Aug. 27, 1929. T. A. SALA 1,726,000

PORTABLE HEATING CABINET

Filed March 2, 1928 2 Sheets-Sheet 1

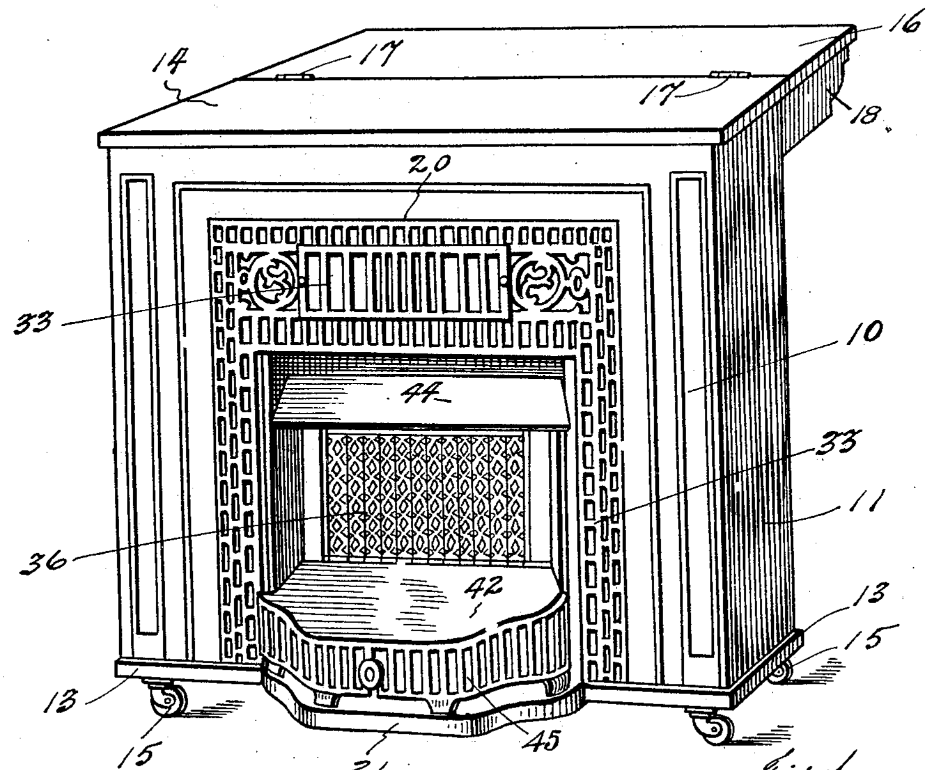

Fig. 1.

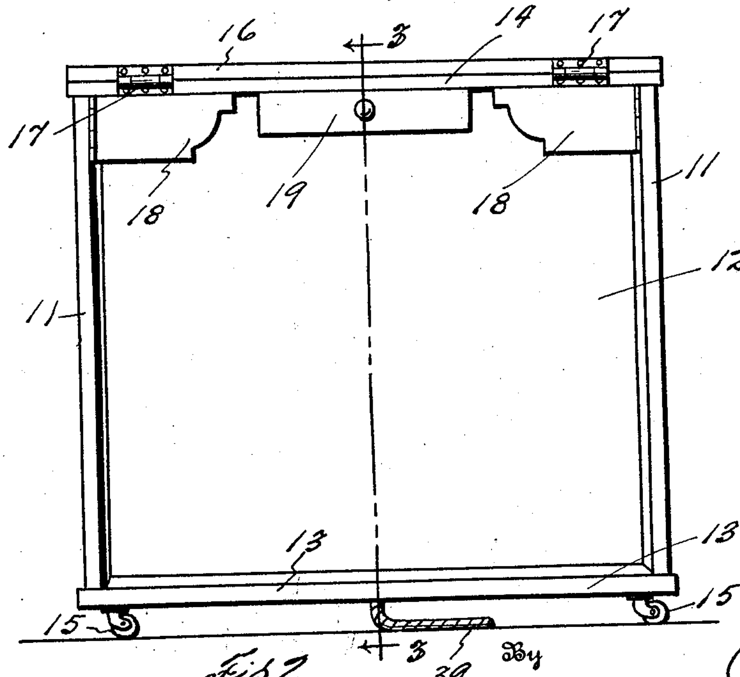

Fig. 2.

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Filed March 2, 1928 2 Sheets-Sheet 2

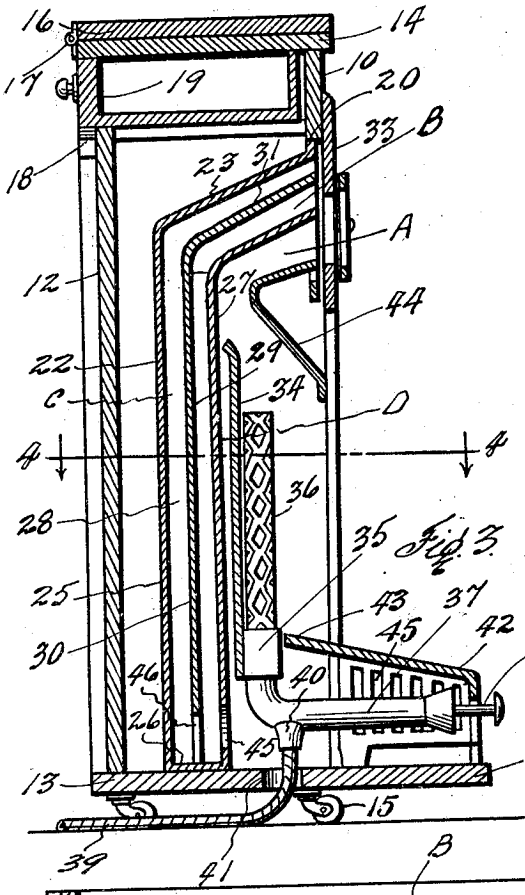

Fig. 3.

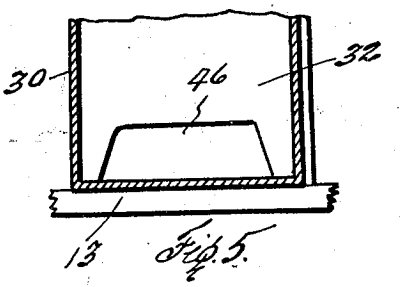

Fig. 5.

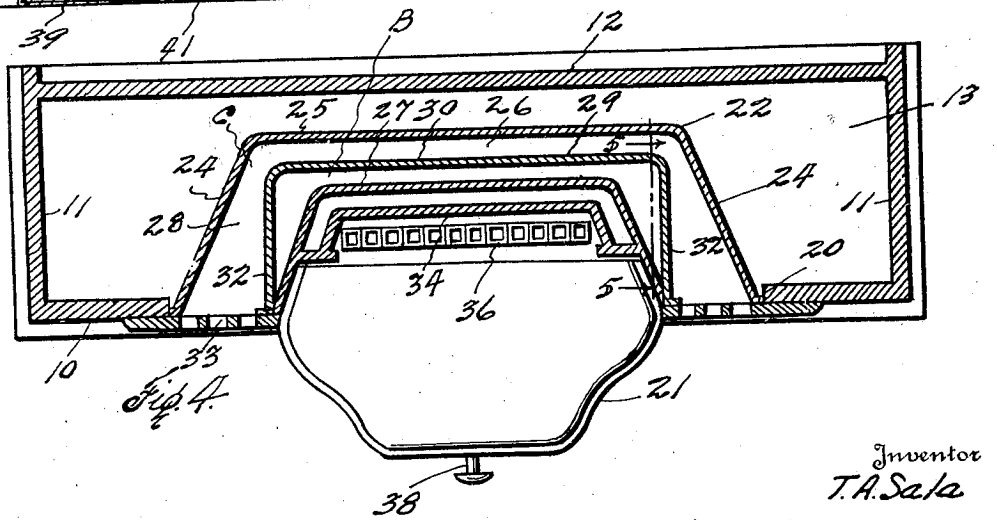

Fig. 4.

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UNITED STATES PATENT OFFICE.

THEODORE A. SALA, OF DALLAS, TEXAS.

PORTABLE HEATING CABINET.

Application filed March 2, 1928. Serial No. 258,485.

This invention relates to new and useful improvements in portable heating cabinets.

One object of the invention is to provide a portable cabinet, movable and usable as a desk, table or the like, and having a heater therein whereby economy in floor space may be had, as well as a double service article, and suitable heat provided in a room.

Another object of the invention is to provide a cabinet usable as an article of furniture and having a heater therein, whereby said cabinet may be placed against a wall and the heater exposed, or whereby said cabinet may be moved from the wall and access had to both sides.

A particular object of the invention is to provide a portable cabinet having a gas or other heater mounted therein and exposed through one side of said cabinet, together with an air circulating chamber surrounding the heater for keeping the cabinet relatively cool.

An important object of the invention is to provide a portable cabinet having a gas or other heater mounted therein and exposed through one side of said cabinet, together with a heating chamber in the cabinet having a grille at its front for admitting air and discharging the said air after heating it.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawings, in which an example of the invention is shown and wherein:

Fig. 1 is a perspective view of a cabinet constructed in accordance with the invention and having its parts in position for use as a desk or table,

Fig. 2 is an elevation of the rear side of the cabinet,

Fig. 3 is an enlarged vertical sectional view on the line 3—3 of Fig. 2,

Fig. 4 is a horizontal cross-sectional view taken on the line 4—4 of Fig. 3, and

Fig. 5 is an enlarged cross-sectional view taken on the line 5—5 of Fig. 4.

In the drawings the numeral 10 designates the front wall, 11 the end walls and 12 the rear wall of a cabinet body which may be suitably finished, paneled and otherwise decorated. These walls rest upon a bottom 13 and support an overhanging top 14. The bottom is supported upon casters 15 or similar mountings whereby the cabinet may be readily and easily swung or moved.

A leaf 16 is hinged at 17 to the rear edge of the top 14 so as to be folded upon said top, as is shown in Fig. 3, or to be extended, as is shown in Fig. 1. For supporting the leaf in its extended or unfolded position, brackets 18 are hinged to the walls 11 and swung outwardly, as is shown in Fig. 1. The rear wall 12 is preferably set inwardly of the rear edges of the walls 11 so that said brackets may be folded against the wall 12 and thus not project beyond said rear edges, when the parts are in the position shown in Fig. 3. A suitable drawer 19 may be mounted under the top 14 and in the upper central portion of the rear wall 12. The particular design and arrangement of the cabinet is, of course, subject to considerable variation.

The front wall 10 is provided with a central arched opening 20 and the bottom 13 is extended outwardly through this opening to form a shelf or extension 21. One of the features of the invention is the mounting of a heater within the cabinet and through the opening 20 in such a manner as to protect the woodwork of the cabinet body from excessive heat and at the same time provide a heater capable of adequately heating a comparatively large room. It is obvious that if the cabinet is to be used as a desk, as is shown in Fig. 1, that unless some provision was made for carrying off the heat the cabinet would become so hot as to make the device impractical. If the heat was merely absorbed and there was no particular circulation of air, considerable efficiency would be lost.

Within the cabinet body I mount a sheet metal jacket 22 which has an inclined top 23. The jacket, as illustrated, includes converging side walls 24 and a back wall 25, said walls joining the top 23 at their upper ends and extending from a sheet metal bottom 26 resting upon the bottom 13 of the cabinet. The front edges of the jacket fit within the opening 20. The walls 24 and 25 are suitably spaced from the end walls 11 and the rear wall 12.

Nested within the jacket is a fire box 27 conforming to the general shape of the jacket and attached to the bottom 26. The jacket and fire box constitute therebetween

a hot air circulating chamber 28. Within the chamber 28 I mount a dividing shell or partition 29 which includes an upright wall 30 and a top wall 31 located substantially midway between the rear and top walls of the jacket and fire box, as is best shown in Figs. 3 and 4. However, the side walls 32 of the shell are at substantially right-angles to the rear wall 30 and have their front edges meeting the front edges of the jacket.

An arch shaped grille 33 of suitable design overlaps the front wall 10 of the cabinet body and covers the front of the chamber 28, thereby leaving the fire box exposed within said grille. As a matter of convenience the jacket 22, fire box 27 and shell 29 may be attached to the grille, thus forming a heater unit which may be bodily inserted through the opening 20. It is, of course, to be understood that the details of the heater are subject to manufacturing changes.

Within the fire box a vertical fire wall 34 is mounted and spaced from the back wall of the fire box. A suitable gas burner 35 is mounted at the bottom of the fire wall and supports radiants 36. A mixing tube 37 extends downwardly and outwardly from the burner over the shelf 21 and contains a suitable gas valve, the stem 38 of which extends from the forward end of said tube. A flexible gas conductor or hose 39 is attached to a nipple 40 depending from the tube and passes through a hole 41 in the bottom 13. The conductor 39 is suitably connected with a source of gas supply and is long enough to permit the desirable movement of the cabinet.

On the shelf 21 a removable heater hood 42 is mounted. This hood covers the tube 37 and has a lip 43 extending into the fire box. The hood conceals all of the lower structure and adds to the attractive appearance of the heater. The valve stem 38 extends through the front of the hood.

A transverse deflector 44 is mounted in the top of the fire box so as to overhang the upper ends of the radiants 36 for diverting the products of combustion into a flue A formed by the said deflector and the inclined top of the fire box, as is best shown in Fig. 3. The flue A discharges through the grille 33. The fire box has openings 45 below the hood 42 for admitting air which may pass upwardly between the fire box and the shell 29 and discharge through the grille, this space constituting a flue B. The shell 29 has openings 46 at the bottoms of its walls 30 and 32 so that air entering through the openings 45 may also pass into the flue C formed between the jacket 22 and the shell 29. The flue C has its entire front covered by the grille 33 so that air may enter the lower part of this flue through the grille and discharge from the upper portion of the said flue and also through the grille. A vertical flue D is formed between the fire wall 34 and the back wall of the fire box.

It is pointed out that the fire box is surrounded by the chamber 28 and this chamber is divided into two flues B and C by the shell 29 and the fire wall 34 is spaced from the fire box by the flue D. By this arrangement a plurality of flues are interposed between the heater and the walls of the cabinet, and these flues being open at each end to permit a circulation of air functions to carry off the heat from the cabinet so that its walls remain relatively cool. Further, the volume of air handled through the various flues is considerably more than the air circulated through the ordinary gas heater now in use. This provides for adequate heating and causes the cabinet to function in a most satisfactory manner.

In apartments and other places where it is desirable to economize space, and on account of the nature of the building, it is often impossible to build fire places or mantels. In many localities where natural gas is prevalent many rooms and even entire apartments are not provided with chimneys or flues. In such apartments, as well as in other places, this heater cabinet is very useful and convenient. When it is not desired to use the desk feature, as is shown in Fig. 1, the leaf 16 and the brackets 18 may be folded into the position shown in Fig. 3 and the cabinet moved back against the wall. It may occupy a place under a window. A very practical and efficient cabinet need not be over 10 inches deep and 30 inches high and about 3 feet long. By providing a sufficient length of hose 39 the cabinet may be swung out from the wall into the room and adjusted to the position shown in Fig. 1 where it may be used as a desk either when the heater is in use or not in use. In fact, the cabinet may be used in most any desirable place and provides a very serviceable article of furniture.

Various changes in the size and shape of the different parts, as well as modifications and alterations, may be made within the scope of the appended claims.

What I claim, is:

1. A portable heating cabinet comprising an article of furniture having an open front and an imperforate top with connected base, side and rear walls, and an exposed heating unit with associated air flues at its rear inset within the cabinet at the open front thereof and supported by said base.

2. A heating cabinet comprising an article of furniture having an open front extending upward from its base and an imperforate top with connected side and rear walls, and an exposed heating unit having associated air flues at its rear with the rear wall of said flues spaced from the top and walls of said cabinet and inset within the open front

thereof, whereby the flue wall in connection with the cabinet walls form an insulating air space.

3. A portable heating cabinet comprising an article of furniture having an open front and an imperforate top with connected base, side and rear walls, an exposed heating unit with associated air flues at its rear inset within the cabinet at the open front thereof and supported by said base, and a grille surrounding the sides and top of the heating unit and communicating with the air flues.

4. A portable heating cabinet comprising a body forming an article of furniture and having a bottom and open front, the bottom being extended outwardly beyond the open front of the body, mobile supports for said body whereby it may be readily moved, a jacket within the body spaced from the top and rear thereof and forming a closure at said open front, a fire box within and spaced from the jacket, a grille covering the front of the jacket and exposing the fire box and secured to the front of the body, and a heater in the fire box having a burner hood extending inward at the upper face of the bottom extension.

In testimony whereof I affix my signature.

THEODORE A. SALA.