G. T. JONES.

EVAPORATING-PAN.

No. 192,376. Patented June 26, 1877.

Fig. 1.

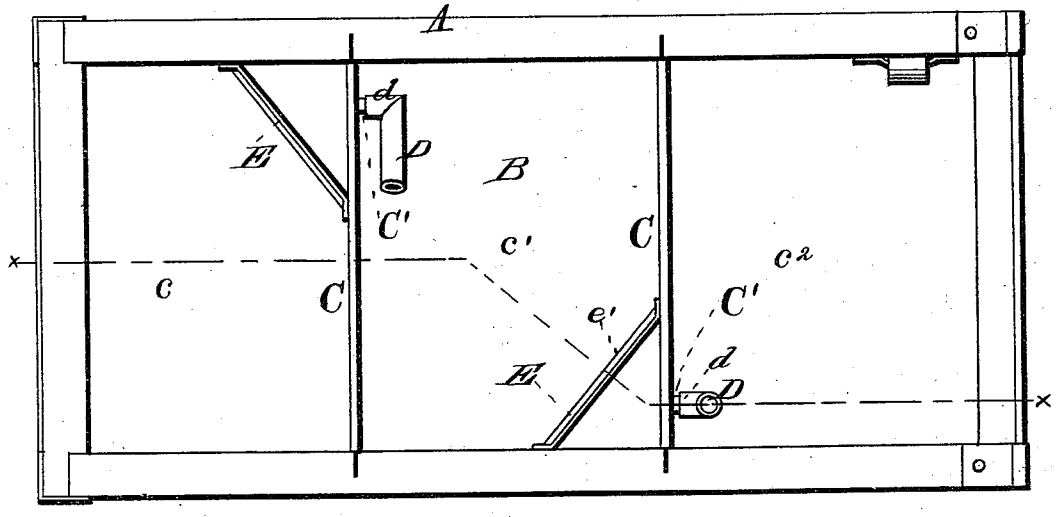
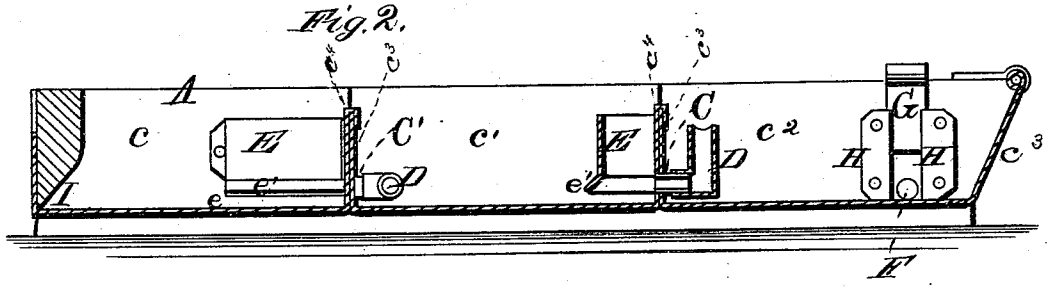


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

GRIFF T. JONES, OF NASHVILLE, TENNESSEE.

IMPROVEMENT IN EVAPORATING-PANS.

Specification forming part of Letters Patent No. **192,376**, dated June 26, 1877; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, GRIFF T. JONES, of Nashville, in the county of Davidson and State of Tennessee, have invented a new and valuable Improvement in Evaporating-Pans; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my evaporating-pan, and Fig. 2 is a longitudinal vertical section of my evaporating-pan through *x x*.

This invention relates to evaporating-pans for sugar; and it consists in constructing such pans with oblique braces having downward and outward flanges, elevated a little above the bottom of said pan, so as to act as strainers for holding back the upper portion of the sirup while it is being skimmed, though allowing the under part to flow freely through.

In the annexed drawing, A designates the outer casing of an evaporating-pan, and B the bottom of the same. C C designate cross-partitions, dividing said pan (which, as a whole, is a long rectangular parallelogram) into a series of square or quadrangular compartments, c c^1 c^2. Each of said partitions is perforated near one of its ends, and in each of said perforations is rigidly secured a small horizontal tube, C′. Said perforations are arranged alternately on opposite sides of the evaporating-pan, so that they are diagonally opposite to each other. This compels the sirup to flow in a tortuous course, and thereby subjects it to the action of the furnace-heat for a greater length of time than that during which it would be heated if it flowed straight through the evaporating-pan.

D D designate elbow-shaped tubes, which are made somewhat larger than the fixed horizontal tubes C′. The short horizontal arm *d* of each one of said tubes D is sleeved upon said fixed tube C′, so as to allow the long arm of said tube D to be swung up or down, so as to cut off the flow of sirup, or re-establish it, at will.

E E designate brace screens or strainers, one of which extends obliquely across from each one of said partitions C to the nearest side of the pan, and occupies a position in front of one of the communicating tubes C′. Each of said strainers is raised a little above the bottom of the pan, leaving a narrow space, *e*, below it, through which space the sirup runs in order to reach the said tube C′, which allows passage into the next compartment. Said strainers are preferably constructed of sheet metal, and are sufficiently high to prevent the sirup from overflowing them, and so reaching the said tubes C′. They operate to keep back the scum while it is taken off, and in this they are assisted by obliquely-projecting flanges *e′*. One such flange extends downward and outward along the whole length of each one of said brace screens or strainers E, and hinders the sirup that is near the surface from being drawn down through passage *e*.

F designates the outlet-opening of said pan. Said opening is made in the last compartment c^2, and may be closed at will by means of a vertically-sliding door, G, which is guided and held in place by guide-plates H H. The inside of the rear end of the evaporator-pan is recessed at the bottom, at I, so as to enlarge the first compartment, *c*, into which the sirup is poured.

Partitions C are constructed as follows: Bottom B consists of a series of sections, each of which forms the bottom of one of said compartments, and is provided with two upright flanges or plates, one being at each of its ends. The rear plate of each section c^3 is considerably lower than the front plate c^4, or that which is nearer to the outlet. To form partitions C the higher front plate or flange c^4 of one section is bent or doubled over the lower rear plate or flange of the next section, as shown in Fig. 2. This construction enables the said sections to be readily detached, and prevents the sirup from running down between their joints.

The number of compartments may be increased at will, and the construction and arrangement of the various parts may be modified in many ways without departing from the spirit of my invention.

I am aware that it is not new with me to

construct evaporating-pans with cross-partitions which are perforated alternately at opposite ends, said perforations being provided with strainers, and, therefore, I do not claim such invention; but

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

Strainer E provided with downward and outward flange e', and acting as a brace for partition C, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GRIFF T. JONES.

Witnesses:
SAML. E. JONES,
L. E. JONES.