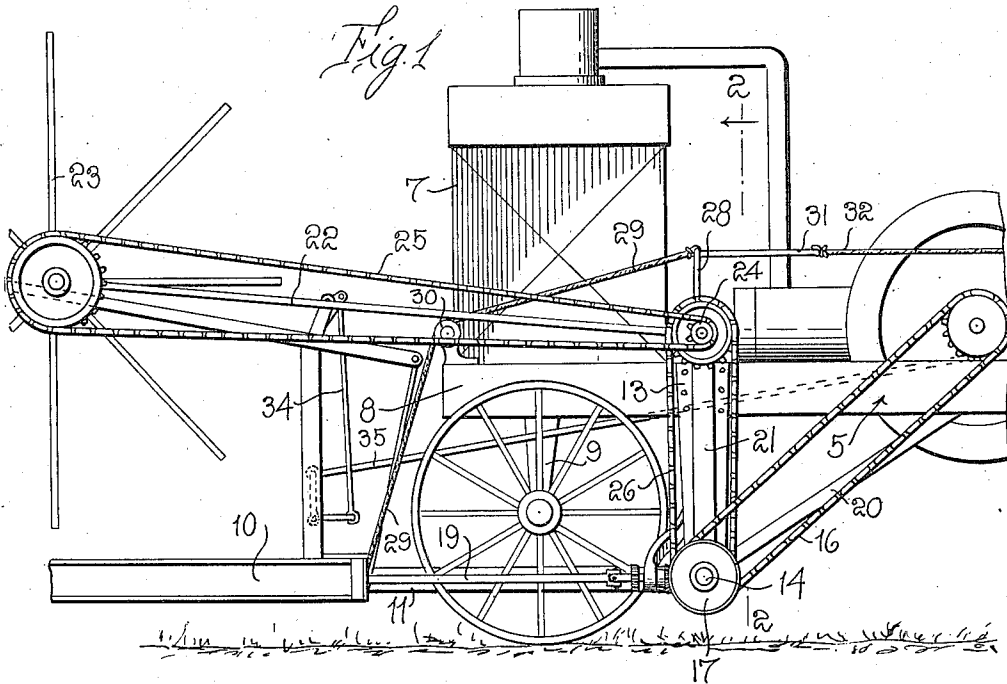
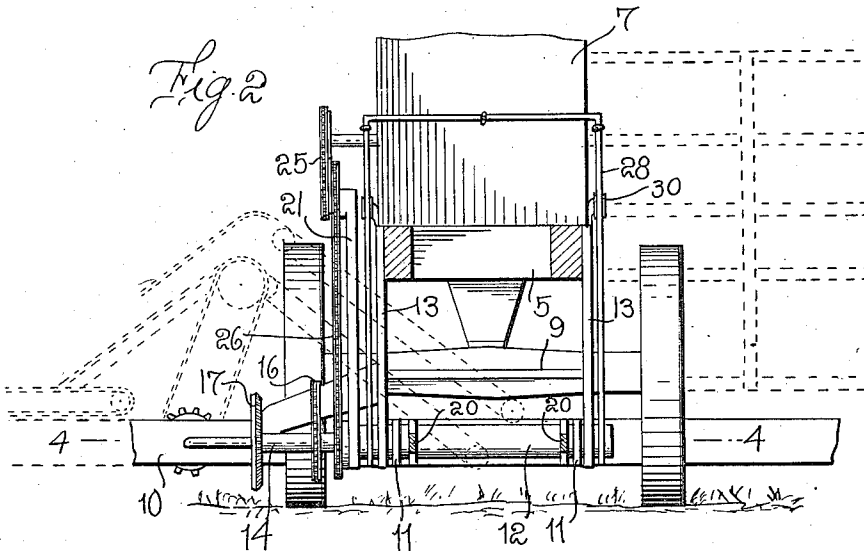


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GRAIN HARVESTER.
APPLICATION FILED JUNE 12, 1918.

1,301,289.

Patented Apr. 22, 1919.

2 SHEETS—SHEET 1.



Inventor

John Malcom

Watson & Coleman
Attorney

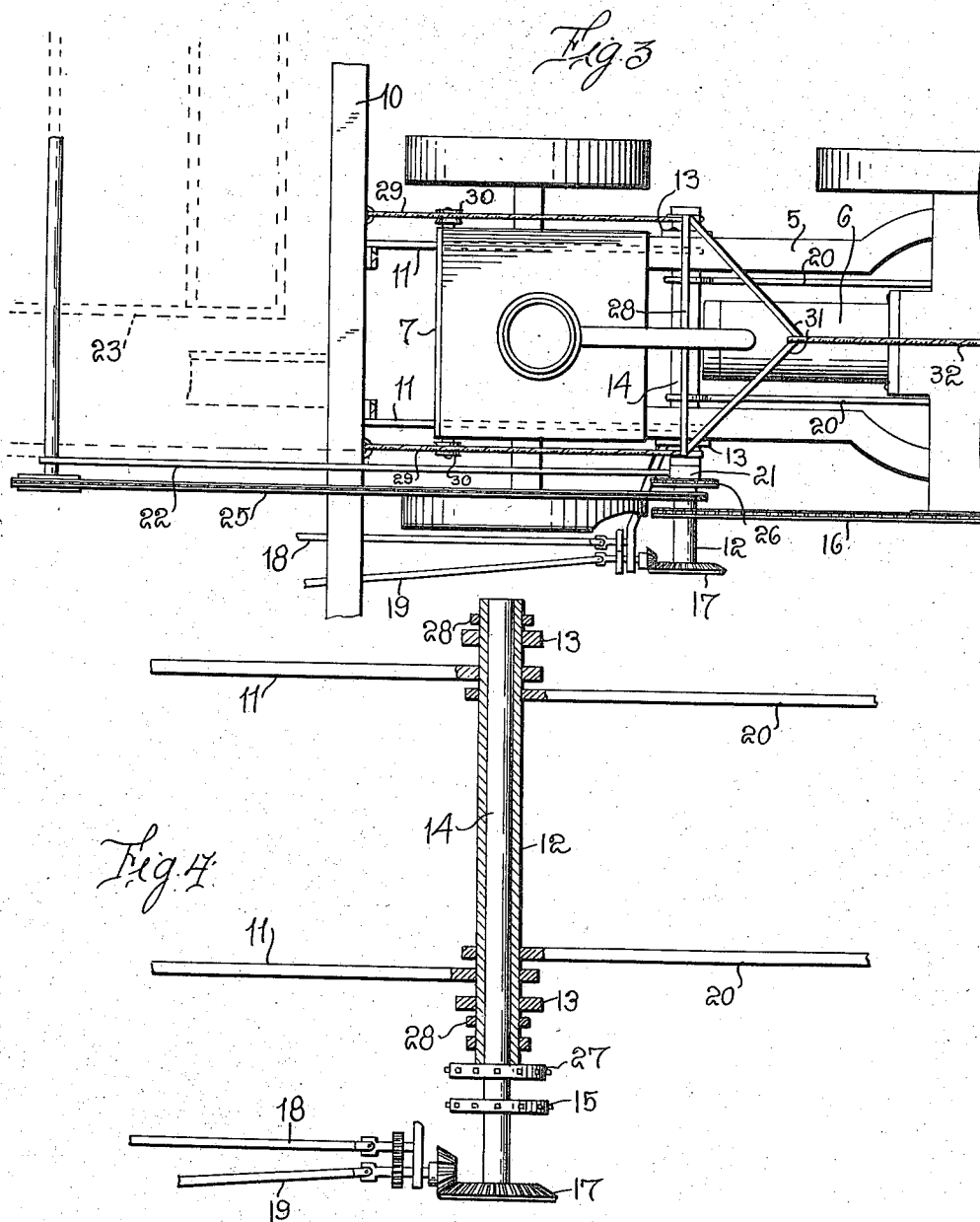
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UNITED STATES PATENT OFFICE.

JOHN MALCOM, OF ELROD, SOUTH DAKOTA.

GRAIN-HARVESTER.

1,301,289.

Specification of Letters Patent.

Patented Apr. 22, 1919.

Application filed June 12, 1918. Serial No. 239,605.

To all whom it may concern:

Be it known that I, JOHN MALCOM, a citizen of the United States, residing at Elrod, in the county of Clark and State of South Dakota, have invented certain new and useful Improvements in Grain-Harvesters, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to certain new and useful improvements in grain harvesters and has for its primary object to provide improved means for mounting the grain binder upon the frame of a traction engine
15 whereby the machine may be easily controlled by the operator and turned upon reaching the end of a field.

My invention has for another object the provision of improved means for raising or
20 lowering the binder platform to dispose the same at a desired elevation with relation to the ground surface.

My invention also contemplates the provision of simple and efficient means for
25 operating the reel and adjusting the same with relation to the sickle.

The invention has for still another of its objects to generally improve the construction and increase the operating efficiency of
30 machines of the above character without adding to their manufacturing cost to any appreciable extent.

With the above and other objects in view as will become apparent as the description
35 proceeds, the invention consists in certain constructions, combinations and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention,
40 reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of a portion of a traction engine illustrating my improved
45 mounting for the grain harvester;

Fig. 2 is a section taken on the line 2—2 of Fig. 1;

Fig. 3 is a top plan view;

Fig. 4 is a detail section taken on the line
50 4—4 of Fig. 2.

Referring in detail to the drawings, 5 designates the bed frame of a traction engine, and 6 indicates the engine proper which is mounted thereon. The boiler 7 for
55 the engine is secured upon the central forwardly extending portion of the frame 5.

This forward end of the engine frame is supported by a suitable guiding truck 9 which is mounted beneath the same.

10 indicates the binder platform, the rear
60 edge of which is disposed slightly in advance of the truck wheels, said platform being supported by means of a pair of rearwardly extending bars 11, the rear ends of which are loosely mounted upon a tubular
65 rod or pipe 12, which is secured in the lower ends of the depending bracket plates 13 clamped or otherwise secured to the forwardly extending portion of the frame 5. Upon the platform 10, the entire binder
70 mechanism is mounted.

In the tube or pipe 12, the transverse shaft 14 is rotatably mounted. One end of this shaft is provided with a sprocket wheel
75 15 to be traversed by the chain 16 which is driven from the engine shaft. Upon the same end of the shaft 14, a beveled gear wheel 17 is secured to drive the operating connections 18 and 19 which actuate the
80 pitman shaft of the mower, and the binder mechanism respectively. As these operating connections are well known in the art and now in general use, the same will not be described in detail. The transverse rod or
85 pipe 12 is further braced and supported by means of the bars 20 which are fixed at their rear ends to the bed frame of the engine.

Upon one end of the tubular rod 12, the lower end of a standard 21 is loosely mounted,
90 and the upper end of this standard is connected through the medium of a rod 22 to the shaft of a reel 23. On the upper end of the standard 21, a sprocket wheel 24 is mounted which is connected by the
95 chain 25 to a similar sprocket on one end of the reel shaft. The sprocket wheel 24 is driven by a chain connection 26 to a sprocket wheel 27 on the end of the transverse shaft 14.
100

28 designates a yoke which embraces the forward end 8 of the frame 5, the arms of said yoke being loosely mounted upon the tubular rod 12 adjacent to the lower ends of the depending brackets 13. Wires, cables,
105 or other flexible connections 29 extend from the upper ends of these arms forwardly around guide pulleys 30 and are connected to the binder platform 10. A pair of links 31 are also loosely connected to the yoke 28
110 and a cable 32 connects these links with a suitable operating lever arranged in the en-

gine cab. 34 and 35 indicate respectively the reel adjusting rods and the trip operating rod of the bundle carrier. The arrangement and connection of these rods is the same as that employed in traction harvesters now in common use.

From the foregoing description taken in connection with the accompanying drawings, it is believed that the construction and manner of operation of the invention will be clearly and fully understood. It will be noted that the binder is entirely supported from the forward end of the engine frame, said binder being disposed as close to the forward truck wheels as possible and yet permit of a free movement of the same in turning the machine. When it is desired to raise or lower the binder, the operator simply manipulates the lever in the cab, thereby moving the cable 32 and actuating the yoke member 28 which, through the flexible connections 29 raises or lowers the binder as the case may be. In the adjustment of the reel, the standard 21 is swung upon the tubular rod or pipe 12 by means of the rod 22 so that no slack will occur in the driving chain 25.

While I have shown and described the preferred construction and arrangement of the several elements, it will be understood that the invention is susceptible of considerable modification therein and I therefore reserve the right to resort to all such legitimate changes as may be fairly embodied within the spirit and scope of the invention as claimed.

Having thus described my invention, what is claimed is:

1. The combination with a traction engine including a wheel supported frame, of a platform arranged in advance of said frame, hangers depending from opposite

sides of said frame, a transversely disposed rod mounted in the lower ends of said hangers, a vertically disposed frame mounted at its ends upon said rod for swinging movement, spaced flexible connections between said swinging frame and the platform, guides for such connections mounted upon the engine frame, longitudinally extending spaced bars connected to the platform and loosely mounted upon said transverse rod, and means connected to said vertical frame to swing the same and raise or lower the platform with respect to the engine frame.

2. The combination with a traction engine including a frame and a forward supporting truck therefor, of a grain binder and a reel mounted in advance of said truck, a transverse tubular rod arranged beneath said frame, hangers depending from the frame in which said rod is secured, a standard loosely mounted at its lower end upon said rod, a connecting rod between the upper end of said standard and the reel, an operating shaft rotatably mounted in the tubular rod, driving means between said shaft and the engine shaft, a sprocket mounted upon the upper end of said standard, a driving connection between said sprocket and the reel shaft, a drive chain connecting said sprocket to the operating shaft, supporting bars for the binder platform loosely mounted upon said tubular rod, means for adjusting the reel, and additional means for raising and lowering the binder platform.

In testimony whereof I hereunto affix my signature in the present of two witnesses.

JOHN MALCOM.

Witnesses:

WM. JONES,
R. H. DILLS.