

A. J. REDWAY.  
Cooking-Stove.

No. 131,409.

Patented Sep. 17, 1872.

Fig. 1

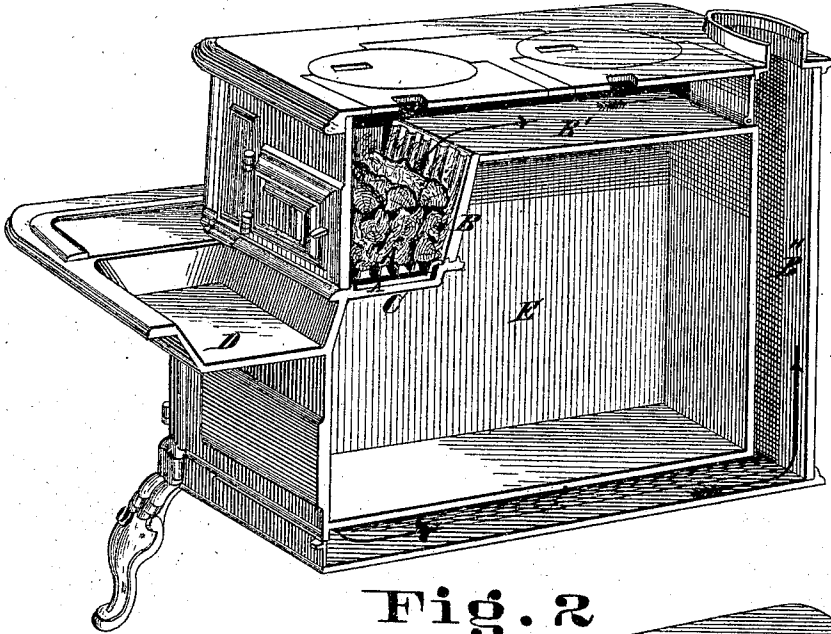


Fig. 2

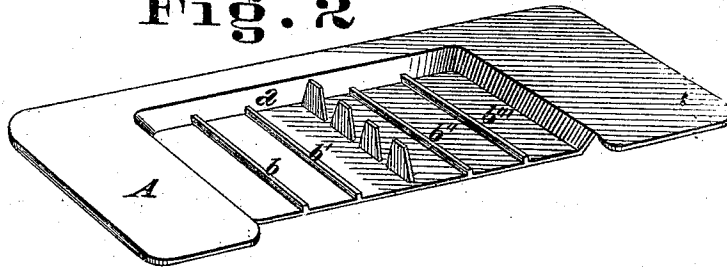


Fig. 3

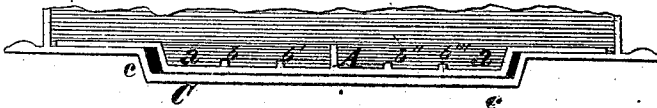
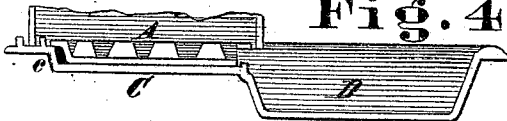


Fig. 4



Attest  
*Henry Millward*  
*Clk*

Inventor  
*Albert J. Redway*  
 By *H. Millward*  
 Attorney

# UNITED STATES PATENT OFFICE.

ALBERT J. REDWAY, OF CINCINNATI, OHIO, ASSIGNOR TO REDWAY & BURTON, OF SAME PLACE.

## IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 131,409, dated September 17, 1872.

*To all whom it may concern:*

Be it known that I, ALBERT J. REDWAY, of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Wood-Burning Cooking-Stoves, of which the following is a specification:

### *Nature and Objects of Invention.*

My invention consists of a supplementary or false fire-bottom for insertion and use in the fire-box of a cooking-stove for burning wood, the same being so constructed as to obtain a latitude for expansion under the influence of heat and sufficient strength and stiffness for supporting the fuel, this false fire-bottom being provided for the purpose of rendering the ordinary bottom of the fire-box of a cooking-stove free from liability to burn out, crack, warp, or become too much heated over the oven, the false fire-bottom also, by reason of its detachability and adaptability for expansion and contraction, being safe from fracture while in use, and easily replaced when burned out.

### *Description of the Accompanying Drawing.*

Figure 1 is a sectional perspective drawing of a wood-burning cooking-stove having my invention attached, showing its position when in use. Fig. 2 is a perspective drawing of my false fire-bottom detached. Fig. 3 is a longitudinal section, and Fig. 4 a transverse section of the same, in place upon the ordinary fire-box bottom.

### *General Description.*

A is my false fire-bottom attached (see Fig. 1) to an ordinary wood-burning cooking-stove, of which B is the fire-box; B' B'', the smoke-flues; C, the ordinary fire-box bottom; D, the ash-pit; and E, the oven. The false fire-bottom A is constructed of dimensions somewhat smaller than the stove-walls (see Figs. 3 and 4) to allow for expansion by the heat. It has a depressed chamber, *a*, corresponding to the depression *c* of the ordinary fire-box bottom, but of so much smaller dimensions horizon-

tally as to allow a space all round, as shown, for free expansion. This depression *a* is strengthened or stiffened by cross grate-bars *b b' b'' b'''*, which also serve, partially, to support the wood above the ashes, and has also a raised crenellated ridge across its midlength, especially to support the wood in such a position as to allow a free draft to circulate under it. The space all around this depression *a*, between it and the interior of the depression *c* in the ordinary fire-bottom, as well as the interval between the periphery of the false bottom and the walls of the stove, by allowing free play to the bottom A in its expansion and contraction, serves to prevent the "burning out" or cracking so common among the stoves destitute of such an improvement, whose fire-bottoms, violently heated and closely confined, are prone to warp and crack during a short period of use, and render such stoves useless.

The presence of the false fire-bottom A over the ordinary fire-bottom, also, by reason of its reducing and regulating the temperature of the ordinary fire-bottom C, prevents the oven from becoming unduly heated under the fire-box. With my improvement the stove proper remains intact, and even after long wear or careless use have damaged its working a new false fire-bottom, A, is the only requisite to restore it to its original condition, that being the part calculated to suffer, and by its interposition save the stove proper.

### *Claim.*

A supplementary or false fire-bottom, A, for wood-burning cooking-stoves, constructed of smaller size than the ordinary bottom of the fire-box, to permit of expansion, substantially as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

ALBERT J. REDWAY.

Witnesses:

FRANK MILLWARD,  
BENJ. BUTTERWORTH.