

No. 702,164.

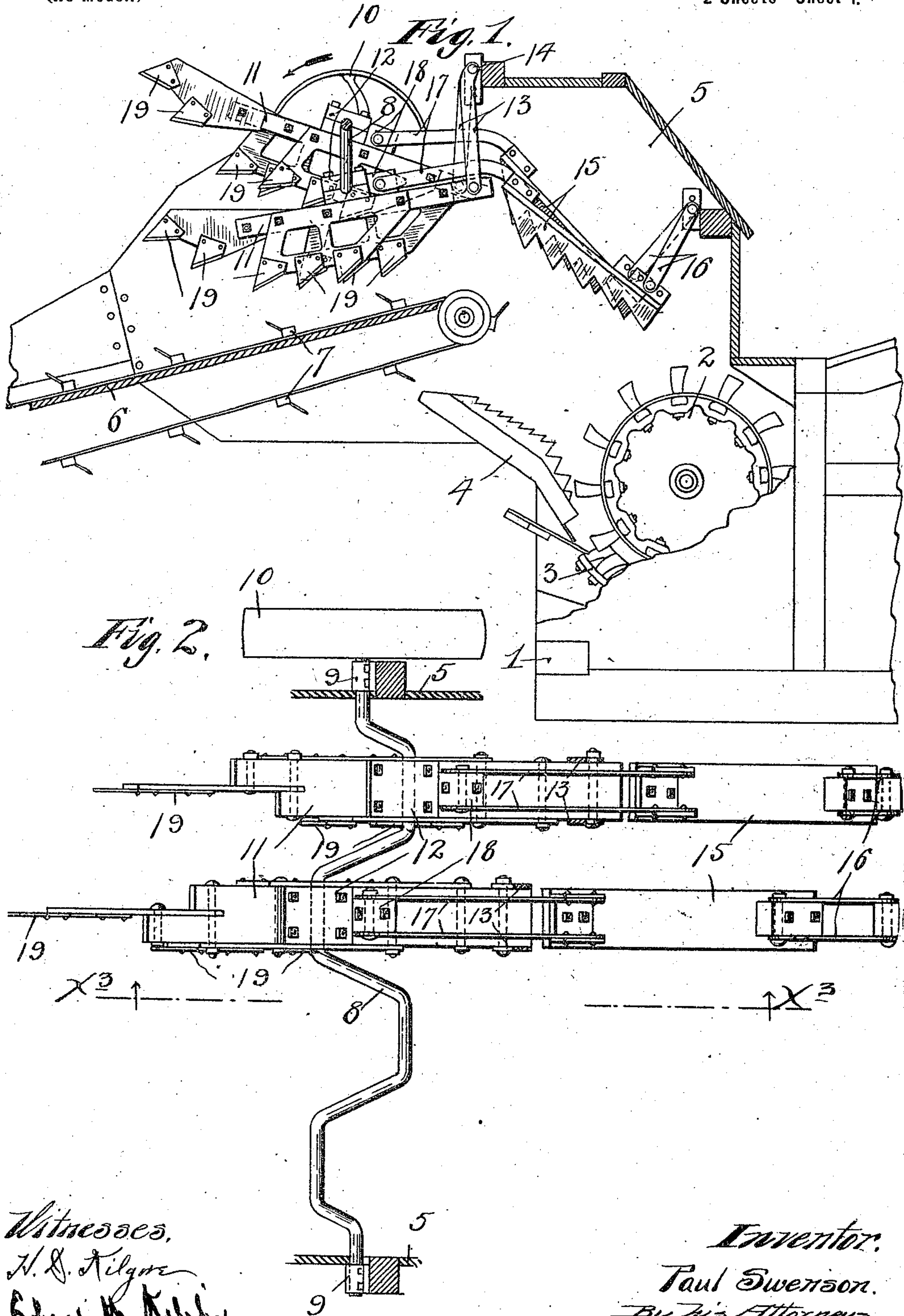
Patented June 10, 1902.

P. SWENSON.
BAND CUTTER AND FEEDER.

(Application filed Dec. 16, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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2 Sheets—Sheet 2.

Fig. 3.

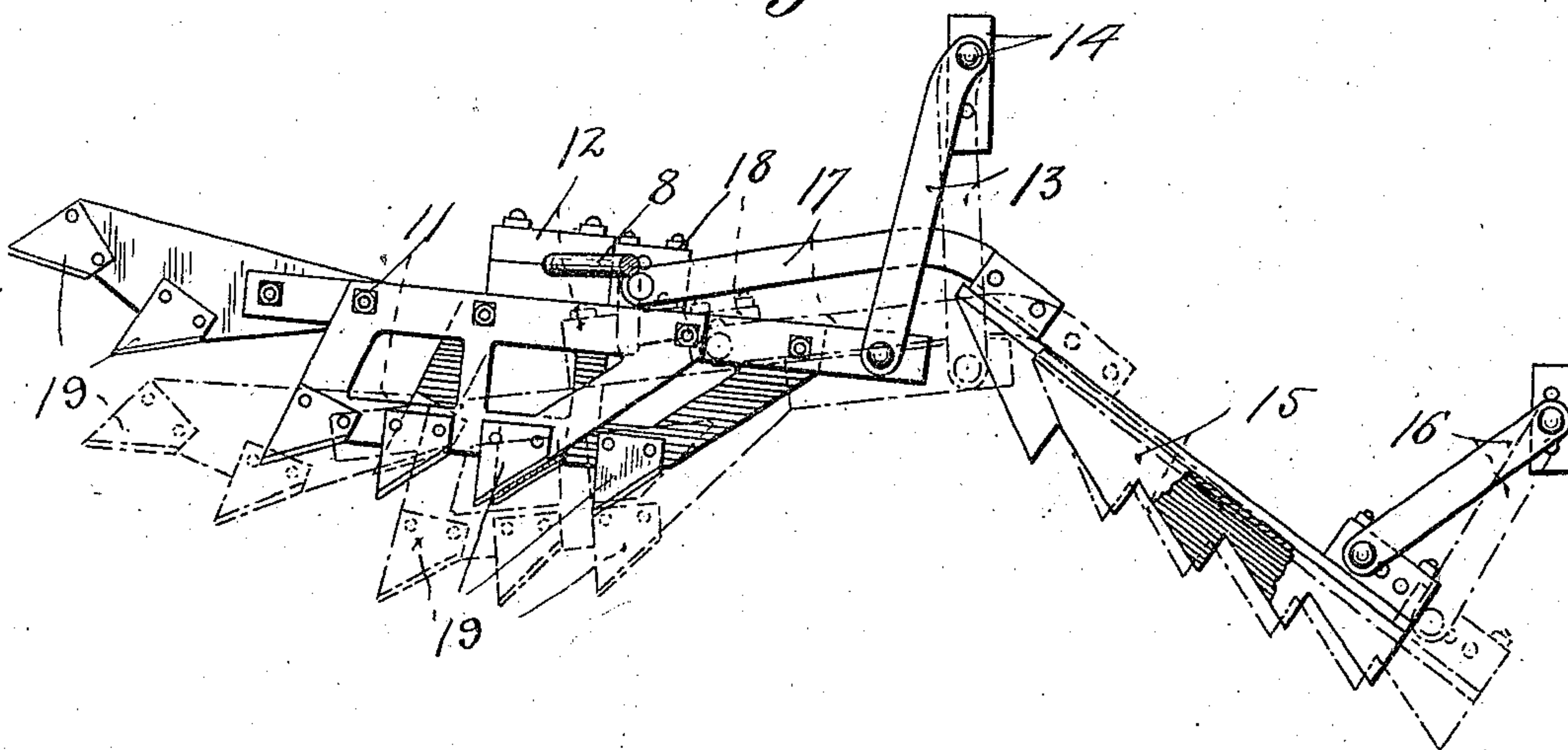
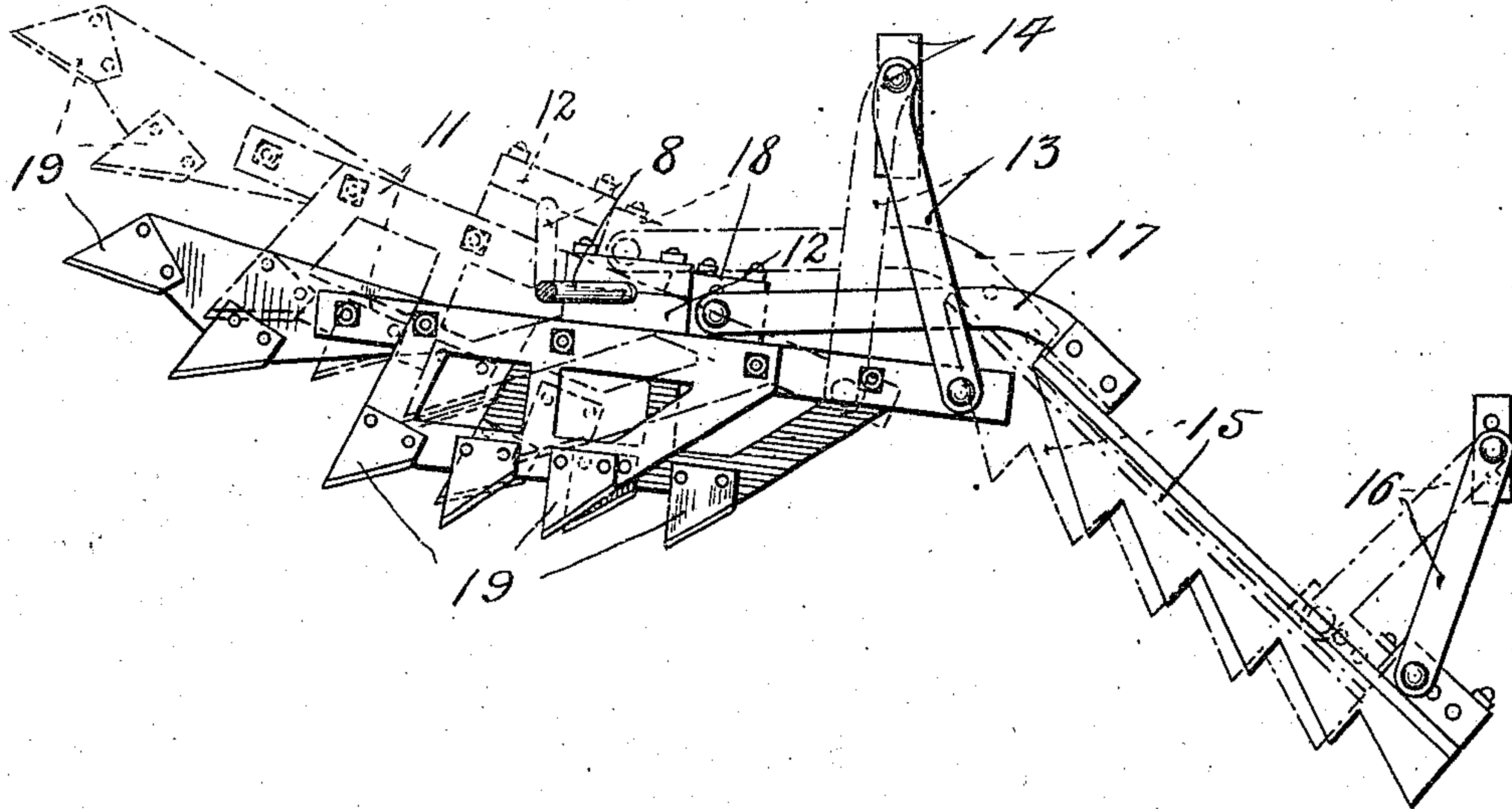


Fig. 4.



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UNITED STATES PATENT OFFICE.

PAUL SWENSON, OF HOPKINS, MINNESOTA.

BAND-CUTTER AND FEEDER.

SPECIFICATION forming part of Letters Patent No. 702,164, dated June 10, 1902.

Application filed December 16, 1901. Serial No. 86,029. (No model.)

To all whom it may concern:

Be it known that I, PAUL SWENSON, a citizen of the United States, residing at Hopkins, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Band-Cutters and Feeders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to band-cutters and feeders, and has for its especial object to provide means whereby more efficient movements are given both to the cutter-bars and to the overhead feed-bars.

The invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a view, partly in vertical section and partly in side elevation, showing a portion of a threshing-machine and a band-cutter and feeder, the latter embodying my invention. Fig. 2 is a detail view, partly in plan and partly in horizontal section and with some parts broken away and others removed, showing the cutter-bars, overhead feed-bars, and crank for driving the same. Fig. 3 is a detail in side elevation, with some parts broken away and others sectioned approximately in the line $x^3 x^3$ of Fig. 2, showing the cutter-bars, overhead feed-bars, and supports for the same. Fig. 4 is a view corresponding to Fig. 3, but showing the parts in different positions.

Of the parts of the threshing-machine or separator proper the numeral 1 indicates the case or inclosing frame, the numeral 2 the threshing-cylinder, the numeral 3 the toothed concave, and the numeral 4 the lower or underserrated feed-pan, which feed-pan receives a vibratory motion in the ordinary or any suitable way by means not illustrated.

The numeral 5 indicates the hood of the band-cutter and feeder frame, which hood, as is usual, connects with the separator-case 1 in the vicinity of the cylinder 2.

The numeral 6 indicates the feed-table, and the numeral 7 the endless conveyer, which

runs over the same and delivers the unthreshed grain onto the vibrating feed-pan 4 of the separator.

The numeral 8 indicates a transversely-extended crank-shaft mounted in suitable bearings 9 on the sides of the hood 5 and provided at one end with a pulley 10, over which a power-driven belt (not shown) runs to impart motion to the said crank-shaft. The cutter-bars 11 are carried by this crank-shaft 8, and, as shown, they are provided with bearing-boxes 12, by means of which they are journaled to the crank portions of said shaft. At their forward ends the cutter-bars are pivoted to the depending free ends of links 13, the upper ends of which links are pivoted to suitable supports 14 on the hood 5.

The overhead serrated cutter-bars 15 are supported at their forward ends from the hood 5 by links 16, and at their rear ends they are provided with projecting metal straps 17, which are pivotally connected at their rear ends to the cutter-bars 11, preferably to blocks or lugs 18, secured directly in front of their bearing-boxes 12. The cutter-bars 11 are, as is usual, provided with a plurality of beveled knife-sections 19.

It will be noted that the links 13 and 16 are each formed by a pair of laterally-spaced straps. The extensions 17 of the overhead feed-bars 15 are also preferably afforded by pairs of parallel straps which work between the straps of cooperating links 13.

Prior to my present invention it has been customary to rigidly connect or integrally form the cutter-bars with the serrated overhead feed-bars, in which case, of course, the intermediate links 13 have not been employed. I have found that more efficient movements, both of the cutter-bars and of the overhead feed-bars, may be obtained by forming them separately and pivotally connecting the same, as illustrated in the drawings. Under the upward or return movements of the cutter-bars the links 13 cause the rear ends of said bars to rise higher and then to descend more rapidly than in the prior arrangement noted; also, the overhead feed-bars 15 are given an endwise movement more directly in the direction of the line of feed to the threshing-cylinder.

By the full and dotted lines in Figs. 1, 3,

and 4 various positions of the cutter-bars and overhead feed-bars are fully shown. It will of course be understood that the invention above described is capable of some modification as to detail within the scope of my invention as herein set forth and claimed.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. In a band-cutter and feeder, the combination with the rotary crank-shaft, of a cutter-bar carried by said crank-shaft and supported at its forward end by an oscillating link, and a toothed or serrated overhead feed-bar extending forward of said cutter-bar and supported at its forward end by an independently-oscillating link and pivotally connected at its rear end to said cutter-bar, substantially as described.

2. In a band-cutter and feeder, the combination with a rotary crank-shaft 8, of a plurality of cutter-bars 11 carried by said crank-shaft, links 13 pivotally connecting the forward ends of said bars 11 to an overhead support, the overhead feed-bars 15 having the extensions 17 pivoted to said cutter-bars at 18 and overlapping said links 13, and the links 16 supporting the forward ends of said bars 15 from an overhead support, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL SWENSON.

Witnesses:

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