(No Model.)

J. J. RICHARDSON.

ROASTING AND BAKING OVEN FOR STOVES AND RANGES.

No. 339,473. Patented Apr. 6, 1886.

Fig. 1.

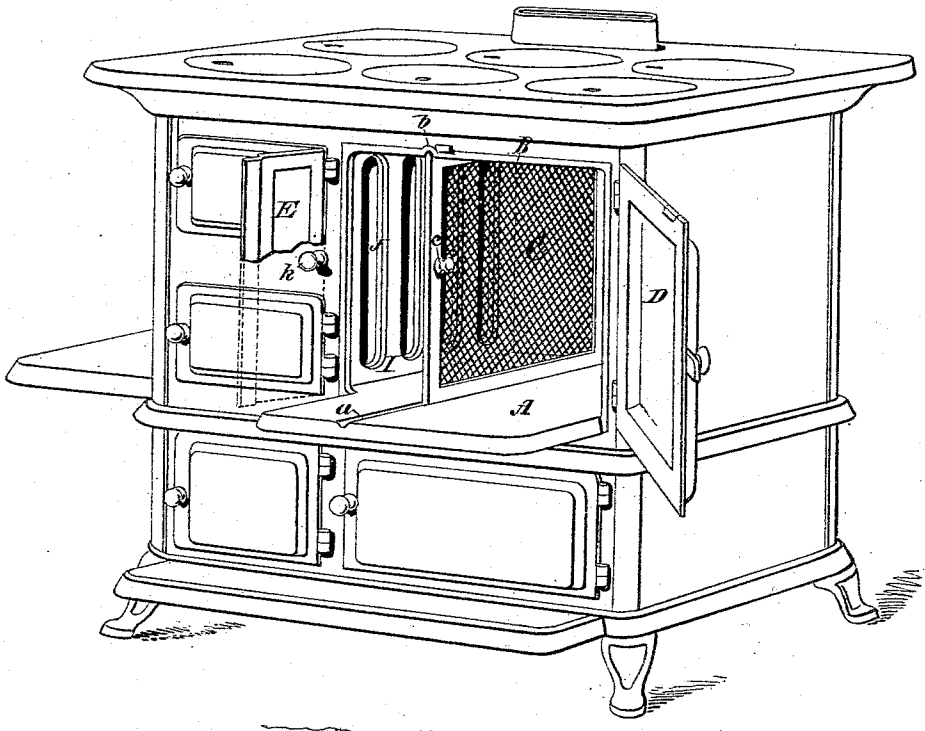
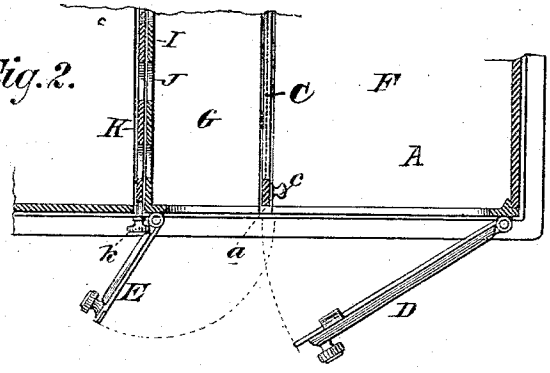


Fig. 2.



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UNITED STATES PATENT OFFICE.

JEREMIAH J. RICHARDSON, OF BROOKLYN, NEW YORK.

ROASTING AND BAKING OVEN FOR STOVES AND RANGES.

SPECIFICATION forming part of Letters Patent No. 339,473, dated April 6, 1886.

Application filed February 12, 1885. Serial No. 155,697. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH J. RICHARDSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Roasting and Baking Ovens for Stoves and Ranges, of which the following is a specification.

My invention relates, broadly, to means for utilizing in a single apparatus the space usually allotted to an ordinary oven for broiling and roasting at one and the same time, the different processes being carried on in separate compartments in the same oven, as aforesaid. The object of this arrangement is to effect a saving of time and an economy of fuel, and more especially to produce an apparatus whereby the steam or moisture can be exhausted from the roasting-chamber without effecting a reduction of the temperature within said chamber, thereby improving its conditions as a roasting-oven, and to produce in connection therewith a space for broiling purposes, with adjusting mechanism adapted to be operated from the exterior of the stove or range for exposing and shutting off the live coals at pleasure from the broiling-chamber.

The baking temperature in ovens is obtained by the radiation of heat from the flues which surround them. It is necessary that this heat should be retained in the oven; but it is also necessary that the vapor of water and other volatile gases liberated in the process of baking should escape.

To these ends my invention consists in placing within the oven a removable sliding frame arranged transversely relatively to the stove or range and constructed of wire-gauze of a fine mesh. The radiation of heat is largely interrupted by the wire-gauze, while the vapors generated in cooking will be forced by pressure through the gauze. This frame is provided with a convenient handle, and is adapted to be slid in and out of the oven as aforesaid. When within the oven and in place, it will subdivide the space, forming by this means two ovens instead of one—to wit, a roasting-oven and a broiling-oven. The former is situated in the rear of the frame and occupies in the preferred arrangement about two-thirds of the space. The broiling-oven is in front of the frame and in direct proximity to the fire. The top and bottom of the oven are provided with transverse grooves in which the frame is adapted to slide. This arrangement may, however, be reversed and the upper and lower edges of the frame be provided with grooves, and corresponding beads or ridges placed upon the upper and lower surfaces of the oven.

The front or broiling-surface of the oven is provided with a sliding or adjustable grate or damper constructed somewhat after the manner of the draft-regulators usually arranged in the fronts of stoves. There are, however, variations in detail, and the object of the device is entirely different, as will be hereinafter described.

Another important feature of the present invention is the construction of the double doors. These doors are so formed as that they will meet at the same point, (slightly overlapping, of course,) this point or line coinciding with the edge of the removable frame.

Referring to the accompanying drawings, Figure 1 represents a perspective view of a stove or range embodying my inventions. Fig. 2 is a horizontal section of a portion of the same.

A represents the bottom of an oven, provided with a groove, *a*, placed at or about the distance from the front of the oven, as indicated in the drawings.

B is the top of the oven, with a corresponding groove, *b*.

C is a wire-gauze frame provided with a handle, *c*.

D and E are the doors, hinged at the sides of the oven and constructed of sizes adapted to cover each aperture of the oven separately and independently.

F is the roasting-oven, and G the broiling-oven. The front surface, I, of the latter is provided with vertical openings J, and beyond this is arranged a complementary sliding frame or damper, K, provided with a handle, *k*, for operating the same. By this means the live coals of the fire can be exposed to or shut off from the broiling-oven at will. All the moisture or vapor generated in the roasting-oven will pass through the wire-gauze and out

through the vertical openings J, and so carried by the draught out at the chimney without affecting or reducing the heat in said roasting-chamber.

Access can be had to either the roasting or broiling oven by opening the door which pertains to that compartment without affecting the temperature in the other compartment to any material extent, because the oven is heated from the exterior, as usual. For instance, if the cooking operations are being carried on in both the broiling and the roasting ovens, and it is desired to have access to the broiling-oven, the door E is opened for that purpose. This door may be opened and left open without materially effecting a reduction of temperature or decreasing to much extent the intensity of the heat within the roasting-oven F. The flames will not pass from the broiling-chamber through the wire-gauze C, although the steam or vapor will be forced from the baking-oven by pressure.

When the sliding frame or damper K is in a position to close the openings in the front surface, and the doors of either oven, but not both, are opened, the vapor of water or other volatile gases of the article baking in the closed oven for the time being will pass toward the open oven, while the gauze side is not directly exposed to the outer air and thereby liable to a cold atmosphere, which might reduce the temperature on the gauze side of the oven which is closed. The door D also is shown in the drawings as overlapping the door E, thus permitting the former to be opened and closed without disturbing the latter when both are closed; but this arrangement may be reversed, or both may meet at the same point, but not overlap. In this case they would be provided with independent locking devices. The positions of the parts I and K may also be reversed in practice, if desired.

This invention is not only adapted to be constructed in connection with a stove or range when said stove or range is being built, but with slight alterations is also adapted to be applied or attached to any cooking stove or range now in the market.

Having thus described my invention, what I I claim as new therein, and desire to secure by Letters Patent, is—

The combination of the oven of a stove or range and a removable wire-gauze frame arranged within said oven, the said oven being provided with openings into the fire-box, substantially as and for the purposes set forth.

JEREMIAH J. RICHARDSON.

Witnesses:

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