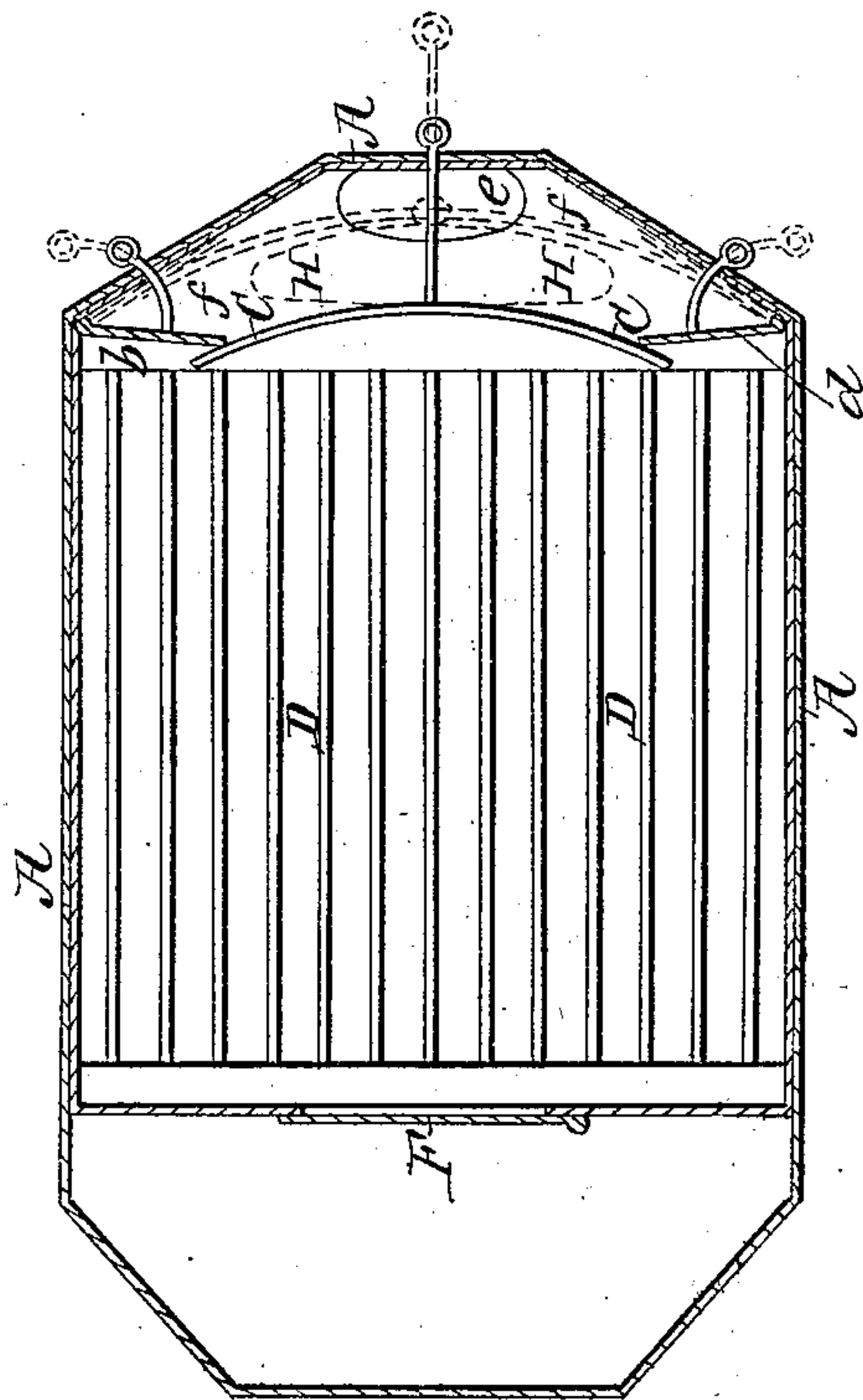
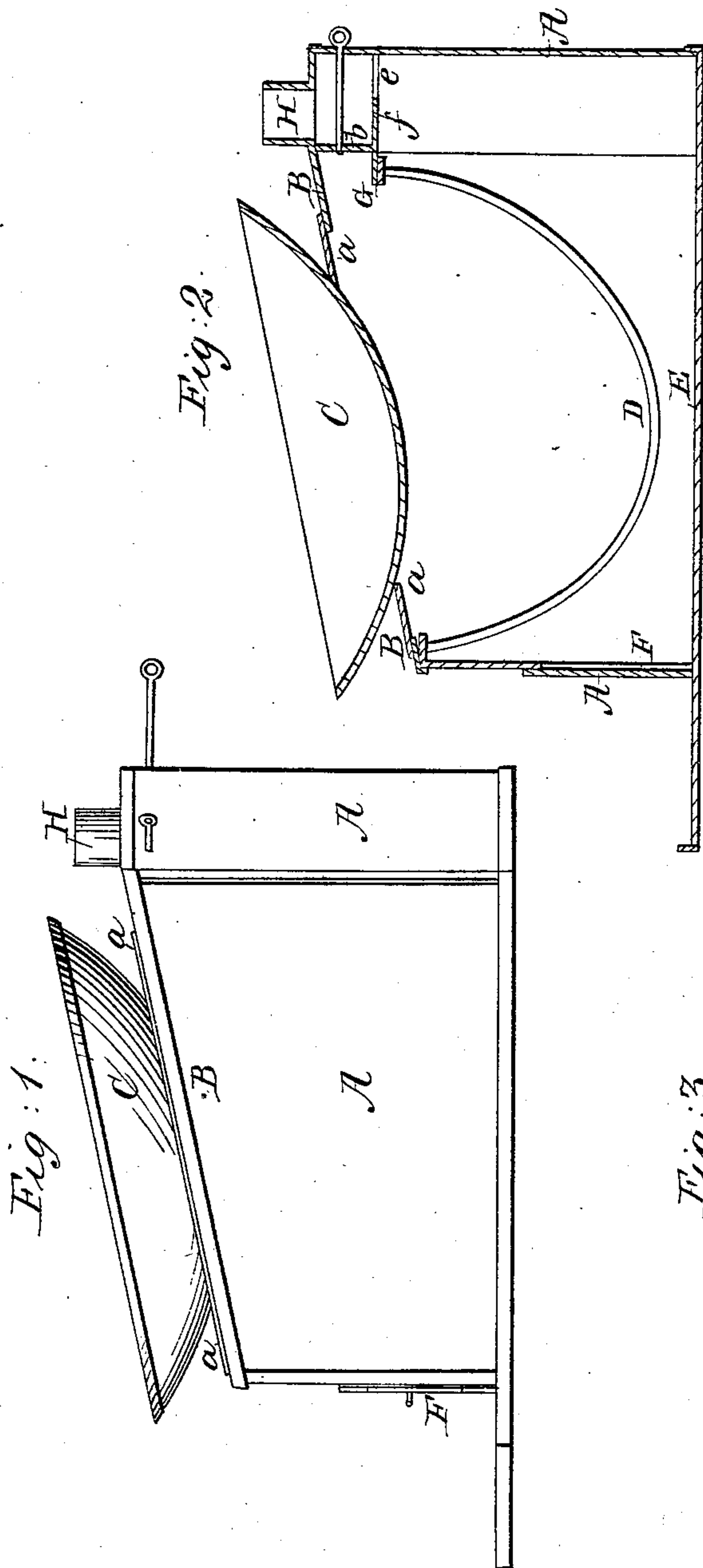


J. DAVID.  
Portable Drying Stove.

No. 44,166.

Patented Sept. 13, 1864.



Witnesses.  
A. Moore  
Jas. D. Patton

Inventor  
James David  
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# UNITED STATES PATENT OFFICE.

JAMES DAVID, OF BEECH CREEK TOWNSHIP, CLINTON COUNTY, PA.

## PORTABLE DRYING-STOVE.

Specification forming part of Letters Patent No. **44,166**, dated September 13, 1864.

*To all whom it may concern:*

Be it known that I, JAMES DAVID, of Beech Creek township, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Portable Stoves for Drying and Evaporating Purposes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of the stove. Fig. 2 represents a section through the same from front to rear and in a vertical line. Fig. 3 represents a top plan.

Similar letters of reference, where they occur in separate figures, denote like parts in all the drawings.

Permanent drying-furnaces for treating herbs, plants, &c., can be readily made with all the necessary appliances for stirring, or increasing or diminishing the heat or draft; but in a portable furnace—such as are to be carried and used where the plants and herbs are gathered or grown—other means must be resorted to to accomplish the result without the appliances commonly used, as they could not be transported readily.

The gathering, drying, and preparing for market of certain plants that are found in mountainous districts has become quite an important commercial enterprise, and the purpose of my invention is to supply a portable stove that can be readily transported through such a country, and will serve the desired purpose.

My invention consists, first, in inclining the top plate of the stove, so that the drying or evaporating pan or vessel will stand on an inclination also, in which position the material being dried or treated is more readily turned to prevent it from scorching; and my invention consists, secondly, in the combination of the basket-grate with the drying-vessel, and an under and over flue-space and suitable dampers, whereby the density of the fire may be thrown toward the vessel or carried away from it, as circumstances or the particular treatment may require.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The stove A may be of a hexagonal or rectangular form or round, as may be preferred,

and may be made like any ordinary stove, except as to the top plate, B, which I incline, as shown in the drawings, its lowest portion being at that side or end where the operator or user stands. The top plate has a pot-hole through it, upon which or in which any suitable vessel, C, may be placed, said vessel having an inclination corresponding to that of the top plate, B. A ring, *a*, or a series of rings may be used for enlarging or diminishing the size of the pot-hole, so that larger or smaller vessels may be used in, on, or over it.

D are the grate bars or rods, very much curved nearly from top plate to top plate, and hanging low down, so as to form a deep fire-box, and a flue or air space, E, underneath it, which air-space is supplied from a door, F, or a draft-hole therein. Over the grate, at the rear of the stove, there is a flue-passage, G, which leads into the exit-pipe H, but which passage is furnished with one, two, or more dampers, *b c d*, one or all of which may be open or closed, as the occasion may require.

The object in inclining the vessel C is, that the material is so much more readily inspected and turned over to prevent it from burning. By simply pushing the material toward the higher part of the vessel it will roll back over the stirrer, and keep well turned with little labor. If a good heat is required, the door F and the dampers *b c d*, one, two, or the whole of them, are opened, and the flame is carried up around the vessel. Should it be necessary to suddenly remove the heat from the vessel, the dampers are closed, and the air passing through E, underneath the grate or fire-box, and thence up through a hole, *e*, in a plate, *f*, and out at the exit-pipe H, relieves the drying-vessel of the intensity of the heat.

Having thus fully described my invention, what I claim therein as new is—

1. The inclined plate B, for the purpose of correspondingly inclining the vessel placed thereon, as and for the purpose described.

2. In combination with the deep basket-shaped grate or fire-box and the passages over and underneath it, the dampers *b c d*, plate *f*, and opening *e*, for turning the density of the fire toward or from the evaporating or drying vessel, substantially as and for the purpose described.

JAMES DAVID.

Witnesses:

CHARLES CORSS,  
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