

Sheet 1

J. B. Hill.

Draining Sugar.

Nº 71876

Patented Dec. 10, 1867.



ATTEST

Geo. L. Markham

I 175977070

W. Johnston

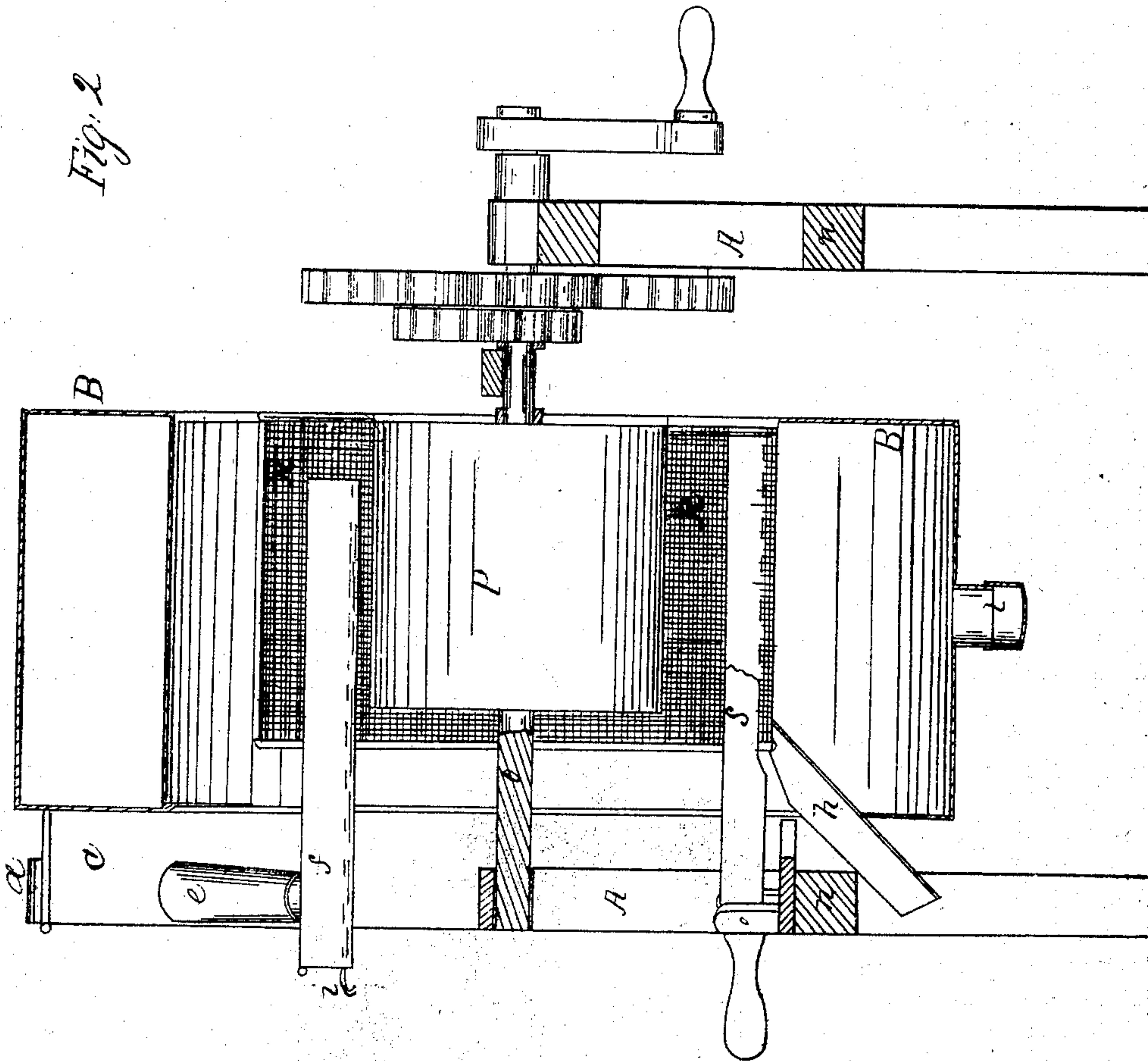
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Fig. 2



Attest
John Johnston
Geo. H. Mackinnon

INVENTOR
James B Hill
By his attorney
J. Johnston

United States Patent Office.

JAMES B. HILL, OF ALLEGHENY CITY, PENNSYLVANIA.

Letters Patent No. 71,876, dated December 10, 1867.

IMPROVEMENT IN APPARATUS FOR DRAINING SUGAR.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JAMES B. HILL, of the city and county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Sugar-Mills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The nature of my invention consists in the combination and arrangement of a hopper, conductors, valves, scraper, revolving screen, and cylinder, surrounded with a case; the whole being constructed, arranged, combined, and operating in the manner hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation. In the accompanying drawings, which form part of my specification—

Figure 1 represents a side elevation of my improved sugar-mill.

Figure 2 represents a transverse section of the same, cut through at line X^x.

In the drawings, A represents the frame of the mill. B represents a case, which surrounds the screen R, which resembles a section of a drum. The sides of this screen are made of fine open work, and it is secured on the shaft O. In the end of the screen are a number of openings, marked Q, which are used for admitting air into the interior of the screen. On the shaft O, and inside of the screen R, is placed a distributing-drum, above which is placed a conductor, *f*, provided with a valve or gauge, *i*. The conductor *f* is supported on a pedestal, *x*, secured to frame A. The hopper, marked C, is provided with a conducting-pipe, *e*, and a regulating-valve or gauge, *d*. To the lower part of the case B is attached a pipe, *t*, which is used for conducting off the molasses. On the bar *n* of the frame A is pivoted a scraper, S, which extends into the interior of the screen, and set obliquely to the plane of the screen, so that it will, when held down on the screen, cause the sugar to run into the chute *h*, and from it into a suitable collecting-vessel.

As the construction and arrangement of the several parts of my improved mill will be readily understood by the skillful mechanic, I will therefore, without further description of its construction, proceed to describe its operation.

Having all things constructed, arranged, and combined, as hereinbefore described, I put granulated molasses in the hopper C, and then, by means of suitable driving-gear, impart a rapid motion to the shaft O, which will impart motion to the distributing-drum P and screen R. I then open the valve or gauge *d*, which will allow the molasses to flow through pipe or conductor into the conductor *f*. I then draw out the valve *i*, so as to allow the desired quantity of molasses to drop on the distributing-drum P, from which it is thrown off against the screen R, which will separate and draw the molasses from the sugar; the sugar being collected on the inside of the screen, and the molasses, dropping down in case C, passes out through pipe *t* into a suitable vessel provided for its reception. When any quantity of sugar is collected on the inside of the screen, I bring the scraper S down, which will cause the sugar to pass off through chute *h* into a suitable vessel provided for its reception. In distributing the molasses on the drum P, the valve *i* should be moved in and out, so as to distribute the molasses along on the drum P, which will cause an even distribution of the molasses against the screen.

Having thus described the nature, construction, and operation of my improvement, what I claim as of my invention, is—

The combination and arrangement of the hopper C, provided with valve *d*, case B, screen R, distributing-drum P, distributor *f*, provided with valve *i*, scraper S, chute *h*, and pipe *t*, the whole being constructed, arranged, and operating substantially in the manner herein described, and for the purpose set forth.

JAMES B. HILL.

Witnesses:

A. C. JOHNSTON,

JAMES J. JOHNSTON.