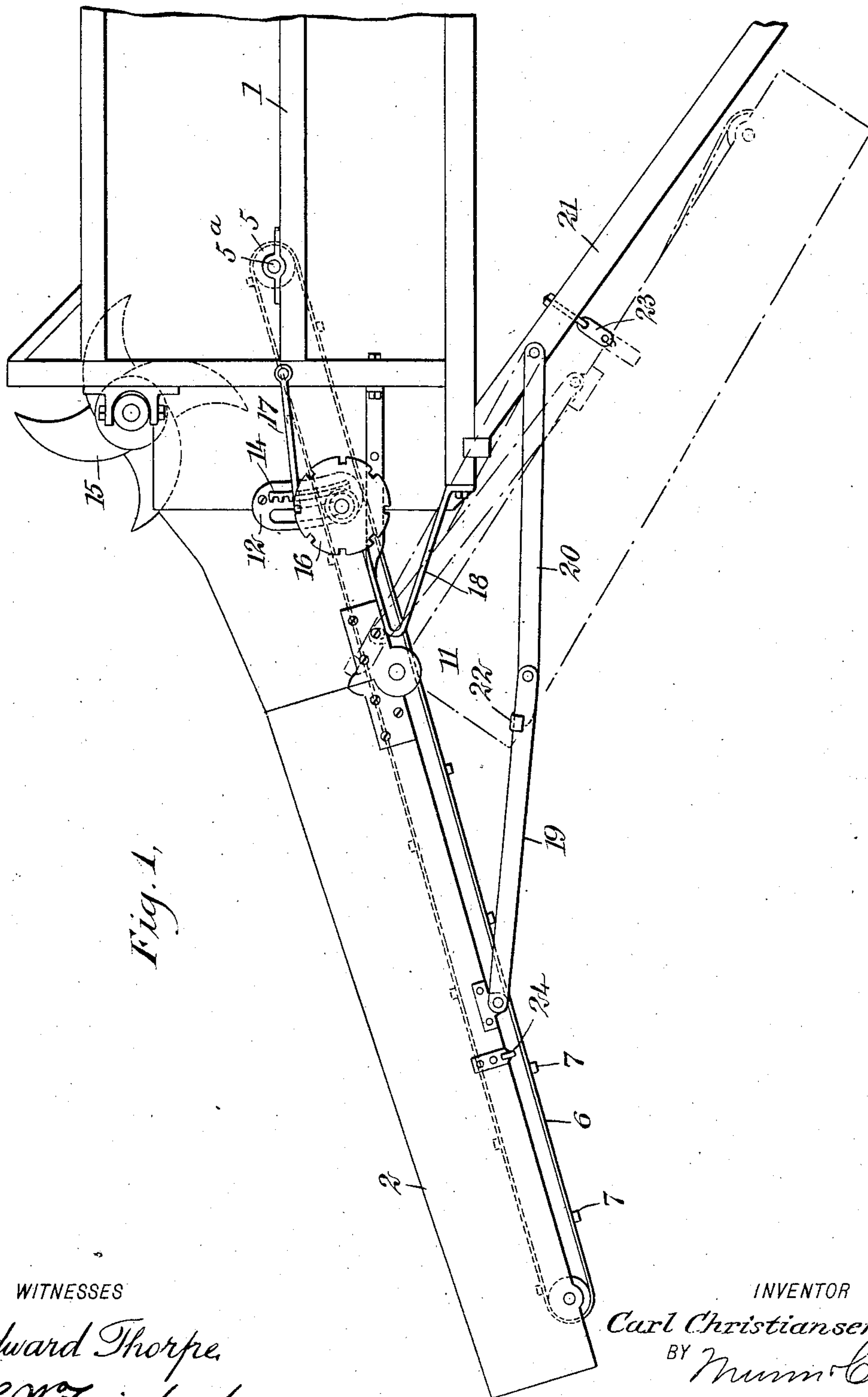


No. 865,867.

PATENTED SEPT. 10, 1907.

C. CHRISTIANSEN.  
BAND CUTTER AND FEEDER.  
APPLICATION FILED SEPT. 26, 1906.

2 SHEETS—SHEET 1.



WITNESSES

Edward Thorpe  
C. W. Fairbank

INVENTOR

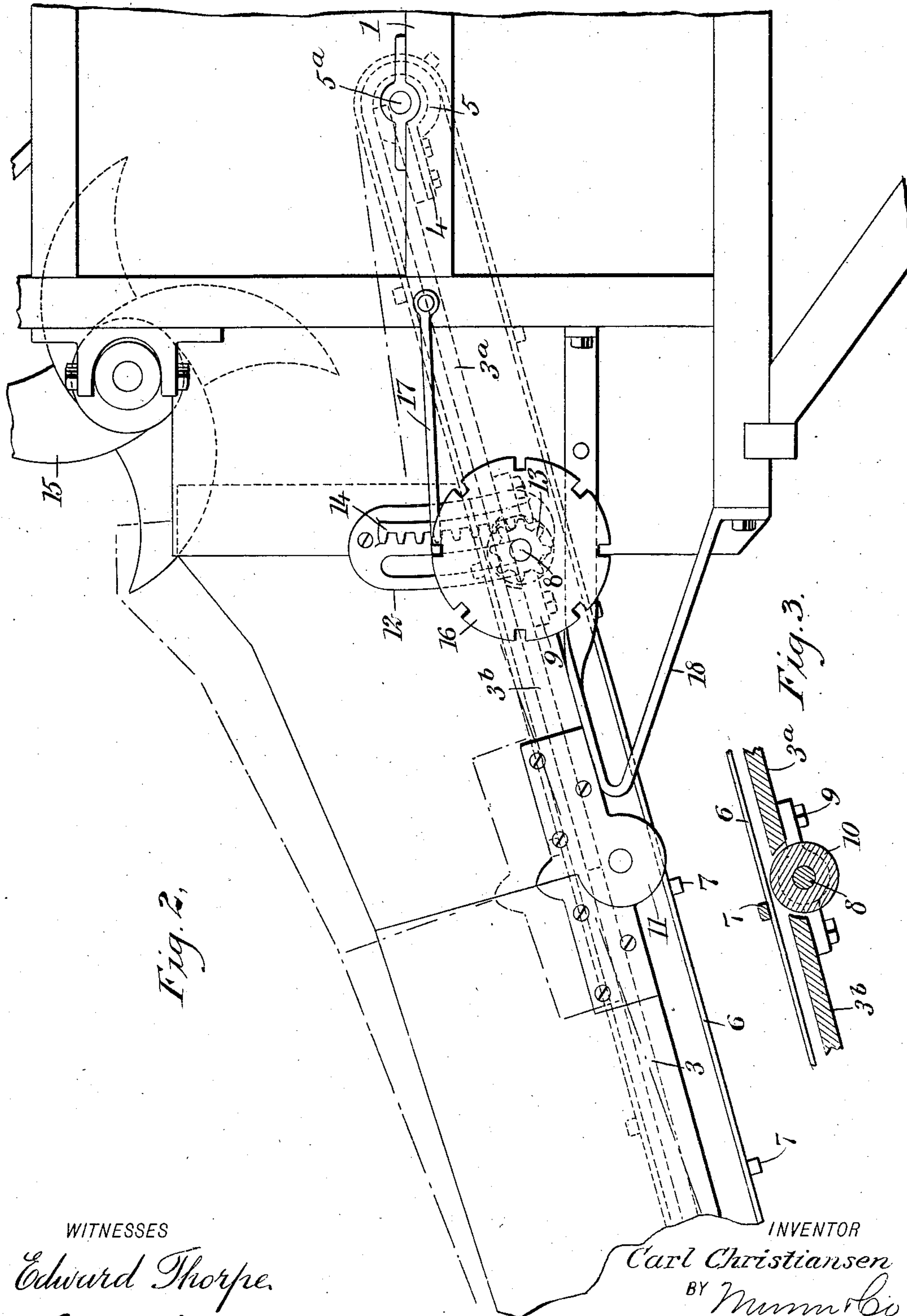
Carl Christiansen  
BY *Mum Co*  
ATTORNEYS

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Edward Thorpe.  
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# UNITED STATES PATENT OFFICE.

CARL CHRISTIANSEN, OF CROOKSTON, MINNESOTA.

## BAND-CUTTER AND FEEDER.

No. 865,867.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed September 26, 1906. Serial No. 336,258.

*To all whom it may concern:*

Be it known that I, CARL CHRISTIANSEN, a citizen of the United States, and a resident of Crookston, in the county of Polk and State of Minnesota, have invented a new and Improved Band-Cutter and Feeder, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in threshing machines, and more particularly to the mechanism for carrying the bundles of grain to the band cutter as they are fed into the machine, and the object of the invention is to provide a carrier which may be conveniently folded out of the way when not in use, and which may be very quickly and rigidly secured in place when it is desired to employ the same during the operation of the machine.

A further object of the invention is to provide means whereby the carrier may be so adjusted that the floor thereof may be brought nearer to or further from the blades of the band cutter and held in the adjusted position.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, in which

Figure 1 is a side elevation of my improved carrier for band cutters, showing the same in its extended position, and indicated in dotted lines the position occupied when the device is folded up; Fig. 2 is a side elevation of a portion shown in Fig. 1 but on a somewhat larger scale; and Fig. 3 is a sectional detail on the main folding hinge.

My invention is adapted to be applied to threshing machines, and in the drawings I have illustrated a portion of one end of the feeder of such a machine. The bundles of grain after the band has been cut are fed into the machine on a platform 1 within the main framework, and my improved carrier is secured to the end of the machine in such a manner as to deliver the bundles to this platform and pass them beneath the band cutting knives. The carrier comprises side walls 2 and a bottom wall 3, the side walls being rigidly secured to the bottom wall and the latter being hinged at two points adjacent the body of the machine. The inner end of the bottom is hinged to the platform beyond the band-cutting knives and means are provided between the two inner hinged sections for raising and lowering the same. The bottom section 3<sup>a</sup>, which is nearest the machine, is provided with pivot bars 4 journaled on the shaft 5<sup>a</sup> on the body of the machine. This shaft is connected to the operating mechanism of the machine, so that it may be rotated, and it carries a roller 5 over which passes the band belt 6 of the carrier. If desired, this belt may be provided with slats which serve to prevent the bundles of grain from sliding down the belt when the latter is pitched at too steep an angle. The outer end of the bottom section 3<sup>a</sup> is hinged to the intermedi-

ate section 3<sup>b</sup> at a point adjacent the end of the body of the machine, and the hinge pin 8 of the hinges 9 is provided with an anti-friction roller 10 extending up through an opening in the bottom between the sections 3<sup>a</sup> and 3<sup>b</sup>. The side walls are provided with hinges 11 at a point adjacent the ends of the bottom section 3 and the intermediate bottom section 3<sup>b</sup>, and it is upon this hinge that the main carriage is folded up when the device is not being used. The hinge pin 8 of the hinges 9 extends through a curved slot in a plate 12 secured to the frame of the machine, and the hinge pin 8 is provided with a gear wheel 13 meshing with a curved rack-bar 14 carried by the plate 12.

By rotating the hinge pin 8 in any suitable manner, the gear wheel 13 is caused to travel up the rack-bar and raise the carrier at this point so as to elevate the bottom section 3<sup>a</sup>, which lies beneath the cutter knives 15, and thus provide less space between the bottom section and said knives. The outer end of the hinge pin 8 is provided with a wheel 16, having notches around its circumference into which the end of a pivoted bar 17 may extend to lock the parts in a raised or lowered position.

The bottom sections 3<sup>a</sup> and 3<sup>b</sup> extend normally in a straight line, as indicated in Fig. 2, but when the inner section 3<sup>a</sup> is raised on the hinges 4, the parts bend at this point and the anti-friction roller 10 supports the carrier belt as it passes over the raised portion. The main frame carries a supporting bar or bracket 18 adapted to support the carrier when in a lowered position, as clearly indicated in the drawings.

For supporting the carrier in its extended position, I provide a brace made up of two sections 19 and 20, pivoted together and having the outer ends pivoted to the under side of the carrier at a point intermediate its ends, and pivoted to a suitable support 21 on the under side of the main frame of the machine. One of the parts, namely 20, extends a short distance beyond the joining pivot pin, and is provided with a suitable hook 22 which prevents the sections from bending downward at the pivot pin, but permits them to freely bend upward. The support 21 also carries a link 23, adapted to engage with a hook 24 on the carrier when the latter is in the folded position. In order to fold the carrier, all that is necessary is to raise the central portion of the brace and the outer ends may then be lowered and swung in the position shown in dotted lines in Fig. 1. The link 23 is then secured to the hook 24, and the parts are rigidly held in the desired position. It will thus be seen that my improved carrier may be so adjusted as to bring the cutter knives at any desired distance from the bottom of the carrier, so that the bands on bundles of any desired size may be cut with ease, while the entire carrier when not in use may be folded to a position where it is completely out of the way



and occupies a position from which it may be swung into use upon a moment's notice.

When it is desired to unfold the carrier, all that is necessary is to detach the links 23 from the hooks 24 5 and swing the outer ends to the position shown in solid lines in Fig. 1. The supporting brace automatically falls to the position desired and no adjustment of any kind is necessary to lock the carrier in its extended position.

10 Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In combination, a cutter, a conveyer located adjacent thereto, means for supporting said conveyer, comprising side walls, a bottom wall made up of hinged sections, a 15 hinge pin upon which said sections are secured, a pinion on said hinge pin, a stationary rack bar in engagement therewith, and means in engagement with the pinion for

preventing the rotation of said pinion, whereby upon rotating the pinion the position of the support for the conveyer may be adjusted in respect to the cutter and the 20 parts may be locked in their adjusted position.

2. In combination, an endless carrier, a suitable support for said carrier, a cutter mounted above said carrier, and means for adjusting the position of the carrier in respect to the cutter, said adjusting means comprising a 25 stationary plate having a curved slot therein and a curved rack bar adjacent said slot, a shaft mounted on said carrier and extending through said slot, a pinion on said shaft and in engagement with said rack bar, means for rotating said shaft, and means for locking said shaft in 30 its adjusted position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.  
CARL CHRISTIANSEN.

Witnesses:

OSCAR FREDRICKS,  
HUGH R. ROBERTSON.