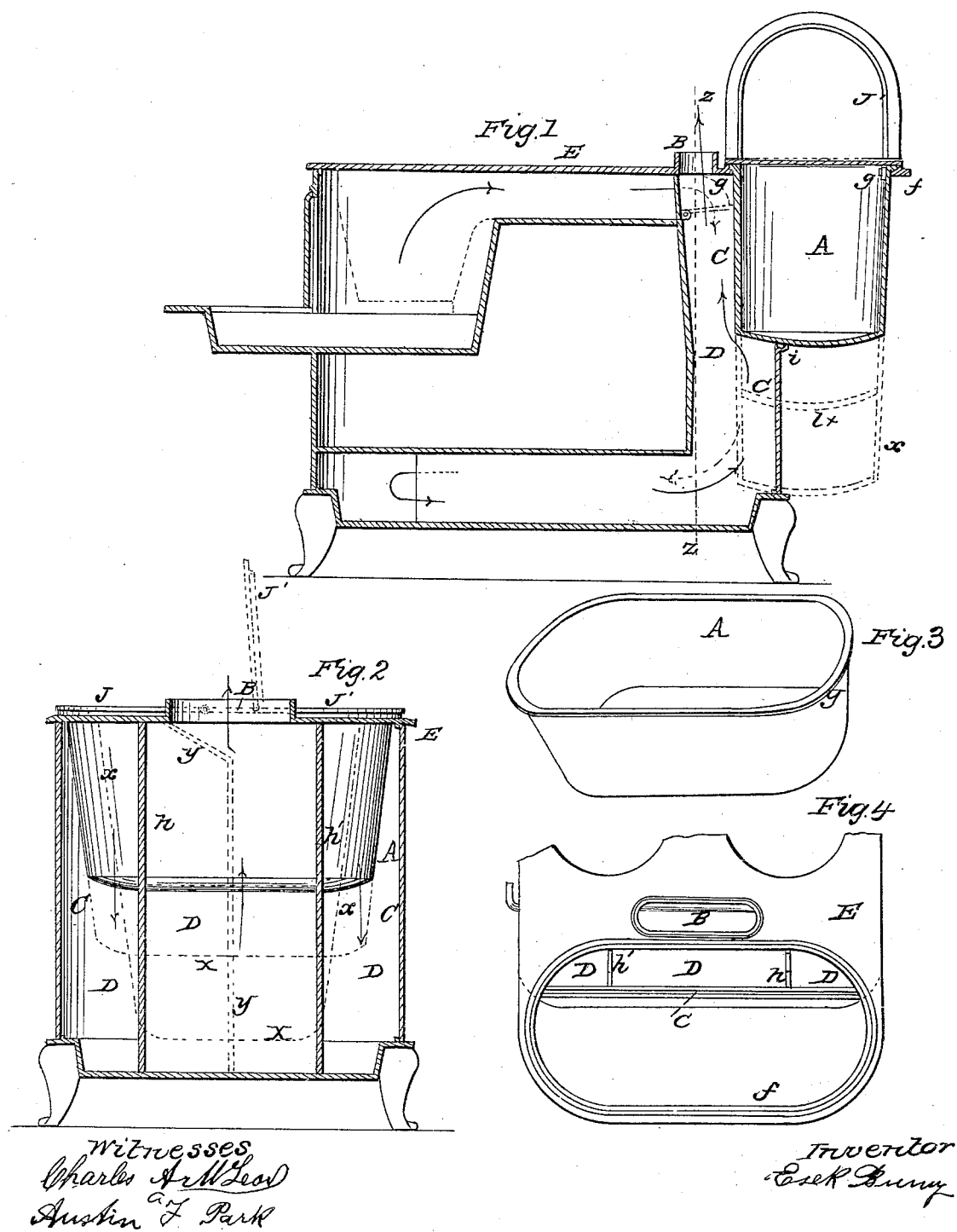


E. BUSSEY.
Cooking Stove.

No. 51,292.

Patented Dec. 5, 1865.



UNITED STATES PATENT OFFICE.

ESEK BUSSEY, OF TROY, NEW YORK.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **51,292**, dated December 5, 1865.

To all whom it may concern:

Be it known that I, ESEK BUSSEY, of the city of Troy, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Cooking-Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section from front to rear, Fig. 2 a section at the line $z z$ in Fig. 1, Fig. 3 a perspective view of the boiler, and Fig. 4, a top view of the rear part with the boiler removed, all of a cooking-stove embodying my invention, like parts being marked by the same letters in all the figures, and the course of the gases of combustion indicated by the arrows therein.

My invention consists in the arrangement, in a cooking-stove, of a culinary boiler and an exit-passage for the gases of combustion, both in one end of the stove, and so that the boiler itself forms a part of the lateral casing of a fire-flue or fire-flues in the same end of the stove, below the said exit-passage, with one upright side of the boiler in direct contact with the flame or hot gases of combustion in the said fire-flue or fire-flues, and the opposite side of the boiler exposed to the air outside of the stove, or not in contact with the flame or gases of combustion in the stove.

In the accompanying drawings, A is the boiler, B the exit-passage for the gases of combustion, and C the lateral casing to the fire-flue or fire-flues D, below the said exit-passage.

With this invention the boiler and the exit-passage for the gases of combustion are together less in the way of a person using the stove in culinary operations, and the boiler absorbs and economizes more of the heat which is about to pass off from the stove and be wasted through the said exit-passage than if the said exit-passage and boiler were arranged apart from each other in different ends or sides of the stove; and with my said invention the boiler is generally at a more convenient height to pour into and to dip out of, and more directly and completely absorbs and utilizes the excess of heat in the end of the stove to which the boiler is applied, than if the boiler did not extend below the exit-passage, but was entirely above the bottom of the latter, on top of the stove. And since the boiler in my said invention is

arranged in, so as to form a part of, the lateral casing on the outer side of a fire-flue or fire-flues in the stove, below the said exit-passage for the gases of combustion, and so as to expose one lateral side of the boiler directly to the flame or hot gases of combustion in the said fire-flue or fire-flues, I thereby avoid the use and expense in the stove of a lateral casing between the said fire-flue or fire-flues and the boiler, and also cause the boiler to be far more rapidly and highly heated, and consequently much more suitable for use in boiling meats and vegetables for food and in heating water quickly and boiling clothes in laundry operations, than if the boiler was arranged at the same end of the stove as and extended below the said exit-passage, with merely one lateral side of the boiler in contact with the outer surface of a lateral casing on the outer side of a fire-flue or fire-flues in the stove, below the said exit-passage, as in some cooking-stoves heretofore made, and as indicated in No. 37,966 of United States Letters Patent.

In carrying my aforesaid invention into operation, I extend the boiler to various widths and depths along the said fire-flue or fire-flues, as indicated by dotted lines at $x x$ in Figs. 1 and 2, and I construct the end of the stove in which the boiler and exit-passage are arranged either with two lateral descending or diving fire-flues and a central ascending one, as shown in full lines in the accompanying drawings, or with a descending fire-flue on one side and an ascending one on the other, as indicated by dotted partition-lines at $y y$ in Fig. 2, or with one broad ascending fire-flue, or other suitable form or arrangement of fire-flue or fire-flues, whereby my aforesaid invention will secure the advantages hereinbefore specified.

I secure the boiler in the stove by any suitable means—as, for example, in the annexed drawings, the top plate, E, of the stove has a ring-like projection, f , in which the boiler is held by a flange, g , on the rim of the boiler, while the side of the boiler, which forms a part of the casing to the fire-flues, is close against the flue-strips $h h'$, and the bottom of the boiler rests at i , Fig. 1, on the edge of the upright plate under it.

$J J'$ are hinged lids or covers on top of the boiler.

I commonly construct the stove of cast-iron

plates, fastened together in the usual manner; and I generally prefer to make the boiler in one piece of cast-iron, and to sometimes have the interior surface of the boiler coated with tin, zinc, or a suitable enamel.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement, in a cooking-stove, of a culinary boiler and an exit-passage for the gases

of combustion, both at one end of the stove, and so that the boiler forms a part of the lateral casing on the outer side of a fire-flue or fire-flues in the end of the stove, below the said exit-passage, substantially as herein described.

ESEK BUSSEY.

Witnesses:

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AUSTIN F. PARK.