(No Model.) 2 Sheets—Sheet 1.

F. E. GILMORE.

STRAW STACKER.

No. 390,016. Patented Sept. 25, 1888.

Fig. 2.

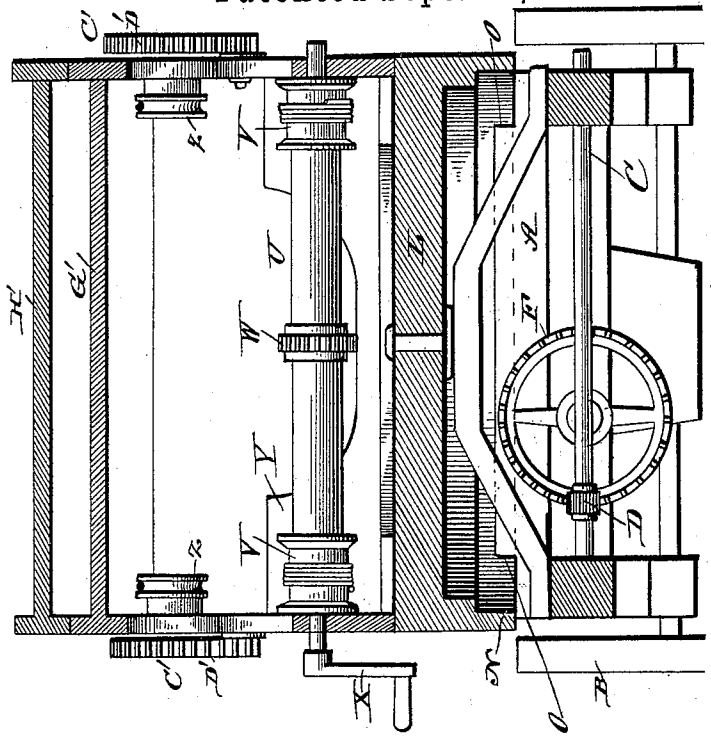


Fig. 1.

Witnesses

Joseph. A. Ryan

R. J. Marshall Jr.

Inventor

Frank E. Gilmore.

By his Attorneys

C. A. Snow & Co

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

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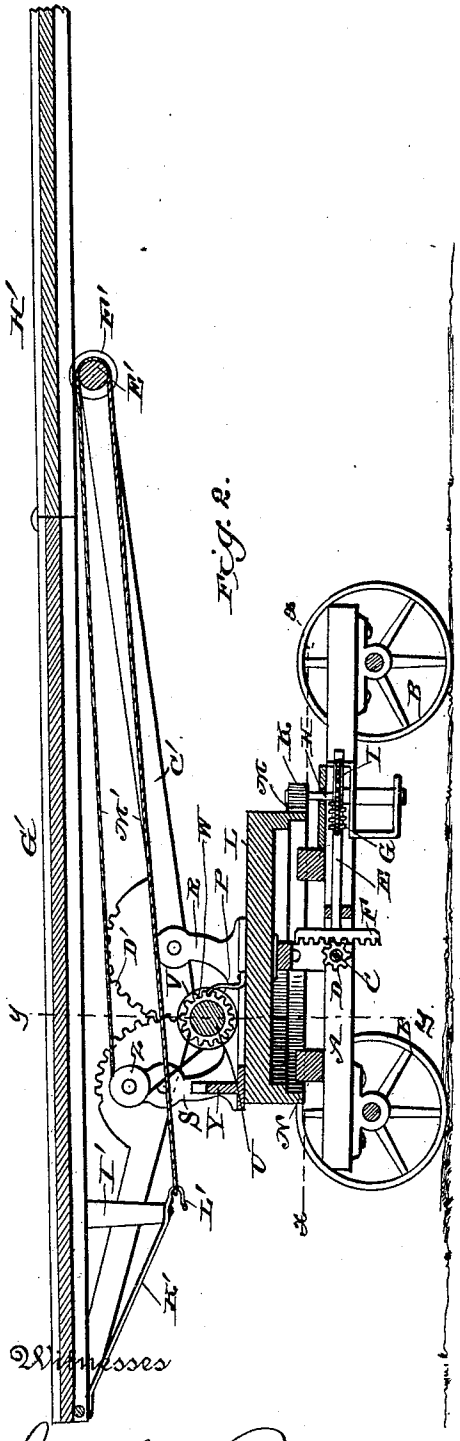


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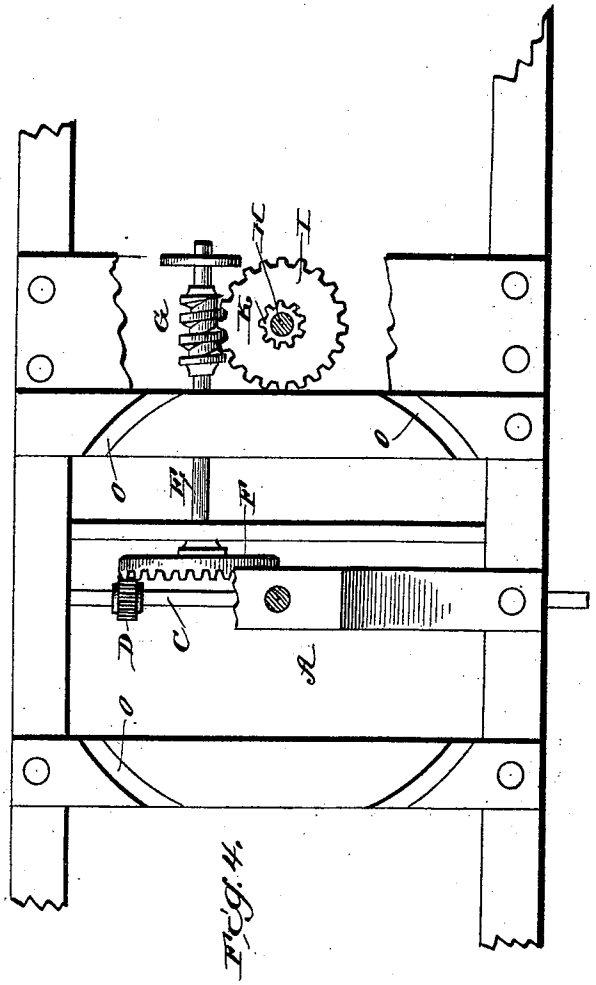


Fig. 4.

Witnesses

Joseph. A. Ryan

R. F. Marshall Jr.

Inventor

Frank. E. Gilmore.

By his Attorneys

C. A. Snow & Co.

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

UNITED STATES PATENT OFFICE.

FRANK EUGENE GILMORE, OF GERLAW, ILLINOIS.

STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 390,016, dated September 25, 1888.

Application filed May 26, 1888. Serial No. 275,160. (No model.)

To all whom it may concern:

Be it known that I, FRANK EUGENE GILMORE, a citizen of the United States, residing at Gerlaw, in the county of Warren and State of Illinois, have invented a new and useful Improvement in Straw-Stackers, of which the following is a specification.

My invention relates to an improvement in straw-stackers adapted to be used in connection with thrashing-machines for stacking straw while the grain is being thrashed; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a stacking-machine embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a transverse sectional view of the same, taken on the line *y y* of Fig. 2. Fig. 4 is a sectional view taken on the line *x x* of Fig. 2.

A represents a supporting-frame, which is rectangular in form, and is mounted upon wheels or rollers B, whereby the said frame may be readily transported. Arranged transversely on the said frame is a shaft C, which is journaled in suitable bearings, and is provided with a pinion, D.

E represents a shaft, which is journaled at right angles to the shaft C, has a gear-wheel, F, at one end, which meshes with the pinion D, and has a worm, G, at the opposite end.

H represents a vertical shaft, which is journaled in suitable bearings in the frame, and is provided with a gear-wheel, I, that meshes with the worm G. The upper end of said shaft H has a pinion, K.

L represents a circular table or platform, which is centrally pivoted on the upper side of the frame A, and is provided on one side with gear-teeth M, which are engaged by the pinion K. The said turn-table has a depending annular flange, N, which works in an annular groove or recess, O, in the upper side of frame A, the said turn-table being thereby snugly fitted to and guided on the said frame. On the upper side of the turn-table, at the sides of the same, are arms P, which are each provided with a pair of standards, S R, and between said standards are shorter standards, T.

U represents a shaft, which is journaled in the standards T, has drums V at its ends, and is provided at its center with ratchet-teeth W. To one end of the said shaft is attached a crank, X, by means of which the shaft may be readily rotated, as will be understood. The arms P are connected at opposite ends by transverse braces Y. At the upper ends of the standards S, on the inner sides of the same, are journaled pulleys Z.

A′ represents a pair of arms, which are pivoted at their lower ends to the outer sides of the standards S, and have their lower ends sector-shaped on their inner sides, and provided with spur-teeth B′.

C′ represents a pair of similar arms, which are longer than the arms A′, have their lower ends pivoted to the standards R, and made sector-shaped and provided with spur-teeth D′, which engage the teeth B′. The upper ends of the arms C′ are connected by a transverse shaft, E′, which has its bearings in said arms, and said shaft is provided at its ends with flanged wheels or rollers F′, the same being formed integrally with the said shaft or secured rigidly thereto.

G′ represents the guide-table, which has flanges at its sides, which project upward and downward therefrom. The said table has an extension, H′, which is hinged or pivoted thereto, and one end of the said guide-table is pivoted between the upper ends of the arms A′. Depending from the sides of the said guide-table, near the said end thereof, are arms I′.

K′ represents truss-rods, which are secured to the lower end of the guide-table and extend forward therefrom, and have their outer ends secured to the lower end of the arms I′, and provided with hooks L′. The said guide-table bears on the rollers F′, and the depending side flanges of said guide-table bear on the shaft E′ and against the outer sides of the wheels or rollers F′.

M′ represents a pair of elevating cords or ropes, which are attached to the eyes of the truss-rods, extend over the shaft or roller E′, thence extend rearward and downward,

and pass over the pulleys Z, and the ends of the said cords or ropes are then attached to the drums V.

The operation of my invention is as follows: The turn-table may be turned in a horizontal plane, so as to direct the guide-table in any desired direction by turning the shaft C, said shaft by reason of the intermediate gearing, hereinbefore described, causing the pinion K to rotate and turn the turn-table by engaging the spur-teeth of the latter. By turning the shaft U in one direction said shaft is caused to wind up the cords or ropes M', and thereby draw the upper or outer ends of the arms A' and C' toward each other; and inasmuch as the said arms A' are pivoted to the guide-table, and the arm C' slides or moves under the said guide-table, it follows that when the said arms are caused to approach each other the guide-table will be elevated, and by reason of the arms C' being longer than the arms A' the guide-table, when elevated, is arranged in an inclined position.

Having thus described my invention, I claim—

1. The combination of the supporting-frame, the turn-table pivoted thereon, the arms A' and C', pivotally connected to the turn-table and having the engaging sectors at their lower ends, the guiding-table having one end pivoted to the arms A' and bearing on the arms C', the drum-shaft or winch journaled on the turn-table, and the elevating cords or ropes attached to the guiding-table, passed over suitable guides or pulleys at the ends of arms C', and attached to the drum-shaft, substantially as described.

2. The combination, in a stacker, of the supporting-frame, the turn-table thereon, the arms pivoted to the turn-table and having the engaging sectors at their lower ends, the guiding-table having one end pivoted to one pair of the arms, the remaining pair of arms being connected by a shaft having the rollers bearing under the guiding-table, the drum-shaft or winch journaled on the said table, and the elevating ropes or cords attached to the guiding-table, passed over guides with which the free arms are provided, and connected to the drum-shaft or winch, substantially as described.

3. The combination of the base-frame, the transverse shaft C, journaled therein, the vertical shaft having the pinion K at its upper end, the shaft E, geared to said transverse and vertical shafts, the turn-table pivoted on the supporting-base and having the gear-teeth engaged by said pinion, whereby the turn-table may be turned, the arms A' C', pivotally supported on the turn-table and having the engaging sectors at their lower ends, the shaft connecting the free ends of arms C' and having the rollers, the guiding-table supported on said rollers and having one end pivotally connected to the arms A', and the elevating cords or ropes attached to the guiding-table, guided on suitable sheaves and rollers, and the winch or drum-shaft on the turn-table, to which said elevating cords or ropes are attached, substantially as described.

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

FRANK EUGENE GILMORE.

Witnesses:
L. O. TOURTELLOTTE,
I. T. BRADY.