No. 612,202. Patented Oct. 11, 1898.

E. H. HUENEFELD.

HEATING STOVE.

(Application filed Mar. 7, 1898.)

(No Model.)

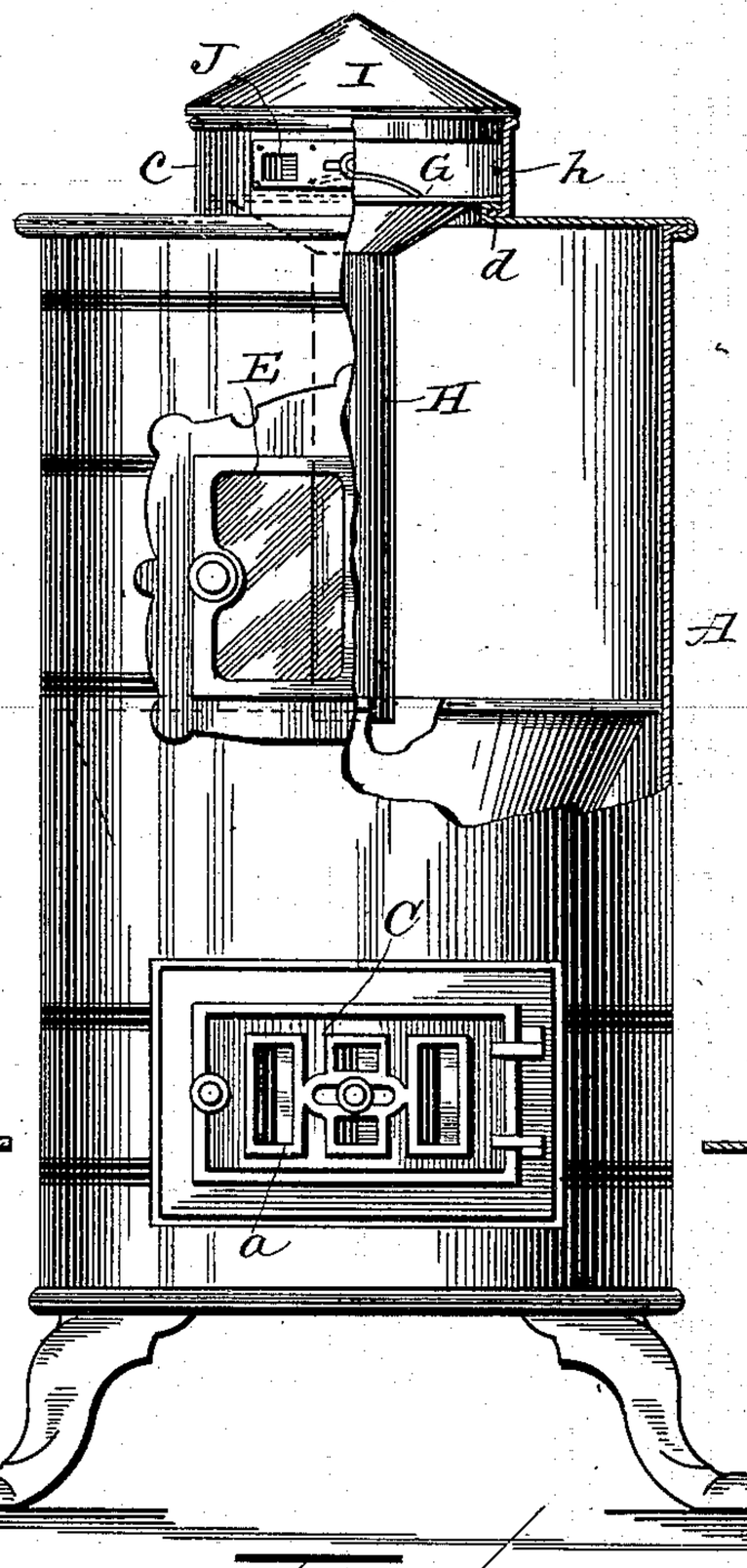

FIG. 1.

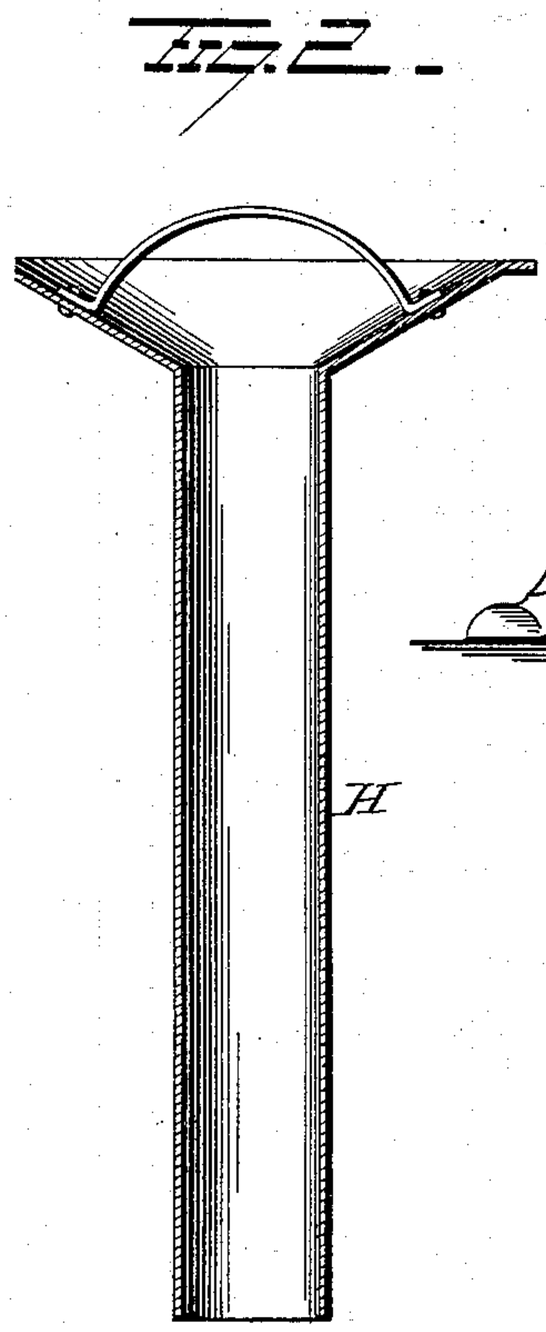

FIG. 2.

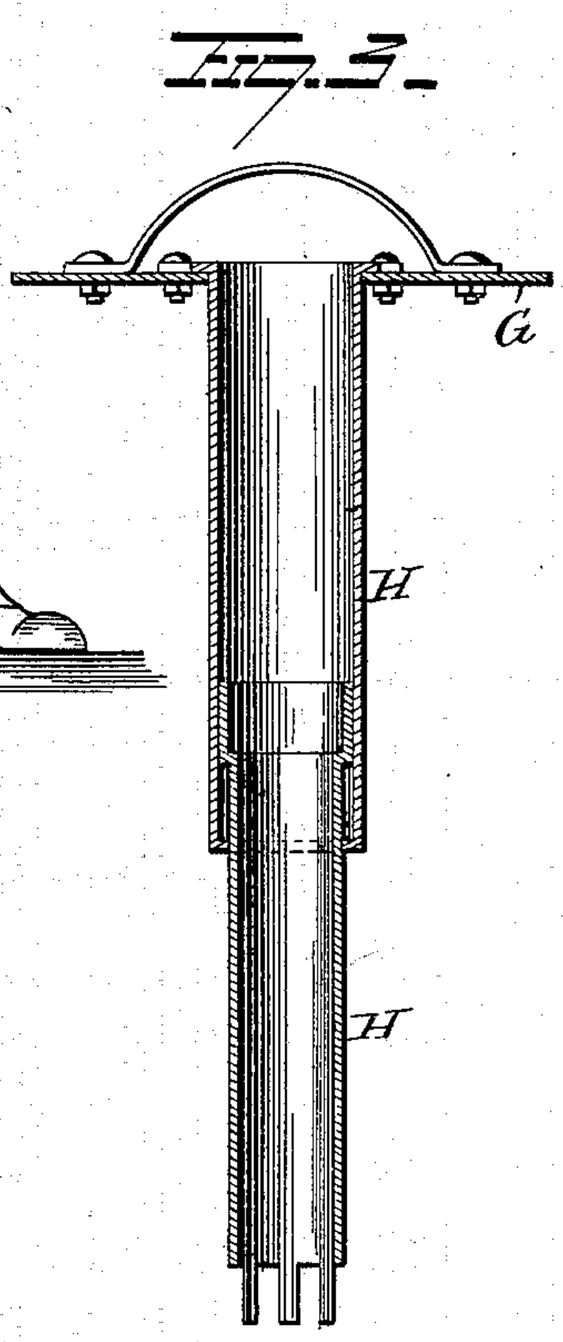

FIG. 3.

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HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 612,202, dated October 11, 1898.

Application filed March 7, 1898. Serial No. 672,963. (No model.)

To all whom it may concern:

Be it known that I, ERNST H. HUENEFELD, a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Heating-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in heating-stoves, the object being to provide the stove with a removable air or blast pipe, constructed and adapted to conduct air from a point near the top of the stove to a point adjacent to the burning fuel.

A further object is to provide a removable and extensible air or blast pipe which will accommodate itself to the quantity of fuel in the stove and under all ordinary conditions rest on the burning fuel, so as to discharge the air in contact with the burning fuel.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation, partly in section, of a stove embodying my invention. Fig. 2 is a detached view of the blast-tube, and Fig. 3 is a sectional view of a modified form of blast-tube.

A represents a stove of any approved form and designed for burning either coal or wood. This stove is provided with a movable grate and with a door C, through which ashes can be removed, the said door carrying a draft-damper *a*. The air-openings in door C are essential for creating a draft in starting the fire, while the blast-pipe, to be hereinafter referred to, supplies the necessary air for the support of combustion after the fuel has been ignited. The stove may be also provided on its front face with a fuel-door E, having a mica front through which the fire may be seen.

Located within the top of the stove and centrally over the grate is the opening, preferably circular in shape. This opening, which I prefer to use for the introduction of fuel, is also used for the attachment and removal of the hot-blast pipe, and it is surrounded by a collar *c*, having a shoulder *d*, on which the cap or plate *g*, carrying the hot-blast pipe H, rests. This cap or plate may be flat; but I prefer to make it in the form of an inverted cone, and the pipe H is secured to and depends centrally from the plate or cap, the latter having an opening therein corresponding with the pipe for the free passage downward of the air, and as the pipe is located directly over the bed of fuel it follows that the air in its passage downward is heated before it is discharged, and hence is in a condition to unite with the gas and produce more perfect combustion of the fuel and gas, and hence correspondingly increase the heating capacity of the stove.

The plate G is provided with a handle, by which the plate, together with its attached pipe, may be readily removed and withdrawn from the stove, thus leaving the upper fuel-opening clear for the introduction of the fuel.

The collar *c*, surrounding the fuel-opening, is provided with one or more air-inlet openings, which may be wholly or partly closed by the movable damper J, having corresponding openings, or, if desired, air may be supplied to the hot-blast tube through openings in the cover I, which may have a damper-plate for regulating the draft.

By employing a collar *c*, within which the cap or plate carrying the air-blast tube rests, and a shoulder on which it rests, it will be seen that the shoulder limits the downward movement of the tube and cap. Hence while the lower end of the pipe may rest on the fuel, and thus sustain the cap or plate above the shoulder, as the fuel burns away the shoulder operates to limit this downward movement of the pipe and cap.

In Fig. 3 I have shown a structure which I prefer, as it enables the cap to rest at all times on the shoulder and the pipe to follow up and always rest on the burning mass. In this construction the pipe is formed in two sections adapted to slide one within the other. Hence it will be seen that by simply lowering the pipe onto the fuel the lower section will telescope with the other section, thus permitting the cap or plate to seat itself on the shoulder, and as the fuel is consumed the lower section of the pipe, resting on the mass, follows it up, and hence always discharges the air onto the center of the fuel and in contact with the burning gases.

The lower end of the pipe in all cases is

preferably provided with notches through which the air can escape even if the end of the pipe be embedded in the mass of burning fuel.

Instead of using a collar above and around the fuel-opening in the top, with a flange or seat formed within the collar, the cap carrying the air-blast tube can be supported at its edges by the top of the stove and be covered by a register-plate.

It is evident that numerous slight changes might be resorted to in the general form and arrangement of the parts herein shown and described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not limit myself to the precise details herein shown and described, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a stove having an opening in its top, a perforated collar surrounding said opening, a cover on said collar a flange or seat within said collar, and a damper-plate carried by the collar, of a cap adapted to rest on said flange or seat and a blast-pipe depending from said cap.

2. The combination with a stove having an opening in its top and a cover for said opening, of a cap fitting within said opening and a telescopic draft-tube carried by said cap.

3. The combination with a stove having an opening in its top and a cover for said opening, of a removable cap seated in said opening a telescopic draft-tube carried by said cap and a damper above the cap, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ERNST H. HUENEFELD.

Witnesses:
M. COUGHLIN,
P. S. PHILLIPS.