

C. H. E. LANCASTER.
STOVE ATTACHMENT.
APPLICATION FILED MAY 1, 1911.

1,051,337.

Patented Jan. 21, 1913.
2 SHEETS—SHEET 1.

Fig. 1

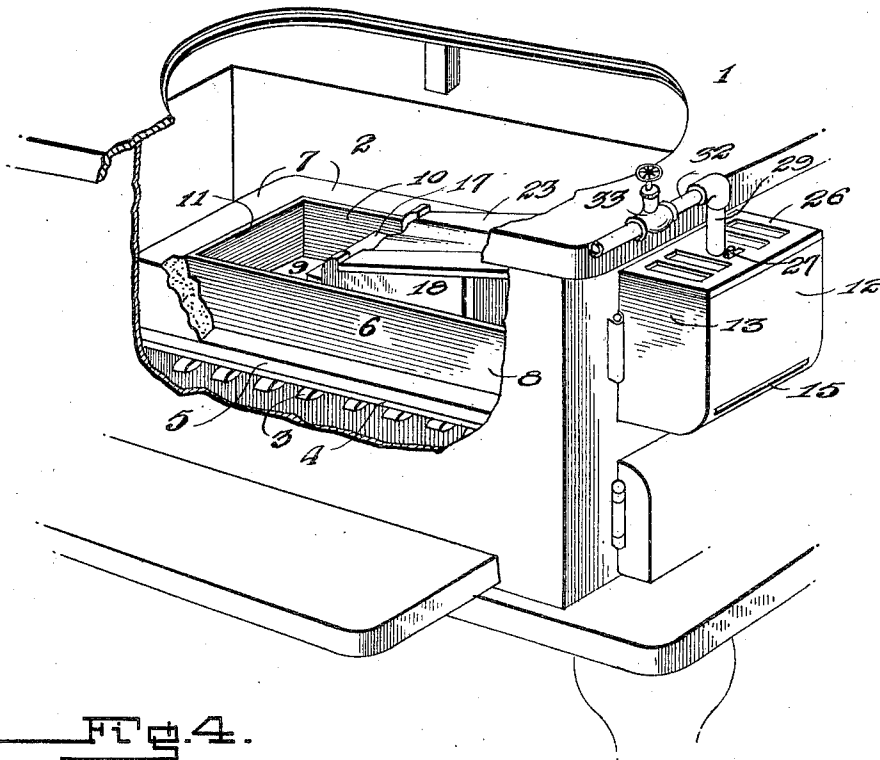
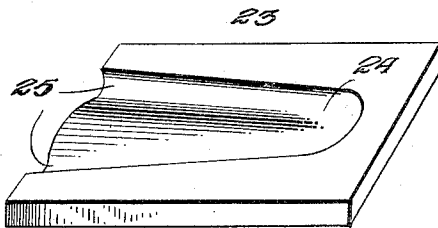


Fig. 4.



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2 SHEETS—SHEET 2.

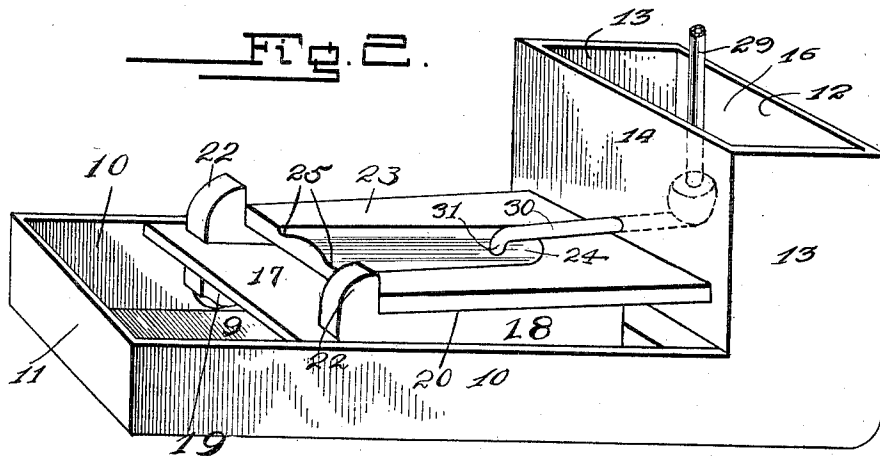


Fig. 3

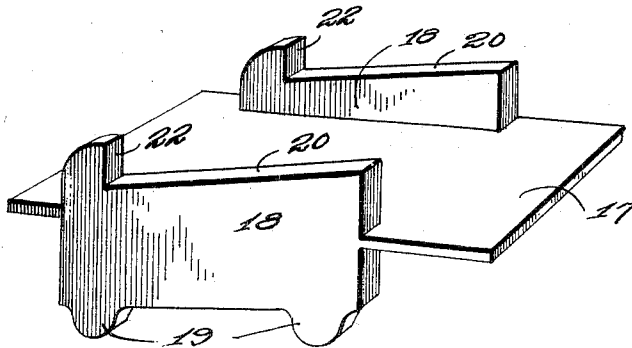
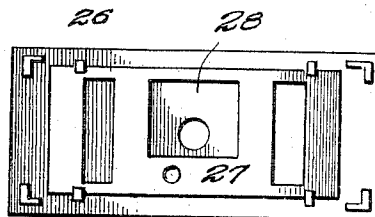


Fig. 5



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UNITED STATES PATENT OFFICE.

CORBON H. E. LANCASTER, OF CENTRALIA, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO HENRY J. BOECKMAN, ONE-FOURTH TO WILLIAM M. MORGAN, AND ONE-FOURTH TO CHARLES A. PAUL, ALL OF VINCENNES, INDIANA.

STOVE ATTACHMENT.

1,051,337.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed May 1, 1911. Serial No. 624,423.

To all whom it may concern:

Be it known that I, CORBON H. E. LANCASTER, a citizen of the United States, residing at Centralia, in the county of Marion and State of Illinois, have invented certain new and useful Improvements in Stove Attachments; 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.

This invention relates to new and useful improvements in stove attachments, and more particularly to that class most generally known as crude oil burners.

The object of this device is the provision of a device of this character which can be applied to any coal stove of ordinary type, for the purpose of transforming the same into an oil-burning stove.

Another object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawing, in which—

Figure 1 is a fragmentary perspective view of a stove having my invention applied thereto; Fig. 2 is a perspective view of the bottom part of my invention removed; Fig. 3 is a perspective view of the lower plate of my improved oil burner and means for supporting the same; Fig. 4 is a perspective view of the drip pan; and Fig. 5 is a plan view of a plate and damper inverted, illustrating the means for controlling the supply of air to the burner.

Referring to the drawings by characters of reference, the numeral 1 designates a stove of any desired type, in which is located the usual fire box 2, having supported therein a grate 3, upon which is placed a sheet metal plate 4 adapted to be covered with a horizontal layer of fire clay 5. My improved burner 6 is placed upon the layer of fire clay and securely sealed in its proper position by means of vertical layers of fire clay 7.

My improved burner 6 consists of a rec-

tangular pan 8, comprising a bottom 9, to the opposite edges of which are secured the side walls 10 and rear end wall 11 of equal height, while to the forward edge is secured a front wall 12, which is considerably greater in height than the before mentioned side and end walls. The side walls 10 at their forward ends are offset to provide upward extensions 13, the forward edges of which are secured to the upper portion of the front wall 12, while the rear edges are connected by a plate 14. The front wall 12 is provided with a suitable slot 15, while located in the forward end of the pan 8, and preferably in the air chamber 16, which is formed by the offset portions 13 of the side walls 10 and front wall 12 of the pan and the plate 14 is a forwardly slanting plate 17, mounted upon suitable sides or supports 18 carried by legs 19, the said side members 18 being formed with rearwardly slanting upper edges 20, the lower ends of the same being provided with lugs or offset portions 21 adapted to provide stops 22 for the drip pan or plate 23. This drip pan or plate is substantially rectangular in shape, being formed from a solid piece of cast metal, and being provided in its upper face with a groove 24, which is flared rearwardly and deepened, as at 25, at its opposite sides, for a purpose to be later disclosed. The air chamber 16 is closed at its upper extremity by means of a plate 26, provided with a sliding damper 27 adapted to regulate the supply of air to the upper portion of air chamber 16. The damper 27 is slotted, as at 28, for the passage therethrough of a vertically extending feed pipe or tube 29, provided with a lateral extension 30 connected thereto by an elbow 30^a, having a downwardly projecting nozzle 31 formed thereon, through which the fuel may be deposited in the groove 24 of the plate 23. The upper end of the vertical tube 29 has secured thereto a similar pipe or conductor 32, through which fuel may be brought from any source, the flow of which is regulated by means of a valve 33.

The burner operates as follows: Fuel is deposited upon the plate 23 upon the proper manipulation of the valve 33, and it will be obvious that when proper means of ignition is applied to the juncture of the nozzle 31 and plate 23 the fuel contained within the groove 24 will be ignited. All sur-

plus fuel contained in the said groove which is not ignited will flow through the deepened portions 25 of the said groove upon the plate 17, and upon its passage over the said plate, the greater portion thereof will be vaporized by the heat of the burning fuel upon the plate 23, which vapor will be ignited by the flames from the burning fuel and serve to intensify the heat. All fuel which does not vaporize upon its passage over the plate 17 will be deposited in the pan 8, within which it will be vaporized by the passage of the air through the slot 15 and the intense heat, and will be carried upward through the air chamber 16 and be ignited during its passage through the air chamber.

From the foregoing disclosure, taken in connection with the accompanying drawing, it will be manifest that a burner is provided which may be applied to any design of stove, furnace or the like, which will fulfill all of the necessary requirements of such a device.

Having thus fully described this invention, what I claim as new and desire to secure by Letters Patent is:

1. The combination with a stove, of a pan or receptacle located in the fire box thereof, a chamber formed upon the forward part of said receptacle, a pair of side supports located within said receptacle, a forwardly slanting plate carried by said supports, a rearwardly extending plate provided with

a depressed longitudinal ridge and fan-shaped grooves on either side of the ridge radiating from the upper end of the plate supported by said side supports, and a supply pipe engaging the groove located in the rearwardly extending plate for the purpose of depositing fuel thereon, substantially as and for the purposes set forth.

2. A burner such as described, consisting of a pan or receptacle adapted to be located in the fire box of a stove or the like, a compartment or chamber formed at the forward end of the said pan or receptacle, a closure for the upper end of the said compartment, the lower end of said compartment being provided with a slot for the purpose of admitting air into the said chamber, a pair of side supports located within the said chamber, a forwardly extending plate carried by the side supports, a rearwardly slanting plate carried by the side supports and of less length than the forwardly extending plate, said rearwardly slanting plate having a groove in the upper face thereof, a supply pipe leading into the chamber or compartment and arranged to deposit fuel in said groove, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

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Witnesses:

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