T. F. HATTON.

ATTACHMENT FOR HEATING STOVES.

APPLICATION FILED JUNE 24, 1910.

980,520. Patented Jan. 3, 1911.

Fig. 1.

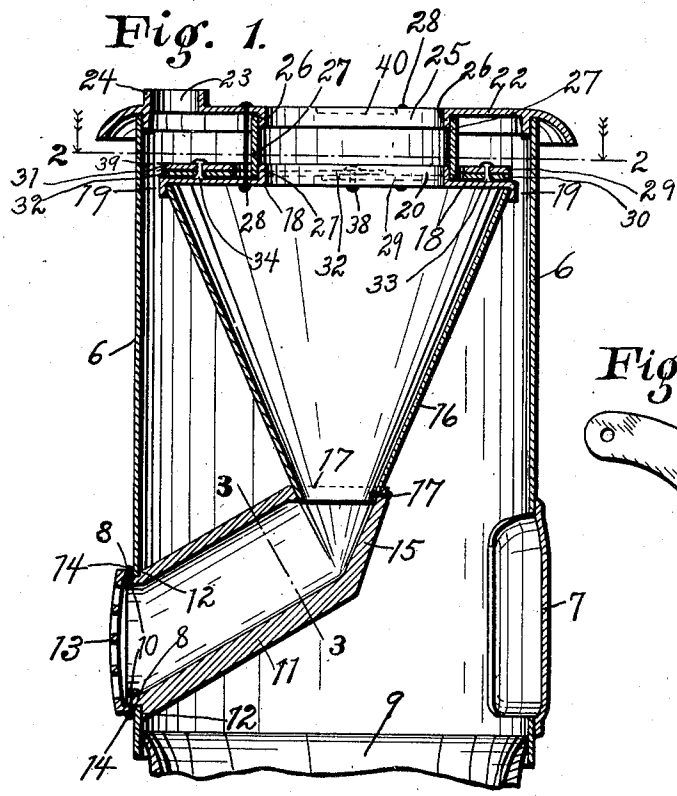


Fig. 4.

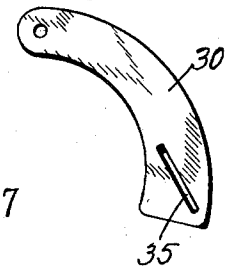


Fig. 3.

Fig. 2.

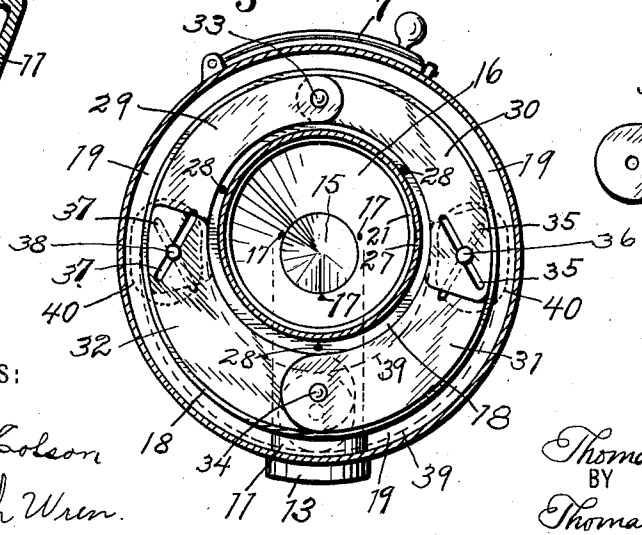
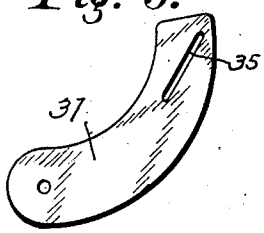


Fig. 5.



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ATTACHMENT FOR HEATING-STOVES.

980,520. Specification of Letters Patent. **Patented Jan. 3, 1911.**

Application filed June 24, 1910. Serial No. 568,745.

To all whom it may concern:

Be it known that I, THOMAS F. HATTON, a citizen of the United States, and a resident of Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Attachments for Heating-Stoves, of which the following is a specification.

My invention relates to improvements in heating stoves as hereinafter described and particularly pointed out in the claims, and the object of my improvement is to provide a simple device to conduct a current of air into the stove just above the fire to be heated, and to deliver such superheated air from the top of the stove.

A further object is to provide a means for directing the fire in the stove against any particular side of the air heating device and a corresponding side of the stove.

I attain these objects by means of the device illustrated in the accompanying drawings, in which—

Figure 1 is a broken section of a heating stove fitted with my improvement; Fig. 2 is a section of the same taken along the line 2—2 in Fig. 1; Fig. 3 is a transverse section of the air receiving tube taken on the line 3—3 in Fig. 1; Fig. 4 is a top view of a portion of the device for directing the fire against a particular portion of said air heating device and a corresponding side of the stove; and, Fig. 5 is a similar view of another portion of the same.

Like numerals of reference indicate like parts throughout the several views.

The stove body 6 is provided with a fuel door 7, and an opening 8 formed in its side immediately above the fire-pot 9 to receive the reduced end 10 of the air receiving tube 11, and said end 10 is secured in said opening by means of the shoulder 12, the perforated cap 13 and the bolts 14. Said air receiving tube is constructed of any suitable metal, such as cast iron, with a cross section substantially as indicated in Fig. 3, and terminating in an inverted cone shaped cup 15 to receive the lower end of the funnel shaped air heating member 16, and is secured thereto by the bolts 17. Said funnel shaped air heating member is provided with the top 18 which is of such a size as will form the narrow annular draft space 19 between its edges and the sides of the stove body. An opening 20 is formed eccentrically in the top 18 in a position nearer to the front side of the stove, and provided with the annular upturned flange 21 around said opening.

The stove top 22, having the usual stove pipe opening 23 in a portion near the rear side of the stove and the upturned flange 24 around such opening to receive the stove pipe, is provided with the opening 25 corresponding in size and position with said opening 20 and provided with the flange 26 depending from said opening 25.

The annular band 27 engages the flanges 21 and 26 to form a continuous air passage from the interior of the funnel shaped air heating member to the air in the room, and the bolts 28 suspend the top 18 and clamp said annular band between said top 18 and the top of the stove.

The annular draft regulating device consists of the curved portions 29, 30, 31 and 32, the portions 29 and 30, being alike in form and size, are pivotally connected at their narrower ends by the rivet 33, and the portions 31 and 32, being alike in form and size, are pivotally joined at their wider ends by the rivet 34. The other end of each of the portions 30 and 31 are provided with the diagonal slot 35 and mounted to slide on the pin 36, which is secured to a fixed position on said top portion 18, and the other end of each of the portions 29 and 32 is provided with the diagonal slot 37 and mounted to slide on the pin 38, which is secured in a fixed position diametrically opposite said pin 36 on said top portion (Fig. 2), so that by pressing outwardly on the inner side of one of the portions 31 or 32 they may take a position indicated by the dotted line 39 (Figs. 1 and 2), to cut off or retard the draft of the stove in this portion of the annular draft regulating device. In a similar manner any other portion, or when so desired, all of said annular draft space may be cut off or retarded to direct the heat produced in the stove against any particular side of the funnel shaped air heating member 16 and a corresponding side of the stove body.

The top of the stove is also provided with openings, having removable lids fitted therein, in positions immediately over those indicated by the dotted lines 40 in Figs. 1 and 2, to afford openings through which said annular draft regulating device may be operated.

Cold air from the room is introduced

through the perforations in the cap 13, passed through the tube 11 and the funnel shaped air heating member 16 and out at the opening 20 at the top of the stove in a heated condition. A conductor pipe may be connected with the opening 20 to conduct the superheated air to another room when it is so desired.

The tube 11, the cup 15 and the air heating member 16 are constructed in the particular forms shown in order to direct the greatest amount of heat against the sides of said portions at as great an angle as possible to cause the greatest amount of heat units to enter said portions and to eliminate, as far as practical, all dead air spaces in said portions.

What I claim as new and desire to secure by Letters Patent, is—

1. In a heating stove, the combination with an air heating chamber situated in the upper portion of the stove in a manner to form an annular draft space between the top edge of said air heating chamber and the sides of the stove, an air receiving tube connecting the bottom portion of said air heating chamber with the outside air, and an air discharging tube connecting the top portion of said air heating chamber with the outside air, fixed pins secured in the top side of said air heating chamber in diametrically opposite positions, of a draft regulating device comprising a plurality of sections each of which is pivotally joined to its neighbor at one end and provided with a slot and mounted on one of said fixed pins with the adjacent end of its neighbor at its other end to form an annular expanding regulating device to shut off and retard the draft from any portion or portions of the sides of the air heating chamber and corresponding side of the stove.

2. In a heating stove, the combination with a funnel shaped air heating chamber situated in the upper portion of the stove in a manner to form an annular draft space between the top edge of said funnel shaped air heating chamber and the side of the stove, an air receiving tube formed with substantially a V-shaped cross section connecting the lower end of said funnel shaped air heating chamber with the outside air, and an air discharging tube connecting the top portion of said funnel shaped air heating chamber with the outside air, fixed pins secured in the top side of said funnel shaped air heating chamber in diametrically opposite positions, of a draft regulating device comprising a plurality of curved sections each of which is pivotally connected with the adjacent end of its neighbor at one end and provided with a slot and slidably mounted on one of said fixed pins with the adjacent end of its neighbor at its other end to form an expanding annulus adapted to be expanded in one or more portions of said annulus to shut off and retard the draft from any portion or portions of the draft space between said funnel shaped air heating chamber and the sides of the stove.

In witness whereof, I, THOMAS F. HATTON, have signed my name in the presence of two witnesses.

THOMAS F. HATTON.

Witnesses:
W. H. KINNEAR,
E. S. KINNEAR.