M. STEIN.

COMBINED FLAT-IRON HEATER AND COFFEE-ROASTER.

No. 186,176. Patented Jan. 9, 1877.

Fig. 1.

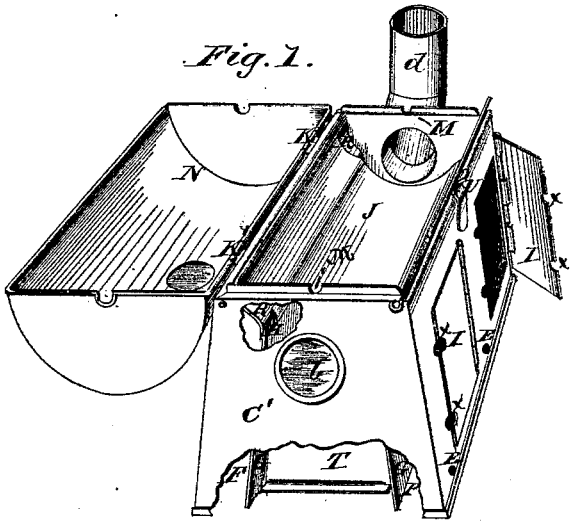


Fig. 2.

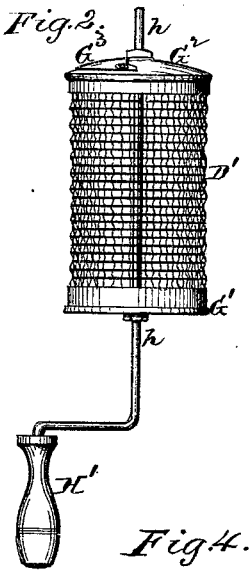


Fig. 5.

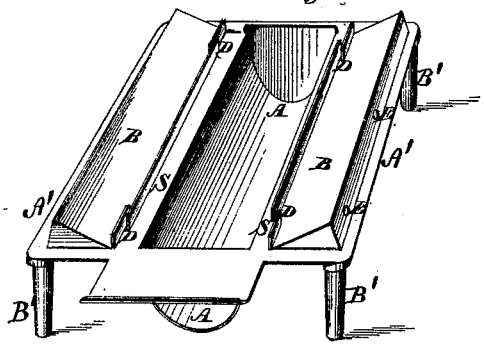


Fig. 3

Fig. 4.

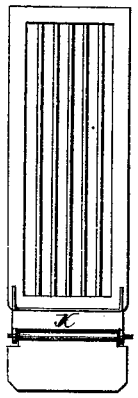
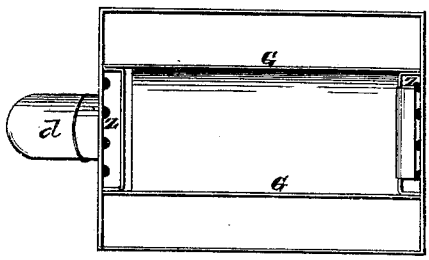


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

MATHIAS STEIN, OF YPSILANTI, MICHIGAN.

IMPROVEMENT IN COMBINED FLAT-IRON HEATER AND COFFEE-ROASTER.

Specification forming part of Letters Patent No. **186,176**, dated January 9, 1877; application filed February 16, 1876.

To all whom it may concern:

Be it known that I, MATHIAS STEIN, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented certain new and useful Improvements in Combined Sad-Iron Heater and Coffee-Roaster; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a machine for heating sad-irons and roasting coffee, either simultaneously or at different times, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view of the top part of my machine, with the cover thrown open and part of the front broken open. Fig. 2 is a plan view of the coffee-cylinder. Fig. 3 shows the ash-box, and Fig. 4 shows the grate. Fig. 5 is a perspective view of the base of the machine, and Fig. 6 is a bottom view of the top part thereof.

The base of my machine is made of cast-iron, and is composed of a semi-cylindrical box, A, closed at one end and open at the other, to receive the correspondingly-shaped ash-box C. The box or pit A is suspended from a platform, A′, which is supported upon legs B′ B′, and has a center opening corresponding in size with the top of the pit A. On each side of the pit A, on top of the platform A′, is an inclined ledge or side, B, for the sad-irons to rest upon while being heated, said ledges or sides inclining inward and downward, as shown in Fig. 5. At the inner lower edges of the ledges B B are upwardly-projecting flanges D D, forming, as it were, grooves to receive the lower edges of the walls G G of the fire-chamber.

K represents the grate, which is laid loosely upon the platform A at S S, between the inner edges of the inclined ledges or sides B B.

The top part of my machine is composed of a fire-chamber, T, having its sides G G inclined at right angles to the upper inclined surfaces of the ledges B B, and extending sufficiently far below the end pieces to fit in between the flanges D D of the base.

C′ is the outer shell, resting upon the platform A′, around the ledges B, and having its sides inclined parallel with the fire-chamber walls G G.

This shell is, on its sides, provided with hinged doors I I, through which the flat-irons are inserted into the air-chamber F, formed by the outer shell C′ and the fire-chamber walls G. *x x* are notches in the doors, allowing them to close over the irons in such a manner that the handles will be on the outside, while the bottoms of the irons rest against the walls G G.

The top and base of the machine are fastened together by means of screws or bolts passing through holes E in the sides of the shell C′ and the ledges B.

Over the fire-chamber is a concave or pan-shaped cover, J, working on hinges at K′, and in which the coffee-cylinder D′ is placed, thereby preventing said cylinder from coming in contact with the fire in the fire-chamber T. The whole is covered by a semi-cylindrical cover, N, also hinged at K′, and which, when closed, is fastened by a suitable latching device, U, thus completing the hot-air chamber in which the coffee-cylinder is turned.

At each end of the machine is a cold-air chamber, Z, made of fire-brick or cast-iron, to prevent the ends from burning out. In the front of the machine is a mica window, *b*, so that the operator can observe the fire without opening the covers. *d* is the smoke-pipe.

The cylinder D′ is made of wire, as shown, with a flat head, G^1, and a semi-spherical head, G^2, in which latter is a door, G^3, the two heads being fastened on a shaft, *h*, having a crank, H′, at one end, and the ends of said shaft rest in the bearings M M. The spherical shape of the head G^2 allows of the coffee being emptied with greater ease than it could if this head were flat.

By the construction of this machine coffee can be roasted while the irons are being heated. The grate and sides G can easily be removed and replaced when burned out.

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

1. The combination of the fire-chamber T, with inclined walls G G, outer shell C′, with notched doors I, cold-air chambers Z, hinged pan J, hinged cover N, and the coffee-cylinder D′, all substantially as and for the purposes herein set forth.

2. The combination of the cast-iron semi-cylindrical box A, having flanges D D and inclined ledges B B, the inclined side walls G G, shell C′, with notched doors I, and the hinged pan J, and hinged cover N, all constructed substantially as and for the purposes herein set forth.

MATHIAS STEIN.

Witnesses:
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