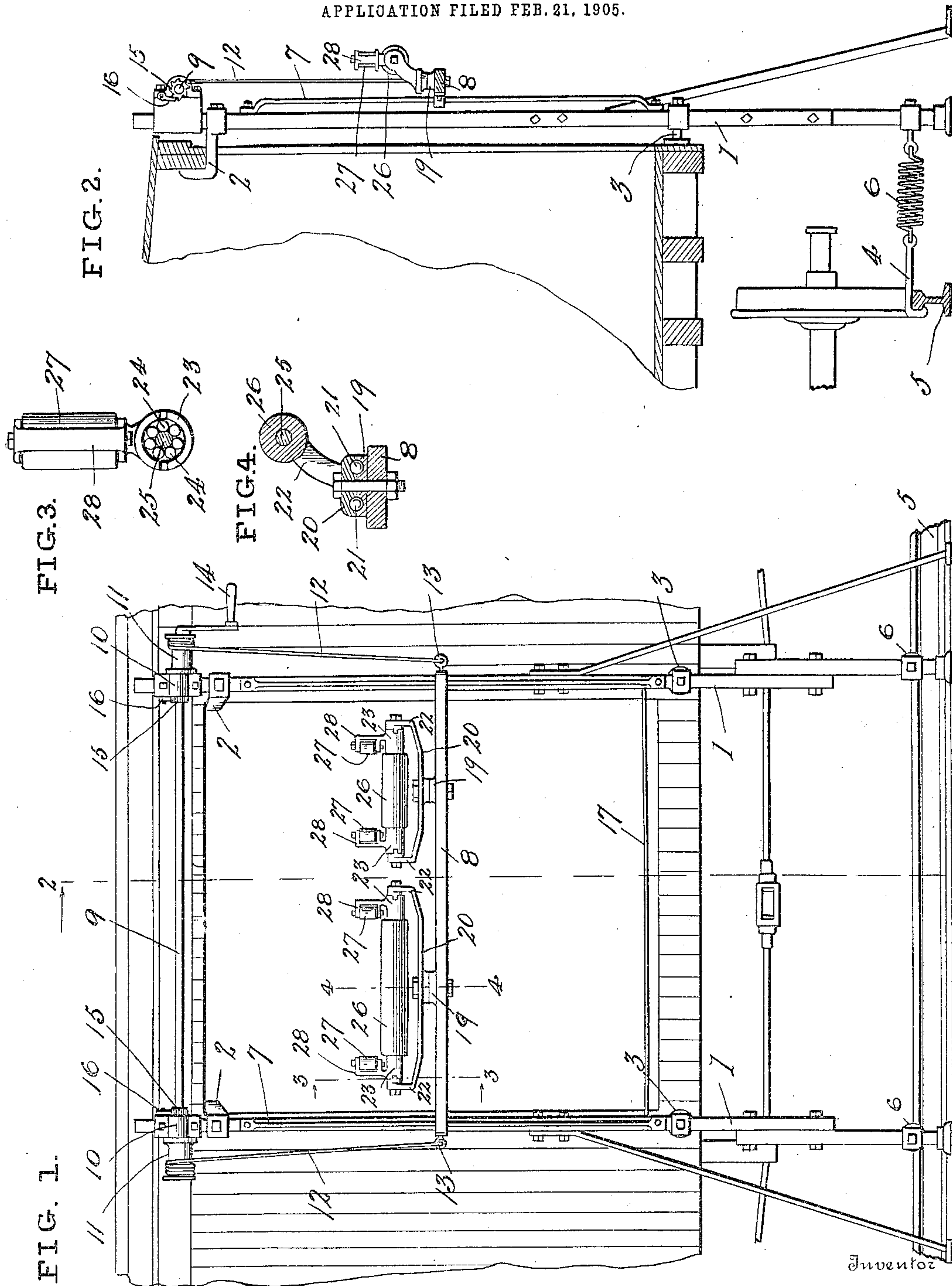


No. 804,762.

PATENTED NOV. 14, 1905.

C. E. OTTERMAN.
UNLOADING DEVICE.

APPLICATION FILED FEB. 21, 1905.



Witnesses

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CHARLES E. OTTERMAN, OF TOLEDO, IOWA.

UNLOADING DEVICE.

No. 804,762.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed February 21, 1905. Serial No. 246,696.

To all whom it may concern:

Be it known that I, CHARLES E. OTTERMAN, a citizen of the United States, residing at Toledo, in the county of Tama and State of Iowa, have invented certain new and useful Improvements in Unloading Devices, of which the following is a specification.

My invention relates to unloading devices, and especially to devices for unloading lumber and like material from a car.

The object of my invention is to provide an improvement on my unloading device forming the subject-matter of an application for Letters Patent of the United States, filed December 27, 1904, and bearing Serial No. 237,839.

A further object of my invention is to provide an unloading device wherein the rollers are provided with antifriction-bearings.

A further object of my invention is to provide an unloading device wherein the rollers are mounted upon brackets curved outwardly to prevent the turning of the roller obliquely to the article carried thereon.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view of my improved unloading device in front elevation secured to a car and in operative position. Fig. 2 is a vertical sectional view of my improved unloading device, taken on line 2 2 of Fig. 1. Fig. 3 is a vertical sectional view in detail, taken on line 3 3 of Fig. 1, and showing the antifriction-bearings upon which the rollers are mounted. Fig. 4 is a vertical sectional view in detail, taken on line 4 4 of Fig. 1, and showing the ball-bearing swivel of the yoke in section.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment my improved unloading device comprises the upright adjustable frame-pieces 1, with the hooks 2 and bearing-plates 3, as described in my former application, Serial No. 237,839. The frame

is secured to a car, as described in said application, by the hook 2 engaging the upper jamb, the bearing-plate 3 contacting with the side of the car, and held in position by the hook 4 engaging the rail 5 and held in operative position by the spring 6. To the uprights of the frame 1 are secured the guide-rods 7, with the cross-bar 8 vertically slidable thereon. A shaft 9 is mounted in suitable bearings 10 adjacent the upper end of the upright frame 1 and provided at each of its ends with the winding-drums 11. Flexible cables 12 are secured to rings 13, in the opposite ends of cross-bar 8, and wound about winding-drums 11. The shaft 9 is provided with a crank 14, capable of rotating the said shaft 9 and drums 11, to wind the cable 12 about the said drums. The shaft 9 is provided with ratchets 15, and pawls 16 are disposed for engagement therewith and to prevent a retrograde movement of the drums 11. To hold the side bars of the upright frame in proper alinement, a brace 17 is disposed between the said bars and rigidly secured thereto at its opposite ends.

Upon the cross-bar 8 is disposed a member 19, provided with a ball-race. A yoke 20, also provided with a ball-race at its central point, is pivotally secured, registering with the member 19 and the balls 21, disposed within the registering ball-races. The yoke 20 is provided with forwardly-extending bracket portions 22, upon the outer ends of which are carried sleeves 23. The sleeve 23 constitutes a casing for the rollers 24, providing an antifriction-bearing for the trunnion 25 of the work-roller 26. Upon the sleeve 23 are also mounted the vertically-disposed rollers 27, held in yokes 28, preferably formed integral with the sleeve 23.

I have shown and prefer to mount two rollers 26 upon the cross-bar 8 differing in length, the longer one designed to be used for unloading wide lumber and timber of large dimensions, the shorter to be used for timbers of smaller dimensions, or it may be used for unloading wide lumber by placing the edge of the lumber in contact with the roller.

The operation of my improved unloading device is as follows: With the frame secured to a car, as shown in the drawings, the cross-bar 8, with the rollers 26, may be vertically adjusted to the desired position by the rotation of the winding-drums 11, operated by the crank 14, the bar 8 moving vertically upon the guide-rods 7. The desired vertical ad-

justment being attained, one end of a piece of lumber is placed upon either one of the rollers 26 according to size and moved longitudinally thereon, the roller maintaining at all times a position perpendicular to a stick of timber by reason of the forwardly-curved bracket portion 22 and prevented from sliding off the roller by reason of vertically-disposed rollers 27.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, a frame provided with means for securing it to a car-door, a bar secured to said frame and vertically adjustable thereon, a bracket swivel-ly mounted thereon and curved to extend forward and a roller mounted on said bracket.

2. In a device of the character described, a frame provided with hooks to engage the jambs of and be secured adjacent to a car-door, a horizontal cross-bar, means for slidingly securing the cross-bar to the frame, means for securing the cross-bar at a desired vertical adjustment, a long roller and a short roller provided with roller-bearings and mounted each in a bracket properly proportioned, the said brackets swivelly mounted upon the cross-

bar and curved to extend and hold the rollers forward beyond the frame. 30

3. In a device of the character described, an upstanding frame provided with hooks to engage the jambs of and be secured adjacent to a car-door, means for securing the frame to the rail beneath the car, a cross-bar extending across the door and longitudinally of the car, means for securing the cross-bar to the up- rights of the frame to permit vertical move- ment of the bar, drums rotatably mounted adjacent the top of the frame, means for ro- tating the drums, cables adapted to be wound on said drums and connected to the cross-bar, a plurality of brackets swivelly mounted on said cross-bar and on ball-bearings, the said brackets curved to extend away from said car, a horizontal roller mounted in each of said brackets and in roller-bearings and a vertical roller mounted at each end of each bracket. 40 45

In testimony whereof I affix my signature in presence of two witnesses. 50

CHARLES E. OTTERMAN.

Witnesses:

J. G. BULL,

MARTHA HUTCHISON.