

(No Model.)

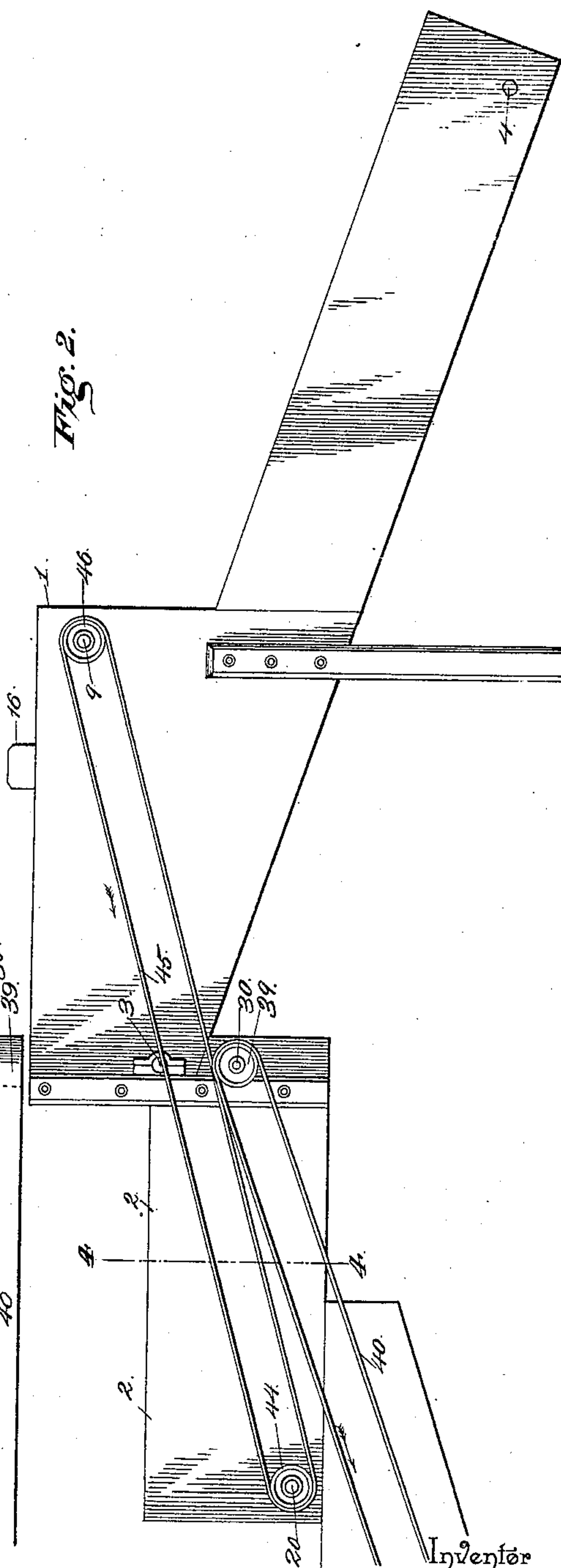
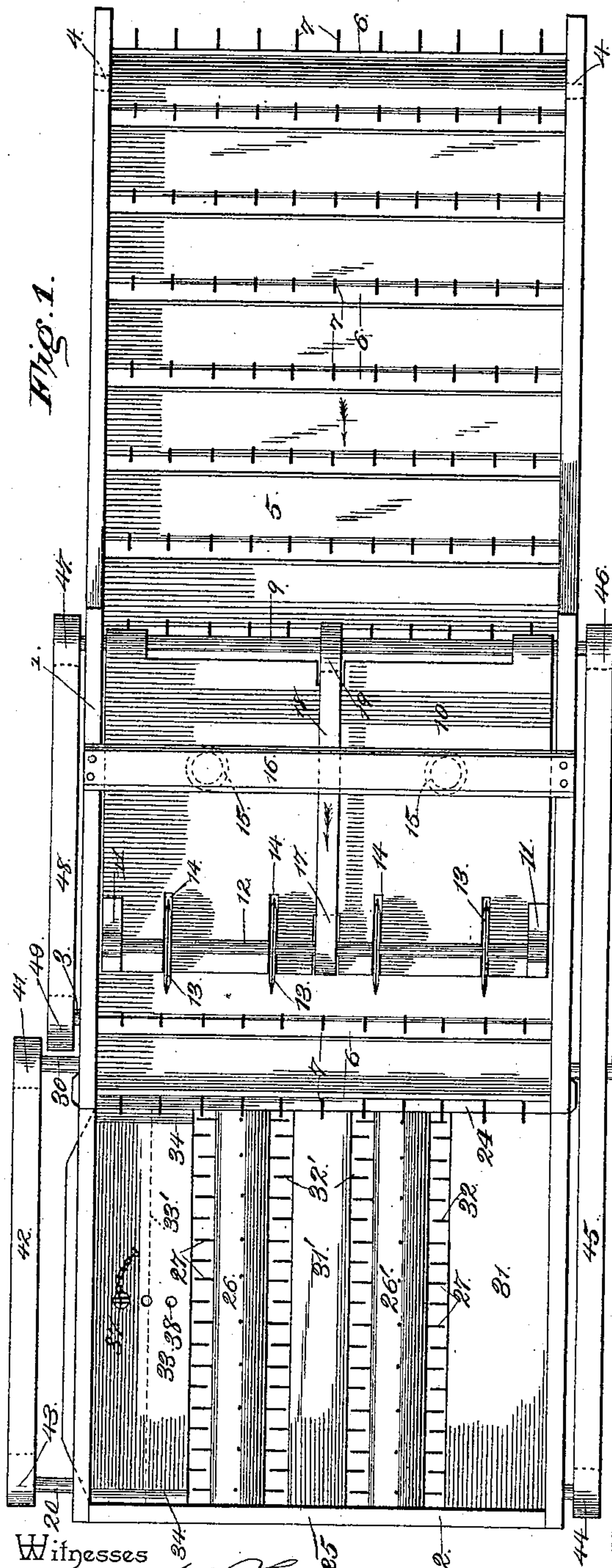
2 Sheets—Sheet 1.

E. J. THICKSTUN.

BAND CUTTER AND FEEDER FOR THRASHING MACHINES.

No. 465,895.

Patented Dec. 29, 1891.



Witnesses

M. E. Fowler

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By his Attorneys,

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Inventor
Edgar J. Thickstun

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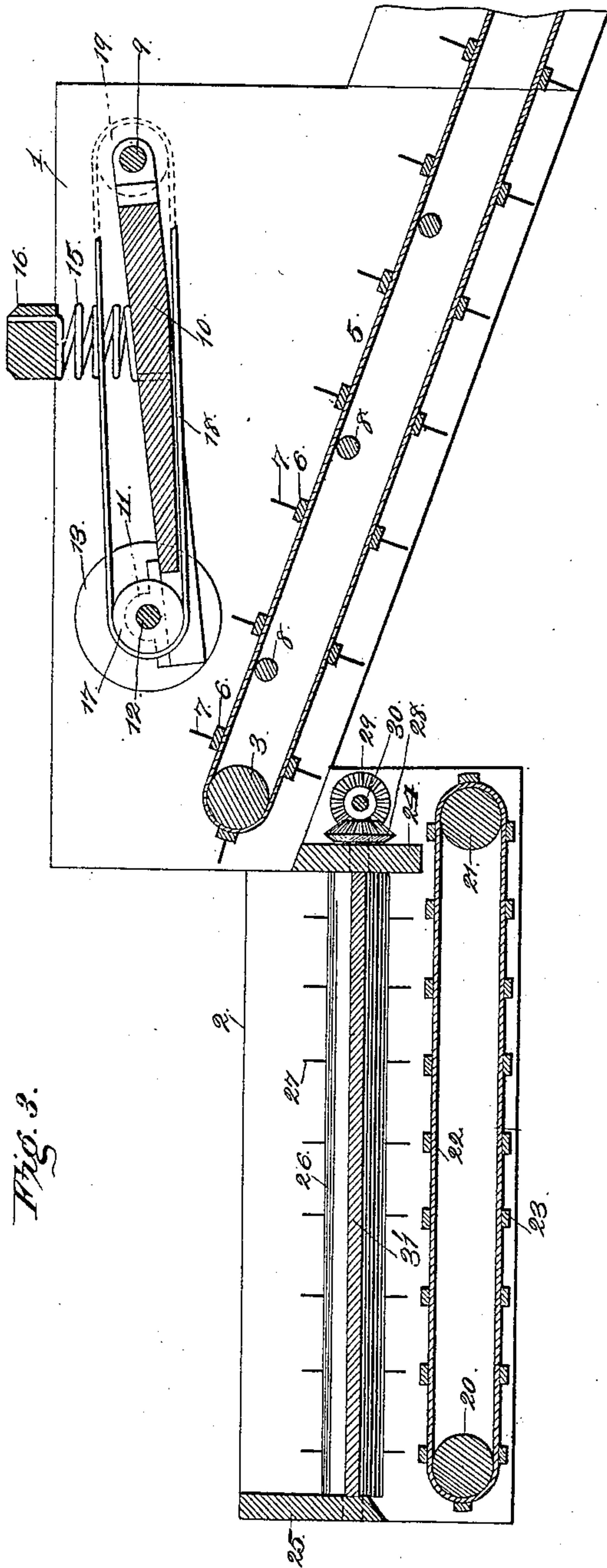


Fig. 3.

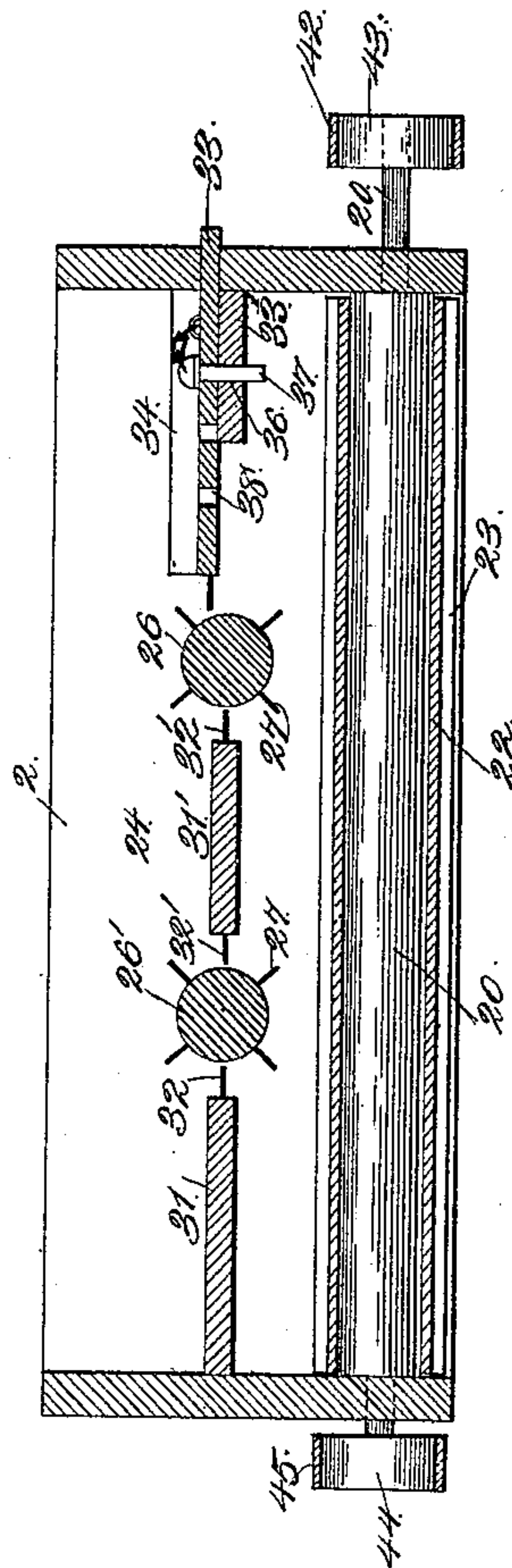


Fig. 4.

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UNITED STATES PATENT OFFICE.

EDGAR J. THICKSTUN, OF BELMONT, INDIANA.

BAND-CUTTER AND FEEDER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 465,895, dated December 29, 1891.

Application filed June 16, 1891. Serial No. 396,509. (No model.)

To all whom it may concern:

Be it known that I, EDGAR J. THICKSTUN, a citizen of the United States, residing at Belmont, in the county of Brown and State of Indiana, have invented a new and useful Band-Cutter and Feeder for Thrashing-Machines, of which the following is a specification.

This invention relates to band-cutters and feeders for thrashing-machines; and it has for its object to provide a device of this class which shall be simple in construction and effective in operation, and by means of which bundles of various sizes may be fed and their bands be cut with precision and certainty.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a plan view of a combined feeder and band-cutter constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal vertical sectional view. Fig. 4 is a vertical transverse sectional view taken on the line 4 4 in Fig. 2.

Like numerals of reference indicate like parts in all the figures.

My improved band-cutter and feeder comprises an upper and a lower frame or casing designated, respectively, by 1 and 2. The upper casing 1 is provided at its front and rear ends with shafts 3 and 4, supporting an endless carrier 5, consisting of an apron provided with transverse slats 6, having outwardly-extending teeth or prongs 7. A series of guide-rollers 8, arranged between the shafts 3 and 4, serve to support the upper portion of the endless apron or carrier, so as to prevent the latter from sagging.

9 designates a shaft which is journaled transversely in the frame or casing 1 above the endless carrier 5. Upon the shaft 9 is journaled a frame 10, having boxes or bearings 11 for a transverse shaft 12, upon which a series of circular knives or cutting-disks 13 are mounted, said cutters being accommodated in slots 14 in the plate or frame 10. Coiled springs 15 are interposed between the latter and a cross-bar 16, which is attached to the

upper edges of the casing 1, thus forcing the cutter-frame in a downward direction toward the endless carrier 5. The shaft 12 has a pulley 17, which is connected by a belt 18 with a pulley 19 upon the shaft 9.

The frame or casing 2 is provided at its lower end with transverse shafts 20 and 21, journaled, respectively, at the front and rear corners and supporting the endless carrier 22, which consists of an apron having transverse slats 23. The casing 2 has the front wall 24 and a rear wall 25, both of which are arranged above the endless carrier 22. The front and rear walls 24 and 25 have bearings for shafts or cylinders 26 and 26', having radially-extending teeth or prongs 27, and the front ends of said shafts have bevel-gears 28, meshing with bevel-gears 29 on a shaft 30, which is journaled transversely of the casing 2 in front of the front wall of the latter. The front and rear walls of the casing 2 are connected at one side of the toothed cylinder 26' by a bottom board 31, having inwardly-extending teeth or fingers 32 between the cylinders, by a board 31', having fingers 32' on each edge, and at the other side by a board 33' without fingers.

33 is a slide having fingers on its inner edge, and this slide moves between cleats 34 on the said end walls of the casing and over the board 33'. The latter has a perforation 36, adapted to register with others 38 in the slide 33 as the latter is moved, and 37 is a bolt or pin, which may be inserted through any one of the series of perforations 38, for the purpose of retaining the slide in any position to which it may be adjusted.

The shaft 30 is provided at one end with a drum or band-wheel 39, adapted to be connected by a belt 40 with a band-wheel upon one of the shafts of the thrashing-machine to which my improved band-cutter and feeder is attached for operation, or with any other suitable source of power. The opposite end of the shaft 30 has a pulley 41, which is connected by a belt 42 with a pulley 43, on one end of the shaft 20, the opposite end of which has a pulley 44, connected by a belt 45 with a pulley 46 on one end of the shaft 9. The opposite end of the latter has a pulley 47, connected by a belt 48 with a pulley 49 upon the shaft 3, supporting the rear end of the

endless carrier 5. Motion is in this manner transmitted in the proper direction to the working parts of the machine.

In operation the sheaves or bundles are
 5 pitched upon the front end of the endless carrier 5, whereby they are carried under the hinged frame carrying the knives or cutters, which are pressed yieldingly against the sheaves or bundles, so as to sever the bands,
 10 after which the loose grain is discharged into the casing 2. The toothed rollers 26 26' will then feed the grain to the endless carrier 22, by which it is carried to the cylinder of the thrashing-machine, to the front end of which
 15 my improved band-cutter and feeder has been suitably attached for operation. The hinged and yielding spring-actuated frame in which the knives or cutters are mounted will readily adapt itself to sheaves or bundles of various sizes, thus causing the bands to be cut
 20 with certainty and accuracy. The rapidity of the feed will be regulated by properly adjusting the slide 33.

Having thus described my invention, what
 25 I claim is—

1. In a device of the class described, the combination, with the band-cutter and the endless carrier arranged below the same, of the feeder-casing, the bottom board in the latter having laterally-extending teeth, the longitudinally-arranged toothed cylinder, the regulating-slide, the endless carrier arranged
 30 below the toothed cylinder, and suitable operating mechanism, substantially as and for the purpose set forth.

erating mechanism, substantially as and for the purpose set forth.

2. In a device of the class described, the combination of the band-cutter, the endless carrier arranged below the same, the feeder-casing arranged below the discharge end of said endless carrier, the longitudinally-arranged toothed cylinder mounted in the feeder-casing, and an endless carrier arranged below said cylinder, substantially as and for the purpose set forth.

3. The combination of the feeder-casing, toothed cylinders arranged longitudinally in the same, the side bottom board in said casing having fingers on its inner edge, the center bottom board between the cylinders having fingers on both edges, the plain bottom board at the other side of the cylinders having perforations, the cleats in the casing, the slide having fingers on its inner edge, and perforations adapted to register with those in the plain bottom board, said slide moving over the plain board and between said cleats, and a pin removably engaging a pair of registering perforations, substantially as and for the purpose set forth.

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

EDGAR J. THICKSTUN.

Witnesses:

RICHARD L. COFFEY,
 JAMES L. TILTON.