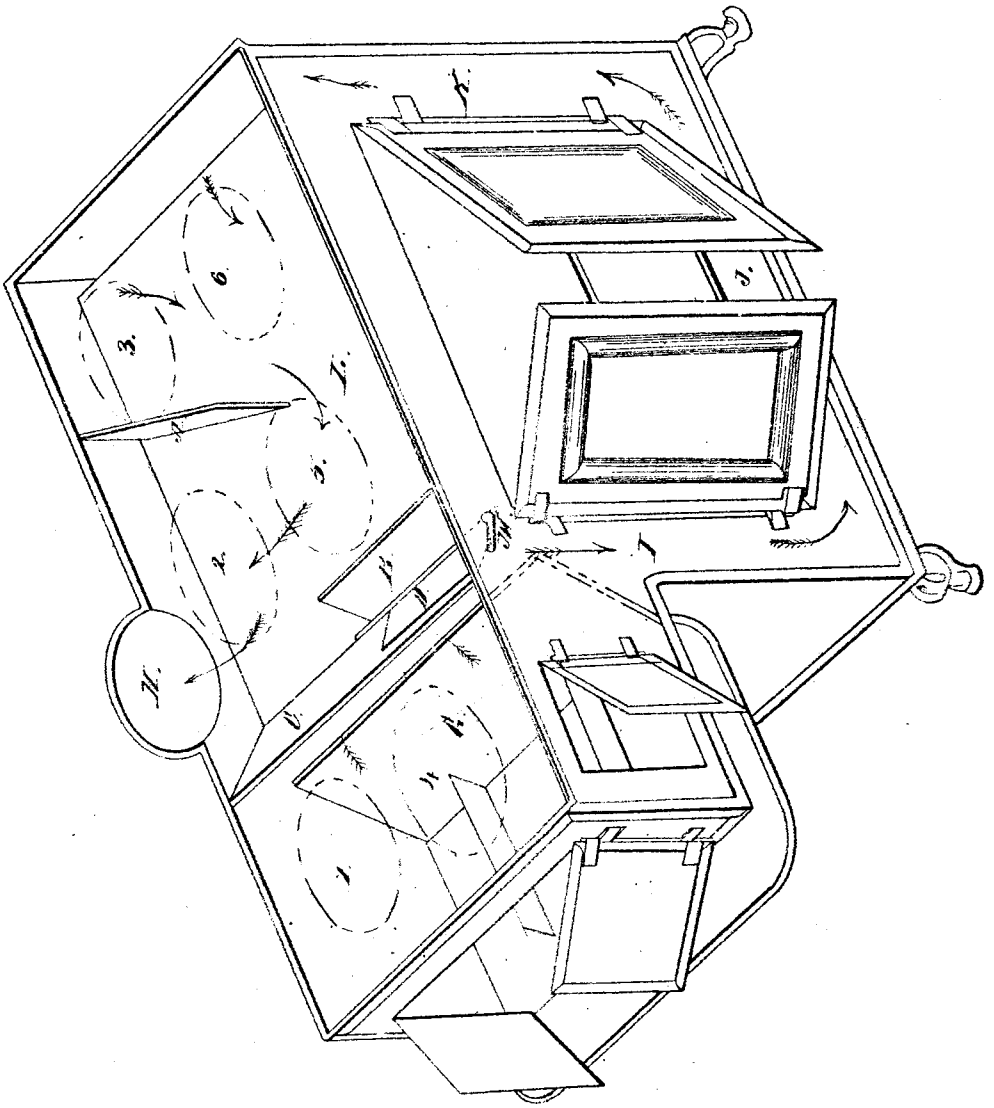
H. Mitchell,

Cooking Stove.

No. 47,845. Patented May 23, 1865.



Witnesses:

James W. Bretford

Alex. P. Hill

Inventor:

Henry Mitchell

UNITED STATES PATENT OFFICE.

HENRY MITCHELL, OF RICHMOND, INDIANA.

IMPROVEMENT IN COOK-STOVES.

Specification forming part of Letters Patent No. **47,845**, dated May 23, 1865.

To all whom it may concern:

Be it known that I, HENRY MITCHELL, of the city of Richmond, in the county of Wayne, in the State of Indiana, have invented a new and improved mode of distributing the heat equally about the oven in cooking stoves, and of securing an equal degree of temperature in every part of the oven, and of distributing the heat equally under the top plate, and of economizing fuel; 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.

The plate C, containing the damper B, I place at the upper front corner of the oven. The plate C and damper B are constructed as usual, and all that I claim as to said plate and damper is the location at the upper front corner of the oven. I construct a flue, I, in front of the oven and under said oven, also back of said oven and over the top of the same, so that when the damper B is closed the heat will pass in the direction of the arrows from the fire-box into and down flue I in front of the oven; thence into and along flue J under the oven; thence into and up flue K back of the oven; thence over the top of the oven to the pipe H. The heat is distributed over the top of the oven by means of the guide-plate A and the pipe H, the guide-plate A, by its position, causing the heat to pass over the top of the oven in the direction of the damper B, and the pipe H, by its location on the side of the stove, drawing the heat back from the damper B to the opposite side, where the pipe H is located.

I claim as new, and as invented by me and not hertofore used or invented by any other person or persons, cutting the fire off in front of the oven, turning the same down the flue I in front of the oven; thence into the flue J under the oven; thence up the flue K; thence over the top of the oven.

I claim as new, and invented by me and not heretofore used or invented by any other person or persons, the position of the guide-plate A, by means of which the heat is thrown in the direction of the damper B, and the position of the pipe H, by means of which the heat is drawn back from said damper B to the opposite side, where said pipe H is located, and the relative location of said guide-plate A and pipe H, by means of which said heat is thus equally distributed over said oven and under the top plate of the stove, which, without the use of more metal, and without greater cost or labor in constructing, gives for use six stove-holes in the top plate instead of four, the number usually used, and always used without an extra outlay of metal, labor, and cost, the object being to secure an equal degree of heat on every side and through every part of the oven.

In other stoves the heat is first taken over the top of the oven, down the back of the oven, and then under the bottom, and back again under the bottom, up the back of the oven to the pipe. The heat of the flame diminishes in proportion to the distance it travels, and the natural tendency of heat is to rise, and when taken it is first over the top of the oven a greater degree of heat is obtained there than can be elsewhere, and the heat against the same is brought under the bottom of the stove is too much exhausted to create a degree corresponding with that at the top, but when the heat is first taken down the side and under the oven by the most direct route, as I take it, and then over the oven, the natural tendency of heat being to rise, a much more nearly equal degree is secured in every part of the oven, and the heat, being in this manner more immediately and directly applied, is better economized, and a less quantity of fuel is required.

When it is not desirable to use the oven, the damper B may be opened and the relative position of the damper and pipe distribute the heat under the two middle holes on the top plate, thus giving four holes for use in cooking, whereas in other stoves the location of the pipe in the middle of the back part draws the flame and heat not directly under the back holes, but between them.

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

The combination and arrangement of the plate C, containing the damper B, at the upper front corner of the oven, with the flues I, J, and K, and the location of the guide-plate A, and of the pipe H, by means of which the heat is taken by the shortest and most direct route entirely around the oven.

HENRY MITCHELL.

Witnesses:

LEWIS G. STUBBS,

CHRISTIAN FETTER.