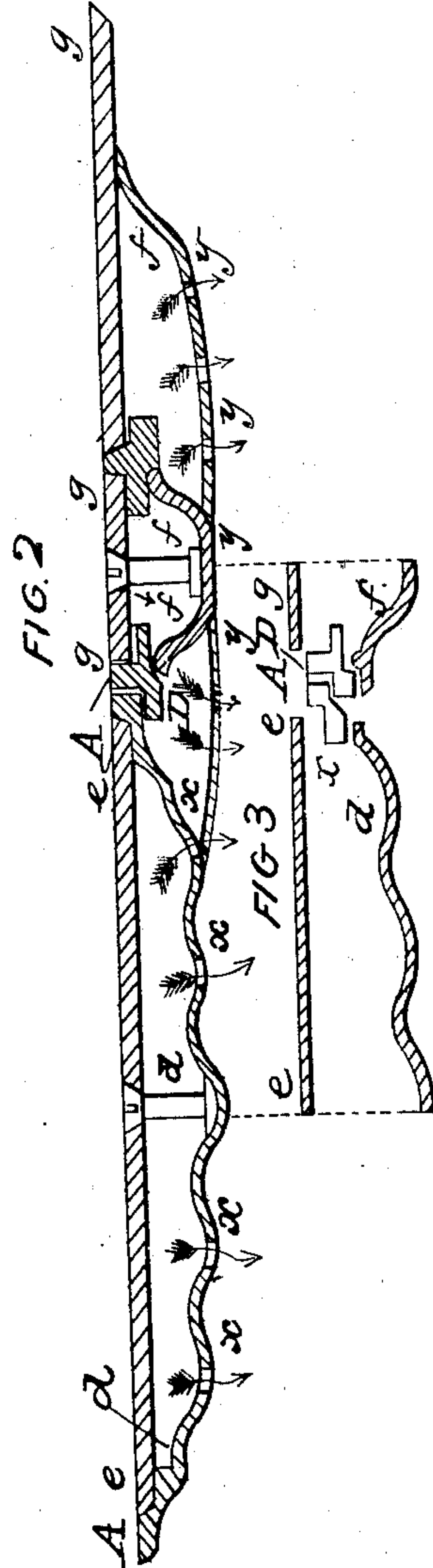
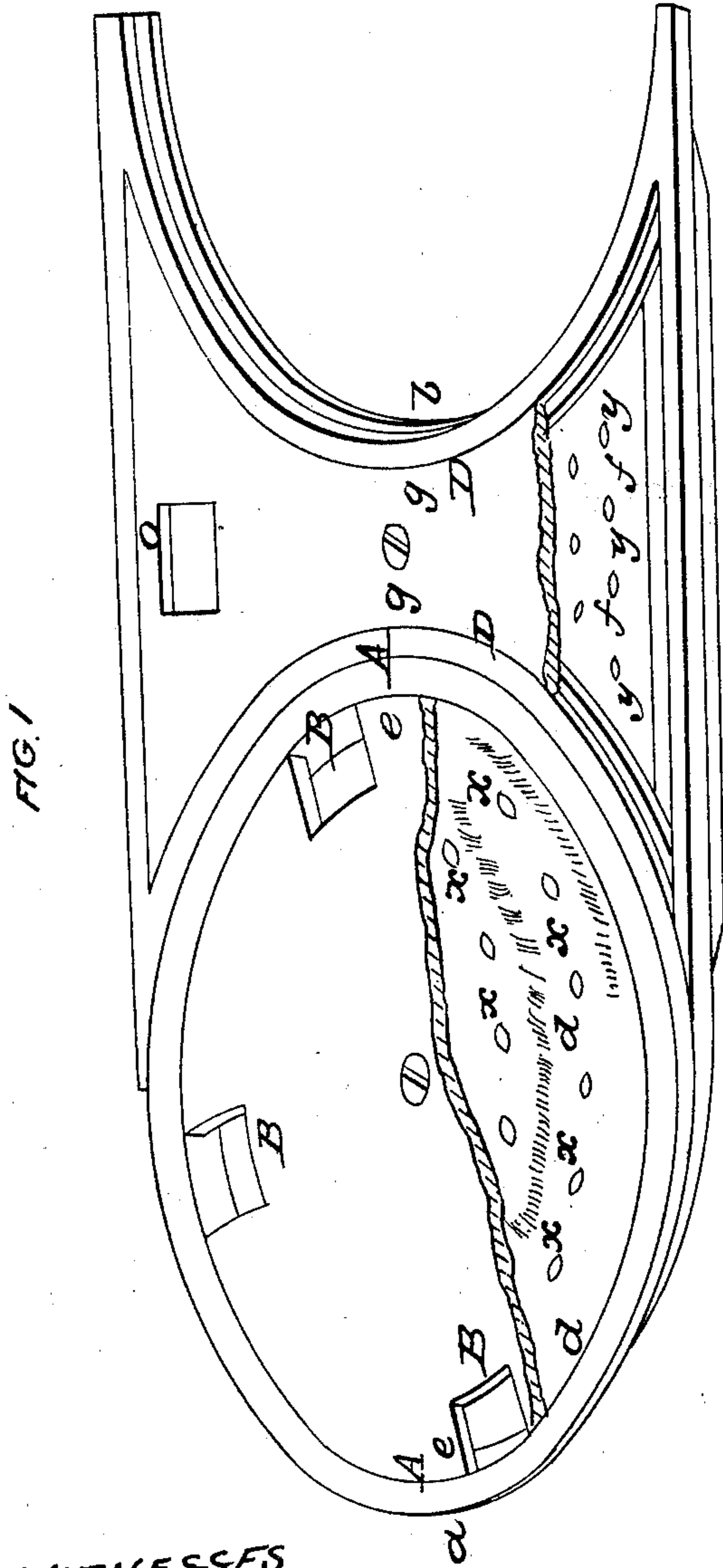


L. E. CLOW.  
Cook Stove.

No. 23,332.

Patented March 22, 1859.



WITNESSES  
Rich. Varick DeWitt  
A. V. DeWitt

INVENTOR  
Louis E. Clow



# UNITED STATES PATENT OFFICE.

L. E. CLOW, OF ALBANY, NEW YORK, ASSIGNOR TO L. H. RANSOM & CO., OF SAME PLACE.

## POT-HOLE COVER FOR COOKING-STOVES.

Specification of Letters Patent No. 23,332, dated March 22, 1859.

*To all whom it may concern:*

Be it known that I, LEWIS E. CLOW, of the city of Albany, State of New York, have invented a new and useful Method of Constructing Cast-Metal Covers for Pot-Holes and the Division-Plates in Cooking Stoves and Ranges; and I declare the following specification, with the drawings hereto attached as part of the same, to be a full and perfect description thereof.

Figure 1 is a perspective view of a pot hole cover and division plate, portions of the upper plates forming them having been removed to show their construction. Fig. 2 is a sectional diagram showing the plates forming the articles as taken through the center of Fig. 1 in the line *a—b*, and Fig. 3 is a semi-sectional diagram showing the plates separated slightly from each other.

Similar letters designate the same parts of the plates.

My invention consists in making the covers and division plates hollow constructing them of three pieces each.

The cover is a narrow ring *A, A*, with a sunken recess *x* Fig. 3, around its inner circle to receive the flat plate *e e*. Against the lower surface of the ring, lies the outer upper edge of the bottom plate *d, d*, which is made dishing, as shown in the drawings, and is perforated at various points by small holes *x, x, x*. The top plate has one or more notches *B, B*, cut into its margin to serve the double purpose of a socket for the insertion of a handle for the management of the cover, and for the admission of air between the plates. In like manner the division plate is composed of a narrow frame *D, D*, with a sunken recess to receive the flat plate *g, g*. Against the lower surface of the frame lies the upper edge of a dishing bottom plate *f, f*, which is perforated by holes *y, y, y*, at various points. The top plate has one or more notches *O* in its margin for the insertion of a handle and admission of air. The plates are to be secured to their frames and each other by screws or any convenient fastening.

The object and intention of this mode of construction of hollow covers with openings in the upper and lower plates, is for the purpose of permitting the passage of a current of air through and between them, to cool them, and at the same time to supply warmed oxygen to the unconsumed gases and fuliginous matter, to complete their combustion.

In making these hollow covers it has been found impossible to form them in a solid casting, or even in two parts, without incurring the hazard, of the cracking of the plates from irregular expansion when heated. To avoid this difficulty I have devised this method of making them in three parts in order that the thin ring might expand by and upon itself, and the upper and lower plates each by and upon itself while the current of cool air entering in at the top and passing out through the bottom should check the overheating of all parts.

When the cover is constructed of two pieces of metal the upper part a piece of the cover is subjected to irregular and unequal expansion and very liable to fracture therefrom. That part of the cover constituting the rim will always be much hotter than the body and central portion of the cover through the perforations in which air will be constantly passing, and the difference of temperature between will be very apt to produce fracture of the cover. Now by having the rim of the cover of one piece and the body or main part of it of other pieces, each piece has its own free play and expansion and neither will be subjected to the changes or difference in degrees of heat which will produce fracture.

I claim—

A cover or division plate constructed of two perforated plates and the unperforated rim or ring as herein set forth.

LEWIS E. CLOW.

Witnesses:

RICHD. VARUK DE WITT,  
A. V. DE WITT.