(No Model.) 2 Sheets—Sheet 1.

A. W. ALGER.

STOVE.

No. 490,531. Patented Jan. 24, 1893.

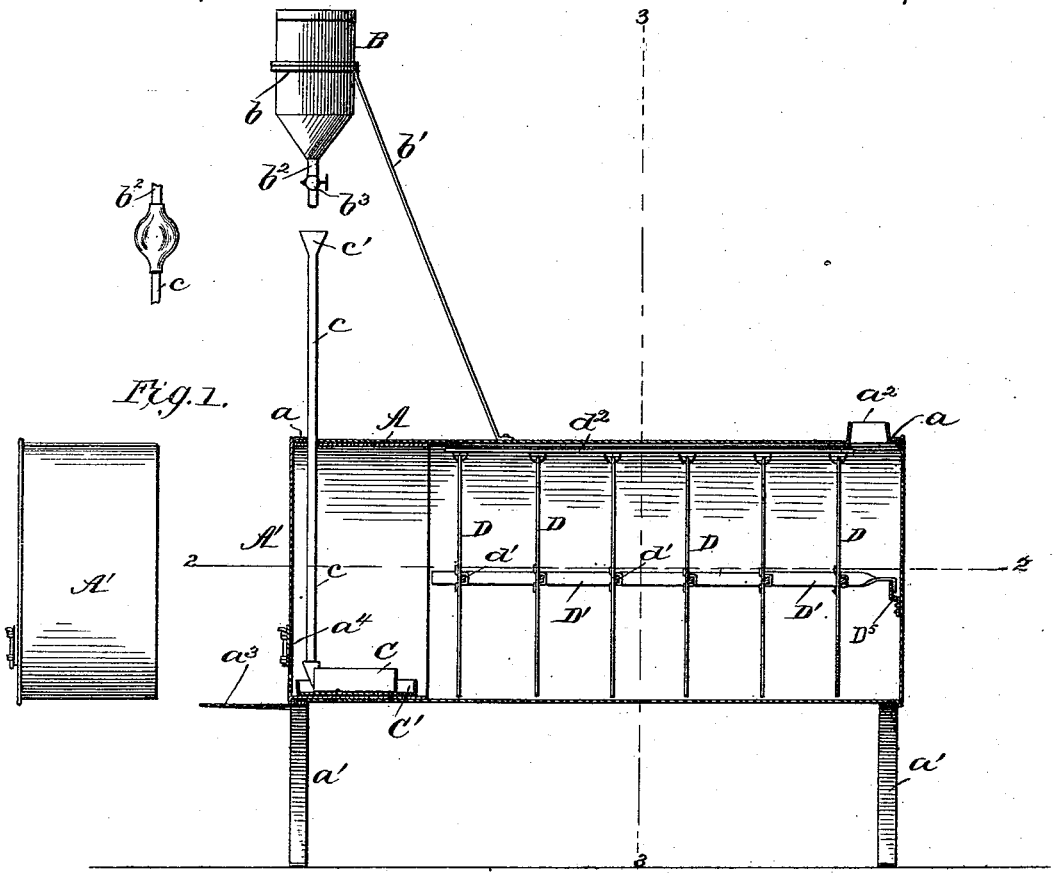

Fig. 1.

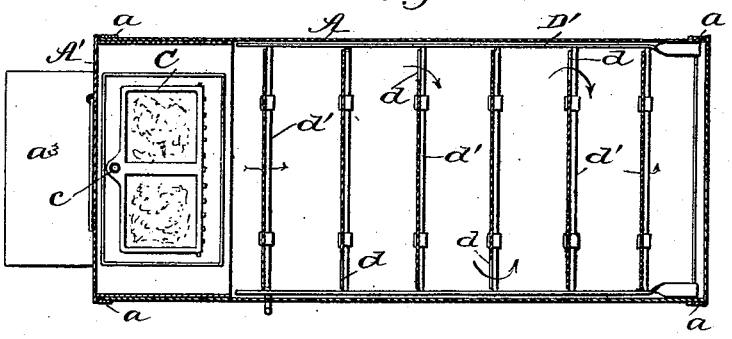

Fig. 2.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

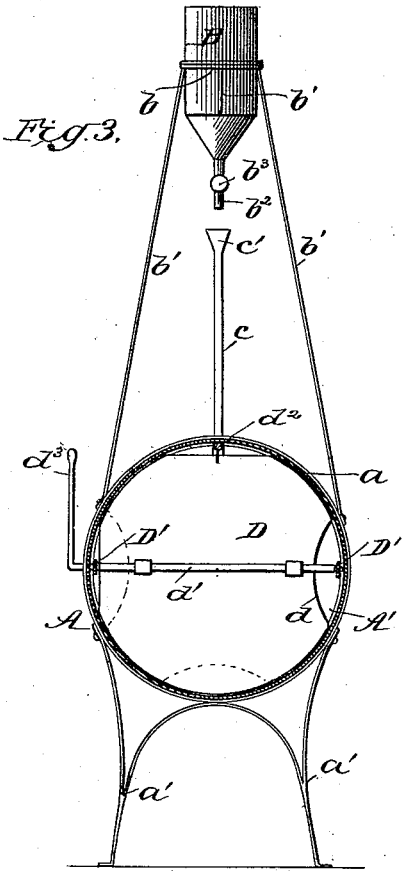


Fig. 4

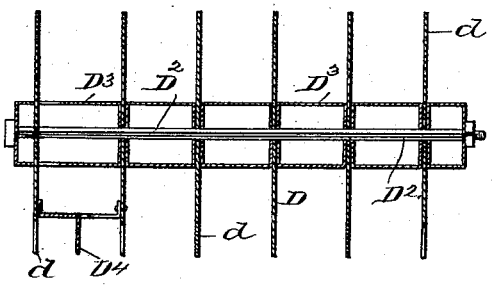
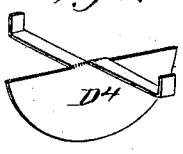


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALBERT W. ALGER, OF KANSAS CITY, MISSOURI.

STOVE.

SPECIFICATION forming part of Letters Patent No. 490,531, dated January 24, 1893.

Application filed June 3, 1891. Serial No. 394,986. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. ALGER, of Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Stoves, of which the following is a specification.

This invention relates to an improved stove in which oil is preferably used for the heating medium, and it has for its object to provide certain constructions whereby the radiation of heat is greatly increased, and it also has for its object to provide an improved oil furnace, and a still further object is to provide a safe and convenient method of feeding oil to the burner.

My invention consists in the peculiar construction of the several parts and their novel combination or arrangement all of which will be fully explained and pointed out in the claims.

In the drawings forming a part of this specification—Figure 1 is a vertical longitudinal section. Fig. 2 is a horizontal section on line 2—2 page 1. Fig. 3 is a transverse section on line 3—3 Fig. 1. Fig. 4 is a detail view of a set of stationary dampers, and Fig. 5 a detail view of blast board.

In carrying out my invention I employ a horizontal cylindrical body A said body having band a encircling its exterior at opposite ends, and to said bands are secured the legs or supports a'. The body A is closed at one end and near said closed end the top of the stove is provided with a flue opening a^2, and at the forward or open end of the body is arranged a hearth a^3. A forward end or head section A′ is constructed to fit in, and close the open end of the stove body, said section sliding or telescoping in the body, and is provided with a draft opening a^4 and if desired a hinged door whereby wood may be fed into the stove body and burned. This stove may be made of steel sheet, or cast iron or any suitable material.

It is preferred to burn oil in my improved stove and with this object in view I provide a reservoir B, which is supported in a ring b said ring being in turn supported by the rods b' attached to the forward band a the reservoir having an annular flange which rests upon the ring b. This ring is also braced by a rod in the rear.

The reservoir is preferably constructed with a tapering bottom and to said bottom is connected a short discharge pipe b^2 said pipe being provided with a check valve or cock b^3 by means of which the flow of oil can be regulated or checked. An oil supply pipe c, independent of the oil discharge pipe, passes through the top of the stove body and head section and supplies oil to the burner C, the lower end of the pipe being connected with the said burner, the upper end of the pipe being provided with a funnel c' which catches the oil as it falls from the discharge pipe b^2. By having the reservoir discharge pipe and burner supply pipe independent of each other; a sight is obtained of the fuel and the regularity and force of its flow can be instantly determined. Furthermore the reservoir can be cut off entirely from communication with the supply pipe, and in case of danger can be quickly and easily removed.

The burner is preferably introduced into the stove through the opening a^4 as is also a drip pan C′ within which the burner rests as clearly shown.

In order to increase the radiation of heat in my improved stoves, I arrange a series of radiating draft deflectors D, between the burner and draft opening, whereby the heated air and products of combustion are thrown outward toward the surface of the cylinder thereby increasing the radiation of heat. The deflectors D are circular disks arranged one behind the other and shaped to exactly fit the interior of the stove, each disk having a cut out portion d, and these disks are so arranged that no two successive cut out portions register with each other, thereby insuring a circuitous passage of the heated air and products of combustion from one end of the stove to the other as clearly shown. The deflectors or draft regulator disks may be either rigid or folding as clearly shown, and when folding deflectors are used, I employ the side bars D′ between which the disks are pivoted upon a rod d' clipped to the said disks, and journaled in the bars, and these deflector disks are connected by means of the link rod d^2, said disks being connected to the rod by clips as clearly shown. The rear ends of the bars D′ are bent downward and rest upon the flanged bar D^5 attached to the rear end

of stove. The rod d' upon which the forward disk turns extends through the side of the stove and is provided with a lever d^3 by means of which the whole set of disks can be simultaneously operated through the medium of the link rod. When rigid disks are employed, they are arranged upon a shaft D^2, and properly spaced from one another by means of cylindrical collars D^3, arranged upon the shaft and between the disks, the said collars contributing largely to throw the heat outward to the surface. A blast board D^4 may also be employed between two rigid deflectors, said blast-board being segmental in shape and provided with two or more straps by means of which it is attached to two adjacent disks and serves to obstruct the passage of air and products of combustion. The folding and rigid set of deflectors are interchangeable.

The operation of my improved construction having been briefly described in connection with the description of the construction and being obvious to every one skilled in the art to which it relates, a further description is not necessary.

In place of the funnel I may employ a glass bulb, having tubes attached at each end which fit in the discharge and supply pipes and whereby a sight of the feed may be obtained as it passes through the bulb.

Having thus described my invention, what I claim as new is:

1. The combination with a cylindrical stove body closed at one end and open at the other, of a series of deflecting dampers arranged within the same, a telescopic head section adapted to fit the open end and a burner arranged within said head section substantially as shown and described.

2. The combination with a cylindrical stove body, closed at its rear end, of a band encircling said body near its closed end, the supporting legs attached to said band, the telescopic head section the band encircling the same, and the legs connected with said band substantially as shown and described.

3. The combination with a cylindrical stove body of a head section, an oil burner, an oil supply pipe, a reservoir and a reservoir discharge pipe independent of the oil supply pipe substantially as shown and described.

4. The combination with a cylindrical stove, of an extension head section, an oil burner, an oil supply pipe connected therewith and provided with a funnel at its outer end, a reservoir and a discharge pipe independent of the supply pipe and adapted to discharge into the funnel substantially as shown and described.

5. The combination with a cylindrical stove of the extension head section, the oil burner, the supply pipe passing through the head and body portions, and carrying a funnel, the reservoir, the support, discharge pipe and stop-cock all arranged substantially as shown and described.

6. The combination with a cylindrical stove body of a series of circular deflecting damper disks, and one or more blast boards secured between two of the said disks substantially as shown and described.

7. The combination with a cylindrical stove body, of an essentially rectangular frame supported within the said body, the deflecting dampers pivoted within the said frame and spacing and connecting rod attached to said dampers substantially as shown and described.

ALBERT W. ALGER.

Witnesses:
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