

(No Model.)

3 Sheets—Sheet 1.

M. THORNBURG, T. L. CLEVINGER, W. F. FITZPATRICK,  
& W. HOLLOWAY.

BAND CUTTER AND FEEDER.

No. 303,072.

Patented Aug. 5, 1884.

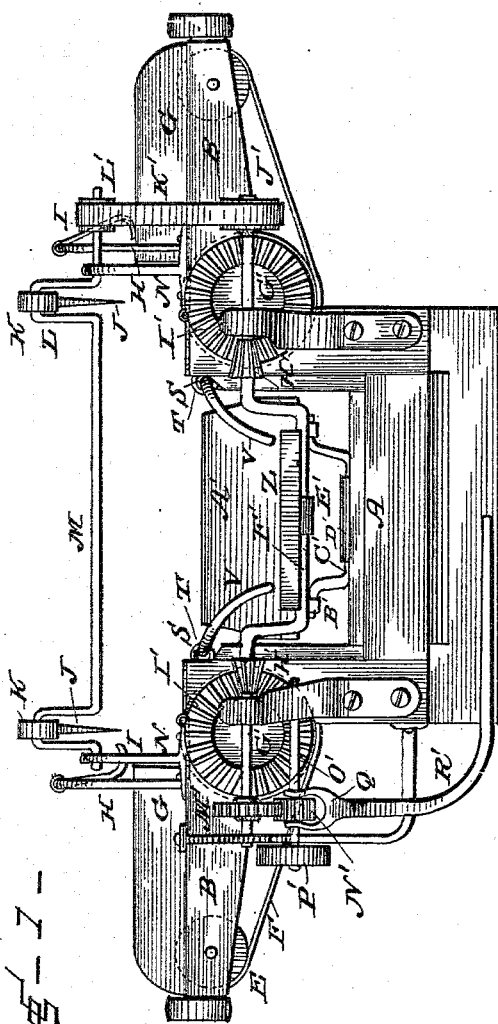


FIG. 1

WITNESSES:

*Red. G. Dieterich*  
*Witness*

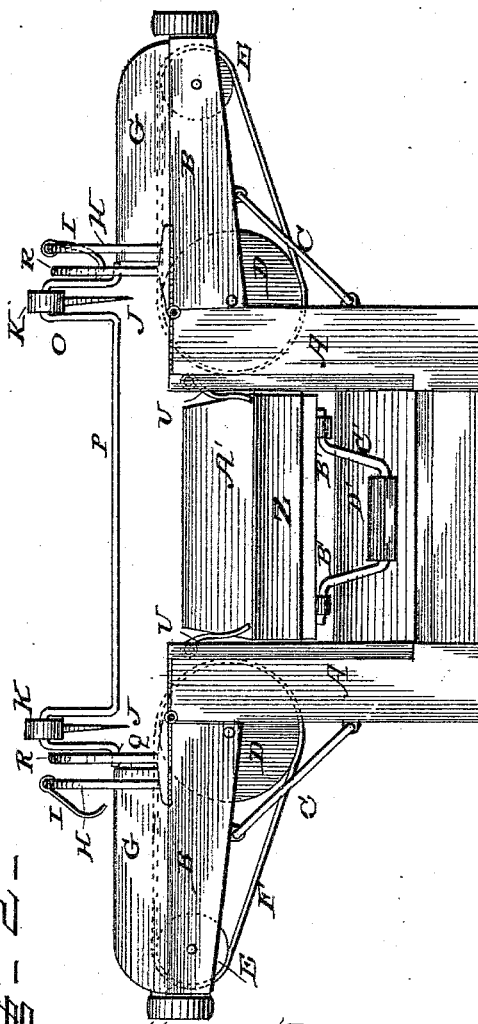


FIG. 2

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INVENTORS

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(No Model.)

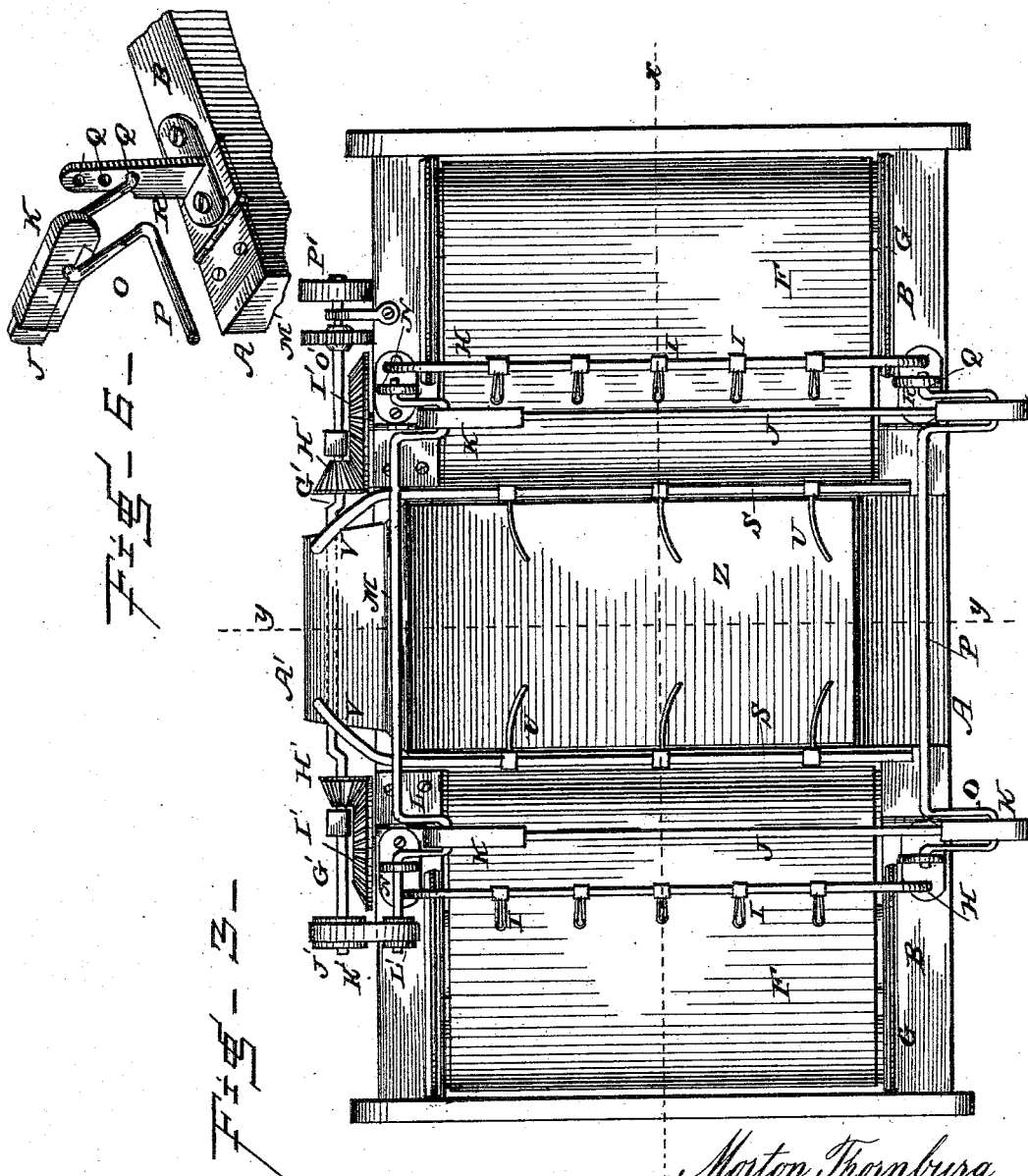
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WITNESSES:

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*Thomas L. Clevenger*  
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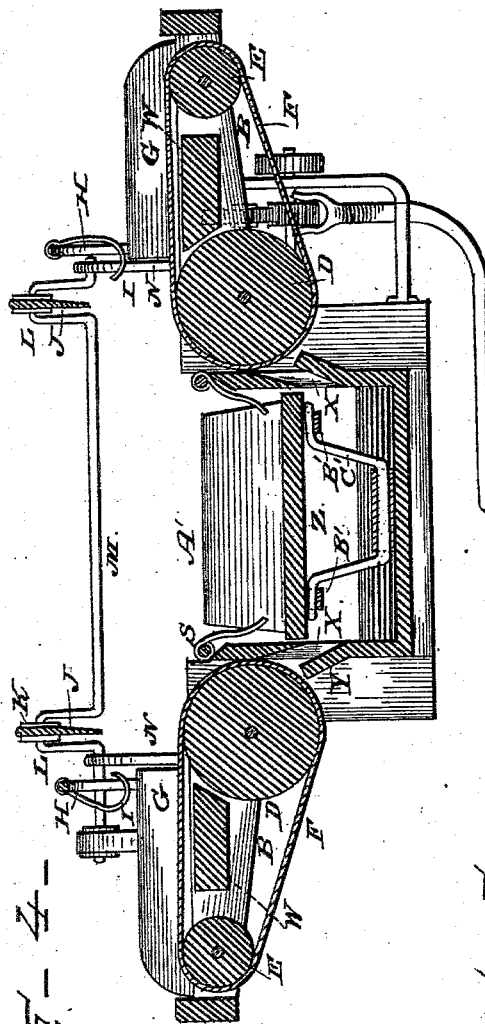


FIG-4-

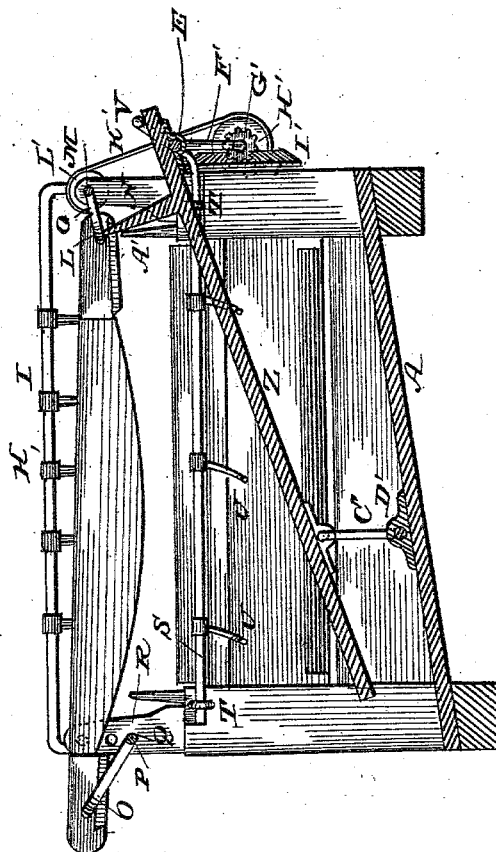


FIG-5-

WITNESSES:

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# UNITED STATES PATENT OFFICE.

MORTON THORNBURG, THOMAS L. CLEVINGER, WILLIAM F. FITZPATRICK,  
AND WILLIAM HOLLOWAY, OF NEFF, INDIANA.

## BAND CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 303,072, dated August 5, 1884.

Application filed March 29, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, MORTON THORNBURG, THOMAS L. CLEVINGER, WILLIAM F. FITZPATRICK, and WILLIAM HOLLOWAY, all of Neff, in the county of Randolph and State of Indiana, have invented certain new and useful Improvements in Band Cutters and Feeders; and we 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, and in which—

Figure 1 is a front view of our improved band cutting and feeding attachment for thrashing-machines. Fig. 2 is a rear view of the same. Fig. 3 is a top view. Figs. 4 and 5 are vertical sections on lines *x x* and *y y*, Fig. 3; and Fig. 6 is a detail view.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to band cutters and feeders for thrashing-machines; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates an inclined chute, which may be attached in any suitable manner to the front or feeding end of a thrashing-machine; and B B indicate two rectangular frames hinged to the upper edges of the sides of the chute, and adapted to be held extended in a horizontal position by means of hooks or braces C. Two large rollers, D D, are journaled transversely in the inner ends of the hinged frames, and two smaller rollers, E E, are journaled in the outer ends of the frames, and have endless aprons, F, running over them and over the larger rollers. The sides of the frames are provided with inwardly-inclined boards, G, and two upright frames, H H, are secured transversely over the inner ends of the frames and aprons, secured in the side pieces of the frames, and are provided upon their horizontal portions with a number of downwardly-projecting and inwardly-curved teeth, I, which prevent too large a quantity of grain from passing from the aprons into the chute. Knives or cutters J are secured with their upper edges in bars

K, forming boxes at their ends, and have their lower cutting-edges bulged toward their middle. The forward ends of the cutter-bars are pivoted upon cranks L upon a shaft, M, turning transversely in bearings N over the forward or receiving end of the chute, and the rear ends of the bars are pivoted upon upwardly-projecting cranks, O, upon a shaft, P, rocking transversely in bearings Q in two uprights, R, upon the rear side pieces of the hinged frames, the said uprights having a number of bearings, allowing the rear ends of the cutters to be raised or lowered according to the size of the sheaves fed upon the aprons. Two shafts, S, are rocking in bearings T in the upper edges of the sides of the chute, and are provided with a number of teeth, U, and are provided at their forward ends with laterally-projecting gravitating arms V, which project in over the forward end of the chute. The hinged frames are provided with transverse boards W, secured in their side pieces, and serving to support the upper sides of the aprons and prevent them from sagging, and the sides of the chute have longitudinal slots X near their lower edges, which slots are provided with inclined boards Y, impinging with their edges against the surfaces of the aprons, collecting loose grain or broken-off heads, which may have passed with the aprons, conducting them to the bottom of the chute. An inclined vibrating feeder, Z, consisting of a board having a transverse upwardly-projecting board, A', at its raised forward end, plays between the sides of the inclined chute, having a box or bearing, B', upon its under side near its rear end, in which box a double crank, C', is hinged, the ends of which crank are hinged in boxes D' in the bottom of the chute, and having a box, E', near its forward end, in which box a double crank, F', upon a crank-shaft, G', journaled across the forward end of the chute, is hinged. This crank-shaft has two beveled pinions, H', at the ends of the crank, which pinions engage two crown-wheels, I', secured upon the forward ends of the shafts of the larger rollers, and one end of the crank-shaft has a pulley, J', secured upon it, over which a belt, K', passes, which passes over another pulley, L', upon the end of the crank-shaft driving the cutters. The other end of the crank-shaft is provided with

a pinion, M', which may mesh with a pinion, N', sliding upon and turning with a shaft, O', having the drive-pulley P' upon its end, which drive-pulley receives its motion from the thrashing-machine. The bifurcated end Q' of a lever, R', fits over the sliding pinion, serving to throw it into or out of engagement with the other pinion. When the cutter and feeder is in operation, the sheaves are pitched upon the two traveling aprons, which carry them under the curved teeth, which prevent more than one sheaf from passing to the cutters at the time, whereupon the cut sheaves are carried upon the vibrating or rocking toothed shakers, which are operated by the forward end of the vibrating feeder striking the inwardly-projecting arms of the rocking shafts, and which shakers spread the cut sheaves, allowing them to fall upon the vibrating feeder, the transverse board upon the forward end of which serves to push the grain into the thrashing-machine as the feeder is vibrated. It will be seen that the rear ends of the cutters may be raised or lowered at will by raising or lowering the ends of the crank-shaft at the rear end of the feeder-chute in the perforations in the uprights at that end, adjusting the cutters to suit the thickness of the sheaves.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a band cutting and feeding attachment for thrashing-machines, the combination of a traveling feeding-apron, a transverse cutter having its lower sharp edge curved at its middle, a rotating crank-shaft having one end of the cutter hinged to its crank, a rocking crank-shaft having the other end of the cutter hinged upon its crank, and two uprights having a number of perforations forming bearings for the ends of the rocking crank-shaft, as and for the purpose shown and set forth.

2. The combination, in a band cutting and feeding attachment for thrashing-machines, of the traveling feeding-aprons, with the inclined feed-chute placed between the feeding-aprons,

and having longitudinal slots in its side pieces, provided with inclined boards or strips impinging with their ends upon the aprons, as and for the purpose shown and set forth.

3. In a band cutting and feeding attachment for thrashing-machines, the combination of two endless feeding-aprons having cutters placed across them, transverse rock-shafts having projecting teeth, and having their ends projecting laterally, the feed-chute placed between the ends of the aprons, and a vibrating feeder adapted to feed the grain into the thrashing-machine and to strike the laterally-projecting arms upon the rock-shafts while vibrating, as and for the purpose shown and set forth.

4. In a band cutting and feeding attachment for thrashing-machines, the combination of an inclined feed-chute, side pieces for the same, constructed with slots and outwardly-inclined boards, two laterally-projecting frames upon the upper edges of its side pieces, endless feeding-aprons traveling in the frames, upright frames placed transversely across the aprons, and having downwardly-pending curved teeth, cutters having curved lower edges, and oscillating across the inner ends of the aprons, toothed shakers rocking in bearings across the inner ends of the aprons, and having inwardly-projecting arms upon their forward ends, a vibrating feeder having a transverse board near its forward or receiving end, a rocking supporting-crank for its delivery end, and a revolving crank-shaft connected with its raised forward end, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

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THOMAS L. CLEVINGER.  
WILLIAM F. FITZPATRICK.  
WILLIAM HOLLOWAY.

Witnesses:

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BENJAMIN F. CLEVINGER.