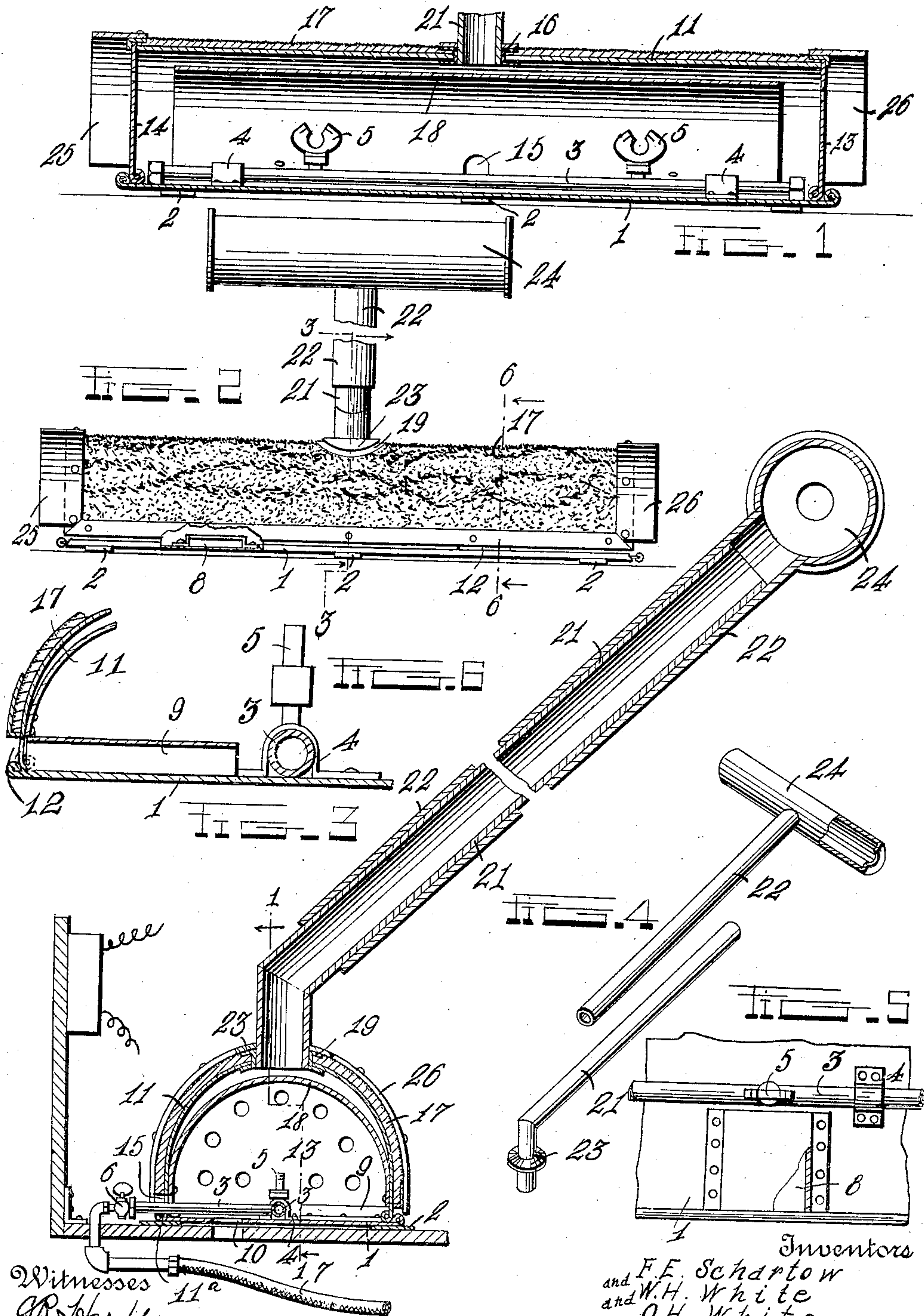


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PORTABLE HEATER.

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UNITED STATES PATENT OFFICE.

FRANK E. SCHATOW AND OREN H. WHITE, OF RACINE, WISCONSIN, AND WILLIAM H. WHITE, OF FARGO, NORTH DAKOTA.

PORTABLE HEATER.

966,058.

Specification of Letters Patent.

Patented Aug. 2, 1910.

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To all whom it may concern:

Be it known that we, FRANK E. SCHATOW and OREN H. WHITE, citizens of the United States, residing at Racine, in the county of Racine and State of Wisconsin, and WILLIAM H. WHITE, a citizen of the United States, residing at Fargo, in the county of Cass and State of North Dakota, have invented certain new and useful Improvements in Portable Heaters; and we do 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.

This invention relates to portable heaters especially designed for use in carriages, automobiles and sleighs and any other vehicle, the fuel supply being preferably acetylene or any other artificial gas.

The object of the invention is to provide a simple and inexpensive heater of this character which is capable of performing the dual function of a hand and foot warmer.

Another object of the invention is to provide a removable hand warmer so connected that it may be turned into any desired position to meet the requirements of the user.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings: Figure 1 represents a longitudinal vertical section of this improved heater. Fig. 2 is a front elevation thereof. Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2; and Fig. 4 is a perspective view on a small scale of the hand warmer detached. Fig. 5 is a detail plan view of the bottom of the casing showing one of the air conduits. Fig. 6 is a cross sectional view taken on line 6—6 of Fig. 2.

In the embodiment illustrated a base plate 1 is shown, preferably provided with apertured attaching lugs as 2 for securing it to the bottom of the vehicle or in any other desired position therein. A gas pipe 3 is secured to the upper face of said plate 1 by any suitable means, preferably by clips, as 4, riveted to the base plate, said pipe being arranged longitudinally on the base plate and provided with a plurality of burners, as 5. The pipe 3 is preferably made T-shaped with the stem extending through the rear wall of the

cover and provided with a stop cock 6 for regulating the supply of gas to the burners, the free end of this pipe being designed for connection with a gas tank preferably by a flexible hose section 7.

Two conduits 8 and 9 (see Figs. 3 and 5) are secured to the upper face of the base plate 1 opposite the burners and extend transversely thereof and are open at their opposite ends to supply air to the burners, one end of each of said conduits opening through the cover hereinafter described and communicates with the atmosphere by means of which air is admitted to the burners. This plate 1 is also preferably provided with an aperture 10 about one and one-half inches in diameter, more or less, which is designed to register with an opening formed in the bottom of the vehicle to supply air to the heater should the other ventilating openings become closed by the lap robe or otherwise.

A semi-cylindrical cover 11 is hinged at one edge to one edge of said base plate at 11^a and preferably corresponds in size to said base plate, the free edge thereof having apertures, as 12, which are designed to register with the conduits 8 and 9 secured to the base plate. This cover and base plate may be composed of any suitable or desired metal, preferably of galvanized iron. The opposite ends of the cover 11 are closed by perforated plates 13 and 14, and the rear wall of said cover is provided at its lower edge with a recess 15 to fit over the stem of the pipe 3 which projects beyond the base plate. An aperture 16 is formed in the top of the cover 11 to permit the escape of heat therefrom. This cover 11 is preferably provided on its outer face with a covering 17 of any suitable or desired material, preferably with a heavy grade of Brussels carpet, which is secured thereto in any suitable manner. A semi-cylindrical shield or hood 18 is secured to the inner face of the cover 11 and spaced a suitable distance therefrom and has its opposite ends spaced from the ends of the cover a sufficient distance to permit the heat to pass freely around said shield between it and the inner face of the cover, whereby the heat is distributed equally throughout the heater and thereby diminishes the direct heat from the cover. The side edges of the shield are secured to the edges of the cover and form an air chamber crescent shaped in cross section. The aperture 16 in the cover 11 is

preferably provided with a reinforcing collar 19 arranged on the outer face of the covering 17 and which serves to protect the covering at this point.

5 The detachable hand warmer is preferably composed of two telescoping tubular sections 21 and 22, the section 21 being provided near one end with a laterally extending flange 23 for engagement with the collar 19 to assist in holding the said section in operative position, it being obvious that this end which is inserted within the aperture 16 in the cover 11 provides a swiveled connection for turning the member 21 at any desired angle. The upper portion of this section 21 is preferably bent at an obtuse angle thereto and telescopically engages the tubular stem of the section 22 which is preferably made T-shaped, the head 24 thereof being in the form of a drum, having apertures in its opposite ends and communicating with the tubular stem to permit the heated air to pass from the heat chamber formed between the hood and the cover and out through the open ends of the drum. This drum 24 it will be seen may be adjusted longitudinally and laterally into any desired position.

Hoodlike handle members 25 and 26 are secured to the outer faces of the perforated ends of the top member 11 and are arranged to perform the double function of shields to protect the perforations from closure by the lap robe and as handles for moving the heater.

35 From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claim.

We claim as our invention:

A portable heater comprising a base plate to said plate, a fuel supply pipe extending thereinto, and provided with burners, means for supplying air to said burners, a semi-cylindrical shield arranged over said burners and spaced from the inner face of said cover with its side walls secured to the edges of said cover to form a heat distributing chamber crescent-shaped in cross section, said cover having an aperture therein opposite said shield, for the passage of heat therefrom, and an adjustable tubular member mounted in the aperture in said cover and communicating with the heat chamber thereof, said member having apertures for the passage of heat therefrom.

In testimony whereof we have hereunto set our hands in presence of subscribing witnesses.

FRANK E. SCHARTOW.
OREN H. WHITE.
WILLIAM H. WHITE.

Witnesses to the signatures of F. E. Schartow and O. H. White:

LOUIS MOGENSEN,
ANNA SORENSSEN.

Witnesses to the signature of W. H. White:

EDITH PETERSON,
L. WHEELER.