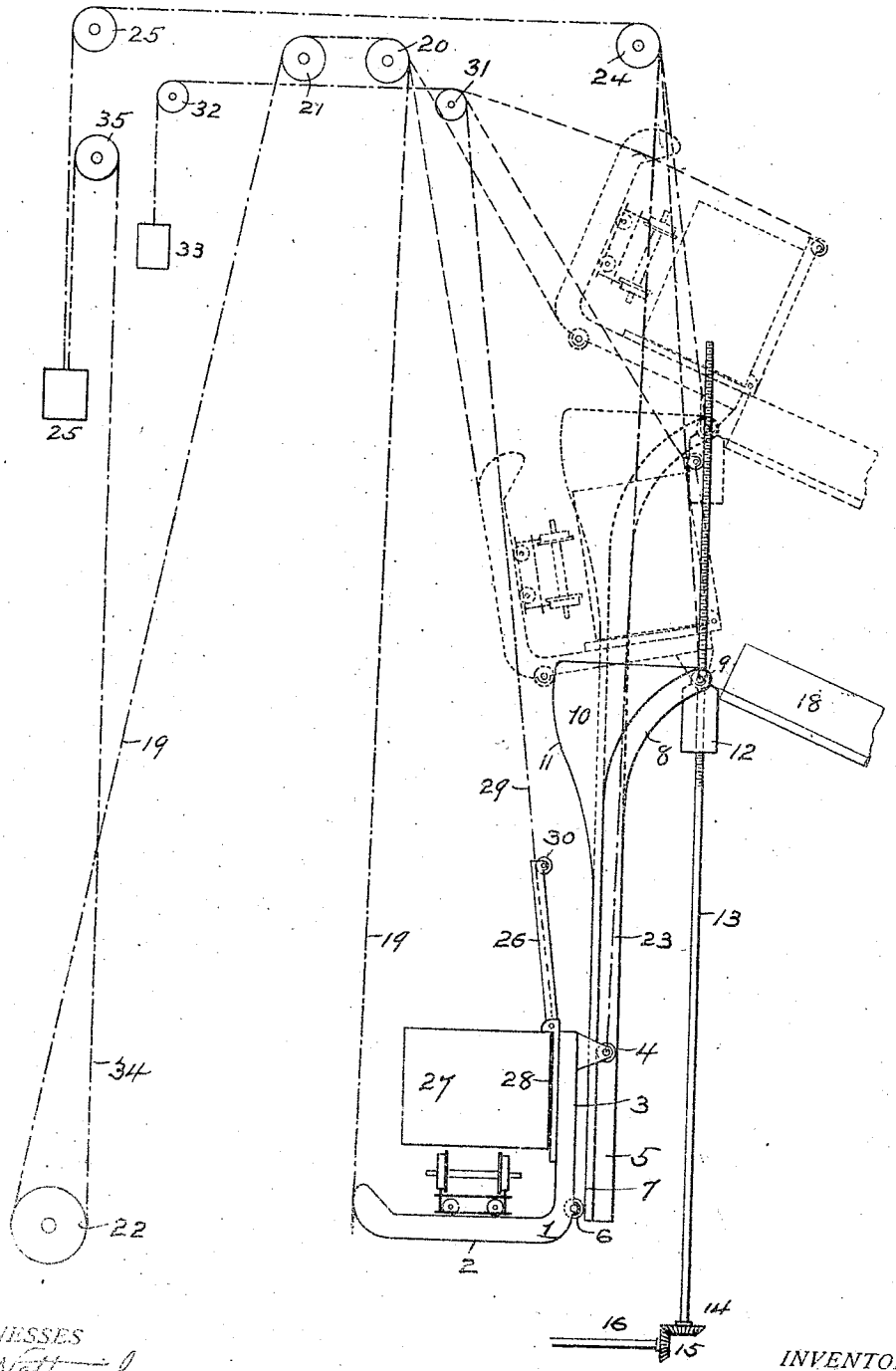
G. H. HULETT.

CAR DUMPING MECHANISM.

APPLICATION FILED JUNE 2, 1913.

1,084,438.

Patented Jan. 13, 1914.



WITNESSES

E. L. Nottingham

G. F. Downing.

INVENTOR

G. H. Hulett

By H. A. Seymour

Attorney

UNITED STATES PATENT OFFICE.

GEORGE H. HULETT, OF CLEVELAND, OHIO, ASSIGNOR TO THE WELLMAN-SEAVER-MORGAN COMPANY, OF CLEVELAND, OHIO.

CAR-DUMPING MECHANISM.

1,084,438. Specification of Letters Patent. Patented Jan. 13, 1914.

Application filed June 2, 1913. Serial No. 771,292.

To all whom it may concern:

Be it known that I, GEORGE H. HULETT, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Dumping Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in car dumping mechanism, the object of the invention being to provide simple and efficient means for raising, lowering and tilting a cradle carrying a car to be dumped, and to economize time and power in effecting such operations.

With this object in view, the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

The accompanying drawing is a diagrammatical view of an apparatus embodying my improvements.

1 represents a cradle comprising a platform 2 onto which a car to be dumped will be run, and a vertical portion 3,—the latter being provided with rollers such as indicated at 4, to run on upright guides 5, and said cradle is also provided with rollers such as indicated at 6, to run on upright guides 7. Each guide 5 is made with an outwardly projecting portion which may be curved as shown at 8, and at the end of this curved upper part of the guide, a curved stop 9 is provided. The guide 7 is provided at its upper portion with an inwardly or rearwardly projecting part 10 which forms a cam-portion 11 for the upper part of said guide 7. The guides 5—7 are secured to and carried by a horizontal beam 12 which is vertically movable in any suitable framework,—screws 13 being provided for adjusting said beam vertically, and these screws may be operated through gears 14—15 from any convenient source of power connected with the shaft 16 to which the gear 15 is secured. An apron 18 is connected with the beam 12 and is intended to receive material dumped from a car and deliver it through a suitable chute or conveyer to the hold of a boat.

To one side of the cradle, lifting cables, such as indicated at 19, are attached, each of said lifting cables extending upwardly from its connection with the cradle and passing over pulleys 20—21 located in a plane above that of the highest point of adjustment of the beam 12. From the pulley 21, each lifting cable extends downwardly and is wound on a drum 22, to which power may be applied and the operation of which may be controlled by any suitable means.

A cable 23 is connected with the cradle preferably at a point approximately concentric with roller 4, and from such connection, each cable 23 extends upwardly and, after passing over pulleys 24—25 located above the plane of that to which the beam 12 is adjustable, the depending end of each cable 23 is provided with a counterweight 25. The counterweight 25 is such as will be sufficient to raise the pivot side of the cradle, while the other side of the cradle will be hoisted by the cable 19.

Clamp-bars 26 (for clamping a car 27 to the cradle while the latter is being tilted during the dumping operation) are pivotally connected with the cradle, preferably through the medium of clamps 28,—said clamping bars and clamps and means for controlling the operation of the latter to engage a car, being well known in the art. A cable 29 is connected with the cradle (preferably through the medium of each clamp 28) and, after passing over the clamp bar 26 and under a pulley 30 at the free end of the latter, each cable 29 extends upwardly and over pulleys 31—32, the free depending end of each cable 29 being provided with a counterweight 33.

When the drum 22 is rotated in one direction, the cradle will be raised and partially tilted by the rollers 6 running on the cam portions 11 of guides 7,—the cable 19 serving to hoist one side of the cradle and the weighted cables 23 operating to raise the other side,—until the rollers 4 reach the pivotal supports afforded by the stops 9 at the upper end of guides 5, and then, by continuing to hoist by means of the drum 22 and cable 19, the tilting of the cradle will be completed and the clamp bars caused to extend transversely across the top of the car. It will be remembered that the counter weights will be heavier than the combined weight of the cradle and car. It will therefore be necessary to provide a cable 34, which is wound on the drum 22 in an opposite direction to the winding of the cable 19 and after passing upwardly and over a

pulley 35 located in a plane above that of the highest point reached by the weight 25, said cable 34 is extended downwardly and attached to said weight 25. From this construction, it will be seen that when the cradle and empty car are being returned, the counterweight 25 (which is now heavier than the combined weight of the cradle and car) will be lifted, thus allowing the car to descend.

I do not in this case claim broadly the combination of a cradle, vertically adjustable guides therefor, a counterweighted chain connected with the cradle and a counterweighted cable connected with a normally fixed support and having movable connection with the cradle under the same,—as this subject matter is defined in my copending application filed even date herewith and designated by Serial No. 771,291.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

1. In car dumping mechanism, the combination with a cradle, means for affording a pivotal support therefor, and a hoisting drum, of a cable wound on said hoisting drum and connected with one side of the cradle, a cable connected with the other side of the drum, a weight secured to said last-mentioned cable and being sufficiently heavy to raise the side of the cradle with which said cable is connected and means operated by the drum to raise said weight and permit the cradle and an empty car thereon to descend.

2. In car dumping mechanism, the combination with a cradle, guides for directing the vertical and pivotal movements of said cradle and a hoisting drum, of a cable connected with said hoisting drum and one side of the cradle, a cable attached to the other side of the cradle, a weight on said last-mentioned cable sufficient to raise the side of the cradle with which said cable is connected, and a cable attached at one end to said weight and wound on the hoisting drum in a direction opposite to the winding of the first-mentioned cable, to raise said weight when the drum rotates backwardly and permit the cradle and an empty car to descend.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

GEORGE H. HULETT.

Witnesses:
H. A. PELOUBET,
HERBERT P. GLIDDEN.