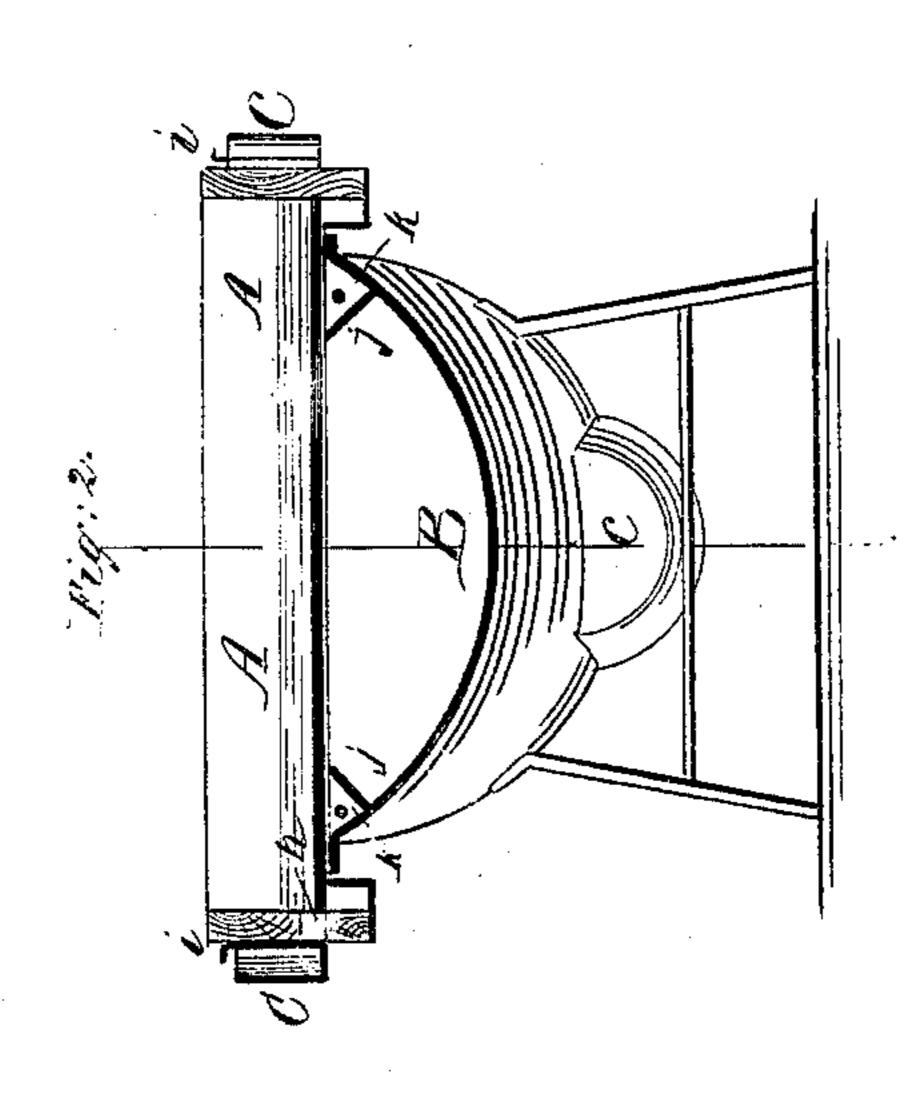
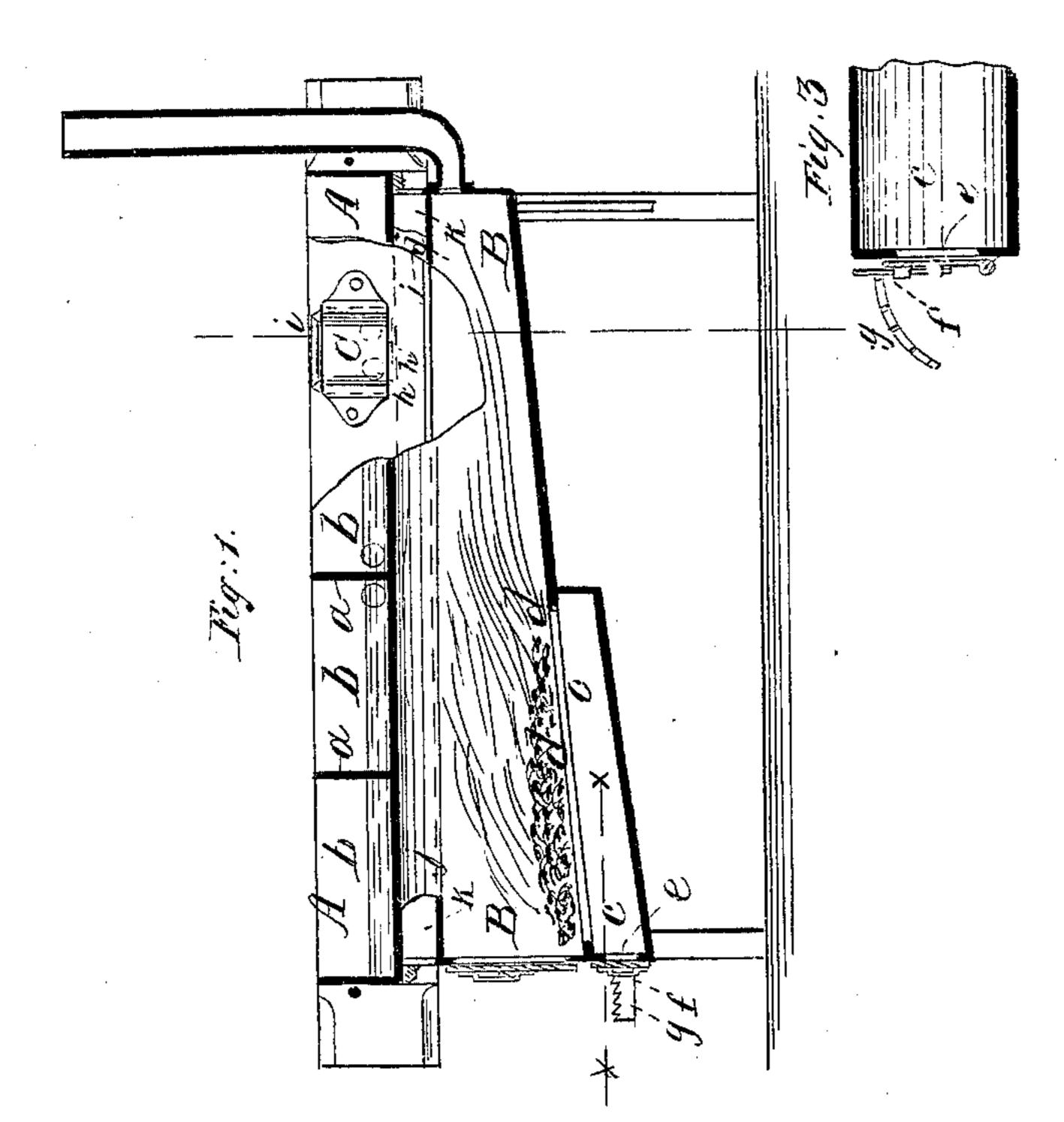
Is Illing Fan.

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Faterated Aug.31.1869.





Witnesses: Luv Kloros

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N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

Anited States Patent Office.

THOMAS SCANTLIN AND JAMES M. SCANTLIN, OF EVANSVILLE, INDIANA.

Letters Patent No. 94,343, dated August 31, 1869.

IMPROVED EVAPORATOR FOR SUGAR, AND OTHER LIQUIDS

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

To all whom it may concern:

Be it known that we, Thomas Scantlin and James M. Scantlin, of Evansville, in the county of Vanderburg, and State of Indiana, have invented a new and improved Evaporator; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a vertical longitudinal section

of our improved evaporator.

Figure 2 is a vertical transverse section of the same. Figure 3 is a detail horizontal section of the same, taken on the plane of the line x-x, fig. 1

Similar letters of reference indicate corresponding

parts.

This invention relates to certain improvements in sugar-cane and other evaporators, and has for its object to produce simple action, and perfectly satisfac-

tory operation.

The invention consists, first, in the use of open connecting-channels, which unite the different chambers of the pan, on the outside of the said pan, so that they will be out of the way, and in arranging the gates within said outside channels; also, in arranging longitudinal draught-passages under the pan; and, finally, in the combination of an ash-pit, with a portable furnace, for the purpose of regulating the heat.

A, in the drawing, represents an evaporating-pan, of suitable form and combination, divided by means of vertical partitions, a a, into a suitable number of compartments, b b, and supported on a furnace, B.

The furnace B has an inclined upper edge to support the fan in an inclined position, and is made of nearly semi-cylindrical form.

The ash-pit c is arranged under the grate d, which

is in line with the bottom of the cylinder.

The draught-door e of the ash-pit has a pivoted catch, f, which can be locked in one of a series of notches, that is provided in a curved bar, g, project-

ing from the front of the furnace, as shown in fig. 3. The proper degree of draught can thus be obtained, and the door so locked as to retain it.

The various compartments b of the pan are connected with each other by means of boxes, C C, that are attached to the sides of the pan, as shown.

Each box C has two openings, h h, leading into two

adjoining compartments b.

A gate, i, is arranged in each box C, to close the apertures h.

By thus having the connections and gates outside of the pan, the latter can be more readily kept clean

and in repair.

On the upper longitudinal edges of the furnace are arranged inward-projecting flanges, jj, which produce air-passages, kk, of which the ends are open, by having the ends of the furnace perforated, as shown. By these passages the upper part of the furnace is cooled, and prevented from burning.

Having thus described our invention,

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

1. The open boxes C C, arranged on the outside of the pan, to connect with the compartments of the same, substantially as herein shown and described.

2. The gates i, arranged in the boxes C, on the outside of the evaporating pan, substantially as herein

shown and described.

3. The ash-pit, in combination with a portable furnace, for the purpose of regulating the heat, as set forth.

4. The flanges j j, formed on the upper edges of the furnace, to produce open air-passages k k, for cooling the upper part of the furnace, substantially as herein shown and described.

THOMAS SCANTLIN.
JAMES M. SCANTLIN.

Witnesses:

JOE. S. WINN, A. H. DE BEMLET.