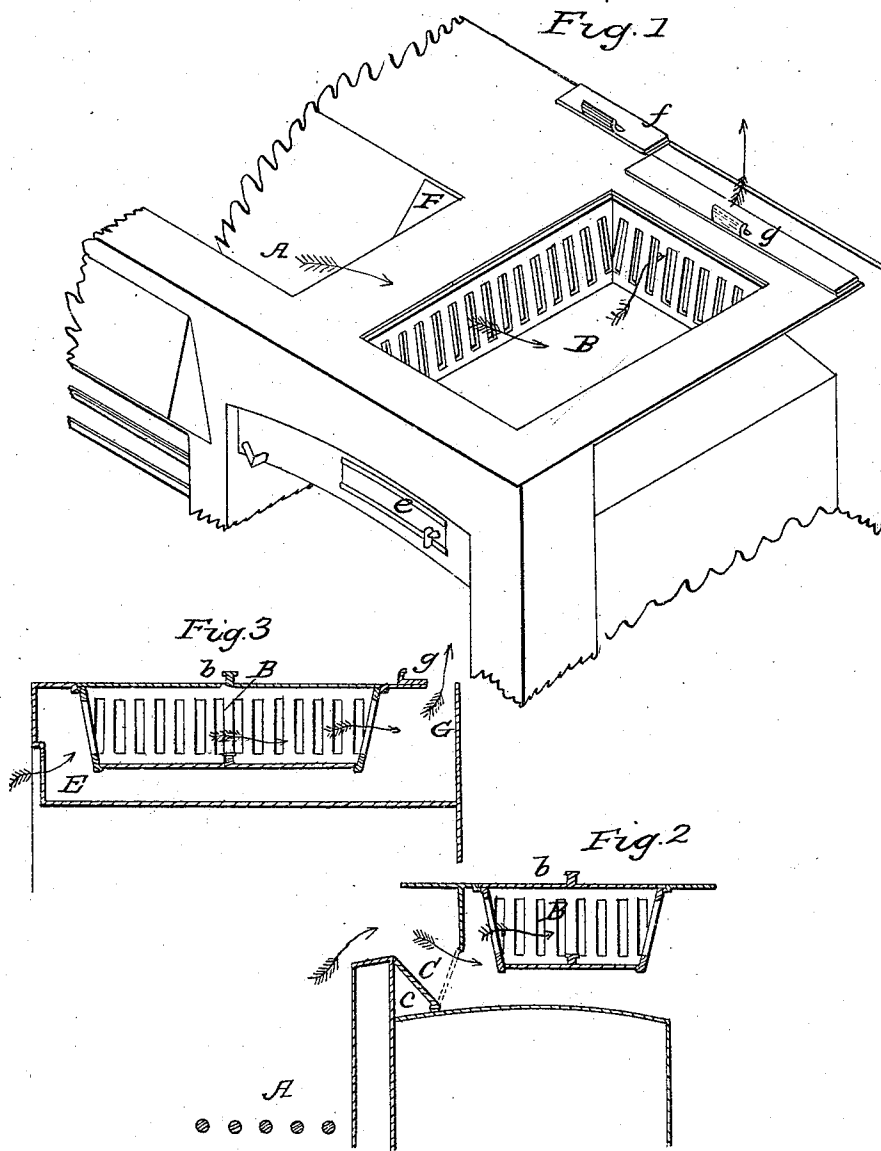


W. RESOR.  
Portable Furnace.

No. 21,085.

Patented Aug. 3, 1858.



# UNITED STATES PATENT OFFICE.

WM. RESOR, OF CINCINNATI, OHIO.

## COMBINED BROILING-FURNACE AND COOKING-RANGE.

Specification of Letters Patent No. 21,085, dated August 3, 1858.

*To all whom it may concern:*

Be it known that I, WILLIAM RESOR, of Cincinnati, Ohio, have invented a new and useful Arrangement of Broiling-Furnace in Cooking Ranges or Stoves; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing, making part of this specification.

This invention relates to an arrangement, in a stove or range burning bituminous coal, of a charcoal grate, which after having its contents ignited from the main grate, can be isolated therefrom.

In the accompanying drawings Figure 1 is a perspective view exhibiting the charcoal grate in communication with the main grate; the lid of the former being removed in order to show the interior. Fig. 2 is a longitudinal section of the same. Fig. 3 is a transverse section, exhibiting the action of the broiling furnace, when disconnected from the main fire.

A, is the principal grate; in which mineral coal is burned.

B, is the broiling, or charcoal grate, having a lid *b*.

C, is a passage leading from the grate A, to the grate B. This passage may be closed at pleasure by the damper *c*.

E, is a draft hole to the charcoal grate, which may be closed by a door *e*.

F, is an escape flue of the main grate.

G, is the escape flue of the charcoal grate. These escape flues are provided with the customary sliding dampers.

The operation is as follows: The fire in the main grate A, being in active combustion, the grate B, is supplied with charcoal and covered with the lid *b*. The damper *c*, being then opened, flame from the main grate passes through the charcoal and ignites it. This being effected, the damper *c*, is closed, and a draft being now established in the charcoal fire through its proper passages, it burns as a distinct fire, free from any contamination by smoke or smut from the main fire:—a necessary precaution for broiling purposes, where bituminous coal is burned in the main grate.

I claim as new and of my invention herein—

The described arrangement of the grates A, and B, passages C, F, G, and dampers *c*, or their equivalents operating as set forth to temporarily connect the charcoal grate with the main fire so as to ignite its contents; and afterward disconnect them so as to burn independently.

In testimony of which invention I hereunto set my hand.

WM. RESOR.

Attest:

GEO. H. KNIGHT,  
JOHN C. HUSSEY.