

(No Model.)

A. A. BOOTH.
BAND CUTTER AND FEEDER.

No. 458,885.

Patented Sept. 1, 1891.

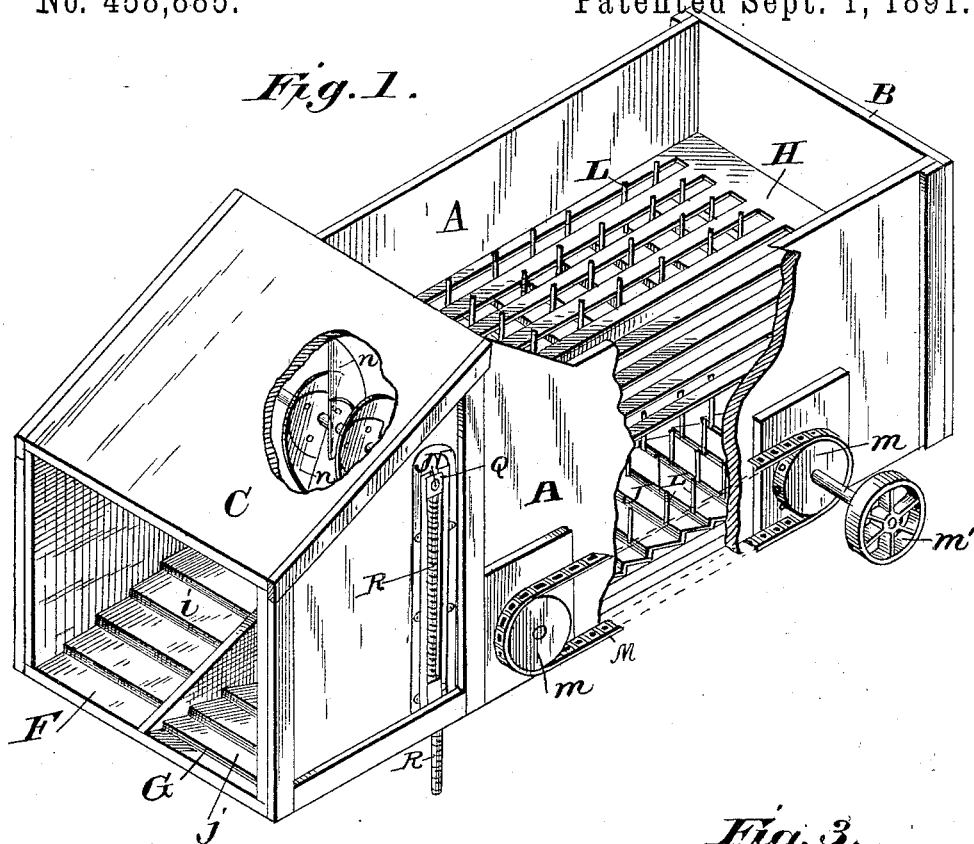


Fig. 2.

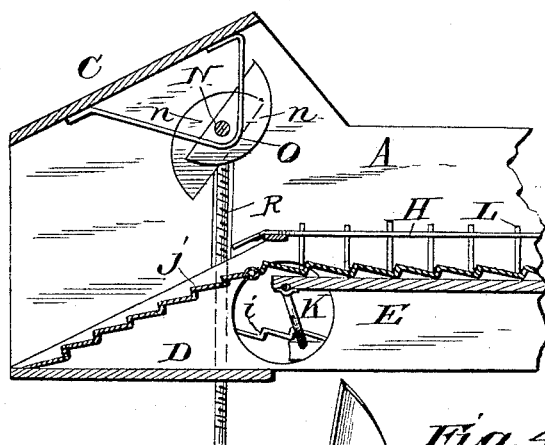


Fig. 3.

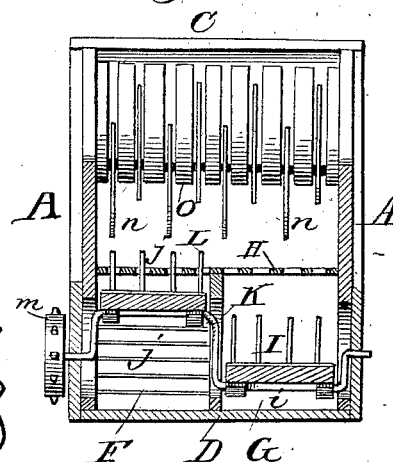
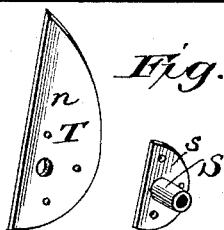


Fig. 4.



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BAND-CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 458,885, dated September 1, 1891.

Application filed April 15, 1891. Serial No. 389,036. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. BOOTH, a citizen of the United States, residing at Odell, in the county of Barnes and State of North Dakota, have invented certain new and useful Improvements in Band-Cutters and Feeders; 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.

This invention relates to band-cutters and feeders for thrashing-machines, and aims to provide a machine that will alternately feed the grain to the thrashing-machine from two juxtaposed troughs and from the top, and which will perform the work in a rapid and efficient manner.

The improvement consists of the novel features, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view of a band-cutter and feeder of my invention, parts being broken away. Fig. 2 is a longitudinal section of the delivery end of the machine. Fig. 3 is a cross-section of the feeder in front of the crank-shaft and looking toward the cutter-shaft. Fig. 4 is a detail view of the cutter, showing the blade and the hub separated and arranged in their relative position.

The frame comprises the side pieces A, the end B, and the top C, and the bottom D at the discharge end of the feeder. The partition E, parallel with the side pieces, divides the space between the said side pieces into two troughs F and G. The slotted table H extends over the partition E and the troughs F and G, the slots being parallel with each other and with the sides A, and curving down at the delivery end of the said table. The feeding-tables I and J, arranged in the troughs F and G, respectively, below the slotted table H, are mounted near their ends on the crank portions of the compound crank-shafts K, which are journaled in the said side pieces A, and are corrugated on their upper surface to positively feed forward any grain that may fall through the slotted table H. The aprons i and j, hinged to the delivery ends of the feed-tables I and J, respectively, travel at their lower ends on the bottom D, and are also

corrugated to carry forward to the thrashing-machine any loose grain. The tines L, projected up from the feeding-tables, enter the sheaves and carry them forward to the band-cutting mechanism. The crank-shafts have their journals projected beyond a side of the machine and provided with sprocket-wheels m, around which passes a sprocket-chain M, by which the two crank-shafts are caused to revolve in unison to preserve the parallel movements of the feed-tables. One of the crank-shafts is provided with the band-pulley m', by means of which motion is imparted to the machine.

The cutter-shaft N is provided with a series of cutters n, which are arranged thereon in a spiral form and at intervals apart. The guard and clearer O is secured to the top C and extends around the shaft N, being slotted at points corresponding with the position of the cutters to permit the latter to work freely therethrough. The shaft N is mounted in movable bearings Q, which are adjusted by the threaded rod R. By having the bearings of the shaft N movable the said shaft can be adjusted nearer to or farther from the slotted table H to accommodate the machine for large or small sheaves.

The cutters are composed of two parts, the tubular portion S, having the flange s at one end, and the blade T, which is fastened by screws or otherwise to the said flange s. The blade T is straight on one edge and curved on the other edge, and projects at one end a greater distance from the tubular portion S than at the other end. The binding-screw t, passing through the tubular portion s, fastens the cutter on the shaft N at the proper location. The tubular portions s, besides bracing the cutters, space them on the shaft N.

The operation of the machine is as follows: The sheaves of grain are placed on the slotted table H and are fed forward by the tables, which receive a vertical and a forward motion. The tines L, entering the sheaves, carries them forward in a positive manner. The knives of the cutter-shaft sever the bands and assist in giving a forward motion to the sheaves. The loose grain falling onto the aprons is delivered to the thrashing-machine. (Not shown.) The feed-tables are alternately actuated to feed the sheaves forward alternately.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a band-cutter and feeder, the combination, with a frame, a reciprocating feed-table supported by the frame, and means for actuating the said feed-table, of an apron hinged directly to the delivery end of the feed-table and a support for the free end of the said apron, substantially as and for the purpose described.

2. In a band-cutter and feeder, the combination, with a frame, feed-tables, and means, as the crank-shafts, for alternately actuating the said feed-tables, of aprons hinged directly to the said delivery ends of the feed-tables

and a support for the free ends of the said aprons, substantially as and for the purpose described.

3. In a band-cutter and feeder, the combination, with the slotted table H, of alternately-actuated feed-tables having their upper surfaces corrugated and having tines projected up from the surfaces thereof and adapted to work between the slots comprising the table H, substantially as set forth.

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

ALBERT A. BOOTH.

Witnesses:

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