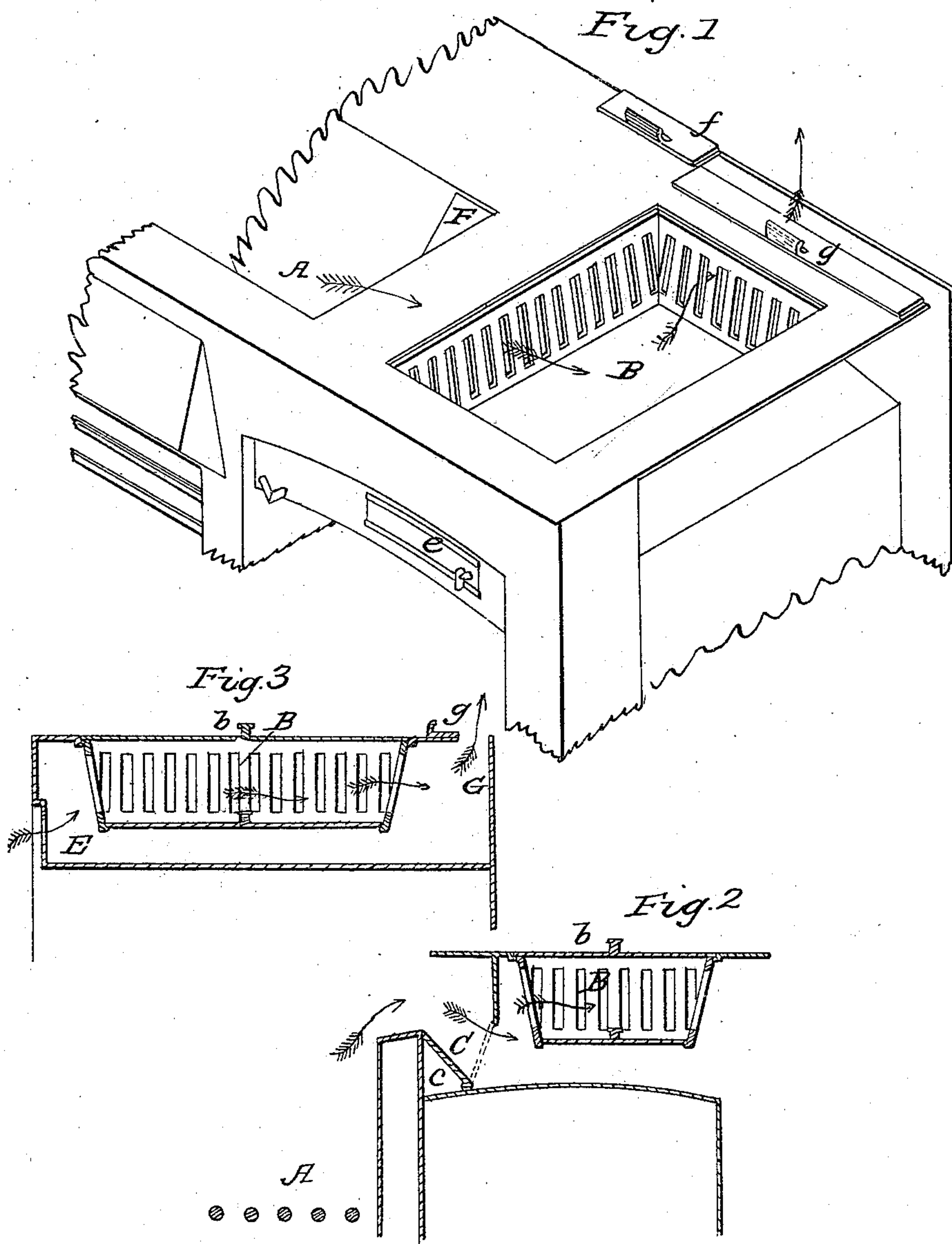


W. RESOR.  
Portable Furnace.

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.

10 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.

15 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.

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

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

30 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. 35

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*, 40 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 45 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. 50

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*, 55 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 here- 60 unto set my hand.

WM. RESOR.

Attest:

GEO. H. KNIGHT,  
JOHN C. HUSSEY.