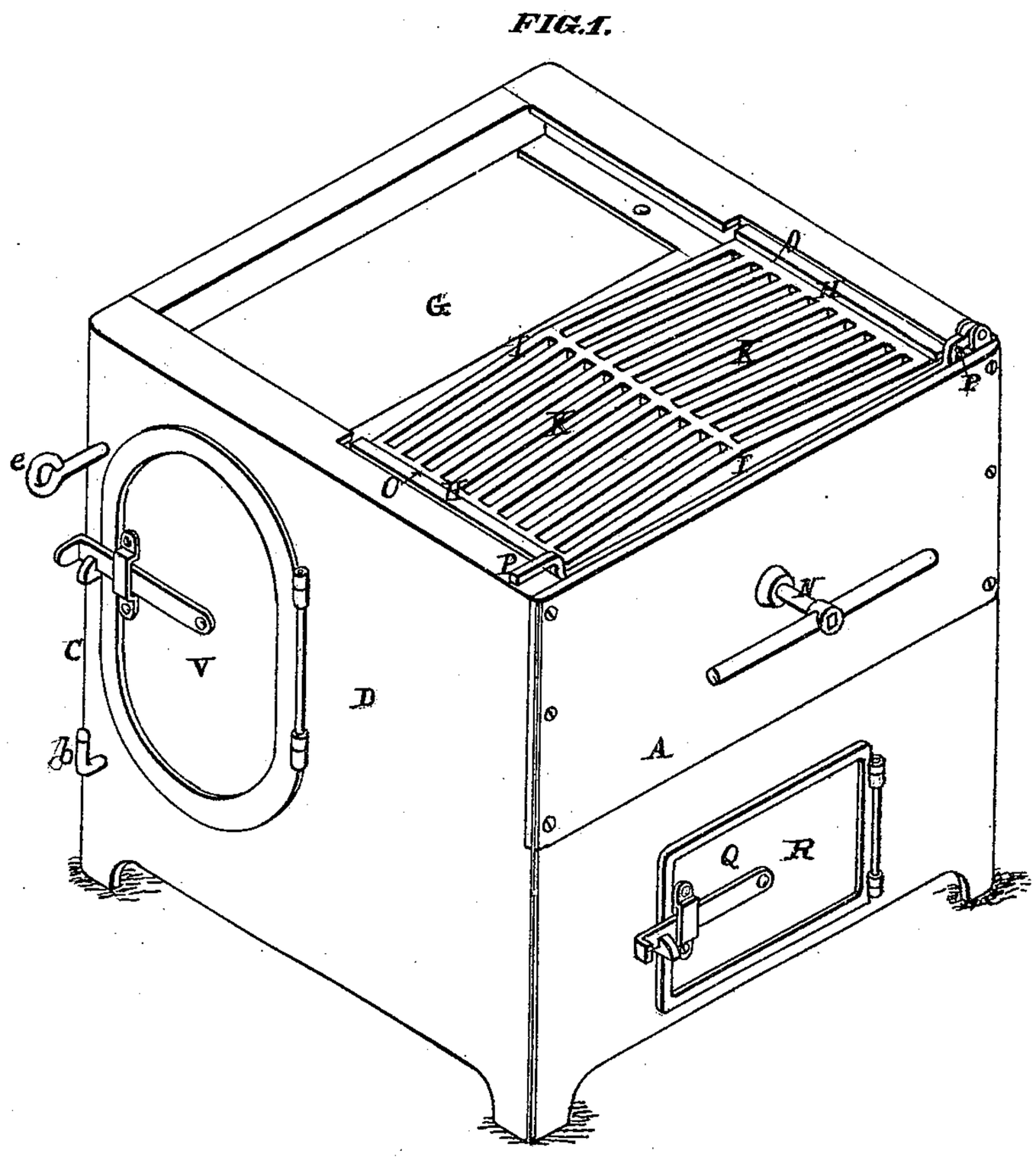
2 Sheets—Sheet 1.

J. R. SPRAGUE.

COOKING-STOVES.

No. 175,776. Patented April 4, 1876.

FIG. 1.



ATTEST:

Robert Burns.
Charles Ridley

INVENTOR:

Jacob R. Sprague
By Wright & Bro's.
Attys.

2 Sheets—Sheet 2.

J. R. SPRAGUE.

COOKING-STOVES.

No. 175,776. Patented April 4, 1876.

FIG. 2.

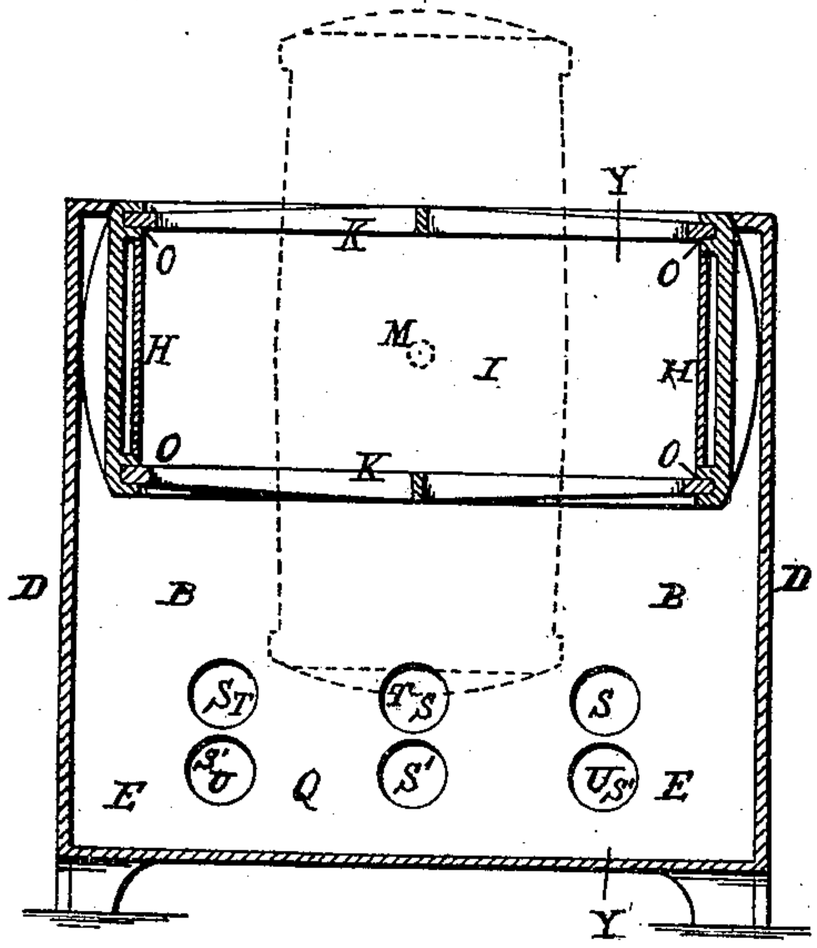
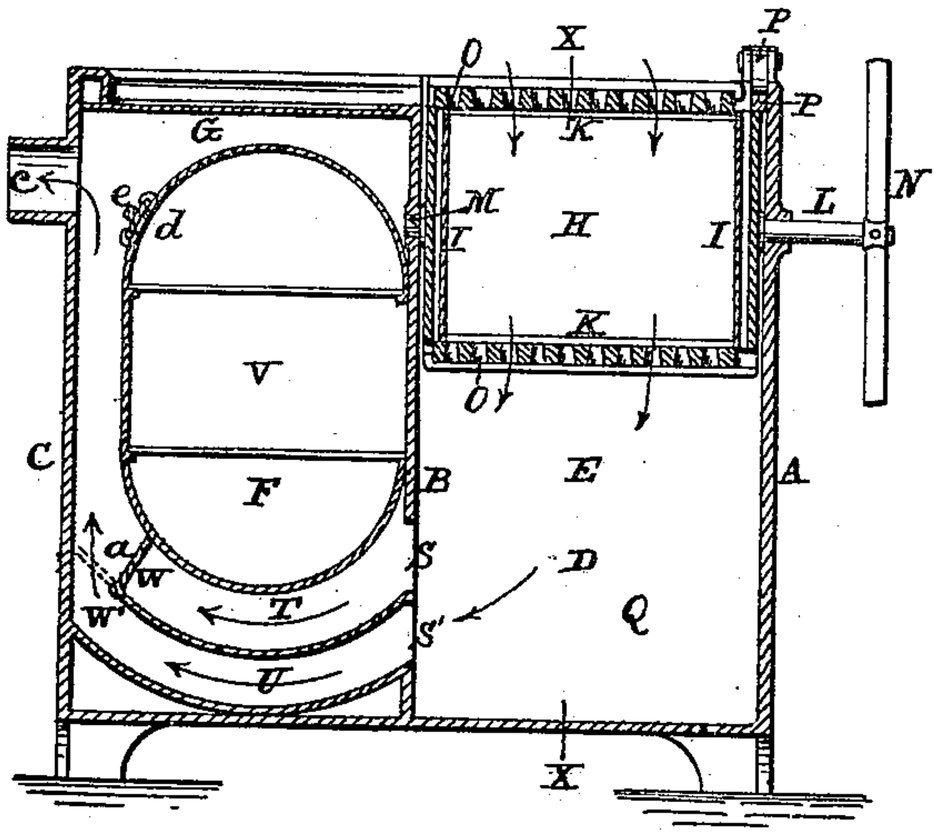


FIG. 3.



ATTEST:

Robt. Burns.
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UNITED STATES PATENT OFFICE.

JACOB R. SPRAGUE, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN COOKING-STOVES.

Specification forming part of Letters Patent No. **175,776**, dated April 4, 1876; application filed May 24, 1875.

To all whom it may concern:

Be it known that I, JACOB R. SPRAGUE, of St. Louis, St. Louis county, State of Missouri, have invented a certain new and useful Improvement in Cooking-Stove or Broiling Apparatus, of which the following is a specification:

My improvement relates to a down-draft broiling apparatus, combined with an oven, &c.

The first part of my improvement consists in a fire-basket, supported on trunnions, so as to admit of inversion, to present the hotter side of the fire upward.

The second part of my improvement consists in constructing the upper and lower sides of the fire-basket to slide out and in, so that those sides—which constitute the grates proper—may be removed to expose the fire, when on top, and may be put in position to retain the fire when the basket is being turned over, and to form the bottom of the basket after inversion.

The third part of my improvement consists in the combination of such rotatable fire-basket and case with a chamber beside the same containing an oven or warming-closet, with two flue-chambers beneath the same, into either of which the products of combustion may be passed, by the action of a damper, to regulate the temperature of the oven.

The fourth part of my improvement consists in a damper-closed aperture in the top of the oven, through which the fumes may be allowed to pass into the exit-flue, when desired.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section at *x x*, Fig. 3. Fig. 3 is a transverse section at *y y*, Fig. 2.

The case consists of three longitudinal walls, A B C, and end walls D D. The wall B divides the case into two portions or chambers, E F, of about equal size. The chamber E is open at top, while that F has a close top, G. The fire-basket has ends H and sides I firmly secured together, and which form, with the fire-grates K, the fire-basket. This basket is supported on trunnions L and M, having bearings in the bosses of the plates A and B. The trunnion L has a handle, N, by which the basket is turned end over to invert it. The purpose of this is to bring the hotter side of the fire to the top, the descending draft causing the fire to become highly heated at the bottom, and from the same cause the top is gradually cooled off, so that the inversion of the basket has two useful results: first, to place the hotter side of the fire where it is needed, and, second, to prevent the injury of the lower grate-bars by too great heat.

The grate-bar castings are supported by the ends, which slide in grooves O in the end plates of the basket, so that whichever grate is on top can be slid from the basket upon the top plate G, exposing the upper face of the fire.

Before inverting the basket, (unless it is desired to discharge the contents,) the upper grate K is put in place in the basket, and forms its bottom after it has been turned over. The basket, when in a horizontal position, as shown in full lines in the drawings, is held in this position by a bar, P, which is hinged at one end to the case, and which lies upon one corner edge of the basket, this bar also serving to close the aperture between the basket and the case at the front side.

Q is the ash-pit, and R the ash-door. S S′ are openings for the escape of the products of combustion from the ash-pit into the flue-chambers T and U, beneath the oven V. The chambers T and U are curved in the same manner as the oven-bottom plate. The products of combustion escape from these chambers through long openings W and W′, respectively, and either of these openings may be stopped by a damper, so as to cause the products of combustion to pass through the other one and through the chamber with which it communicates, the damper being shown at *a*, and its handle at *b*. Thus the temperature of the oven is regulated, the heat therein being greater when the products of combustion are passing through the chamber T than when they are passing through that at U. *c* is the chimney. *d* is an opening in the top of the oven, and communicating with the chamber F. This opening may be closed by a damper, *e*. Its purpose is to permit the escape of fumes from the oven into the chimney.

The operation of my improvement is as follows: Suppose both fire-grates K to be in place in the basket, and the fire burning there-

in. It may be used to cook meat in this condition until the draft, passing downward through the fire, causes the top to become in some degree cooled, when the grate K may be slipped off the top to fully expose the upper surface of the fire. As the top becomes still further cooled, the heat increases in the lower part of the fire, and when it is desired to invert the basket, the grate K is slid forward into position in the basket, and the basket turned over by means of the handle N.

The basket may be rotated in any direction to invert it, either end over, as described, or turned on its longer axis.

I claim as my invention—

1. The turning fire-basket, having removable sliding fire-grates, substantially as set forth.

2. The combination of the turning fire-basket with the case A B C D, having top plate G for the reception of the grate-bars when the same are slid out of the fire-basket, substantially as set forth.

3. The combination of turning fire-basket H I K, flues T U, damper *a*, and oven V, as set forth.

JACOB R. SPRAGUE.

Witnesses:

SAMUEL KNIGHT,

ROBERT BURNS.