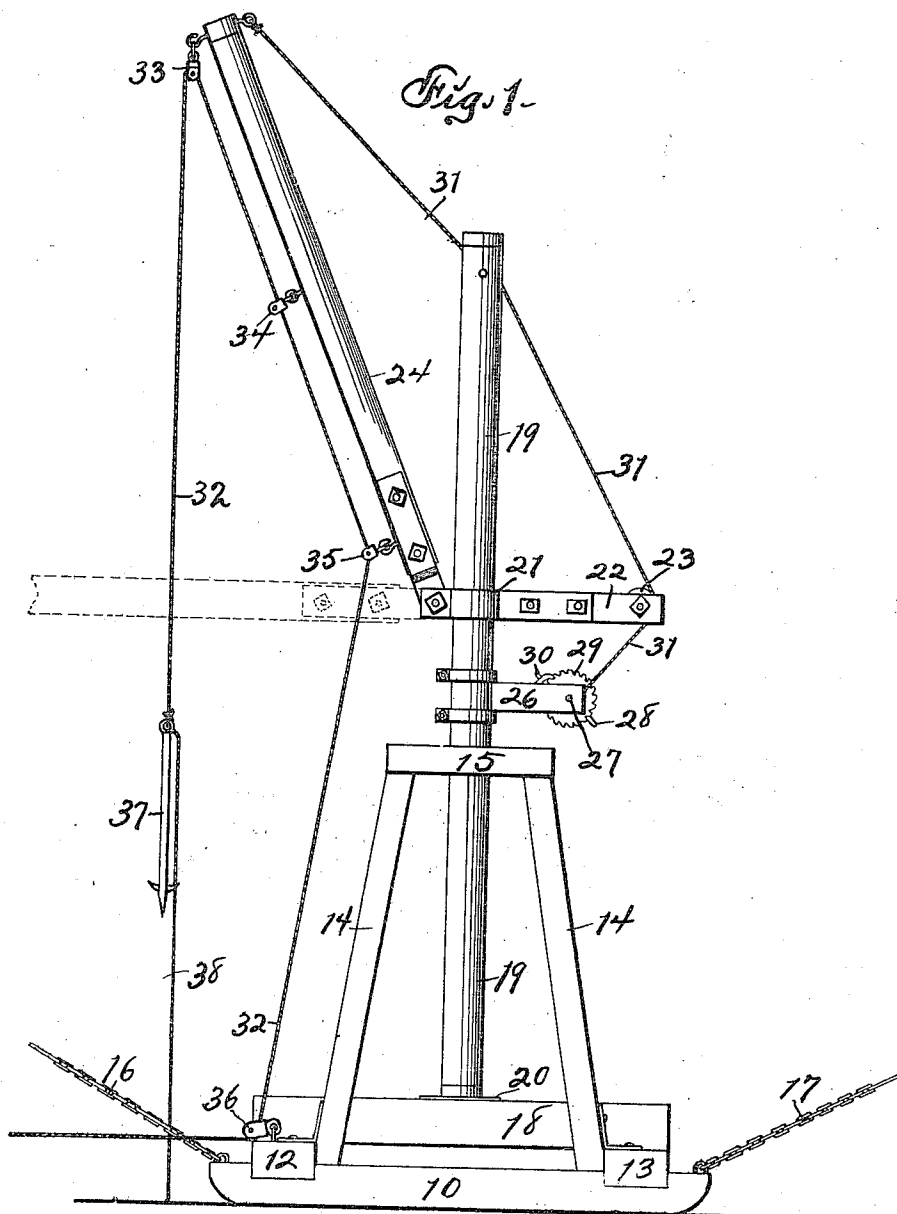


G. HEEDWELL & W. F. McNEW.
 PORTABLE ROTATABLE HAY STACKER.
 APPLICATION FILED AUG. 18, 1909.

972,695.

Patented Oct. 11, 1910.

2 SHEETS—SHEET 1.



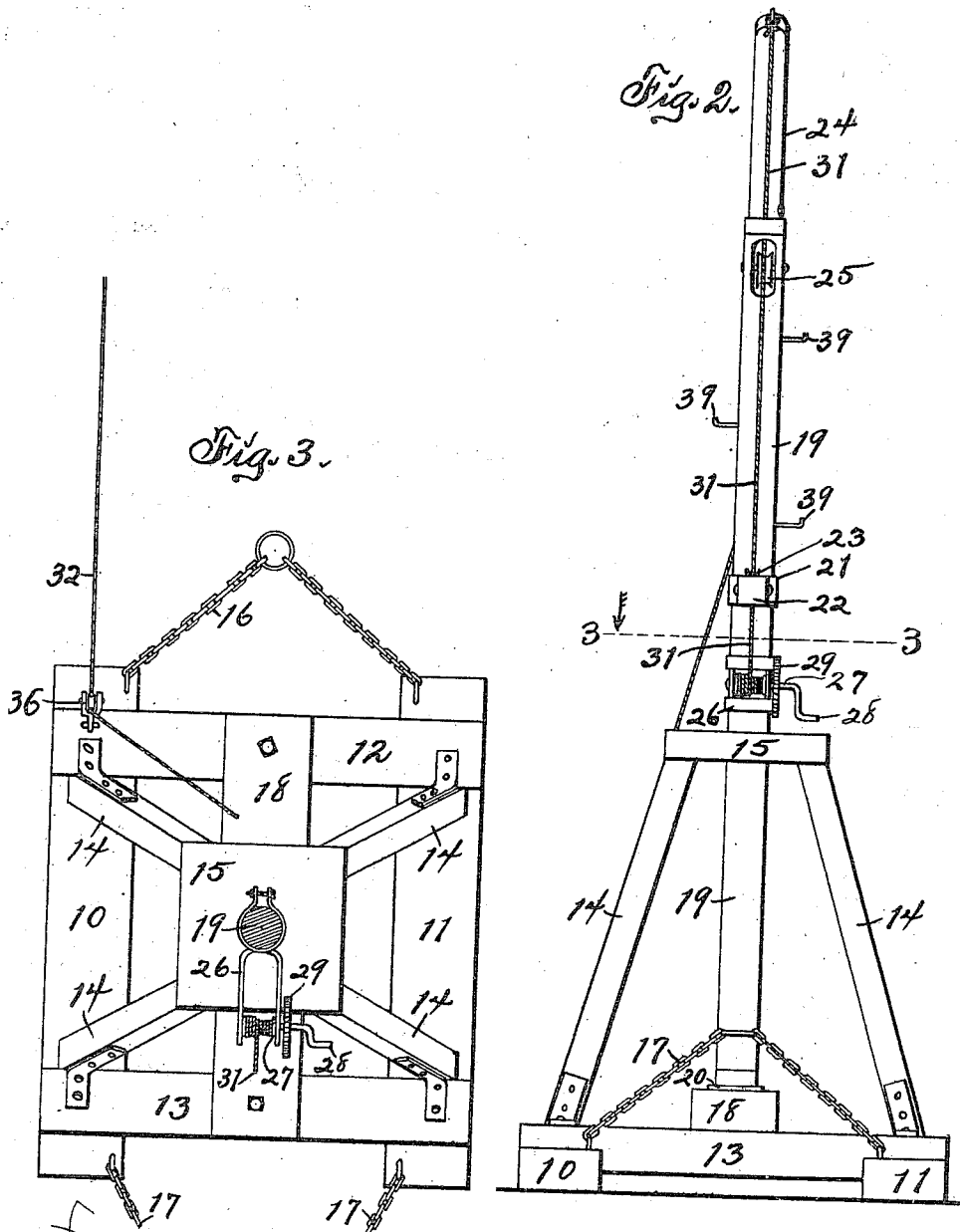
Witnesses: } Inventors: Gotthard Heedwell & William McNew,
 Erle W. Miller }
 H. G. Sweet. } By Thomas G. Orrig & Co. Attorneys.

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 E. W. Miller
 H. S. Sweet.

Inventors: Gothard Heedwell & William F. McNew
 By Thomas G. Orwig & Co. Attorneys,

UNITED STATES PATENT OFFICE.

GOTHARD HEEDWELL AND WILLIAM F. McNEW, OF BOONE, IOWA.

PORTABLE ROTATABLE HAY-STACKER.

972,695.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed August 18, 1909. Serial No. 513,901.

To all whom it may concern:

Be it known that we, GOTHARD HEEDWELL and WILLIAM F. McNEW, citizens of the United States, residing at Boone, in the county of Boone and State of Iowa, have invented a new and useful Portable Rotatable Hay-Stacker, of which the following is a specification.

The object of this invention is to provide an improved construction for hay stackers or derricks.

Our invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in our claim and illustrated by the accompanying drawing, in which—

Figure 1 is a side elevation showing our improved device in position for practical use. Fig. 2 is an elevation at right angles to Fig. 1. Fig. 3 is a horizontal section on the indicated line 3—3 of Fig. 2.

In the construction of the device as shown a base is built up of runners 10, 11 rigidly connected by cross-bars 12, 13, posts 14 rising in converging planes from end portions of the cross-bars and a plate 15 fixed to the upper ends of said posts. Chains 16, 17 are fixed to end portions of the runners or skids 10, 11 and are adapted to be attached to draft mechanism or draft animals (not shown) to draw the base, and elements carried thereby, in either direction longitudinally of said skids. A beam 18 is fixed at its ends to and connects the centers of the cross-bars 12, 13 and a post 19 is stepped in a bearing 20 on the central portion of said beam. The post 19 rises from the bearing 20 through and is journaled in the central portion of the plate 15. A clamp 21 is mounted on and is adjustable vertically of the post 19 above the plate 15 and an arm 22 is mounted rigidly in said clamp and projects horizontally therefrom at one side of said post. A sheave 23 is journaled in the outer end portion of the arm 22. A boom 24 is hinged at one end to one end of the clamp 21 on the opposite side of the post from the arm 22 and is adapted to swing through an arc limited in one direction by the cross-bar 12 and in the other direction by the upper portion of said post. A sheave 25 is pivoted in the upper portion of the post 19. A bracket 26 is clamped to the post 19 between the plate 15 and clamp 21 and is adjustable vertically of said post. The bracket 26 extends laterally beneath the clamp 21 and arm 22, is

forked, and is of less length than said clamp and arm. A drum 27 is journaled in the outer end portion of the bracket 26 and is adapted to be revolved manually by a winch 28. A ratchet wheel 29 is mounted on the drum 27 and is adapted to be engaged by a pawl 30 on the bracket 26 to limit rotation of the drum in one direction. The winch may be operated and the drum rotated by an attendant standing on the plate 15. A cable 31 is fixed at one end to and adapted to be wound on the drum 27. The cable extends through and outside of the sheave 23 and through and above the sheave 25, and is connected at its outer end to the outer end portion of the boom 24. A hoisting cable 32 is mounted in and supported by pulley blocks 33, 34, 35 fixed to and depending from the under portion of the boom 24 and also extends through a foot block 36 detachably connected to one end portion or another of one or the other cross-bars 12, 13. The lower end portion of the hoisting cable 32 extends to a convenient point of attachment to hoisting mechanism or power not shown. Usually a horse would be employed to furnish power to the hoisting cable 32. A hay fork of any desired construction, shown conventionally at 37, is mounted on the upper end portion of the hoisting cable 32 and is provided with a tripping line 38. Steps 39 may be mounted on the post 19 above the plate 15 for convenience in climbing said post when occasion requires.

In practical use the machine is placed in the desired location for making a stack by draft applied to one or another of the chains 16, 17. Then successive quantities of hay or other material to be stacked are drawn and deposited contiguous to the base of the machine. Then the hay fork is drawn within reach of the operator by means of the tripping line 38 and said fork is set into or caused to engage a quantity of hay to be hoisted and built into the stack. The hay fork may be carried in either direction circumferentially of the base of the machine and be caused to engage a quantity of hay, or other substance, at any point throughout its orbit of movement and in the movement of the fork circumferentially of the base the boom 24, and post 19 will be moved relatively owing to the stepping of the post in the base. The boom may be adjusted into horizontal position or at any desired inclination by manual operation and adjustment of

the winch 28 and drum 27, said drum acting on the boom through the cable 31 which, in turn, is guided and supported by the sheaves 23 and 25. The boom may be further adjusted as to altitude by adjustment of the clamp 21 longitudinally of the post 19. Such adjustment of the boom as to inclination and altitude is made in respect of a conformity to the height of the stack being worked on and the location of the hay relative to the ground, as to whether said hay is delivered on the ground by a bull rake or is received from wagons adjacent to the derrick. When the fork has been set into and caused to engage with a quantity of hay the hoisting cable is drawn in the usual manner to the end of lifting said fork and its load to the desired height, after which the tripping line 38 is employed to guide the fork and load to a point above the desired place of deposit of the load in building the stack. Then the load is released from the fork by a quick jerk on the tripping line 38 in the usual manner and the fork is again taken to a supply of material by draft on the tripping line.

Through the use of this device a stack of arc shape in plan view may be constructed

without moving the derrick, or the derrick may be moved on a right line and a straight stack be built through its use. The base may be staked down at either or both ends if desired.

We claim as our invention—

A portable, adjustable hay stacker, comprising a base composed of runners, cross-bars connecting said runners, posts rising from said cross-bars, a plate on the upper ends of said posts, and draft connections at opposite ends of said runners, a post stepped for rotation in said base, a boom hinged to and arranged for adjustment vertically of said post, an arm fixed to and extending laterally from said post, sheaves in said arm and post, a drum mounted on the post, a cable fixed to the outer end of said boom, extending through said sheaves and adapted to be wound on said drum, and a hoisting cable supported by the boom and extending through a foot block on the base.

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Witnesses:

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