outwardly extending bulge 13 to receive a folding handle 14 of the cup in full lines for clearness of illustration. The sleeve 11 is provided with a plurality of slots 15 in each of which is mounted a folding support 16 having an inwardly extending lug 17 provided with a spacing offset 18 for supporting the cup and an outwardly extending lug 19 provided with a spacing offset 20 for supporting said inner sleeve on the upper margin of an outer sleeve 21 which has the same taper and curvature as those of the inner sleeve 11, and a bulge 22 corresponding to the bulge 13. The support 16 is also provided with one or more securing lugs 23 which are initially bent to permit the support to enter the slot 15 and afterwards straightened to retain the support in the sleeve 11.

A source of heat 24 may be a can of "solidified alcohol," a fuel briquette or the like.

2

The operation of my stove is as follows:

The fuel is placed within the outer sleeve 21 and ignited; the inner sleeve 11, with the supports 16 in operative position, is lowered into the outer sleeve until the outwardly extending lugs 19 engage the upper margin of the outer sleeve 21 when, due to the tapering of the sleeves and the spacing offsets 20, there is left a relatively narrow inlet flue 25 for a down draft air supply to the burning fuel. The drinking cup 12 containing food to be heated is placed within the inner sleeve 11 on the supporting lugs 17 and is spaced therefrom by the offsets 18, thus providing a flue 26 for the escape of the hot products of combustion along the sides of the cup, thereby imparting heat directly thereto while the heating of the inner sleeve 11 serves to preheat the air passing downwardly through the flue 25.

My ration heating stove has no horizontal holes or apertures through which rays of light may be emitted or gusts of wind deflect heat from the receptacle or even extinguish the flame.

It should be understood that the present disclosure is for the purpose of illustration only, and that the invention includes all modifications and equivalents which fall within the scope of the appended claims.

What I claim is:

1. A stove of the class described the combination of a plurality of separable tapered sleeves adapted to telescopically fit over a canteen cup, a plurality of hinged supports intermediate the ends of and mounted on an inner one of said sleeves each having a lug adapted to support said inner sleeve on and in spaced relation to an outer sleeve and also a second lug to provide a support within said second sleeve for a receptacle and to hold said supported receptacle spaced therefrom.

2. In a camp stove of the class described, the combination with an inner tapered sleeve, a plurality of foldable supports mounted in said sleeve each having an inwardly extending spacing offset and supporting lug and an oppositely extending spacing offset and supporting lug and an outer sleeve conforming to the shape and taper of said inner sleeve adapted to engage said foldable supports and thereby hold said inner sleeve in an elevated position.

3. In a camp stove of a type which utilizes solidified alcohol, the combination with an inner tapered sleeve provided with a plurality of transverse slots intermediate of and equally distant from one edge of the sleeve, a folding support having an outwardly extending lug and an outwardly extending spacing offset and an inwardly

3

extending lug combined with a spacing offset mounted in each of said slots, and an outer sleeve conforming to the taper and curvature of said inner sleeve adapted to support said inner sleeve when said foldable supports are extended.

4. In a camp stove of the type described, the combination with an inner sleeve conforming to the curvature of a standard canteen cup modified by a bulge to enclose a folded handle, a plurality of foldable supports mounted in said sleeve equally distant from one edge each having an inwardly extending supporting lug combined with a spacing offset and an oppositely extending supporting lug combined with a spacing offset and an outer sleeve conforming to the taper and shape of said inner sleeve adapted to support said inner sleeve when said foldable supports are extended.

5. In a camp stove of a type which utilizes solidified alcohol, the combination with an inner sleeve conforming to the curvature of a standard canteen cup modified by a bulge to enclose a folded cup handle, a plurality of foldable supports mounted in said sleeve equally distant from one edge, each support having an inwardly extending lug and spacing offset and an outwardly extending lug and spacing offset and an outer sleeve conforming to the curvature of said inner sleeve adapted to support said inner sleeve when said foldable supports are extended.

6. A stove comprising a plurality of substantially concentric sleeves to accommodate a receptacle, and a heating element separate from the sleeves and receptacle, a plurality of pivoted spacing elements being mounted in one of said sleeves and provided with oppositely positioned lugs, one of

4

which lugs serves to support an inner sleeve in elevated position relative to the outer sleeve and spaced therefrom, and the other of said lugs supports said receptacle on an outer sleeve in an elevated position and spaced from said sleeve to permit heat from the heating element to draw in air from the space between the sleeves and to heat the air as it passes to and around the receptacle.

ELMER CARROLL CREITZ.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
246,561	Sassinat	Aug. 30, 1881
500,765	Heller	July 4, 1893
695,979	Widmer	Mar. 25, 1902
1,096,069	Strobl	May 12, 1914
1,367,296	Budde	Feb. 1, 1921
1,879,954	Smith	Sept. 27, 1932
2,386,501	Pearson	Oct. 9, 1945

FOREIGN PATENTS

Number	Country	Date
119,128	Germany	Mar. 29, 1901
194,209	Germany	Jan. 14, 1908
256,573	Italy	Jan. 4, 1928
270,599	Great Britain	May 12, 1927
322,116	Great Britain	Nov. 28, 1929
561,747	France	Aug. 16, 1923
580,829	France	Sept. 11, 1924
587,074	Germany	Oct. 12, 1933