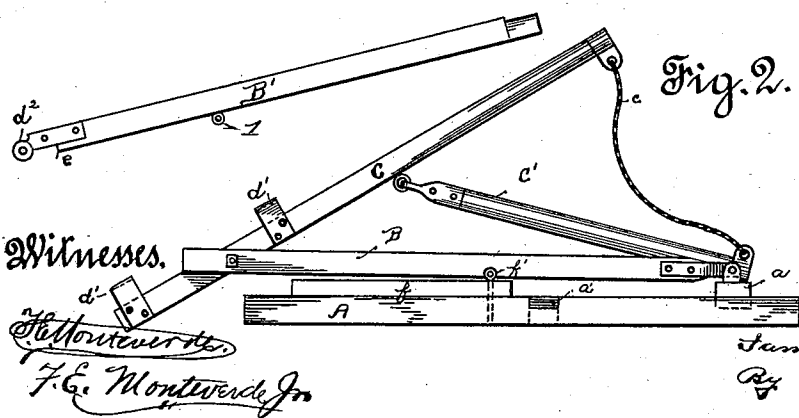
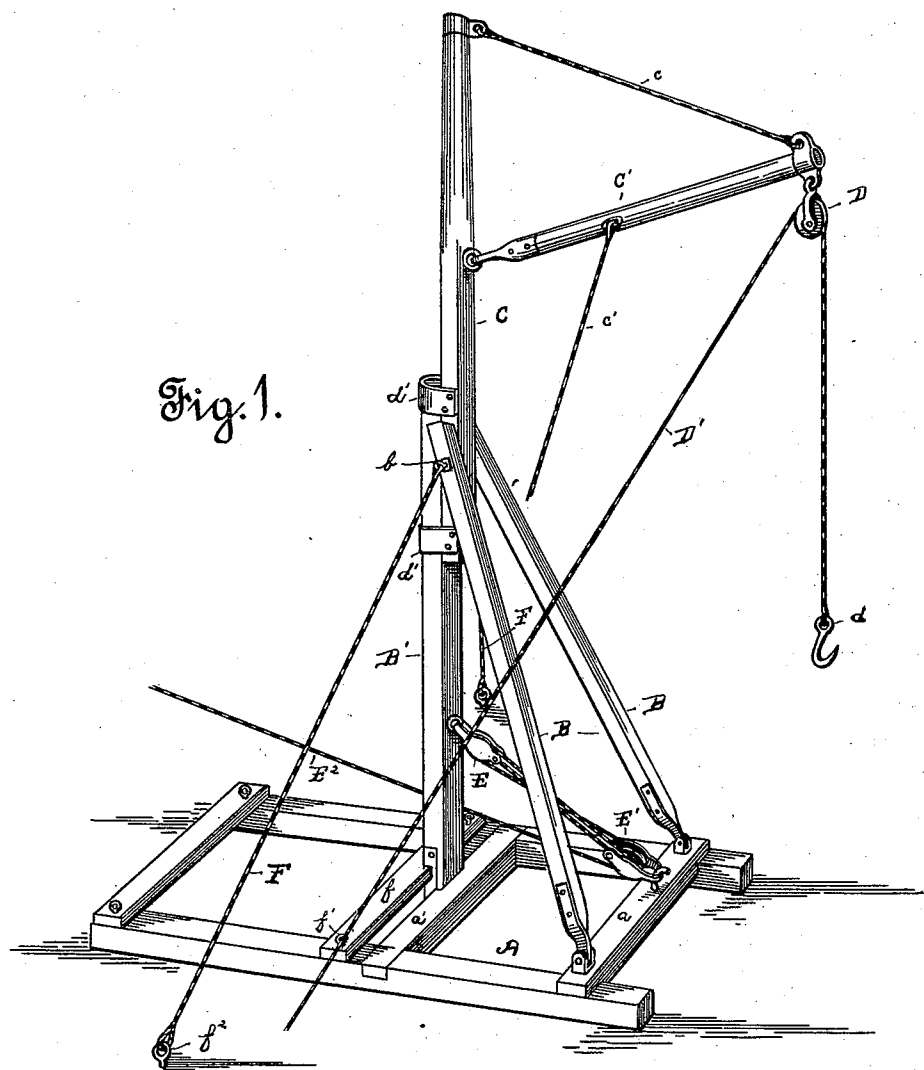


(No Model.)

I. E. MARSHALL.
PORTABLE STACKER.

No. 474,963.

Patented May 17, 1892.



Witnesses.

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UNITED STATES PATENT OFFICE.

IANTHUS E. MARSHALL, OF MARTINEZ, CALIFORNIA.

PORTABLE STACKER.

SPECIFICATION forming part of Letters Patent No. 474,963, dated May 17, 1892.

Application filed June 10, 1891. Serial No. 395,766. (No model.)

To all whom it may concern:

Be it known that I, IANTHUS E. MARSHALL, a citizen of the United States, residing at Martinez, in the county of Contra Costa and State of California, have invented certain new and useful Improvements in Portable Stackers; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

My invention consists of certain new and useful improvements in what I term "portable stackers," which consists in the arrangement of parts and details of construction, as will be hereinafter more fully set forth in the drawings, described, and pointed out in the specification.

This invention relates more particularly to devices employed in the field for the purpose of raising or lifting of the hay in order to properly stack the same, although the same may be applied to other purposes, such as the raising of safes, hay into barns, or the like.

Heretofore in the stacking of hay great difficulty has been experienced in the placing and securing of the elevator; the same being placed and secured to the ground rigidly, which not only consumes considerable time in setting up, but the entire structure has to be torn down when it is desired to move from stack to stack, which is necessary in large fields.

The object of my invention is to provide a device which may be quickly placed in position and easily and readily moved from place to place which shall be simpler of construction, less expensive, and more effectual of operation than any device of a similar nature heretofore known to me.

Referring to the drawings forming a part of this specification, wherein similar letters of reference denote corresponding parts, Figure 1 is a perspective view in elevation, showing the mast in a raised position; and Fig. 2, a side view showing the same closed or folded together.

The letter A indicates the base or frame of the stacker, which, when in practical use, I shall construct in the form of a field-sledge. To the forward portion of said frame is piv-

otally secured the guy-braces B, the upper ends of which are pivotally secured by means of bolt *b* to lower end of mast C, which has projecting therefrom swinging beam C', adapted to be held in position by chain or cord *c*, secured to outer end thereof and top of mast C. Said beam is swung from side to side by means of guy-rope *c'*, secured thereto and depending therefrom. To the outer end of swinging beam C' is secured sheave D, through and upon which works cable D', adapted to raise the hay upward, so as to be placed upon the stack. I have shown hook *d* attached to one end, although any suitable device may be secured thereto adapted to hold the article to be lifted. The lower half of the mast is indicated by the letter B', the upper end of which fits within the clamps *d'*, so as to be securely united to upper half B, thus forming a continuation thereof. By preference I form the mast of two pieces, although only one may be employed. Making the mast separable is only done for the purpose of convenience in folding the stacker together, as shown in Fig. 2. The lower end of section B' is provided with the roller *d''*, which rests upon the ground and assists in the raising of the stacker—that is to say, by the employment of the roller friction is to a great extent lessened and the amount of labor requisite to raise the section considerably reduced. The stacker, after sections C B' are united, is raised in position, as shown in Fig. 1, by means of block-pulleys E E', secured to section B' and cross-piece *a* of frame A. Through these pulleys runs cable or cord E², the free end of which extends beyond the elevator. Pulling upon said cable the mast (or united sections) is gradually raised until it is brought to a vertical position. (Shown in Fig. 1.) When the mast is in position, cut-away portion *e* fits against cross-piece *a'* and is held thereagainst by means of cross-piece *f*, which is pivoted to frame A by pins or bolts *f'*. It will of course be understood that before the raising of the mast is commenced section B' is united to section C, and as the pulley E is attached to section B' at the point *l* (see detached view of B', Fig. 2) a pull upon cable E² will draw the lower end of said section B' toward cross-bar *a'*, and as said lower end is

obstructed thereby the mast will be caused to gradually assume a vertical position, carrying with it the pivoted guy-braces B until these parts have assumed the position clearly illustrated in Fig. 1. When the mast is in its lowered position, as shown in Fig. 2, the cross-bar *f* is swung around upon one of the pins *f'*, the other pin having been previously removed. After the mast has assumed the vertical position just described, however, the cross-bar *f* is swung around to the transverse position shown in Fig. 1 and the pin *f'* re-inserted, whereby the bar is made to retain the mast in its upright position. When the stacker has been raised, the same is also rigidly held by means of guy-ropes F, secured to guy-brace B. The free ends of said ropes I secure to the ground by staples *f*² at each side of the frame. In order to lower the derrick, retaining-piece *f* is swung to one side and rope or cable E² loosened, when the mast by its own weight will gradually lower until section Crests upon the frame-pieces. When the entire mast has been lowered, section B' is removed from within the clamp-band and laid upon the frame alongside the upper section. After unfastening the guy-ropes the entire folded structure may be moved from place to place, inasmuch as the base frame is formed as a sledge or mounted upon wheels, thereby serving as a carriage. I thus provide an elevator which may easily be placed into position and removed with the least possible

delay or trouble, besides being easily and quickly moved from place to place.

Having thus described my invention, what I claim as new, and desire to secure protection in by Letters Patent of the United States, is—

In a hay-stacker, the combination of a base-frame having a central cross-strip, a mast consisting of two sections, the lower end of the lower section resting against the central cross-strip and the upper section provided with clamps or collars embracing the upper end of the lower section, a beam having its inner end pivoted to the upper section of the mast and provided with a guy-rope, a chain or cord attached to the outer end of the pivoted beam and to the upper end of the upper section of the mast, a sheave secured to the outer end of the beam, a hoisting-rope passing over said sheave, guy-braces having their upper ends pivoted to the lower end of the upper section of the mast and their lower end secured to the base-frame, guy-ropes having their opposite ends, respectively, secured to the guy-braces and to the ground, and means for raising and lowering the mast, substantially as set forth.

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

IANTHUS E. MARSHALL.

Witnesses.

W. A. ACKER,
J. W. KEYS.