(No Model.)

2 Sheets—Sheet 1.

A. DAVIS.

STRAW STACKER.

No. 278,891. Patented June 5, 1883.

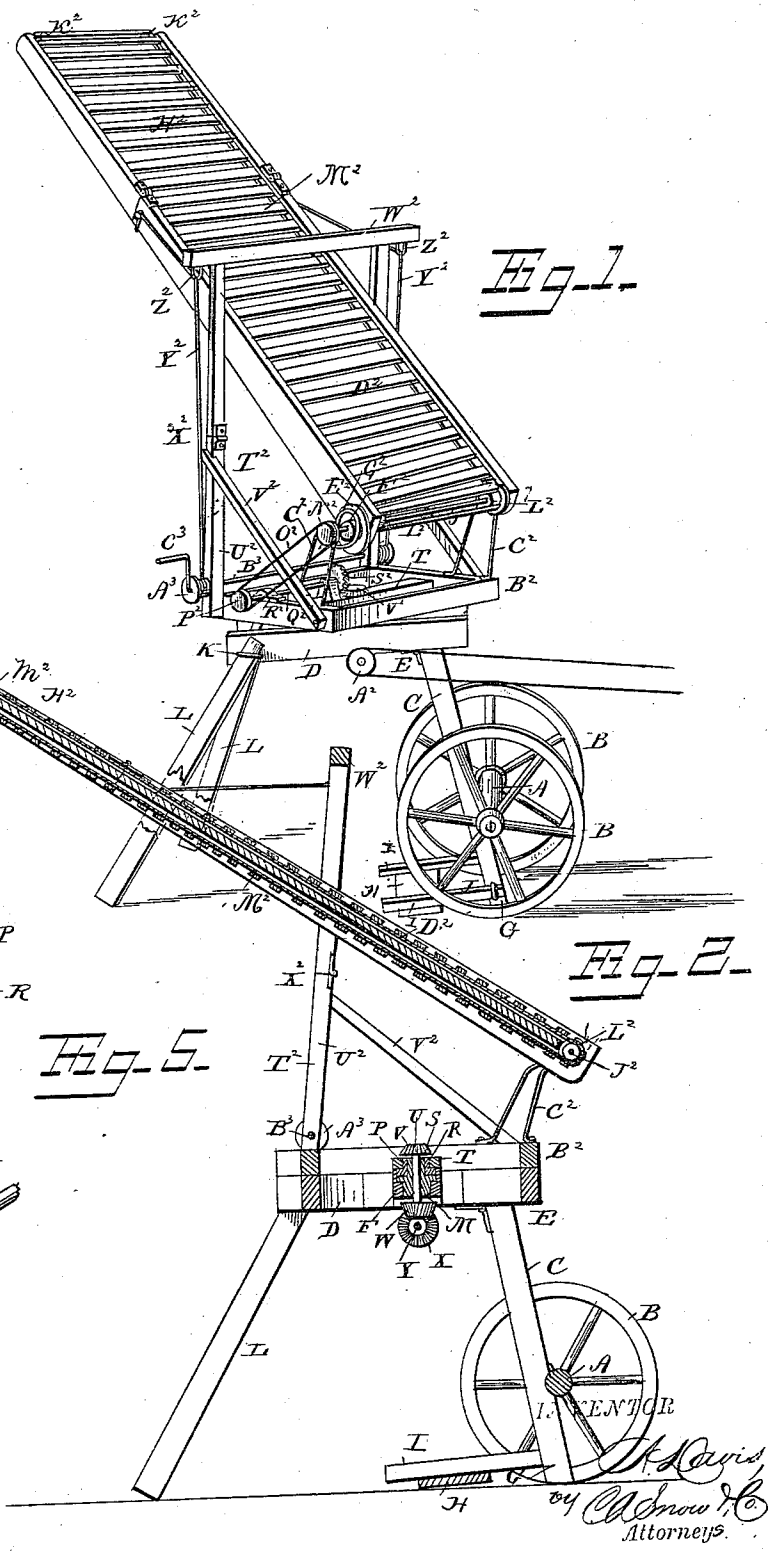


Fig. 1.

Fig. 2.

Fig. 5.

WITNESSES.

A. L. Durand

J. R. Little,

INVENTOR.

A. Davis,

by A. A. Snow & Co.

Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

A. DAVIS.

STRAW STACKER.

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Fig. 3.

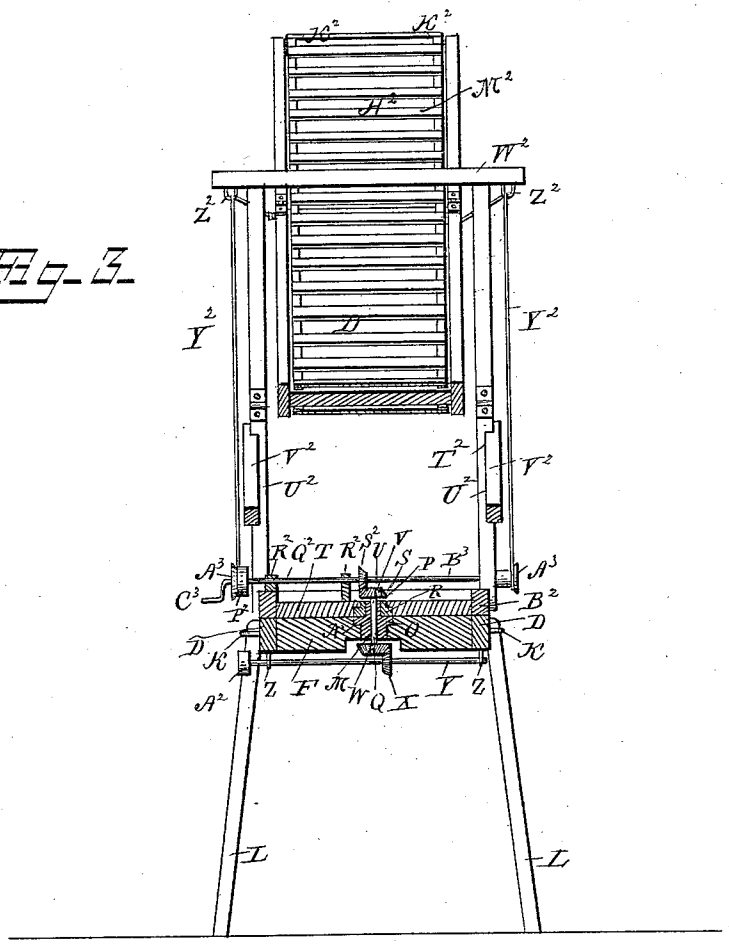
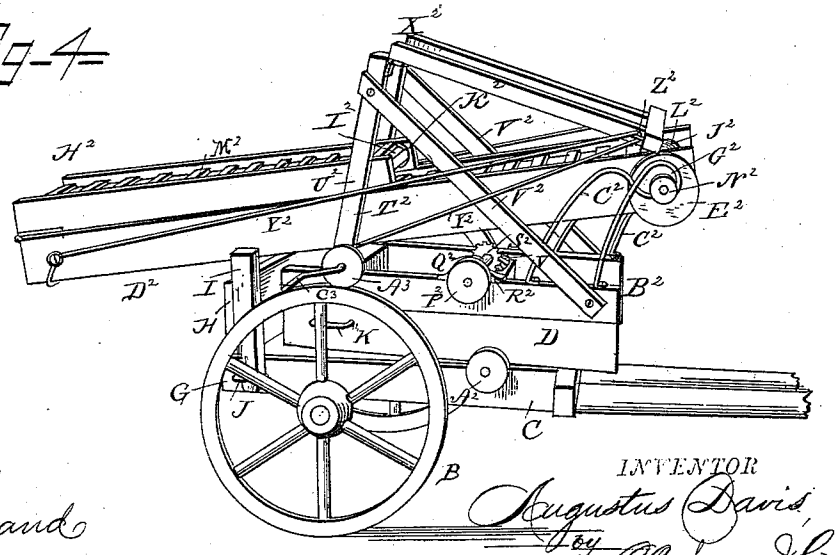


Fig. 4.



WITNESSES

F. L. Durand

J. R. Sutton.

INVENTOR

Augustus Davis,

by Munn & Co

Attorneys.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

AUGUSTUS DAVIS, OF FRANKLIN, INDIANA.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 278,891, dated June 5, 1883.

Application filed March 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS DAVIS, a citizen of the United States, residing at Franklin, in the county of Johnson and State of Indiana, have invented a new and useful Straw-Stacker, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to straw-stackers of that class which are portable upon a truck, and comprise a turn-table frame supported on the said truck and carrying an adjustable endless-apron elevator.

The invention has for its object to provide a stacker possessing superior advantages in point of simplicity, inexpensiveness, and general efficiency, and that can be conveniently contracted to a very small space for transportation.

In the drawings, Figure 1 is a perspective view of my improved stacker in position for use. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view thereof. Fig. 4 is a perspective view, showing the stacker contracted for transportation. Fig. 5 is a detail view, in perspective, of the pivotal mechanism of the turn-table frame that carries the elevator-apron.

Referring to the drawings, A designates the axle of the truck, and B B are the supporting-wheels arranged thereon. To the axle is secured a permanent base-frame comprising beams C C, fixed to the axle, and beams D D, hinged to the free ends of the beams C C, as shown at E E. These pairs of beams C C and D D may be braced by any suitable arrangement of cross-pieces, and the latter pair is provided with a cross-beam, F, in which is provided the pivot of the turn-table frame. The ends G G of the beams C C extend from the axle and carry a transverse board, H, that is preferably removably connected to the said beams by means of bars I I at its ends entering sockets J J on the sides of the beams C C. The ends of the beams D D are provided with sockets K to receive legs or supports L L when the stacker is in position for use. The cross-beam F is provided with a central opening, M, having an annular interior shoulder, N, on which rests a corresponding flange, O, on a center pin, P, that passes through the opening M, and is provided with a central perforation Q. This center pin, P, is fixed in the beam F of the permanent frame, and a boxing, R, is fixed in a central perforation, S, in a cross-beam, T, of the turn-table frame, which boxing turns on the center pin, P, and the pivot of the turn-table is thus formed. In the perforation Q is journaled a shaft, U, provided with miter-wheels V W, respectively, at its top and bottom ends. The shaft U is driven by means of an intermeshing bevel or miter gear wheel, X, fixed on a shaft, Y, that is journaled in brackets Z Z depending from the cross-beam F, and is provided at its outer end with a band-wheel or pulley, A^2, by which motion is transmitted to operate the stacker.

B^2 is the turn-table frame, which may be of any suitable construction, and is provided with brackets C^2 C^2, to which is hinged the end of the elevator-frame D^2, the latter being provided with disks or plates E^2, having projecting gudgeons F^2, that work in eyes G^2 in the said brackets C^2. The frame B^2 is provided with a hinged extension, H^2, that may be folded over onto the main portion of the frame, and is provided at its ends with transverse shafts I^2 J^2, carrying rollers K^2 K^2 and L^2 L^2, over which the carrier-apron M^2 works. The shaft J^2, at the lower end of the elevator-frame, is provided with a band-wheel or pulley, N^2, which is connected by a belt, O^2, with a band-wheel or pulley, P^2, on the end of a shaft, Q^2, having bearings R^2 R^2 on the frame B^2, and carrying a miter-wheel, S^2, that meshes with the miter-wheel V. By this means the carrier-apron is operated. At the end of frame B^2 opposite from the brackets C^2 C^2 is secured a derrick-frame, T^2, comprising uprights U^2 U^2, braced by inclined beams V^2 V^2 and connected by a top cross-piece, W^2, the said uprights U^2 U^2 being preferably hinged, as shown at X^2 X^2, above the braces, so that the derrick-frame can be turned down to occupy less space during transportation of the stacker. The elevator-frame D^2 passes through the derrick-frame, and cords or ropes Y^2 Y^2 are connected with the elevator-frame at each side, and pass up over pulleys Z^2 Z^2, arranged at the top of

the derrick-frame, and from thence down to drums A^3 A^3, fixed on a transverse shaft, B^3, that is journaled at the bottom of the derrick-frame, and is provided with an operating-crank, C^3. By operating this shaft B^3 the elevator-frame can be adjusted vertically as desired.

The operation and advantages of my invention are obvious. When it is desired to contract the stacker for transportation, the elevator-frame is lowered and its hinged section is turned over onto its main portion. The derrick-frame can then be reduced in height by turning down its hinged top section, when the elevating mechanism will be down close to the turn-table. The supports L L are then removed, and the beams C C and the axle, with the truck-wheels, pass under the beams D D as the hinges E E operate to lower the turn-table frame and elevating mechanism down onto the truck. As the truck-wheels pass under the stacker the cross-board H assumes an upright position, and serves as a support for the rear end of the elevator-frame. Thills or a tongue can be coupled to the axle to enable the stacker to be drawn after the parts are lowered onto the truck.

When the parts are extended into position for use, the turn-table frame can be turned in either direction, as may be desired, and the said frame, with the elevating frame and mechanism, can be readily separated from the truck mechanism, when the parts are lowered, by removing the gear-wheel W and lifting the said turn-table frame from off the center pin, P.

I claim as my invention—

1. The combination of the truck-axle having the supporting-wheels, the beams secured to the axle, the transverse board arranged on the ends of the said beams, the supporting-frame hinged to the free ends of the beams, the detachable supports arranged at the free end of the supporting-frame, and an elevator-frame arranged on the said hinged frame, so as to be supported on the transverse board when the hinged frame is brought down onto the truck-axle, as set forth.

2. The combination of the base-frame, the cross-beam F of the latter, formed with a perforation having an annular shoulder, the center pin having a corresponding flange and provided with a central perforation, the turn-table frame, the cross-beam T of the latter, having a perforation, the boxing arranged in this perforation, the shaft U, gear-wheels V and W, mechanism for driving the said shaft, and mechanism for transmitting this motion to operate the elevator-apron, as set forth.

3. The combination of the truck-axle, the beams C C, hinged to the axle, the beams D D, hinged to the free ends of the beams C C, the detachable ground-supports connected to the frame at the free ends of the beams D D, the turn-table frame pivoted on these said beams D D, the derrick-frame secured on the turn-table, and the elevator-frame hinged at its lower end to the turn-table and adjustable by means of the derrick, as set forth.

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

AUGUSTUS DAVIS.

Witnesses:
WESLY W. MCCASLIN,
STEPHEN W. DUNYAN.