M. MELLINGER.

Foot Warmer.

No. 60,032. Patented Nov. 27, 1866.

Fig. 3

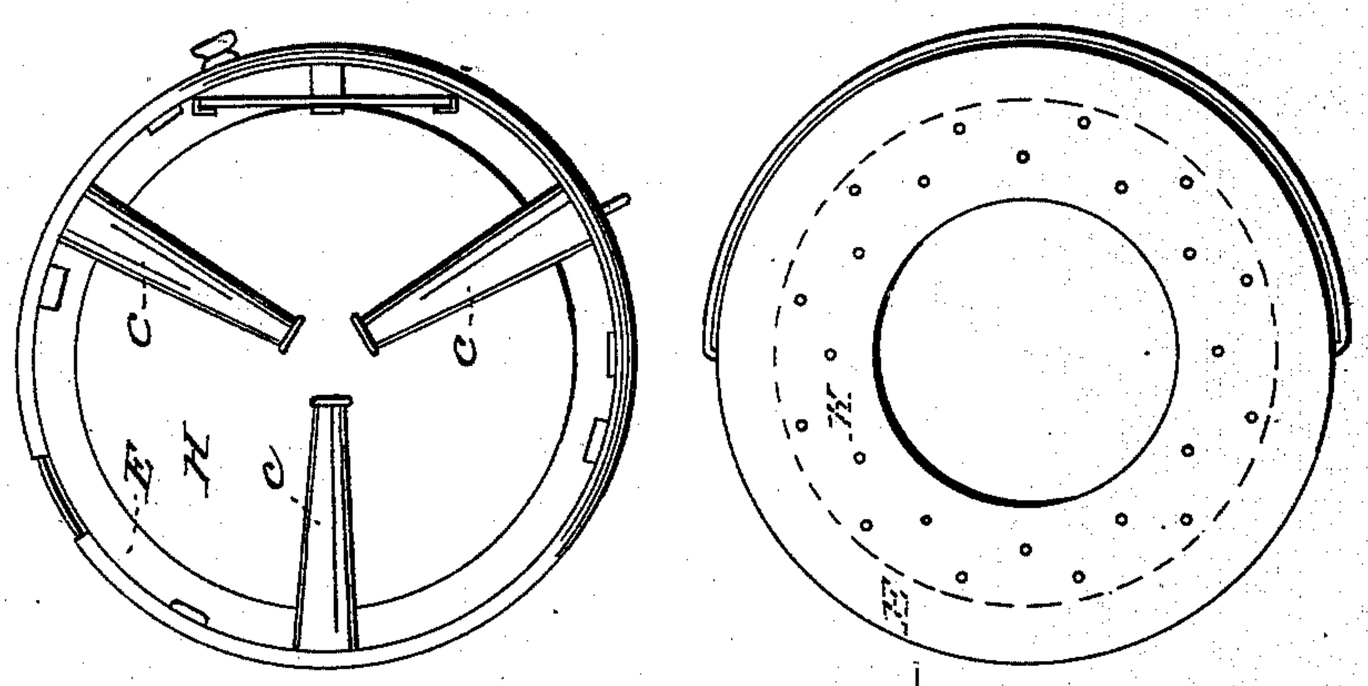

Fig. 5

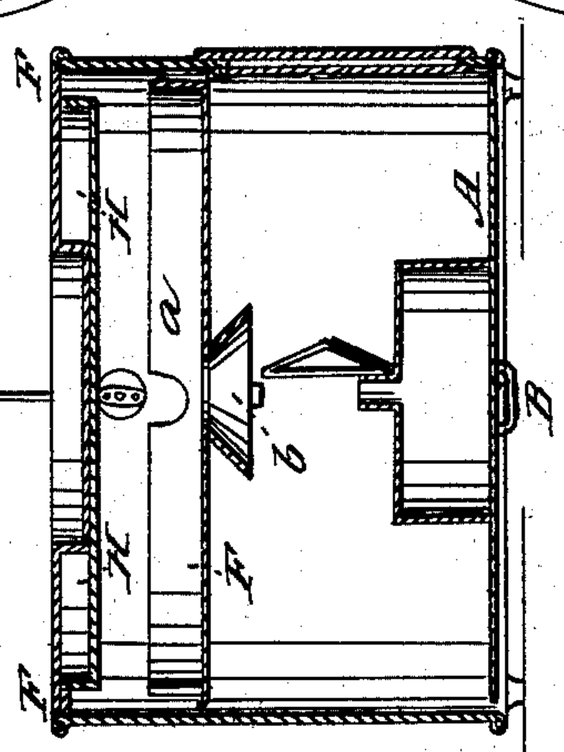

Fig. 1

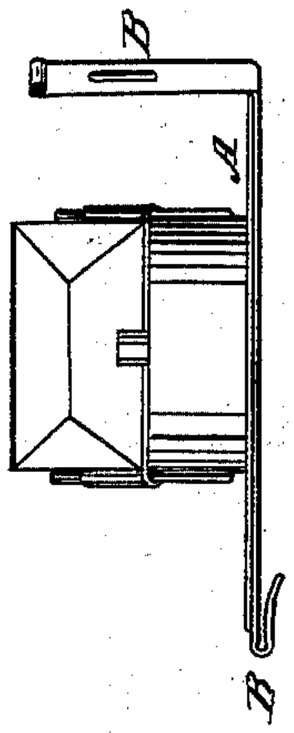

Fig. 2

Witnesses:

Peter Blaser
Nelson Gates

Inventor:

Melchor Mellinger
By his atty
H. R. R. Peck

United States Patent Office.

IMPROVEMENT IN FOOT-STOVES.

MELCHOR MELLINGER, OF DAYTON, OHIO.

Letters Patent No. 60,032, *dated November* 27, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MELCHOR MELLINGER, of Dayton, in Montgomery county, in the State of Ohio, have invented a new and useful Improvement in Foot-Stoves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 is a side view of the detachable bottom, with the lamp, reflector, and fastening connected therewith.

Figure 2 is view of the edge or side of the lower disk or bottom of the combustion chamber, with its flange and inverted funnel or mouth-piece.

Figure 3 is an inside view of the foot-stove, representing the upper portion of the combustion chamber with its conduits for the introduction of air to the flame.

Figure 4 is a top or plan view of the foot-stove, with its rebated circular chamber and perforations for the escape of heat.

The body of my foot-stove is cylindrical, and may be ten inches in height and ten or twelve inches in diameter. The top of it is closed, except a series of perforations in the annular portion of the cover. The central portion, which is depressed half an inch below the surrounding perforated top or cover, is closed by the disk H, the latter serving as the top plate of what I denominate the combustion chamber. The plate H is of a less diameter than the body of the stove, which difference in size admits of a space, denoted by the letter E. This space serves as an annular flue for the passage of the heat from the cumbustion chamber to the perforations in the top of the stove. The annular plate F is provided with a mouth like an inverted funnel, and on its opposite side, around near its circumference, it is provided with a flange, as seen in fig. 2. This plate or disk, F, is removable, being held in its place in the stove by two fixed springs, one on each side of the stove, within it. When in position it occupies a place directly against the air tubes *c*, which latter devices conduct jets of air into the centre of the lamp flame, as will be more fully described. These air tubes, *c*, are arranged horizontally, and are connected with the body of the stove. Their outer ends communicate with the open air, and their inner ends are perforated finely, so as to cause jets of air to be thrown into the lamp flame above its wick. The tubes *c* are arranged between the top plate of the combustion chamber and the bottom plate thereof, and this chamber is nearly enclosed laterally by the flange of the lower or annular plate F, there being only a narrow flue between the upper edge of the flange and the disk H. This flange has three circular recesses cut out of it, so as to fit around the three air tubes *c*. The detachable bottom A is of less diameter than the internal diameter of the stove, whereby a circular opening is provided between them for the admission of air to the lamp. The bottom is provided with a hook-hinge, which admits of the removal of the bottom with its lamp and reflector. The opposite side of the bottom is furnished with a spring hasp, which may be secured by a staple on the side of the stove. The hinge and hasp will keep the bottom firmly in position, so as to insure the equality of space around it for the admission of air. At the side of the stove, opposite to the face of the reflector, is a door, with an inner enclosure of glass for the conversion of the stove to a lantern. The structure may be made of heavy tin or sheet iron, or other suitable material. In use, the draught around the bottom will cause the lamp to burn freely, and the flame will be drawn into the funnel-shaped mouth of the combustion chamber, where the air tubes will conduct jets of air into the midst of it, and thereby augment the heat generated in the combustion chamber. It will be observed that the heat will be conveyed from the combustion chamber through the circular flues at the edge of the disk H into the annular chamber beneath the perforated cover of the stove, and thence through the perforations into the open air. A lamp may be used suitable for burning coal oil or other burning fluid. My improved foot-stove is designed for the use of marketmen, as well as other general puposes, and has been found by experiment to work well and require but little fuel.

Having now fully described the construction and operation of my improved foot-stove, what I claim therein, and desire to secure by Letters Patent, is—

1. The disk H and annular plate F, provided with the flange *a* and mouth *b*, in combination with the air tubes *c* and annular flue E, constructed, applied, and operating conjointly in the manner and for the purpose specified.

2. The detachable bottom A, with its fastening B, constructed and arranged in combination with the cylindrical body of the stove, so as to form an annular air passage for the lamp, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand this 6th day of November, A. D. 1865.

MELCHOR MELLINGER.

Witnesses:

R. H. PECK,

H. P. K. PECK.