Aug. 17, 1926. **1,596,456**

T. A. SALA

HEATER AND MANTEL UNIT

Filed April 6, 1925 2 Sheets-Sheet 1

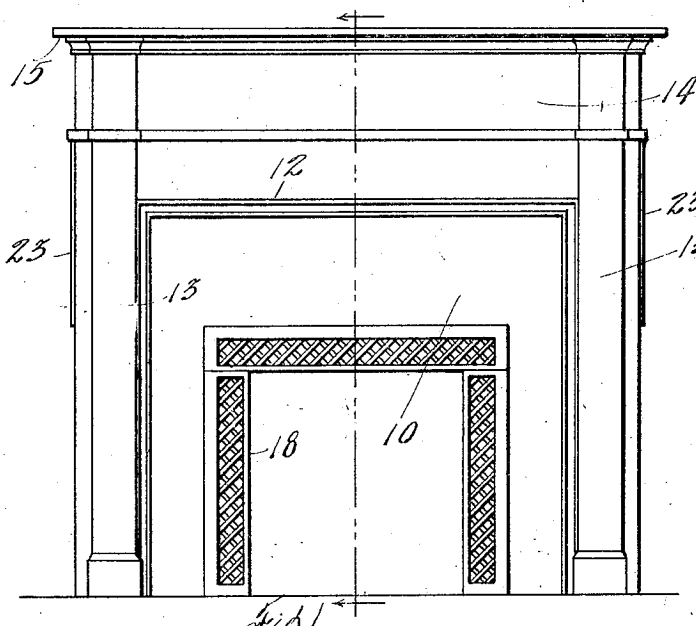

Fig. 1.

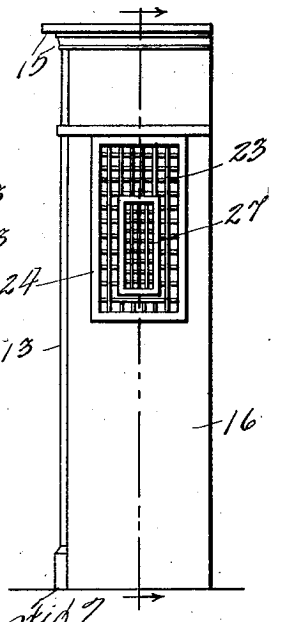

Fig. 2.

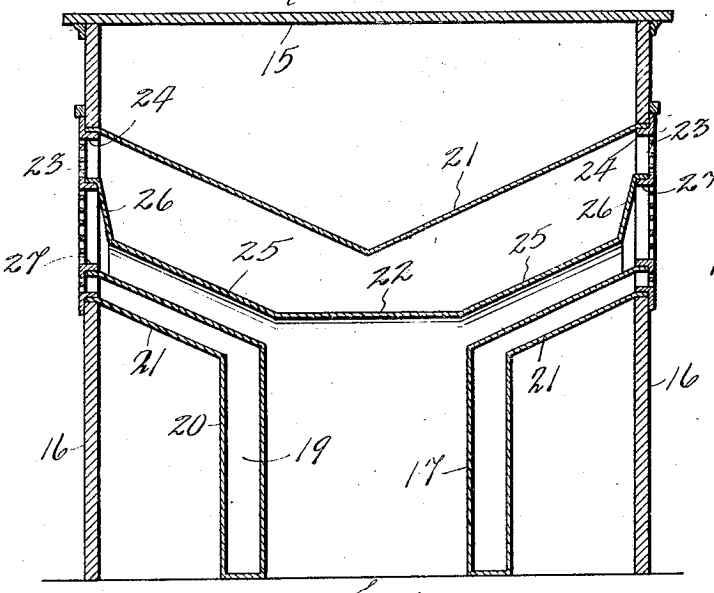

Fig. 3.

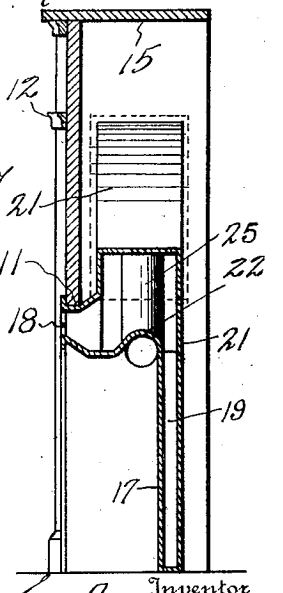

Fig. 4.

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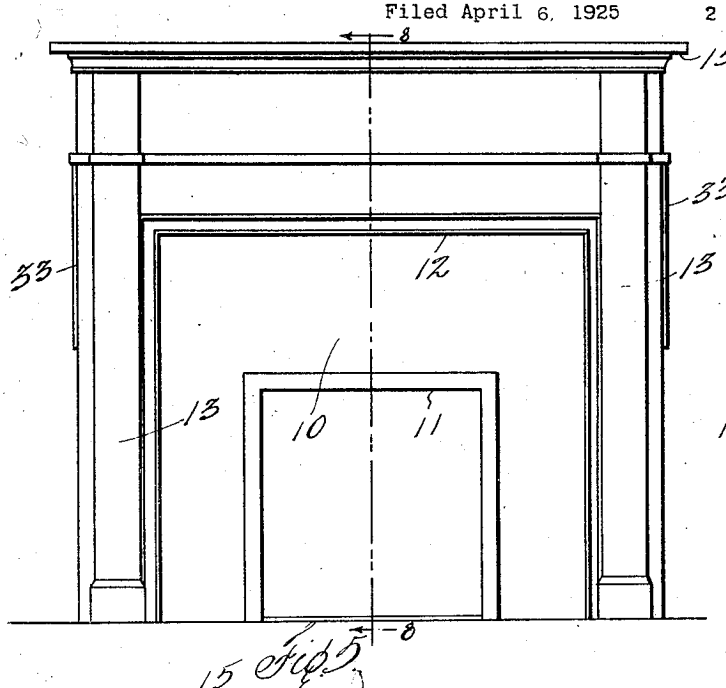

Fig. 5.

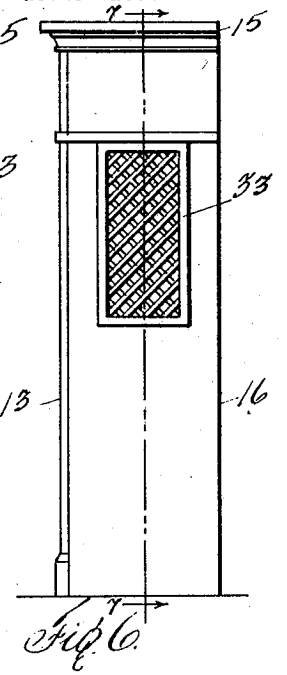

Fig. 6.

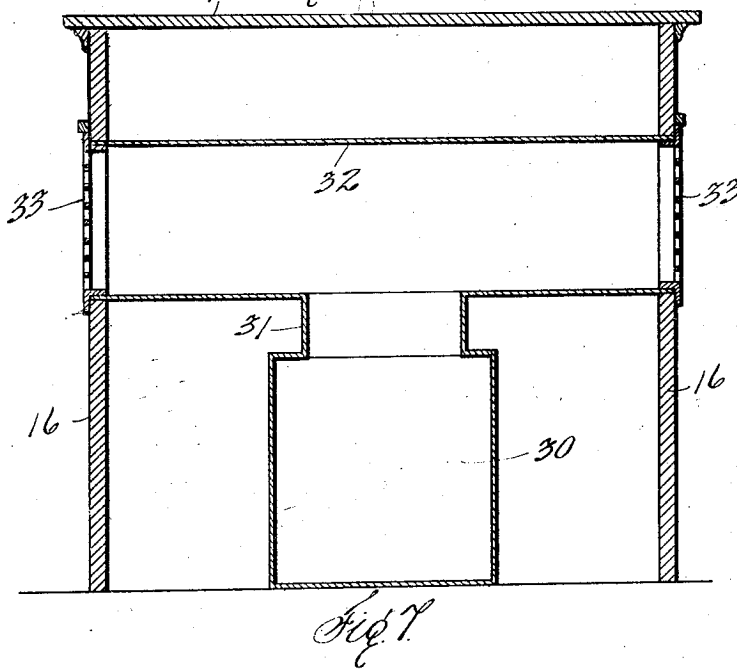

Fig. 7.

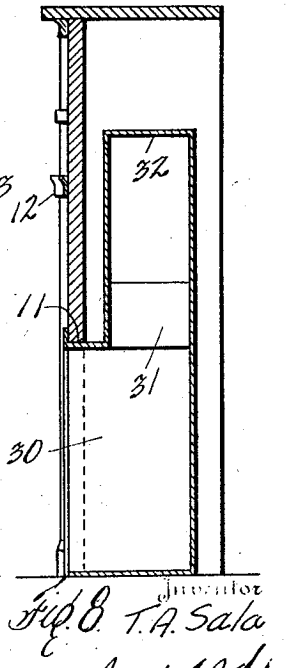

Fig. 8.

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UNITED STATES PATENT OFFICE.

THEODORE A. SALA, OF DALLAS, TEXAS.

HEATER AND MANTEL UNIT.

Application filed April 6, 1925. Serial No. 20,969.

This invention relates to new and useful improvements in heater and mantel units.

The object of the invention is to combine in a unitary portable structure, a mantel, a fire place and a longitudinal heating drum with grilles at the ends of the drum located at the sides of the mantel.

Another object is to provide a mantel structure which may be installed against a flat wall either with or without a chimney connection, and whereby the expense and necessity of constructing a chimney breast is obviated.

A particular object of the invention is to provide a unitary structure of the character described which may be built, painted and finished in the factory, transported and set into place as a completed job, ready to receive the heater, gas logs or other heat generating unit.

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 references to the accompanying drawings, in which an example of the invention is shown, and wherein:

Fig. 1 is a front elevation of a combined mantel and heater constructed in accordance with my invention,

Fig. 2 is a side elevation of the same,

Fig. 3 is a longitudinal vertical sectional view taken on the line 3—3 of Fig. 2,

Fig. 4 is a transverse vertical sectional view on the line 4—4 of Fig. 1,

Fig. 5 is a front elevation of another form in which the invention may be carried out,

Fig. 6 is a side elevation of the same,

Fig. 7 is a longitudinal vertical sectional view on the line 7—7 of Fig. 6, and

Fig. 8 is a transverse vertical sectional view on the line 8—8 of Fig. 5.

In the drawings the numeral 10 designates the front wall or breast of the mantel which is arched at 11 to form a fireplace. This front wall may be built up of one or more plies or thicknesses of wood, marble or other construction material and ornamented in any suitable manner, as by molding 12 and pilasters 13. The mantel is surmounted by a capital 14 having a shelf 15. Vertical side walls 16 are suitably fastened to the front wall and covered by the shelf 15. So far as the invention is concerned it requires only that the several parts of the mantel be complete and united as an integral unit. Of course some ornament or decoration could be applied after it was installed.

When the mantel is built a fireplace heater, such as is shown in my Letters Patents 1,497,123, of June 10, 1924, and 1,495,262, of May 27, 1924, and my allowed application Serial No. 696,657, or any other drum heater, is installed therein and forms an integral part of the mantel. This installation may be carried out by constructing a vertical fire chamber 17 of heavy sheet metal having a back and side walls and an open front surrounded by an arch grille 18 secured to the front wall 11 of the mantel. This fire chamber is surrounded on three sides by an air flue 19 formed by a shell 20 and communicating at its front end with the grille 18.

The shell is connected at its upper end to a longitudinal drum 21 extending between the end walls 16 and communicating with the air flue 19 and the top of the grille 18. The fire chamber 17 has a deflector hood 22 over its top. The hood 22 while forming the top of the fire chamber 17 also has its rear portion transversely arched (Fig. 4). The drum may have any suitable shape, but I have illustrated it as diverging upwardly to each side from its center to the end walls 16. In the end walls at a point relatively above the fireplace opening, I provide side grilles 23 having inwardly directed flanges 24 engaging snugly in the ends of the drum 21. By this arrangement air admitted through the front grille 18 into the air flue 19, is conducted to each side through the drum 21 and discharged into the room from the grilles 23 at each side of the mantel.

From each side of the upper end of the fire chamber 17, heating flues 25 lead from the ends of the arched portion of the hood 22 and terminate in enlarged heads 26 at their ends. The arched portion of the hood thus connects the flues 25. These flues with the hood constitute a second drum within the first drum, but for clarity are designated as flues. Each head receives a flange 27 on the inner side of the correlated grille 23, which flange is spaced inwardly from the flange 24. This permits the flues 25 to also discharge air currents into the room at each side of the mantel. The fire chamber being supplied with a suitable heating medium, such as a gas stove or gas logs or other

means, will heat the air currents passing through the flues 21, and thus the air currents passing through the drum 21 will be heated by contact with said flues, as is explained in said Letters Patent aforesaid.

The flues, drum, fire chamber and grilles are built into the mantel and the entire job is completed at the factory so that when it is received at the residence or other point of installation, it merely has to be set on the hearth and fastened to the wall. If desired suitable chimney connections can be made, but no false work or chimney breast is required and the mantel may be erected against a flat plastered or board wall.

In Figs. 5 to 8, I have shown another form in which the grille 18 is omitted and the arched fireplace opening 11 is either finished off or enclosed in an ornamental frame. A sheet metal fire chamber or box 30 has its front end contiguous to said opening and is connected at its top by a short flue 31 with a longitudinal drum 32 connected at its ends to grilles 33 set into the end walls 16. This is also a unit construction and distributes the heated air to the room at each side of the mantel.

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. As a new article of manufacture, a portable hollow mantel structure, comprising a front wall having a fireplace opening, side walls secured to the front wall, a shelf mounted on the front and side walls, grilles in the side walls, a fire chamber at the fireplace opening, and a longitudinal drum mounted in the mantel and connected with the fire chamber at its central portion and connected at its ends with the grilles.

2. As a new article of manufacture, a portable hollow mantel structure comprising a front wall having a fireplace opening, side walls secured to the front wall, a shelf mounted on the front and side walls, a fire chamber secured in the mantel, a vertical air flue surrounding the fire chamber, a grille at the fireplace opening connected to the front of the fire chamber and admitting air to the air flue, and a longitudinal drum mounted in the mantel above the fire chamber and connected with the air flue and the grille, and side grilles mounted in the side walls of the mantel and connected with the ends of the drum.

3. As a new article of manufacture, a portable hollow mantel structure comprising a front wall having a fireplace opening, side walls secured to the front wall, a shelf mounted on the front and side walls, a fire chamber secured in the mantel, a vertical air flue surrounding the fire chamber, a grille at the fireplace opening connected to front of the fire chamber and admitting air to the air flue, a longitudinal drum mounted within the mantel above the fire chamber and connected with the air flue and the grille, a second longitudinal drum within the first drum and spaced therefrom and connected to the fire chamber, and side grilles mounted in the side walls of the mantel and connected to the ends of both flues at spaced points.

4. As a new article of manufacture, a portable hollow mantel structure, comprising a vertical front wall having an arched fireplace opening, vertical side walls secured to the front wall at substantially right angles thereto, a capital at the upper ends of the side and front walls, a shelf mounted on the capital, a fire chamber within the mantel formed of upright metal walls extending to the front wall at the fireplace opening thereof, grilles mounted in the side walls above the fire chamber, and a longitudinal drum within the mantel and extending between the grilles and connected with the fire chamber at its central portion.

In testimony whereof I affix my signature.

THEODORE A. SALA.