April 9, 1940. M. J. MORGAN 2,196,934

FIREPLACE HEATER

Filed July 18, 1939 2 Sheets-Sheet 1

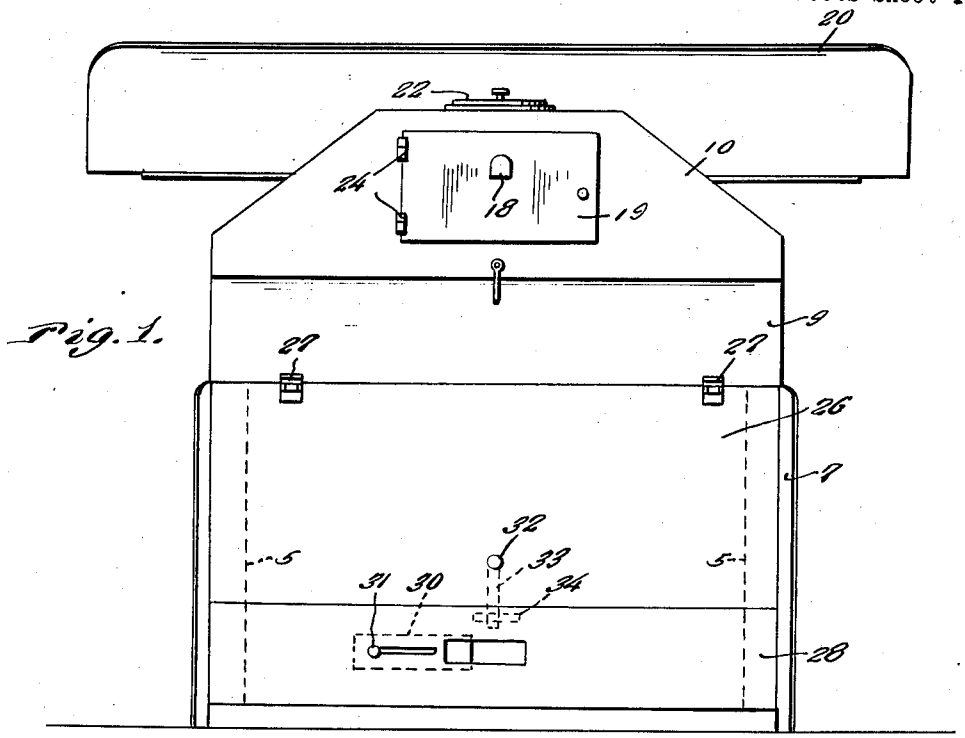


Fig. 1.

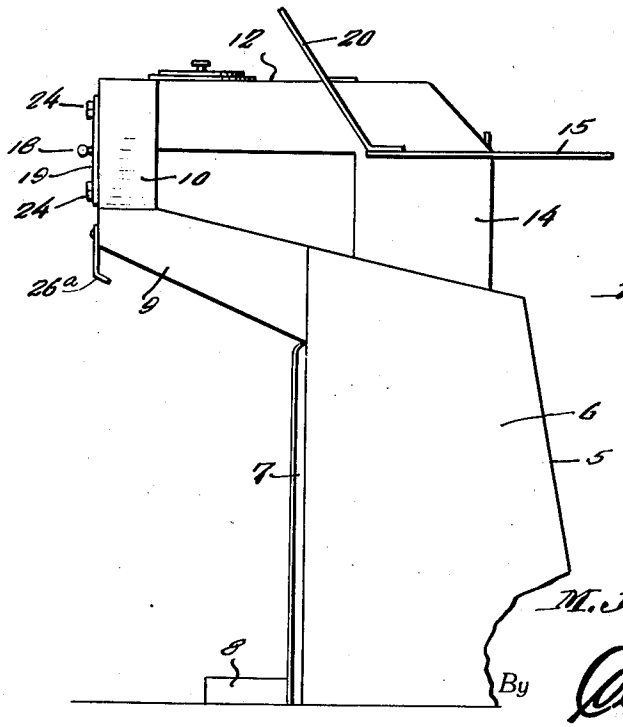


Fig. 2.

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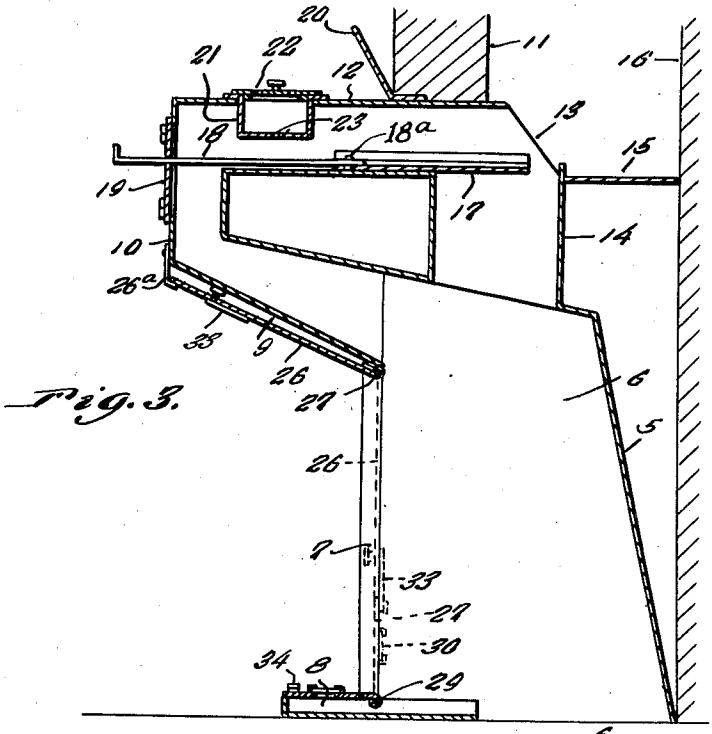


Fig. 3.

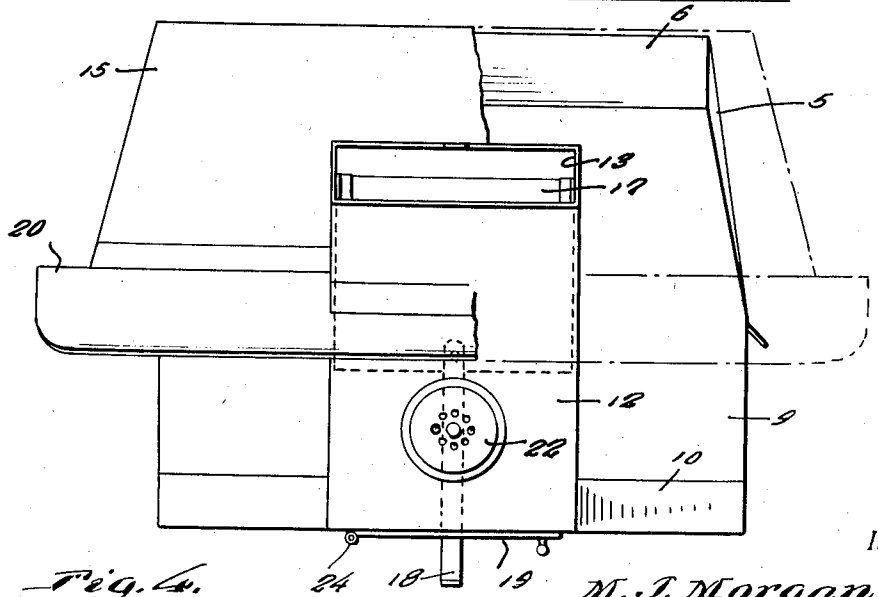


Fig. 4.

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2,196,934

FIREPLACE HEATER

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Application July 18, 1939, Serial No. 285,145

3 Claims. (Cl. 126—120)

This invention appertains to new and useful improvements in heating apparatus and more particularly to a heater for use in fireplaces, the principal object being to obtain from the products of combustion a greater conductivity of heat to the room space intended to be heated.

Another important object of the invention is to provide a heater of the character stated which can be readily installed in a fireplace to the extent that the chimney of the fireplace can be used for the take off of the used products of combustion.

These and other important objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a front elevational view of the heater.

Figure 2 is a side elevation.

Figure 3 is a vertical sectional view through the heater.

Figure 4 is a fragmentary top plan view.

Referring to the drawings wherein like numerals designate like parts, it can be seen that the shell of the heater consists of the forwardly slanting back wall 5 and the side walls 6, the side walls 6 being provided at their forward edges with outwardly flaring flanges 7. A hearth pan 8 is interposed between the forward lower portions of the side walls 6—6.

A substantially broad duct or conduit 9 extends forwardly on the upper portion of the shell and then extends upwardly as at 10, at a point well without the confines of the front side of the fireplace 11. The duct has the horizontally disposed and backwardly extending portion 12 which extends into the fireplace and has the rear opening 13 from which the used products of combustion can pass into the chimney.

A vertical stack or duct 14 extends from the top of the shell and merges with the rear end portion of the portion 12 of the duct or conduit, and at this merging point a bracing flange 15 extends rearwardly and sidewisely to engage the back and side walls of the fireplace, flange 15 being so constructed that it may be fitted in any standard fireplace.

A damper plate 17 is slidably disposed along the bottom of the conduit portion 12 and by operating the control rod 18 which is pivotally connected thereto to permit swinging of the door 19 the same can be adjustably slipped over the upper end of the short sack 14 to regulate the draft through this point, governing the amount of the hot products of combustion which is to pass through the ducts 9, 10 and 12.

The control rod 18 extends through the movable plate 19 which normally covers an opening through which a suitable implement can be inserted to clean out the duct.

A chimney seal or flange 20 is provided which extends across and against the upper face walls of the fireplace and upwardly from forward portion of flange 15, fitting around conduit 12.

A cup-shaped unit 21 is disposed depending in the portion 12 of the duct or conduit and has the perforated cover 22. The bottom of the cup 21 is also perforated as at 23.

As can be seen in Figure 1, the cover plate 19 is preferably hinged as at 24 to the portion 10 of the conduit.

Thus it can be seen that the amount of the product of combustion which passes through the conduits 9, 10 and 12 can be controlled to the desired extent by actuating the damper 17.

As can be seen in Figures 1 and 3, secured to the lower edge of the slanting wall 9 is the door 26 suspended by hinges 27. This door 26 is complementary to the somewhat narrower lower door 28 which is hinged as at 29 to the fireplace pan 8. This lower wall or door 28 can be dropped to the position shown in full lines in Figure 3 or elevated to the position shown in Figure 1 in an upright position to coact with the door 26 to form a front wall structure, which is especially desirable when slow burning of the fire at night is desired. To properly regulate the draft for a slow burning fire when the doors 26 and 28 are used, a slide damper 30 having a hand knob 31 is employed and suitably constructed in the hinged door 28. A swingable arm operative by the knob 32 is denoted by numeral 33 and is carried by the door 26 and is cooperative with the keeper 34 on the upper edge portion of the door 28.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention what is claimed as new is:

1. A heater for fireplaces comprising a combustion chamber-forming shell, a vertical stack extending from the shell, a forwardly extending conduit, said conduit being disposed outwardly from the shell and having an upwardly and backwardly disposed portion, the backwardly disposed portion being open at its rear end, and a

damper for controlling draught through the upper portion of the said stack, said damper consisting of a slide plate, a rod for actuating the slide plate, said rod being slidably disposed through the upwardly disposed portion of the conduit, said upwardly disposed portion of the conduit being formed with a soot clean-out opening, a hinged plate for normally closing the opening, said rod being slidably disposed through the said plate.

2. A heater for fireplaces comprising a combustion chamber-forming shell, a vertical stack extending from the shell, a forwardly extending conduit, said conduit being disposed outwardly from the shell and having an upwardly and backwardly disposed portion, the backwardly disposed portion being open at its rear end, and a damper for controlling draught through the upper portion of the said stack, said damper consisting of a slide plate, a rod for actuating the slide plate, said rod being slidably disposed through the upwardly disposed portion of the conduit, said upwardly disposed portion of the conduit being formed with a soot clean-out opening, a hinged plate for normally closing the opening, said rod being slidably disposed through the said plate, said rod being pivotally connected to the damper plate and having a closure plate engageable stop at its outer end.

3. A heater for fireplaces comprising a combustion chamber-forming shell, a vertical stack extending from the shell, a forwardly extending conduit, said conduit being disposed outwardly from the shell and having an upwardly and backwardly disposed portion, the backwardly disposed portion being open at its rear end, and a damper for controlling draught through the upper portion of the said stack, and a bar plate protecting shield rising from the backwardly disposed portion of the conduit.

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