

J. SULLIVAN & J. MINKS.

Band-Cutters and Feeders for Thrashing-Machines.

No. 140,658.

Patented July 8, 1873.

Fig. 1

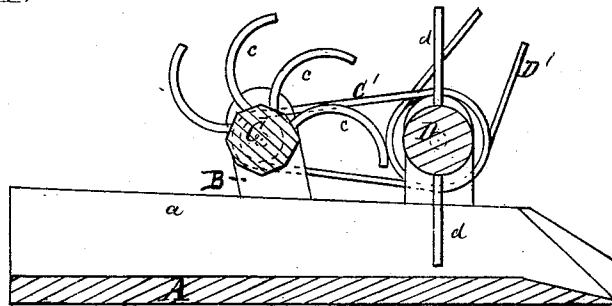
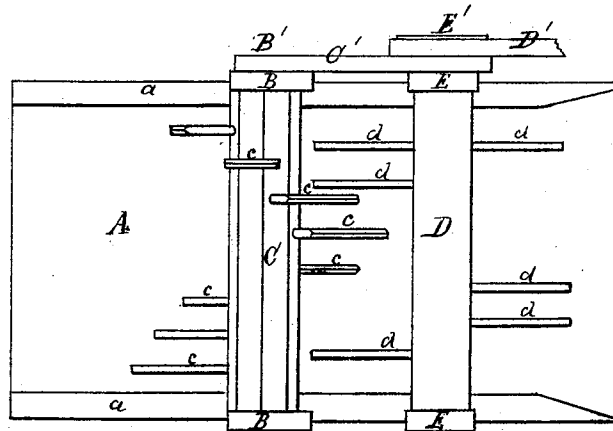


Fig 2



Witnesses.

C. H. Bates.

G. E. Upham.

Inventors

Josiah Sullivan

John Minks,

Clipsman & Co.

attys

UNITED STATES PATENT OFFICE.

JOSIAH SULLIVAN AND JOHN MINKS, OF NEWARK, INDIANA.

IMPROVEMENT IN BAND-CUTTERS AND FEEDERS FOR THRASHING-MACHINES.

Specification forming part of Letters Patent No. **140,658**, dated July 8, 1873; application filed May 3, 1873.

To all whom it may concern:

Be it known that we, JOSIAH SULLIVAN and JOHN MINKS, of Newark, in the county of Greene and State of Indiana, have invented a new and valuable Improvement in Feed Attachment for Thrashing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of our band-cutting and grain-feeding machine by a longitudinal vertical section. Fig. 2 is a plan view of our band-cutter and grain-feeder.

Our invention relates to an improved feeding apparatus for a thrashing-machine, which receives the bound sheaves, cuts the binding, spreads the grain, loosens the same, and feeds it to the thrasher. A represents a feeding-table, such as is generally used for thrashing-machines, with upright side boards *a a*. A pair of uprights or stands, B B, fastened to the table A, support, by means of suitable bearings, the cutter-shaft C, to which the curved cutters *c c* are fastened in progressive order. The convex part of the cutter is the advancing part in the revolution of the shaft C, and it is sharpened for the purpose of cutting the binding of the sheaves.

The above-mentioned shape of the cutter causes it to push the grain forward under the teeth *d* of a revolving rake, D, which moves the grain to the end of the feeding-table, where it is caught by the beaters.

The rake-teeth *d d* are straight, that the grain may not be compressed by them, and that the ends of the grain may be lifted by them, thus feeding the same as loosely as possible.

As the sheaves are of a nearly-cylindrical shape, and are, for that reason, inclined to furnish more material in the center of the feed-table than at the sides, we have remedied this defect by making the distance of the rake-teeth

d d larger at the center than at the sides. By these means there is, in consequence of the firmer hold, less grain allowed to give the slip to the rake-teeth on both sides than there is in the center, and the accumulated grain in the center falls over and spreads to both sides of the feed-table after each stroke of the rake-teeth.

The distances of said rake-teeth are so proportioned that the grain of a sheave of a certain size is fed to the thrashers thoroughly even.

The progressive arrangement of the knives *c c* serves to propel the separated sheave with an oblique front, thereby breaking or covering joints between the succeeding sheaves.

It is easily seen that a machine like the one described presents an uninterrupted sheet of evenly spread and sufficiently loosened grain, which is the most advantageous method of feeding a thrashing-machine. Any person strong enough to place the sheaves on the table is able to attend to the machine. Even if the sheaves are put on the table not according to the direction of the feed-motion the curvature of the knives *c c* serves to give the grain the right direction, and to comb the straws so they come out parallel, the sharp edges of the knives gliding over the round surfaces of the yielding straws of the sheave while the bands are cut asunder.

The cutter-shaft C receives its rotating power, by means of a pulley, B', and belt C', from a pulley, E', on the rake-shaft D, which is fastened, by means of the stands E E, to the feed-table A. A belt, D', revolves the pulley E', and thereby furnishes power to the whole feeding apparatus, which, by its construction, is an independent machine, and may be applied, at pleasure, to any thrashing-machine.

What we claim as new, and desire to secure by Letters Patent, is—

In a band-cutter for thrashing-machines the cutter-shaft C, having the curved cutters *c c*, arranged in progressive order, and operating in the manner set forth.

2. The combination and arrangement of the compensating feed-rake D with the straight rake-teeth *d*, and the cutter-shaft C with the curved cutters *c c*, arranged in progressive order, substantially as and for the purpose specified.

In testimony that we claim the above we

have hereunto subscribed our names in the presence of two witnesses.

JOSIAH SULLIVAN.
JOHN MINKS.

Witnessess:

J. P. McINTOSH,
J. NELSON GAKEY.