

April 27, 1926.

C. T. CHUMLEY

1,582,121

HEATING STOVE

Filed Dec. 29, 1924

Fig. 1.

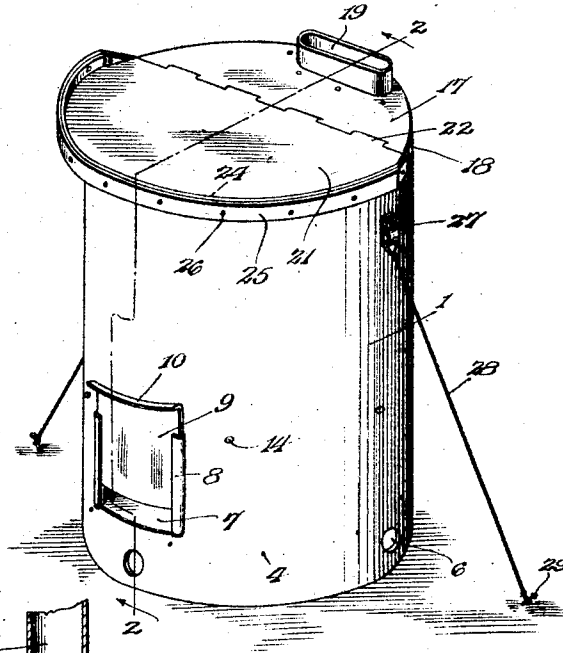


Fig. 2.

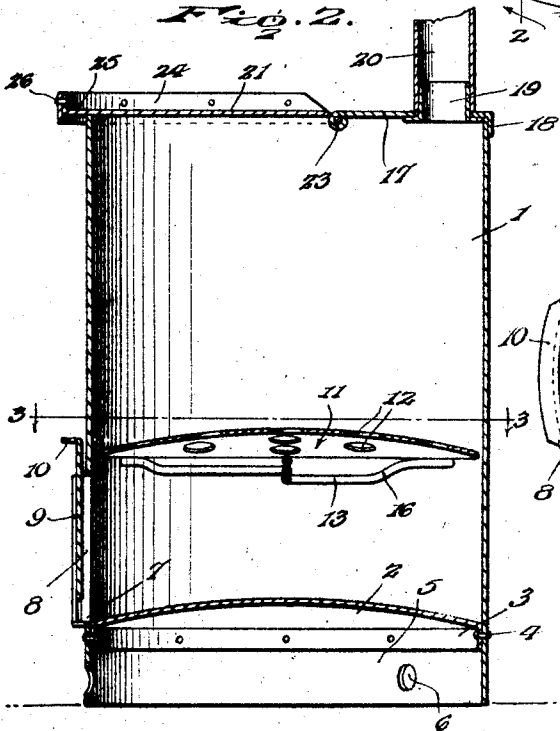
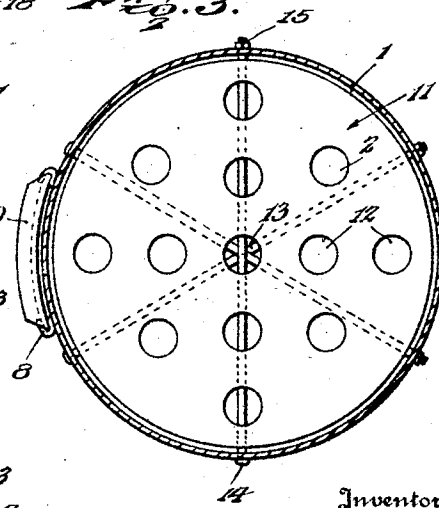


Fig. 3.



Inventor

C. T. Chumley.

By

Ray, & Ray, Attorneys

UNITED STATES PATENT OFFICE.

CLIFFORD T. CHUMLEY, OF NASHVILLE, TENNESSEE.

HEATING STOVE.

Application filed December 29, 1924. Serial No. 758,764.

To all whom it may concern:

Be it known that I, CLIFFORD T. CHUMLEY, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Heating Stoves, of which the following is a specification.

This invention relates to improvements in heating stoves and while the stove of the present invention is designed primarily for use in poultry cars, it is likewise of such construction as to be useful to campers and tourists, and, in fact, is practically universally useful.

One of the objects of the present invention is to provide a stove of the class mentioned which will be simple and durable in construction and cheap to manufacture, and which may be conveniently carried about from place to place and readily set up for use wherever required.

Another object of the invention is to provide a stove so constructed that the space beneath the bottom of the ash pit will be thoroughly ventilated so that when the stove is employed in a poultry car, there will be no likelihood of overheating of the floor of the car at the point where the stove is located.

Another object of the invention is to provide, in a stove of the type referred to, a novel construction of grate which may be produced at an extremely low cost and which may be readily removed if occasion should require.

Another object of the invention is to provide a novel construction of top or lid in a stove of this type to adapt it for supporting cooking utensils without likelihood of the utensils slipping from the lid.

Another object of the invention is to provide a stove which may be readily and conveniently anchored to the floor of a poultry car and securely held against accidental overturning.

In the accompanying drawings:

Figure 1 is a perspective view of the stove embodying the invention.

Figure 2 is a vertical front to rear sectional view therethrough, on the line 2—2 of Figure 1, looking in the direction indicated by the arrows.

Figure 3 is a horizontal sectional view taken substantially on the line 3—3 of Fig-

ure 2, looking in the direction indicated by the arrows.

The stove embodying the invention comprises a hollow cylindrical body or drum indicated by the numeral 1 and formed of sheet metal, the drum being designed to rest at the lower edge of its wall, upon the surface upon which the stove is disposed for use, and the body being closed a suitable distance above its lower edge by an upwardly bulged sheet metal bottom indicated by the numeral 2 and provided with a circumscribing flange 3 riveted or otherwise secured as at 4, to the wall of the body 1. As the bottom 2 is spaced above the lower end of the drum and consequently above the surface upon which the drum is disposed, an air space 5 is provided beneath the bottom 2 and the wall of the drum is formed with a number of openings 6 below the said bottom 2 to provide for free circulation of air within this space and thereby prevent the overheating of the floor or other surface upon which the stove is disposed. The bottom 2 constitutes the bottom of the ash pit of the stove and, in order that ashes may be readily removed from the ash pit, a door opening 7 is formed in the wall of the drum 1 and the portions of the wall at the opposite sides of the opening are bent outwardly against the outer side of the wall and thence back upon themselves to provide vertical guides 8 in which are slidably received the vertical edge portions of a sheet metal door 9 adapted to be slid vertically into and out of position to close the door opening 7 or to partly close the same in order to provide for regulation of draft, the lower side of the opening being substantially at the level of the bottom 2. In order that the door may be conveniently adjusted, its upper edge portion is turned outwardly to provide a flange 10 which serves the purpose of a handle.

The grate of the stove comprises a circular sheet metal plate 11 which is shaped to concavo convex form and is formed with a number of openings 12 distributed over its area, and the said plate is of a diameter to fit within the drum 1 and be supported above the bottom 2 and in a plane above the upper side of the ash door opening 7. In order to support the plate, a plurality of rods 13 of small diameter, preferably three in number, are secured at their ends through

the wall of the drum and each rod extends diametrically of the interior of the drum. Preferably, each rod 13 is formed at one end with a head 14 and at its other end is threaded and provided with a nut 15, the rods being, in this manner, held against longitudinal displacement and, at the same time, being capable of being readily removed in the event it becomes necessary to replace any of the rods. One of the rods 13 is led on a straight line diametrically across the interior of the drum while the other rods are suitably deflected, as at 16, in a downward direction, to permit of their intersection below the first mentioned rod. However, this does not impair the usefulness of the rods or their efficiency as supporting means, for the periphery of the grate plate 11 is supported upon the end portions of the rods near the points where they project through the wall of the drum. By bulging the grate plate, it is unnecessary to employ a cast grate inasmuch as the plate, due to its form, will be capable of sustaining a considerable weight and consequently fuel as heavy as coal may be burned in the stove, coal, wood, and charcoal constituting the fuels which will ordinarily be used.

The drum 1 is closed at its upper end by a fixed top section indicated by the numeral 17 and this section is of segmental form and is provided with a downwardly projecting peripheral flange 18 which fits about the upper margin of the wall of the drum and is riveted or otherwise secured thereto. A stove pipe thimble 19 is secured in an opening in the fixed top section 17 for the connection of a stove pipe or flue indicated by the numeral 20. The numeral 21 indicates a movable top section or lid which is of sheet metal and of segmental form, and the chordal edge of the section 21 is formed at intervals with pintle ears 22 as is also the chordal edge of the fixed section 17, and a pintle rod 23 is fitted through the ears and serves to hingedly connect the section 21 with the section 17. The section 21 is, therefore, adapted to be swung upwardly to permit of the introduction of fuel into the firebox of the stove and, in its lowered position, rests at its under side upon the upper

edge of the wall of the drum 1. The arcuate edge of the section 21 is formed with an upstanding flange 24, and an arcuate strip 25 of metal, is disposed against the outer side of the flange and riveted or otherwise secured thereto as at 26. At this point it will be evident that the top of the stove may support cooking utensils and that, due to the provision of the flange 24, which is reinforced by the strip 25, such utensils are prevented from slipping off from the top section or lid 21.

In order that the stove may be anchored in place and prevented from overturning, as for example when employed in poultry cars, loops 27, made of suitable bent sheet metal strips, are riveted or otherwise secured to the wall of the drum 1 near the top of the drum and at diametrically opposite sides thereof, and wires 28 are connected at their upper ends to the loops and are led downwardly and outwardly therefrom and connected at their lower ends to nails or other fastening elements 29 driven into or secured to the floor or other surface upon which the lower end of the drum 1 is disposed.

Having thus described the invention, what I claim is:

A heating stove comprising a vertically disposed body, and a closure for the upper end of said body, said closure including a stationary section and a movable section, the movable section being of greater dimensions than the portion of the body to be closed thereby and having its marginal portion projecting outwardly from the body and provided with an upstanding flange constituting a guard flange to retain articles upon the upper face of the movable section, and a reinforcing strip secured against the outer face of said guard flange, the reinforcing strip being of greater depth than said guard flange and projecting downwardly therefrom below the plane of the movable section into overlapping relation to the walls of said body and providing a depending flange adapted to be engaged when the movable section is swung upwardly to an open position.

In testimony whereof I affix my signature.

CLIFFORD T. CHUMLEY. [L. S.]