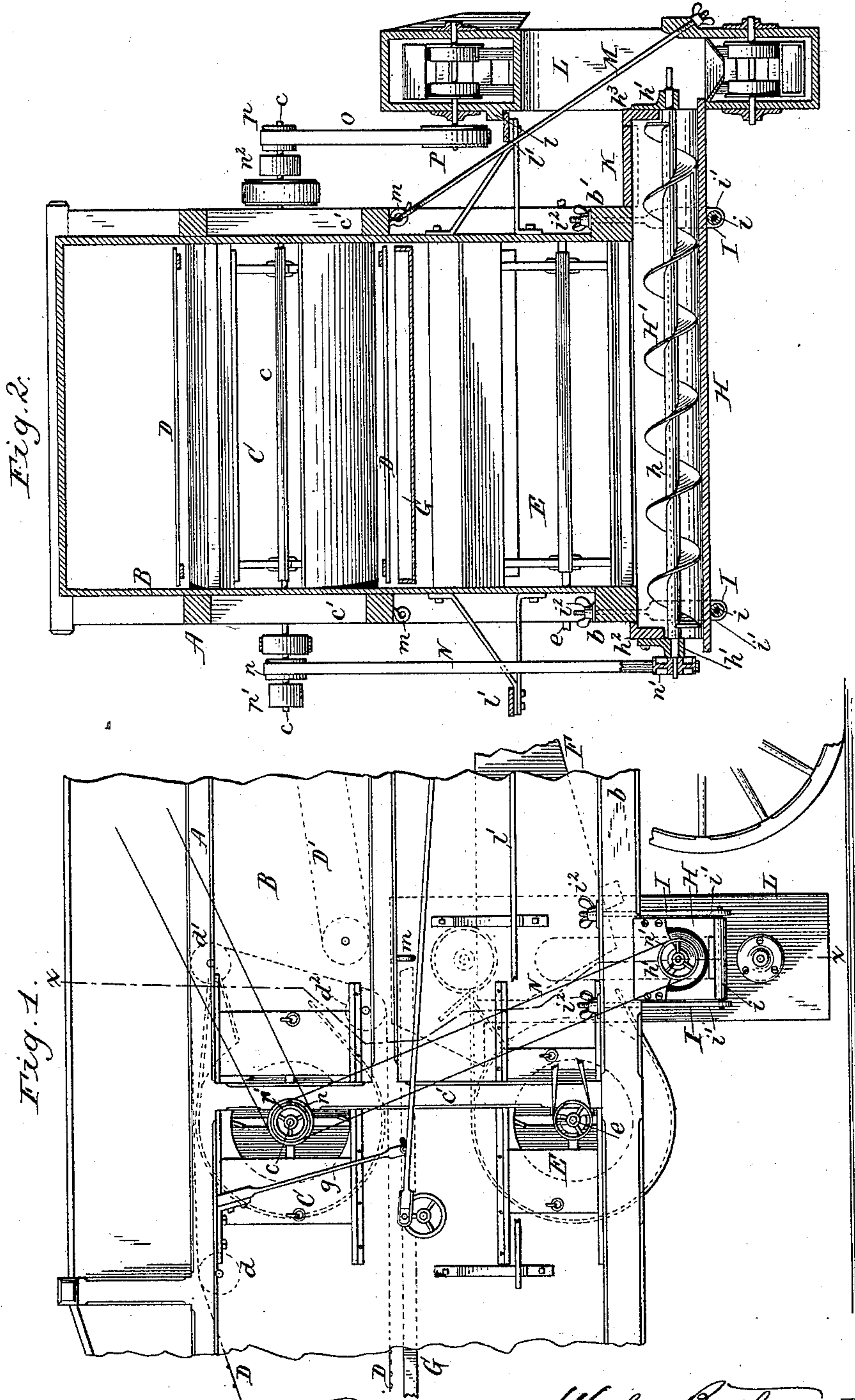


(No Model.)

W. BUTLER.
CONVEYER FOR THRASHING MACHINES.

No. 424,175.

Patented Mar. 25, 1890.



Chas. Buchheit.
Thos. L. Popp. } Witnesses.

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UNITED STATES PATENT OFFICE.

WESLEY BUTLER, OF BUFFALO, NEW YORK, ASSIGNOR TO THE PITTS
AGRICULTURAL WORKS, OF SAME PLACE.

CONVEYER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 424,175, dated March 25, 1890.

Application filed December 12, 1887. Serial No. 257,618. (No model.)

To all whom it may concern:

Be it known that I, WESLEY BUTLER, of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Conveyers for Thrashing-Machines, of which the following is a specification.

My invention relates more particularly to the conveyer mechanism whereby the grain is delivered from the thrashing-machine, and has the object to construct this mechanism in such manner that it can be readily adjusted to deliver the grain on either side of the machine.

My invention consists of the improvements which will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a fragmentary side elevation of a thrashing-machine provided with my improvements. Fig. 2 is a cross-section of the same on line *x x*, Fig. 1.

Like letters of reference refer to like parts in both figures.

A represents the frame of the machine, and B the inclosing-casing thereof, resting on bottom stringers *b b'*. C represents a fan arranged in the casing B near the upper portion of the machine, and *c* represents the fan-shaft journaled in suitable bearings on the uprights *c'*. D represents a straw-carrier, which moves around the fan C on rollers *d d'*. D' represents a straw-carrier arranged in rear of the straw-carrier D and below the mouth of the fan C. This carrier delivers the straw to the tail of the machine. E represents a fan arranged in the casing B below the fan C, and *e* the shaft of the fan E, which is likewise journaled in bearings on the uprights *c'*. F represents the separating or vibrating shoe arranged in rear of the fan E. G represents the vibrating grain-carrying pan supported in the casing B by arms *g*, and arranged below the upper fan C and straw-carrier D and above the lower fan E and vibrating shoe F, so as to deliver the grain upon the head of the latter. All of these parts may be of any usual or well-known construction.

H represents the trough of the transverse

delivery-conveyer, which receives the grain from the vibrating shoe F and delivers the same on one side of the machine.

h represents the conveyer-shaft, provided with spiral flights *H'* and journaled in bearings *h'*, secured to the end pieces *h² h³* of the conveyer-trough. The latter is arranged underneath the longitudinal bottom stringers *b b'* of the frame A of the machine and is secured thereto by hangers I. Each hanger consists of a supporting-roller *i* and two suspending-rods *i'*, in the lower ends of which the roller is journaled, and which pass with their upper ends through the stringers *b b'*, to which the rods *i'* are secured by screw-nuts *i²*.

As shown in Fig. 2, the conveyer projects laterally beyond the stringer *b'*, and the top of the conveyer-trough H, between this stringer and the end plate *h³*, is closed by a removable cover K. The end plate *h²*, at the opposite end of the conveyer-trough, rests against the stringer *b*. The conveyer-trough H is held against lateral movement at one end by the cover K, bearing against the end piece *h³* and stringer *b'*, and at its opposite end by the end piece *h'*, bearing against the stringer *b*.

Upon loosening the screw-nuts *i²*, so as to release the trough H from the frame A, and removing the cover K, the conveyer-trough and shaft can be moved laterally with reference to the machine or longitudinally with reference to the conveyer-shaft, so as to cause the conveyer to project from the opposite side of the machine and discharge the grain on such opposite side. The rollers *i* facilitate this movement of the conveyer in the hangers I. When the conveyer has been adjusted so that the end plate *h³* bears against the stringer *b'*, the hangers I are again tightened and the cover K is applied to that part of the conveyer-trough which projects beyond the stringer *b*.

L represents the elevator, which receives the grain from the conveyer H *H'* and delivers it to the bags, wagons, or other receptacles. This elevator is supported by a ledge *l*, resting on the adjacent longitudinal foot-board *l'* and by a removable brace or tie-rod M,

which is hooked at its upper end into an eye *m*, secured to the frame of the machine on each side thereof. Upon changing the position of the conveyer so as to discharge the grain on the opposite side of the machine, as above described, the elevator is removed and secured on the opposite side of the machine to receive the grain from the projecting end of the conveyer.

10 The conveyer-shaft *h* is driven from the upper fan-shaft *c* by an open endless belt *N*, running around a pulley *n* on the fan-shaft and a pulley *n'* on the conveyer-shaft. The pulley *n'* is made removable from the conveyer-shaft, and the latter projects at both ends alike beyond its bearings, so that this pulley can be secured to either end of the conveyer-shaft. When the conveyer is shifted, as above described, the pulley *n'* is secured to the opposite end of the conveyer-shaft, and the belt *N* is crossed and placed upon a pulley *n*² of the same size as the pulley *n*, which is secured to the corresponding end of the upper fan-shaft *c*.

25 The elevator *L* is driven from the upper fan-shaft *c* by an endless belt *O*, which runs around a pulley *P* at the head of the elevator and a pulley *p* on the end of the fan-shaft. When the elevator is shifted to the opposite side of the machine, the belt *O* is placed upon a pulley *p'*, which is secured to the opposite end of the fan-shaft *c*, and which is of the same size as the pulley *p*. By these simple adjustments of the parts the machine is adapted to deliver the grain on either side, so that the delivery mechanism can be readily arranged on the side at which it is most convenient for the time being.

When the machine is to be removed from one place to another, the conveyer is readily adjusted to project equally from both sides of the machine, in which position it is within the wheel-base of the machine, thereby preventing the conveyer from projecting so far on one side that it would be liable to injury by contact with gates, buildings, or other objects.

I claim as my invention—

1. The combination, with the frame of a

thrashing-machine, of a conveyer-trough arranged transversely below said frame, a screw conveyer arranged in said trough, and hangers secured to said frame and supporting the conveyer-trough, said conveyer-trough being adapted to be moved laterally on said hangers, substantially as set forth.

2. The combination, with the frame of a thrashing-machine, of a conveyer-trough arranged transversely below said frame, a screw conveyer arranged in said trough, and hangers *I*, secured to opposite sides of said frame and provided with rollers *i*, upon which the conveyer-trough is supported, and whereby the trough can be moved laterally toward either side of the frame, substantially as set forth.

3. The combination, with the frame of a thrashing-machine, of a transverse delivery-conveyer trough *H*, made laterally movable with reference to said frame and provided with end plates *h*² *h*³ and a removable cover *K*, fitting between one of said end plates and the adjacent side of the frame, and a screw conveyer arranged in said trough, substantially as set forth.

4. The combination, with the frame of a thrashing-machine supporting a rotating shaft *c*, carrying pulleys *n* *n*² at opposite ends, of a transverse delivery-conveyer made laterally movable with reference to said frame and provided with a removable pulley *n'*, and an endless belt *N*, whereby the conveyer is driven from either end of the shaft *c*, substantially as set forth.

5. The combination, with the frame of a thrashing-machine provided on opposite sides with boards *l'* *l'* and eyes *m* *m*, and the laterally-movable delivery-conveyer, of an elevator *L*, provided with a ledge *l*, adapted to rest on either of said boards, and a brace *M*, adapted to engage with either of said eyes, substantially as set forth.

Witness my hand this 26th day of November, 1887.

WESLEY BUTLER.

Witnesses:

CARL F. GEYER,
CHESTER D. HOWE.