

W. SUCKOW.
LEVELING DEVICE FOR THRESHING MACHINES.
APPLICATION FILED JAN. 27, 1917.

1,248,031.

Patented Nov. 27, 1917.
2 SHEETS—SHEET 1.

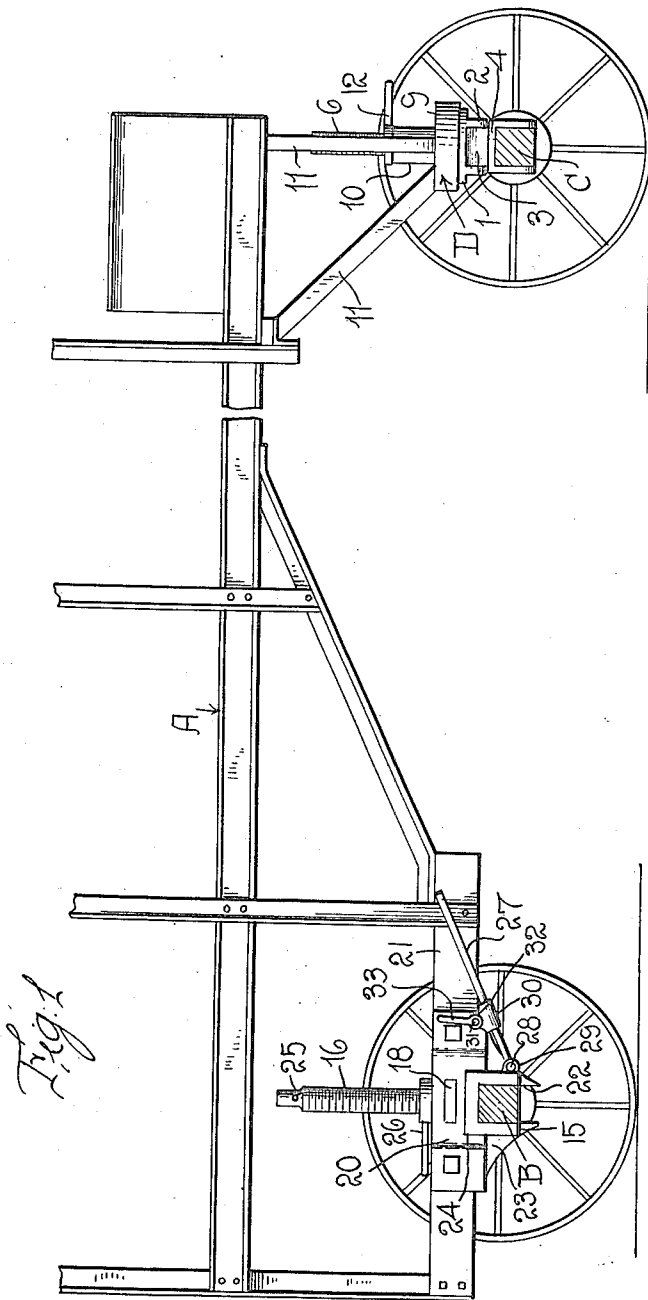


Fig. 7

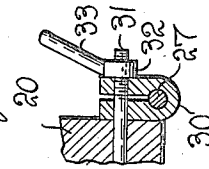


Fig. 6

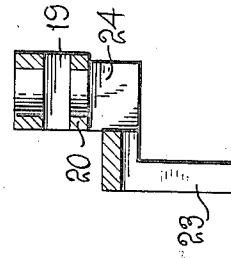
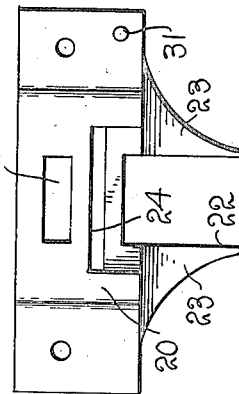


Fig. 5



Inventor

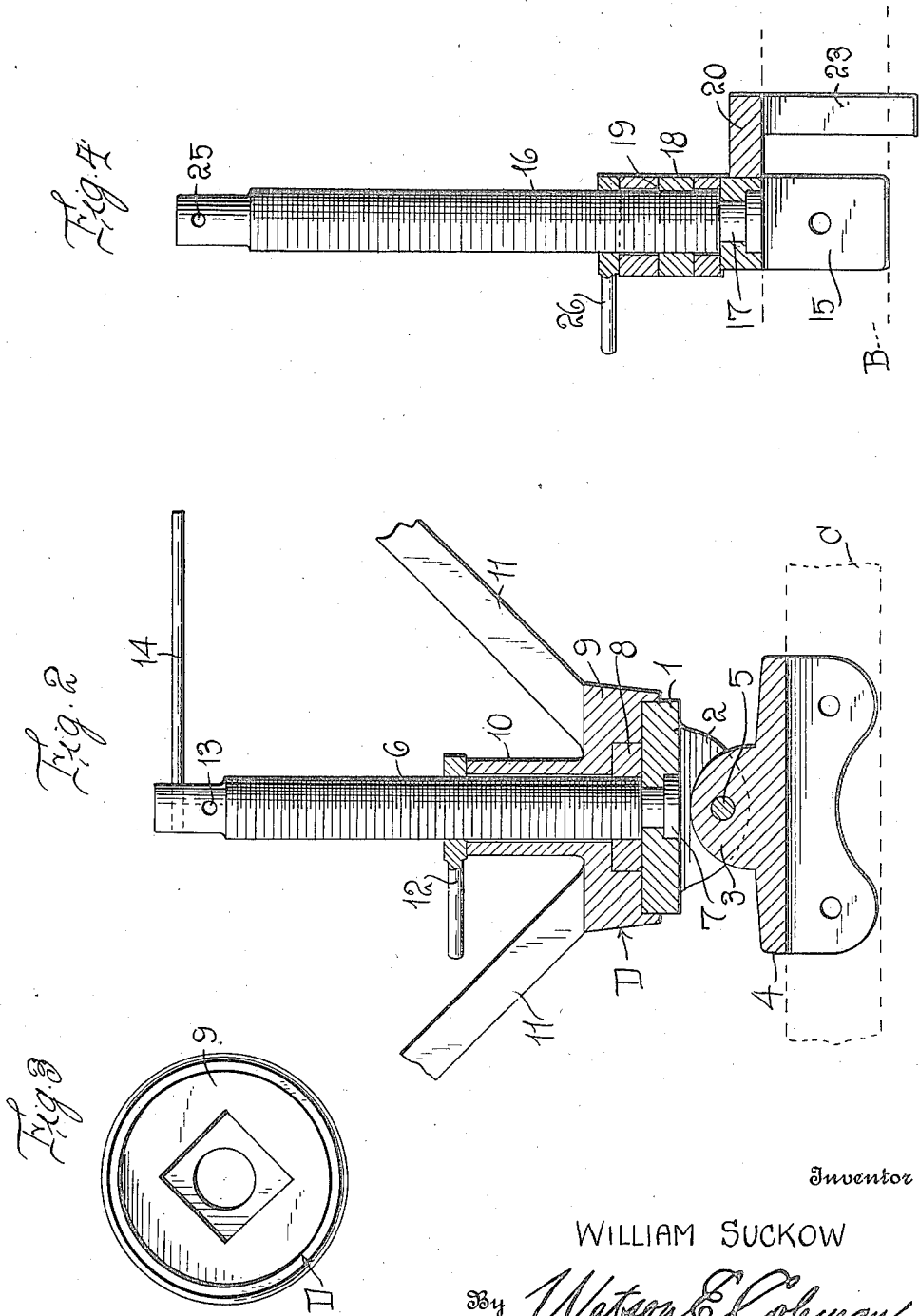
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Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM SUCKOW, OF MAYVILLE, WISCONSIN.

LEVELING DEVICE FOR THRESHING-MACHINES.

1,248,031.

Specification of Letters Patent.

Patented Nov. 27, 1917.

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To all whom it may concern:

Be it known that I, WILLIAM SUCKOW, a citizen of the United States, residing at Mayville, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Leveling Devices for Threshing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention comprehends certain new and useful improvements in threshing machines, and relates particularly to means for raising and lowering the body framework relative to the axles.

Threshing machines often have to be placed upon uneven ground and ordinarily the machines are simply "jacked" up. This not only takes time because the machine must remain inoperative while being jacked up, but the machine is supported in an unstable manner and altogether the use of jacks has been found extremely unsatisfactory.

The general object of my invention is to provide improved means for leveling the body framework of the machine relative to the axles and a further object is to provide means whereby the forward ends of the body may be raised or lowered, said means including a screw, which acts as the king pin for the fifth wheel of the front axle.

A further object is to so construct the leveling devices that the framework will be held securely in place when leveled and without any danger of the machine tilting over or of the axles turning or breaking.

And the invention also aims to generally improve devices of this character so as to render them more useful and commercially desirable.

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

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

Figure 1 is a side elevation of a threshing machine framework and running gear embodying the improvements of my invention, Fig. 2 (Sheet 2) is an enlarged vertical

sectional view of the raising and lowering device for the front end of the framework,

Fig. 3 is an inverted plan view of the upper fifth wheel member,

Fig. 4 is a vertical sectional view through one of the devices for elevating the rear end of the framework,

Fig. 5 (Sheet 1) is a detail view of one of the framework brackets employed,

Fig. 6 is a transverse sectional view thereof, and

Fig. 7 is a fragmentary sectional view illustrating the clamping device for the brace hereinafter specifically described.

Corresponding and like parts are referred to in the following description and designated in all of the views of the accompanying drawing by like reference characters.

Referring to the drawings, "A" designates the body framework of a threshing machine as a whole, "B" the rear axle, "C" the front axle, and "D" the fifth wheel.

In carrying out my invention, the lower member or bolster plate 1 of the wheel D is formed on opposite sides with depending ears 2 that are laterally spaced from each other and within which fits an apertured boss 3 that is formed on a casting or bracket 4 adapted to be clamped to the front axle C in any desired way. A pivot pin 5 extends transversely through the apertured ears 2 and boss 3, as shown, whereby the casting or bracket 4 is pivotally connected to the fifth wheel to permit the axle to rock laterally as required.

A screw-threaded and vertically extending standard 6 is swiveled at its lower end as at 7, in the lower fifth wheel member 1 and extends upwardly therefrom and engaged in and extends through a nut 8 carried by and preferably embodied in the upper fifth wheel member or bolster 9, the latter being preferably formed with a tubular extension 10 designed to serve as an additional bearing for said standard. The upper fifth wheel member or bolster plate 9 is connected in any desired way to the body frame work A as, for example, by the upwardly diverging supporting bars 11. Preferably a tail nut or lock washer 12 is mounted upon the screw-threaded standard 6 above the tubular bearing extension 10 and is designed for engagement therewith to hold the standard against accidental turning movement after the de-

sired adjustment has been effected, and the standard is formed at its upper end with any desired number of openings 13 to receive the rod 14 whereby the standard may be easily turned.

From as much of the description as has preceded in connection with the correlated views of the accompanying drawings, it is evident that whenever it is desired to raise or lower the body framework A at the front end thereof, the rod or standard 6 is turned in the required direction, and after the desired adjustment has been secured, the lock washer or tail nut 12 is moved down upon the standard 6 into engagement with the upper edge of the tubular extension 10.

15 15 designates a casting or bracket which is bifurcated as shown so as to fit over and upon the rear axle B at one end of the latter, said bracket being clipped or secured to the axle in any desired way, and 16 designates a screw-threaded rod which is swiveled at its lower end, as at 17, in the upper member or cross bar of said bracket. 20 The rod 16 has threaded engagement in and passes through a nut 18 mounted within a recess 19 formed in a preferably angular bracket 20 secured by bolts or similar fastening devices to one of the rear bolster sills 21, as shown. Preferably the bracket 20 is formed with a downward extension bifurcated at 22 to produce brace arms 23 that are designed to straddle and engage the rear axle B when the bracket 20 is in its lowermost position so as to take the strain off of the bracket or casting 15 and its concomitant parts, and preferably the bracket 20 is formed with a recess 24 to receive and accommodate the bracket 15 when the parts are in this position, whereby a very strong and stable connection is provided.

The screw-threaded rod 16 is formed in its upper end with any desired number of openings 25 like the openings 13 for the operating rod 14, and is also preferably provided with a lock washer 26, to hold it securely in an adjusted position.

A brace rod 27 is pivotally connected at its lower end, as at 28, between ears 29 that are formed on one of the downwardly extending arms or branches of the bracket 15, said brace rod 27 passing through a clamp 30 pivotally mounted upon a pin 31 projecting laterally from the outer face of the bracket 20. This clamp 30 may be tightened upon the brace rod 27 in any desired way as, for example, by means of the nut 32 provided with an operating handle or crank 33. By providing the brace rod 27, the rear axle is prevented from turning when the machine is raised.

It will thus be seen that I have provided a very practical, durable and efficient construction of device whereby the body frame-

work of the threshing machine may always be held level, irrespective of the character of the ground upon which the ground wheels are resting, and that the adjustment, that is, the raising or lowering of the body framework, may be very quickly and easily performed and without danger of the parts becoming broken or disarranged, and without interfering in any way with the threshing device.

While the accompanying drawings illustrate what I believe to be the preferred embodiment of my invention, it is to be understood that the invention is not limited thereto, but that various changes may be made in the construction, arrangements and proportions of the parts without departing from the scope of the invention as claimed.

What is claimed, is:

1. A vehicle embodying a framework and a fifth wheel at the forward end thereof, the fifth wheel comprising upper and lower members, an axle, a bracket secured to said axle and provided with an upwardly projecting boss, the lower member of the fifth wheel being formed with depending spaced apertured ears embracing said boss, a pivot pin extending through said ears and boss, a nut in the upper member of the fifth wheel, a connection between the framework and said upper member, and a screw-threaded standard working in and through said nut, and upper fifth wheel member, and having a swivel connection at its lower end with the lower fifth wheel member.

2. A vehicle embodying a framework, a front axle, and fifth wheel, a bracket secured to the axle and having pivotal connection with the lower member of the fifth wheel, the upper member of the fifth wheel being formed with an upwardly projecting tubular extension, a connection between said upper member and the framework, a nut embedded in said upper member, and a screw-threaded standard working in and through said nut and extension, and having a swivel connection with the lower member of the fifth wheel.

3. A vehicle embodying a framework, a front axle and a fifth wheel, a bracket secured to the axle and having pivotal connection with the lower member of the fifth wheel for transverse tilting movement of the framework relative to the axle, a connection between the upper member of the fifth wheel and the framework, a nut operatively held in engagement with said upper member, and a screw-threaded standard working in and through said nut and having a swiveled connection with the lower member of the fifth wheel.

4. A vehicle embodying a body frame, an axle, upper and lower fifth wheel members, the lower member being operatively pivoted to the axle for transverse rocking move-

ment, the upper member being operatively connected to the body frame, a screw passing through the fifth wheel members and forming a king pin, and a nut carried by the upper fifth wheel member and operatively engaging the said screw whereby a relative rotation of the nut and the screw will raise or lower the upper member of the fifth wheel and the body frame.

5. A vehicle embodying a body frame, an axle, upper and lower fifth wheel members, the lower member being connected to the axle and the upper member being operatively connected to the said body frame, a screw forming a king pin and passing through the upper and lower members of the fifth wheel, said screw having operative engagement with said upper and lower members of the fifth wheel to relatively raise and lower the body frame as the screw is turned.

6. In a vehicle embodying a framework and an axle, a bracket secured to the axle and a bracket secured to the framework, a threaded rod having a swivel connection with one bracket and threaded engagement with the other bracket, a brace rod pivotally connected to one bracket, and a clamp connected to the other bracket and engageable with said brace rod.

7. In a vehicle embodying a framework and an axle, a bracket secured to the axle, a bracket connected to the framework, a screw-threaded rod having a swivel connection with one of said brackets and a threaded connection with the other, the axle bracket being provided with ears, a brace rod pivotally connected at its lower end to said ears and extending upwardly therefrom, a pivotally mounted clamp carried by the framework bracket and through which clamp the brace rod extends, and means for tightening said clamp upon said brace rod.

8. A vehicle embodying a framework and an axle, a bracket secured to the axle, a

bracket secured to the framework, a threaded rod having a swiveled connection with one bracket and threaded engagement with the other bracket, a brace rod operatively pivoted upon the axle, and a clamp operatively connected to the frame and adjustably engageable with said brace rod whereby to hold the axle from rotative movement relative to the frame.

9. A vehicle embodying a frame work, an axle, a bracket secured to said axle, a bracket connected to the framework, a screw-threaded rod having swiveled engagement with the first named bracket and threaded engagement with the second named bracket whereby upon a rotation of the screw-threaded rod, the second named bracket will be raised or lowered relative to the first named bracket, the second named bracket being formed with depending arms defining a slot open at its lower end, the arms being adapted to embrace the axle, upon the lowering of the second named bracket.

10. A vehicle comprising a body frame, an axle, a bracket secured to said axle and embracing the axle, a screw-threaded member having swiveled engagement with said bracket extending upward therefrom, a second bracket operatively attached to the framework and having a laterally projecting portion formed with depending spaced arms engageable on each side of the axle, said second named bracket being formed with a nut recess, a nut in said recess engaged by said screw-threaded member, and means whereby the screw-threaded member may be rotated.

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

WILLIAM SUCKOW.

Witnesses:

GEO. C. WHEELER,
E. H. NABY.