

No. 839,287.

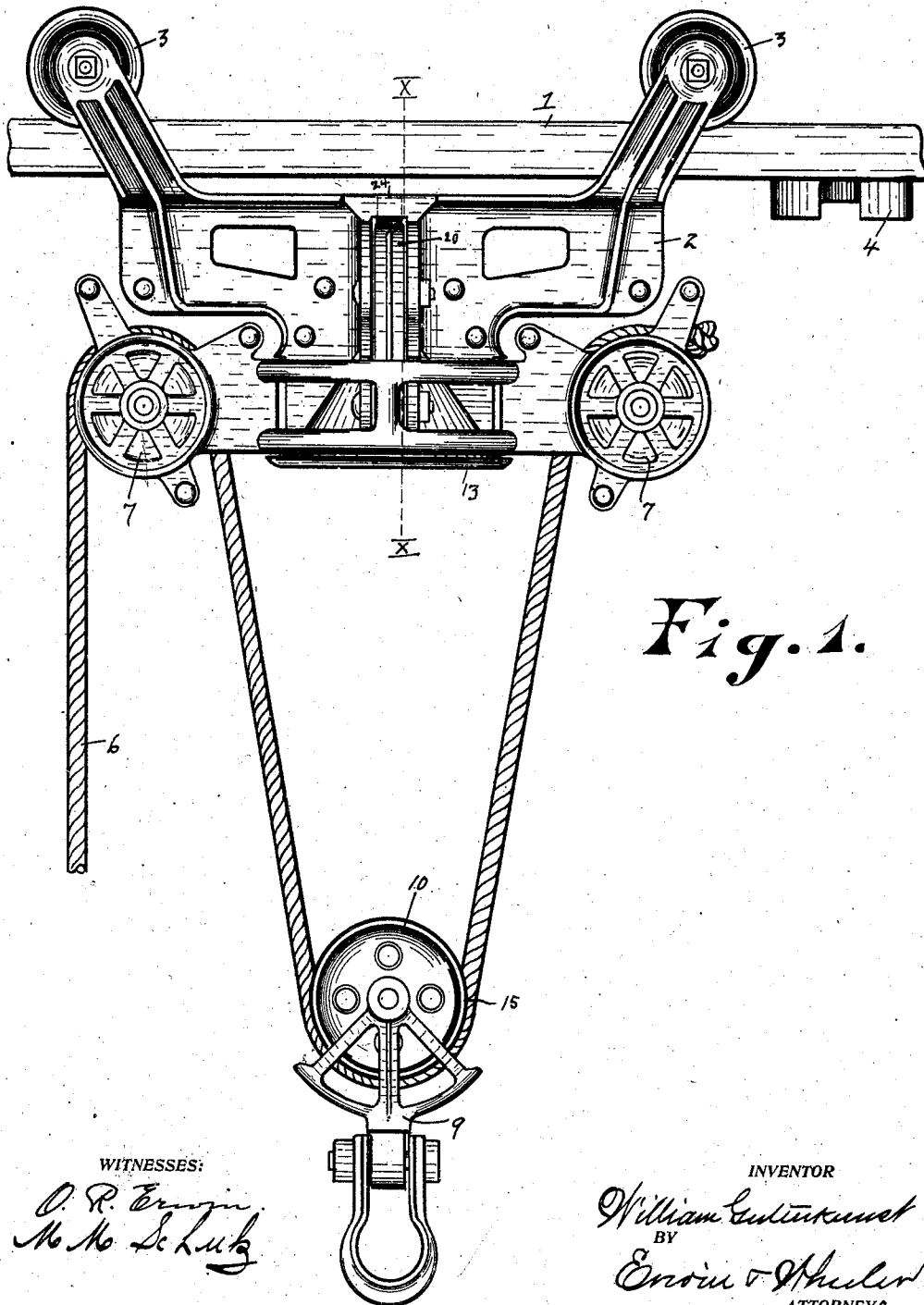
PATENTED DEC. 25, 1906.

W. GUTENKUNST.

HAY CARRIER.

APPLICATION FILED SEPT. 29, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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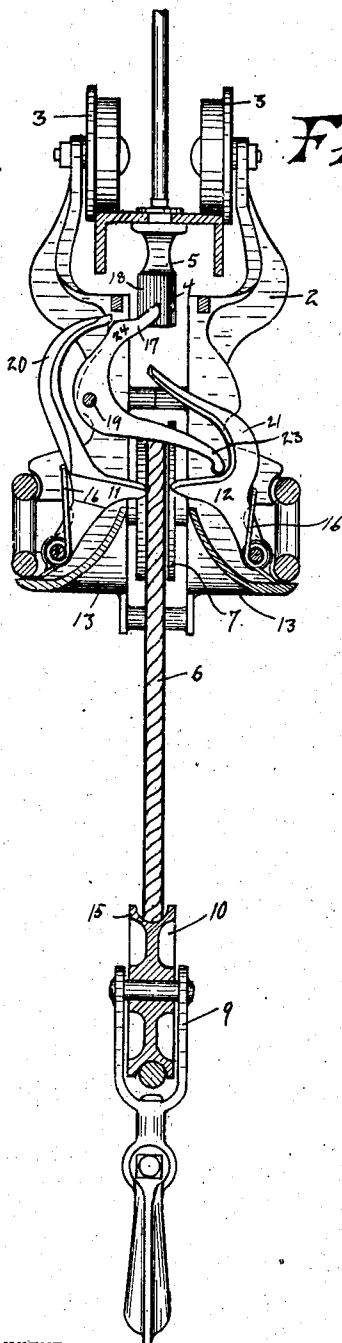


Fig. 2.

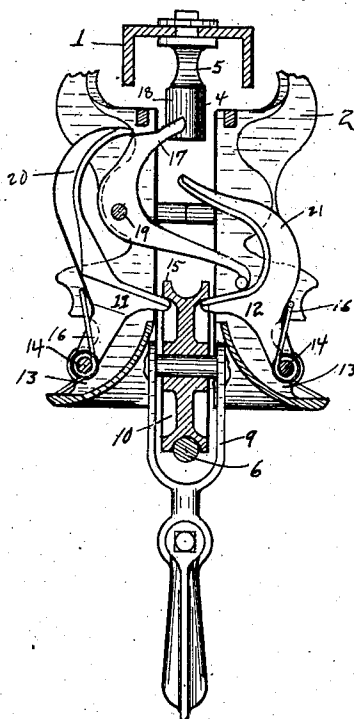


Fig. 3.

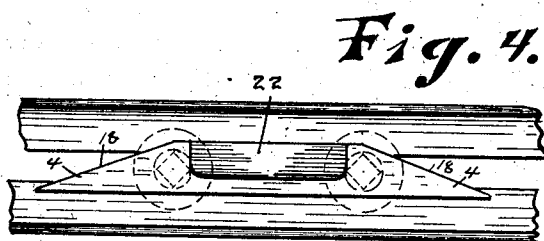


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM GUTENKUNST, OF MILWAUKEE, WISCONSIN.

HAY-CARRIER.

No. 839,287.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed September 29, 1906. Serial No. 336,753.

To all whom it may concern:

Be it known that I, WILLIAM GUTENKUNST, a citizen of the United States, residing at the city of Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Hay-Carriers, of which the following is a specification.

My invention relates to improvements in that class of hay-carriers in which the gripping mechanism is adapted to engage the respective sides of the pulley-rim of the hoist or tackle block by which the load is elevated to the carrier; and it pertains, among other things, to the construction and arrangement of a set of two oppositely-arranged gripping-clutches which are adapted to engage the respective sides of the pulley-rim, means for automatically throwing said clutches into locking engagement with the rim of the pulley, and means for also automatically separating the clutches and releasing the pulley as the load carried thereby is brought to the place of discharge.

The construction of my invention is further explained by reference to the accompanying drawings, in which—

Figure 1 is a side view of a carrier embodying the same suspended from a track. Fig. 2 is a transverse vertical section drawn on line $x x$ of Fig. 1, showing the pulley disengaged from gripping-clutches. Fig. 3 represents a similar view to that shown in Fig. 2, in which the gripping-clutches are shown in engagement with the pulley. Fig. 4 represents a bottom view of a portion of the track and the stop which is adapted to actuate the clutches.

Like parts are identified by the same reference characters throughout the several views.

The carrier-track 1, carrier-frame 2, frame-supporting rollers 3, stationary stop 4, stop-supporting bracket 5, hoisting-rope 6, and rope-supporting pulleys 7 are substantially of the ordinary construction.

My present invention pertains more especially to the construction and arrangement of the sheave-block 9, sheave 10, and the gripping mechanism of the carrier which is adapted to engage the respective sides of the sheave and from which the sheave and the load is adapted to be suspended as the load is being conveyed along the track; also, to the mechanism for automatically releasing the gripping-clutches from the sheave when desirous to lower the load from the carrier.

My gripping mechanism comprises a set of two gripping-clutches 11 and 12, which are supported opposite to each other from the respective sides of the upwardly-converging guide-walls 13 upon the pivots 14 14 in such a manner and in such relations to each other that the sheave 10 as it is drawn up by the hoisting-rope between the converging guide-walls 13 will be brought in contact with the lower outwardly-diverging sides of the clutches, whereby said clutches will be thrown apart until the periphery of the sheave passes them, when said clutches will be automatically thrown toward each other and caused to engage the respective sides of the sheave-flange 15 by the recoil of the springs 16 16, whereby the sheave, sheave-block, and load suspended from the sheave-block will when the hoisting-rope is slack be suspended from said gripping-clutches 11 and 12 until said clutches are thrown apart by the automatic action of the connecting mechanism against the stop 4. The gripping-clutches 11 and 12 are simultaneously thrown apart and out of engagement with the flanges 15 of the sheave by contact of the upper end of the latch 17 with either of the angular contact-bearings 18 of the stop. The latch 17 is centrally supported from the carrier-frame 2 upon the pivot 19. The gripping-clutch 11 is provided with an operating-arm 20, which is adapted to contact with the latch 17 above its supporting-pivot, while the gripping-clutch 12 is provided with an arm 21, which contacts with said latch 17 below its supporting-pivot, whereby as said latch is thrown outwardly by contact with one of the angular bearings of the stop both of said gripping-clutches will be simultaneously thrown apart and out of engagement with the sheave-flange, whereby said sheave and its load will, as stated, be free to descend, when said clutches will be thrown back into their normal position for engagement with the sheave by the recoil of said actuating-spring 16.

It will be understood that when the latch 17 has passed over either of the angular surfaces 18 of the stop as it is brought toward the center of the same it will drop into the recess 22, whereby the carrier will be retained in a fixed relative position to the supporting-track, while the tackle-block descends. When, however, the tackle-block is again drawn up past said gripping-clutches, it will contact with the lower arm 23 of said

latch, whereby the upper arm 24 of said latch will be thrown out of engagement with said stop, thereby releasing the carrier, when the same may be again drawn along the track.

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

1. In a hay-carrier of the class described the combination of a latch pivotally supported from the carrier-frame and adapted to be actuated by contact with the carrier-stop, two gripping-clutches pivotally supported opposite to each other near the apex of the pulley-guiding walls, means for automatically throwing said gripping-clutches into locking engagement with the flanges of the pulley as it is drawn between them, means actuated by said latch as it is brought in contact with said carrier-stop for simultaneously separating said gripping-clutches and disengaging the pulley therefrom.

2. In a hay-carrier of the class described the combination of a latch pivotally supported from the carrier-frame and adapted to be actuated by contact with the carrier-stop, two gripping-clutches pivotally supported opposite to each other near the apex of the pulley-guiding walls, means for automatically throwing said gripping-clutches into locking engagement with the flanges of the pulley as it is drawn between them, one of said gripping-clutches being provided with an operating-arm adapted to bear upon said latch below its pivotal support and the other clutch being provided with an operating-

arm adapted to bear against said latch above its pivotal support, whereby as said latch is thrown laterally by contact with the angular wall of the carrier-stop both of said gripping-clutches will be simultaneously thrown out of engagement with the pulley.

3. In a hay-carrier of the class described the combination of a latch pivotally supported from the carrier-frame and adapted to be actuated by contact with the carrier-stop, two gripping-clutches pivotally supported opposite to each other near the apex of the pulley-guiding walls, spring-actuated means for automatically throwing said gripping-clutches into locking engagement with the flanges of the pulley as it is drawn between them, one of said gripping-clutches being provided with an operating-arm adapted to bear upon said latch below its pivotal support and the other clutch being provided with an operating-arm adapted to bear against said latch above its pivotal support, whereby as said latch is thrown laterally by contact with the angular wall of the carrier-stop, both of said gripping-clutches will be simultaneously thrown out of locking engagement with the pulley and whereby as said pulley is brought in contact with the lower arm of said latch, the upper arm of said latch will be thrown out of engagement with said stop.

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

WILLIAM GUTENKUNST.

Witnesses:

JAS. B. ERWIN,
M. M. SCHULZ.