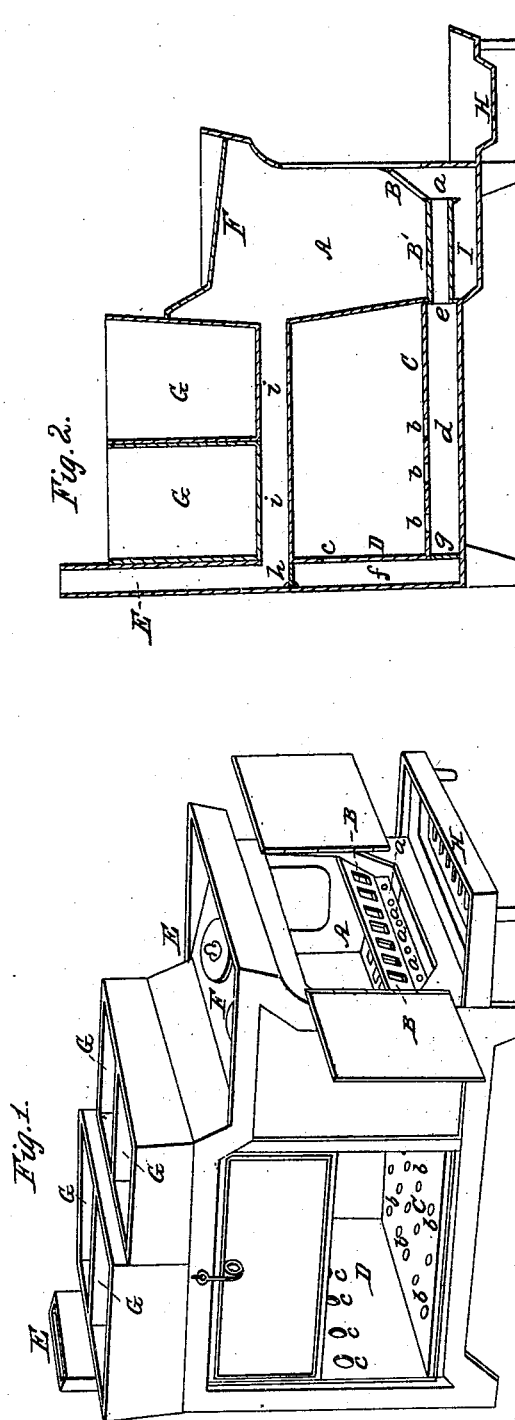


L. WOOD.
Cooking Stove.

No. 1,865.

Patented Nov. 26, 1840.



UNITED STATES PATENT OFFICE.

LOTTIS WOOD, OF NEW YORK, N. Y.

CONSTRUCTION OF SHIPS' CABOOSES AND OTHER COOKING-STOVES.

Specification of Letters Patent No. 1,865, dated November 26, 1840.

To all whom it may concern:

Be it known that I, LOTIS WOOD, of the city of New York, in the State of New York, have invented an Improvement in the
5 Manner of Constructing Stoves for Cooking, which improvement is particularly applicable to cabooses or stoves of the kind which are used on board of ships and steamboats, but which may also be applied to those used
10 in families; and I do hereby declare that the following is a full and exact description thereof.

The main feature of my improvement consists in the manner in which I heat the
15 oven used for baking, which oven is situated at the back of the fire place, or chamber of combustion, as in the greater number of cooking stoves; but in my cabooses or stoves, I do not allow of a direct draft from the
20 fire to pass under the oven, but cause the whole of the heated air generated in combustion to pass over the oven, in a flue space between it and the boilers, or other cooking utensils situated above it; while I heat the
25 lower part of the oven by constructing the grate upon which the coal or other fuel, is sustained, with hollow bars, which bars admit the atmospheric air freely into them in front, and open at their inner, or back, ends,
30 into a flue space under the oven. I perforate the bottom plate of my oven with holes so as to allow the atmospheric air which has passed through the grate bars, and has thereby become highly heated, to
35 pass directly into the oven; and I also perforate the back-plate of my oven with holes, through which the heated air which has been admitted into it may escape into the back flue, and thence, under the government
40 of a damper, valve, or sliding shutter, into the flue by which it is carried to the chimney.

Figure 1, in the accompanying drawing, is a perspective view of my caboose, or cooking-stove.

45 A, is the fire-place, or chamber of combustion; B, the grate for holding the fuel, the lower bars of which grate are hollow, the openings from the atmosphere into them being seen at *a, a, a*.

50 C, is the bottom oven plate, between which and the bottom plate of the stove there is a flue space, as seen at *d*, Fig. 2, which figure represents a vertical section through the stove from front to back. In

this section, B' is one of the hollow bars leading from its opening *a*, through a slot, or opening, in the back plate of the fire chamber at *e*, into the flue space *d*, from which the heated air is allowed to pass into
60 the oven through the openings *b, b, b*; the flue *d*, may lead directly into the flue *f*, at the back of the oven, or there may be a valve, or shuttle, crossing from side to side of this flue space, as at *g*; and when this is
65 closed the whole of the heated air from the flue *d*, must pass through the openings *b, b*, into the oven and thence through the openings *c, c*, into the flue *f*. I usually, however, dispense with the shutter *g*, as I find my
70 oven operates perfectly well without it. To regulate the escape of this heated air into the exit pipe E, I place a damper, or sliding shutter at *h*, constructed in any of the usual
75 modes; and when this is closed there is not any passage of heated air through the grate bars, and into the oven.

E, Fig. 1, is the smoke, or exit, flue. F, F, are boiler openings, immediately above the fire chamber. G, G, are boilers over the
80 flue space *i, i*, Fig. 2, through which the whole of the direct draft from the fire passes. H, is the hearth, and I, Fig. 2, the ash pit. These parts, however, may be variously formed, as fancy, or convenience,
85 may dictate.

Having thus fully described the nature of my improvements in ships' cabooses, and other stoves, I do hereby declare that I do
90 not claim the constructing a grate with hollow bars as of my invention, this having been previously done; but not for the purpose, or in the combination, devised by me; nor do I claim the mere admitting of
95 heated air into an oven, this, also, having been done before; but, so far as I am informed, the heated air so admitted has been such as has passed through the burning
100 fuel, while that admitted by me is the pure, undecomposed atmospheric air: nor has air ever been so admitted under the combination and arrangement of the respective parts
of the apparatus, as herein made known.

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

The manner in which I construct and combine the grate bars and the oven, as herein described; that is to say, the forming
110 of my grate with hollow bars, the openings

through which lead into the flue space under the oven, for the purpose of heating atmospheric air, and conducting it into said flue space; and, in combination therewith,
5 I claim the openings through the bottom and back oven plates, for allowing the air so heated to pass into, and through, the oven, its passage being governed by a shutter, or damper, as described.

LOFTIS WOOD.

Witnesses:

JORDEN L. MOTE,
ETHELBERT S. MILLS.