M. A. SHEPARD.

Draft-Pipe for Heaters.

No. 204,170. Patented May 28, 1878.

FIG. 1.

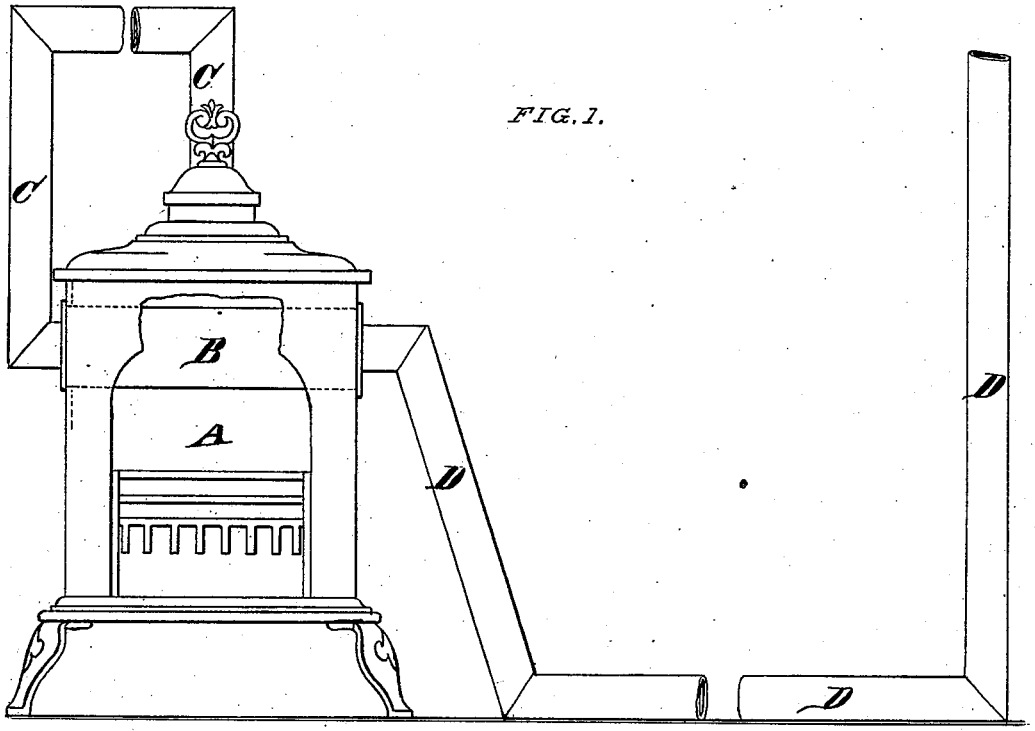
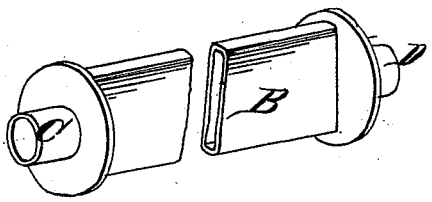


FIG. 2.



ATTEST:

Robert Burns.
Charles Pickles

INVENTOR:

Morrill A. Shepard

UNITED STATES PATENT OFFICE.

MORRILL A. SHEPARD, OF LEBANON, ILLINOIS.

IMPROVEMENT IN DRAFT-PIPES FOR HEATERS.

Specification forming part of Letters Patent No. **204,170**, dated May 28, 1878; application filed November 16, 1877.

To all whom it may concern:

Be it known that I, MORRILL A. SHEPARD, of Lebanon, in the county of St. Clair and State of Illinois, have invented a new and useful Improvement in Draft-Pipes to be connected with Heaters, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

Figure 1 is a front elevation with part of stove broken away. The heavy line under the arch indicates a section of the draft-pipe B. Fig. 2 is a detail perspective view of the draft-pipe B.

The drawing shows a fire-receptacle, A, which may be a fire-place, stove-grate, or heater. To it are connected the smoke-pipes C C, which, under my improvement, may be formed into an arch shape, or arranged so as to pass and meander through several rooms, or around, inside, or under a public or private building, and then connect with the draft-pipe B, as shown, at the opposite end of which is connected the exit-pipe D.

As soon as a fire is kindled in the fire-box the draft-pipe B receives the first heat, and the air inside of the same, by virtue of said heat, expands and rushes out through the exit-pipe D, creating a partial vacuum in the draft-pipe B, which creates a strong draft through the smoke and heat pipes C C. After this a constant draft is maintained, and the heat distributed wherever the pipes may pass.

The exit-pipe D (or pipes C C, if desired) may pass along and near the floor, or even down under the floor, and the heat from the same may be admitted to the room above by registers, in order to have convenient heat for warming.

The draft-pipe B may be of any suitable shape; but I prefer to use a flat oblong pipe, the advantages of which are, that as the sides of the pipe are close together, the air, as it passes through it, will be more thoroughly heated and its velocity accelerated. This draft-pipe B may be placed at bottom, middle, near the top, or in the drum of the fire-receptacle A, in any situation so as to be kept at a higher temperature than the outside pipes.

The process of draft by the use of the pipe B in my improvement may be utilized for drawing off and consuming noxious gases.

I claim as my invention—

1. The fire-receptacle A, draft-pipe B, smoke and heating pipes C C, and exit-pipe D, all combined substantially as shown and described.

2. The pipe B, attached, as described, in the most suitable place in a stove or heater, so that the air within it may be superheated, thereby accelerating the draft through the pipes C C, with which it is connected, substantially as and for the purposes described and set forth.

MORRILL A. SHEPARD.

Witnesses:

ERNST GRAUEL,

ADAM TRABAND.