

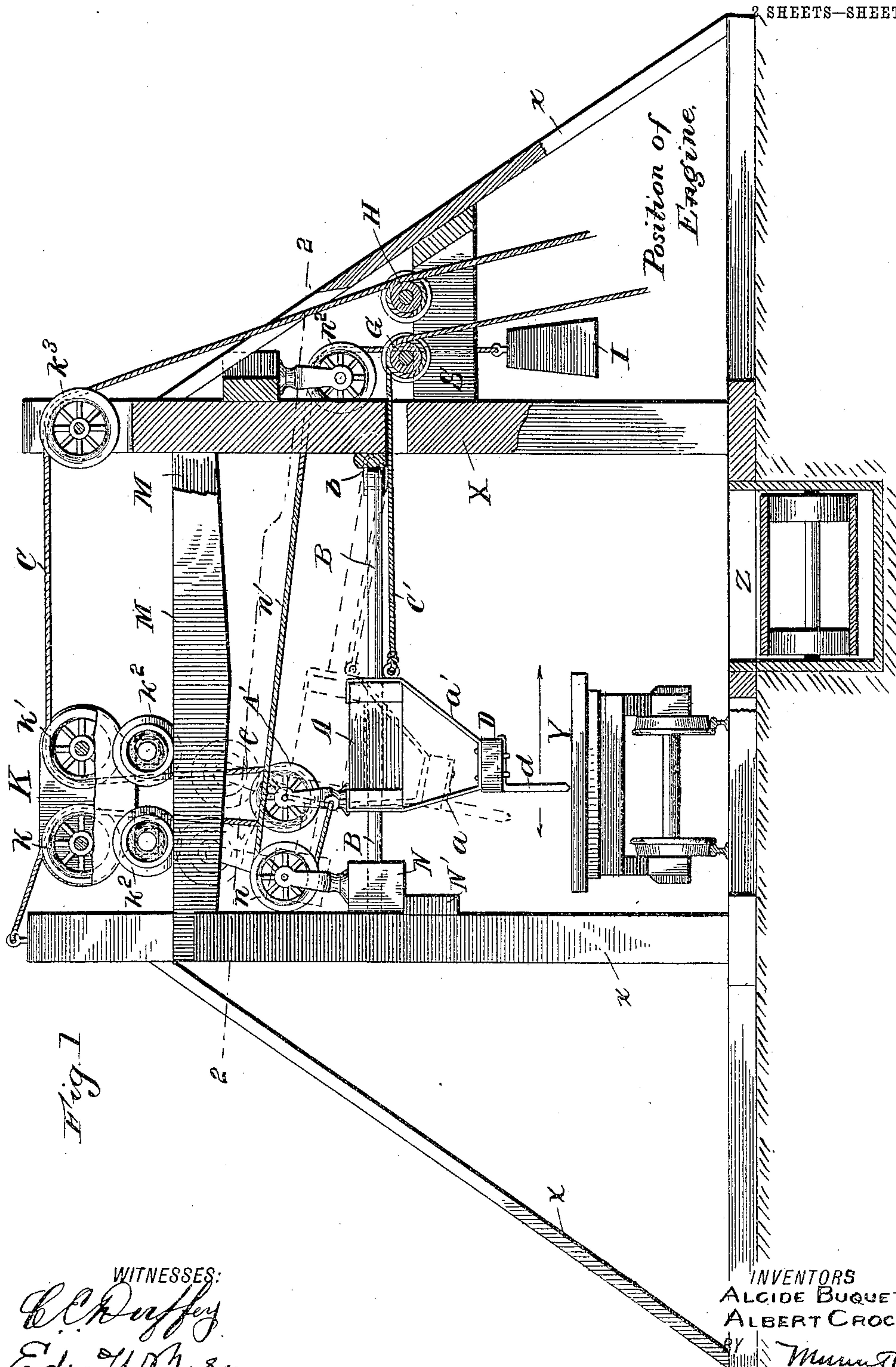
No. 824,621.

PATENTED JUNE 26, 1906.


A. BUQUET & A. CROCHET.
CAR UNLOADING APPARATUS.

APPLICATION FILED FEB. 19, 1906.

2 SHEETS—SHEET 1.



WITNESSES:
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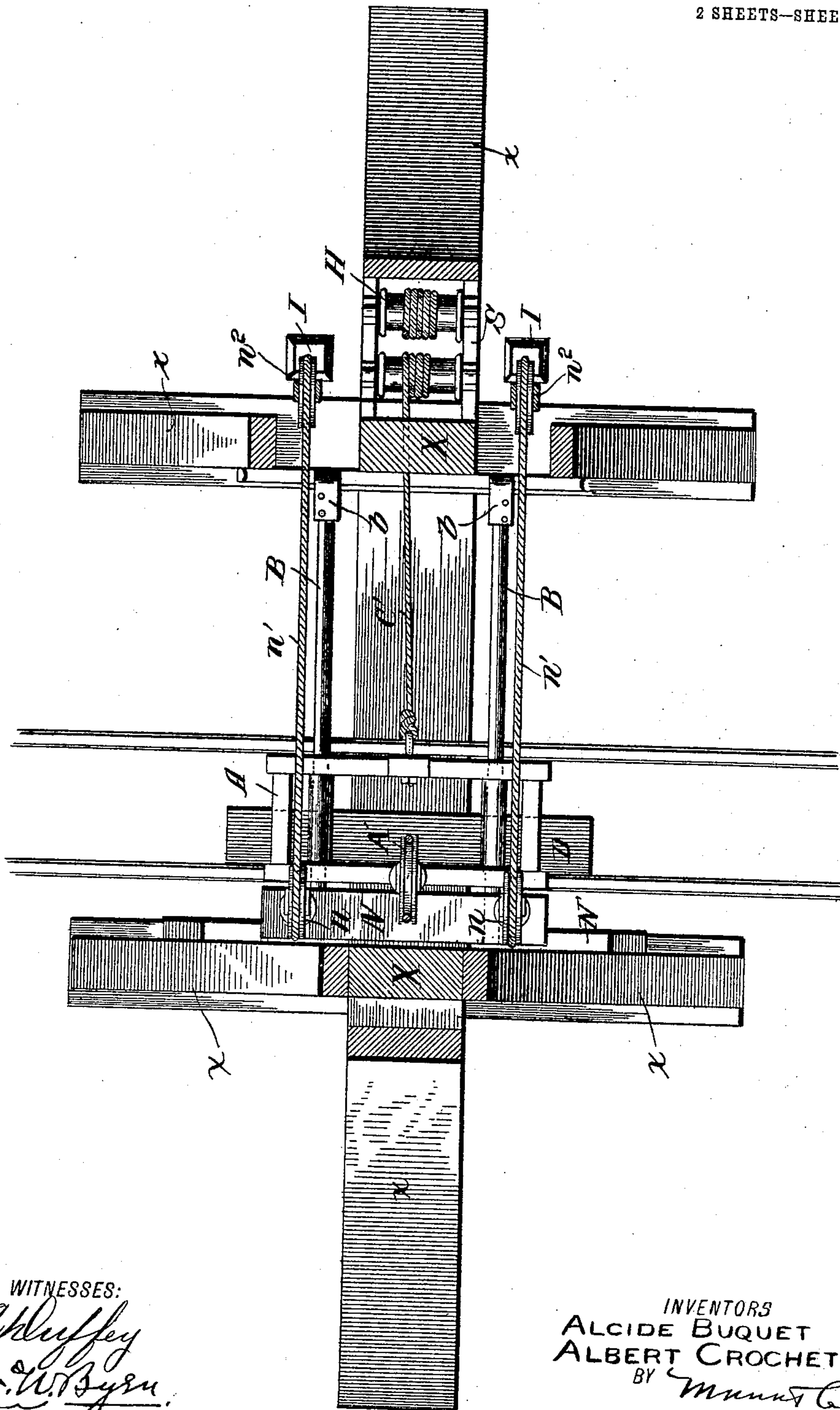
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UNITED STATES PATENT OFFICE.

ALCIDE BUQUET AND ALBERT CROCHET, OF MINERVA, LOUISIANA.

CAR-UNLOADING APPARATUS.

No. 824,621.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed February 19, 1906. Serial No. 301,798.

To all whom it may concern:

Be it known that we, ALCIDE BUQUET and ALBERT CROCHET, citizens of the United States, and residents of Minerva, in the parish of Terrebonne and State of Louisiana, have invented certain new and useful Improvements in Car-Unloading Apparatus, of which the following is a description.

Our invention relates to apparatus for unloading sugar-cane from cars onto the feeder for cane-mills.

It is an improvement upon that form of device in which a large rake is attached to and carried by a horizontally-reciprocating frame, which frame is hinged to swing vertically about a horizontal axis at one end, so as to be raised and lowered to permit the rake to operate in any horizontal plane; and it consists in the novel construction and arrangement of the various parts of the device, whereby its action is rendered more convenient and effective, as will be hereinafter fully described with reference to the drawings, in which—

Figure 1 is a side elevation of the apparatus, partly in section; and Fig. 2 is a horizontal section on line 2 2 of Fig. 1.

In the drawings, X X represent two heavy uprights or vertical standards, which are strongly braced by inclined braces x and near their upper ends are connected by two parallel and horizontal track-bars M M, which may have rails along their upper edges to receive trolley-wheels. Between the two uprights and below the track-bars there is sustained a rectangular frame A, connected by means of hangers $a a'$ to a subjacent rake, consisting of a cross-bar D, provided with downwardly-projecting teeth d . The frame A is supported on and slides upon two parallel guide-rods B B, made, preferably, in the form of metal pipes. At one end these guide-rods are connected by hinges $b b$ to a horizontal cross-bar fixed to one of the uprights X, and at the other end these rods are connected rigidly to a cross-head N, on which are mounted two grooved wheels $n n$. Around each of these wheels there passes a cable n' , which at one end is attached to the sliding rake-frame A and at the other end passes around a grooved wheel n^2 , journaled in bearings fixed to the end frame and then passes down and is attached to a heavy weight I. The gravity of these two weights I I (seen in Fig. 2) normally holds the rake-frame A up against the cross-head N. This cross-head is prevented

from descending too low by a cross-bar N', fixed to the inside of one of the end frames.

On the top of the rake-frame A is mounted a grooved wheel A', which is carried in a loop of a cable C. This cable depends from a trolley K and supports the rake-frame and its attached parts, which swing about the hinges at one end of the rods B. The trolley consists of a frame containing two grooved wheels $k k'$ and provided with axles and flanged running-wheels k^2 , which travel on the track-bars M (or the rails thereon.) One end of cable C extends around one wheel k and thence to a stationary anchorage at the top of the upright, and the other end of the cable extends around the grooved wheel k' and thence to and around a grooved wheel k^3 in the upright and thence downwardly to a windlass or drum H, journaled in a horizontal framework S between one of the uprights X and its brace x . From the rake-frame A another cable C' extends horizontally through the upright X to a windlass or drum G, arranged beside the windlass H.

Beneath the framework S, carrying the two windlasses G and H, is located the engine or other motor mechanism which turns the two windlasses and which it is not necessary to show.

The apparatus is built of such height as to bring the rake above the level of the car-floor, which is shown at Y, and the carrier-belt, which feeds the cane to the mill, is shown at Z beside the car-track and at a lower level than the car-floor. Now when the cars loaded with cane are run in on the track and stopped beneath the rake the latter is made to rake off the cane onto the carrier-belt as follows: The winding up of the cable C' on the drum G causes the rake-frame and rake to move, with the mass of cane, toward the windlass, dropping the cane over the side of the car-floor onto the carrier. When the tension of the windlass on the cables is relaxed by reversing the engine, the weights I I restore the rake-frame to its position above the car. By locating the pulleys $n n$ on the cross-head N of the swinging guide-rods B B (which bear the rake) the pull of the cables $n' n'$ in carrying the rake back over the car from the gravity of weights I I is parallel with the guide-rods, and no lifting strain is put on the rods B B thereby. In this movement, however, the trolley K (which supports and regulates the height of the rake-frame and horizontal rods) follows the rake-frame back and forth, being

immediately above it at all times. If the rake is to operate on the top of the load, it is raised to that level by simply winding up the cable C on the windlass, and if it is to be lowered the cable is paid out in proportion.

Instead of making the rake with teeth, as shown, it may be constructed in any other form adapted for unloading various other commodities from cars, such as dirt, lime, grain, coal, &c.

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

1. An unloading apparatus, comprising a supporting-framework, horizontal guide-rods hinged at one end to the framework and bearing a cross-head at the other, a rake-frame with subjacent rake sliding on the guide-rods, a pulley mounted on the cross-head of the guide-rod, a weight with cable attached thereto and passing around the pulley on the cross-head and attached to the rake-frame to draw the latter toward the cross-head, a cable for pulling the rake-frame away from the cross-head, and means for raising and lowering the rake-frame and its hinged guide-rods.

2. An unloading apparatus, comprising two braced uprights having a horizontal trolley-track at the top connecting the uprights, horizontal guide-rods hinged at one end to the upright frame below the trolley-track and bearing a cross-head at the other end, a rake-frame with subjacent rake sliding on the guide-rods, a pulley mounted on the cross-head of the guide-rod, a weight with cable attached thereto and passing around the pulley on the cross-head and attached to the rake-frame to draw the latter toward the cross-head, a cable for pulling the rake-frame

away from the cross-head, a trolley with two pulley-wheels mounted on the track above, a cable passing around the two pulley-wheels of the trolley and depending between them in a loop, and a pulley on the cross-head of the hinged guide-rods located in the loop of said cable.

3. An unloading apparatus, comprising two braced uprights having a horizontal trolley-track at the top connecting the two uprights, horizontal guide-rods hinged at one end to the upright frame below the trolley-track and bearing a cross-head at the other end, a rake-frame with subjacent rake sliding on the guide-rods, a pulley mounted on the cross-head of the guide-rods, a weight with cable attached thereto and passing around the pulley over the cross-head and attached to the rake-frame to draw the latter toward the cross-head, a cable for pulling the rake-frame away from the cross-head, a trolley with two pulley-wheels mounted to travel on the track above, a cable attached at one end to the main frame and passing around the two pulley-wheels of the trolley and depending between them in a loop, a pulley on the cross-head of the guide-rods sustained in the loop of said cable, and two windlasses mounted in a frame between an upright of the main frame and its inclined brace, one of said windlasses being arranged to receive the cable from the trolley and the other to receive the cable reciprocating the rake-frame.

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Witnesses:

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