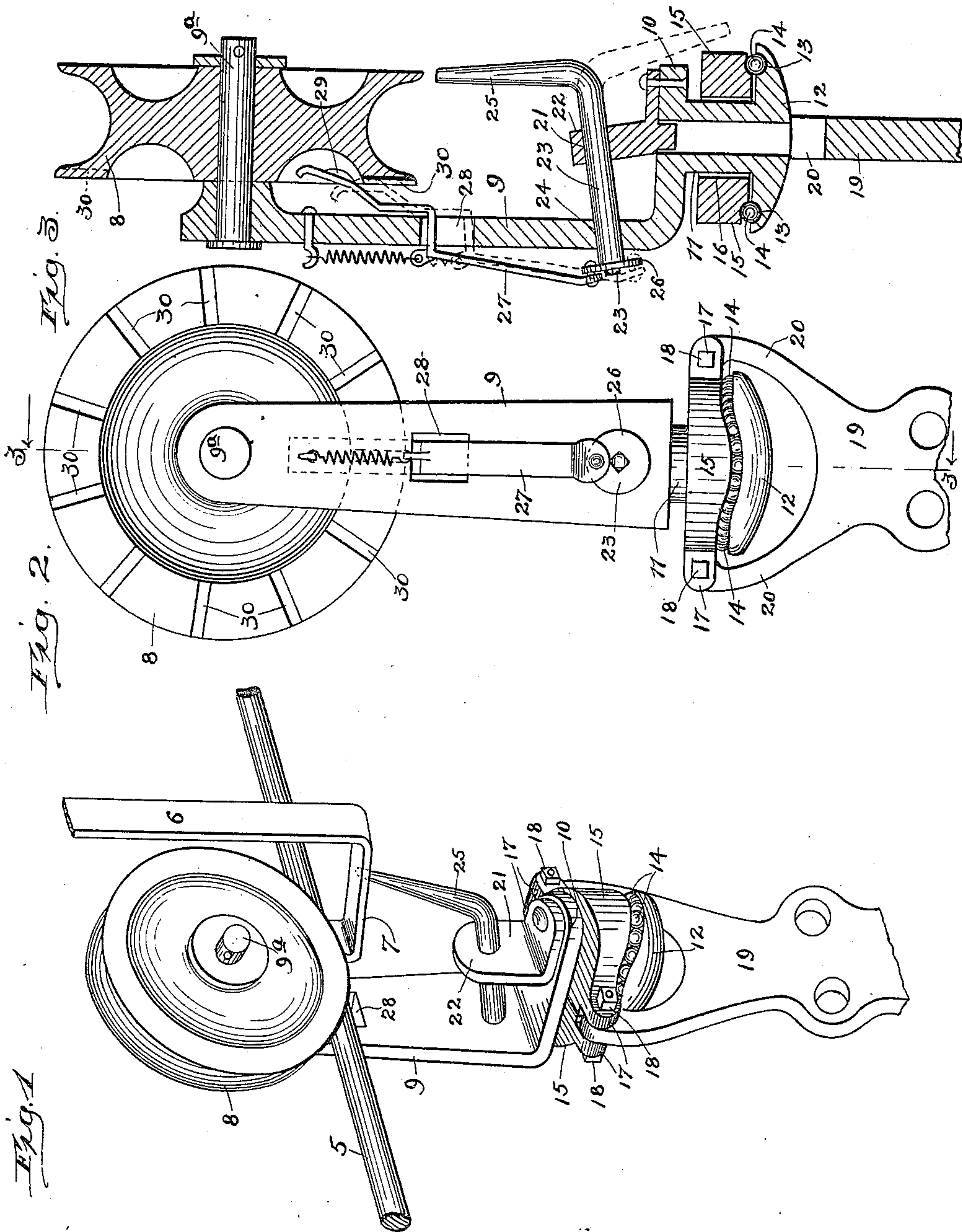


# SAFETY GUARD AND BRAKE FOR ELEVATED CARRIERS

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Patented May 30, 1911.



Witnesses:

Chas. E. Gorton  
E. Newstrom.

*Inventors*

Jeremiah C. Fitzgerald  
AND Christopher K. Murray

By

Chas. C. Gillman

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# UNITED STATES PATENT OFFICE.

JEREMIAH C. FITZGERALD AND CHRISTOPHER K. MURRAY, OF DE KALB, ILLINOIS.

SAFETY GUARD AND BRAKE FOR ELEVATED CARRIERS.

994,096.

Specification of Letters Patent.

Patented May 30, 1911.

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*To all whom it may concern:*

Be it known that we, JEREMIAH C. FITZGERALD and CHRISTOPHER K. MURRAY, citizens of the United States, residing at De Kalb, in the county of Dekalb and State of Illinois, have invented certain new and useful Improvements in Safety Guards and Brakes for Elevated Carriers, of which the following is a specification.

10 This invention relates to certain improvements in a safety guard and brake for elevated carriers, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

15 The principal object of the invention is to provide a simple, inexpensive, and efficient safety guard and brake, for the wheels of overhead or elevated carriers, and particularly those used on such carriers as are used about barns for transferring manure from one place to another, and where rod or cable tracks, which are more or less flexible are employed, to hold the carrier still on the track while loading and to provide a guard to prevent the wheel being derailed while the carrier is being shoved around through the barn, and also while it is traveling over the track on its way to and from the yard.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

35 Referring to the accompanying drawing, which serves to illustrate the invention—Figure 1, is a perspective view of a portion of an elevated rod or cable track, showing a wheel of the carrier mounted thereon and equipped with a safety guard and brake embodying the invention. Fig. 2, is a view in side elevation thereof with the section of the track omitted, and Fig. 3, is a vertical sectional view taken on line 3—3, of Fig. 2, looking in the direction indicated by the arrows and illustrating by dotted lines the positions the parts will assume when the brake is applied to the wheel in order to hold the carrier still on the track.

45 Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference numeral 5, designates a portion of rod or cable track, which may be

supported by means of hangers 6, of the ordinary or any preferred construction, which hangers are secured at their upper portions to an overhead support and each has at its lower end a horizontally disposed portion 7, on which the track 5, is mounted or secured, so that its upper surface may be adapted for the travel of the wheel or wheels 8, of the carrier, which carrier may be of the ordinary or any well known construction. In the present instance, only one wheel of the carrier is shown, and this wheel is journaled on an axle 9<sup>a</sup>, which is horizontally supported on the upper portion of the wheel frame which includes an upwardly extended body 9, having as its lower portion a horizontally disposed part 10, projecting under the track 5, and wheel 8, and has on its lower surface a downward extension 11, which is provided at its lower end with a head 12, the upper surface of which is formed with an annular groove 13, to receive a series of bearing balls 14, which are interposed between the upper surface of the head 12, and the lower surface of a collar which is composed of two semi-circular members 15, each having in its meeting edge a recess 16, to fit around the extension 11, on the lower portion of the wheel frame. Each of the members 15, of said collar is provided at each end of its meeting edge with an apertured lug 17, to receive bolts 18, used for securing said members together, as well as for securing said members to the upper portion of the bail or frame 19, on which the receptacle of the carrier is mounted, and which receptacle is not herein shown. The upper portion of the bail or frame 19, is provided with upwardly extended prongs 20, to which the members 15, of the collar are connected by means of the bolts 18, and lugs 17, as is clearly shown in Figs. 1 and 2, of the drawing. By this arrangement it will be understood that the frame or bail 19, for the receptacle of the carrier, will be swiveled on the extension 11, of the wheel frame or support. Secured to the upper surface of the horizontally disposed portion 10, of the wheel frame or support 9, is an upwardly projected bracket 21, which is provided with an opening 22, in its upper portion to receive the rotary guard 23, which is also extended through a suitable opening 24, in the body 9, of the wheel



frame. The guard 23, has on one of its ends an extension 25, which projects at its free end to near the periphery of the wheel 8, which is circumferentially grooved as usual. The opposite end of the guard 23, has mounted thereon a disk 26, to which is eccentrically connected the lower end of the brake-bar 27, which is extended through an opening 28, in the body 9, of the wheel frame or support, and then is projected upwardly between said support and the wheel as is clearly shown in Fig. 3, of the drawing, in which figure it will be observed that said bar is provided on its upper portion adjacent to the wheel 8, with an enlargement or lug 29, which is adapted to engage corrugations 30, formed in the surface of the wheel 8, adjacent to the body 9, of the wheel frame. These corrugations are preferably arranged radially with respect to the wheel, and in connection with the lug or enlargement 29, on the brake-bar will afford means for more firmly holding the wheel against rotation, when desired, than if the same were omitted. Connected at one of its ends to the upper portion of the body 9, of the wheel frame is a spring 31, the other end of which is connected to the brake-bar 27, outwardly from the wheel frame, and said spring serves, to normally hold the brake-bar out of contact with the wheel of the carrier.

From the foregoing and by reference to the drawing, it will be readily understood and clearly seen, that by turning the extension 25, of the guard 23, downwardly to the position indicated by dotted lines in Fig. 3, of the drawing, the brake-bar 27, will also be drawn downwardly to the dotted line position shown in said figure, thus causing it to engage the wheel 8, and prevent its rotation, thereby holding the carrier still on the track while it is being loaded, or for other purposes. When it is desired to move the carrier on the track, the extension 25, of the guard 23, should be turned from its dotted line position, when, by reason of the resiliency of the spring 31, the parts will be caused to assume the positions shown by continuous lines in Fig. 3, of the drawing, when it is apparent that the brake-bar 27, will be released from the wheel 8, and that the extension 25, will project at its free end, closely to the outer peripheral flange of the wheel thus preventing any possibility of the carrier jumping the track, or becoming de-railed. While we have shown the wheel 8, provided with the corrugations 30, on one of its surfaces, and have also shown the brake-car provided with the lug or enlargement 29, yet it is apparent that these elements may be omitted, and that when so dispensed with, the wheel will be held against rotation by reason of frictional contact with the brake-bar.

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

1. A device of the character described, consisting of a brake bar having a wheel engaging portion, a spring to normally hold said portion away from the wheel, and means to hold the brake bar against the wheel, said means consisting of a rock shaft having one of its ends eccentrically connected to the brake bar.

2. In a device of the character described the combination with a wheel-frame, of a wheel mounted thereon, a rock shaft mounted on the wheel-frame and having one of its ends extended to one side of the wheel, and a spring actuated member eccentrically connected to the other end of said shaft.

3. A device of the character described, comprising a brake-bar having a wheel engaging portion, a spring to normally hold the said portion of the brake-bar away from the wheel, means to hold the brake-bar against the wheel, said means comprising a rock shaft and a disk at one end thereof eccentrically connected to the lower portion of the brake-bar.

4. A device of the character described, comprising a brake-bar having a wheel engaging portion, a spring to normally hold the said portion of the brake-bar away from the wheel, means to hold the brake-bar against the wheel, said means comprising a rotary shaft having at one of its ends an extension projected to near the wheel and a projection on its other end loosely connected to the lower portion of the brake-bar.

5. A device of the character described, consisting of a wheeled frame or support, a shaft rotatably mounted thereon below the wheel and disposed at an angle to the axis of the same and having one of its ends extended to near one of the faces of the wheel, and means to resiliently hold said extension in a vertical position.

6. A device of the character described, consisting of a supporting frame, a wheel journaled thereon, a brake bar mounted on said frame and having eccentric means for engagement with the wheel at one side of the same, and means to normally hold said bar away from the wheel.

7. A device of the character described, consisting of a brake-bar having a wheel engaging portion, a spring to normally hold said portion away from the wheel, and eccentric means to hold the brake-bar against one side of the wheel.

8. The combination with a wheel-frame, of a wheel journaled thereon, a shaft rotatably mounted transversely on the frame below the wheel and disposed at an angle to the axis of the same and having at one of its ends an upturned extension terminating below the wheel, and a spring supported at



one of its ends on the wheel frame and having its other end in loose engagement with said shaft near its end opposite the extension thereon, whereby the latter when meeting with an obstruction along the line of travel will be moved forwardly or backwardly and outwardly from the wheel at the same time.

9. A device of the character described, consisting of a wheeled frame, a brake bar located on the frame and having a wheel engaging portion, an eccentric loosely connected to said bar to move the same in and out of contact with the wheel.

10. A device of the character described,

consisting of a wheeled frame, a brake-bar located on the frame and having a wheel engaging portion, a member movably mounted on said frame and loosely connected to the bar whereby the latter will be caused to engage the wheel when said member is moved in one direction and will be released from the wheel when said member is moved in the opposite direction.

JEREMIAH C. FITZGERALD.  
CHRISTOPHER K. MURRAY.

Witnesses:

CHAS. C. TILLMAN,  
E. NEWSTROM.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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