

No. 702,345.

Patented June 10, 1902.

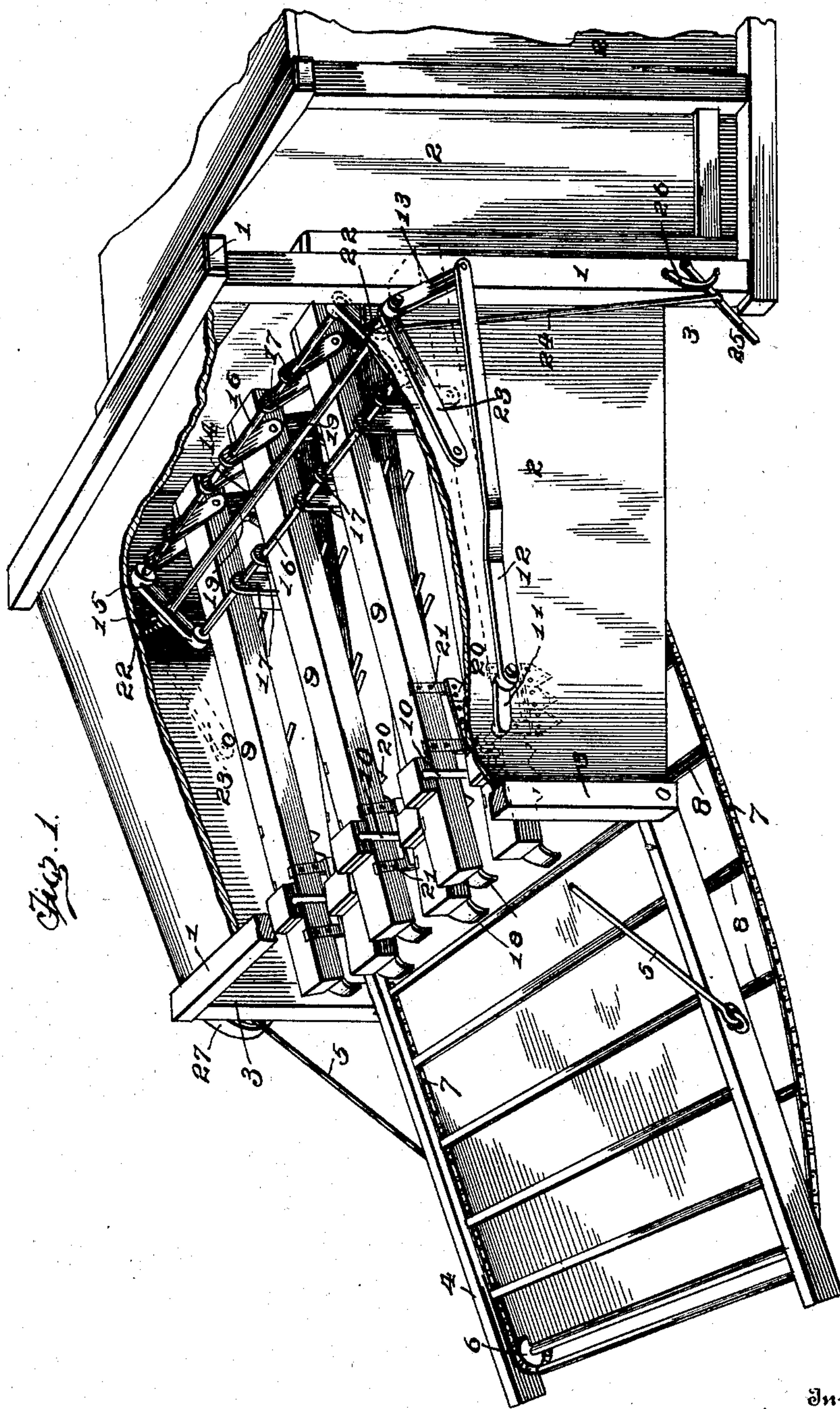
R. DAVIES.

THRESHING MACHINE,

(Application filed Sept. 22, 1900.)

(No Model.)

3 Sheets—Sheet 1.



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Witnesses

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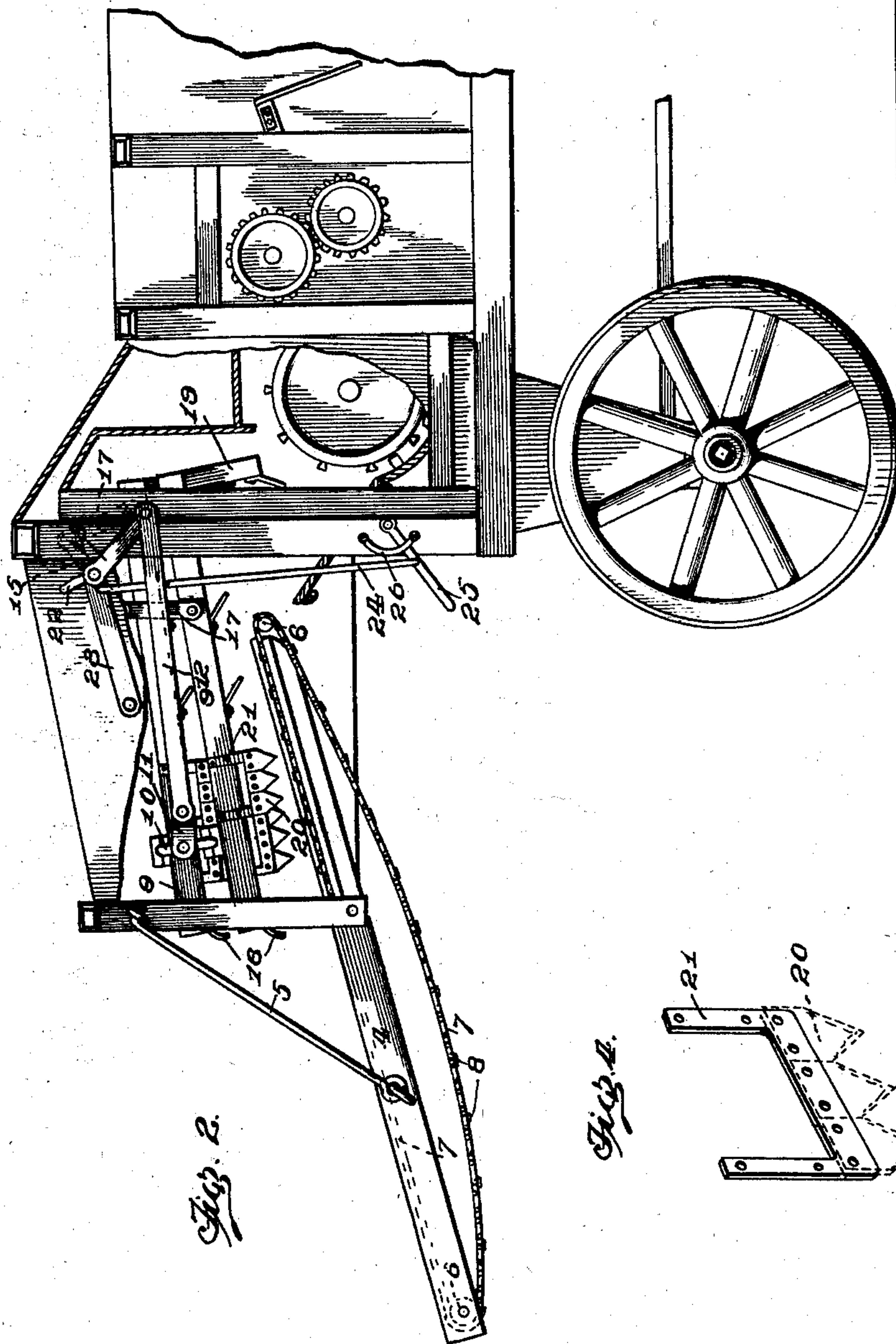
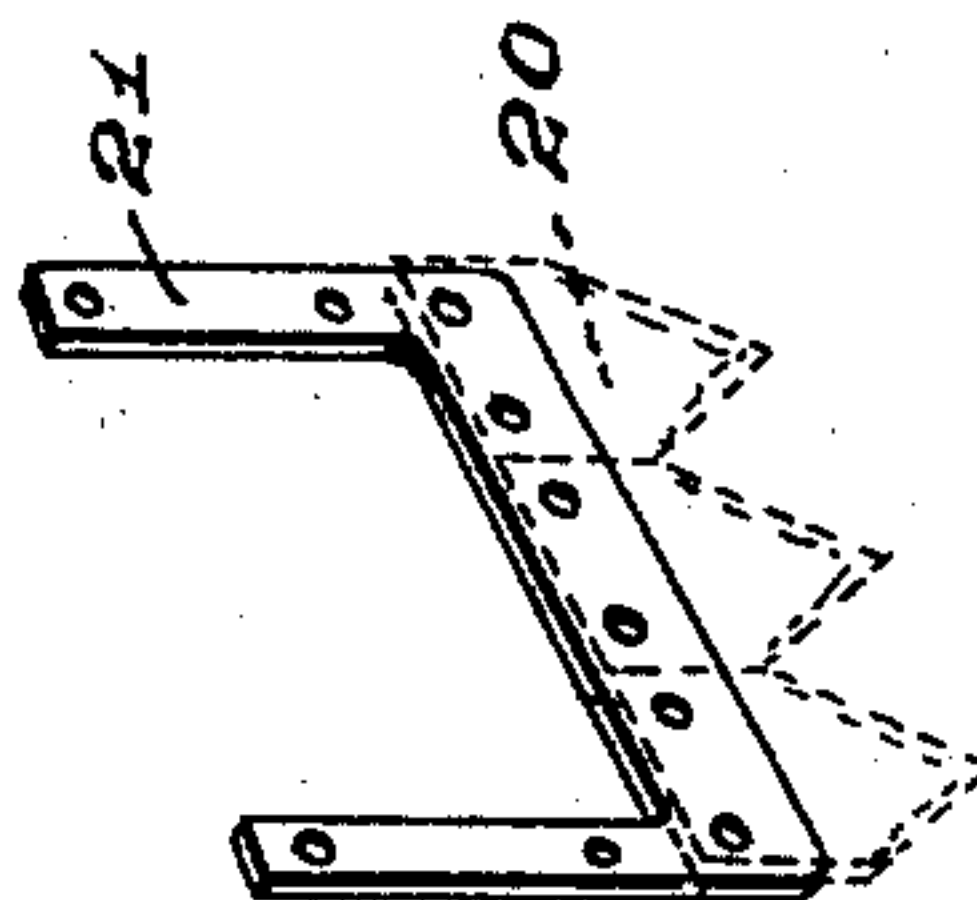


Fig. 2.



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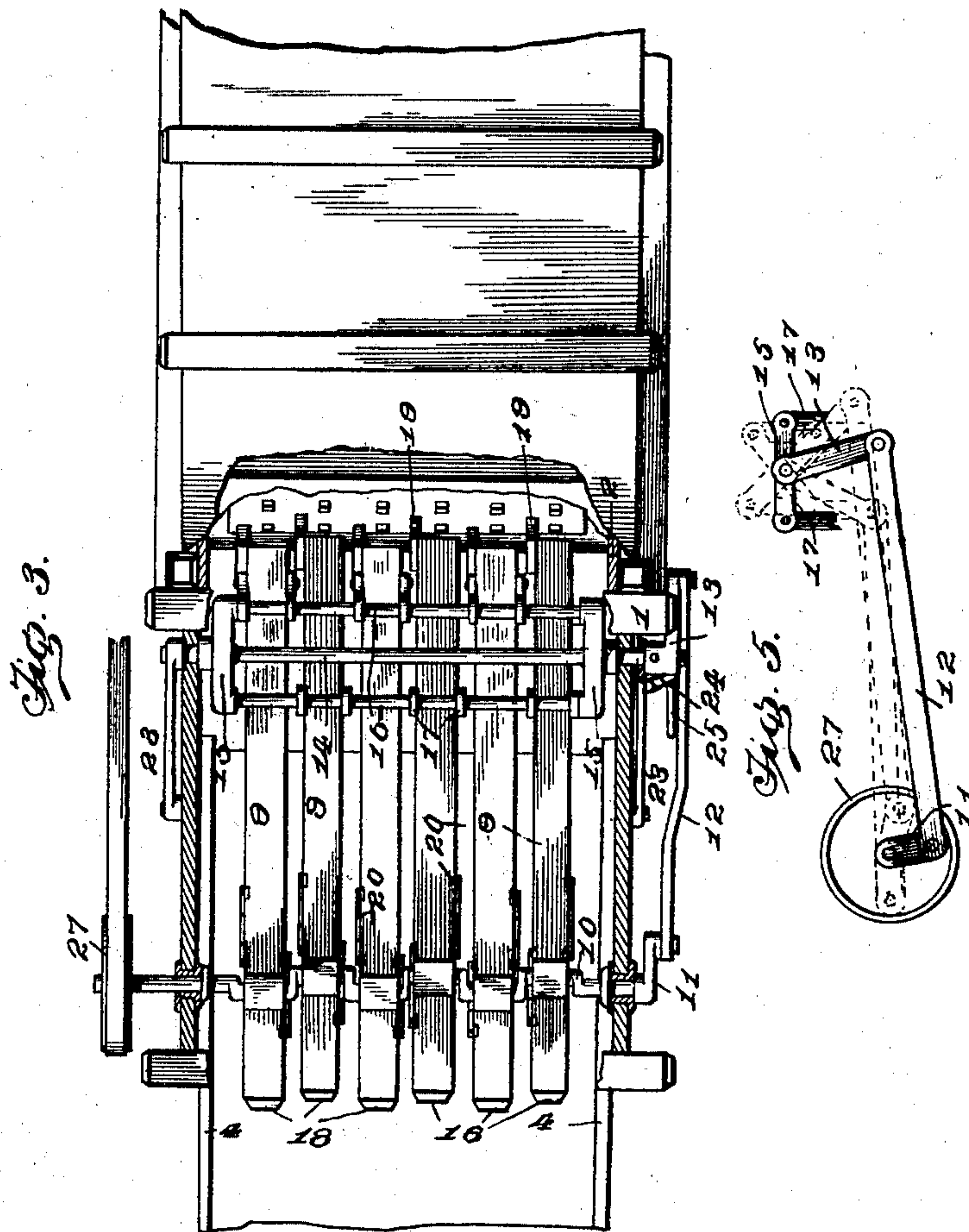
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UNITED STATES PATENT OFFICE.

ROWLAND DAVIES, OF UTICA, WISCONSIN.

THRESHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 702,345, dated June 10, 1902.

Application filed September 22, 1900. Serial No. 30,776. (No model.)

To all whom it may concern:

Be it known that I, ROWLAND DAVIES, a citizen of the United States, residing at Utica, in the county of Winnebago and State of Wisconsin, have invented a new and useful Threshing-Machine, of which the following is a specification.

This invention relates to improvements in band-cutters and feeders, and has for its object the production of an automatic feeding and band-cutting device for threshing-machines.

With this and other objects in view the invention consists of certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of a band-cutter and feeder embodying the features of the present invention. Fig. 2 represents a view in side elevation of the same, parts of the siding being broken away to disclose the interior structure. Fig. 3 represents a top plan view of the same. Fig. 4 represents a detail perspective view of one set of the band-cutting teeth, and Fig. 5 represents a detail side elevation illustrating the operation of the rock-shaft.

Referring to the drawings by numerals, 1 represents any suitable framework of a threshing-machine strengthened by any preferred form of siding, as 2. Vertical beams 3 3 of framework 1 are designed to pivotally support a frame, as 4, braced in position by rods, as 5 5, which rods may be disengaged for permitting a pivotal movement of said frame 4. At the opposite ends of frame 4, at either side thereof, is carried a sprocket-wheel, as 6, carrying in turn a sprocket-chain of any desired form, as 7, and said chain bears a plurality of transverse slats, as 8 8.

Arranged above frame 4 are a plurality of bars, as 9 9, having their outer ends carried by crank-shaft 10, the cranks of said shaft being alternately arranged, so that when the bearing-box of one of bars 9 is at any given position the bearing-boxes of its next contiguous bars will be at the diametrically opposite point of the circle described by the said boxes. Shaft 10 is provided at one end with a crank, as 11, carrying a pitman, as 12, con-

nected with a crank 13 of a rock-shaft, as 14, extending transversely across and above the bars 9 and finding bearings in the siding. Laterally-extending arms, as 15 15, are secured to rod or shaft 14 near each end thereof, and the outer ends of said arms carry rods, as 16 16, extending parallel to shaft 14. Pendant from rods 16 at suitable points intermediate their length are pairs of links, as 17 17, the pairs of the opposite rods 16 engaging alternate bars 9, whereby the rocking movement of shaft 15 and rods 16 16 will produce an alternate oscillatory movement of the inner ends of bars 9 corresponding in relative action to the movement of the outer ends of said bars.

At the extreme outer ends of bars 9 are arranged hooks, as 18 18, and on the inner ends thereof are carried legs, as 19 19, projecting downwardly toward the mangler of the separator. Near the outer end of each of the bars 9 is arranged a number of suitable blades, as 20, extending downwardly and secured in position by any preferred form of bracket, as 21.

It will be seen by reference to the drawings that the bearing of rock-shaft 14 in the siding 2 is in the form of slots 22 22, a suitable arm, as 23, being pivoted to each side of the threshing-machine and each formed with an eye through which its respective end of said shaft 15 passes. A downwardly-extending rod, as 24, is pivoted to each arm 23 and has its lower end pivotally secured to a suitable lever, as 25, which lever is pivoted to framework 1 and held in any given position by a segmental rack, as 26.

In operation the bundles of grain are thrown upon frame 4, caught by slats 8, and carried beneath the knives 20, the hooks 18 tending in their rotary movement to force said bundles beneath said knives. The bands are severed, and the grain follows the slats 8 until it reaches the end of frame 4, when it falls upon a suitable downwardly-inclined shelf leading to the cylinder, the grain being positively fed down said shelf by the constant gyrating or irregular downwardly-oscillating movement of fingers 19.

When it is desired to approach the interior mechanism of the threshing-machine, the rods 5 are disengaged and frame 4 swung to an approximately vertical position and levers 25

moved upwardly, lifting the arms 23, and with them the rock-shaft 15 and the connecting parts, leaving the front opening free for entrance.

5 Any suitable means, as a hand-pulley 27, is designed to receive and impart motion to shaft 10.

Having thus fully described my invention, what I claim as new, and desire to secure by
10 Letters Patent, is—

1. In a band-cutter and feeder, the combination with the framework of a threshing-machine, of a plurality of cutter-bars mounted therein, a rock-shaft near one end thereof,
15 rods extending parallel with said shaft, means connecting said rods with said shaft, means for rocking said rock-shaft, links connecting said rods with said cutter-bars, and means pivotally supporting the free end of said cutter-bars, substantially as described.

2. In a band-cutter and feeder, the combination with the framework of a threshing-machine, of a crank-shaft carried thereby, a plurality of cutter-bars pivoted to said crank-shaft, a rock-shaft mounted in said framework, laterally-extending arms carried by said
25 rock-shaft, rods parallel with said shaft connecting said arms, means connecting said rods with said cutter-bars, means for rotating said crank-shaft, and means for oscillating
30 said rock-shaft in unison with said crank-shaft, substantially as described.

3. In a band-cutter and feeder, the combination with the framework of a threshing-machine, of a crank-shaft carried thereby, a

plurality of cutter-bars carried by the cranks of said shaft, a rock-shaft in the rear of said crank-shaft and provided with a crank, a pitman connecting a crank on the crank-shaft with the crank of the rock-shaft, laterally-
40 extending arms carried by said rock-shaft, rods extending parallel to said rock-shaft and secured to said laterally-extending arms, alternate pairs of links connecting the opposite parallel bars with alternate bars carried by
45 said crank-shaft, and fingers extending rearwardly and downwardly from said last-mentioned bars, substantially as described.

4. In a band-cutter and feeder, the combination with the siding of a threshing-machine,
50 of a plurality of parallel bars pivotally supported at their front ends, a rock-shaft near the rear ends thereof, means for oscillating said rock-shaft, means connecting said rock-shaft to said parallel bars, downwardly-
55 extending fingers carried by each of said bars, movable bearings supporting said rock-shaft in said siding, a rod connected to each of said bearings, an operating-lever connected with said rod, and means for retaining said lever in
60 a given position, substantially as described.

In testimony whereof I have signed my name to this specification, this 5th day of September, 1900, in the presence of two subscribing witnesses.

ROWLAND DAVIES.

Witnesses:

BERTHA EVERNAU,
CHARLES H. FORWARD.