(No Model.)

A. S. COX.

OVEN.

No. 440,840. Patented Nov. 18, 1890.

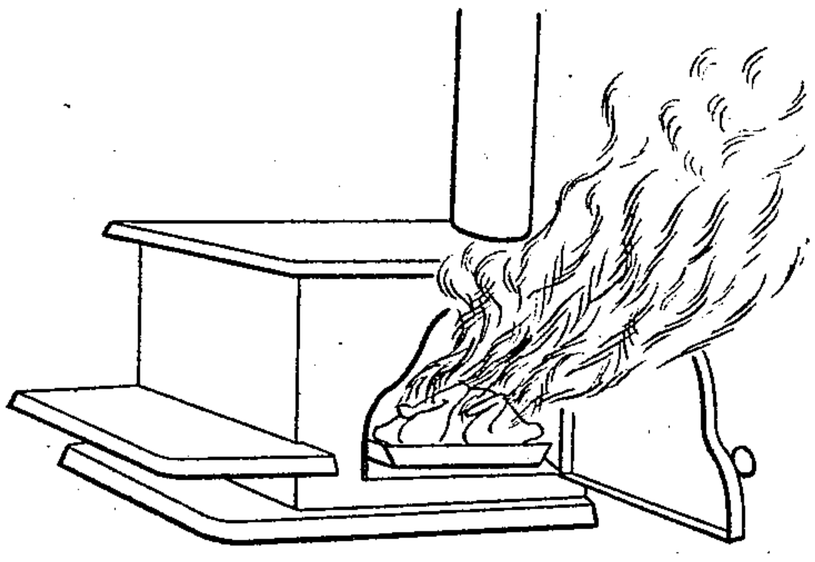

Fig. 1.

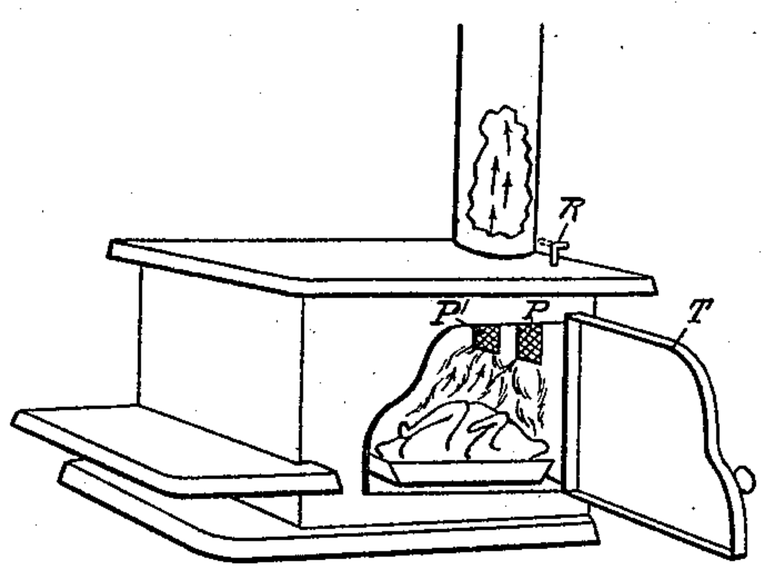

Fig. 2.

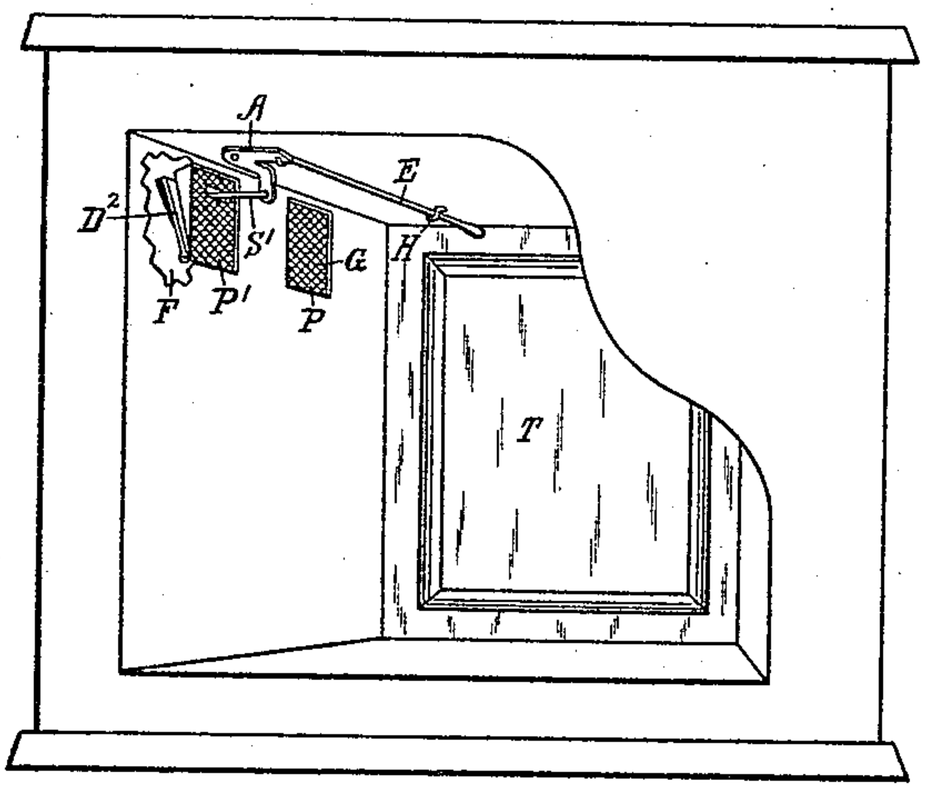

Fig. 3.

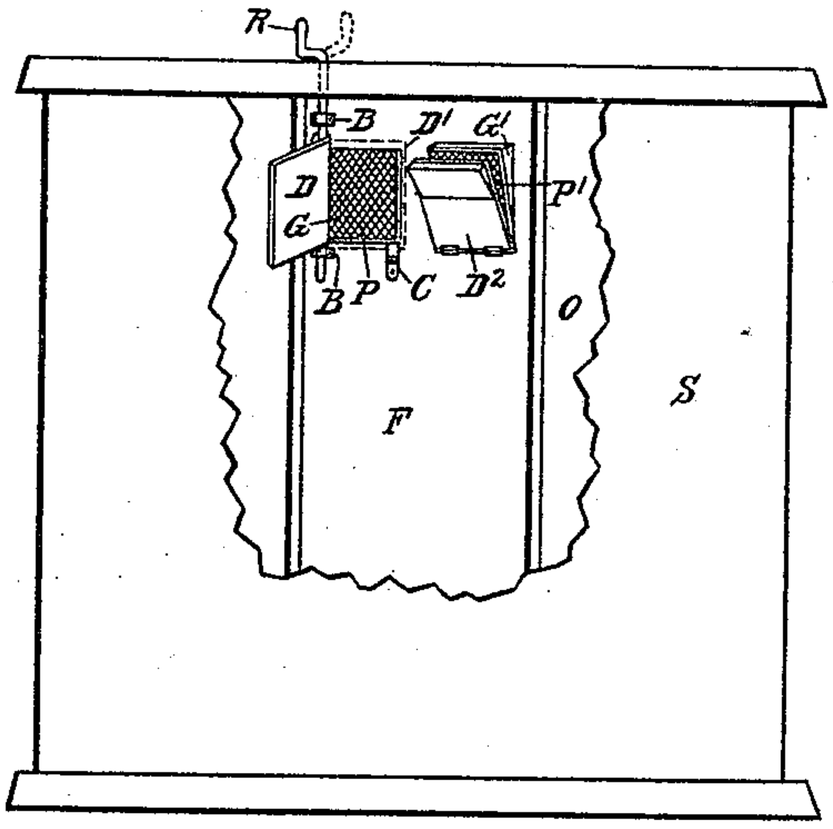

Fig. 4.

Attest
A. Edmunds
Jas. E. Edmunds

Inventor
Alfred S. Cox.
By P. J. Edmunds
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UNITED STATES PATENT OFFICE.

ALFRED S. COX, OF LONDON, CANADA.

OVEN.

SPECIFICATION forming part of Letters Patent No. 440,840, dated November 18, 1890.

Application filed March 17, 1890. Serial No. 344,077. (No model.) Patented in Canada May 1, 1888, No. 29,059.

To all whom it may concern:

Be it known that I, ALFRED S. COX, a subject of the Queen of Great Britain, and a resident of the city of London, in the province of Ontario, Canada, have invented a certain new and useful Improvement in Ovens, (for which I have obtained a patent in Canada, No. 29,059, dated May 1, 1888,) of which the following specification, taken in connection with the accompanying drawings, forms a full, clear, and exact description.

In ovens in ordinary use when anything gets accidentally burned therein or if the gravy from anything roasting splashes on the sides and bottom of the oven and is burned it fills said oven with black greasy smoke, which not only vitiates the flavor of the roast, but on the opening of the oven-door to cool or to examine the contents this black greasy smoke rushes out and penetrates to almost every part of the house.

The object of this invention is to drain or draw off the smoke arising from anything burning in or to drain or draw off the disagreeable odors arising from anything cooking in the oven and discharge said smoke or odor into the flue or flues or their connections leading to the outside of the building; and this invention consists of the improved construction and combination of parts of the same, as will be hereinafter first fully set forth and described, and then pointed out in the claims, reference being had to the drawings, already referred to, wherein—

Figure 1 is a perspective view of a stove, illustrating the disadvantage of cooking with the ovens in ordinary use. Fig. 2 is a perspective view of a stove, illustrating the advantage of cooking with ovens provided with my improvement. Fig. 3 is an enlarged detail side elevation of an oven, showing my improvement and the interior of the oven in perspective. Fig. 4 is a rear view of the stove. In this view part of the back plate of the stove is cut away for the purpose of further illustrating my invention.

In the annexed drawings, O designates the back plate of the oven; S, the back plate of the stove, and P and P′ designate openings in the back plate O of the oven, which open into the main flue F, leading to the stove-pipe, and from thence through the chimney communication is made with the outside of the building. These openings P and P′ may connect directly with the main flue F or indirectly by opening into one of the intermediate flues or connections communicating with the main flue, as found most convenient, and they may be provided with a hood G′ and with a wire-netting G, if found necessary, to prevent ashes or soot from falling into the oven.

A designates a bell-crank lever pivoted on the inside of the oven or other suitable support, and to one end of this bell-crank lever A one end of a bar E is pivotally secured, the other end of said bar E being adjusted to engage with the oven-door T as the latter is closing, this bar E being held in place by a guide H, and the other end of the bell-crank lever A is connected by a coupling-link S′ to a cover D^2, which may be hinged and pivotally or otherwise adjusted to or from the back plate O of the oven in the flue F between the back stove-plate S and the back oven-plate O, or it may be placed in an intermediate flue or connection leading to the flue F. The upper part of the cover D^2 is cast thicker and heavier, so that it will automatically fall to one side and open itself as the oven-door T is opened.

The operation of this device is automatic and as follows: Just as the operation of closing the oven-door T is being completed the door T abuts against the end of bar E, and as the door T is closed it presses on the bar E, which closes the cover D^2 on the opening P′, and just as soon as the main oven-door T of the stove is opened the weighted end of the cover D^2 causes it to lower, which permits any disagreeable odors which may remain in the oven to pass through the opening P′ into the flue F and from thence through the stove-pipe and chimney to the outside of the building.

In Fig. 4 is shown a modification of this invention, in which—

R designates an operating device, which extends down through the top of the stove and into the main flue F or one of its connections, to which operating device R the cover D is secured in position adjacent to the opening P. By extending this operating device R down through and from the top of the stove

it may be readily, instantly, and easily operated from either side of the stove, and this operating device R and cover D may be supported in bearings B B or other suitable supporting devices. This operating device R and cover D may be placed in the oven opposite the opening P, if required; but I have found that it is more out of the way when placed in the flue F between the back oven-plate O and the back plate S of the stove.

The operation is as follows: When wishing to drain or draw off the disagreeable odor from cooking or from anything burning in the oven, it is done by simply adjusting the operating device R and cover D, secured thereto, to the position shown in Fig. 1. The draft passing up through the flue F, rapidly passing the opening P, sucks or draws these odors or smoke out of the oven through the opening P and discharges them into the stove-pipe, from whence they are carried by the draft and pass through the chimney to the outside of the building. When wishing to close the oven perfectly tight again, it is done by simply adjusting the cover D to the position shown by dotted lines D′ in Fig. 1; but before bringing the cover up against the back oven-plate O in the flue it should be slightly raised to pass over a catch C, which may be secured to the back oven-plate to hold this cover D tightly against said back oven-plate; or if an incline were formed around the opening P the resting of this cover D on the incline would be sufficient to securely close the opening P, so that by providing stoves with this improvement all smoke from anything burning in the oven or the disagreeable or obnoxious odors arising from cooking are discharged from the oven to the outside of the building, and are thereby prevented from passing into the room and through the house, as formerly.

Having thus described my invention, I claim—

1. An oven O, formed with an opening P′, and provided with netting G, in combination with a cover D^2, a coupling-link S′, a bell-crank lever A, bar E, guide H, and oven-door T, substantially as and for the purpose set forth.

2. An oven O, provided with openings P P′ and netting G, in combination with the covers D and D^2 and their operating devices, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in the presence of the two undersigned witnesses.

ALFRED S. COX.

Witnesses:
P. J. EDMUNDS,
JAS. E. EDMUNDS.