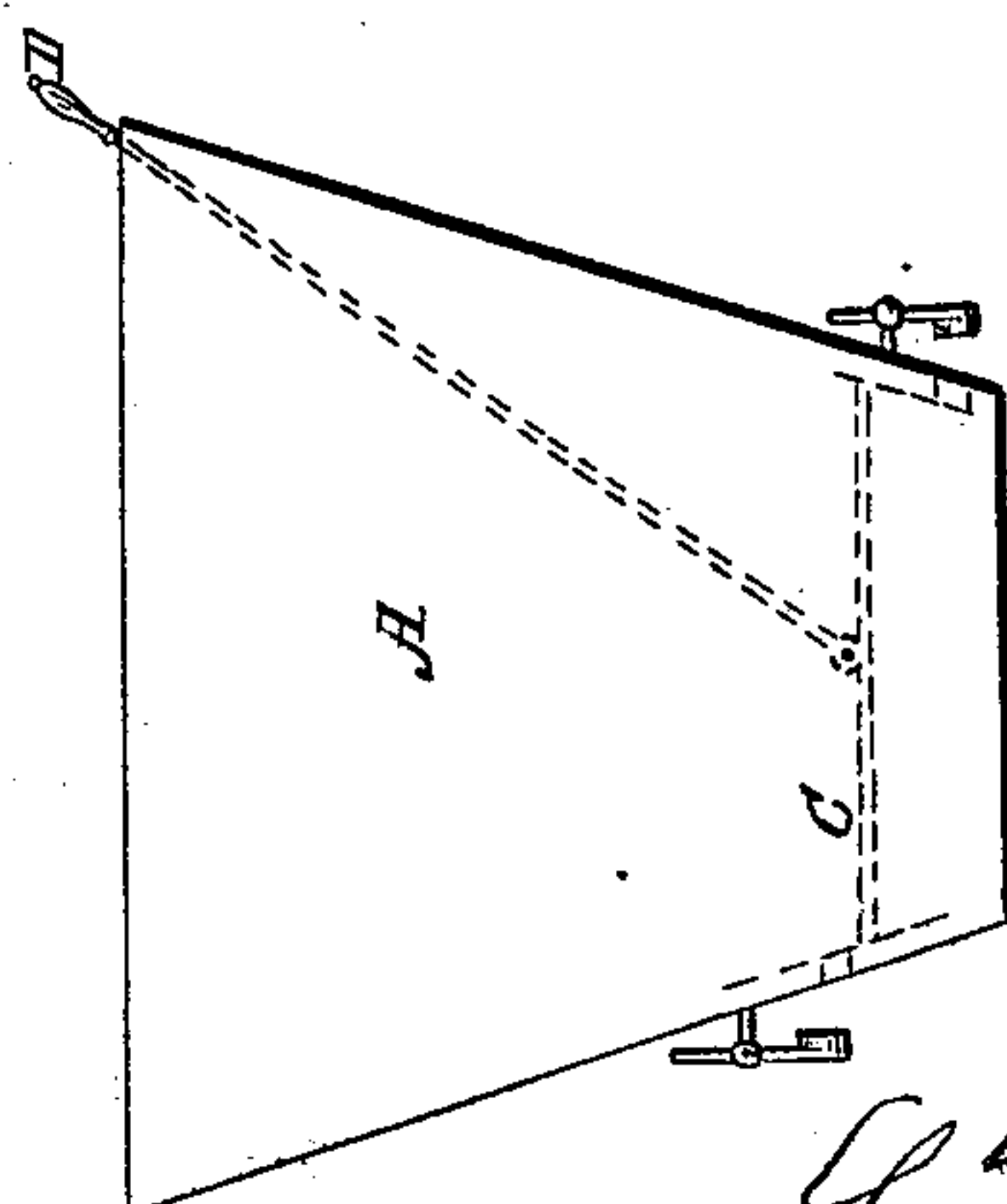
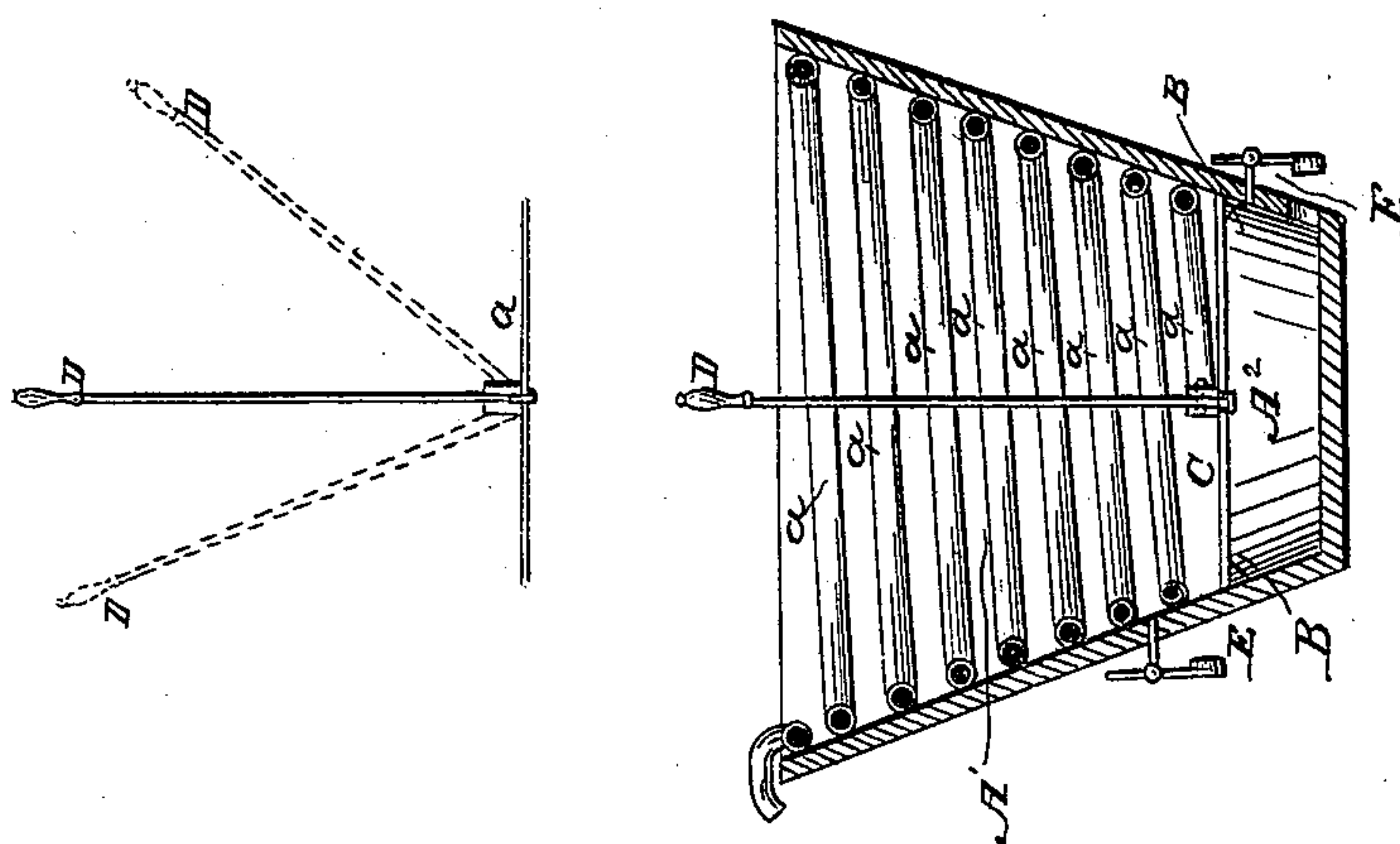


L. TREGRE.
Cane Juice Box.

No. 25,354.

Patented Sept. 6, 1859.



Witnesses:
Thomas H. Burke
William H. Hurd

Inventor:
L. Tregre

UNITED STATES PATENT OFFICE.

LOUIS TREGRE, OF THE PARISH OF ST. JOHN THE BAPTIST, LOUISIANA.

IMPROVEMENT IN CONSTRUCTION OF CANE-JUICE BOXES.

Specification forming part of Letters Patent No. 25,354, dated September 6, 1859.

To all whom it may concern:

Be it known that I, LOUIS TREGRE, of the parish of St. John the Baptist, and State of Louisiana, have invented certain new and useful Improvements in Cane-Juice Boxes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents an elevation of my improved cane-juice box. Fig. 2 represents a sectional elevation of the same, and Fig. 3 represents an elevation of the valve or gate to separate the upper from the lower portion of the box.

The object of my improvements in cane-juice boxes is to so arrange the box as to retain those impurities (such as mucilage, dirt, &c.) contained in the cane-juice as it is received from the sugar-mill while the purer parts of the juice are being drawn off from the box into the sugar-kettles; and my invention for effecting this object consists in arranging the cane-juice box so that it may be divided into two parts—an upper and lower—by means of a tight door or valve, so that when the impurities in the cane-juice have settled to the bottom of the box the closing of this door cuts off the pure from the impure portions of the juice, by which means the pure parts of the juice are drawn off into the sugar-kettles without disturbing the impure part in the chamber below.

By reference to the accompanying drawings my invention will be fully understood.

My improved cane-juice box in the present instance consists of a rectangular-shaped box, A, with sloping sides. Within a short distance of the bottom and around the interior is a projecting flange or rib, B, which forms a seat for a valve or door, which, when closed, rests on this ledge and divides the box into two chambers—an upper chamber, A', and a lower chamber, A². This valve or door in the present instance is independent of the box, and can be withdrawn and taken out. A coil of pipe surrounds the interior of the upper chamber, A', into which steam is introduced for the purpose of heating the cane-juice. A valve or cock in the side of the box opens a

passage into the upper chamber, by which the clarified juice is drawn off, and also a similar valve is provided for the lower chamber, A², to draw off the sediment.

The mode of operation is as follows: The box is filled with juice, the valve or door C being open or taken out, and a sufficient quantity of the bisulphate of lime is mingled with the juice to cause the precipitation of the mucilage and dirt it contains. After sufficient time has elapsed for the impurities to settle in the bottom of the box, the valve or door C is gently lowered or closed, so as to rest on its seat, which separates the pure and clarified juice in the upper part of the box from the dirt and mucilage which settles in the bottom of the box. The faucet in the upper chamber is now opened and the clarified juice run off into kettles as low as the top of the valve without carrying with it any of the impurities in the lower part of the box, after which the lower faucet is opened and the impure juice is run off.

I do not confine myself to any particular form in the construction of the cane-juice box, or to the form, construction, or attachment of the valve to the box, provided it is so arranged as to divide, when required, the box into two chambers—an upper and a lower—to separate the impure juice when it settles to the bottom from the clarified juice above.

Having thus described my improvements in cane-juice boxes, what I claim therein as new, and desire to secure by Letters Patent, is—

The method of separating the pure from the impure parts of the juice when the latter has settled to the bottom of the box, so that the pure parts can be drawn off without disturbing the impure, by dividing the one from the other by means of a movable partition-valve, or its equivalent, arranged within the box, substantially as described.

In testimony whereof I have subscribed my name.

LIS. TREGRE.

Witnesses:

THOS. J. BURKE,
A. B. PHILIPS.