

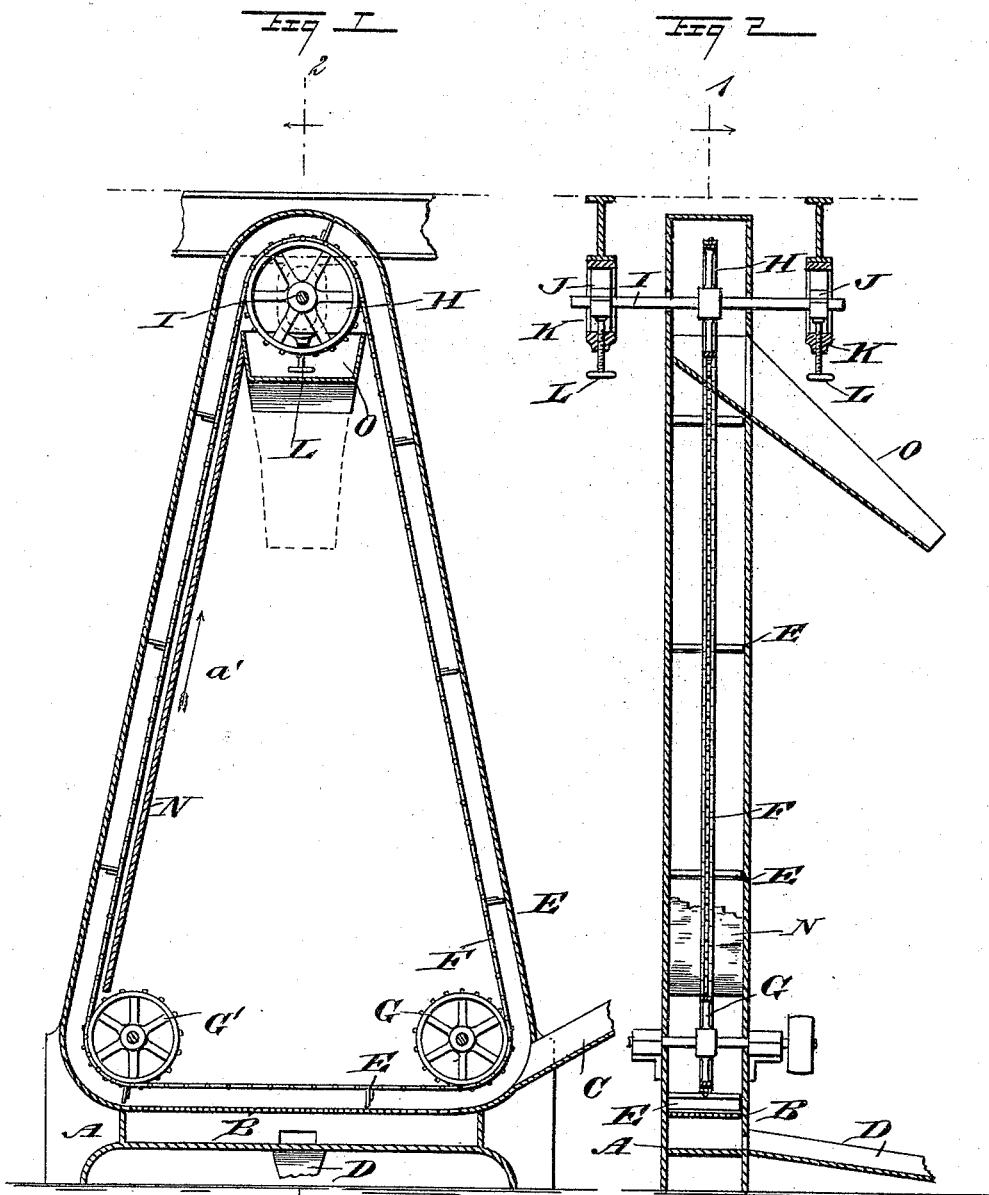
(No Model.)

J. C. RILEY.

SUGAR CANE JUICE STRAINER AND ELEVATOR.

No. 492,235.

Patented Feb. 21, 1893.



WITNESSES:

H. Walker
& Sedgwick

INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN C. RILEY, OF NEW ORLEANS, LOUISIANA.

SUGAR-CANE-JUICE STRAINER AND ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 492,235, dated February 21, 1893.

Application filed September 8, 1892. Serial No. 445,318. (No model.)

To all whom it may concern:

Be it known that I, JOHN CLAXTON RILEY, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Sugar-Cane-Juice Strainer and Elevator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved sugar cane juice strainer and elevator, which is simple and durable in construction, and arranged to strain the juice coming from the cane mill preparatory to pumping the juice to the pans or other vessels for further treatment of the juice, the trash or bagasse running with the juice, being carried off previous to straining the juice.

The invention consists of a casing provided with a perforated plate upon which the juice is run, and scrapers moving over the said perforated plate to scrape off any trash and bagasse deposited thereon by the juice.

The invention also consists of certain parts and details, and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of the improvement on the line 1—1 in Fig. 2; and Fig. 2 is a transverse section of the same on the line 2—2 in Fig. 1.

The improved device is provided with a suitably constructed box or casing A, in which is arranged a perforated plate B, connected at one end with a spout or chute C, leading to the discharge of the cane mill, so that the juice runs from the cane mill upon the said perforated plate B to be strained through the perforations of the latter, to finally pass out of the box A. One side of the box is connected by a chute D, with the pump or other machinery for passing the strained juice to the pans or other vessels for further treatment of the juice. The juice is run from the cane mill upon the perforated plate B and carries along particles of bagasse, trash and other impurities which accumulate or gather on the top plate as the juice is strained through the perforations in the said plate. In order to remove this refuse, scrapers E, are employed secured on an endless chain or belt F, passing over sprocket wheels G, G', located above the plate B and journaled in suitable

bearings arranged in the sides of the box or casing A, it being understood that the said sides extend above the perforated plate B, as illustrated in the drawings. The endless belt F also passes over a top sprocket wheel H, secured on a shaft I, mounted to turn in bearings J, fitted to slide vertically in hangers K, of any preferred material or form and supported on screws L, screwing in the said hangers for adjusting the bearings so as to take up any slack in the chain F. Instead of the two wheels G and G' a single wheel of large diameter may be employed to sustain the lower portion of the belt F. The shaft of one of the wheels G, G' or H carries a pulley connected with suitable machinery for imparting motion to the said shaft and wheel, to cause the chain F to travel in the direction of the arrow a', whereby the scrapers E are moved over the top surface of the perforated plate B to carry along any refuse which may have settled thereon. Between the wheels G' and H is arranged a board N, over which passes the chain and scrapers, so that the refuse carried upward by the scrapers remains thereon and is finally discharged at the end of the said board N into a suitable chute or trough O, extending to one side of the machine and serving to carry off the refuse. This chute or trough O may be arranged to deliver the bagasse or trash to the intermediate carrier of a second mill of like construction to that shown or to the cane chute of the mill shown, so that the juice may be further extracted from such trash or bagasse.

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

The combination with a casing, and a perforated horizontal plate upon which the juice is run from the cane mill, of scrapers moving over the said plate to scrape and carry off any trash or bagasse deposited thereon, an endless chain carrying the said scrapers, wheels arranged in triangular relation and over which the chain passes, coverings forming a passageway through which the scrapers travel, and a chute located adjacent to the upper wheel and into which the said scrapers deliver the refuse, substantially as shown and described.

JOHN C. RILEY.

Witnesses:

PAUL LÈCHE,
L. A. COLOMB.