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CONVEYER.

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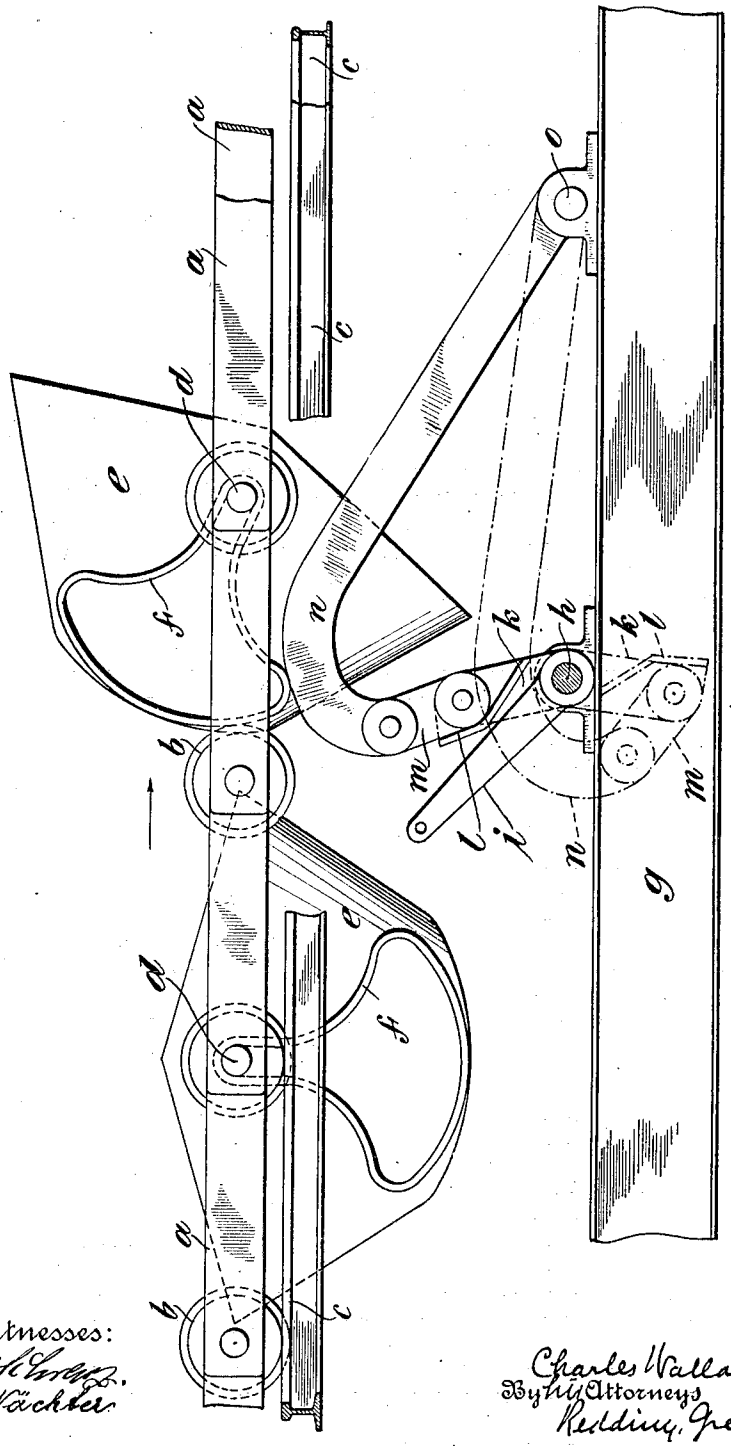

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CONVEYER.

1,048,834. Specification of Letters Patent. Patented Dec. 31, 1912.

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To all whom it may concern:

Be it known that I, CHARLES WALLACE HUNT, a citizen of the United States, residing in Stapleton, in the borough of Richmond of the city of New York, in the State of New York, have invented certain new and useful Improvements in Conveyers, of which the following is a specification, reference being had to the accompanying drawing, forming a part hereof.

This invention relates to bucket conveyers, in which dumping buckets are carried by endless chains and it has for its object to provide improved means for dumping the buckets. Heretofore such means have been so constructed as to subject parts of the mechanism to such heavy blows that they are liable to be broken unless they are made unduly heavy and it is the special purpose in the present case to so construct the dumping devices that they shall be able to withstand the heavy blows to which they are necessarily subjected without being unduly heavy.

The invention will be more fully explained hereinafter with reference to the accompanying drawing in which the single figure is a view in elevation showing so much of a conveyer as is necessary to enable the application of the invention thereto to be understood.

In the arrangement shown, the usual conveyer chains, one of which is shown at *a*, are provided with wheels *b* to travel on rails *c* and support between them, upon transverse shafts or trunnions *d*, the dumping buckets *e*. Each bucket is provided with a cam like dumping flange *f*, the shape of which will be varied to accord with the shape of the dumping devices and with the desired movement of the bucket in dumping.

Upon the frame members, one of which is shown at *g*, is mounted in suitable bearings a rock shaft *h* which has secured thereto a lever *i* by which the shaft may be rocked, and a crank arm *k* which is preferably provided with a stop *l* to coöperate with a link *m* which is pivoted on the arm *k*. To the other end of the link *m* is pivotally connected a dumping bar *n* which is pivotally mounted at its other end, as at *o*, upon the frame member *g*. It will be observed that the arm and link constitute a toggle between the frame and the dumping bar. The shape of the dumping bar may be varied to accord with the dumping flanges or cams on the buckets and with the desired movement of the buckets in dumping, but it is relatively long, as shown, and is mounted at one end in a suitable bearing on the frame while its other end is supported, in operative position, by the shaft *h* with its arm *k* and the link *m*, being inclined in a direction opposite to that of the movement of the approaching bucket, so that the shock of the loaded bucket, moving at considerable speed, against the dumping bar, is transmitted longitudinally through the bar and its bearing to the frame, and the danger of breakage which exists when the dumping arm is secured directly to the shaft *h*, as is usually the case in conveyers of this class, is eliminated. The dumping bar is easily moved into or out of operative position by partial rotation of the shaft *h*, as clearly indicated in the drawing, in which the positions which the parts assume when the bar is not in operative position are indicated by dotted lines.

It will be observed that the center of the joint between the arm *k* and the link *m*, when the dumping arm is in operative position, stands slightly beyond the line joining the centers of the shaft *h* and the joint between the link *m* and the dumping arm *n*, and that the stop *l*, coöperating with the link *m* prevents further flexing of the two members in the same direction. The dumping arm is thus locked automatically in operative position by the coöperation of the stop *l* with the link *m* so that there is no necessity for any fastening of the operating lever *i*.

I claim as my invention:

1. The combination with a conveyer, comprising chains and dumping buckets mounted thereon and having dumping flanges, of a frame, a dumping bar pivoted at one end upon the frame, a shaft mounted on the frame and having a crank arm, a link connecting the crank arm with the dumping bar, said arm and link constituting a toggle between the frame and the dumping bar and means to limit the movement of the crank arm.

2. The combination with a conveyer, comprising chains and dumping buckets mounted thereon and having dumping flanges, of a frame, a dumping bar pivoted at one end upon the frame, a shaft mounted on the frame and having a crank arm, and a link connecting the crank arm with the

dumping bar, the crank arm having a stop plate to coöperate with the link to limit the movement of the crank arm.

3. The combination with a conveyer comprising chains and dumping buckets mounted thereon and having dumping flanges, of a frame, a relatively long dumping bar pivoted on one end on the frame, the other end being curved to accord with the dumping flanges and means to throw the bar in operative relation to the buckets, said means being in a substantially vertical plane whereby the shock of the impact of the bucket against the bar is transmitted through the bearing of the latter to the frame.

This specification signed and witnessed this 27th day of Dec. A. D., 1910.

CHAS. W. HUNT.

Signed in presence of—

CHARLES HUMPHREY,

W. L. VOORHIS.