(No Model.)

R. S. ARBOGAST.

STRAW STACKER.

No. 399,312. Patented Mar. 12, 1889.

Fig. 2.

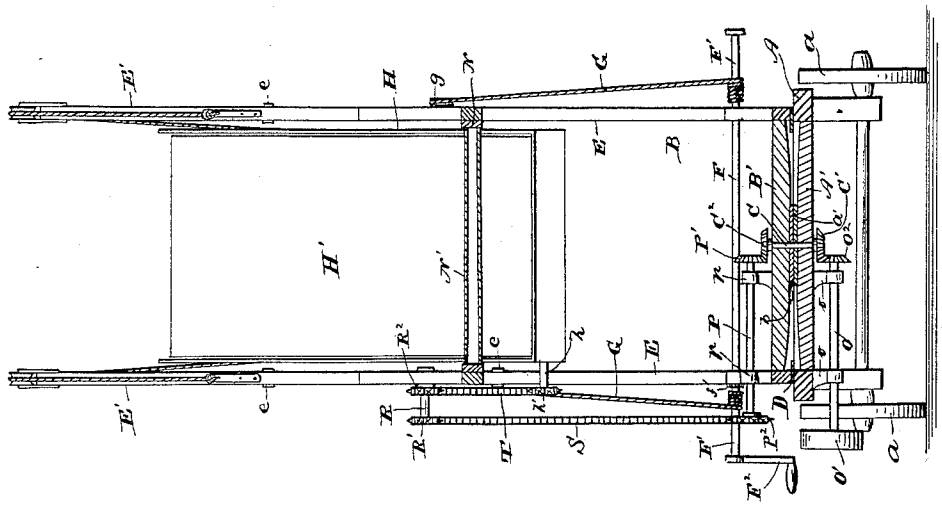
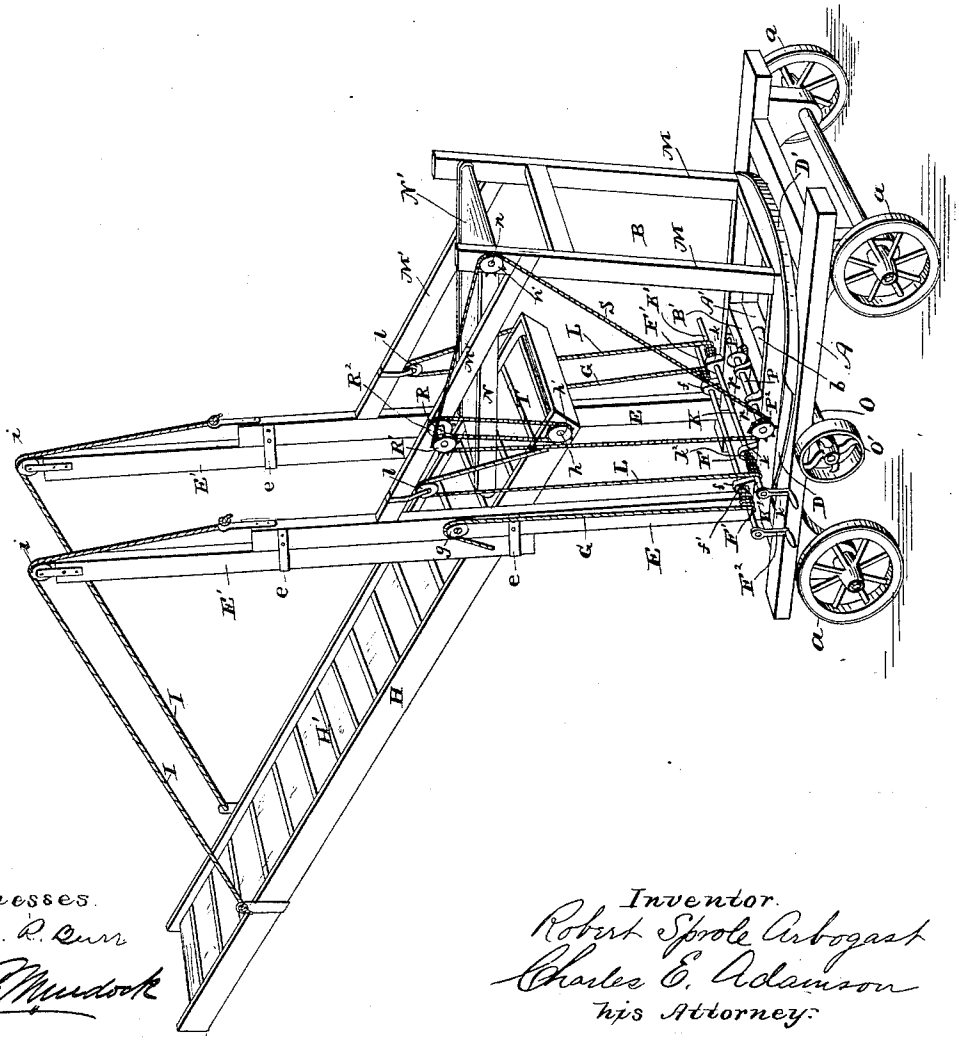


Fig. 1.



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UNITED STATES PATENT OFFICE.

ROBERT SPROLE ARBOGAST, OF SELMA, INDIANA.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 399,312, dated March 12, 1889.

Application filed July 17, 1888. Serial No. 280,173. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SPROLE ARBOGAST, a citizen of the United States of America, residing at Selma, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Straw-Stackers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain improvements in straw-stackers; and it consists in certain novelty in the construction, arrangement, and combination of the various parts, all of which I will now proceed to describe, and point out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective of a straw-stacker embodying my invention, and Fig. 2 a vertical section.

Referring to said drawings, A represents the foundation frame or truck mounted upon suitable carrying-wheels, *a*, said frame being preferably of rectangular form and having a central cross-bar, A′.

B represents the turn-table, which consists of a rectangular frame having a cross-bar, B′.

a′ is a flat circular bearing-plate secured to the top of the cross-bar A′.

b is a flat circular bearing-plate secured to the under side of the cross-bar B′ and resting upon the plate *a′*. Said turn-table is pivotally secured to the foundation frame or truck by a short vertical shaft, C, which passes through the plates *a′ b* and cross-bars A′ B′, forming the pivot of the turn-table.

D is a flat circular bearing or fifth-wheel, upon which the bottom of the corners of the turn-table rest, so as to steady the same. Said turn-table may, if desired, be provided with rollers, which rest upon the bearing D. Said bearing D is provided with a segmental retaining flange or rim, D′, extending about half-way around the bearing D. The forward corners of the turn-table engage with said flange or rim, which serve to hold said turn-table in place, and prevents any lateral strain on the pivotal shaft C.

E E are two parallel carrier-supports secured to the rear corners of the turn-table and inclined out from said table. Said supports are provided with adjustable extensions E′ E′, mounted in guides *e e*.

F is a shaft mounted in bearings *f f* on the turn-table, and provided on each with windlasses F′ F′, and on one end with a crank-handle, F², and a pawl and ratchet, *f′*.

G G are ropes having one end secured to the lower ends of the adjustable extensions E′ E′. Said ropes pass over pulleys *g g* on the supports E E, and have their other ends secured to the windlasses F′ F′, around which they are adapted to be wound. By means of said windlasses the extensions may be raised or lowered, as desired, so as to lengthen or shorten the supports, the pawl and ratchet holding the same at the desired adjustment.

H is the main conveyer-trough.

H′ is the endless straw-conveyer, which is driven by its inner shaft, *h*, which in turn is operated as hereinafter described.

I I are ropes secured to the forward end of the conveyer-trough. Said ropes pass over pulleys *i i* on the upper ends of the extensions E′ E′, and have their other ends secured to the ends of the supports E E.

K is a shaft mounted in bearings *k k* on the turn-table. Said shaft is provided on each end with windlasses K′ K′, and on one end with a crank-handle, *k′*, and a pawl and ratchet, *k²*.

L L are ropes secured at one end to the inner end of the conveyer-trough. Said chains or ropes pass over pulleys *l l*, and have their other ends secured to the windlasses K′ K′, around which they are adapted to be wound.

It will now be apparent that by operating the windlasses F′ and K′ the conveyer may be raised or lowered and moved in or out, as desired, the pawls and ratchets on the shafts of said windlasses holding the conveyer at the desired point of adjustment.

To the forward end of the turn-table are secured two parallel vertical supports, M M, connected to the supports E E by cross-bars M′ M′.

N is a stationary receiving-table secured to the supports M. Said table has a slight downward incline, and projects over the lower inner end of the main conveyer, H′. Said table is provided with an endless carrier, N′, driven by its forward shaft, *n*, which has on one end a sprocket-wheel, *n′*.

O is a horizontal driving-shaft mounted in bearings *o o* on the under side of the supporting frame or truck. On the outer end of said shaft is a band-pulley, O′, which has suitable band connection with the driving mechanism. On the inner end of said shaft is rigidly mounted a bevel-gear, O^2, which engages with a bevel-gear, C′, rigidly mounted on the lower end of the vertical shaft C. C^2 is a bevel-gear on the upper end of said shaft C.

P is a horizontal shaft mounted in bearings *p p* on the top of the turn-table. On the inner end of said shaft is a bevel-gear, P′, which engages with the bevel-gear C^2. On the outer end of said shaft is a sprocket-wheel, P^2.

R is a short shaft mounted in a bearing on one of the cross-bars M′.

R′ and R^2 are sprocket-wheels rigidly mounted on said shaft.

S is an endless sprocket-chain passing over the sprocket-wheels P^2, R′, and *n′*.

T is an endless sprocket-chain which passes over the sprocket-wheel R^2 and sprocket-wheel *h′* on the end of the inner shaft, *h*, of the main conveyer.

When the shaft is set in motion through the intermediate gearing described, the main conveyer and conveyer of the receiving-table are operated.

When my stacker is placed in a position for operation, the receiving-table is under the end of the thrashing-machine conveyer and the straw falls upon the same and is carried by the conveyer of said table to the main conveyer. As said table projects over the inner and lower end of said main conveyer and is in close proximity to the same, the straw is prevented from falling back when the main conveyer is elevated at a considerable angle. This is a great advantage of my stacker over those which have heretofore been used. By turning the turn-table the end of the straw-conveyer may be moved to any position over the stack.

My improved stacker is very simple in its construction, can be manufactured very cheaply, and thoroughly and effectually accomplishes the objects for which it is designed.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a supporting frame or truck and a turn-table mounted thereon, of suitable supports secured to one end of said turn-table and having adjustable extensions mounted thereon, a shaft mounted on the turn-table and provided with a crank-handle and a pawl and ratchet, ropes secured at one end to said shaft and their other ends to the lower ends of the extensions, pulleys mounted on the upper ends of the supports, over which said ropes pass, a main conveyer-trough provided with an endless conveyer, mechanism for operating said conveyer, ropes secured at one end to the upper outer end of the conveyer-trough and at their other ends to the supports, pulleys mounted on the upper ends of the extensions, over which said ropes pass, a second shaft mounted on the turn-table and provided with a crank-handle and a pawl and ratchet, ropes secured at one end to said shaft and at their other ends to the lower inner end of the main conveyer, and suitably-supported pulleys, over which said ropes pass, all constructed, arranged, and operating substantially as shown and described.

2. The combination of the supporting frame or truck A, the turn-table B, mounted thereon, the supports E E, having the adjustable extensions E′ E′, the shaft F, mounted on the turn-table and provided with the windlasses F′ F′, the ropes G G, secured to the windlasses at one end and at their other ends to the lower ends of the extensions E′ E′, and passing over the pulleys *g g*, the main conveyer-trough H, having the endless conveyer H′, the ropes I I, secured at one end to the outer end of the trough H and at their inner ends to the supports E E, and passing over the pulleys *i i* on the top of the extensions E′ E′, the shaft K, mounted on the turn-table and provided with the windlasses K′ K′, the ropes L L, secured at one end to the inner end of the main conveyer-trough and at their other ends to the windlasses K′ K′, and the supports M M, and stationary receiving-table, N, secured to said supports and projecting over the lower inner end of the conveyer-trough H, and having the endless conveyer N′, all constructed, arranged, and operating substantially as shown and described.

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

ROBERT SPROLE ARBOGAST.

Witnesses:
O. W. NOTTINGHAM,
T. J. BLOUNT.