(No Model.) 2 Sheets—Sheet 1.

J. HERBY.

FARM WAGON.

No. 419,672. Patented Jan. 21, 1890.

Fig. 1.

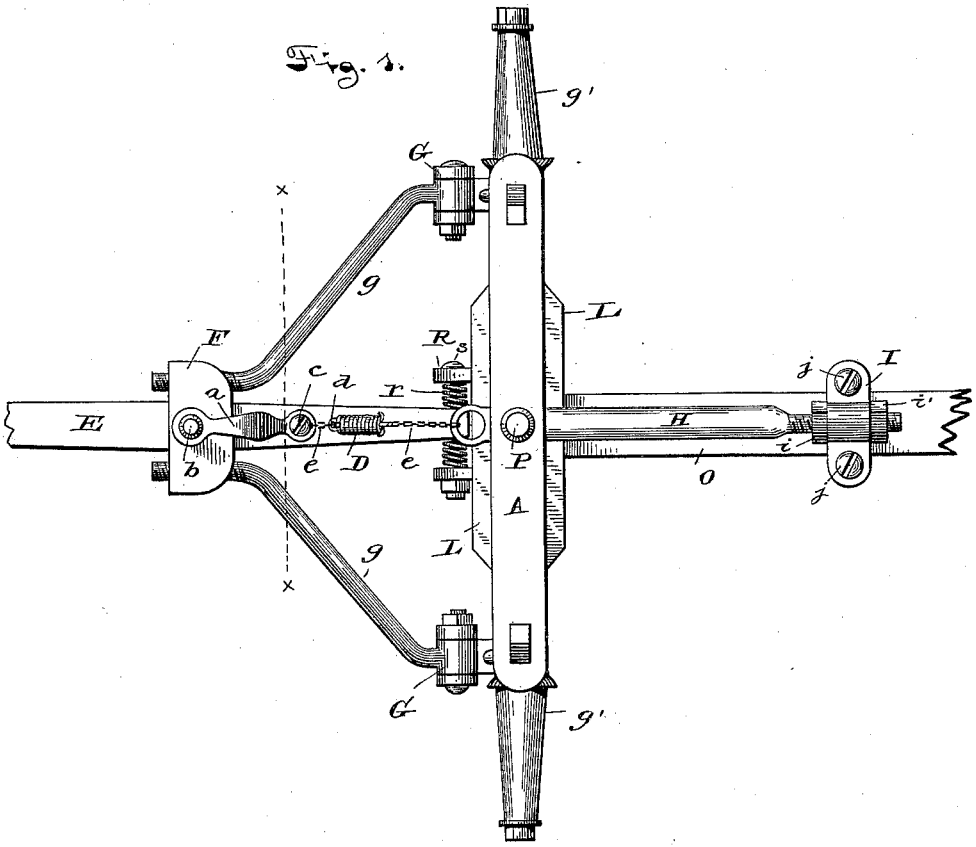
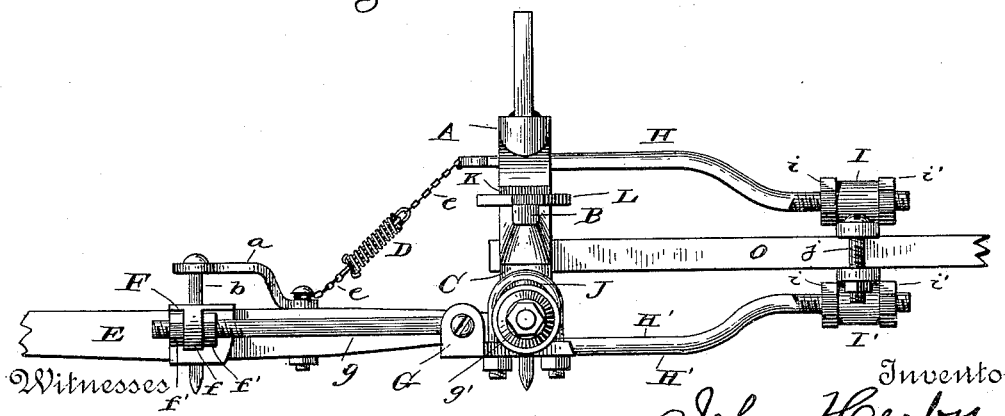


Fig. 2.



Witnesses
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A. H. Evans

Inventor
John Herby
per Milo Harris
Attorney

(No Model.) 2 Sheets—Sheet 2.

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FARM WAGON.

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Fig. 3.

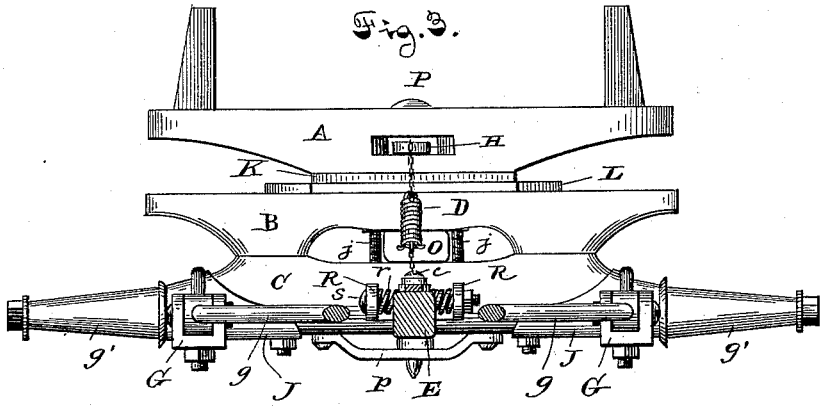


Fig. 4.

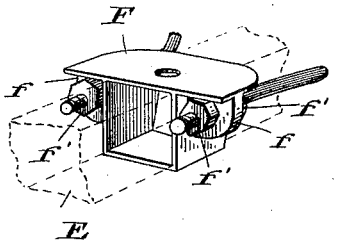


Fig. 5.

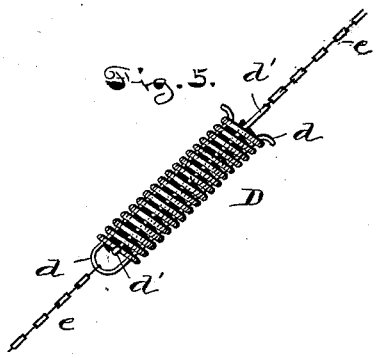
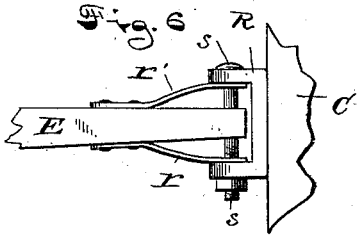


Fig. 6.



Witnesses

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A. N. Evans

Inventor

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UNITED STATES PATENT OFFICE.

JOHN HERBY, OF JAMESTOWN, NEW YORK, ASSIGNOR OF ONE-HALF TO MILO HARRIS, OF SAME PLACE.

FARM-WAGON.

SPECIFICATION forming part of Letters Patent No. 419,672, dated January 21, 1890.

Application filed October 21, 1889. Serial No. 327,673. (No model.)

To all whom it may concern:

Be it known that I, JOHN HERBY, a citizen of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Farm-Wagons; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to farm or lumber wagons, the object being to make them cheaper, stronger, lighter, and less liable to need repairs than those heretofore in use, and easier for the team to handle.

My improvements consist in dispensing with all hounds, sway-bars, circles, and other expensive parts heretofore used in the construction of the front gear of such wagons, and by clamping the reach at the proper place and inserting heavy braces into this clamp they extend forward and take the king-bolt—one being above the reach and one below the same—so that the draw is not only at three points on the king-bolt, but the front axle and bolster are held secure in proper position, and all rolling or swaying back and forth of these parts is remedied.

My invention further consists in so constructing the clamp and braces that the braces may oscillate or turn at their rear end in the clamp; also any wear of the braces or king-bolt can be readily taken up; also the pitch of the axle and bolster can be changed at will.

My invention further consists in securing a long heavy metal plate on the top of the sand-board, said plate being considerable wider than said sand-board, the object being not only to strengthen the front gear, but have a wide bearing for the bolster when turned at any angle.

My invention further consists in securing the pole to the wagon, so that the draw comes near the wheel and has a center draft on the axle. The pole can be held at any desired position, and is so pivoted in its connections that all heavy knocks are taken off the team.

My invention further consists in several other details, which will all be fully understood by this specification and the accompanying drawings, in which—

Figure 1 is a top plan view of my front gear; Fig. 2, a side elevation of same; Fig. 3, a vertical section of Fig. 1 on line *x x;* Fig. 4, a detail of tongue and brace support; Fig. 5, a detail of tongue, spring, and chain; Fig. 6, a modified form of tongue attachment.

In the drawings, C represents the wooden axle of the front gear of a wagon, to which is securely bolted the sand-board B, which is made heavy and rests on the axle, as shown in Fig. 3. This sand-board is provided with a long heavy metal plate L along its top, and is secured to it by bolts that hold the sand-board and axle together. This metal plate is made much wider than common and projects beyond the edges of the sand-board, as shown in Fig. 1, the object being not only to strengthen the gear, but have a wide bearing for the bolster when turned in any direction, and this saves all other support.

A is the bolster, which is secured to its place by the king-bolt P, and is made in common form, except that it has a slot through its center of sufficient size to take the brace H and allow it to turn for all needed purposes. The brace H has a hole near its front end, and when placed in this slot the king-bolt passes through it, and this brace extends beyond the bolster and has an eye, to which the chain of the tongue-spring is secured. The lower brace H has a hole in its front end to receive the king-bolt, and is kept securely in place by the strap P, which holds it up, as shown in Fig. 3. This strap is secured to the axle by bolts or screws, as shown, but may be lengthened and take the bolts that hold the sand-board to the axle. The rear end of braces H H are bent, and having their rear ends threaded pass through clips I I, and are secured by nuts *i i* on each side the clip. These clips are secured to the reach by bolts *j j*, and may have projections or other suitable means on their inner surface to prevent slipping on the reach. The object of rounding the back end of braces H H and passing through the clips and securing by nuts each side is not only to hold them securely to the reach in proper position,

but allow the braces to turn, so as not to cause strain on the reach while passing uneven surfaces, and by the nuts the front axle is readily adjusted to its upright position and held firmly; also, any wear on king-bolt or braces can be readily taken up.

F is a cast tongue-support having an opening through which the tongue E passes, and is provided with a hole for draw-bolt *b*, and has heavy ears *f f*, through which the draw-braces *g g* pass and are secured by nuts each side the ears, the object being not only to hold them secure in place, but allow of adjusting the braces so the tongue can be readily placed in line. The rear ends of braces *g g* are bent outwardly and made of proper dimensions to pass into the draw-clip head G and held by a bolt. The draw-clip head is held in place by clip around the axle.

R R are metal ears having suitable connections, and are firmly secured to the front of the axle. The tongue is made to fit the tongue-support F, through which it passes, having a hole to receive the draw-bolt, and its rear end provided with a hole or slot, through which a bolt *s* in the ears R R passes, as shown in Fig. 1. Around the bolt *s*, on each side the tongue, is a coiled spring *r*, for the purpose of keeping the end of the tongue in the center, and by the tongue being held in the tongue-support it allows the end to give to take off all hard knocks from the team in passing uneven surfaces. Instead of the coiled spring *r*, I sometimes use the flat steel springs, as shown in Fig. 6, which answer a good purpose. From the eye in front of brace H, I secure a chain *e e*, which is provided with a suitable coiled spring and connections through its center, having the lower end of chain *e* secured to the tongue at such a distance from the end that the tongue may be held at any desired height and still left to work freely, so as not to have any dead-stops, all of which will be readily understood by the drawings.

My improvements may be used with equal facility on all double or single wagons with wood, iron, or steel axles.

By my reach-connections and dispensing with hounds, sway-bars, and ironing of the same I make the wagon from three to five dollars less. It is fifty to seventy-five pounds lighter and very much stronger, and saves at least half the repairs on the wagon during its life-time, works easier for the team, and better in any spot or place than a hound-wagon.

I claim—

1. In farm-wagons, the reach connecting the rear and front gear in the usual form, said reach being provided with clips securely attached thereto, having holes to receive braces above and below the reach, (and in which holes they may turn,) said braces extending forward and taking the king-bolt above and below said reach at sufficient distance to hold the front gear in an upright position, substantially as shown, and for the purpose described.

2. In farm-wagons, the reach connecting the rear and front gear in the usual form, in combination with braces that take the king-bolt above and below said reach at their front end, the rear end passing through clips (securely fastened to the reach) and in which they turn, said braces being provided with nuts at each side of the clip, substantially as shown, and for the purpose described.

3. In farm-wagons, the reach taking the king-bolt at its front end, in combination with braces that take the king-bolt at their front end above and below said reach, having their rear ends secured to said reach by clips or other suitable means to allow said braces to turn sufficient to not cause strain on the reach while the wheels are passing uneven surfaces, substantially as shown, and for the purpose described.

4. In farm-wagons, the upper reach-brace H, held at its rear end, as shown, its front end passing beyond the bolster and provided with eye or hook, in combination with a tongue-spring and chain attached thereto and taking the tongue or thills of the wagon at such a distance from the hinge of tongue or thills that they may be held at any desired height to take the heft of same from the team, substantially as shown and set forth.

5. In farm-wagons, providing the front gear with a long heavy metal plate on top the sand-board, said plate projecting considerably beyond the edges of said sand-board and securely attached thereto, in combination with a bolster which rests thereon, and braces above and below the reach, taking the king-bolt at such a distance that the bolster, sand-board, and axle are held in an upright position, substantially as shown and described.

6. In farm-wagons, the tongue hinged at its rear end and provided with the tongue-support F, made substantially as shown, and through which the tongue passes, in combination with braces *g g*, which pass through ears in said tongue-support and are provided with nuts on each side the ears to adjust the tongue into line, substantially as shown, and for the purpose set forth.

That I claim the same as my own I subscribe my name in presence of two witnesses.

JOHN HERBY.

Witnesses:
MILO HARRIS,
WILLIS O. BENEDICT.