

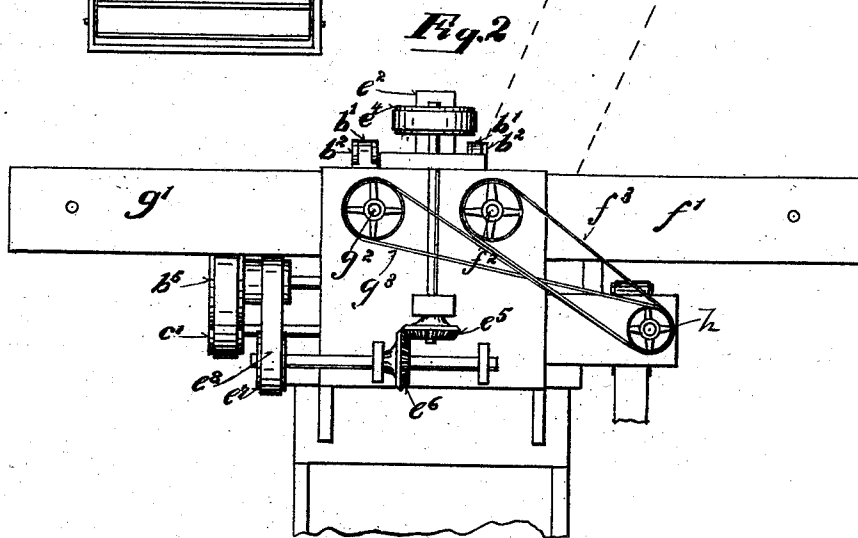
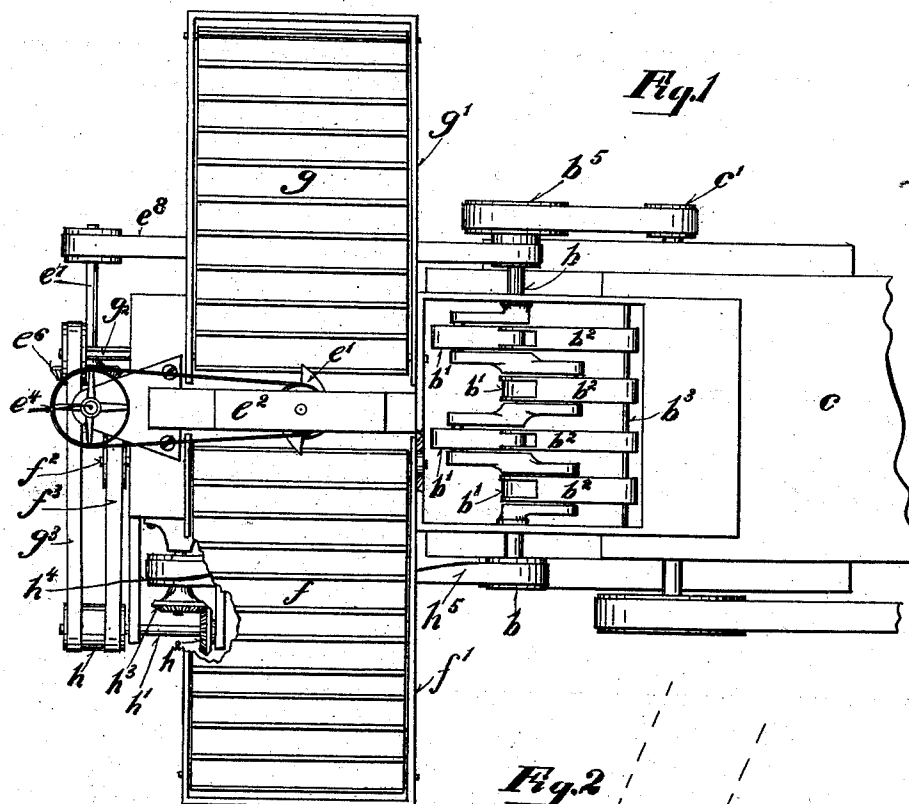
(No Model.)

2 Sheets—Sheet 1.

M. T. MINOGUE.
BAND CUTTER AND FEEDER.

No. 504,990.

Patented Sept. 12, 1893.



WITNESSES:

Ed. B. Ernest

Frankl batt

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Martin T. Minogue

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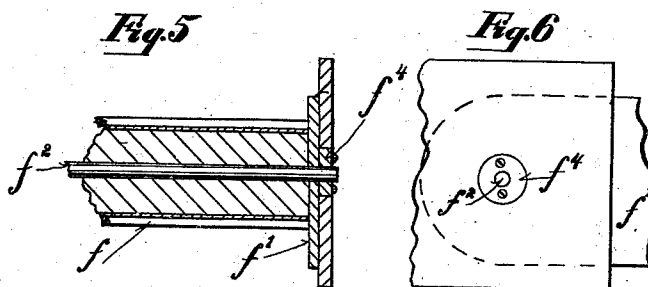
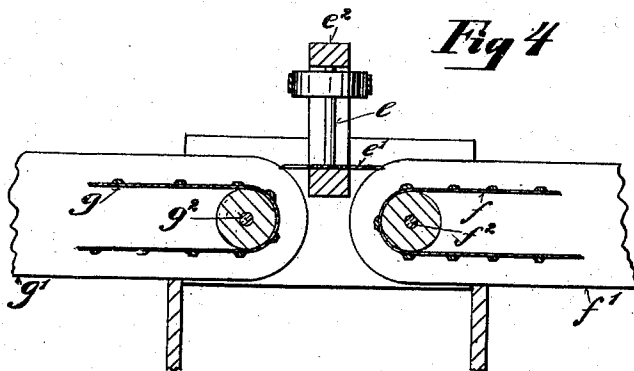
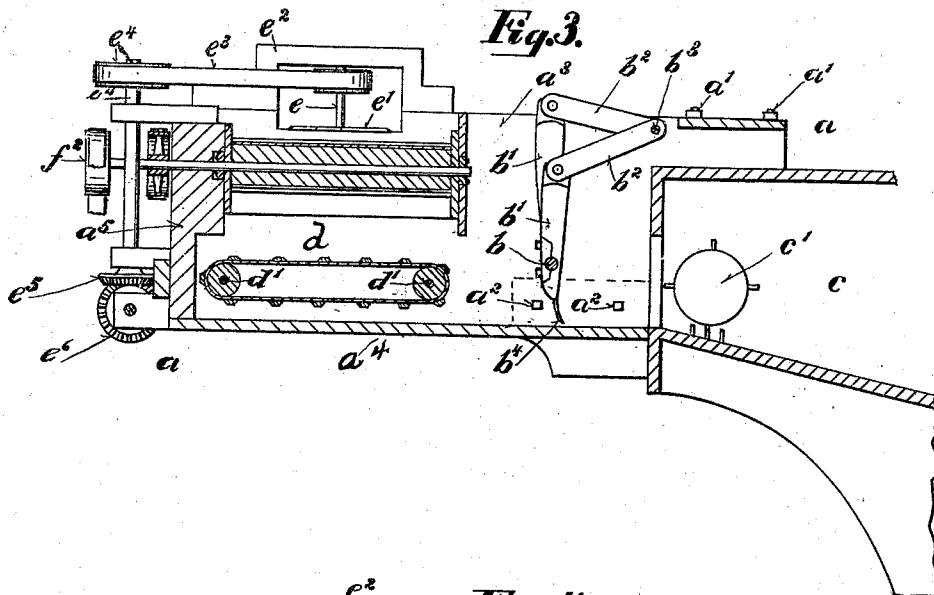
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UNITED STATES PATENT OFFICE.

MARTIN T. MINOGUE, OF SPRINGFIELD, OHIO, ASSIGNOR OF TWO-THIRDS TO
THOMAS REYNOLDS AND PATRICK SHOUVLIN, OF SAME PLACE.

BAND-CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 504,990, dated September 12, 1893.

Application filed June 10, 1893. Serial No. 477,135. (No model.)

To all whom it may concern:

Be it known that I, MARTIN T. MINOGUE, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented a certain new and useful Improvement in Band-Cutters and Feeders, of which the following is a specification.

My invention relates to improvements in band cutters and feeders for thrashing or hulling machines.

The object of my invention is to provide effective mechanism for automatically cutting bands of sheaves or bundles adapted to be fed to a thrashing or hulling machine and automatically feed the material contained in said bundles to the thrasher or huller. I attain these objects by the construction shown in the accompanying drawings, in which—

Figure 1 is a plan view of a device embodying my invention, shown attached to a thrashing machine or huller. Fig. 2 is an end elevation of a portion of the same. Fig. 3 is a longitudinal sectional view, and Fig. 4 is a partial transverse sectional view of the same. Figs. 5 and 6 are detail views referred to hereinafter.

Like parts are represented by similar letters of reference in the several views.

In the said drawings *a* represent the outer frame or casing, on or in which all the parts are supported. *c*, represents a thrashing machine or huller to which the frame *a*, is adapted to be connected by bolts *a'*, *a'*, *a'*, *a'*, the construction being such that the frame *a* and its operating mechanism may be readily attached or detached to or from the huller. The frame or casing *a*, consists essentially of the side pieces *a'*, the bottom *a'*, and the end piece *a'*; the bottom *a'*, being adapted to stand flush with the feeding opening or throat of the thrashing machine or huller and forms the feeding table. Arranged in front of the casing is a transverse shaft *b*, provided with a series of cranks on which are journaled reciprocating arms or levers *b'*, each of which is pivoted to a connecting arm or link *b'*, which links are pivotally connected at their opposite ends to a common shaft *b'*, which also extends transversely across said casing. The vibrating levers *b'*, are each preferably provided at their lower ends with suitable prongs

or engaging projections *b'*, adapted to engage with the material to be fed and move it longitudinally, in the manner hereinafter more fully described. The crank shaft *b*, is driven from the cylinder shaft *c'*, of the thrasher or huller *c*, by means of a belt *b'*. Immediately back of the reciprocating levers *b'*, within the casing *a*, and near the bottom thereof, is an endless carrier *d*, passing at each end over suitable supporting rolls *d'*, to which motion is imparted in the manner hereinafter more fully described. Arranged directly over the endless carrier *d*, is a vertical shaft *e*, which carries a knife *e'*. This shaft *e*, is supported in suitable bearings in a frame *e'*, and is driven by a belt *e'*, from a vertical shaft *e'*, arranged at the rear end of the main frame *a*, and supported in suitable bearings thereon; said vertical shaft being provided at its lower end with a beveled gear *e'*, which meshes with a similar gear *e'*, on a transverse shaft *e'*, connected by a belt *e'*, to the crank shaft *b*. Extending in opposite directions from the frame *e'*, which supports the knife *e'*, are endless carriers *f*, *g*, each being supported in a suitable hinged frame *f'*, *g'*. These carriers *f*, *g*, pass over suitable supporting rolls at each end; the inner rolls being each secured to revolving shafts *f'*, *g'*. Each of the shafts *f'*, *g'*, is connected by suitable belts *f'*, *g'*, to a common pulley *h*, arranged on a shaft *h'*, which carries a beveled gear *h'*, meshing with a similar gear *h'*, on a shaft *h'*, which drives the carrier *d*, and receives motion from a belt *h'*, from the crank shaft *b*. The shafts *f'*, *g'*, from which the respective carriers *f*, *g*, are driven, pass through suitable bearings *f'*, *g'*, which are secured directly to the sides of the carrier frame; said bearings being circular and adapted to form trunnions which project into supporting pieces on the main frame *a*, and thus form pivot or hinged connections between said carriers and said frame, which permit them to be raised or lowered, as indicated in dotted and full lines in Fig. 2.

The knife *c*, consists essentially of a series of curved projecting blades, which are adapted, as the knife revolves, to pass in proximity to the respective carriers *f*, *g*, near the inner ends of said carriers; said knife being located between and slightly above the supporting

rolls which carry the inner ends of said carriers.

The operation of the device as thus described is as follows: The bundles or sheaves to be fed to the thrasher or huller are thrown onto the endless carriers *f*, *g*, which move inwardly toward the knife *e*. As the bundles pass laterally to the center of the main frame or casing, they are engaged by the knife *e*, and the bands on said bundles severed by said knife; the material of the bundles being fed downwardly between the respective endless carriers onto the longitudinal carrier *d*, by which it is carried forward onto the floor or table *a*¹, and engaged by the reciprocating levers *b*, and carried thereby into the cylinder of the thrashing machine or huller; the operation being wholly automatic after the bundles are placed on the respective carriers.

I have shown the form of knife which I preferably employ, but it is obvious that this may be varied.

Having thus described my invention, I claim—

1. The combination with the frame or casing, of a transverse crank shaft having vibrating levers thereon, a longitudinal endless carrier in the rear of said crank shaft, transverse carriers arranged above and adapted to discharge on said longitudinal carrier, and a moving knife arranged centrally between and above said transverse carrier, and means, substantially as described, for driving the respective parts to produce a joint operation thereof, substantially as specified.

2. The combination with the frame or casing having a transverse crank shaft with vibrating levers thereon, a longitudinal carrier arranged in the bottom of said casing, hinged transverse carriers extending laterally in opposite directions from the center of said casing, a moving knife arranged centrally between and above said transverse carriers, supporting shafts for supporting and driving said transverse carriers, and trunnions around

said shafts on which said carriers are pivoted, substantially as specified.

3. The combination, in a band cutting and feeding device, of the longitudinal carrier arranged in the casing, and the transverse carriers arranged above said longitudinal carrier and adapted to discharge thereon, a revolving knife arranged slightly above and centrally between said transverse carriers, and means, substantially as described, for operating the parts simultaneously, substantially as specified.

4. The combination with the outer casing having the side and bottom, as described, the transverse shaft having a series of cranks with vibrating levers thereon, a longitudinal carrier in the rear of said vibrating levers, transverse carriers arranged above said longitudinal carrier and adapted to extend beyond the sides of said casing, said transverse carriers being pivotally supported on the shaft which imparts movement thereto, a revolving knife arranged above and centrally between said carriers, and means, substantially as described, for driving the respective parts simultaneously, substantially as specified.

5. The combination with the longitudinal and transverse carriers, as described, a revolving knife supported in a suitable frame above and between said transverse carriers, a vertical shaft for driving said knife, a transverse shaft having a series of cranks thereon, and vibrating levers on said cranks arranged in front of said longitudinal carrier, a horizontal shaft for driving said transverse carriers, and connections from opposite ends of said crank shaft to the respective shafts which drive said cutter and transverse carriers, substantially as specified.

MARTIN T. MINOGUE.

In presence of—

ROBERT C. RODGERS,
FRANK WATT.