A. ATWOOD.

Heating Stove.

No. 3,975. Patented March 26, 1845.

Fig. 2.

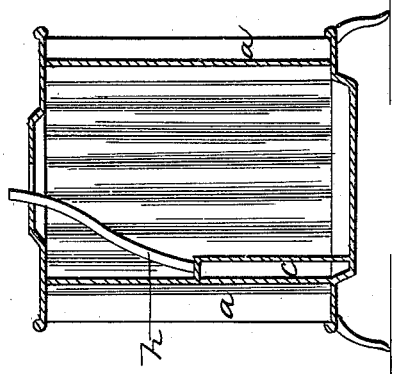


Fig. 3.

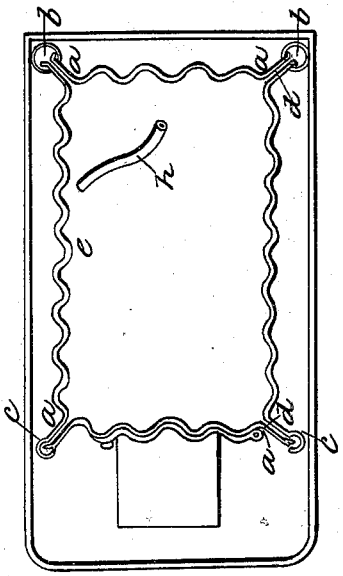
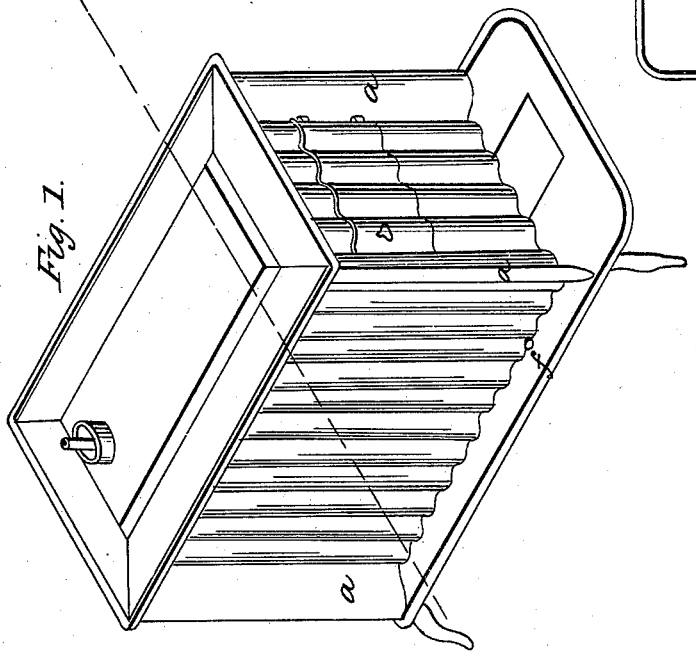


Fig. 1.



N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ANSON ATWOOD, OF TROY, NEW YORK.

AIR-TIGHT STOVE.

Specification of Letters Patent No. 3,975, dated March 26, 1845.

To all whom it may concern:

Be it known that I, ANSON ATWOOD, of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Stoves; and I do hereby declare that the following is a full, clear, and exact description, reference being had to the accompanying drawing, in which—

Figure 1, is an isometrical view of the stove. Fig. 2, a sectional view with the front plate removed, Fig. 3 a top plan with upper plate removed.

The nature of my invention consists in the manner of constructing the joints at the corners of my stove, and in forming an air chamber in the stove that communicates with the external air below, and discharges into the stove pipe thus supplying a current of air through the chimney when the stove is closed air tight, and preventing the condensing of the smoke, gas, &c.

The construction of my stove is as follows, it may be of any configuration and ornamented as the manufacturer may desire; but the end and side plates are turned out at each corner at an angle of about 45° presenting flanches (*a*) which are joined, as shown at Fig. 3, (*b*,) by a tube that has a slit in one side, its whole length which is slipped on to the outer edges of said flanches where they are enlarged to hold it, or they may be united as at (*c*) Fig. 3, by a hook or lap cast onto one side, that the other fits into, in either case the joints are cemented with stove putty or other suitable material that will make them air tight and as the plates expand or contract by heat the joints are not affected the rods (*d*) that hold the top and bottom together may also pass up between these plates. On one side of the fire chamber there is an air chamber (*e*) constructed near or at the bottom of the stove of any desired form, this air chamber has a communication with the external air by means of a small aperture (*f*) at the bottom on one side and from the upper side of said air chamber there is a tube (*h*) that projects for some distance up into the stove pipe and when heat is communicated to the air in chamber (*e*) the air rises through this tube and thus keeps up a circulation in the stove pipe when the fire chamber is shut up tight which prevents the condensation of the gases and destruction of the pipe and chimney.

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

Constructing the stove in the manner described, with the sides and end plates splayed out at the joints or the corners in combination with the corrugated sides substantially in the manner, and for the purpose above specified.

ANSON ATWOOD.

Witnesses:

J. J. GREENOUGH,

T. C. DONN.