No. 717,242. Patented Dec. 30, 1902.

C. W. METTLER & F. C. ROCKWELL.

PORTABLE STOVE.

(Application filed Nov. 18, 1901.)

(No Model.)

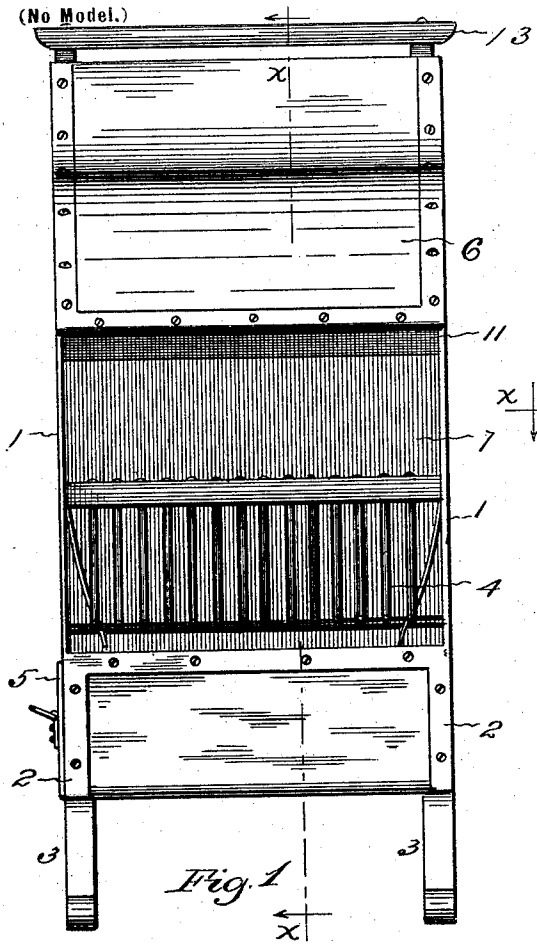


Fig. 1

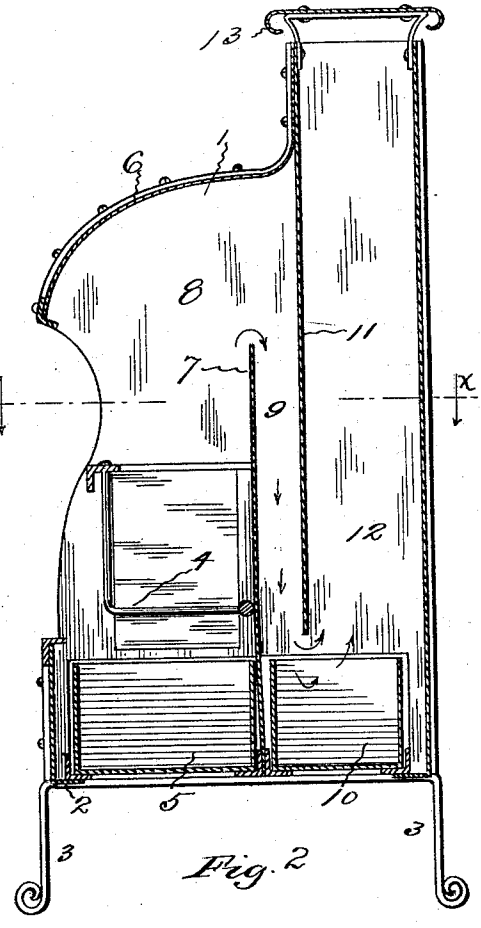


Fig. 2

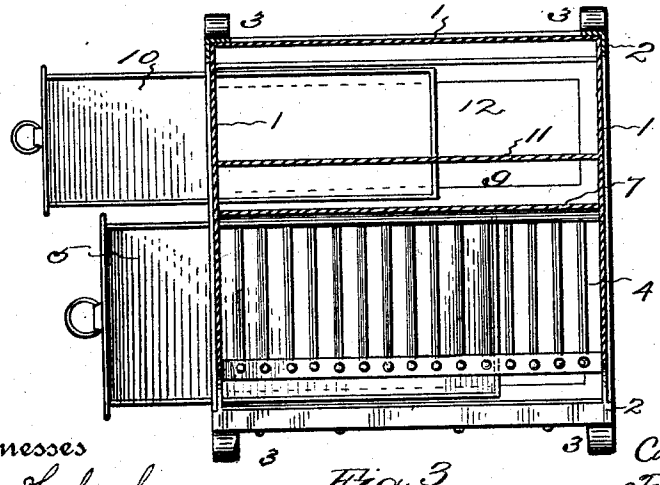


Fig. 3

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CASPAR W. METTLER, OF HARTFORD, AND FREDERICK C. ROCKWELL, OF WEST HARTFORD, CONNECTICUT.

PORTABLE STOVE.

SPECIFICATION forming part of Letters Patent No. 717,242, dated December 30, 1902.

Application filed November 18, 1901. Serial No. 82,713. (No model.)

To all whom it may concern:

Be it known that we, CASPAR W. METTLER, residing at Hartford, and FREDERICK C. ROCKWELL, residing at West Hartford, in the county of Hartford, State of Connecticut, citizens of the United States, have invented certain new and useful Improvements in Portable Stoves, of which the following is a specification.

This invention relates to a stove which is so designed that it may be carried from place to place and used where desired for heating an apartment without being connected with a chimney.

The object of the invention is to provide a light, cheap, and simple stove of this nature which is so constructed that the fuel will be consumed and the products of combustion so treated that no noxious gases will be emitted to the apartment.

The stove that is illustrated by the accompanying drawings as embodying the invention is particularly designed for burning coked peat—that is, peat which has been dried and charred. In this stove the fuel is placed upon an open grate, above which is a hood that directs the products of combustion to a downwardly-extending flue which terminates above a receptacle containing liquid and which there communicates with an upwardly-extending flue, so that the products of combustion after passing upwardly from the fuel on the grate pass downwardly and over the liquid, which absorbs the dangerous and destructive gases, and then pass upward to the apartment.

Figure 1 of the drawings is a front view of the stove. Fig. 2 is a central section, and Fig. 3 is a horizontal section, of the same stove.

The side walls 1 of the stove that is illustrated are formed of sheet metal, preferably iron, held by a frame 2, which may be formed of iron, steel, or brass. The frame is supported by legs 3.

The grate 4 is attached to the walls, and beneath the grate is an ash-receptacle 5, that is removable through one side of the stove. Above the grate is a hood 6, and back of the grate is a partition-wall 7. The chamber 8 beneath the hood communicates with the flue 9 back of the partition 7, which extends from the bottom of the frame upwardly to about the level of the front lower edge of the hood. A receptacle 10, adapted to contain liquid, is supported by the frame beneath the flue back of the grate. This receptacle is removable through the side of the stove.

A partition 11 extends from the top of the liquid-receptacle to the top of the stove and forms the back wall of the downward flue 9 from the hood to the liquid-receptacle and the front wall of the flue 12, that extends upwardly from the liquid-receptacle to the top of the stove. A hood or cowl 13 is placed above the top of the back flue a little distance above the top edge of the walls of the stove.

In the liquid-receptacle it is preferred to place a solution of lime and water. Of course any other suitable solution or pure water or any solid substance having the proper affinity for carbonic-acid gas might be placed in the liquid-receptacle.

After the coked-peat fuel has been placed upon the grate it is ignited in any convenient manner, either by shavings, charcoal, or other quickly-burning material. While the peat is being ignited, the stove may be set in a fireplace, put near a window, or removed from the apartment until all of the smoke and gases caused by the quickly-burning igniting material have passed off. After the coked peat becomes ignited the gases of combustion, which are peculiar to coked peat, rise from the fuel on the grate beneath the hood, then pass downwardly through the front flue to the liquid, which absorbs the noxious gases, and then pass upwardly through the back flue and out at the top.

This stove, which is very light, small, and convenient, throws off a large amount of heat without materially vitiating the atmosphere in the apartment. After it has been used for a number of hours the liquid is replenished. As the fuel is consumed fresh fuel is added from time to time without requiring extraneous igniting material. There is no smoke from the stove when in use, the heat is soft and moist, and metallic articles in the apartment in which it is burned are not tarnished, nor is breathing affected.

We claim as our invention—

A portable stove having side walls and a back wall, a grate supported by the side walls and open to the front, a hood extending above the grate, an ash-receptacle beneath the grate and removable through the side wall, a liquid-receptacle back of the ash-receptacle and removable through the side wall, a flue extending downwardly back of the grate from the chamber beneath the hood to the chamber containing the liquid-receptacle, and a flue extending upwardly at the back from the chamber containing the liquid-receptacle to the top of the stove, substantially as specified.

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