

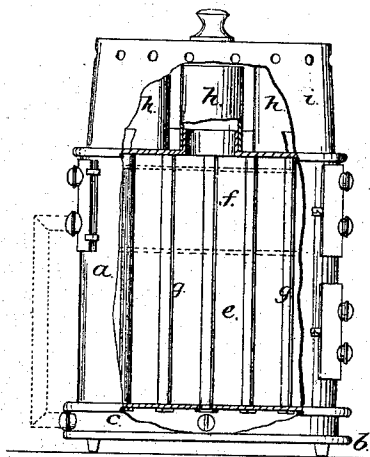
J. H. BLAKE.

Stoves.

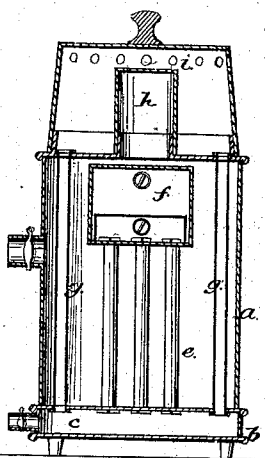
No. 158,195.

Patented Dec. 29, 1874.

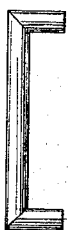
*Fig. 1.*



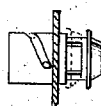
*Fig. 4.*



*Fig. 3.*



*Fig. 2.*



*Witnesses:*

*Frank H. Jordan*

*A. Merrill*

*Inventor:*

*John Henry Blake*  
*per atty*  
*Wm. Henry Clifford.*

# UNITED STATES PATENT OFFICE.

JOHN HENRY BLAKE, OF AUBURN, MAINE.

## IMPROVEMENT IN STOVES.

Specification forming part of Letters Patent No. **158,195**, dated December 29, 1874; application filed October 21, 1874.

*To all whom it may concern:*

Be it known that I, JOHN HENRY BLAKE, of Auburn, in the county of Androscoggin and State of Maine, have invented certain new and useful Improvements in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side elevation of my invention, parts broken out in order to illustrate the construction of the same. Fig. 2 is a detail view of one of my improved dampers or draft-regulators. Fig. 3 is a view of a joint of pipe employed when my improved stove is used for heating purposes only, the same being shown in position by dotted lines in Fig. 1. Fig. 4 is a view, showing the air-inlet of the base-chamber, and the chamber over the oven which communicates with the tubular caps.

Same letters show like parts.

The object of my invention is to produce an improved stove. It consists in the combination, with the walls of the stove, of a base, cap, cover, and tubes, which tubes serve not only as air-conductors, but as a lining to the stove, or as grates to keep the wood from contact with the walls of the stove. They also serve as substitutes for the common rods or bolts which are used for holding the various parts of a stove together, for these air-tubes are firmly connected with the different portions of the stove. It further consists in the novel arrangement of the dampers and the additional amount of radiating-surface produced over the stoves in common use.

My invention may be thus described:

*a* shows the sides or walls of the stove. *b* shows a base having upward-projecting sides *c*, into which, or over which, the body of the stove is placed when ready for use. In this base there is to be made an aperture, which opens either into the room, or has connection with the outer air by a pipe or other equivalent contrivance. *e* and *f* represent, respectively, the fire-box and oven of the stove. Around the inner sides of the walls of the stove, at regular distances apart, extend upwardly in a

vertical direction the hollow tubes or air-conductors *g*. These tubes open at their lower ends into the hollow base *b*, and at their top or upper ends into the room or apartment in which the stove may be placed. They serve, as has already been specified, to hold the various parts of the stove together, and further serve as a lining to keep the fuel from direct contact with the walls of the same. *h h h* show tubular caps, fitting over apertures in the top surface of the stove, over the oven, the purpose of which is to afford more radiating surface. *i* illustrates a perforated cover, which fits the top of the stove, covers the radiators *h h h*, adds a finish to the whole arrangement, and regulates the even discharge of the heated air which passes up through the hot-air tubes *g*.

The operation of this part of my invention may be thus described: These tubes, before mentioned, surround the inner parts of the walls of the stove. The fire in the stove, heating the said tubes, heats the air admitted to them from the base *b* below, through the aperture therein, and causes the same to rise up through said tubes, from whence it makes its escape into the open air of the apartment. The heated air, which passes up around the tubes, encompasses the oven, rises to the radiators *h h h*, and finally makes its exit into the smoke-flue.

Having described this part of my invention, I will now proceed to describe the dampers connected with the same: On those portions or parts of the stove to which these dampers are connected are short inward-projecting tubes, in which are cut diagonal slots, as shown in Fig. 2. The dampers themselves consist of tubes having apertures cut in them, and of sufficient size to nicely fit the before-mentioned inward-projecting tubes. On these dampers are studs or projections, which work in the diagonal slots before described, so that by turning the said dampers in one direction the operation of these studs working in the slots will close them, and by turning in the other it will open the same.

It may be observed that both the oven and the fire-box are provided with these dampers, so that the necessary amount of heat may be regulated, according to the direction in which they are turned.

When the stove is to be used for heating purposes only, an additional tube, such as seen in Fig. 3, may be connected with the hollow base and the back door of the oven, and thus direct a current of cold air, which, passing into the oven, becomes heated, and makes its escape through the dampers of both doors of the said oven, they, of course, being open.

It will thus be seen from the foregoing description that I furnish a stove affording a large amount of radiating-surface, and dispensing with the use of the ordinary fastenings or connecting rods or bolts, and also with the lining commonly used in stoves. It will also be seen that by the arrangement of my improved dampers, and the additional tube applied to the stove, as described, I make a heating apparatus such as is very desirable.

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

1. In the improved stove herein described, the combination of the walls *a*, hollow base *b*, having an aperture to admit external air, tubes *g*, tubular caps *h*, perforated cover *i*, and the dampers in the fire-box and oven, as and for the purposes herein set forth.

2. In combination with the walls *a*, hollow base *b*, having an aperture to admit external air, tubes *g*, tubular caps *h*, perforated cover *i*, and the dampers in the fire-box and oven, the bent tube, for connecting with the oven and base, as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN HENRY BLAKE.

Witnesses:

JOHN M. PERRY,  
MILBURY S. SMITH.