Sept. 6, 1938. W. J. TAYLOR 2,129,510

CONVEYER MECHANISM

Original Filed July 30, 1935

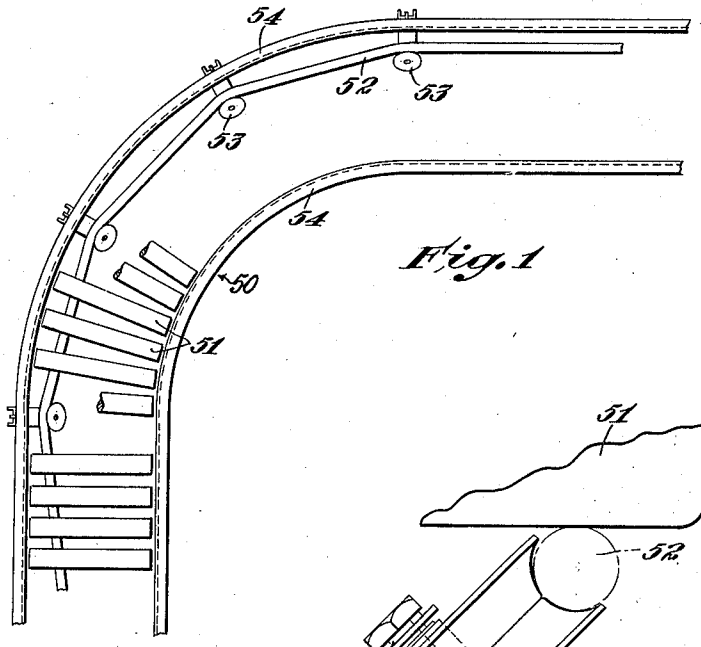


Fig. 1

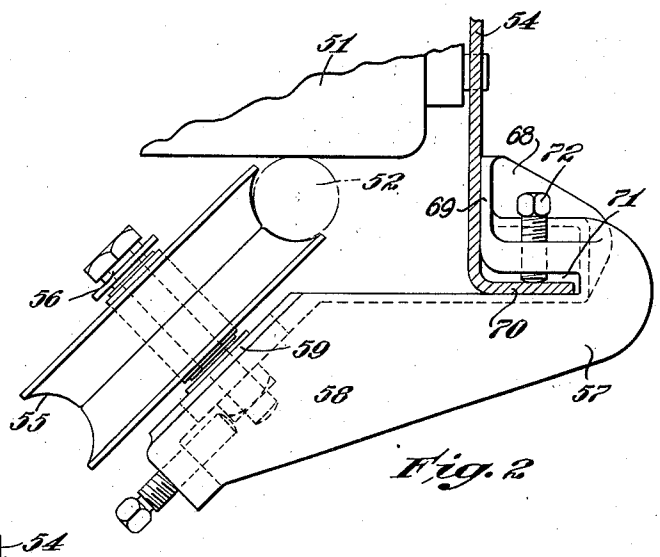


Fig. 2

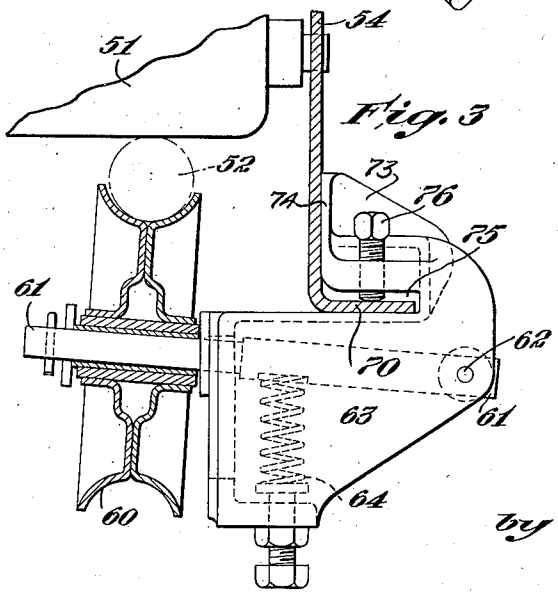


Fig. 3

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CONVEYER MECHANISM

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Original application July 30, 1935, Serial No. 33,847. Divided and this application January 21, 1936, Serial No. 60,009

2 Claims. (Cl. 198—127)

This invention relates to an improvement in conveyer mechanism more particularly in such mechanism of the live roller type comprising a plurality of article transporting rollers rotated by a driving cable. This application is a division of my copending application Serial No. 33,847, filed July 30, 1935.

The object of this invention is to provide in a live roller conveyer mechanism of that type, means for guiding the cable particularly when the conveyer includes a curved section.

This and other objects of the invention will be fully understood from an examination of the following detailed description thereof and of the drawing which forms a part of said description and in which,

Fig. 1 is an enlarged plan view illustrating the structure at one corner of a live roller conveyer; and

Figs. 2 and 3 are views of two forms of sheaves which may be used to hold the roller rotating or driving cable in position and the mountings therefor, the sheave in Fig. 3 being shown in section.

The term "live roller" is used herein to designate a conveyer comprising a plurality of rollers over which the articles travel and a cable or the like which is held in contact with the rollers and driven by a motor or other means to rotate the rollers and cause the latter to advance the articles.

The conveyer section **50** (see Fig. 1) embodies a curve, substantially of 90°, and includes a plurality of live rollers **51** driven by a cable **52** held in contact with the rollers from below by a plurality of sheave units **53** and pivotally supported at the ends in side rails **54**. The general arrangement of rollers, cable and sheave units is no part of the present invention being old and well known and disclosed, for example, in the patent to Pevear No. 2,002,830 granted May 28, 1935. In accordance with the usual practice the upper run of the cable contacts with the rollers **51** while the lower or return run is supported below the rollers on idler pulleys (not shown) carrier by the conveyer frame. The rollers at a curve are usually non-parallel, but radiating so that the ends are nearer at the inner edge of the curve than at the outer edge. It has been found most satisfactory in arrangements of this type to have the cable contact with the rollers near the outer edge of the curve and in order to hold it in this position the sheaves must be inclined to counteract the normal tendency of the cable to follow the shortest course possible.

The sheave **55** (Fig. 2) is freely rotatably mounted upon a post **56** carried by a bracket **57**. The bracket **57** is secured to the side rail **54** and includes an arm **58** which terminates in an inclined face **59** to which the post **56** is perpendicular. The post **56** extends through a slot in the bracket and may be raised or lowered to adjust the sheave relative to the rollers **51**. It will be understood that brackets having arms **58** of various lengths and posts **56** and faces **59** inclined at various angles will be used as required. Fig. 3 shows a sheave which might be used in addition to or in place of the swivel mounting shown in Fig. 2 but is preferably used to hold the cable in substantially straight runs. The sheave **60** is supported for rotation upon a post **61** pivoted at the other end upon a pin **62** carried by a bracket **63**. The post extends through a slot in the bracket and is urged to swing upwardly about the pin **62** by a spring **64**. The bracket **63** is mounted upon a side rail **54** and includes means for adjusting the tension of the spring **64**.

The brackets of each embodiment are removably and adjustably secured to one of the side rails **54**. As shown in the drawing that side rail is provided with a base flange **70**. The bracket **57** includes an arm **68** separated in part from the arm **58** by a recess or pocket **71** which receives the flange **70**. The arm **68** includes a flat portion **69** which rests against the side rail and in it is mounted a set screw or bolt **72** by means of which the bracket is removably and adjustably fixed to the flange. The bracket **63** similarly includes an arm **73**, having a flat portion **74**, a recess or pocket **75** and a set screw or the like **76** which function in the same manner as the arm **68**, recess **71** and set screw **72** of the bracket **57**.

While two embodiments of this invention have been shown and described in detail it will be understood that the invention is not limited thereto and that various changes may be made in any or all thereof without departing from the spirit and scope of this invention.

I claim:

1. In a live roller conveyer mechanism comprising a plurality of article transporting rollers and a driving cable one run of which is in contact with and rotates the rollers, means for holding the cable in contact with the rollers, comprising a bracket, a post pivotally supported upon a fulcrum in said bracket, a freely rotatable sheave mounted upon said post and by which the cable is supported and means for yieldably swinging said post about its fulcrum and holding said sheave in contact with said cable.

2. In a live roller conveyer mechanism com-

prising a plurality of article transporting rollers and a driving cable one run of which is in contact with and rotates the rollers, means for holding the cable in contact with the rollers comprising a bracket, a post pivotally supported at one end upon a fulcrum in said bracket, a freely rotatable sheave mounted upon the other end of said post and by which the cable is supported, and means for yieldably swinging said post about its fulcrum and holding said sheave in contact with said cable.

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