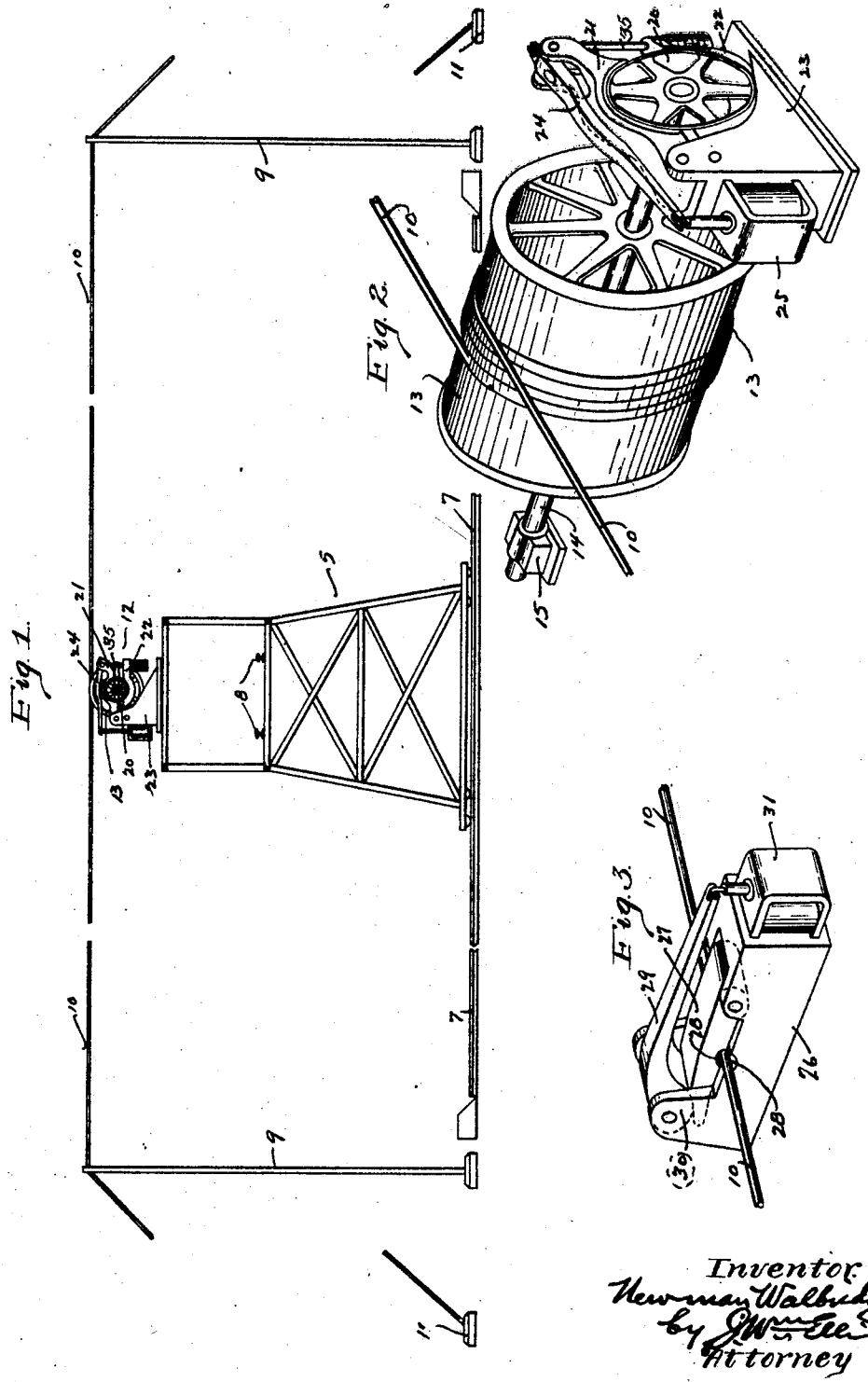
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CABLE BRAKING AND BRACING DEVICE

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CABLE BRAKING AND BRACING DEVICE.

Application filed March 28, 1924. Serial No. 702,683.

To all whom it may concern:

Be it known that I, NEWMAN WALBRIDGE, a citizen of the United States of America, and a resident of the city of Buffalo, county of Erie, and State of New York, have invented a new and useful Cable Braking and Bracing Device, of which the following is a full, clear, and exact description.

My invention relates generally to a cable braking and bracing device, and more particularly to a device for use in connection with ore bridges, or other unloading or conveying apparatus, which are mounted and travel upon supporting tracks.

It is well known to those skilled in the art, that ore handling bridges are many times moved by high winds along the tracks and upset with great damage to the bridge. Furthermore such structures cannot be successfully operated in high winds.

The principal object of my invention has been to provide a device whereby the bridge may be securely held at the point where the wind pressure is greatest, and thus preclude its being moved or overturned by wind pressure.

Another object has been to provide a device of this nature which will not in any wise interfere with the operation of the bridge.

Furthermore, it is an object to provide a device which shall be automatic in its operation whereby it shall be operated to hold the bridge when the power operating the bridge is shut off.

The above objects and advantages have been accomplished by the device shown in the accompanying drawings, of which:

Fig. 1 is a side, sectional view of the device applied to an ore loading bridge shown in a conventional manner.

Fig. 2 is an enlarged perspective view of one form of my device.

Fig. 3 is an enlarged perspective view of a modified form of device.

In the drawings, 5 represents in a conventional manner a vertical, end, sectional view of an ore loading bridge. The bridge is mounted for movement upon the usual tracks 7, and is, of course, provided with the usual tracks 8 for the conveying device of the bridge.

At each end of travel of the bridge is mounted a strut or support 9 which is preferably of a height slightly greater than the height of the bridge 5. Each of these struts support one end of a cable 10. The ends of the cable 10 extend downwardly and are anchored at points 11 so as to keep the cable reasonably taut.

The device, shown at 12 in Fig. 1, is carried on top of the bridge and mounted preferably at the center thereof. The device comprises (see Fig. 2) preferably a cable drum 13, about which the cable 10 is wound a number of times so that it will have frictional engagement therewith. The drum is preferably mounted upon a shaft 14, which is rotatably suported in suitable bearings 15.

Arranged at one end of the drum is a braking mechanism comprising a brake drum 20, having brake band members 21 and 22. These members are suitably carried by a frame or housing 23 and are drawn into frictional engagement with the brake drum 20 by means of an arm 24. The arm 24 is suitably connected with a link 35, connecting the brake drum members 21 and 22. The arm 24 may be actuated in any desired manner, but I have shown for convenience, and prefer to operate the same by a solenoid 25.

In Fig. 3, I show a modified form of invention in which the cable drum is omitted, and in which the cable 10 is gripped between the base 26 of this device and a clamp 27, pivotally carried thereby. The base 26 and the clamp 27 are each provided with grooves 28 for the reception of the cable 10. An operating arm 29 is provided, which is pivotally carried at it inner end by the base 26 where it is provided with a cam 30. By the operation of the arm, the cam 30 will press the clamping member 27 into engagement with the base 26 and thus grip the cable 10. This form of the device is also preferably operated by means of a solenoid 31, which is connected with the outer end of the operating arm 29.

From the foregoing, it will be obvious that with either of the devices herein shown and described, the bridge 5 may be freely moved. When the form of the device shown in Fig. 2, is employed, the cable 10 will be freely wrapped about and unwound from the cable drum 13 while the bridge is being moved. When the bridge is brought to rest the solenoid will preferably be operated automatically so as to grip the brake drum 20 and hold the cable drum in its position thereby preventing the bridge from being

moved, and effectually bracing it at the upper end where the wind pressure exerts the greatest leverage. When the form of device, shown in Fig. 3 is employed the solenoid will be so operated that the clamping device 27 will grip the cable and thus securely hold the bridge in place.

Furthermore, instead of the solenoid, any equivalent means may be employed for actuating the operating arms 24 and 29 of the devices. These and other modifications of the details herein shown and described may be made without departing from the spirit of my invention, or the scope of the appended claim, and I do not, therefore, wish to be limited to the exact embodiment herein shown and described, the form shown being merely a preferred form thereof.

Having thus described my invention, what I claim is:

The combination with a movable unloading or conveying apparatus mounted upon tracks, of a cable braking and bracing device comprising a cable arranged some distance above the tracks of the apparatus and having one of its ends suitably secured at each end of the travel of such apparatus, a drum carried by the apparatus and engageable with the cable, and braking means controlling the revolution of the drum, whereby the drum may be locked in any desired position.

In testimony whereof, I have hereunto signed my name.

NEWMAN WALBRIDGE.