

C. BABCOCK.

Heating Stove.

No. 4,077.

Patented June 10, 1845.

FIG. 1.

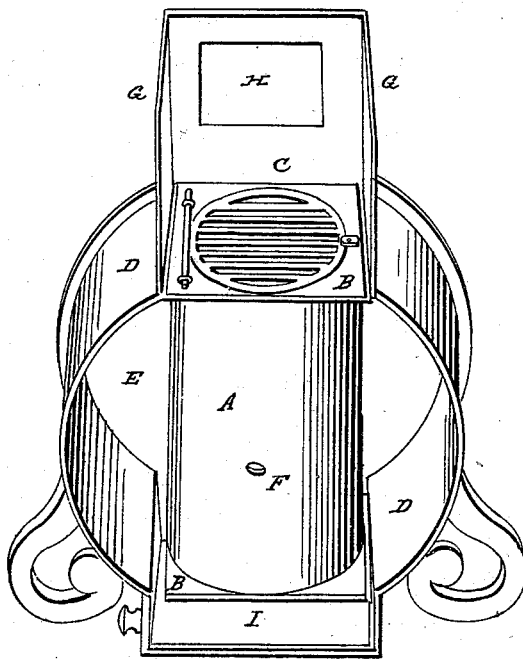
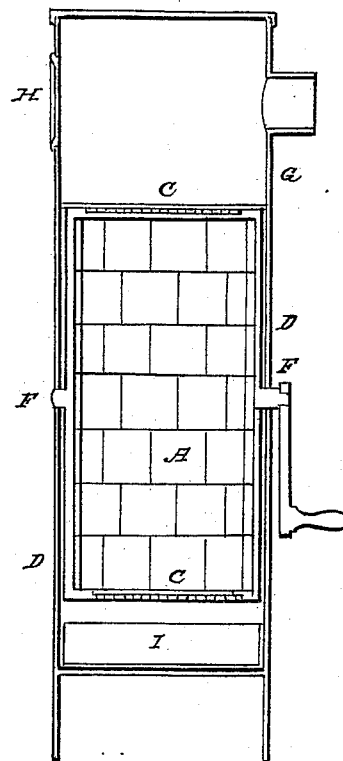


FIG. 2.



UNITED STATES PATENT OFFICE.

CHARLES BABCOCK, OF EAST HADDAM, CONNECTICUT.

COAL-STOVE.

Specification of Letters Patent No. 4,077, dated June 10, 1845.

To all whom it may concern:

Be it known that I, CHARLES BABCOCK, of East Haddam, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in the Manner of Constructing Stoves for Heating Apartments; and I do hereby declare that the following is a full and exact description thereof.

10 The fire-chamber of my stove consists of a cylinder of iron, the two ends of which contain hinged grates or grate bars, upon either of which the fuel is to rest, the two ends being alike. Between the two ends of
15 cylinder may be lined with a bad conductor of heat, if desired. The grate bars are made to raise, so that the set which is uppermost may be opened for the supply of fuel. This cylindrical fire-chamber is to be furnished with two gudgeons opposite to each
20 other, and at equal distances from its ends; upon these gudgeons it is to be sustained when in use. I place this cylinder within a vertical drum, of such depth from head to
25 head as slightly to exceed the diameter of the cylinder, and of such diameter as will allow the cylinder to revolve within it without touching its periphery. Upon one of the gudgeons, on the outside of the drum, I
30 affix a winch, or crank handle, by means of which the cylinder may be inverted, or agitated, at pleasure. On the top of the drum I place a box, or case, on one side of which there is to be a door for the admission of
35 fuel; and either from the top, or from one side, of this box, or case, proceeds a pipe for the exit of smoke and gaseous matter.

In Figure 1 of the accompanying drawing, I have represented my stove with one
40 head of the drum, or outer case, removed for the purpose of showing the contained cylindrical fire-chamber. Fig. 2, is a vertical section of the stove through the gudgeons on which the cylinder turns.

45 A, is the fire-chamber, and B, B, its two ends, in one of which the grate bars, C, are represented.

D, D, is the cylindrical shell of the drum, and E, E, one of its heads.

F, F, are the gudgeons of the fire-chamber. 50

G, G, is the box, or case, on the top of the drum, in which there is a door, as at H, for the supply of fuel and for the ignition of the fire.

I, is an ash-drawer, which operates, also, 55 as a regulator of the draft.

In lighting a fire in the fire-chamber, the most convenient mode of procedure is to put the anthracite, or other fuel, into the cylinder, to place upon this the charcoal, or
60 wood, and then the igniting matter. The doors are then to be closed, the cylindrical fire-chamber inverted, and air admitted by opening the ash-drawer. The winch, or handle, by which the cylinder is inverted will, 65 also, furnish the means of agitating it for the discharge of ashes, at which time, the ash-drawer being closed, not a particle of dust can escape into the room. I have spoken of the fire-chamber A, as being cy- 70 lindrical, but it may be made square, if preferred.

The operation of this stove will be found to be peculiarly agreeable, as the heat is not radiated directly from the fire-chamber 75 into the room, but the drum will give out a genial warmth from its extended surface.

Having thus, fully described the manner in which I construct my stove, what I claim therein as new, and desire to secure by Letters Patent, is— 80

The combining of a cylindrical stove, furnished with a grate at each of its ends, with a drum within which it may be inverted, in the manner, and for the purpose, set forth; 85 the respective parts being constructed and arranged substantially as described.

CHARLES BABCOCK.

Witnesses:

THOS. P. JONES,
EDWIN L. BRUNDAGE.