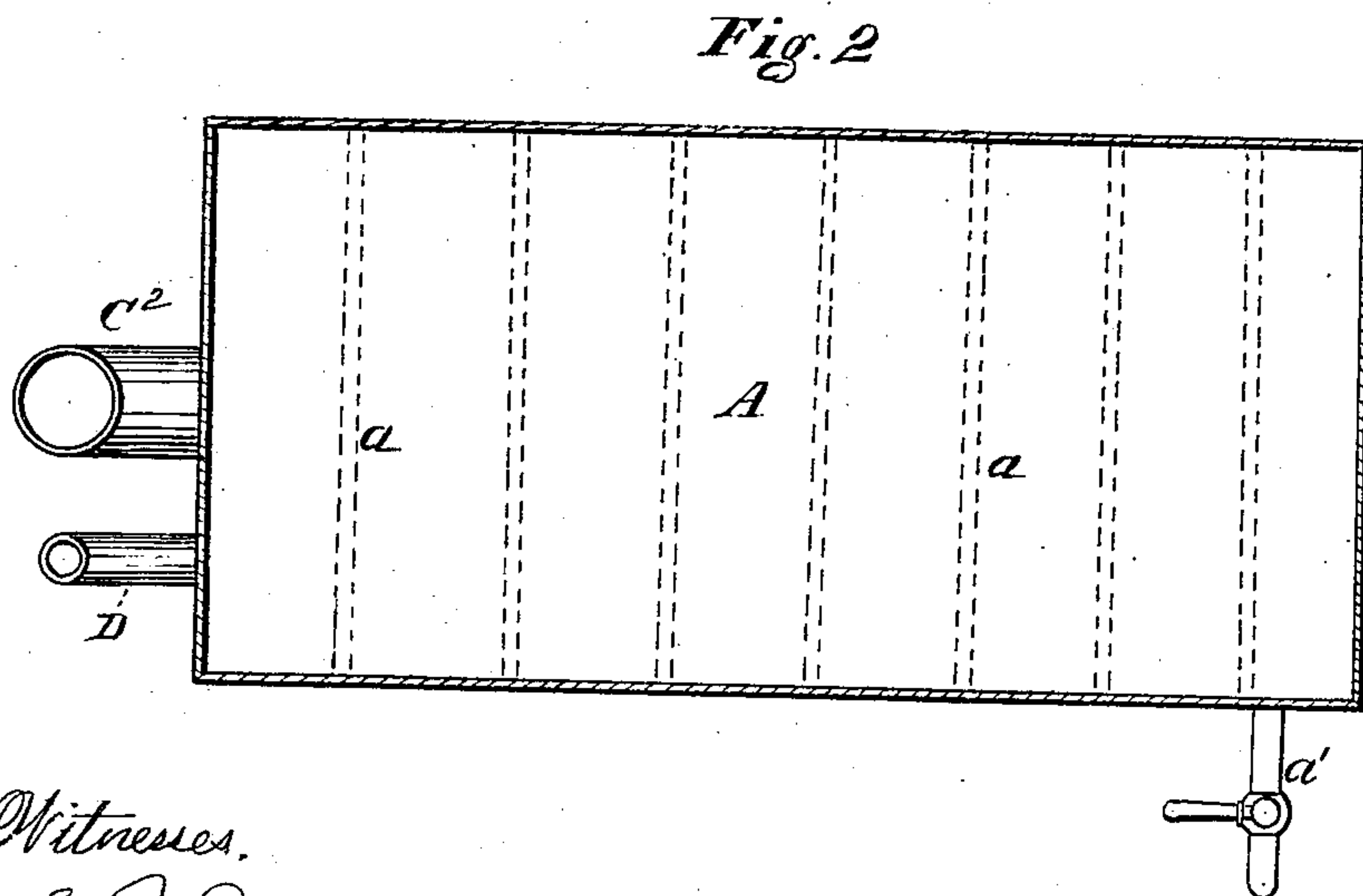
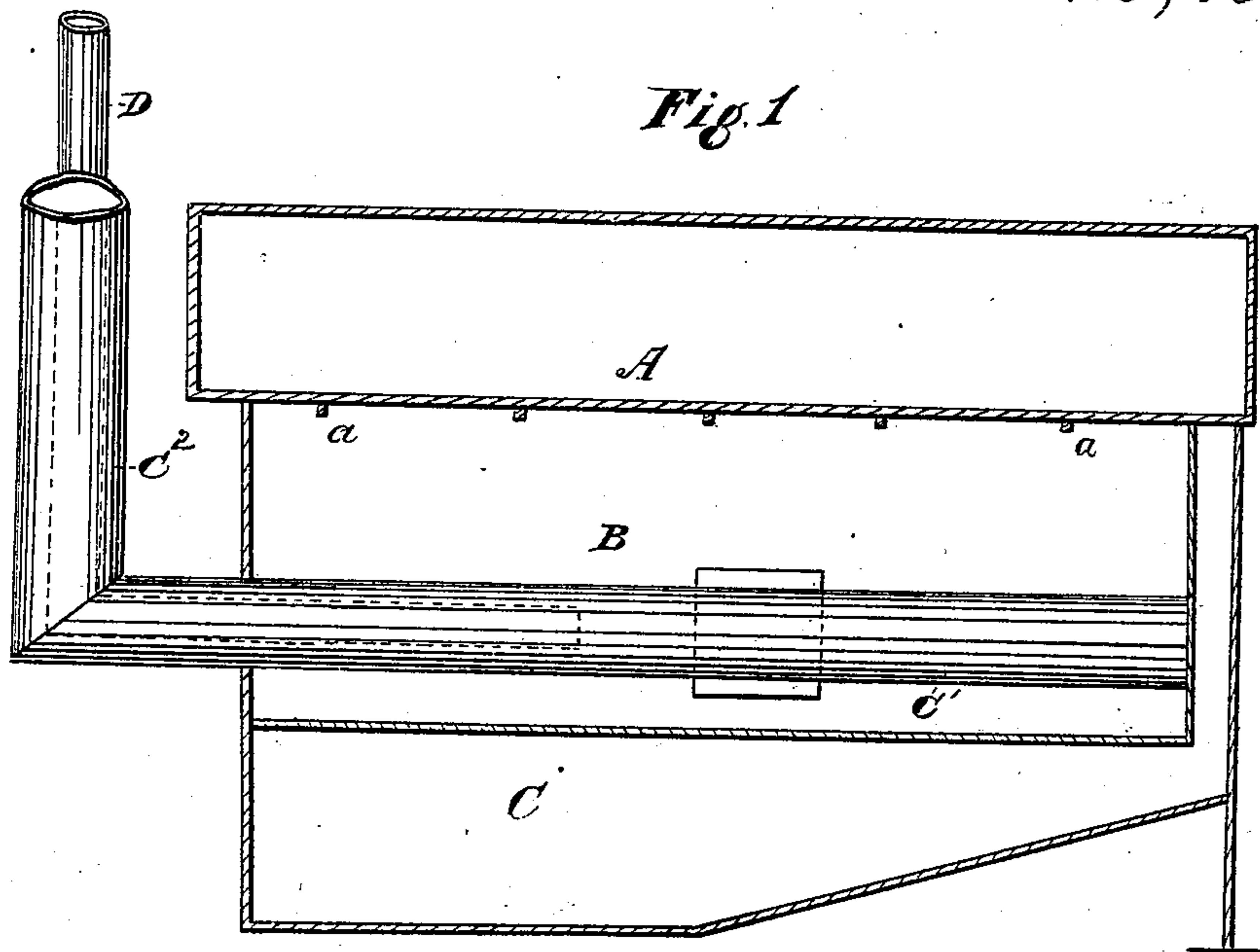


S. Mc Worter,
Evaporating Pan,
No 70,451. Patented Nov. 5, 1867.



Witnesses.
C. R. Pratt.
Chas. H. Boyle.

Inventor.
S. Mc Worter
By his Atty.
Wm. Randolph & Co.

United States Patent Office.

SOLOMON McWORTER, OF BARRY, ILLINOIS.

Letters Patent No. 70,451, dated November 5, 1867.

IMPROVEMENT IN EVAPORATORS FOR SORGHUM AND OTHER SIRUPS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SOLOMON McWORTER, of Barry, in the county of Pike, and State of Illinois, have invented a new and useful Improvement in Evaporators for Reducing Sorghum and other like Sirups; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to the combination of a steam-boiler and evaporating-pan in such a manner that the heat from the steam-boiler is imparted to the evaporating-pan without any danger of scorching the sirup.

To enable those skilled in the art to make and use my improved evaporator, I will proceed to describe its construction and operation.

Figure 1 of the drawings is a sectional elevation of the improved boiler and evaporator.

Figure 2 is a plan of it.

There may be one or more of the evaporating-pans A, it being customary to use for the evaporation of saccharine sirups a primary, secondary, and a finishing-pan. However many of these pans may be used, they will be placed over a steam-boiler, B, which is heated from the furnace C, the boiler being provided with return-flues C¹ and smoke-stack C². I propose to fill the boiler by means of hydrostatic pressure, using for this purpose a pipe, D, the lower end of which is connected with the boiler, and the upper end is to be in open communication with a reservoir not shown. This arrangement will obviate the necessity of forcing-pumps, which would be impracticable for this application, and answer every purpose, as the pressure required is quite low. It is desirable to have the bottom of the pan A flat, and in order to give this form of top for the boiler B sufficient strength, I stiffen it, by means of the transverse ribs *a*, shown by dotted lines in fig. 2. The faucet *a'* is used to draw off the finished sirup from the pan A.

Having described my invention, what I claim is—

1. The combination and arrangement of the evaporating-pan A and the steam-boiler B, substantially as described and set forth.
2. I claim the combination of the pipe D with the boiler B, as and for the purpose set forth.
3. I claim the employment of the stiffening-ribs *a* in combination with the flat crown-sheet of the boiler, as described and set forth.

SOLOMON McWORTER.

Witnesses:

CHAS. H. BOYLE,

THOMAS J. BURRIDGE.