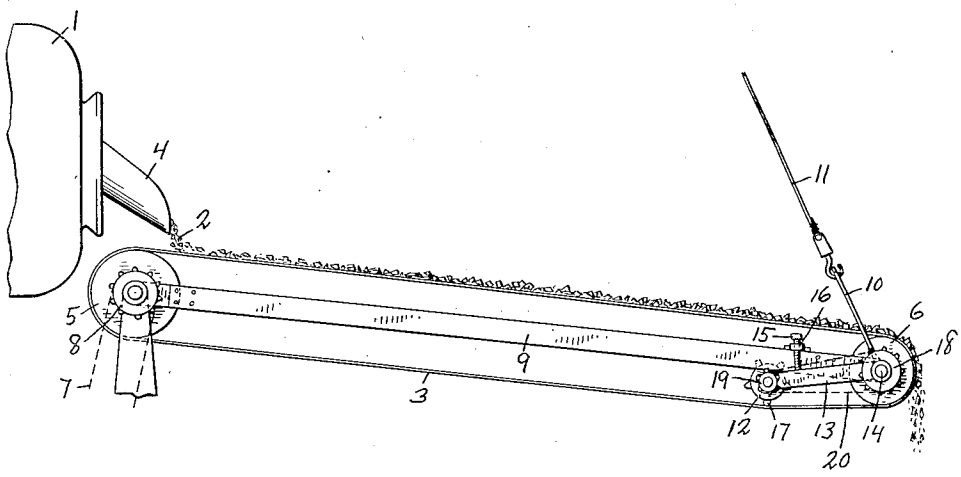
E. G. CARR.

METHOD AND APPARATUS FOR CLEANING CONVEYER BELTS.

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1,331,484. Patented Feb. 24, 1920.



Inventor
Edward G. Carr
By Bottum, Bottum, Hudnall & Fecher
Attorneys.

UNITED STATES PATENT OFFICE.

EDWARD G. CARR, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE LAKEWOOD ENGINEERING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

METHOD AND APPARATUS FOR CLEANING CONVEYER-BELTS.

1,331,484. Specification of Letters Patent. Patented Feb. 24, 1920.

Application filed April 7, 1919. Serial No. 288,064.

To all whom it may concern:

Be it known that I, EDWARD G. CARR, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Methods and Apparatus for Cleaning Conveyer-Belts, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to a method and apparatus for cleaning conveyer belts and the object of the invention is to provide for thoroughly and effectively cleaning conveyer belts of materials which tend to cling or stick thereto such as the cement mortar of concrete and like substances.

The object of the invention is effected by creating a node in the taut under stretch of the belt and causing the belt to whip violently between this node and its ends.

Referring to the drawing which accompanies this specification and forms a part hereof, which drawing illustrates an apparatus for practising the invention, the figure of the drawing is a side elevation of a conveyer belt and associated apparatus.

Referring to the drawings, the reference numeral 1 designates a concrete mixer which is discharging concrete 2 upon an endless conveyer belt 3 which may extend in any direction and which may be horizontal or inclined either up or down, to convey concrete from the concrete mixer, or its discharge chute 4, to any desired point of delivery. The conveyer belt 3, which is endless, has an upper stretch and a lower stretch in the ordinary manner and the upper stretch of the belt may be supported in any suitable manner. The lower stretch of the belt, or a part thereof, should be free to whip up and down and the drawing illustrates the lower stretch of the belt as confined by contact with pulleys or rollers 5 and 6 around which the belt travels. The belt is illustrated as driven by a sprocket chain 7 driving the sprocket wheel 8, which, in turn, drives the pulley 5. The belt is supported by a frame 9 and the outer end of the frame 9 may, if desired, be suspended by a bail 10 and a cable 11. The reference numeral 12 designates means for creating a node in the taut under stretch of the belt and this means can be conveniently constructed as a roller. The belt will ordinarily be provided with means, not shown, for stretching it fairly tight as is customary, but the roller 12, which is carried by arms 13, only one of which is shown by the drawing, loosely supported upon the shaft 14 to which the pulley 6 is secured, can be pressed down by screws 15 which pass through screwthreaded lugs 16 on the frame 9. The under stretch of the belt can be caused to whip or snap by any suitable mechanism and simple mechanism for the purpose is illustrated by the drawing as consisting of beads or projections 17 which are secured lengthwise to the roller 12. This construction of the whippers or snappers 17 serves to whip or snap the belt on both sides of the node. The roller 12 may be positively rotated from the shaft 14 by the sprocket wheels 18 and 19 and the sprocket chain 20.

The belt is confined, or prevented from a whipping or snapping movement at the points where it passes around the rollers 5 and 6 and the roller 12 creates a node in the taut under side or stretch of the belt on both sides of which the belt can whip or snap violently under the influence of the whippers or snappers 17. The result is that material sticking or clinging to the belt is dislodged by the whipping or snapping of the belt and is particularly affected and broken when passing the node in the belt. By locating the roller 12 nearer one end of the belt than the other, the amplitude of the vibrations of the belt on opposite sides of the node will be different, thereby subjecting material clinging or sticking to the belt to different loosening effects.

What is claimed is:

1. The method of cleaning endless conveyer belts which consists in creating a node in the taut under stretch of a belt, and causing the belt to whip or snap violently between the node and its ends.

2. The combination with an endless conveyer belt of means for creating a node in the taut under stretch of the belt, and means for causing the belt to whip or snap violently between the node and its ends.

In witness whereof I hereto affix my signature.

EDWARD G. CARR.