

W. H. Keppel & H. Huffsey Imp^t in Vehicles.

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Fig. 1.

PATENTED JUN 27 1871

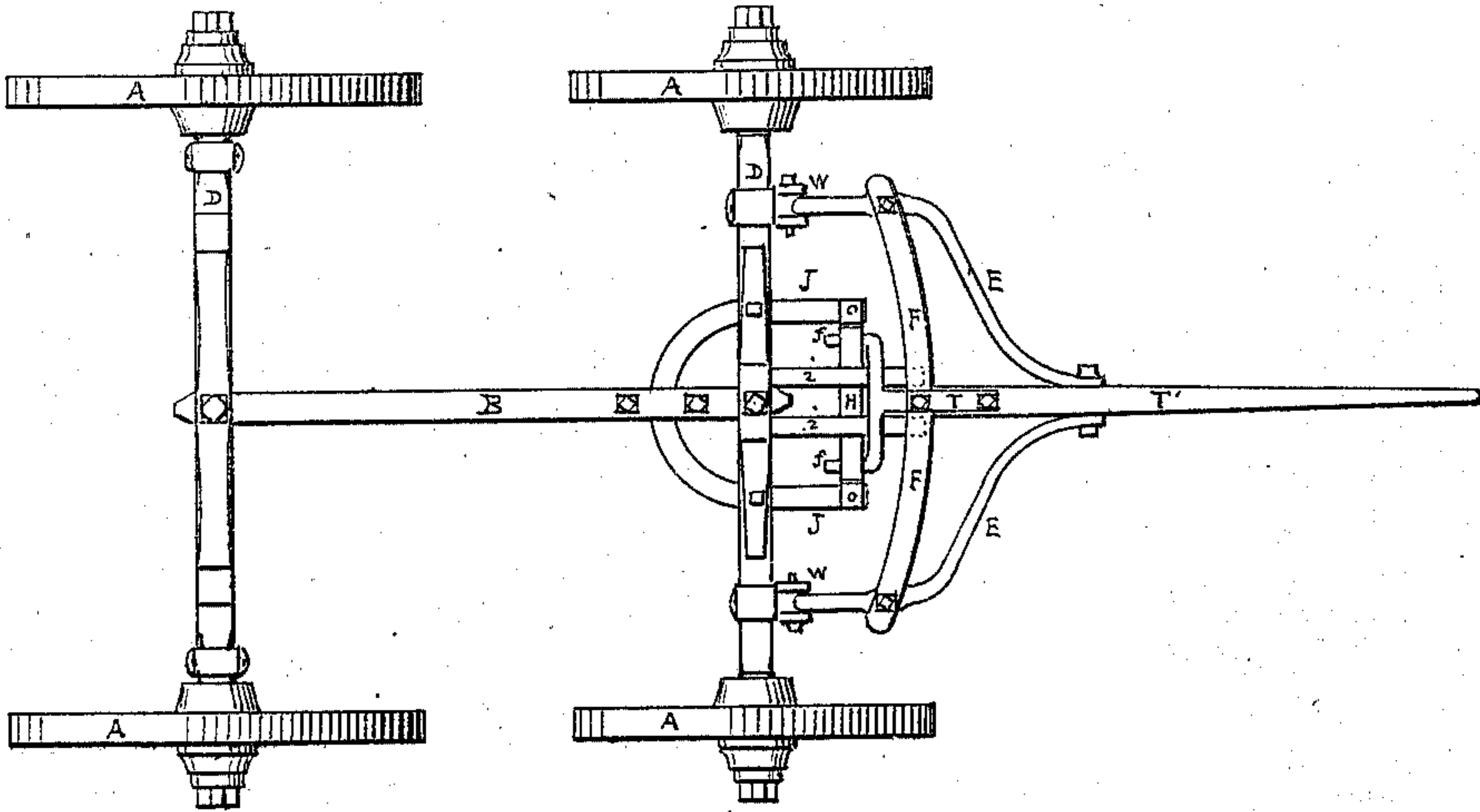


Fig. 3.

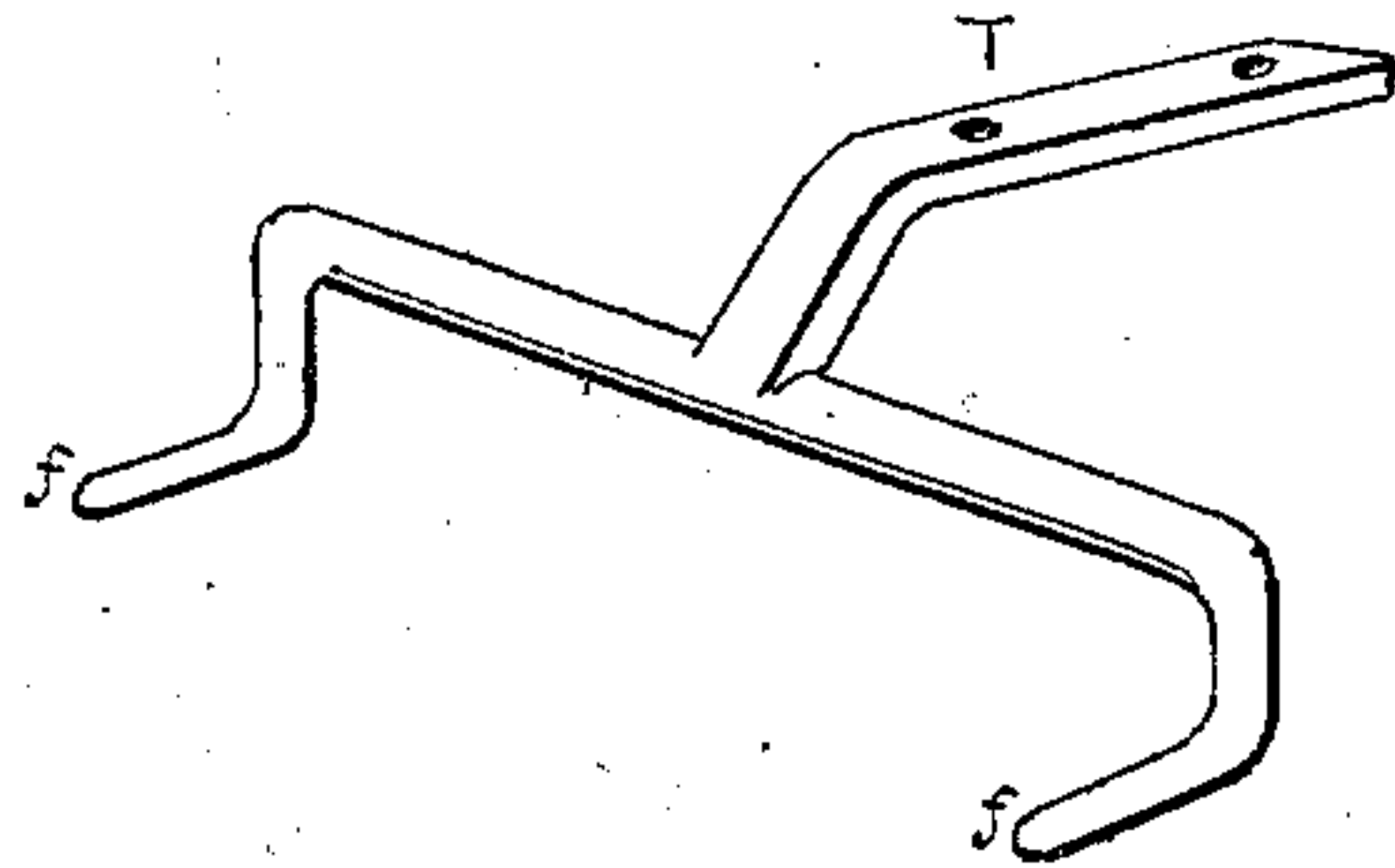
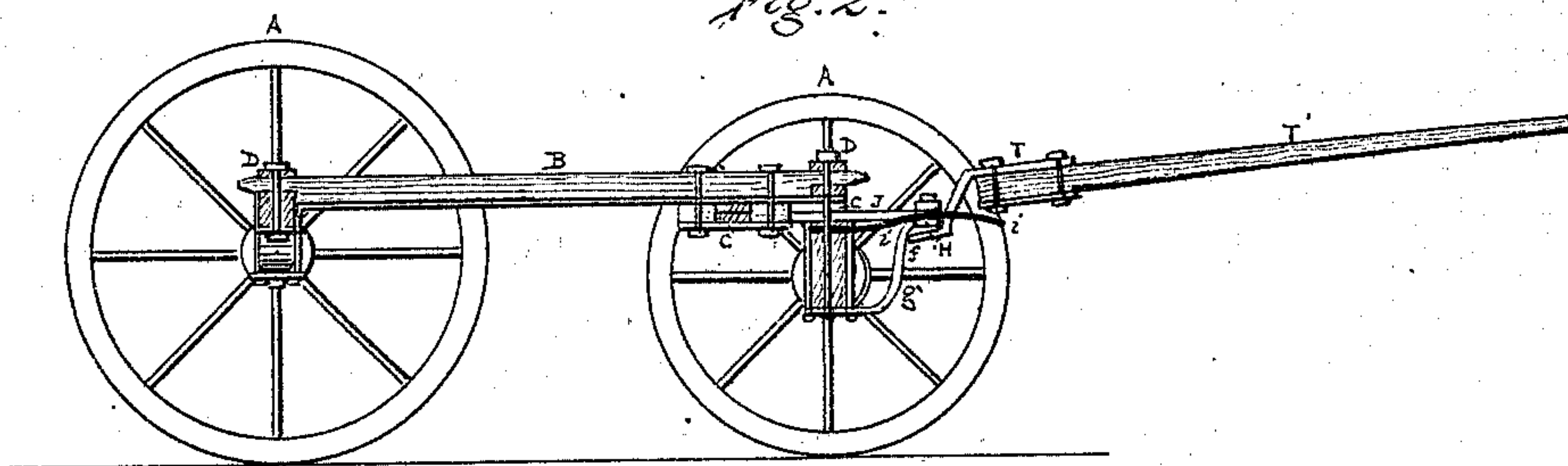


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM H. KEPPEL AND HENRY HUFFSEY, OF TIFFIN, OHIO.

IMPROVEMENT IN VEHICLES.

Specification forming part of Letters Patent No. 116,528, dated June 27, 1871.

To all whom it may concern:

Be it known that we, WILLIAM H. KEPPEL and HENRY HUFFSEY, of Tiffin, in the county of Seneca and State of Ohio, have invented a new and useful Improvement in Vehicles; and we do hereby declare that the following is a full, clear, and exact description thereof.

The nature of our invention consists in providing certain devices placed mainly back of the rear end of the tongue of a wagon or other like vehicle and in front of the fore axle, by which the forward end of the tongue is held in proper position, so that it shall not rest upon the necks of the animals, or rise up while backing or holding back in going down hill, so that the harness will not slip forward on their necks; and also by means of these devices the bearings of the tongue are made as elastic as may be desired.

The devices will be hereinafter more fully shown and described.

Figure 1 shows a plan of a wagon embracing our improvements in its construction; Fig. 2, a vertical central sectional view of the same; Fig. 3, a detail view of the tongue attachment or T-bar in perspective.

In the drawing, A A A A are the four wheels; B, the reach; C, the fifth-wheel proper; J J, the extensions in front of the axle; H, the iron cross-bar; *i i*, the springs, which are fastened under the axle bed-plate and extend forward over the bar H, and thence under the wooden cross-bar F of the tongue T'. J J are the extensions of the fifth-wheel, which sustain the iron cross-bar H, which itself furnishes a prop for the springs *i i* and holds down the ends of the branches of the T-bar *f*. The said extensions of the fifth-wheel are supported by the brace-rods *g g*. *w w* are the goose-necks, and E E the braces for the same as well as of the tongue. The tongue attachment or T-bar *f* has a peculiar form, which is shown in Fig. 3. Its forward end is bolted to the tongue,

and then in the rear of that point it is bolted through the wooden cross-bar F; thence it extends back and bends down, as shown, and is formed into two branches, which extend a certain distance to the right and left at right angles to the main stem, and over the springs *i i*, and then bends down abruptly, and thence extends back horizontally under and a little beyond the iron cross-bar H. These springs *i i* are plain flat bars of suitable metal, and bent, as shown in Fig. 2, and the branches of the T-bar *f* cross over them about one inch forward of the iron cross-bar H.

It will be obvious, from this description, that, while the weight of the tongue rests upon the forward ends of the springs *i i*, the branches of the T-bar *f* or tongue attachment extending across and over the springs and under the iron cross-bar H, will prevent the tongue from being unduly elevated or depressed, so that, whether the vehicle is being backed or drawn up hill, the tongue is always kept in a proper adjustment, and the animals' necks do not, therefore, sustain its weight. In the use of our improvements, it is obvious that, in taking off or putting on the tongue, there is no sagging or twisting of the same when one of the drawn bolts is taken out or put in; but it is held up by the springs *i i*, and the work of taking off or putting on is done easily, much more so than it could be done without our improvements.

What we claim as our invention is—

The combination of the extensions J J of the fifth-wheel C, the iron cross-bar H, the springs *i i*, and the T-bar *f*, when each is constructed and all arranged substantially in the manner and for the purposes described.

WILLIAM H. KEPPEL.
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Witnesses:

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