

Jan. 12, 1926.

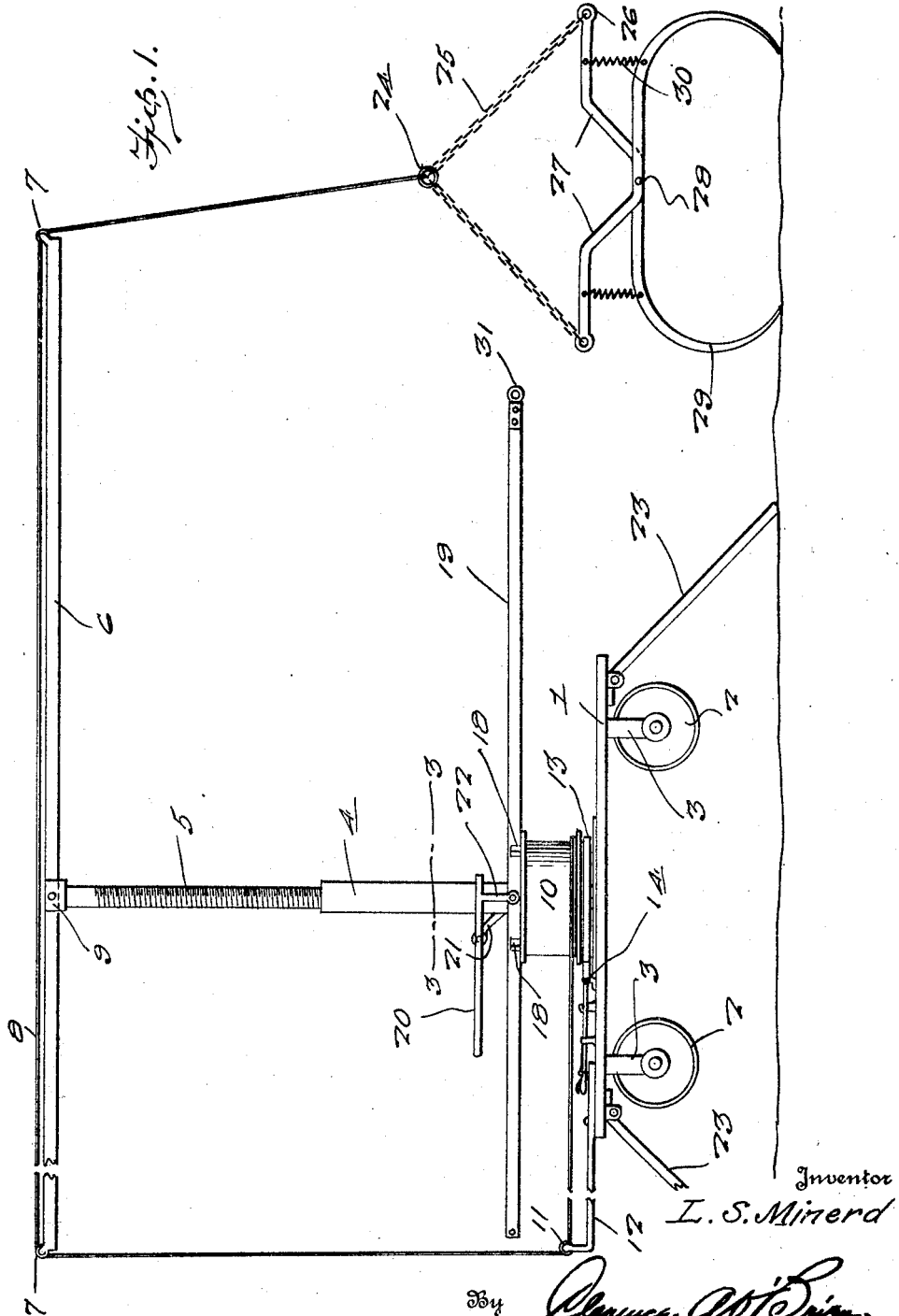
1,569,199

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HAYSTACKER

Filed June 5, 1924

2 Sheets-Sheet 1



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Fig. 1

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2 Sheets-Sheet 2

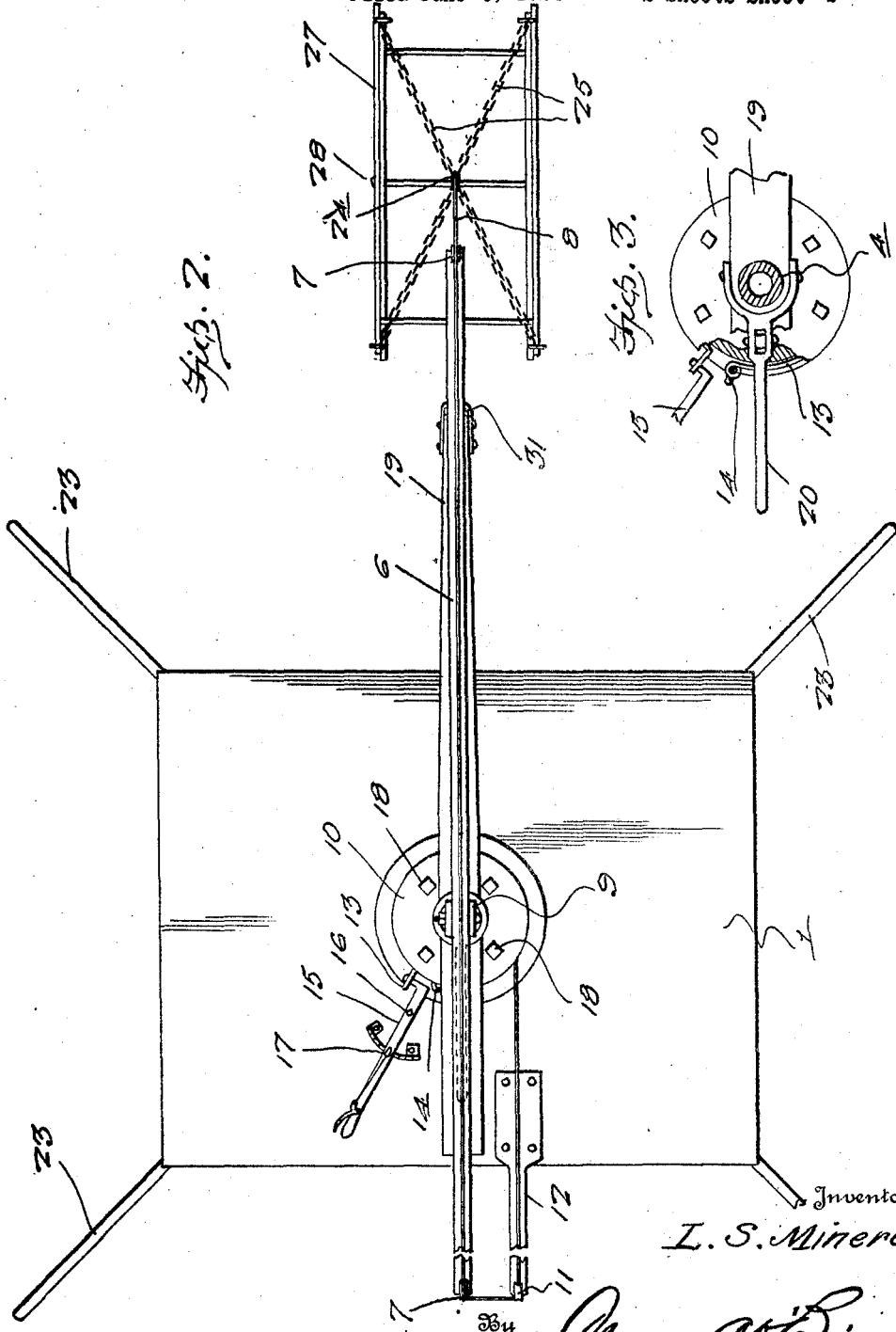


Fig. 2.

Fig. 3.

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# UNITED STATES PATENT OFFICE.

LEVI S. MINERD, OF HOWARD, KANSAS.

HAYSTACKER.

Application filed June 5, 1924. Serial No. 718,057.

*To all whom it may concern:*

Be it known that I, LEVI S. MINERD, a citizen of the United States, residing at Howard, in the county of Elk and State of Kansas, have invented certain new and useful Improvements in Haystackers, of which the following is a specification.

This invention relates to improvements in hay stackers.

10 An object of the invention resides in providing a hay stacker or like character of device, wherein the wheeled platform carries a vertically extending standard, adjustable lengthwise thereof, and rotatably mounted on said base member, means being carried by the lower end of the standard, for effecting the operation of the drum rotatably mounted thereon, for winding a lifting cable and lifting a grappling device, adapted to carry the load upwardly toward one end of a lifting beam, normally extending horizontally and mounted at the upper end of said standard.

25 Another object of the invention resides in providing a wheel supported platform, on which is mounted a drum, for rotation in a horizontal plane, and having disengageable driving means for operating said drum, adapted for movement around a central standard mounted on the platform, the upper end of which is adjustable relative to the platform, and which carries a horizontal beam, over which is extended a lifting cable on suitable pulleys or rollers, to be wound on said drum in the rotation thereof, for the purpose of lifting a suitable form of grapple adapted to engage hay or other material to be lifted and delivered at another place.

30 The invention also includes other objects and improvements in the details of construction, and arrangement of the parts, for providing a substantially simple hay lifting device, which is more particularly pointed out in the following description and claims, directed to a preferred form of the invention, it being understood, however, that various changes in the detailed structure and assemblage of the parts, may be made, without departing from the spirit and scope of the invention as described and claimed.

In the drawings, forming a part of this application:

55 Figure 1 is a side elevation of the hay lifter, constructed according to this invention.

Figure 2 is a plan view thereof.

Figure 3 is a horizontal sectional view, taken on the line 3—3 of Figure 1.

The platform of the improved hay loader or stacker is indicated at 1, which carries suitable wheels 2, in suitable frames 3, for supporting the platform above the ground, so that the same may be wheeled from place to place, as desired. A standard 4 is mounted in the central portion of the platform, and extends vertically therefrom for supporting the adjustable section 5 thereof, which is provided with a threaded bore in the standard 4, the section 5 mounting at the upper end thereof a horizontal beam member 6, which carries the cable pulley 7 at the opposite end, over which is passed the usual lifting cable 8, operable for lifting a load, in a manner which will presently appear. The beam 6 is mounted on the section 5 of the standard, intermediate its ends, as indicated at 9.

A cable winding drum 10 is mounted for rotation about the standard 4 above the platform 1, as clearly shown in Figure 1, and is adapted to receive one end of the cable 8 to be wound thereon, from a pulley 11 carried by the extension bracket 12, mounted on and extending from one end of the platform 1, a sufficient distance from said platform to permit the ready operation of the drum and operating means therefor, in a manner which will be described. The drum is provided with a braking portion around which is positioned a brake band 13, anchored to the platform, at 14, at one end, and connected to a brake operating member 15, pivotally connected to the platform at 16, intermediate its ends, so that a rocking of the lever on its pivot 16 will effect an operation of the brake band, so as to engage the drum and stop the rotation thereof. Suitable latching means, indicated at 17 is provided for co-operation with the brake lever 15, to lock the same in a set position, so that the brake may be maintained in braking relation on the drum, or an inoperative position, for permitting the free rotation thereof. The upper end of the drum is provided at 18 with a plurality of lugs, arranged in spaced concentric relation, between which is adapted to seat an operating bar 19, having the central portion thereof slidably mounted on the standard 4, so that a rotation of the operating bar about the standards will, in engagement with said lugs 18, effect a rotation of the drum for winding a lifting cable

8 thereon. A releasing lever is provided at 20, pivotally mounted, intermediate its ends, on a bracket 21, carried by the upright 4, and at one end thereof is connected through  
 5 suitable extensions 22 formed on each forked portion of a fork provided upon the upright 4, pivotally connected to opposite sides or edges of the operating bar 19, so that a piv-  
 10 tal movement of the lever will lift the bar 19 on the upright, above the projections 18, so that the rotation thereof will not affect an operation of the drums 10. In this way, it will be seen that the levers 15 and 20 can be operated to control the driving of the  
 15 drum 10, for the braking thereof.

Suitable bracing members 23 are pivotally connected to the corner portions of the plat- form and are adapted to be engaged in the surface of the ground for preventing move-  
 20 ment of the platform thereover.

One end of the lifting cable 8 is connected to a suitable ring 24, with which is con- nected a plurality of lifting chains 5, which extend outwardly in opposite directions  
 25 from said ring, and are connected to the eyes 25 and 26 at the ends of two inter- connected and corresponding shafts or grip- ping members 27, which are pivotally con- nected intermediate the ends, as at 28, and  
 30 have the opposite free ends thereof provided with curved fork extensions 29, for en- gagement with a pile of hay or like material, to be lifted or stacked. Suitable springs 30 connect beyond the respective pairs of  
 35 gripping members and normally operate to hold said members in open position, such as shown in Figure 1.

In the use of this hay stacker, a team of horses may be connected to the end of the  
 40 operating bar 19; as indicated at 31, and driven around the standard 4, for providing power to operate the device; the extension bracket being sufficiently long to permit the team to pass over the same and the cable 8, in the operation thereof, and the operator  
 45 controlling the brake lever 15 and the lever 20, after first adjusting the standard to the desired height, so that when the bar is dropped between the projections 18 on the  
 50 drum, power will be applied for winding the cable and raising the gripping device; which has been previously engaged; through manual operation of the gripping members with a pile of hay or the like, and after the  
 55 same has been lifted to substantially the height of the beam 6, the bar 19 may be raised by the operating lever 20, so as to disengage from the projections 18 and the brake lever operated for stopping rotation  
 60 of the drum and holding the charge of hay or like material carried by the gripping members in elevated position. The same may then be carried from place to place by wheeling the platform on the wheels 3, or  
 65 may be rotated by rotating the standard, so

that it can be positioned in a desired loca- tion, the same being released by permitting sudden release of the drum, which will allow the weight of the load to pull down on the  
 70 cable and the gripping members being free with the load, the springs 30 will operate to release the same from the charge of hay carried thereby. If desired, however, the  
 75 gripping members with the load may be gradually lowered, until the material rests on the desired place of delivery, at which time the slack of the cable will permit the  
 80 springs 30 to operate the gripping members and release them from the load.

It will thus be seen that a substantially  
 85 simple form of hay stacking device has been provided, having a pair of levers operable for controlling the rotation of the drum 10, and the operation of the gripping members carried at the ends thereof. The invention  
 90 also provides a convenient form of gripping member structure for cooperation with the remaining structure, in handling a load or charge of hay or the like.

What is claimed is:

1. A device of the class described includ-  
 95 ing a platform, a standard mounted on said platform and extending vertically there- from, the upper end of said standard being provided with an adjustable section adapted to extend the length thereof, a beam  
 100 mounted on said standard intermediate the ends and adapted to be adjusted in its height above the platform; by the adjusting of the standard, a drum rotatable on the standard on top of the platform, a lifting  
 105 cable connected at one end with a gripping device, and extended over suitable pulleys at the ends of said beam, and connected at the opposite ends with said winding drum  
 110 adapted for winding thereon, in the rotation of the drum, an operating bar rotatably mounted on the standard above said drum and adapted for engagement with projec- tions formed on the upper ends of the drums to effect the rotation thereof in the rota- tion of the bar member about said standard; means for lifting said bar member up- wardly on said standard to prevent engage- ment thereof with the projections on the  
 115 drum; and braking means for the drum having a manually operable handle, oper- able to control the rotation of the drum.

2. A device of the class described, includ-  
 120 ing a wheeled platform, pivoted bracing members carried by said platform and adapted to be engaged with the supporting surface thereof to prevent movement thereof on the wheels under predetermined condi- tions; a standard having an extensible section  
 125 mounted on and extending vertically from the platform, a beam mounted intermediate its ends on the upper end of said standard and adjustable relative to the platform, a winding drum rotatably mounted on said  
 130

standard above said platform, a manually controllable braking device for controlling the rotation of said drum, the upper end of said drum being formed with a plurality of spaced concentrically arranged projections, an operating bar mounted for rotation of said standard and slidable thereon, a lever pivoted intermediate its ends at one side of the standard, and connected to said operating bar adapted to lift the same from the path of rotation of said projection, a bracket member mounted on said platform and extending a substantial distance therefrom, for carrying a cable pulley, and a lifting cable connected at one end of said drum passed over the pulley of said bracket, and pulleys carried by the ends of the beam for connection to a gripping means adapted to grip and carry a load of material therein.

In testimony whereof I affix my signature.

LEVI S. MINERD.