No. 797,942. PATENTED AUG. 22, 1905.

S. J. COVEY.

HAY STACKER.

APPLICATION FILED APR. 8, 1905.

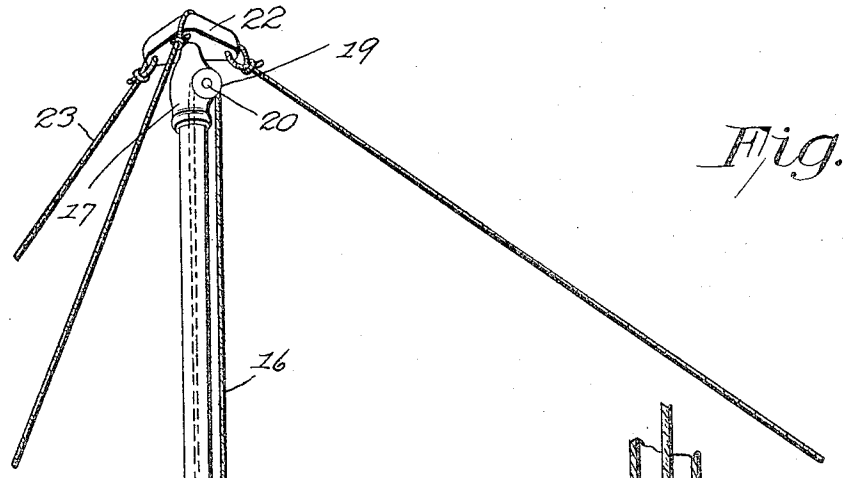


Fig. 1.

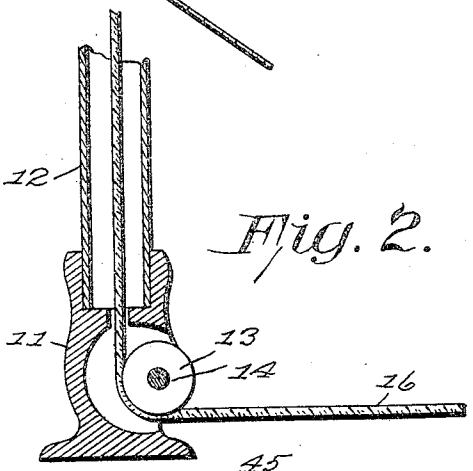
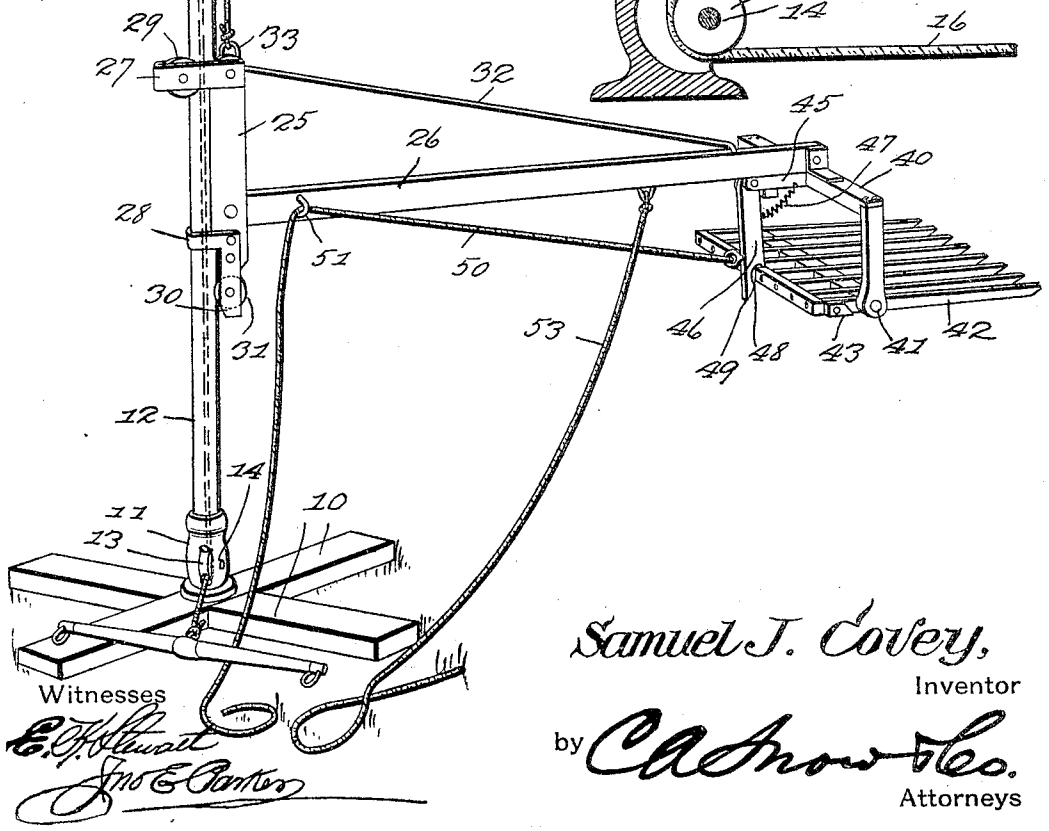


Fig. 2.



Witnesses

E. F. Stuart

Jno E. Parker

Samuel J. Covey,

Inventor

by C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL J. COVEY, OF QUINCY, ILLINOIS.

HAY-STACKER.

No. 797,942. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed April 8, 1905. Serial No. 254,567.

To all whom it may concern:

Be it known that I, SAMUEL J. COVEY, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented a new and useful Hay-Stacker, of which the following is a specification.

This invention relates to hay-stackers, and has for its principal object to provide a mechanism of simple construction which may be readily transported from place to place and employed for the stacking of hay in the field, a further object being to provide a mast and tackle so arranged as to prevent twisting of the hoisting-rope, while permitting revolving of the carrying-forks around the mast.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a hay-stacker constructed in accordance with the invention. Fig. 2 is a detail sectional view of the lower portion of the same, showing more particularly the manner in which the mast is swiveled in the base.

Similar numerals of reference are employed to indicate corresponding parts throughout both figures of the drawings.

The base is in the form of cross-beams 10, which may be staked to the ground, if desired, and secured to the central portion of this base is a main receiving cup or step 11, that preferably is formed of cast metal, the upper portion of the cup being provided with an annular recess for the reception of the lower end of a tubular mast 12. Below this recess is a second recess for the reception of a sheave 13, that is mounted on a spindle 14, having suitable bearings formed in the opposite sides of the casing and serving as a guide for the hoisting-tackle 16.

The mast 12 is preferably in the form of a metallic tube, and at its upper end is secured a cap 17, that is recessed for the reception of a second sheave 19, mounted on a suitable transversely-extending spindle 20 and over which the tackle 16 extends, the tackle running in a straight line from the lower to the upper sheave, so that the mast may be turned completely around without interfering with the operation of the tackle. From the top of the cap 17 projects a pin on which is mounted a preferably triangular stay-plate 22, connected by guys 23 to stakes or other supports on the ground and serving to maintain the mast in its elevated position.

Slidably mounted on the mast is the throat-plate 25 of a boom 26, and from this throat-plate project upper and lower straps or hooks 27 and 28, which encircle the mast, the upper strap carrying a guiding-wheel 29 at the rear of the mast. The bottom of the throat-plate is provided with a strap 30, carrying a guide-wheel 31 for engaging the front face of the mast, the two guide-wheels 29 and 31 being therefore diametrically opposite to each other when viewed in plan. The outer portion of the boom is connected to the upper portion of the throat-plate by a tension-rod 32, and at the top of the throat-plate is an eye 33, to which one end of the tackle 16 is secured, the opposite end being led out below the sheave 13 and provided with a draft appliance of any suitable construction.

To the outer end of the boom is pivoted an inverted-U-shaped frame 40, the lower ends of the arms of said frame being provided with openings for the reception of pintles 41, projecting from a fork 42, which may be of any ordinary construction, said fork being movable on the pintles, and movement to an angular dumping position being limited by a stop block or blocks 43, of which there is preferably one at each side of the fork, said blocks engaging with the vertical arms of the frame 40.

Extending from the central portion of the cross-bar of the frame 40 is an arm 45, to which is pivoted a latch 46, normally held in the position shown in Fig. 1 by a coiled tension-spring 47. This latch has a shoulder 48, that engages with the outer face at the rear portion of the fork, and an elongated tongue 49 of inclined or curved form to permit the ready return of the fork to carrying position. This latch is connected to a flexible member 50, that is guided by an eye 51 on the boom, and to the boom is secured a line 53 to permit swinging of the boom around the mast after the load has been elevated to the proper position.

In operation the fork having received the load is elevated by the tackle 16, and after

swinging the boom around by means of the rope 53 the latch-rope 50 is pulled, and the weight of the load causes the forks to tilt and discharge the hay. When the boom is allowed to descend, the front end of the fork will strike the ground, and the rear end will tilt upward to a position below the shoulder 48, thus automatically locking the forks in position to receive a new load.

Having thus described the invention, what is claimed is—

1. In a device of the class specified, a base member having a cupped step, a hollow revoluble mast seated therein, a cap disposed at the upper end of the mast, sheaves arranged in the cup and cap, a boom having a throat-plate fitted against the mast, guiding-rollers carried by the throat-plate and disposed, respectively, on opposite sides of the mast, a hoisting-tackle extending from the throat-plate around the sheaves and down through the mast, and a load-carrier at the end of the boom.

2. In apparatus of the class described, a recessed base, a hollow mast revolubly mounted therein, a cap at the top of the mast, sheaves supported by the base and cap, a boom having a throat-plate fitted to the mast, guiding-wheels carried by the throat-plate and bearing against the mast, a tackle extending from the throat-plate around the sheaves and through said mast, a detachable stay-plate at the top of the cap, guys connected to said stay-plate, and a load-carrier at the free end of the boom.

3. In apparatus of the class described, the combination with a mast, of a boom having a throat-plate fitted against the mast, means for raising and lowering the boom, an inverted-U-shaped frame pivoted to the end of the boom, a fork-frame pivoted between the vertical bars of the U-shaped frame, and a latch normally holding said fork-frame in load-carrying position.

4. In apparatus of the class described, the combination with a mast, of a boom having a throat-plate fitted against the mast, means for raising and lowering the boom, a U-shaped frame at the free end of the boom, a fork pivoted thereto, a latch having a shoulder for engaging the fork and holding the same in load-receiving position, a spring tending to maintain the latch in locked position, and stops for limiting independent swinging movement of the fork.

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

SAMUEL J. COVEY.

Witnesses:

DENNIS F. COVER,

ADA L. PETER.