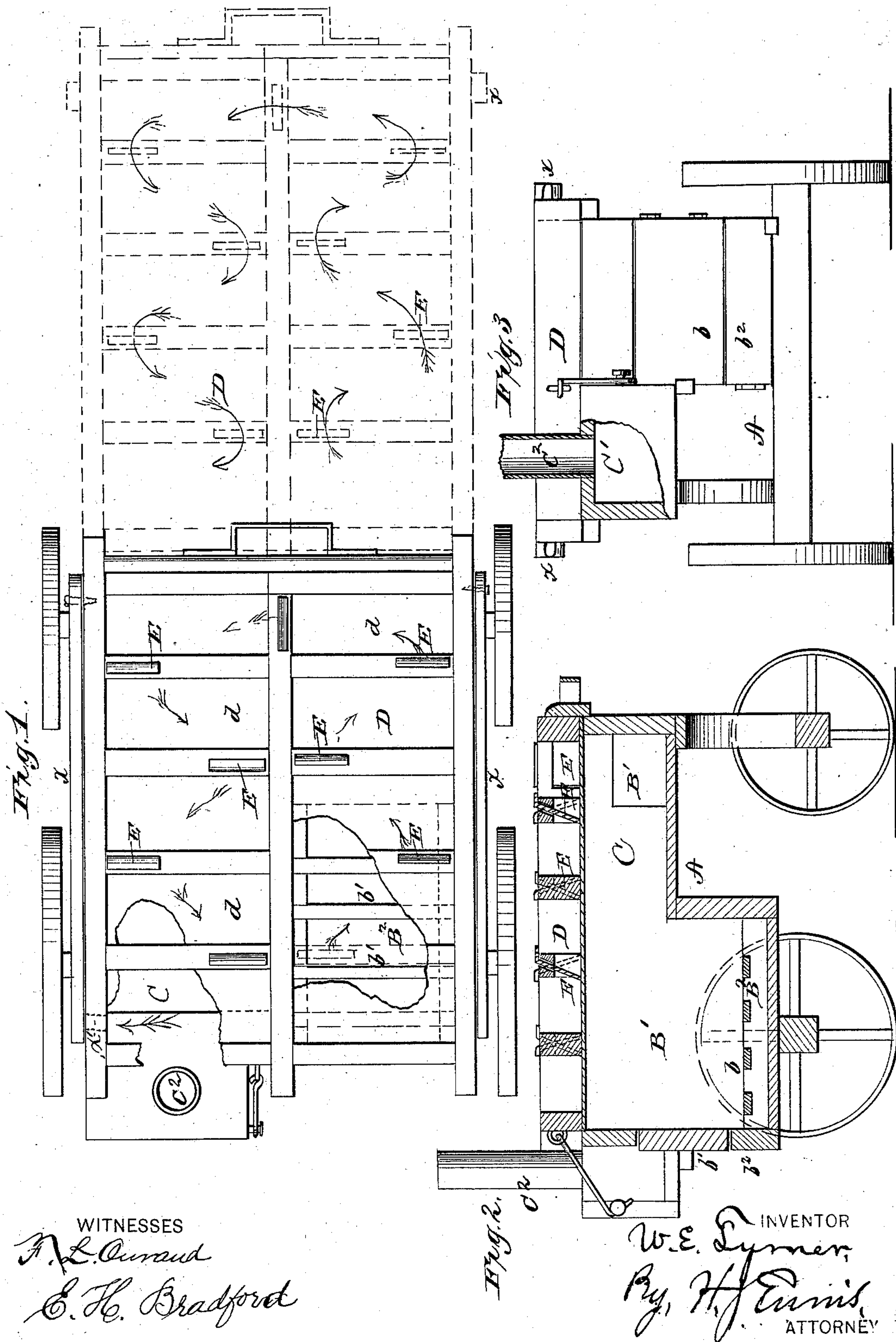


W. E. TURNER.
Sugar Evaporating Pan.

No. 239,577.

Patented March 29, 1881.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM E. TURNER, OF DALTON, NORTH CAROLINA.

SUGAR-EVAPORATING PAN.

SPECIFICATION forming part of Letters Patent No. 239,577, dated March 29, 1881.

Application filed May 19, 1879.

To all whom it may concern:

Be it known that I, WILLIAM ELIAS TURNER, of Dalton, in the county of Stokes and State of North Carolina, have invented certain new and useful Improvements in Sugar Evaporator and Furnace; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of my invention, partially in section, the dotted lines showing the evaporating-pan drawn from over the heating-chamber. Fig. 2 is a longitudinal vertical section, and Fig. 3 an end elevation, partly in section.

My invention relates to certain new and useful improvements in the class of sugar-evaporating pans wherein the pan is divided into chambers by longitudinal and transverse partitions, through which the sirup successively passes, said pan being arranged over a furnace having flues corresponding to the flow of the material through the chambers of the pan; and the invention consists, essentially, in the combination, with a portable furnace, of a movable pan having a series of communicating chambers having at alternate corners adjustable inclined gates, which catch and stop the flow of the scum, froth, &c., while permitting the clear sirup to pass thereunder, said pan adapted to be drawn forward off of the furnace in case of intense heat to prevent scorching of the sirup, all as hereinafter fully described.

Referring to the drawings, A represents the vehicle, upon the rear axle of which is supported the fire-box or furnace B. This furnace consists of the combustion-chamber B' and the ash-pit B², separated by the grate b, each

chamber being supplied with a door, b' and b², as shown. The products of combustion pass from fire-box B' toward the front of the vehicle, through the flue C, thence into the flue C', and back, escaping through the flue or chimney C².

D represents an evaporating-pan, having two rows of chambers, d, above, and corresponding with the course of the combustion-chamber and heat-flue C. At alternate corners are inclined gates E, which, working in proper guides, with the acute angle thereof toward the coming current of juice, serve to catch and stop the flow of the scum, froth, &c., allowing the clear sirup to pass thereunder. The juice, whether cane or otherwise, is fed into the first chamber above the fire-box, and passing forward upon that side and backward upon the other, is emptied from an exit, x', in the last chamber at the rear, as shown.

The evaporating-pan is supported on rollers or otherwise, so that in case of intense heat the pan may be drawn forward and supported on pivoted legs x, to prevent scorching the sirup.

What I claim is—

In a sugar-evaporator, the combination, with a portable furnace, of a movable or sliding pan having pivoted supporting-legs, and a series of communicating chambers, d, having at alternate corners adjustable inclined gates E, which catch and stop the flow of scum, froth, &c., while permitting the clear sirup to pass thereunder, substantially in the manner herein shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM ELIAS TURNER.

Witnesses:

R. F. FRULK,
J. BURCHFIELD.