

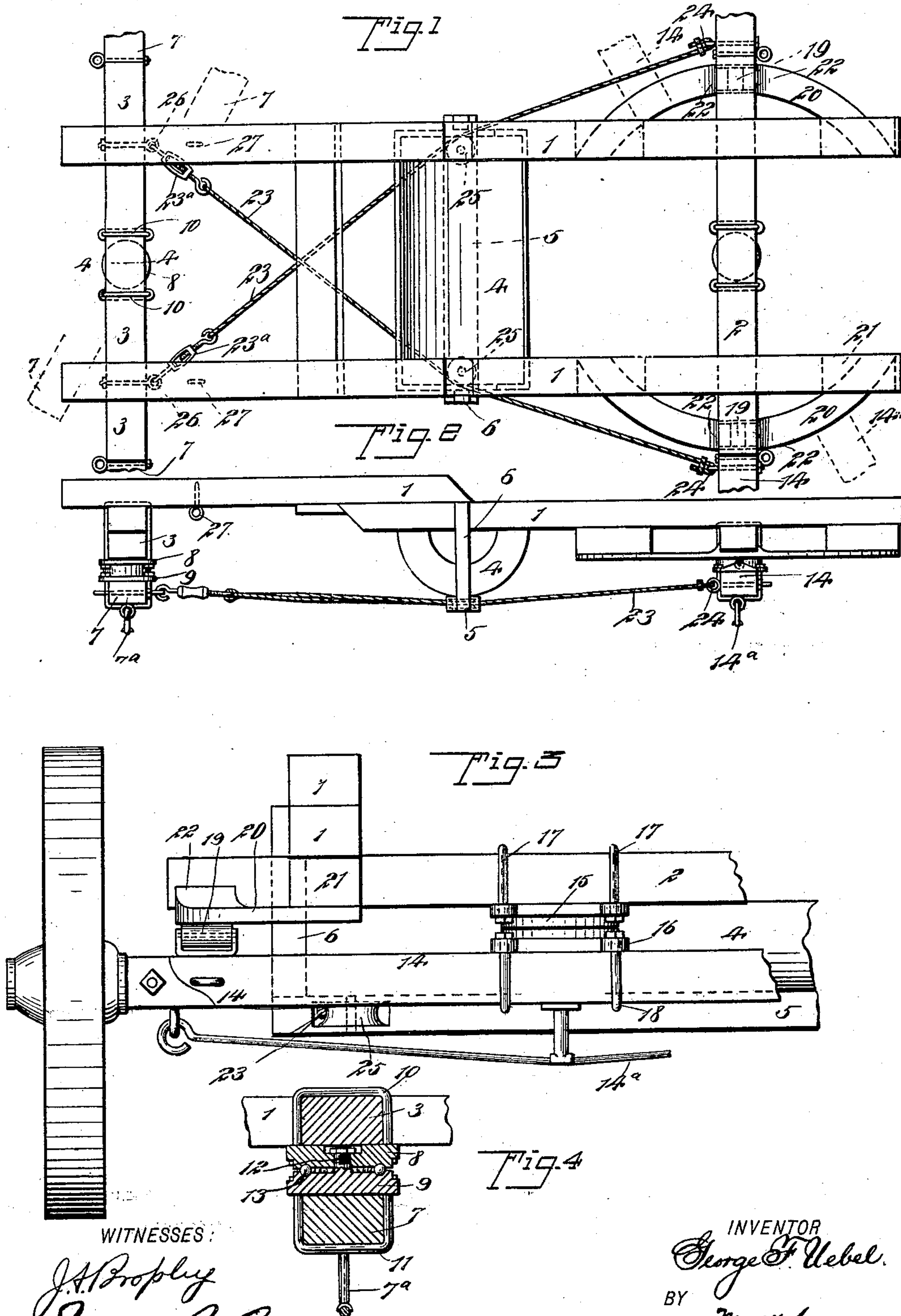
No. 627,833.

Patented June 27, 1899.

G. F. UEBEL.  
RUNNING GEAR.

(Application filed Mar. 4, 1899.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GEORGE F. UEBEL, OF HARLAN COUNTY, NEBRASKA.

## RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 627,833, dated June 27, 1899.

Application filed March 4, 1899. Serial No. 707,750. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. UEBEL, of the county of Harlan and State of Nebraska, (post-office address Oxford, in the county of Furnas, in said State,) have invented a new and Improved Running-Gear, of which the following is a full, clear, and exact description.

This invention relates to running-gears for all vehicles; but it is especially adapted to the running-gears of agricultural separators, the purpose being to provide an improved construction of the gearing to facilitate the movement of vehicles and also to assist in turning them by causing both axles to swing in the act of turning.

This specification is the disclosure of one form of my invention, while the claims define the actual scope thereof.

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 views.

Figure 1 is a plan view of the invention. Fig. 2 is a side elevation thereof. Fig. 3 is a fragmentary rear end elevation, and Fig. 4 is a detail section on the line 4 4 of Fig. 1.

The sills 1 of the running-gear are joined to the rear bolster 2 and the front bolster 3, so as to form a single rigid structure. The drawings show the invention applied to a separator-frame, and in Figs. 1, 2, and 3 the fan-box is designated by the number 4. This box extends across the running-gear between the bolsters and is joined to the sills 1, as shown in Figs. 1 and 2. Beneath the box 4 a transversely-extending brace 5 extends, the ends of such brace being connected with hanger-arms 6, serving to support the brace and the box 4.

The front axle 7 is joined to the bolster 3 by means of bearing-plates 8 and 9, as illustrated in Fig. 4, and the front axle has a brace-rod or truss 7<sup>a</sup> (see Fig. 2) to strengthen the same. The plate 8 is provided with a pair of U-bolts 10, embracing the bolster 3 and serving to hold the plate rigidly against the under side of the bolster. This plate is formed with a circular ball-race matching with a similar ball-race in the plate 9, which plate 9 is secured to the axle 7 by means of two U-bolts 11, similar to the U-bolts 10. A

pivot-stud 12 is formed on the plate 9, and this stud 12 projects through a central opening in the plate 8, so as to pivotally mount the plate 8 on the plate 9, and thereby support the front bolster. The ball-races of the plates 8 and 9 are provided with a number of antifriction-balls 13, which reduce the friction between the two plates.

The rear axle 14 is arranged to support the bolster 2 by means of bearing-plates 15 and 16, similar to the plates 8 and 9, held in position by U-bolts 17 and 18, similar to the bolts 10 and 11. The rear axle has a brace-rod or truss 14<sup>a</sup>, similar to the truss 7<sup>a</sup>. Rolling on antifriction-rollers 19, mounted, respectively, on the ends of the axle 14, are two arc-shaped track-plates 20, the ends of each plate being fastened to the rear portions of the respective sills 1 by means of blocks 21 and the middle portions of which are fastened to the under side of the bolster 2, at the end portions thereof, by means of upwardly-extending lugs 22, formed on the track-plates. By these means the axles 7 and 14 are mounted to turn beneath the rigid framing of the running-gear, which is formed of the sills 1 and bolsters 2 and 3.

In order to cause both axles to swing as the vehicle turns, and thus facilitate the turning thereof, I provide two cables 23, which are respectively seized to eyes 24, located one at each end of the rear axle 14, from which eyes the cables 23 are led forwardly and rove around idler-pulleys 25, carried, respectively, in the ends of the brace 5. From the idler-pulleys 25 the cables 23 are led across each other and forwardly to the front axle 7, where they are seized to eyes 26, attached to said axle. As indicated by the dotted lines in Fig. 1, as the front axle 7 swings the cables 23 serve to swing the axle 14 in such a manner as to turn both trucks of the vehicle, and thus enable the vehicle to turn in a very short space. Should it be not desired to employ the cables 23, they may be disconnected from the eyes 26 and hauled taut through eyes 27, fastened, respectively, to the under sides of the sills 1, near the front ends thereof. These cables 23 will then serve to hold the rear axle 14 in proper position with respect to the bolster 2 and the running-gear will in turning act the same as in the ordinary structure. The



cables are provided with turnbuckles 23<sup>a</sup>, which are located at the front ends of the cables and by which the tension of the cables may be regulated.

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

1. In a running-gear, the combination of bolsters, sills rigidly attached thereto, two  
10 curved track-plates attached to one of the bolsters respectively at the ends thereof and projecting at the front and rear of the bolsters, each track-plate having lugs engaging the bolster and having blocks at their ends  
15 connecting them rigidly with the sills, and antifriction-rollers mounted on the axle beneath the track-plates and respectively engaging the track-plates.

2. In a running-gear, the combination of  
20 bolsters, sills rigidly attached thereto, two curved track-plates attached to one of the bolsters respectively at the ends thereof and projecting at the front and rear of the bolster, each track-plate having lugs engaging the  
25 bolster and having blocks at their ends connecting them rigidly with the sills, antifriction-rollers mounted on the axle beneath the track-plates and respectively engaging the track-plates, and cables having their ends re-

spectively attached to the axles, the cables 30 being crossed between the axles.

3. The combination with a bolster and axle, of a bearing-plate having a circular ball-race in its under side, U-bolts fastening the bearing-plate to the bolster, a second bearing-  
35 plate having a ball-race in its upper face matching with the ball-race in the first bearing-plate, the second bearing-plate having a central stud mounted rigidly thereon and extending through a central opening in the first  
40 bearing-plate to turn in the same, U-bolts securing the second bearing-plate to the axles, and balls mounted to run in the races.

4. In a running-gear for agricultural separators, the combination of sills, a bolster rigidly attached thereto, a fan-box held by the  
45 sills, a brace extending beneath the fan-box and supported from the sills, an idler-pulley held at each end of the brace, axles mounted to turn beneath the respective bolsters, and  
50 cables, the ends of which are respectively attached to the axles, the cables being rove around the idler-pulleys and crossed between the axles.

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Witnesses:

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