

C. CORY.
Evaporating Pan.

No. { 2,234, {
33,238. }

Patented Sept. 10, 1861.

Fig. 1.

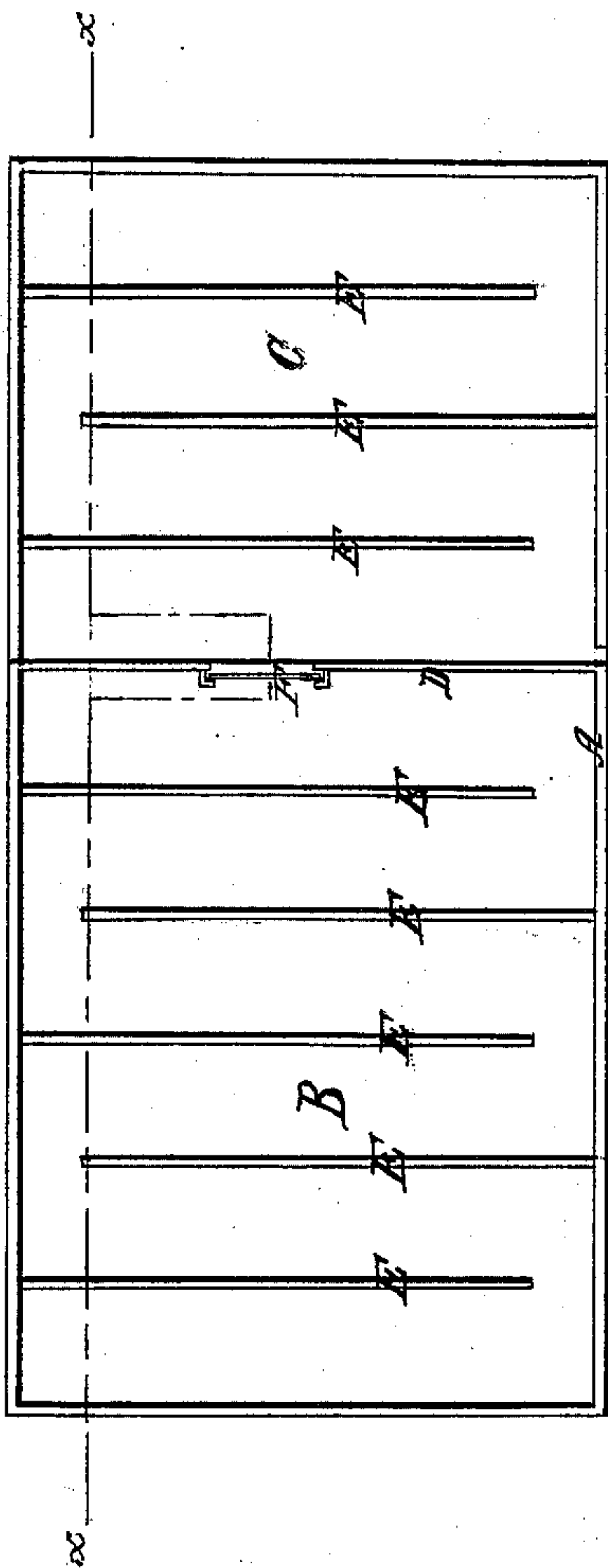
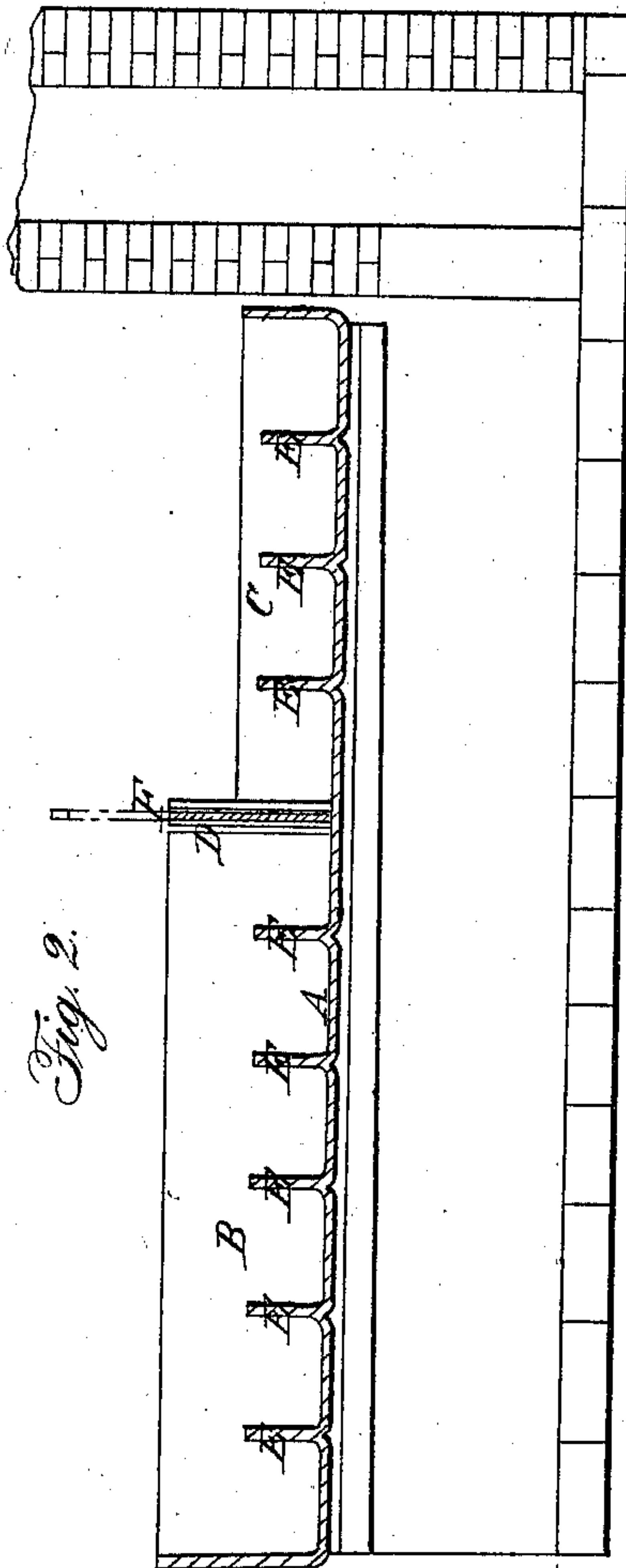


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

C. CORY, OF LIMA, INDIANA.

IMPROVEMENT IN APPARATUS FOR EVAPORATING SACCHARINE FLUIDS.

Specification forming part of Letters Patent No. **33,238**, dated September 10, 1861.

To all whom it may concern:

Be it known that I, CHRISTOPHER CORY, of Lima, in the county of La Grange and State of Indiana, have invented a new and Improved Pan for Evaporating Saccharine Liquids, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan or top view of my invention. Fig. 2 is a longitudinal vertical section of the same.

Similar letters of reference in both views indicate corresponding parts.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

The pan A, which is made of sheet-copper or any other suitable material, is placed on a furnace, the commencing end B being in front and over the fire-place, and the finishing end C in the rear, near to the chimney, as clearly shown in Fig. 2 of the drawings. A partition, D, extending from one side of the pan to the other, and rising to the full height of the commencing end of the pan, separates this part from the finishing end, and this partition is situated in that portion of the pan which is exposed to the most intense heat. A series of partitions, E, extending alternately at regular intervals from each side of the pan to within a short distance of the opposite side, cause the sirup or other liquid to circulate in a continuous indirect stream from the commencing end of the pan to the elevated partition D, and after having passed this partition to the end of the finishing part. The elevated partition D is provided with a gate, F, which is situated at a distance of about one-third (or more) of the entire width of the pan from one of the sides, and which forms the communication between the commencing and the finishing end of the pan.

In the central part of the pan, which is exposed to the most intense heat, the greatest ebullition of the liquid takes place, and its surface becomes uneven and agitated, being elevated at the center and depressed at the sides, causing the impurities thrown to the surface to glide naturally to the sides, where they are detained until taken off by the operator. The elevated partition prevents the liquid, or any part of the same or of the impurities contained in it, passing over from the commencing end of the pan to its finishing end, and the gate F is situated in that portion of said partition where the fluid is elevated and freed from scum. By raising the gate, therefore, the clarified sirup is made to pass over into the finishing portion of the pan divested of all the impurities which are retained by the scum.

In practice the pan will be placed at a slight inclination toward the finishing end, and if, now, a stream of sirup or other liquid to be evaporated is started from the commencing end, the velocity with which this stream moves toward the finishing end can be regulated by the elevated partition and gate, and when freed from its impurities it can be passed through the gate into the finishing end, all danger of flooding the finishing sirup being obviated by the elevated partition.

I do not claim, broadly, the use of gates and partitions in evaporating-pans; but,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the elevated central partition, D, and gate F with the divisions B C and partitions E, as and for the purpose herein shown and described.

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Witnesses:

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