

(No Model.)

J. SWARTS.
Gas or Vapor Stove.

No. 238,984.

Patented March 15, 1881.

Fig. 1.

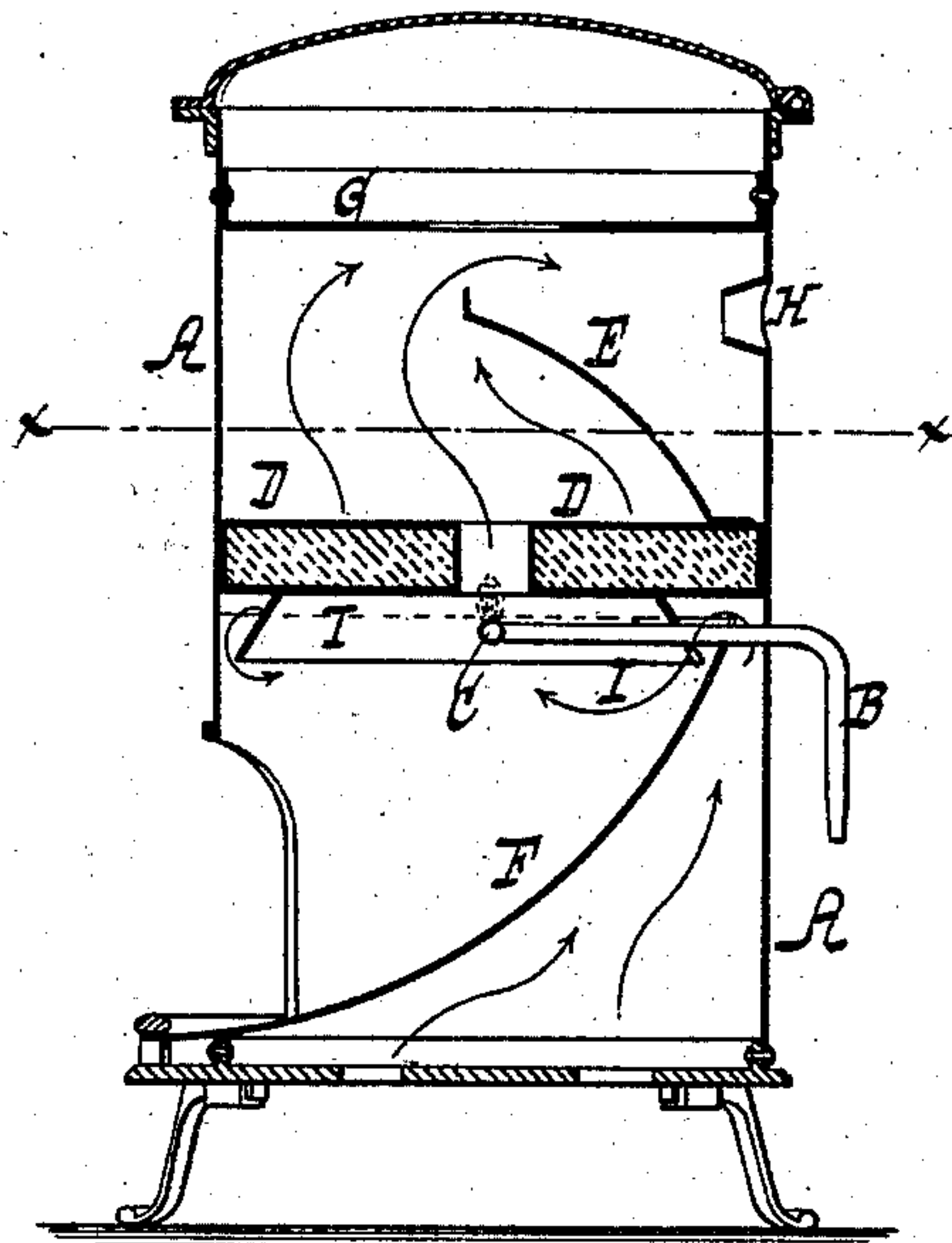
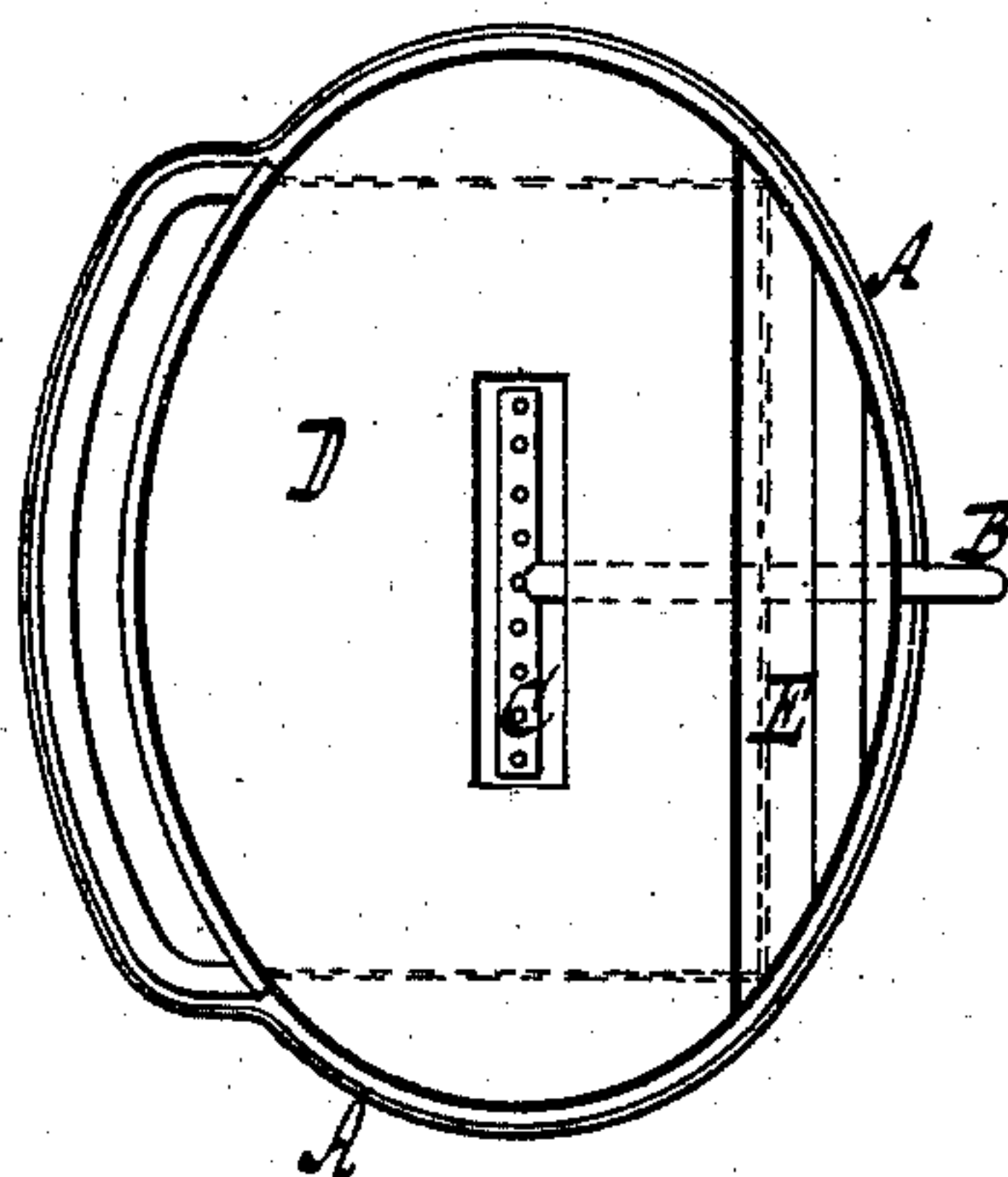


Fig. 2.



Witnesses

Otto Stufeland
William Miller

Inventor
John Swarts.
by Van Santvoord & Hauff
his attys

UNITED STATES PATENT OFFICE.

JOHN SWARTS, OF NEW YORK, N. Y.

GAS OR VAPOR STOVE.

SPECIFICATION forming part of Letters Patent No. 238,984, dated March 15, 1881.

Application filed December 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN SWARTS, a subject of the Queen of Great Britain, residing at New York, in the county and State of New York, have invented new and useful Improvements in Gas or Vapor Stoves, of which the following is a specification.

The object of this invention is to retain and utilize the heat generated by the burners of gas or vapor stoves; and it consists in certain novel combinations and arrangements of a burner, radiator, deflector, and reflector or reflectors, as hereinafter fully described.

This invention is illustrated in the accompanying drawings, in which Figure 1 is a vertical central section of a stove containing my invention. Fig. 2 is a section in the plane xx , Fig. 1.

Similar letters indicate corresponding parts.

The letter A designates the walls or body of the stove. B is a pipe or conduit for conveying gas or inflammable vapor, and is provided at its end with jets or burners C. A radiator or radiating-box, D, is placed in said stove, in close proximity to said jets or burners, and is perforated to allow the products of combustion to pass to the upper part of the stove and out at the chimney H. The radiator or radiating-box D is composed of any substance capable of absorbing and retaining heat. I find very desirable results to be attained by taking for this purpose a mixture of clay, gypsum, and fire-brick. This radiator retains the heat which would otherwise pass out at the chimney and be lost.

A deflector, I, placed about the under surface of the radiator, causes the air, before passing to the burner, to flow about said radiator and become warm.

Above the radiator D is placed a reflecting-

surface, E, which throws the heat passing up from the burner C and radiator D out against the walls of the stove, thus heating the same. In the under part of the stove I also place a reflecting-surface, F, which throws the heat out into the room.

In the upper part of the stove may be fastened a plate, G, having perforations, on which may be placed vessels or dishes for cooking or other purposes.

The air for the burner enters through perforations in the base of the stove, below the reflecting-surface F.

By this construction I obtain a stove in which very little of the heat is lost by passing out at the chimney, or otherwise, whereby the room in which said stove is placed is heated at a much smaller expenditure of fuel.

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

1. The combination, in a gas or vapor-stove, with a jet or burner, C, and a radiator, D, of a deflector, I, substantially as and for the purpose set forth.

2. The combination, in a gas or vapor stove, with a jet or burner, C, and a radiator, D, of a deflector, I, and a reflecting-surface, E, substantially as described.

3. The combination, in a gas or vapor stove, with a jet or burner, C, and a radiator, D, of a deflector, I, and reflecting-surfaces E F, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JOHN SWARTS. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.