E. E. ANDERSON.

STOVE.

APPLICATION FILED OCT. 7, 1909.

972,490.

Patented Oct. 11, 1910.

Fig. 1.

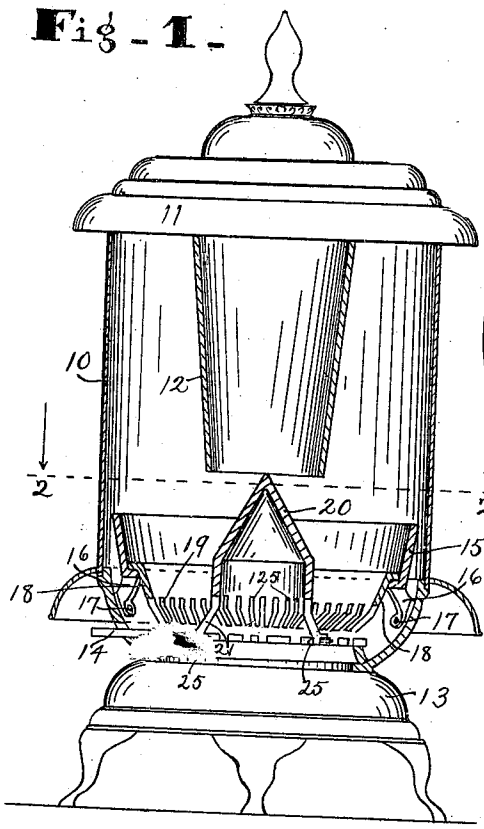


Fig. 2.

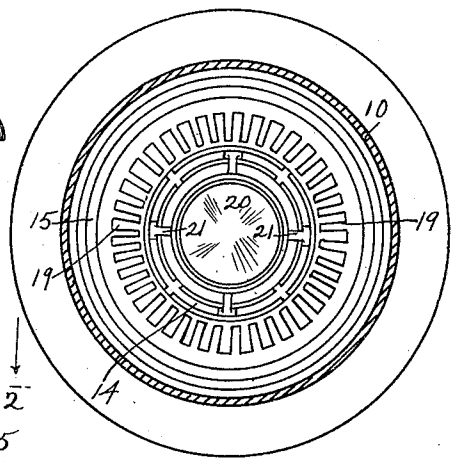


Fig. 4.

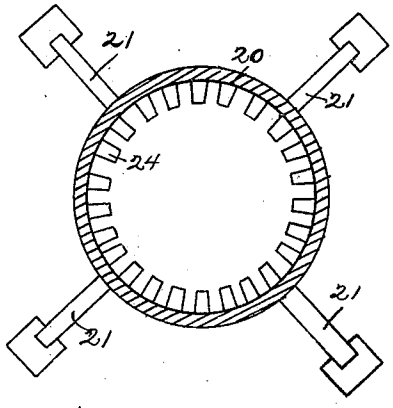
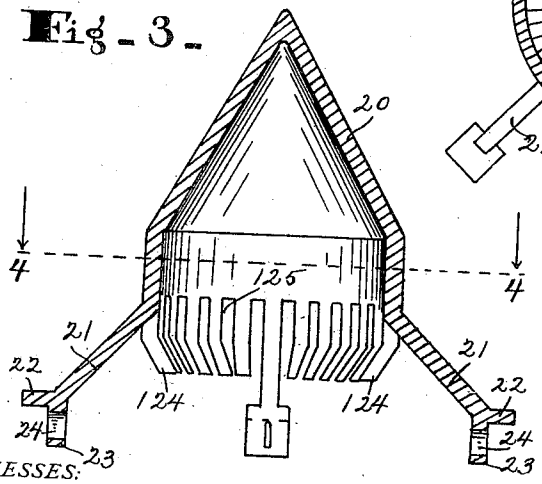


Fig. 3.



WITNESSES:

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STOVE.

972,490. Specification of Letters Patent. **Patented Oct. 11, 1910.**

Application filed October 7, 1909. Serial No. 521,633.

To all whom it may concern:

Be it known that I, ELMER E. ANDERSON, of Boswell, county of Benton, and State of Indiana, have invented a certain new and useful Stove; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of this invention is to construct self-heating or base-burner stoves so that the fuel and fire will be maintained only adjacent to the outer wall surface of the stove or fire bowl, and there will be no fuel or fire in the central portion thereof, since a relatively large portion of the heat in the center of the fire bowl fails to reach the outside, but passes out through the flue and is lost. To accomplish said object I provide a substantially conical center piece in the fire box under the magazine arranged so that the fuel descending from the magazine will be distributed in the fire bowl surrounding said center piece. Said center piece is preferably mounted on the shaker grate whereby it will be actuated when the grate is shaken for dislodging clinkers. It is also preferably provided at its lower end with air passages whereby air may gain access to the stove over clinkers surrounding the lower part of the center piece.

The nature of the invention will be understood from the acompanying drawings and the following description and claim.

In the drawings Figure 1 is a central vertical section of a magazine stove. Fig. 2 is a horizontal section on the line 2—2 of Fig. 1. Fig. 3 is a central vertical section of the center piece on a large scale. Fig. 4 is a horizontal section on the line 4—4 of Fig. 3.

In detail, there appears in the drawings a stove having a shell 10, top 11, magazine 12, base 13, shaker grate 14 and a fire bowl consisting of two parts, an upper cylindrical portion 15 with legs 16 secured at 17 to the upper part of the base, and a portion 18 suspended from the portion 15 and having vertically disposed slots 19 in the lower part thereof for the passage of air into the fire bowl. The foregoing parts of the stove described are not new and, so far as this improvement is concerned, may be modified as desired.

A conically shaped center piece 20, shown here hollow but not necessarily so, is supported by four legs 21 secured to the shaker grate 14. For that purpose each leg is provided at its lower end with a horizontal flange 22 that rests upon the shaker grate, and a downwardly extending flange 23 with a hole 24 therethrough for the passage of a bolt 25 for securing it to the side of the shaker grate.

The extreme lower end of the main portion of the center piece 20 at 124 is contracted somewhat so that the side thereof will be substantially parallel with the lower part 18 of the fire bowl and thus leave as much space as possible between the parts 18 and 20 for the escape of clinkers and ashes. There are vertical slots 125 in the lower part of the center piece for the admission of air over the clinkers and the like that may settle upon the shaker grate. Since clinkers cannot get inside of the center piece 20, the upper portions of the slots 125 will be always in communication with the fire for the supply of air thereto even when the lower part of the fire bowl and the grate is choked.

The center piece should preferably extend up to the lower end of the magazine. Since the upper end of the piece 20 is conical, there is no appreciable obstruction to the downward movement of the fuel from the magazine. The fuel settles down about the center piece 20 in the lower part of the fire bowl, and therefore, the center piece holds all the fuel and fire to the outside and against the outside wall of the fire bowl and there is no center to the body of the fire or coals.

By mounting the center piece upon the shaker grate and centrally within the fire bowl, said center piece is shaken at the same time the grate is shaken, whereby clinkers in the fire bowl will be broken and dislodged, and will be further broken up by the action of the stationary downward projections or ribs of the fire bowl and the movable vertical ribs of the center piece when the latter is shaken. In addition to the clinker reducing function mentioned, the combination of the slotted fire bowl, slotted grate bar and the slotted lower portion of the center piece furnishes opportunity for ample draft.

What I claim as my invention and desire to secure by Letters Patent is:

A stove including a fire bowl with vertical slots in the lower part thereof, a shaker grate beneath the fire bowl, and a center

piece located centrally within the fire bowl and with downwardly projecting legs secured to the grate with the lower portion vertically slotted and contracted and the upper portion closed and conical, substantially as set forth.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

ELMER E. ANDERSON.

Witnesses:
JOHN R. BROOKS,
WALLACE KERST.