W. P. GENTLE.

WAGON GEAR.

APPLICATION FILED MAR. 12, 1915.

1,154,505.

Patented Sept. 21, 1915.

2 SHEETS—SHEET 1.

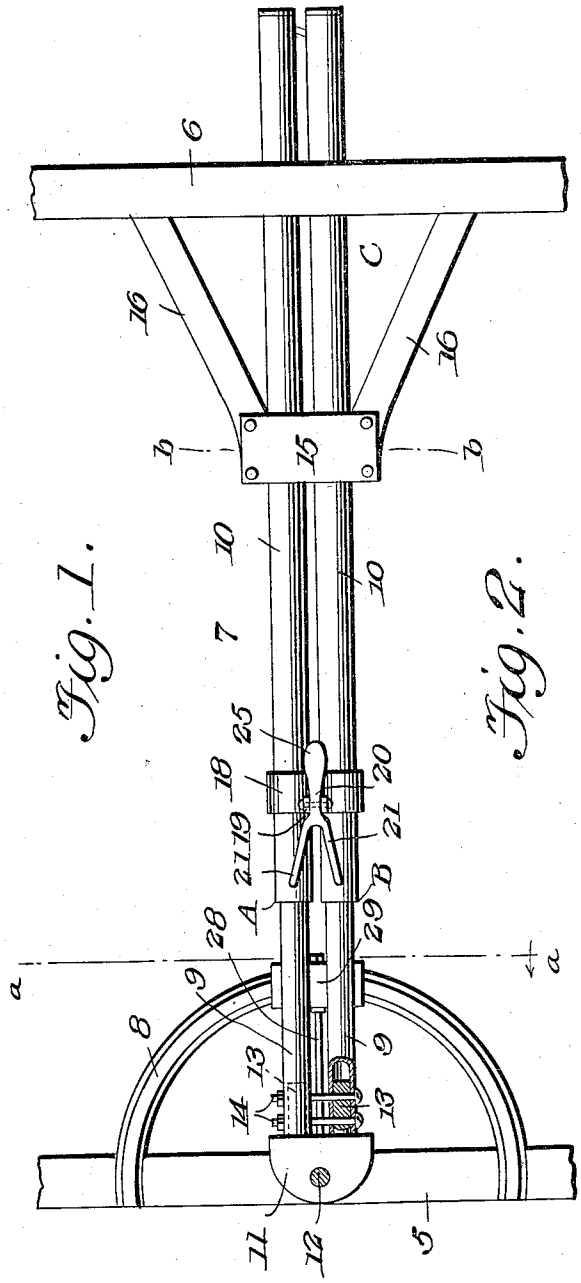


Fig. 1.

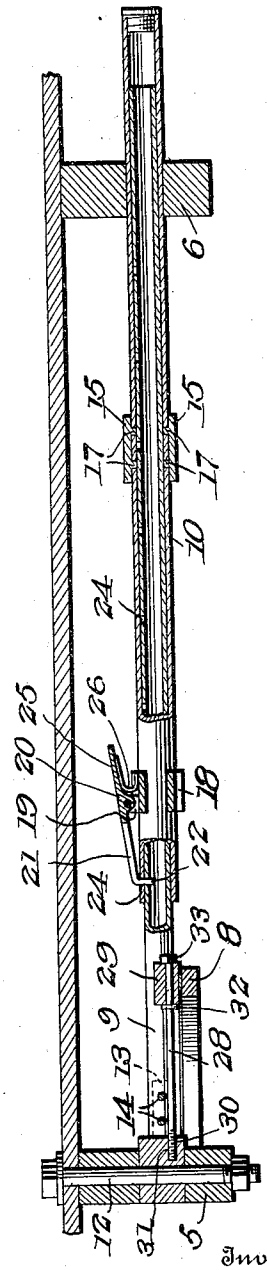


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

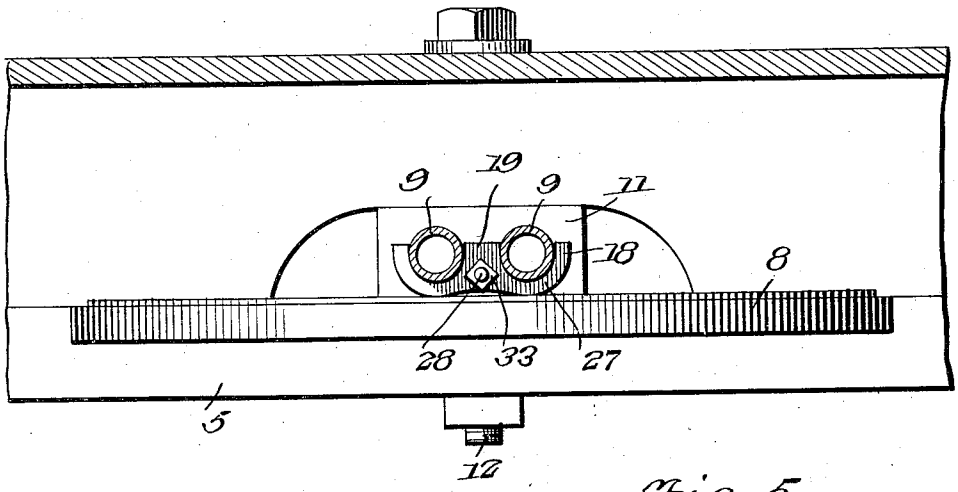


Fig. 4.

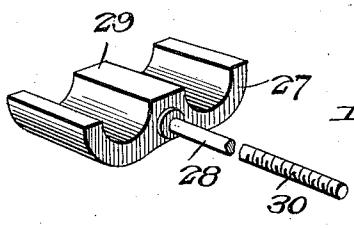


Fig. 5.

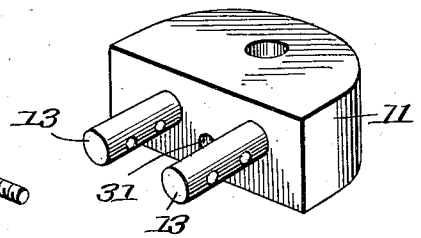


Fig. 6.

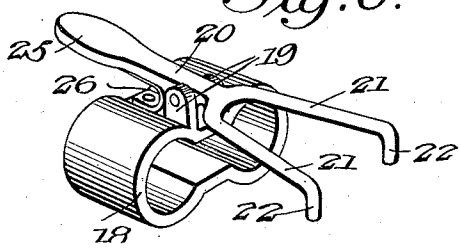
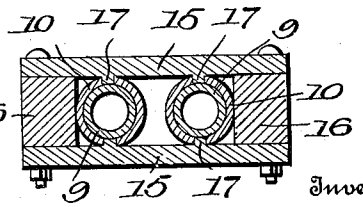


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

WALDO P. GENTLE, OF HEPLER, KANSAS.

WAGON-GEAR.

1,154,505. Specification of Letters Patent. Patented Sept. 21, 1915.

Application filed March 12, 1915. Serial No. 13,954.

To all whom it may concern:

Be it known that I, WALDO P. GENTLE, a citizen of the United States, residing at Hepler, in the county of Crawford and State of Kansas, have invented new and useful Improvements in Wagon-Gears, of which the following is a specification.

This invention relates to wagon constructions and more particularly to wagon gears.

The invention aims to provide a wagon gear, wherein the reach bar is capable of adjustment with a view of increasing or decreasing the length of the wagon when desired.

Another object of the invention resides in the provision of a novel construction of a reach bar, together with a novel construction of means for locking the bar in adjusted position.

Among other features the invention embodies simplicity in construction, durability and efficiency in use.

Other objects will appear as the nature of the invention is better understood, the same residing in the construction, combination and arrangement of parts hereinafter more fully described.

In the drawings forming part of this application like numerals of reference indicate similar parts in the several views and wherein:—

Figure 1 is a top plan view of a wagon gear constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a transverse sectional view taken on line *a*—*a* of Fig. 1. Fig. 4 is a detail perspective view of the wear plate. Fig. 5 is a similar view of the clamp and locking element. Fig. 6 is a similar view of the connection between the reach bar and front axle. Fig. 7 is a transverse sectional view taken on line *b*—*b* of Fig. 1.

Upon reference to the drawings in detail, the wagon gear comprises front and rear axles 5 and 6 respectively, connected by means of the reach bar 7, and a fifth wheel 8.

The reach bar is composed of spaced parallel pipes A and B respectively, each consisting of telescopic sections, the inner sections 9 being connected to the front axle through the medium of a casting 11 in the form of a plate, through which the king bolt 12 is passed, the plate being formed with spaced parallel forwardly projecting lugs 13 of circular outline, which project within the sections 9 a short distance, and are secured thereto by means of rivet bolts 14, the latter extending transversely therethrough as shown. The outer sections 10 pass between spaced superimposed plates 15 carried by the rear hounds C, which latter consists of forwardly converging bars 16, and secured thereto by means of the lugs 17 projecting from the plates 15 through suitable apertures in said sections, thereby retaining said reach bar fixed with relation to the rear axle 6. Obviously by reason of this construction, the sections 9 and 10 of the reach bar may be extended or collapsed to increase or decrease the length of the wagon as the occasion may demand.

With a view of retaining the sections 9 and 10 in any desired adjusted position, I employ what may be termed a duplex ring clamp 18, the latter embracing the outer sections 10 of both the parallel pipes A and B respectively. Rising from the clamp 18 are spaced pivot lugs 19 between which is pivoted a locking element 20, the latter having forwardly diverging branches 21 terminating in depending hooks 22 adapted to extend through suitable apertures 24 in the telescopic sections of each pipe, when these apertures are brought into registry, and a relatively broad flat manipulating portion 25. Interposed between the portion 25 of the locking element and the clamp 18 is a spring 26 operating to normally maintain the manipulating portion elevated and the hook terminals 22 operatively associated with the pipe sections in the manner hereinabove described. Manifestly, it is only necessary to depress the manipulating portion 25 against the spring 26, thus moving the hook terminals 22 out of engagement with the pipe sections, to permit adjustment of the latter, and subsequent to this adjustment of the sections the spring 26 operates to return the locking element to normal position upon release of the same.

I further aim to prevent wear between the pipes A, B, and the fifth wheel, and to carry this idea into effect I employ a duplex semicylindrical member 27 for the reception of the parallel pipes A and B, the member being positioned as clearly shown in the drawing between the said pipes and the fifth wheel 8. The member 27 is mounted upon the rod 28, the latter passing through the center wall 29 of the member and having a threaded forward end portion 30 for adjustable engagement with the threaded bore 31,

in the plate 11. The member is held upon the rod 28 between a fixed collar 32 and a nut 33 on the opposite end of the rod. The member 27 may be constructed from any suitable material for its purpose, it being understood that this member serves in the capacity of a wear plate for engagement with the fifth wheel, with a view of properly spacing the pipes A and B therefrom. Obviously by rotating the rod 28 in the proper direction, the member 27 may be adjusted toward or away from the front axle the required distance to properly position this member with respect to the pipes and fifth wheel.

It is believed that from the foregoing description the nature and advantages of the invention will be thoroughly understood without requiring a more extended explanation, and therefore the same has been omitted. However I desire to have it understood that I do not limit myself to the precise construction and arrangement herein shown and described, as the same is merely illustrative of the invention, and that various changes in this respect may be resorted to when desired as fall within the scope of the appended claims.

What is claimed is:—

1. In a wagon gear, front and rear axles, a reach bar pivotally connected with the front axle and supported in fixed relation to the rear axle, said bar comprising telescopic sections, a clamp embracing said bar, and a spring pressed pivoted locking element supported by said clamp for adjustment within registering apertures in said sections to retain the latter in adjusted position.

2. In a wagon gear, front and rear axles, a reach bar pivotally connected with the front axle and supported in fixed relation to the rear axle, said bar comprising telescopic sections, a clamp embracing said bar and adjustable longitudinally thereon, and a spring pressed pivoted locking element supported by said clamp for engagement within registering apertures in said sections to retain the latter in adjusted position.

3. In a wagon gear, front and rear axles, a reach bar pivotally connected with the front axle and supported in fixed relation to the rear axle, and comprising spaced parallel pipes, said pipes including telescopic sections, a duplex ring-like clamp embracing said pipes, a spring pressed locking element carried thereby, and said element having branches terminating in hooks for engagement within registering apertures in said sections for locking the latter in adjusted position.

4. In a wagon gear, front and rear axles, a fifth wheel, a reach bar connecting said axles, a member pivotally connecting the forward end of said bar to the front axle, a rod adjustably connected with said member and extending rearwardly therefrom in parallelism with said bar, and a wear plate of corresponding configuration to said bar mounted on the rod and embracing said bar between the latter and said fifth wheel.

5. In a wagon gear, front and rear axles, a fifth wheel, a reach bar connecting said axles and comprising spaced parallel pipes, a member pivotally connecting the forward ends of said pipes with the front axle, a rod adjustably associated with said member and disposed between said pipes in parallelism therewith, and a duplex semicylindrical member mounted on said rod, embracing said pipes and disposed therebetween and said fifth wheel for the purpose specified.

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

WALDO P. GENTLE.

Witnesses:
J. A. Owings,
A. L. Owings.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."