(No Model.)

A. GYPE.

HAY SLING.

No. 442,619. Patented Dec. 16, 1890.

Fig. 1.

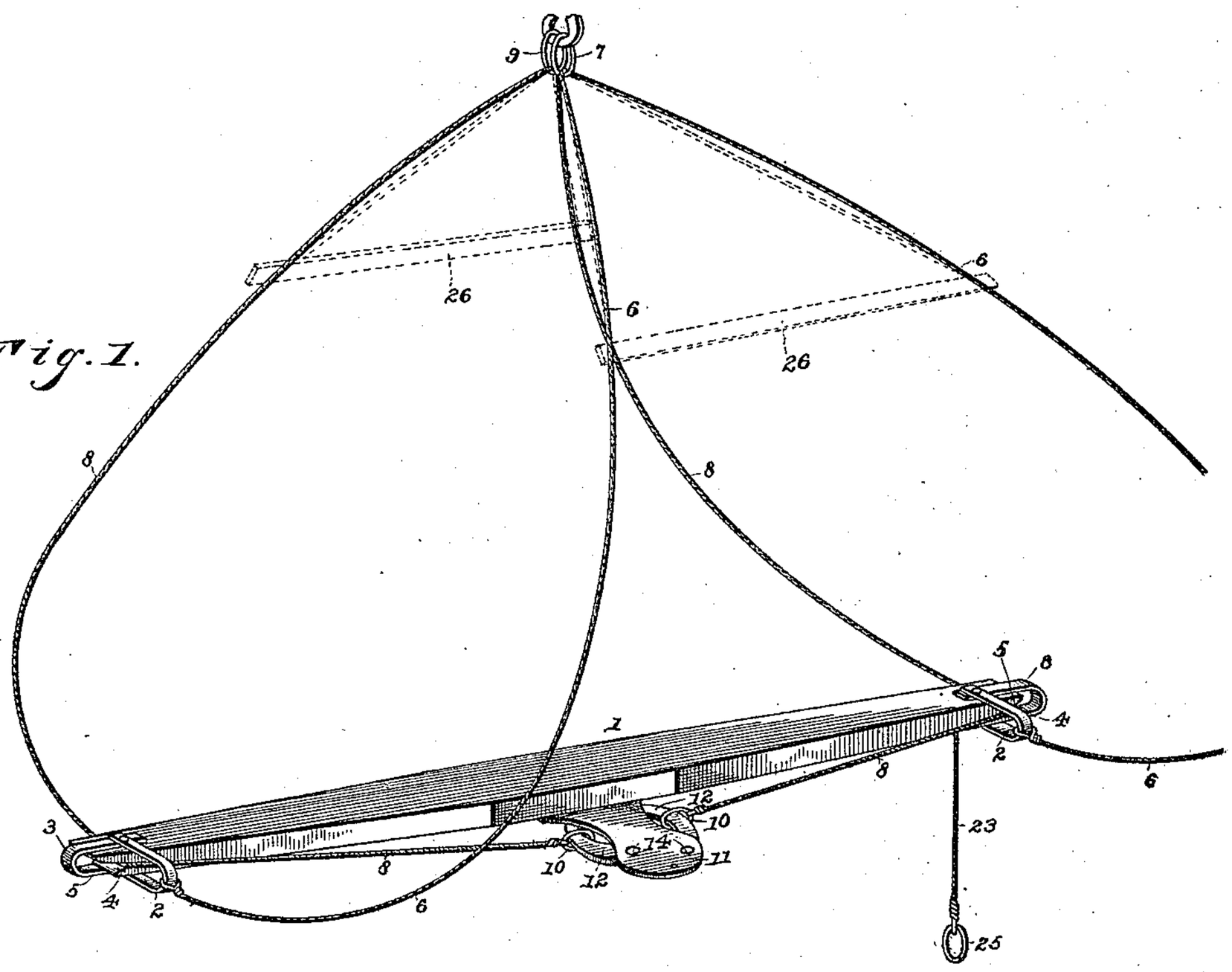


Fig. 2.

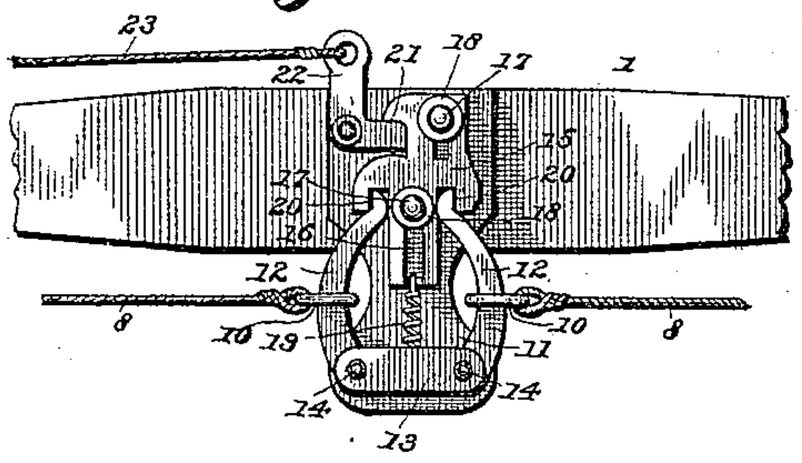


Fig. 3.

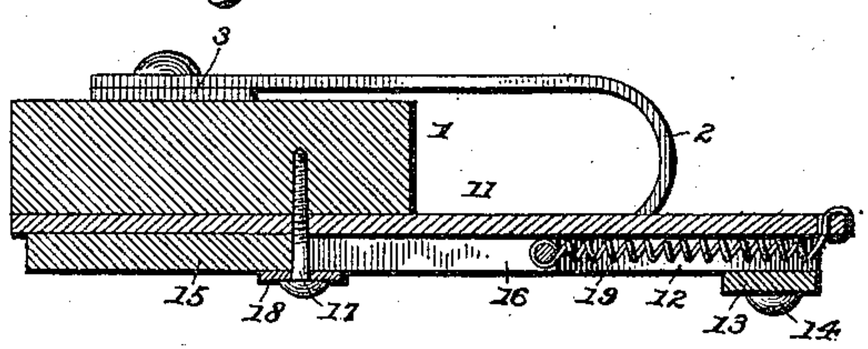
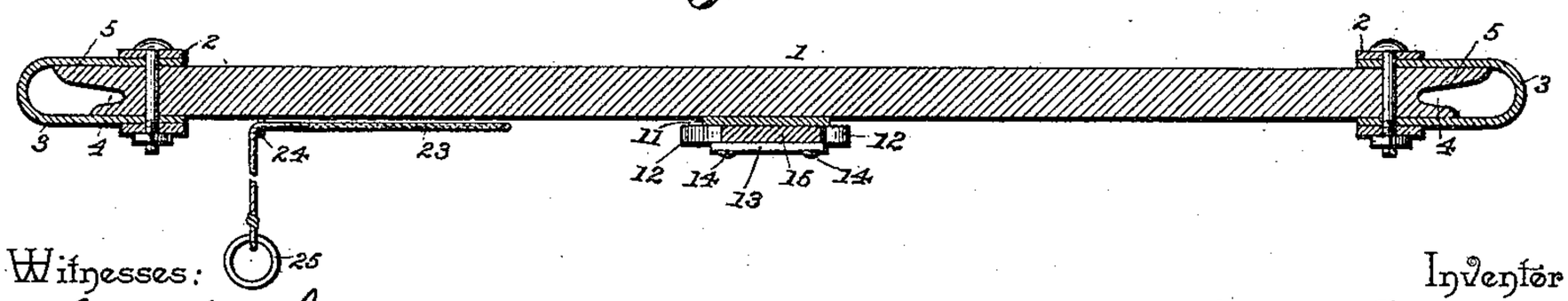


Fig. 4.



Witnesses:

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HAY-SLING.

SPECIFICATION forming part of Letters Patent No. 442,619, dated December 16, 1890.

Application filed July 31, 1890. Serial No. 360,506. (No model.)

To all whom it may concern:

Be it known that I, ADAM GYPE, a citizen of the United States, residing at Tedrow, in the county of Fulton and State of Ohio, have invented a new and useful Hay-Sling, of which the following is a specification.

This invention relates to hay-slings; and it has for its object to provide a device of this class which shall be simple in construction, easily operated to drop the load when desired, and which shall be widest at its central part where the load is principally supported.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a perspective view showing my improved hay-sling in position for operation. Fig. 2 is a bottom plan view of the central brace or spreader, showing the latch mechanism of the device. Fig. 3 is a transverse sectional view taken through said central bar and latch mechanism. Fig. 4 is a longitudinal sectional view of the central bar.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates the central brace or spreader, which is provided at each end with a pair of clevises 2 and 3, extending, respectively, in a lateral and in an outward direction. The outer ends of the brace 1 are provided with notches 4, the upper edges of which have the outward-extending flanges 5.

To the laterally-extending clevises 2 2 are secured the ends of the rope, chain, or other flexible connection 6, which is provided with a centrally-located ring or link 7. Through the clevises 3, between the latter and the notches 4, pass the ends of a rope, chain, or other flexible connection 8, which is provided with a central ring or link 9. The ends of the rope or chain 8 are provided with links 10, which pass through the clevises 2 and toward the center of the brace or spreader 1, where they are attached to the latch mechanism, which I shall now proceed to describe.

Suitably secured centrally upon the under side of the brace or spreader is a plate 11, to the outer end of which are pivotally secured the latches 12, a guard-plate 13 being mounted upon the lower ends of the pivotal bolts 14 to assist in securing the said latches in the desired position.

15 designates a plate mounted slidingly upon the base-plate 11, and having slots 16, that slide upon pins 17, extending from the base-plate 11, and provided at their outer or lower ends with washers 18 to retain the said sliding latch-plate in position. A suitably-arranged spring serves to force the latch-plate or locking-plate 15 in the direction of the free ends of the pivoted latches 12, which latter engage notches or recesses 20 in the said locking-plate. The latter is also provided in one side with a notch 21 to receive the end of one arm of a bell-crank lever 22, which is pivoted upon the under side of the base-plate 11. To the outward-extending arm of said bell-crank lever is attached one end of the trip-rope 23, which passes through suitable guides or staples 24, and the free end of which is provided with a ring or link 25, by means of which it may be conveniently manipulated.

The operation of this invention will be readily understood. The sling is placed in the bottom of the wagon which is to be loaded, the brace or spreader 1 being arranged centrally and with the latch mechanism downward. The rings or links 10 at the ends of the rope 8, after being passed through the clevises 3 and 2, are attached to the latches 12, the free ends of which engage the notches 20 in the spring-actuated locking-plate 15. When the wagon has been loaded and driven to the barn or other place of deposit, the central portions of the ropes 6 and 8, having the links 7 and 9, are brought together, and the said links are mounted upon the hooks of the elevating-pulleys. The load is then hoisted and carried to the place of deposit, when by pulling upon the trip-rope the bell-crank lever 22 will be actuated to force the locking-plate 15 against the tension of the spring 19, thus releasing the free ends of the pivotal latches 12 from the notches 20 in the locking-plate. The said latches will then swing outwardly, thus releasing the links 10, which by the weight of the load will be caused to pass through the clevises 2 and 3, thus causing the load to drop. The sling may now be lowered

and restored to its original condition, when the operation may be repeated.

When my improved sling is used for hoisting grain, I prefer to supplement it with a pair of auxiliary spreaders shown in dotted lines in Fig. 1 at 26 26, and arranged near the outer ends of the ropes 6 and 8. By this modification the device has been found in practice to hold the loads of grain more securely.

My improved sling may be constructed at a very moderate expense, and being composed of but few and simple parts it is not liable to get out of order. It will be particularly observed that the flanges 5 at the ends of the brace 1, extending beyond their notches 4, will serve to prevent the links or rings 10 from being entangled with the clevises 2 and 3 when the load is dropped.

Having thus described my invention, I claim—

1. In a hay or grain sling, the combination of a brace or spreader, a pair of clevises at each end of the same, a flexible connection having its ends attached to one pair of said clevises, which extend laterally from the brace or spreader, a flexible connection provided at its ends with links passing through the clevises, and trip mechanism for the temporary attachment of said links, substantially as set forth.

2. In a hay or grain sling, the combination of a central brace or spreader, a flexible connection having its ends attached permanently at the ends of said brace or spreader, and a flexible connection having its ends guided around the ends of said brace or spreader and secured detachably at or near the center of the latter, substantially as set forth.

3. In a hay or grain sling, the combination of a central brace or spreader, the clevises at the ends of the same, a flexible connection having its ends secured to one pair of said clevises extending laterally from the brace, and a flexible connection having its ends guided through both sets of clevises and secured detachably at or near the center of the brace by suitable trip mechanism, substantially as set forth.

4. In a device of the class described, the brace or spreader provided at each end with a pair of clevises, the outer ends of said brace being provided with notches and with flanges extending outwardly above said notches, substantially as set forth.

5. The combination of the brace or spreader provided at its ends with notches and with outwardly-extending flanges, the pairs of clevises secured at the outer ends of said brace or spreader, the flexible connection having its ends attached permanently to one of said pairs of clevises, a flexible connection provided at its ends with links guided through both pairs of clevises, and suitable trip mechanism to which the said links may be detachably secured at or near the center of the brace or spreader, substantially as set forth.

6. In a hay-sling, the combination of the brace or spreader, the plate secured to the under side of the same and having the pivoted latches, the sliding spring-actuated latch-plate having notches to receive the free ends of said latches and provided with a recess in one side, the bell-crank lever pivoted at one side of said latch-plate and engaging the recess in the side thereof, the trip attached to the outward-extending arm of said bell-crank lever, a flexible connection having its ends attached permanently at the ends of the brace or spreader, and a rope or chain having its ends guided around the ends of said brace or spreader and provided with rings or links adapted to be mounted upon the pivoted latches, substantially as and for the purpose set forth.

7. In a device of the class described, the herein-described trip mechanism, comprising the base-plate, the pivoted latches, the sliding spring-actuated locking-plate having notches to receive the free ends of said latches and provided with a recess in one side, a bell-crank lever pivoted to the base-plate and engaging the recess in the side of the locking-plate, and a trip-rope passing through suitable guides and having one end attached to the outer arm of said bell-crank lever, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ADAM GYPE.

Witnesses:
E. M. GARRETT,
G. W. WALTERS.