

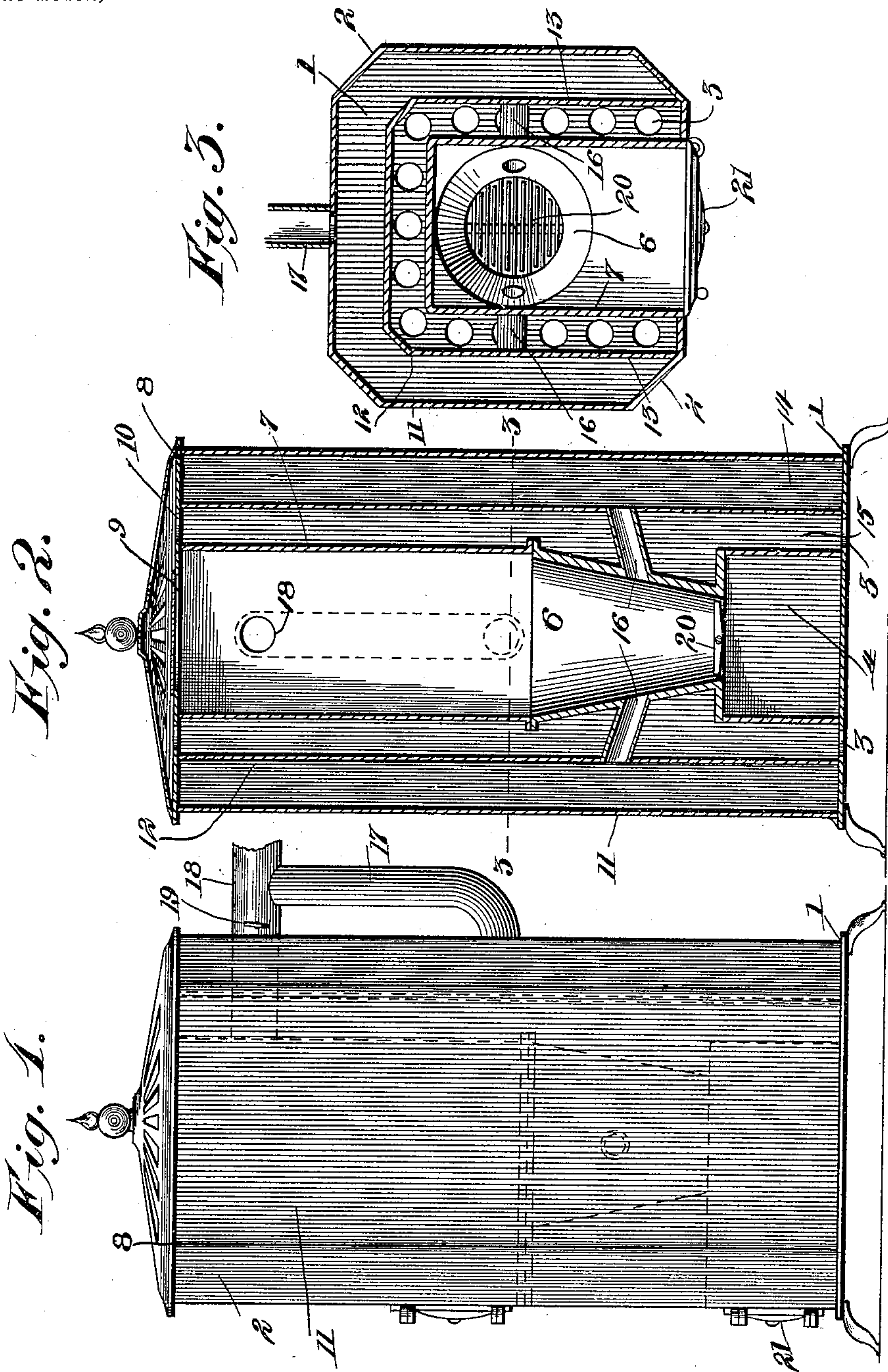
No. 641,348.

Patented Jan. 16, 1900.

J. A. UNGLAUB.
STOVE.

(Application filed Aug. 30, 1899.)

(No Model.)



Witnesses
L. H. Walker
Russell J. Dulchav

Johnst. Unglaub Inventor
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UNITED STATES PATENT OFFICE.

JOHN ANTON UNGLAUB, OF WOODSON, ILLINOIS.

STOVE.

SPECIFICATION forming part of Letters Patent No. 641,348, dated January 16, 1900.

Application filed August 30, 1899. Serial No. 728,998. (No model.)

To all whom it may concern:

Be it known that I, JOHN ANTON UNGLAUB, a citizen of the United States, residing at Woodson, in the county of Morgan and State of Illinois, have invented a new and useful Stove, of which the following is a specification.

My present invention relates to an improvement in stoves, and has for its object the production of a durable and inexpensive stove embodying a heating-drum presenting a maximum radiating-surface, economical in the consumption of fuel, capable of easy manipulation to govern the degree of heat by the manipulation of the drafts, and less likely than stoves of the ordinary type to become useless by the clogging of soot or other residue of combustion.

Referring to the drawings, Figure 1 is a side elevation of my stove complete. Fig. 2 is a central vertical section therethrough. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2.

Referring to the numerals of reference on the accompanying drawings, in which like numerals designate corresponding parts in the several views, 1 indicates a cast base of substantially square form, but preferably having its corners formed at an angle, as indicated at 2, and provided with a rectangular series of air-openings 3.

4 indicates the ash-box surmounting the base 1 and supporting a funnel-shaped fire-pot 6, upholding a cylinder 7, extending from the fire-pot 6 to the top plate 8, and said plate having a central opening 9 for the introduction of fuel and a series of air-openings 10, located directly above the series of openings 3 in the base.

11 indicates the outer shell extending from the edges of the base 1 to the edges of the top plate 8 and intermediate of which and the cylinder 7 is located the inner shell 12, the side walls 13 of which, however, extend directly to the front wall of the outer shell. The inner and outer shells define between them the hot-air chamber 14, and the space intermediate of the cylinder 7 and the inner shell forms an air-circulating chamber 15, through which the air is designed to circulate, ingress and egress being provided by the apertures 3 and 10.

16 16 indicate diametrically-opposed and

slightly-upwardly-inclined side flues extending from the fire-pot and opening through the inner shell 12 to permit the products of combustion to pass from the fire-pot to the hot-air drum, from whence they may escape through the pipe 17, extending upon the outside of the stove from the outer shell to the stovepipe 18, which leads horizontally from the cylinder and through the inner and outer shells.

19 indicates a damper, of any suitable form, in the pipe 18, located at any point intermediate of the cylinder 7 and the pipe 17, preferably immediately outside of the outer shell.

20 indicates a grate of any desired form located, as usual, at the base of the fire-pot.

From the foregoing it will be observed that when it is desired to start the fire or when considerable draft is required the damper 19 may be turned to its open position, creating a direct draft through the door 21 of the fire-box upwardly through the fire-pot and thence directly to the stovepipe, the air within the circulating-chamber being set in motion by its contact with the heated walls defining the combustion-chamber. If, however, excessive draft is not required and it is desired to obtain the maximum radiating-surface, the damper 19 is closed, the course of the products of combustion then being from the fire-pot through the side flues 16 into the hot-air chamber 14 and finally through the pipe 17 to the stovepipe. Under the latter conditions the hot-air chamber 14 is kept constantly filled with hot air, which serves to heat the extensive outer shell of the stove. Thus the air-circulating chamber 15 will be confined between the hot walls of the combustion-chamber and hot-air chamber, and fresh air will therefore be caused to circulate through the circulating-chamber, issuing at the top of the stove at the proper temperature and without vitiation. The ordinary drop-feed may be suspended from the top plate within the upper end of the cylinder, if desired; but as the stove will operate in precisely the same manner so far as it affects my invention I have not deemed it necessary to illustrate this feature of a possible construction.

What I claim is—

In a stove, the combination of outer and inner spaced shells of equal length and forming

a smoke-chamber extending the entire length of the stove, top and bottom plates fitted to the respective upper and lower ends of the shells and closing the opposite ends of the smoke-chamber, an ash-box located within the inner shell and supported upon the bottom plate, a fire-pot supported upon the upper end of the ash-box, radial upwardly-inclined flues extending from the fire-pot to the inner shell, communicating with the smoke-chamber, and bracing the fire-pot, a cylinder supported upon the upper end of the fire-pot, and having its upper end closed by the top plate, the space between the inner shell and the ash-box, the fire-pot and the cylinder, forming a hot-air space, the top plate being provided with a plurality of openings located between the inner shell and the cylinder, the

bottom plate being provided with similar openings located between the inner shell and the ash-box, a main stovepipe extending through the two shells and communicating with the interior of the upper portion of the cylinder, a damper located within the main stovepipe and exteriorly of the stove, and a branch pipe communicating with the smoke-chamber at a point below the main pipe, and discharging into the latter and outward from the damper.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN ANTON UNGLAUB.

Witnesses:

J. H. DINIRDELIE,
J. J. MCALISTER.