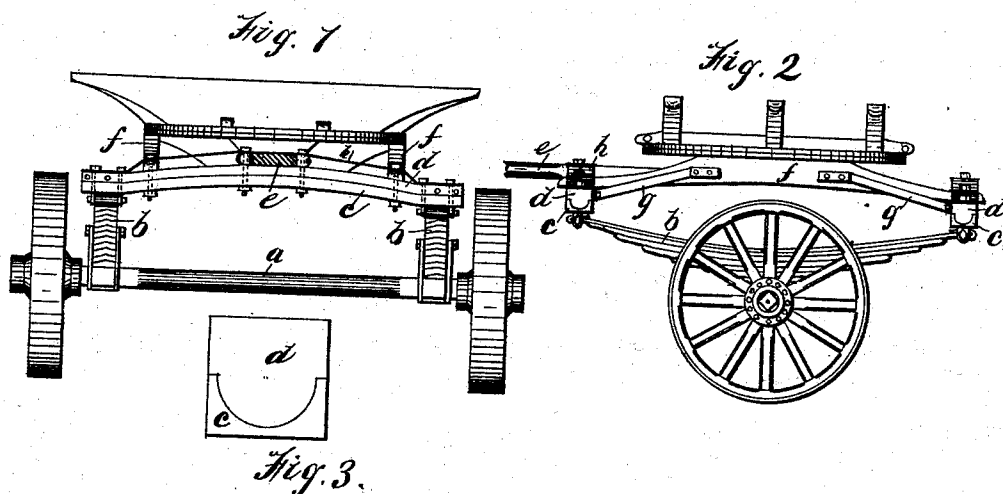


(No Model.)

T. GEISEL.
WAGON.

No. 505,100.

Patented Sept. 19, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

THEODOR GEISEL, OF SPRINGFIELD, MASSACHUSETTS.

WAGON.

SPECIFICATION forming part of Letters Patent No. 505,100, dated September 19, 1893.

Application filed June 2, 1893. Serial No. 476,345. (No model.)

To all whom it may concern:

Be it known that I, THEODOR GEISEL, a citizen of the United States of America, and a resident of Springfield, Hampden county, Massachusetts, have invented new and useful Improvements in Wagons, of which the following is a specification, reference being had to the accompanying drawings and letters of reference marked thereon.

My invention relates to the construction of the bars which extend transversely across the wagon frame and which support the box, and to which the tongue is secured.

In the accompanying drawings in which like letters of reference indicate like parts, Figure 1 is a front-end view of a wagon having my improved construction of cross piece or tie. Fig. 2 is a side view of the forward truck and Fig. 3 is an end view on an enlarged scale of the cross piece or tie.

In detail *a* indicates the axle, *b* springs, *c* the metal portion of the cross piece, *d* the wooden portion, *e* the tongue, *f* supports resting upon the cross pieces and supporting the lower part of the fifth wheel, *g* braces, and *h* tie rods.

The difficulty experienced heretofore has been that the cross pieces have sagged in the center and thus lowered the tongue, throwing a part of the weight of the tongue upon the horses' necks and causing them to become chafed and sore. To avoid this and to hold the tongue in the desired horizontal position as well as to prevent its being lowered by the bending, sagging or springing of the cross pieces, it is requisite that these cross pieces be constructed in such manner as to effectually prevent their being bent or sprung from their normal position. To accomplish this result I construct the cross pieces of iron and wood or steel and wood, the metal being formed as shown at *c* in Fig. 3 and the wood as shown at *d* in the same figure. The cross pieces are shaped as shown in Fig. 1 curved upwardly slightly in the center and the ends rest upon and are secured to the springs. The fifth wheel supporting pieces *f*, extend from cross piece to cross piece, and braces *g* extend from the cross pieces to the supports *f* one end of each brace being secured to the

wooden portion of the cross piece. The part *f* supports the lower portion of the fifth wheel, and upon the upper portion of the fifth wheel are mounted the usual supports for the box or truck platform. The end of the tongue *e* rests upon the top of the front cross piece as shown.

Having therefore described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a wagon of a truck having cross pieces whose lower parts are rigid metal *U* shaped in cross sections, and having the upper portion of wood, fitting in the recess in the metal and projecting above the sides thereof substantially as shown.

2. The combination in a wagon of cross pieces formed of the metal part *c*, of rectangular shape in cross section except for a longitudinal recess curved in cross section and the wood part *d* shaped to fit the recess in the metal substantially as shown.

3. The combination in a wagon of wheels, suitable axles, springs mounted on the latter, cross pieces connecting the ends of adjacent springs, said cross pieces comprising metal parts *c* recessed longitudinally, wood parts *d* fitting the recess in the metal and projecting above the same, supports *f* resting upon said cross pieces, and braces *g* extending from the supports *f* to the wooden portion of the cross pieces and secured thereto substantially as shown.

4. The combination in a wagon or truck of suitable wheels, suitable axles, suitable supports for the frame work,—cross pieces comprising a metal strip rectangular in cross section except for a longitudinal groove extending the whole length thereof and circular in cross section, and a wooded strip *d* fitting the groove in the metal and projecting above the same, said cross pieces being formed to curve upwardly as shown in the central portion, and means to secure the tongue to the top portion of the front cross piece substantially as shown.

THEODOR GEISEL.

Witnesses:

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