

(No Model.)

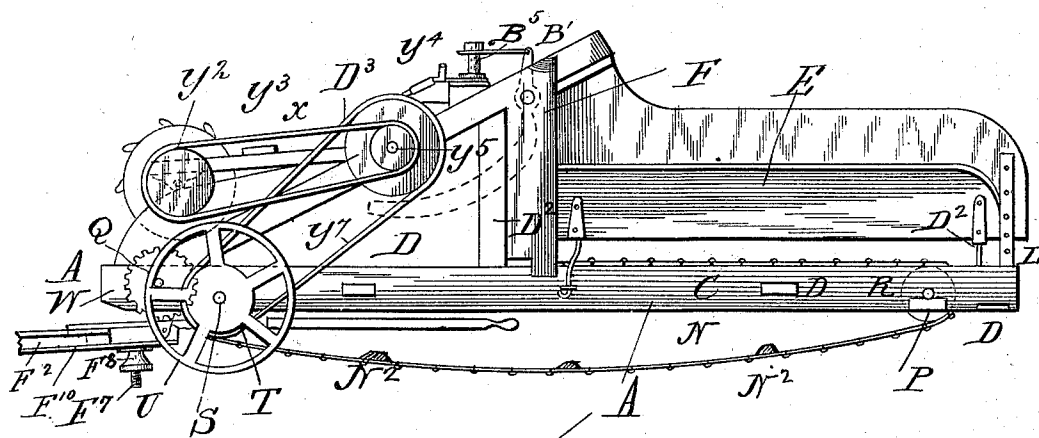
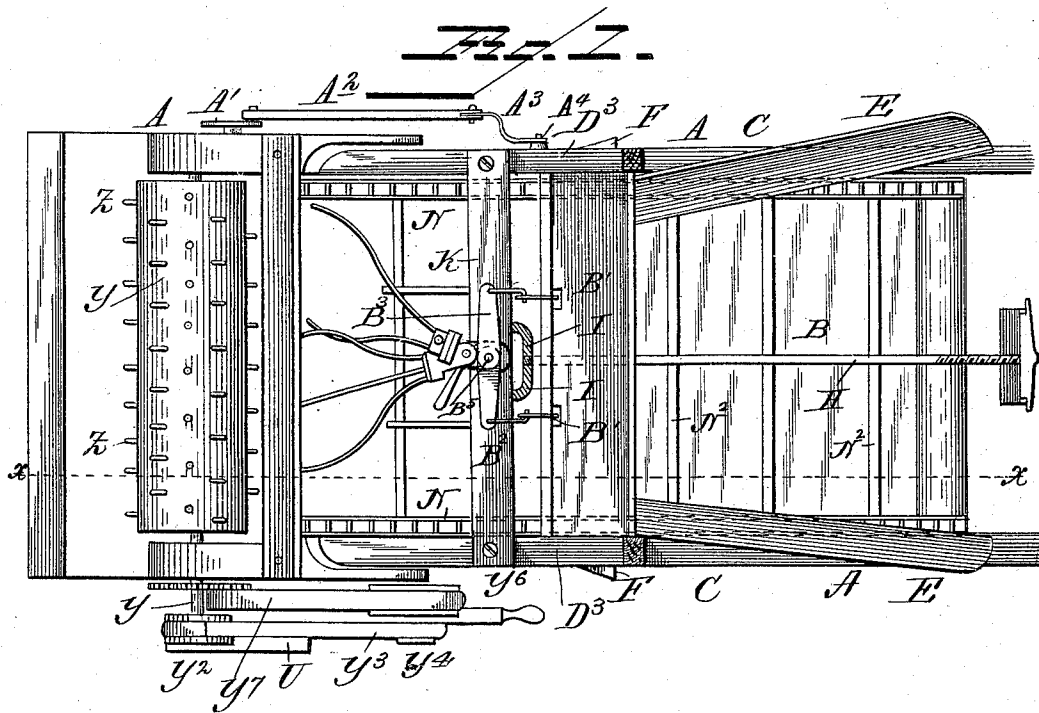
2 Sheets—Sheet 1.

W. S. JUDD.

BAND CUTTER AND FEEDER FOR THRASHING MACHINES.

No. 540,061.

Patented May 28, 1895.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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BAND-CUTTER AND FEEDER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 540,061, dated May 28, 1895.

Application filed September 6, 1894. Serial No. 522,292. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SIMMONS JUDD, a citizen of the United States, and a resident of San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Band-Cutters and Feeders for Thrashing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to band cutters and feeders for thrashing machines, and is designed as an improvement upon the invention described and claimed in Letters Patent granted to me April 14, 1885, No. 315,948.

The object of the present invention is to improve the device set forth in said patent whereby superior advantages are obtained with respect to simplicity of construction and efficiency of operation.

The invention consists in the novel construction and combination of parts hereinafter fully described and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of a feeding and band-cutting attachment for thrashing-machines constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view on the line *xx*, Fig. 1. Fig. 3 is a side elevation of the apparatus. Fig. 4 is a detail view of the eccentric for elevating and lowering the spreaders. Fig. 5 is a bottom view of the adjustable feed-table. Figs. 6 and 7 are detail views.

In the said drawings, the reference-letter A designates the frame of the device, which consists of a bottom B, side-beams C C, and cross-beams D D, and rearwardly extending sides D', D', supported by uprights D² D², and diagonal bars D³ D³.

E, E, designate inclined guide boards secured to the side beams of the frame.

The letter H designates a detachable center-board which is provided at its front end with lugs I, I, which engage with openings in a transverse beam K. The rear lower end of the said center-board is provided with hooks

L, L, adapted to be connected with the rear beam D. When sheaves are fed to the machine it is proposed to use the said center-board on each side of which a sheaf may be fed, and when loose grain is fed the said centerboard is removed, as in my said patent before referred to.

P, and Q, designate shafts journaled transversely under the frame at the front and rear ends and are provided with rollers R, R, having transverse slots M, M, therein to receive the slots of the carrier, as hereinafter fully set forth. These rollers are connected by means of sprocket chains N, N, engaging with sprockets N', N', on said rollers and connected with the sprocket chains are transverse slats N², N², which when covered with canvas or other material form the grain carrier.

Just in rear of the shaft Q is a transverse shaft S which carries a driving wheel T, a driving pulley V, and a pinion V^a meshing with a cog-wheel W on the shaft Q, by which the latter is rotated.

Pivoted in the diagonal bars D³, D³, are rearwardly extending arms X, carrying at their free ends a shaft Y, having a roller Y' extending transversely across the apparatus. This roller is provided with a number of teeth Z projecting from its periphery and is adapted to rest by gravity upon the grain being fed to the thrasher, and prevent it from being drawn into the concave too rapidly. Secured to one end of shaft Y is a pulley Y², connected by means of a belt Y³ with a pulley Y⁴, upon a short shaft Y⁵, journaled in one of the diagonal bars D³, and provided with another pulley Y⁶, which is connected with the driving-shaft S by means of belt Y⁷. Secured to the opposite end of shaft S, is an eccentric disk A' connected by a rod or pitman A², with a crank A³, on one end of a shaft A⁴, mounted transversely upon the upper part of the frame, and to which an oscillatory or rotary motion can thus be imparted. Said shaft is provided with cranks B' B', with a pair of levers B², B³, one of which B², is mounted upon a tubular shaft or sleeve B⁴, and the other of which is mounted upon a pin B⁵, journaled in the sleeve B⁴, and extending through the frame beam B⁶. The lower end of the sleeve B⁴, carries a rearwardly extending bifurcated plate C', having

a transverse pin C² upon which is pivoted a plate C³, to which plate is attached a pair of fingers or stirrers C⁵. This plate C³ is also provided with two forwardly extending lugs C⁴. Connected with the plate C³ is a pin C⁶ on which is mounted a beveled eccentric C⁷, having a thumb-plate or piece C⁸. This eccentric engages with the lugs C⁴ by which the said fingers may be lowered. The pin B⁵ carries a plate D⁴, to which is attached a series of downwardly extending stirrers D⁵, as in my patent above referred to.

Connected with the diagonal bars D³, D³, and the side beams C, C, are upwardly extending outwardly inclined side flanges F, F, the object of which is to prevent any spreading grain from escaping at the sides of the device and allow it to be readily conveyed by the carrier to the thrashing machine.

The feed table is made in two boards or parts F¹, F², with metallic covering plates F³, the former of which extends beyond the board F¹ and overlaps plate F². The board F¹ is secured to the side pieces C C by means of brackets F⁵, which are pivoted to plates F⁶ secured to board F¹. Secured to the under side of board F¹, are downwardly depending screw-rod F⁷ provided with nuts F⁸. These rods pass through slots F⁹ in forwardly extending arms F¹⁰ secured to the under side of the board F². By unscrewing the nuts F⁸, the feed-boards may be adjusted so that the concave of the thrasher may be raised or low-

ered without changing the adjustment of the feeder.

By the construction of rollers R with transverse slots M, the carrier slats in their movement will fall into these slots and be flush with the periphery of the rollers, thus allowing the feed-table to be placed in close proximity thereto and preventing any grain or trash from being knocked back under the machine by said slats. These slats must be so arranged relatively to the grooves that they will register therewith at the proper times, so as to be received thereby.

Having thus described my invention, what I claim is—

In a band cutter and feeder for thrashing machines the combination with the frame, the brackets secured thereto, the stationary feed-board having plates pivoted to said brackets, and the pins secured to said board, of the adjustable feed-board, the arms secured thereto having slots at their inner ends through which said pins pass, the screw-nuts engaging with said pins and the metal plates secured to said boards and overlapping each other; substantially as described.

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

WILLIAM SIMMONS JUDD.

Witnesses:

GEO. W. LAWRENCE,
GEO. P. SIKES.