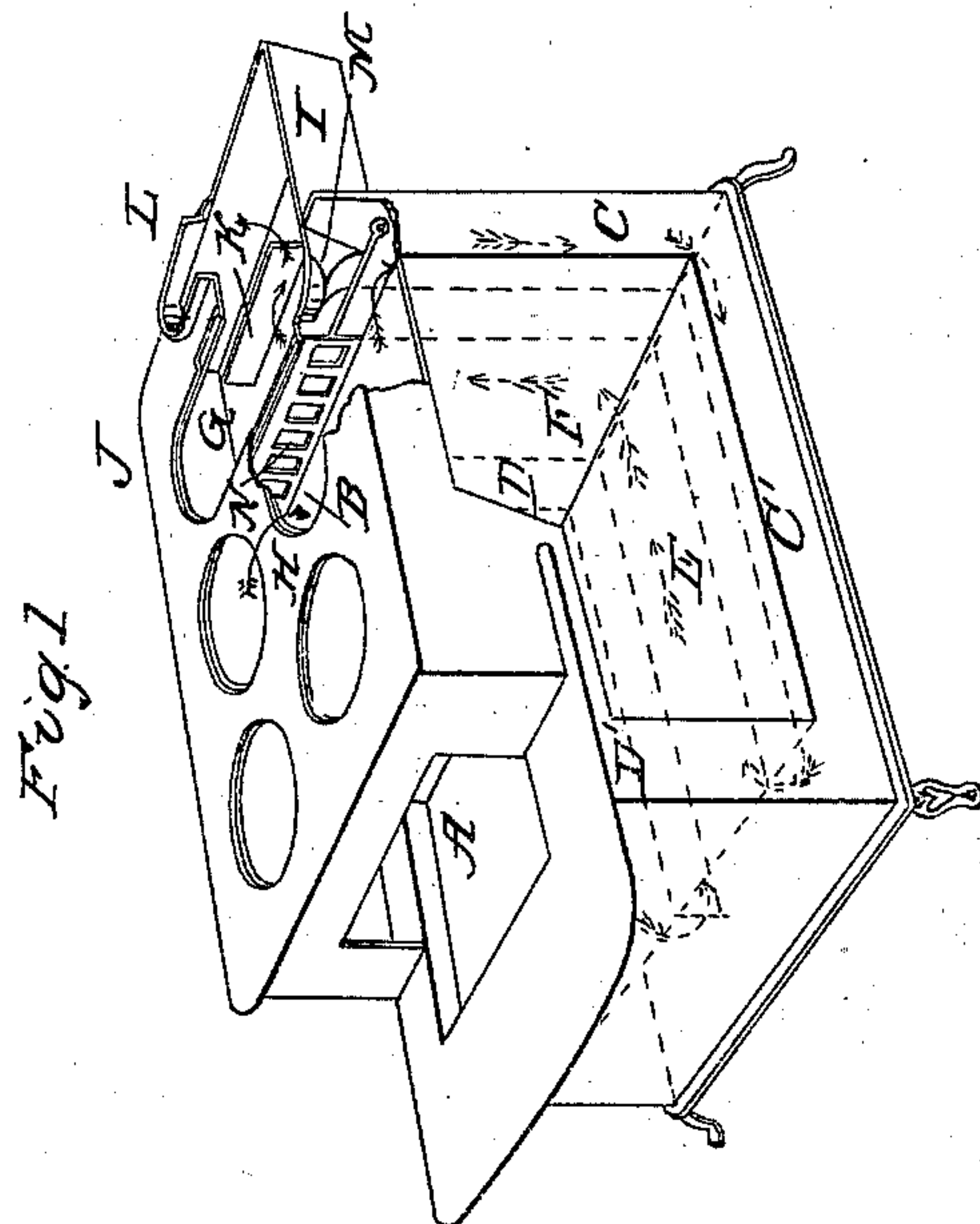
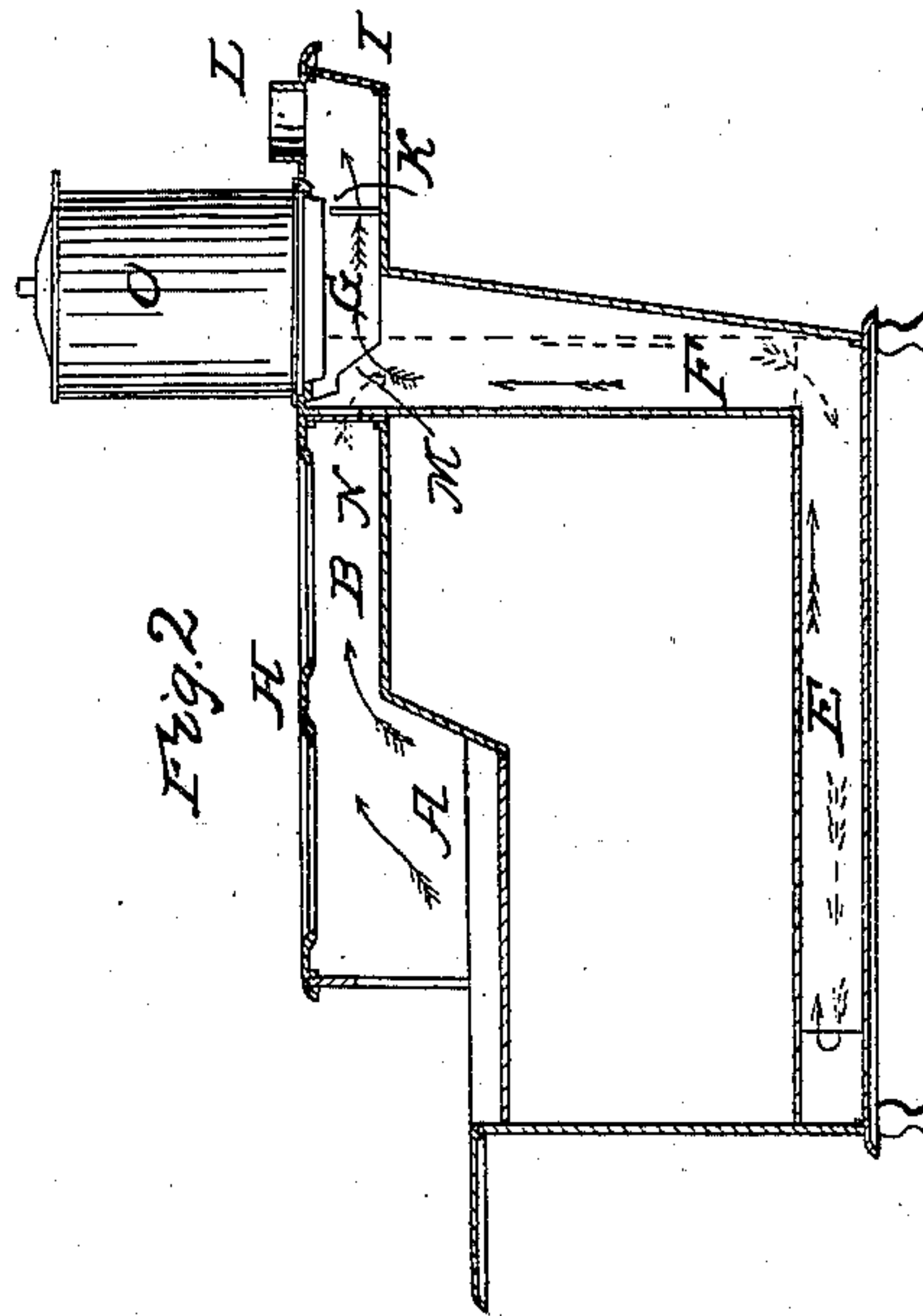


CHAMBERLAIN & CAVEN.

Cook Stove.

No. 39,549.

Patented Aug. 18, 1863.



Witnesses
Charles C. Fisher
J. L. Linn

Inventors
A. C. Chamberlain & Caven
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UNITED STATES PATENT OFFICE.

ADDIS E. CHAMBERLAIN AND WILLIAM CAVEN, OF CINCINNATI, OHIO.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. 39,549, dated August 18, 1863.

To all whom it may concern:

Be it known that we, ADDIS E. CHAMBERLAIN and WILLIAM CAVEN, both of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improvement in Cooking-Stoves; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

The above improvement relates to the class of cooking-stoves which have a flue extension or prolongation in rear of the main body of the stove for utilizing a portion of the heat which would otherwise be wasted; and our invention consists in a provision whereby such prolongation is adapted for use with a common movable boiler or wash-kettle.

Figure 1 is a perspective view of a stove embodying our improvement. Fig. 2 is a central longitudinal section thereof.

The fire-place A, boiling-flue B, and series of reverting-flues C C' D D' E F may be of customary construction. Our extension chamber G is formed by a prolongation of the top plate, H, of the stove and by a box or drop, I.

J is a supplementary or additional boiler-opening in the extended portion of the top plate.

K is a deflector affixed in such a position to the bottom of the chamber G as to meet the drop of the boiler at or near its rear edge.

L is the ventage-nozzle, immediately back of the deflector and the boiler-opening.

O represents a common boiler or wash-kettle.

The smoke traverses the side flues, C C' D D', and escapes by the central flues, E F, in the usual way, but instead of passing off directly by the ventage it enters the chamber G, where it impinges directly against the bottom of the boiler, and is momentarily detained there by the deflector K. The deflector also acts to spread the flame laterally toward the ends of the boiler so as to cause a uniform application of heat under its entire bottom, and in case the boiler is replaced by two pots, the deflector acts to direct the flame to the pots, instead of escaping to the exit between them.

In order to economize space and material as much as possible, the parts M M of the parti-

tions between the box G and the boiler-flue B are incurved or deflected forward and upward about two inches, so as to save that much in the length of the stove without detracting in any way from its efficiency.

N is a register which, being opened, permits the smoke to take a short cut through the chamber G to the chimney.

It will be seen that the boiler may be of the kind in common use, and when not required may be removed and the opening closed by the ordinary covers or occupied by other utensils. It will also be seen that the location of the deflector K is such as to form, in connection with the "drop" of the boiler, a heat-detraining chamber. In our arrangement of extended boiling-surface the surplus heat becomes available for the supplementary boiler, whether the register is open or not, so that hot water may be kept always on hand.

The above form is greatly cheaper and less liable to derangement, and is more convenient for use than the now prevalent form, in which the boiler is traversed and in great part occupied by the smoke-pipe.

We claim as new and of our invention—

1. The deflector K in the described combination with the extended box-top G, boiler-opening J, and ventage-nozzle L, substantially as set forth.

2. The construction of an extended box-top with the incurved partitions M M' between the heat-chamber G and the boiling-flue B, for the provision of an extended stove-top within the shortest practicable limits, as explained.

3. As a new and improved manufacture of extended-top cooking-stoves, the extended box top or chamber G, having the incurved partitions M M', deflector K, supplementary boiler-opening J, and a ventage-nozzle, L in the rear thereof, the whole being combined and operating together in the manner set forth.

In testimony of which invention we hereunto set our hands.

A. E. CHAMBERLAIN.
WM. CAVEN.

Witnesses:

GEO. H. KNIGHT,
CHARLES L. FISHER.