

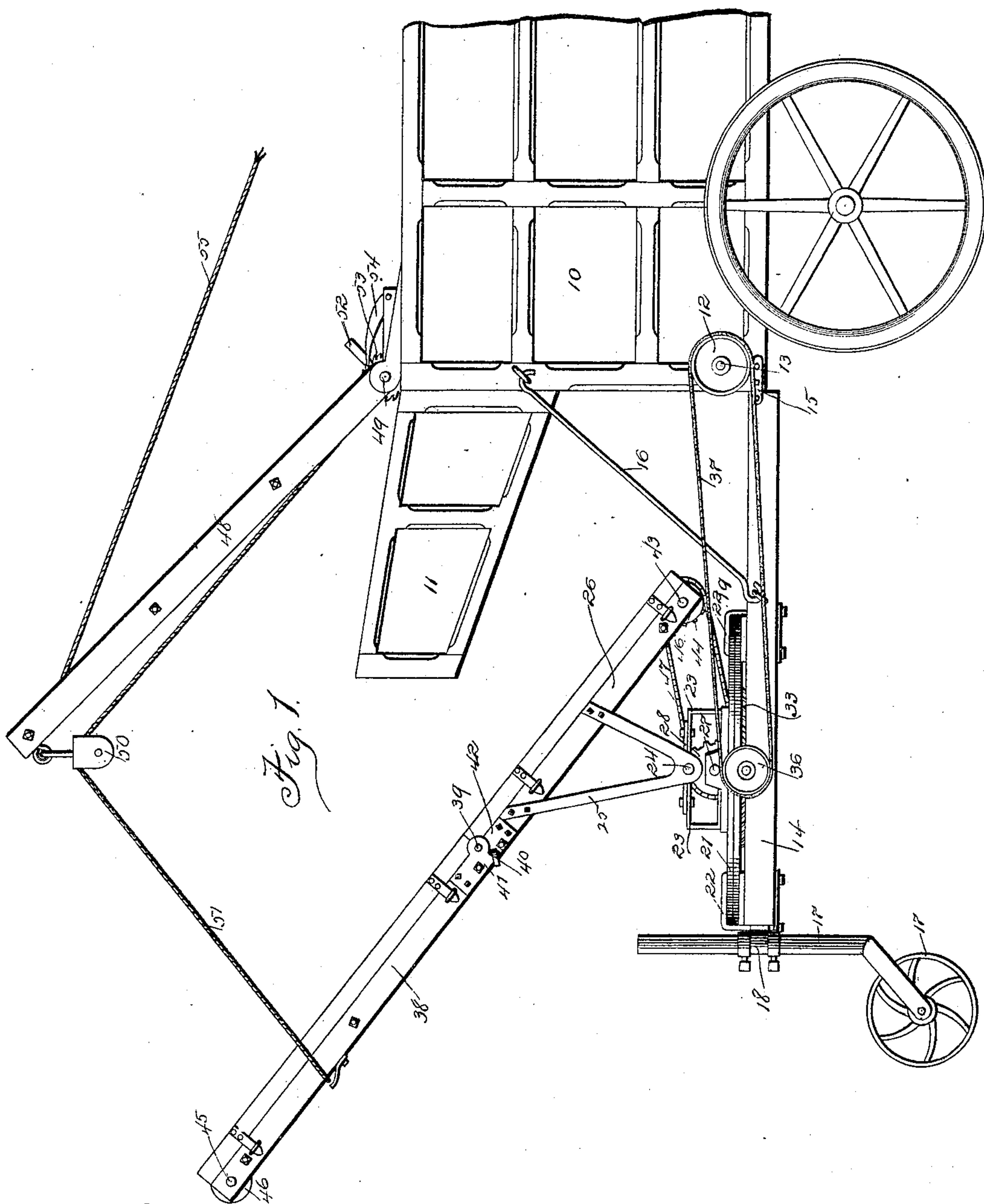
(No Model.)

2 Sheets—Sheet 1.

H. R. GREGORY & R. H. BATTON.  
STRAW STACKER.

No. 606,165.

Patented June 21, 1898.



Witnesses: } Inventors: Henry R. Gregory,  
Jas. Barels. } and Richard H. Batton,  
R. H. Orwig. }  
By Thomas C. and J. Ralph Orwig,  
Attorneys.

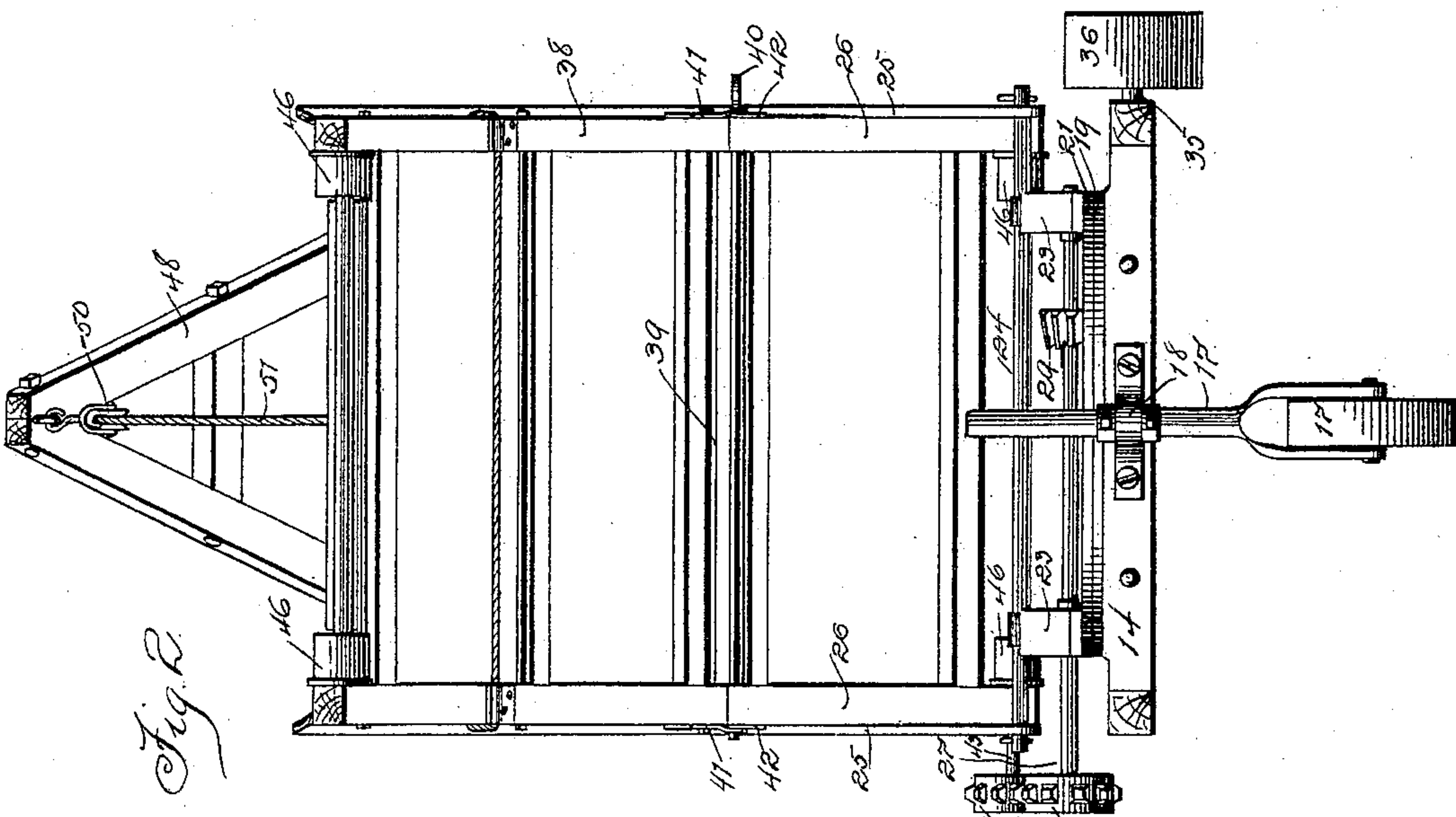
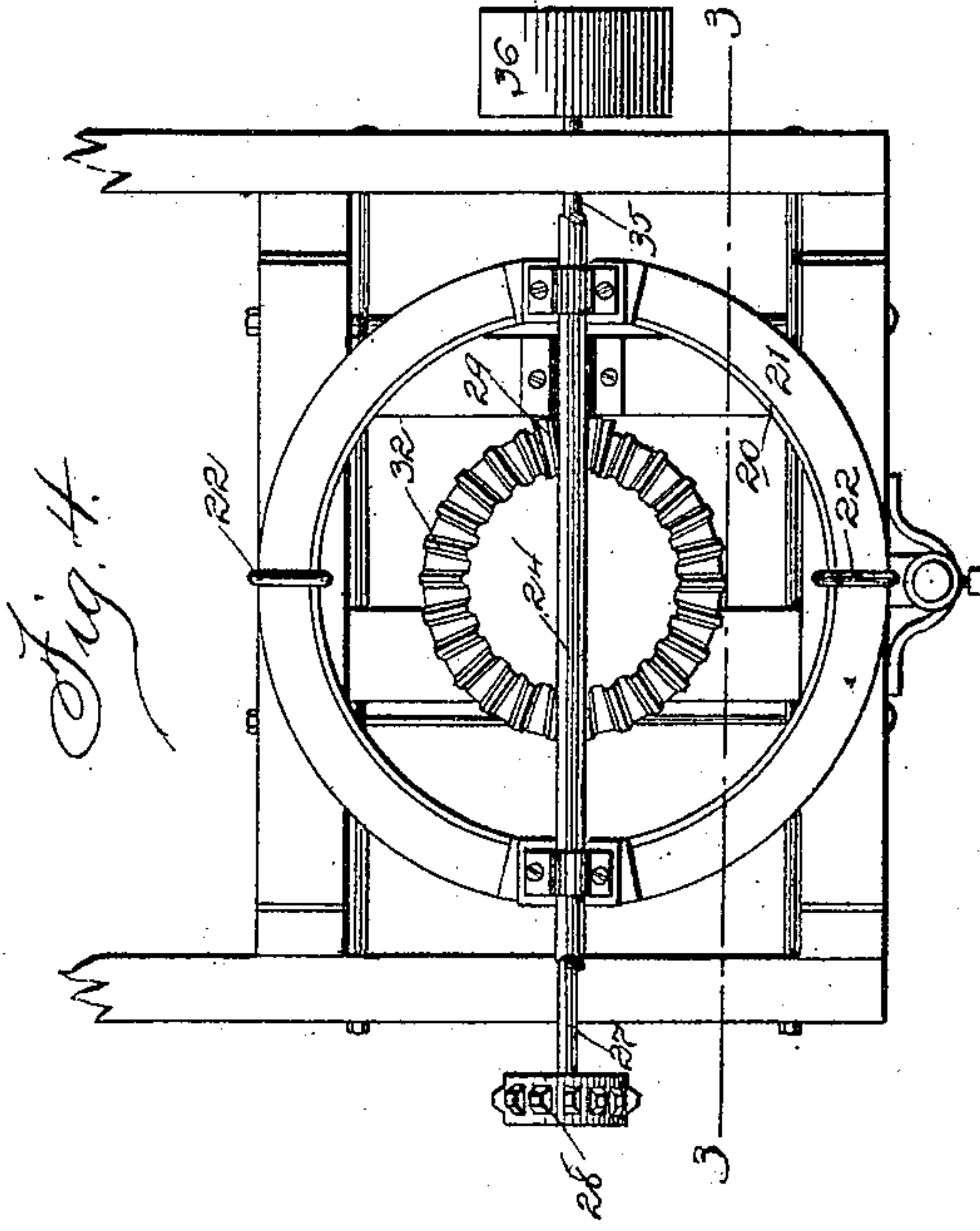
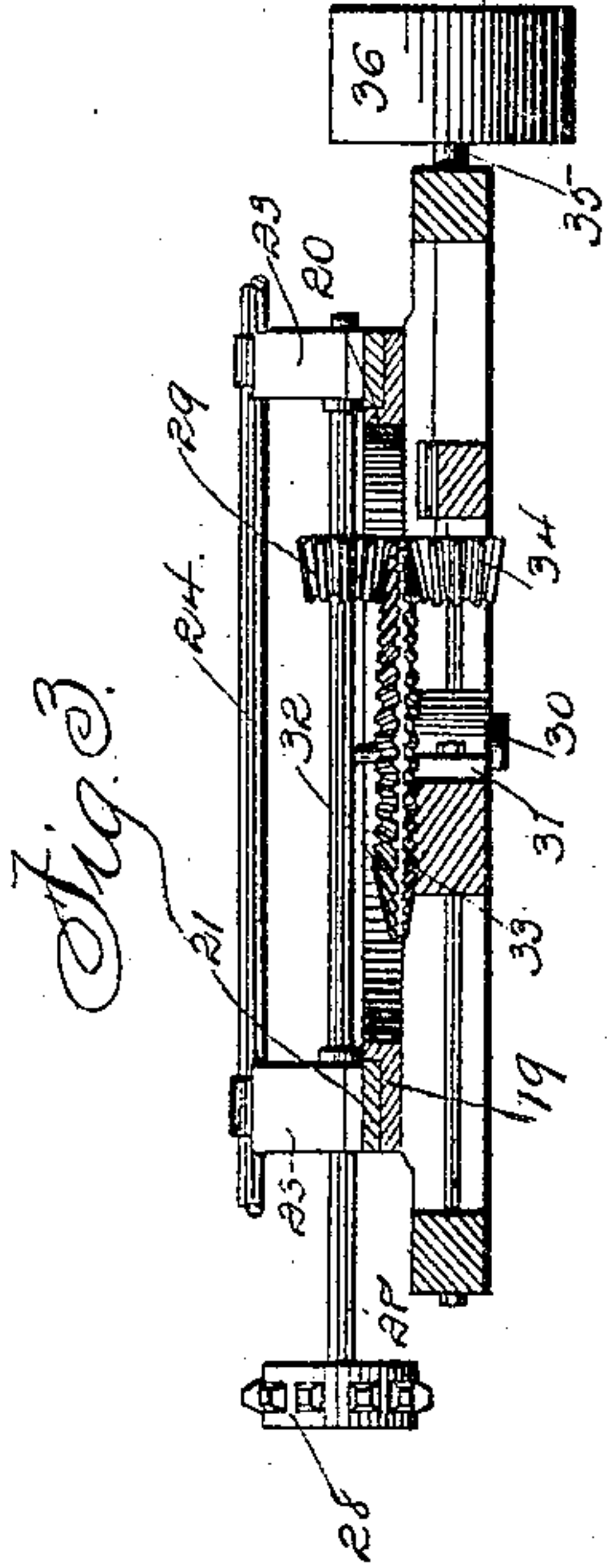
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R. H. Orwig.  
Inventors: Henry R. Gregory  
and Richard H. Batton,  
Thomas G. and J. Ralph Orwig, Attorneys.



# UNITED STATES PATENT OFFICE.

HENRY R. GREGORY AND RICHARD H. BATTON, OF PRESCOTT, IOWA, ASSIGNORS OF ONE-HALF TO C. H. DICKS, OF DES MOINES, IOWA.

## STRAW-STACKER.

SPECIFICATION forming part of Letters Patent No. 606,165, dated June 21, 1898.

Application filed June 28, 1897. Serial No. 642,765. (No model.)

*To all whom it may concern:*

Be it known that we, HENRY R. GREGORY and RICHARD H. BATTON, citizens of the United States, residing at Prescott, in the county of Adams and State of Iowa, have invented a new and useful Straw-Stacker for Threshing-Machines, of which the following is a specification.

This invention relates to that class of straw-stackers that are designed to be attached to and operated by power derived from the threshing-machine; and our object is to provide improved means for supporting the attachment so that it may be easily and quickly "leveled up" when the machine is in position for use, so that it may be advanced over ordinary roads easily and conveniently or be entirely carried by the threshing-machine.

Figure 1 shows a side elevation of the complete device applied to the rear end portion of a threshing-machine. Fig. 2 shows a rear end elevation of the same. Fig. 3 shows a detail sectional view through the line 3 3 of Fig. 4, and Fig. 4 shows a top or plan view of the turn-table of the attachment and connected parts.

Referring to the accompanying drawings, the reference-numeral 10 is used to indicate the body of the thresher, and 11 the straw-conveying extension on the rear end thereof.

12 indicates a belt-wheel fixed to a shaft 13, which is driven by the mechanism on the inside of the threshing-machine and from which power is transmitted to operate the endless conveyer of the stacker.

The reference-numeral 14 is used to indicate the stacker-frame hinged to the machine-frame by means of the plates 15 to be capable of a vertical movement. Rods 16, having hooks at their ends, are provided to enter eyes on the rear end of the machine-frame and at the sides of the frame 14. These rods may also be used in supporting the frame 14 in an elevated position. At the rear end of the frame 14 a caster-wheel 17 is slidingly mounted in bearings 18 on the rear of the frame 14. Set-screws are provided, whereby

the upright of the caster-wheel may be supported in any desirable position within the bearings.

Inasmuch as the stacker-frame is hinged to the threshing-machine at both sides, it is obvious that the said stacker-frame will be held in alinement with the threshing-machine frame at all times, and, further, by supporting the rear end of this stacker-frame on a caster-wheel which is attached to the central portion of the stacker-frame at its rear end it is obvious that when the said caster-wheel passes over a projection on the road-surface the entire rear end of the stacker-frame will be raised and lowered and there will be no side strains upon the hinges, such as would be occasioned if there were two supporting-wheels for the rear end of the stacker-frame at the opposite sides thereof and in the event of one of these passing over a projection on the road-surface. Furthermore, when the machine is placed in position for use the stacker-frame may be readily and quickly leveled up by adjusting the position of the upright of the caster-wheel relative to the frame of the stacker, thus obviating the loss of time and annoyance incident to blocking up each wheel where more than one supporting-wheel is provided for the rear end of the stacker-frame.

Mounted upon the top of the frame 14 is a circular track 19, having a central upturned flange 20, and 21 indicates a circular table slidingly mounted upon the track 19 and held in place by means of the guide-loops 22, so that it will be capable of a partial rotation upon the track, but will be prevented from moving in another direction. Upon this rotatable table 21 are two supports 23, and upon these supports a cross-piece 24 is mounted, and this cross-piece 24 is arranged to receive and support the brackets 25, which in turn are fixed to the lower section 26 of the endless-conveyer chute, which will be hereinafter described.

27 indicates a shaft rotatably mounted in the supports 23, directly below the cross-piece 24 and parallel therewith. On its outer end



is a sprocket-wheel 28, and near its central portion is a bevel gear-wheel 29, the function of which will be made clear hereinafter.

The reference-numeral 30 is used to indicate a shaft to extend vertically and mounted in the bearing-boxes 31, which same are arranged concentrically of the track 19. To the upper end of this shaft 30 I have fixed a gearing device having a bevel-gear 32 on its top surface and a similar bevel-gear 33 on its under surface. This gear 32 is held in mesh with the bevel gear-wheel 29, and the gear 33 on the under surface is meshed with a gear-wheel 34, which in turn is mounted upon a shaft 35, which is supported in the frame 14 and which is provided with a belt-wheel 36 on its outer end. This belt-wheel 36 is connected by means of the belt 37 with the belt-wheel 12, hereinbefore described, and it is obvious that during the rotation of the threshing mechanism the shaft 35 will be rotated, the bevel-gears 34, 33, 32, and 29 will be rotated, and the sprocket 28 operated thereby, and it is obvious, further, that this motion of the shaft 27, to which the bevel-gear 29 in the sprocket 28 is fixed, will continue irrespective of the variation of its angle from a position parallel with the shaft 35. In other words, the sprocket-wheel 28 will continue to rotate so long as the belt-wheel 12 is rotated, no matter in what position the turn-table of the device is placed.

The reference-numeral 38 is used to indicate the upper section of the endless-conveyer frame, which is connected by means of the hinge 39 with the lower section in such a manner that the upper section may fold forwardly over the top of the lower section to occupy a minimum of space. These sections are held in alinement when in use by means of a rod 40, which is passed through the plates 41 and 42, that are fixed to the sides of the conveyer-frame and are provided with openings for the reception of the said rod. It is obvious that when this rod is drawn out the two sections will be free to move on the hinge 39 and that when it is in place they will be rigidly held. At the lower end of the endless-conveyer frame is a shaft 43, having a sprocket-wheel 44 on its outer end, and at the upper end of the conveyer-frame is a shaft 45, also rotatably mounted.

Belt-wheels 46 are placed upon the said shafts 43 and 45, and in use it is designed to pass the endless conveyer over these belt-wheels. This endless conveyer, however, is not shown in the accompanying drawings. A sprocket-chain 47 is passed over the sprockets 28 and 44, and hence the shaft 43 of the endless conveyer will be constantly rotated during the rotation of the belt-wheel 12, and it is obvious, further, that turning the endless-conveyer frame in a horizontal plane will not interfere with the driving of this shaft 43 by means of the chain 47, and, furthermore, the

endless-conveyer frame may be raised and lowered without interfering with this driving, for the reason that the pivotal point of the frame is substantially concentric with the shaft 27. We have provided means for raising and lowering this endless conveyer as follows: The reference-numeral 48 is used to indicate a derrick pivotally attached to the top of the threshing-machine to a shaft 49, which is mounted thereon. At the upper end of the pivot a pulley 50 is attached, and 51 indicates a rope attached to the upper end portion of the endless-conveyer frame, passed over the pulley 50, and wound upon the shaft 49. A crank 52 and ratchet-wheel 53 are fixed to this shaft 49, and a gravity-pawl 54 is pivoted to the top of the machine-frame to engage the said ratchet-wheel. Hence when the crank 52 is rotated the rope 51 will be wound upon the shaft 49 and the pulley and ratchet-wheel 53 and 54 will prevent the rope from unwinding. This, obviously, will elevate the endless-conveyer frame. A guy-rope 55 is attached to the derrick 48 and to a stationary support on the machine-frame.

In practical use it is obvious that the straw as it is discharged from the extension 11 on the rear end of the threshing-machine will fall upon the endless-conveyer frame at a point directly above its pivotal point, and hence no matter in which direction the endless-conveyer frame is extended the straw will fall upon the frame. It is obvious, further, that during the operation of the threshing-machine the shaft 43 of the endless conveyer will be operated through the mechanism described, no matter at what angle the endless-conveyer frame is extended relative to the threshing-machine. Furthermore, the endless-conveyer frame may be readily and easily swung laterally and may also be raised and lowered without stopping the operation of the endless conveyer. Furthermore, the whole device is in the nature of an attachment that may be placed upon any threshing-machine, and when being advanced over a road the weight of the stacker attachment is supported by its own caster-wheel and the endless-conveyer frame may be folded up, so as to occupy a minimum of space.

It is to be understood that the rods 16 may be detached from the frame 14, and in practical use these rods are usually detached when passing over ordinary roads, so that the rear end of the frame 14 may move vertically. When the rods 16 are connected with the frame 14, the caster-wheel is usually elevated, so that it will not engage obstacles on the road-surface.

Having thus described the construction, arrangement, and function of each separate feature of the stacker attachment, what we claim as our invention, and desire to secure by Letters Patent of the United States therefor, is—



The combination with a threshing-machine, of a stacker-frame hinged thereto in such a manner as to be capable of a vertical movement and all lateral movement be prevented,  
5 and so that the stacker-frame is held in alignment with the threshing-machine frame at all times, a caster-wheel having an upright connected therewith, bearings on the rear central portion of the stacker-frame designed to  
10 receive said upright and permit it to be ad-

justed vertically therein, clamping devices for fixing the upright in any desirable position relative to the said bearing, and straw-stacking mechanism on said frame, substantially as and for the purposes stated.

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Witnesses:

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