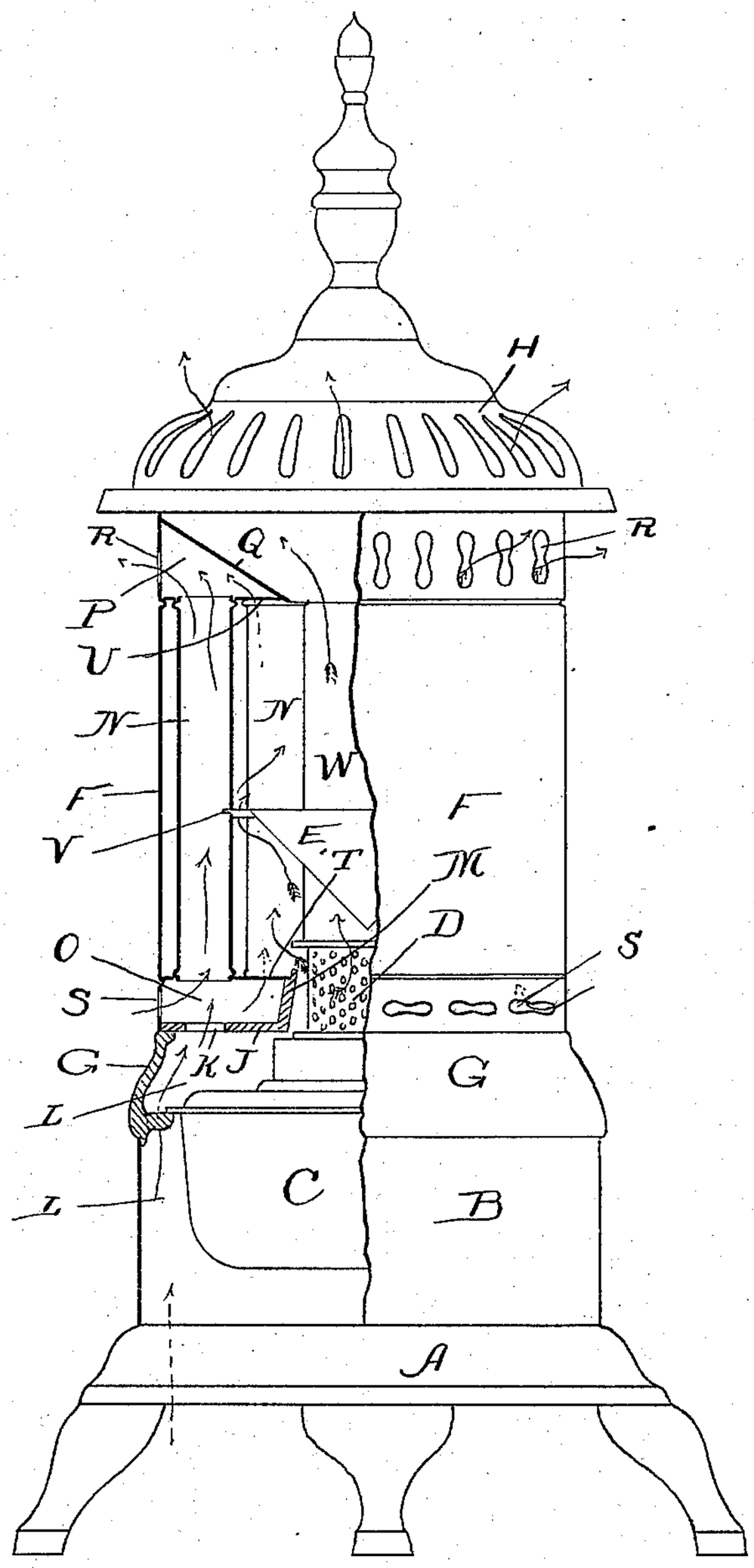
(No Model.)

C. MUNZNER.

OIL HEATING STOVE.

No. 550,636. Patented Dec. 3, 1895.



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UNITED STATES PATENT OFFICE.

CHARLES MUNZNER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE GEORGE M. CLARK & COMPANY, OF SAME PLACE.

OIL HEATING-STOVE.

SPECIFICATION forming part of Letters Patent No. 550,636, dated December 3, 1895.

Application filed July 19, 1895. Serial No. 556,442. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MUNZNER, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Oil Heating-Stoves, of which the following is a specification.

This invention relates to the construction of a compact and portable heater adapted to use oil as fuel and intended for warming rooms.

The object of the invention is to increase the efficiency of the stove in action, as well as to improve its construction.

The invention consists of the novel construction of the several parts and in the novel combinations of parts and devices hereinafter described, and particularly set forth in the claims.

In the drawing I show my improved heater partly in elevation and partly in section.

In said drawing, A is the base of the stove; B, the sheet-iron drum surrounding the oil-tank; C, the oil-tank, which is preferably removable; D, the burner; E, the heat-spreader; F, the main or body drum surrounding the combustion-chamber and the heating-tubes; G, the casting uniting the drums B and F, and H the perforated cover or top.

Resting upon the casting G is a flat annular plate J, having air-openings K over the annular air-passage L, formed between the drum B and the oil-tank, so that the air taken in at L is free to move up through the plate. This plate also has around its interior edge an upstanding flange M, which surrounds the burner and deflects the flame issuing therefrom, so that it is compelled to seek its exit over the top of the flange.

Inside the drum F are a series of air-heating tubes N, open at both ends, so that they receive the air from the space or air-chamber O immediately above the flanged plate and conduct it to the annular air-space P immediately below the deflector Q and within the drum F, and from which the air issues at the openings R, formed in the side of the drum. I also increase the air supply to these tubes by means of openings S in the drum F opposite the chamber O. The chamber O is covered by the sheet-metal plate T, except where the tubes N open into it.

The heat-spreader E is provided with projecting pins V, which engage in corresponding holes in the air-tubes N, thereby supporting the spreader in its proper position.

The products of combustion are not allowed to mix with the air heated in the tubes N, but instead thereof pass up through the combustion-chamber W, after being deflected against and around the tubes, and thence escape through the center opening of the deflector and the perforations in the top. In order to distinguish the currents of the fresh air heated in the air-tubes and those of the products of combustion, I use plain arrows for the former and feathered arrows for the latter. By keeping the two currents separate, as described, it becomes possible to conduct the products of combustion out of the room instead of giving them exit in the room, if it is desired to prevent any contamination of the air by them. The chamber P is provided with a floor U, shutting off all access to it by the air, &c., from the burner.

I claim—

1. The combination with the burner and the series of fresh air tubes arranged around the burner, of the heat spreader placed over the burner and adapted to deflect the rising heat against said tubes, said spreader being supported by projections let into the tubes, substantially as specified.

2. In an oil stove, the combination with the fresh air tubes leading through the combustion chamber, of the flanged plate J, top T, and drum F having inlet openings S, substantially as set forth.

3. In an oil stove, the combination with the fresh air tubes, of the deflector Q, the floor U and the drum F having discharge openings R, substantially as specified.

CHARLES MUNZNER.

Witnesses:
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