F. B. STRICKLER.

HAY CARRIER.

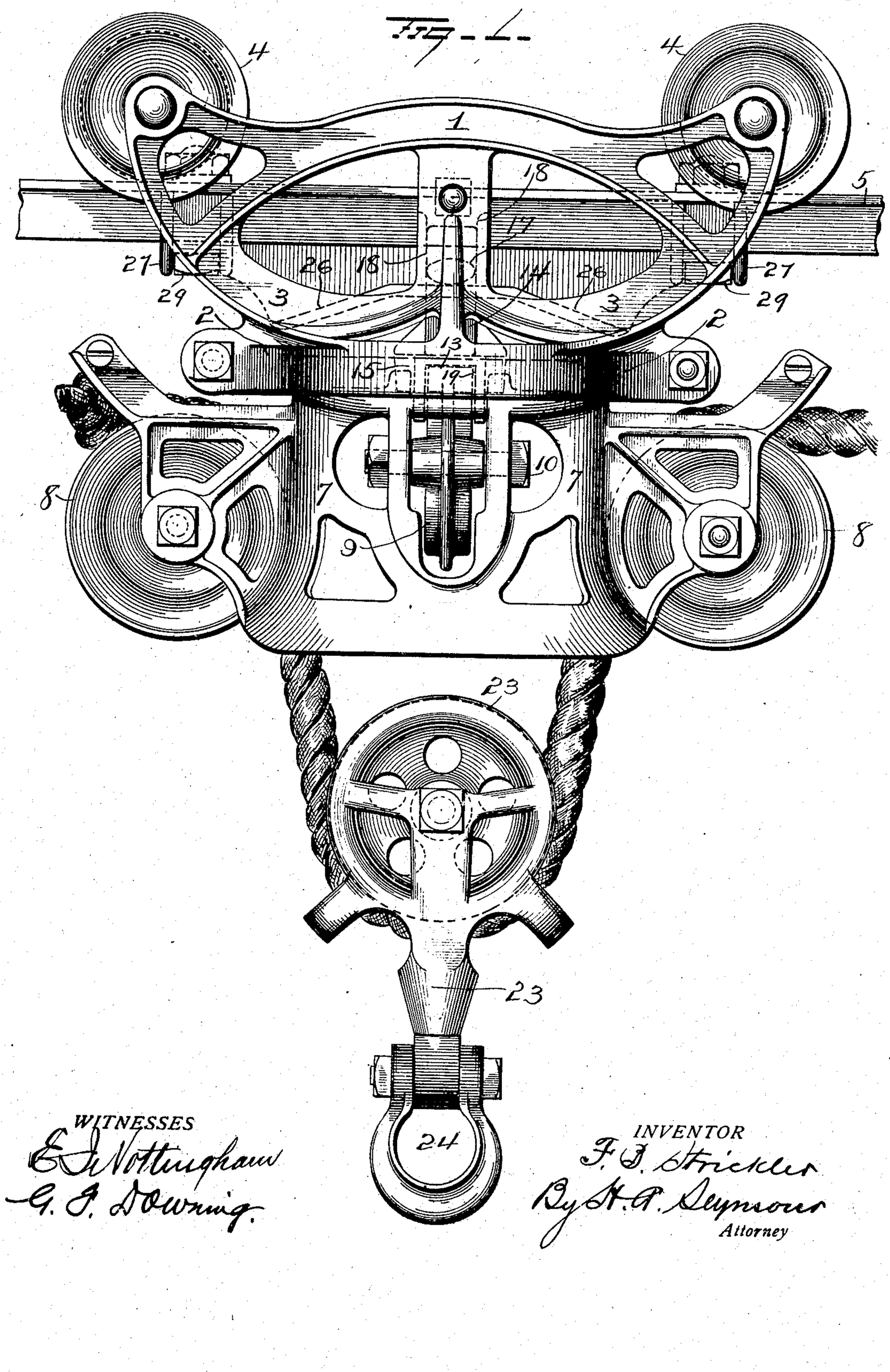
APPLICATION FILED SEPT. 30, 1908.

930,572.

Patented Aug. 10, 1909.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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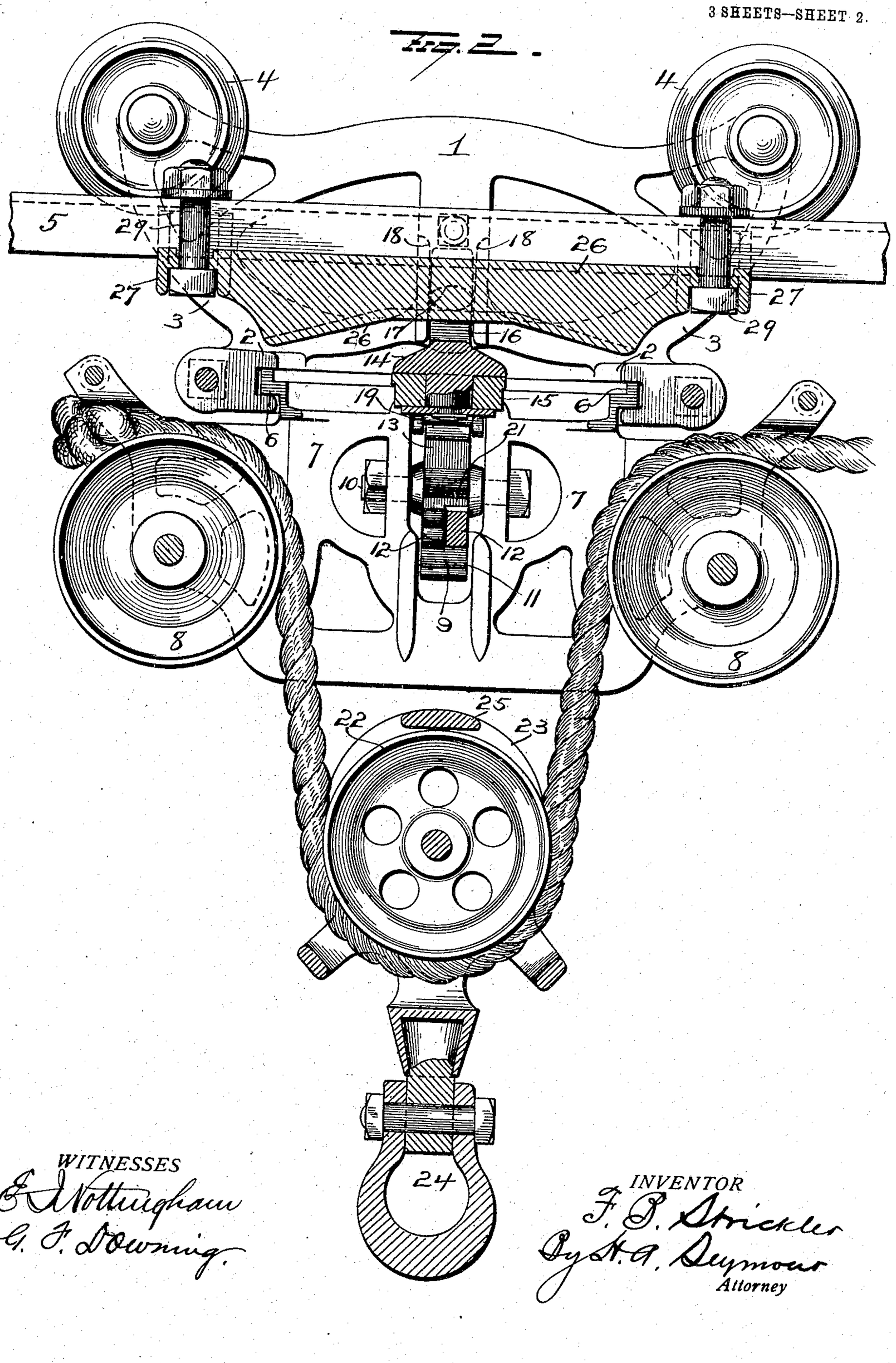
3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

FIG. 3.

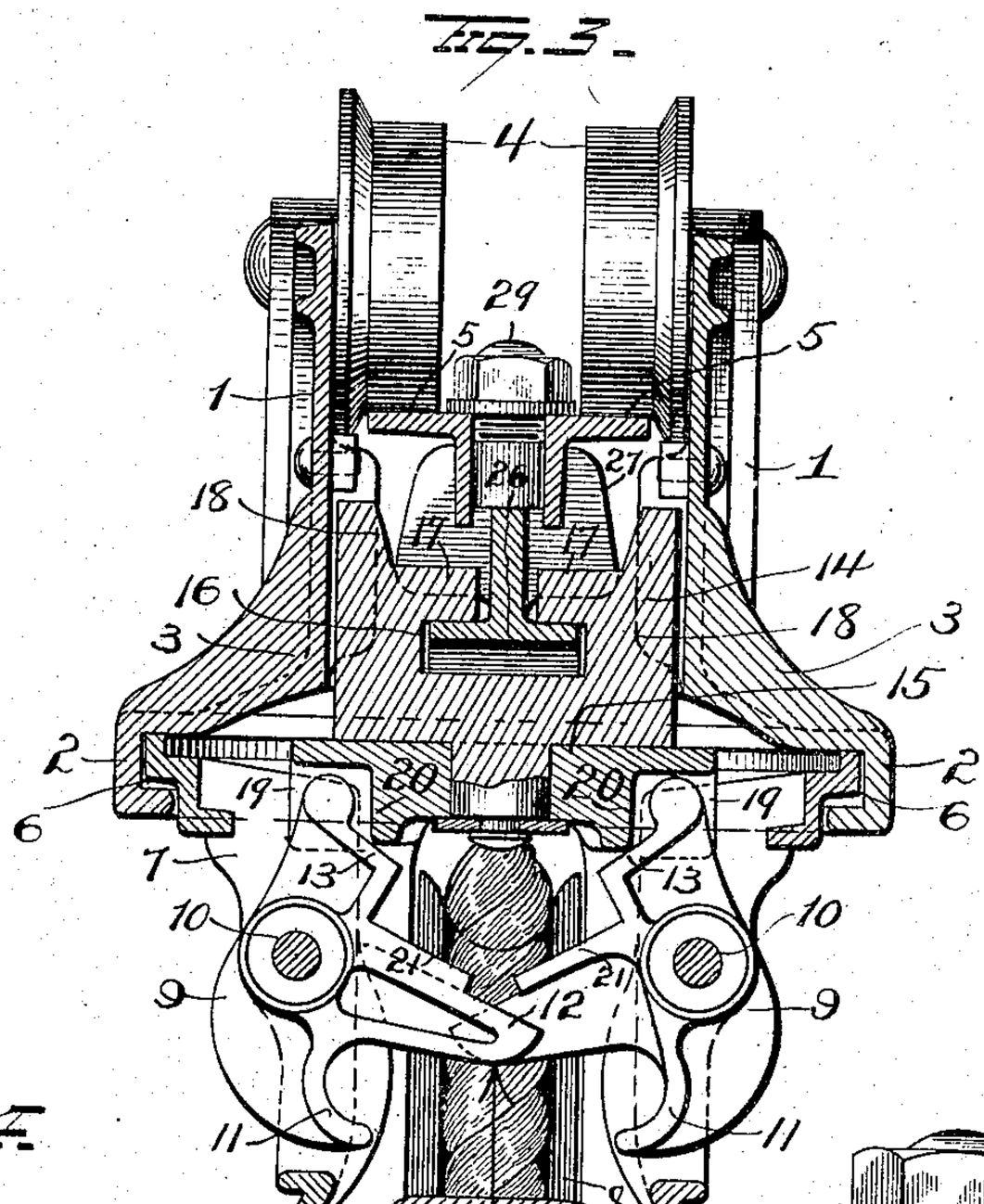


FIG. 4.

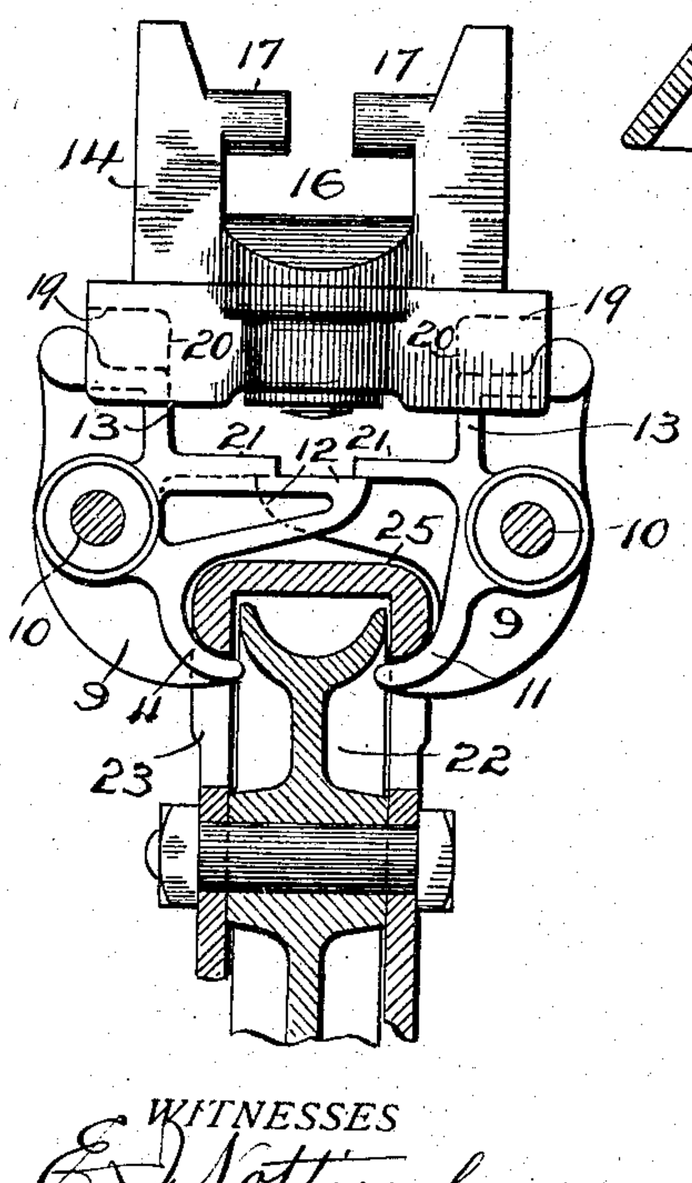


FIG. 5.

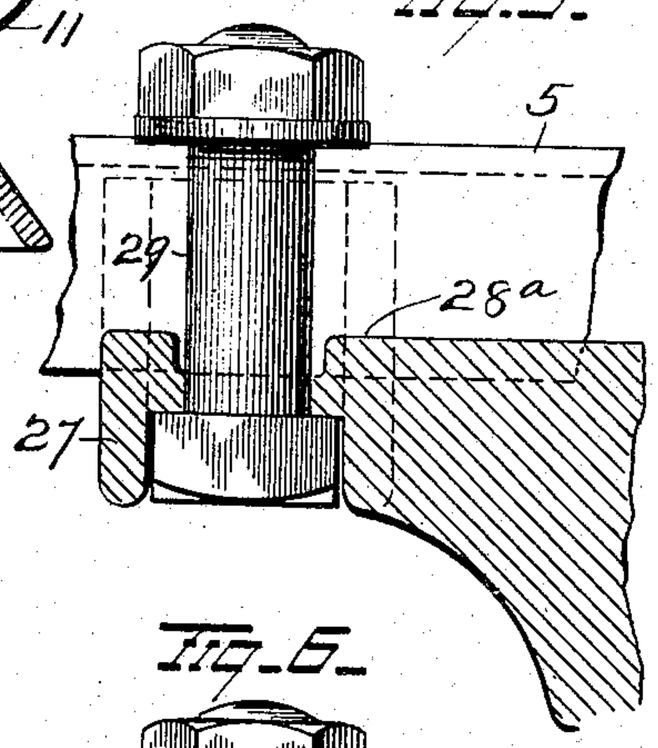
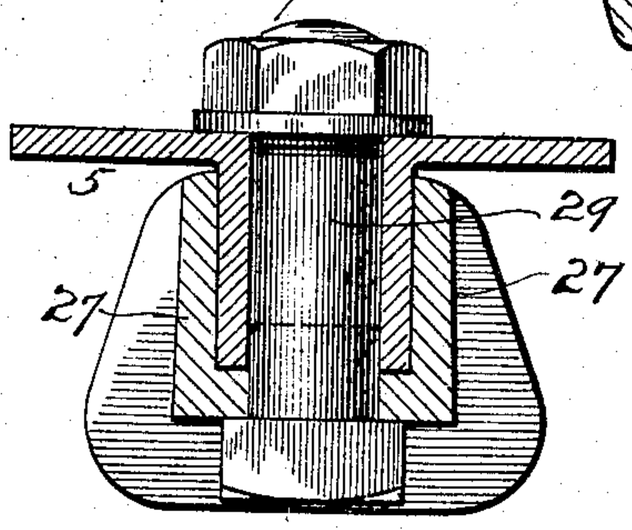


FIG. 6.



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UNITED STATES PATENT OFFICE.

FRANK B. STRICKLER, OF JANESVILLE, WISCONSIN.

HAY-CARRIER.

No. 930,572. Specification of Letters Patent. Patented Aug. 10, 1909.

Application filed September 30, 1908. Serial No. 455,501.

To all whom it may concern:

Be it known that I, FRANK B. STRICKLER, of Janesville, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Hay-Carriers; 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.

My invention relates to an improvement in hay carriers and it consists in the parts and combinations of parts as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of my carrier mounted upon a track, the gravity lock being engaged by the stop. Fig. 2 is a view in vertical longitudinal section of the carrier. Fig. 3 is a view in transverse section. Fig. 4 is a view of the gravity lock and grapples detached showing the parts in their proper relative positions, and Figs. 5 and 6 are views showing the manner of attaching the stop to the track.

1 represents the car of the carrier consisting of a circular body 2 and side brackets 3, the latter being provided at their ends with the flanged wheels 4 which travel on the trackway 5. This car is made in two sections bolted together as shown, each section comprising one-half of the body and one side bracket. The body 2 of the carrier is provided with a continuous groove opening inwardly for the reception of the outwardly projecting flange 6 of the rope pulley frame 7. This rope pulley frame is provided with a downwardly and outwardly diverging throat at the ends of which are mounted the sheaves 8. This frame 7 is also made in two parts bolted together and the sheaves 8, one at each end, are mounted on bolts passing through both sections of the frame 7, the sheaves acting as spacing blocks for the frame.

Mounted in the throat of the rope pulley frame are the grapples 9. Each grapple is pivotally mounted on a bolt 10 extending longitudinally of the frame and each comprises a hook 11 adapted to engage the fork pulley, an inwardly projecting finger 12 intermeshing with the finger of the other grapple, and an upwardly projecting shoulder 13, the two shoulders being located sufficiently far apart for the reception between them of the lower end of the gravity lock when the grapples are in their closed position, or in engagement with the sides of the fork pulley.

The gravity lock consists of the upper section 14 and a lower swivel section 15. The upper section is provided with a slot 16 open at the top forming in effect two inwardly projecting arms 17 adapted to engage the stop on the track and elevate the gravity lock. This upper section 14 of the lock rests and moves between the ribs 18 formed on the inner faces of the side brackets 3, while the lower swivel section 15 rests normally below the side brackets and on the shoulders 13 of the grapple 9. This lower section is provided with recessed ends 19 which latter are adapted to receive the shoulders 13 of the grapples 9 when the latter are in their closed position. This lower section 15 of the gravity lock is provided at the ends of the recesses 19 with the shoulders 20 which latter are adapted, when the grapples are closed, to rest against the shoulder 13 of the grapple and thus positively lock the latter in their closed position and prevent the possibility of accidental opening which would result in the release of the fork pulley.

By recessing the end of the swiveled section 15 of the gravity lock I form housings for the shoulders 13, and as the upward movement of the gravity lock is limited, these housings never wholly leave the shoulders 13 consequently there is no possibility of a separation of these parts or danger of the gravity lock getting out of alinement with the grapples, irrespective of the position of the rope pulley frame 7 to the car 1 of the carrier.

In the construction shown the rope pulley frame is swiveled to the car so as to freely turn thereon, and by the arrangement described when the rope pulley frame is rotated or turned, the engagement of the grapples with the housings of the swiveled section 15 of the gravity lock, causes said section 15 to turn with the rope pulley frame 7 and always be in a position to fall between the shoulders 20 when the gravity lock is released from the stop. Each grapple is provided with an inwardly projecting finger 12 having a side flange 21. Each finger terminates under the side flange of the other finger, hence it will be seen that when one grapple is moved on its pivot, the other will

be moved with it both in opening and closing. When the grapples are open, the two fingers 12 rest in a position to be engaged by the fork pulley 22 so that as the latter is elevated by the hoist rope, the top of the frame of the pulley will engage the underside of these fingers thus elevating them and turning the grapples in a direction to engage the fork pulley frame. As the grapples close on the fork pulley frame, the gravity lock rides on the tops of the shoulders 13 until the latter clear the shoulders 20, thus freeing the gravity lock and permitting it to fall to a position with its shoulders between the shoulders 13 on the grapples and positively locking the latter against accidental opening.

The fork pulley frame 23 is made of one piece having a swivel cast therein and a clevis 24 on the lower end of the swivel, the portion of the frame at the top being closed as shown at 25 for engagement with the fingers 12 of the grapples.

The stop 26 is provided with the usual inclined flange adapted to enter the slotted upper portion of the gravity lock for lifting the same and freeing the grapples. This stop is provided at each end with enlargements 27 slotted to receive the webs of the two rails 5, each enlargement being provided intermediate the webs of the rails with a tongue 28^a which acts as a spacing block for the rails. These enlargements embrace the outer sides of the webs of both rails and are secured in place by the bolts 29 projecting up between the rails and secured in place by nuts and washers. By this arrangement the stop can be readily detached from the rails or can be quickly and readily loosened and resecured in another position.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it understood that I do not wish to confine myself to the exact construction shown and described, but

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

1. In a hay carrier, the combination with a car and rope pulley frame, of grapples pivotally mounted in the latter, and a gravity lock mounted to slide vertically, said gravity lock feed provided with recessed ends adapted to overlap and house the upper ends of the grapples.

2. In a hay carrier, the combination with a car and a rope pulley frame swiveled thereto, of grapples pivoted to the rope pulley frame, and a sectional gravity lock, the said sections being swiveled together, the lower section of said swivel lock having recessed ends adapted to embrace upwardly projecting members of the grapples.

3. In a hay carrier, the combination with a car and a rope pulley frame, of grapples pivotally mounted in the rope pulley frame, each grapple comprising a hook and an inwardly projecting finger having a side flange, the end of the finger of each grapple resting under the flange of the finger of the other grapple, and a sliding lock for holding the grapples in their closed position.

4. In a hay carrier, the combination with a car and a rope pulley frame swiveled thereto, of grapples pivotally mounted in the rope pulley frame and provided on their upper surfaces with shoulders, and a sectional gravity lock, the sections of which are swiveled together, the upper section resting between ribs on the sides of the car and the lower section provided at its ends with housings embracing the shoulders on the grapples.

5. In a hay carrier, the combination with two parallel rails on which a carrier runs, of a stop provided with enlarged ends having slots therein for the reception of the webs of the rails and a bolt passing through each enlarged end between the webs of the rails and nuts for locking the bolts in place.

6. The combination in a hay carrier, of a pulley frame carrying a pulley, said pulley frame being closed at its top, a swivel having one of its members cast with the lower end of said pulley frame, and a clevis attached to the movable member of said swivel.

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

FRANK B. STRICKLER.

Witnesses:
C. W. REEDER,
JENNIE L. BURKE.