Dec. 17, 1929. P. J. HENTSCHEL 1,739,968

GAS STOVE FLUE ATTACHMENT

Filed Nov. 14, 1928

Fig. 1.

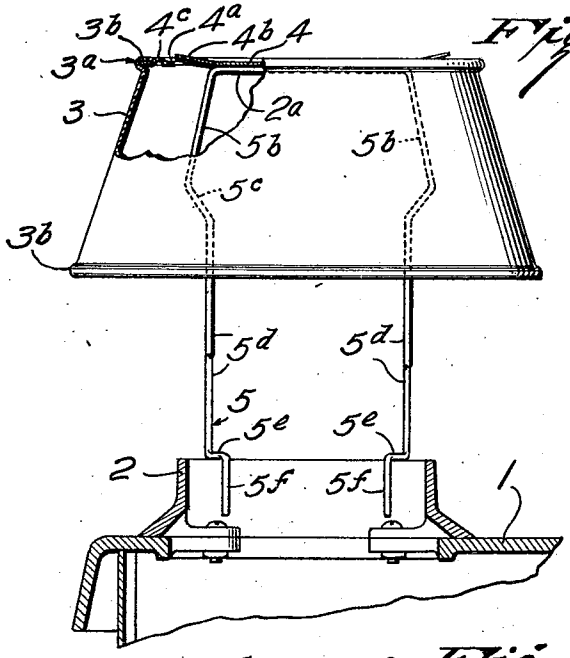


Fig. 3.

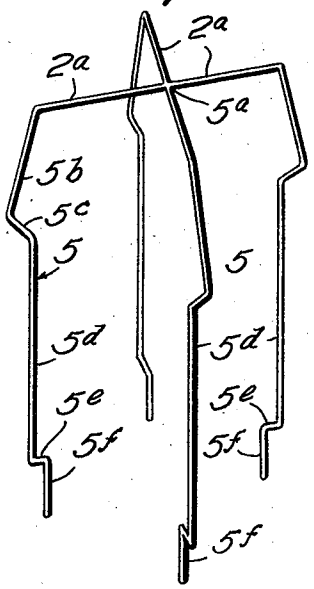


Fig. 2.

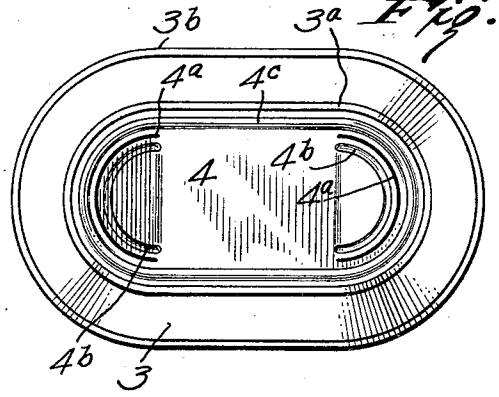


Fig. 4.

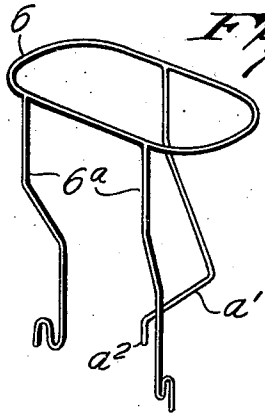
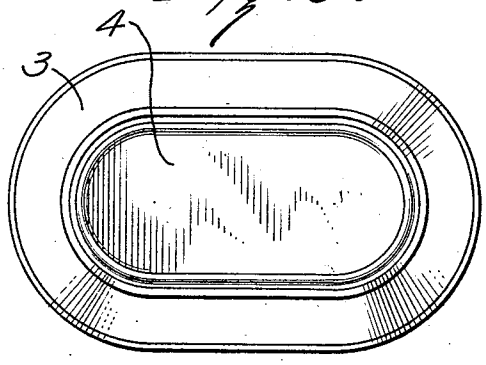


Fig. 5.



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Patented Dec. 17, 1929 1,739,968

UNITED STATES PATENT OFFICE

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GAS-STOVE-FLUE ATTACHMENT

Application filed November 14, 1928. Serial No. 319,384.

My said invention relates to improvements in attachments for the outlet flues of gas stoves designed to prevent the escaping gases and dust laden products of combustion from soiling or disfiguring walls adjacent the stove.

The invention aims to provide an article capable of being so economically made that it can be sold at a profit in the ordinary five and ten cent stores, and which will be efficient in operation, and which will be readily attachable to any stove irrespective of the size of flue outlet.

With these objects in view the invention includes the novel features of construction and arrangement and combination of parts hereinafter described and defined by the appended claims.

In order that the invention may be better understood, reference is made to the accompanying drawings in which:

Figure 1 is an elevation showing what I at present consider the preferred form of the invention as applied to the collar, ring, or flange which forms the outlet of the usual ventilating flue, a portion only of the gas stove top being shown in a conventional manner for convenience of illustration.

Fig. 2 is a plan view.

Fig. 3 is a perspective view of the supporting frame with the hood or deflector removed.

Fig. 4 is a similar view of a modified form of supporting frame, and

Fig. 5 is a plan view of a modified form of hood top plate.

Referring by reference characters to these drawings, the numeral 1 designates the gas stove top and 2 the collar or ring of the outlet flue thereof. 3 designates the hood of the deflector which is of elongated truncated cone shape and is preferably formed of two sections of sheet metal stamped to the proper curved shape and having their end edges suitably connected as for example by joints 3^a of the interlocking fold type.

The lower edge of the deflector is preferably provided with a reinforcing bead 3^b formed in the stamping operation.

The deflector at its top is provided with a similar bead 3^b and the internal channel of this bead is designed to receive the top closure member of plate 4. The parts are so proportioned that the plate 4 may be sprung into engagement with the bead recess 3^b by inserting it through the larger end of the deflector and exerting sufficient pressure to force its peripheral edge into the groove where it will be securely retained.

For supporting the deflector hood from the stove flue ring or flange 2, I provide a wire frame composed of two wires 5 of identical construction, having horizontally disposed upper portions 2^a crossing each other at substantially right angles and secured together at the intersection preferably by spot welding as indicated at 5^a.

The wires at the termini of the horizontal portions are bent downward at an angle corresponding to the angle of inclination of the hood, as indicated at 5^b, are then preferably extended or deflected inwardly for a suitable distance as indicated, at 5^c, and are then continued downwardly to form four substantially parallel supporting legs or standards 5^d.

Near their lower ends, the wires are bent inwardly to form lateral shoulders 5^e and then again bent downwardly to form the offset extensions 5^f, which are adapted to lie within the ring 2 while the shoulders 5^e rest on the top of the ring.

Due to the length of the supporting legs and the fact that they are entirely disconnected except at the top, they may be deflected to fit any size flue ring.

Such a hood or deflector with its supporting means may be manufactured at an extremely low cost, requiring inexpensive equipment for manufacture, and it is very efficient in use.

The vapors issuing from the stove flue rise vertically and enter the open mouth of the deflector and are then deflected downwardly and laterally.

When the deflector is cold, the grease and other particles tend to deposit on the deflector, but after the latter has heated up, these tend to burn off or be consumed. Any that remain or accumulate over a lengthy period of time

can be readily removed by taking off the hood and scraping out the inside with a kitchen knife or like device.

Any grease or dust particles which are carried with the combustion products issuing from beneath the lower edge of the hood are deflected downwardly and laterally and diffused to such an extent that wall discoloration is prevented.

I prefer to provide the top plate 4 with openings arranged to permit the passage of a portion of the combustion products and deflect them laterally and such openings may be formed by making semi-circular cuts 4^a in the plate and deflecting the lips thus formed upwardly at a slight angle. Preferably the lips are reinforced at their edges by beads 4^b formed by the stamping and the plate 4 may be stiffened by a similar bead 4^c.

If preferred, however, the top plate may be made imperforate as shown in Fig. 5.

A modified form of supporting frame is shown in Fig. 4 which is shown as comprising a closed loop 6 of wire of a shape corresponding to the elongated shape of the hood to which the upper ends of the wire legs or standards 6^a are connected by welding. In this form, the top plate is designed to rest directly on the ring and be held against lateral displacement by the engagement of the ring with the hood wall. Two of the legs are provided at their lower ends with S-shaped bends a to engage the edge of the ring, while the other is provided at its lower end with an inward horizontal extension a^1 having a downwardly turned inner end a^2, this elongated horizontal extension adapting the support to different sizes of flues without bending the legs.

Having thus described my invention, what I claim is:

1. A device for the purpose described comprising a sheet metal hood of substantially truncated cone shape having a substantially flat sheet metal plate at the top thereof, and a supporting frame comprising wire legs connected only at their upper ends and having their lower ends provided with stove flue ring engaging means.

2. A device according to claim 1 in which the hood is formed of two sheet metal sections stamped to proper shape and having abutting edges suitably connected together.

3. A device according to claim 1 in which the hood is formed with a circumferential internal groove adjacent its upper edge, and the top plate has its edge seated in said groove.

4. A device according to claim 1 in which the top plate has lips formed by cuts in the plate, which lips are deflected up at a slight angle to the plate.

5. A device according to claim 1 in which the supporting frame comprises two wires having horizontal portions crossing each other within the hood and secured together at the crossing point, the remaining portions of the wires being free from each other and extended downward and terminating in flue ring engaging means.

6. A device according to claim 1 in which the supporting frame comprises two wires having horizontal portions crossing each other within the hood and secured together at the crossing point, the remaining portions of the wires being first bent downward at an angle corresponding to the inclination of the hood, and being thereafter continued downward to and terminating in flue ring engaging means.

In testimony whereof, I affix my signature.

PAUL J. HENTSCHEL.