

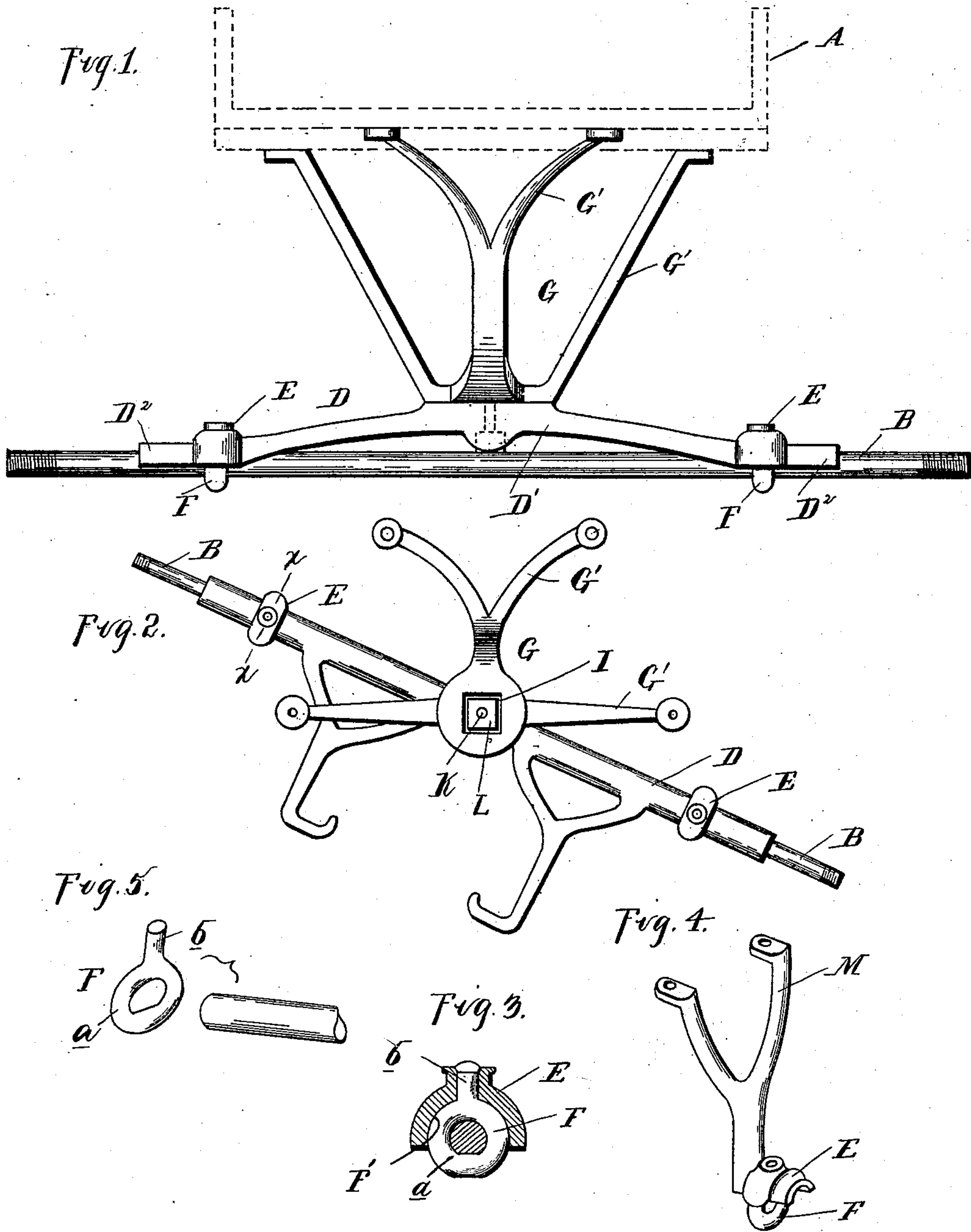
(No Model.)

2 Sheets—Sheet 1.

F. H. HARRIS.
WAGON RUNNING GEAR.

No. 465,370.

Patented Dec. 15, 1891.



Inventor

Frank H. Harris

By *Mos. S. H. Harris*
Attys.

Witnesses
A. L. Hobbie
M. B. O'Gheerty

(No Model.)

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Fig. 6.

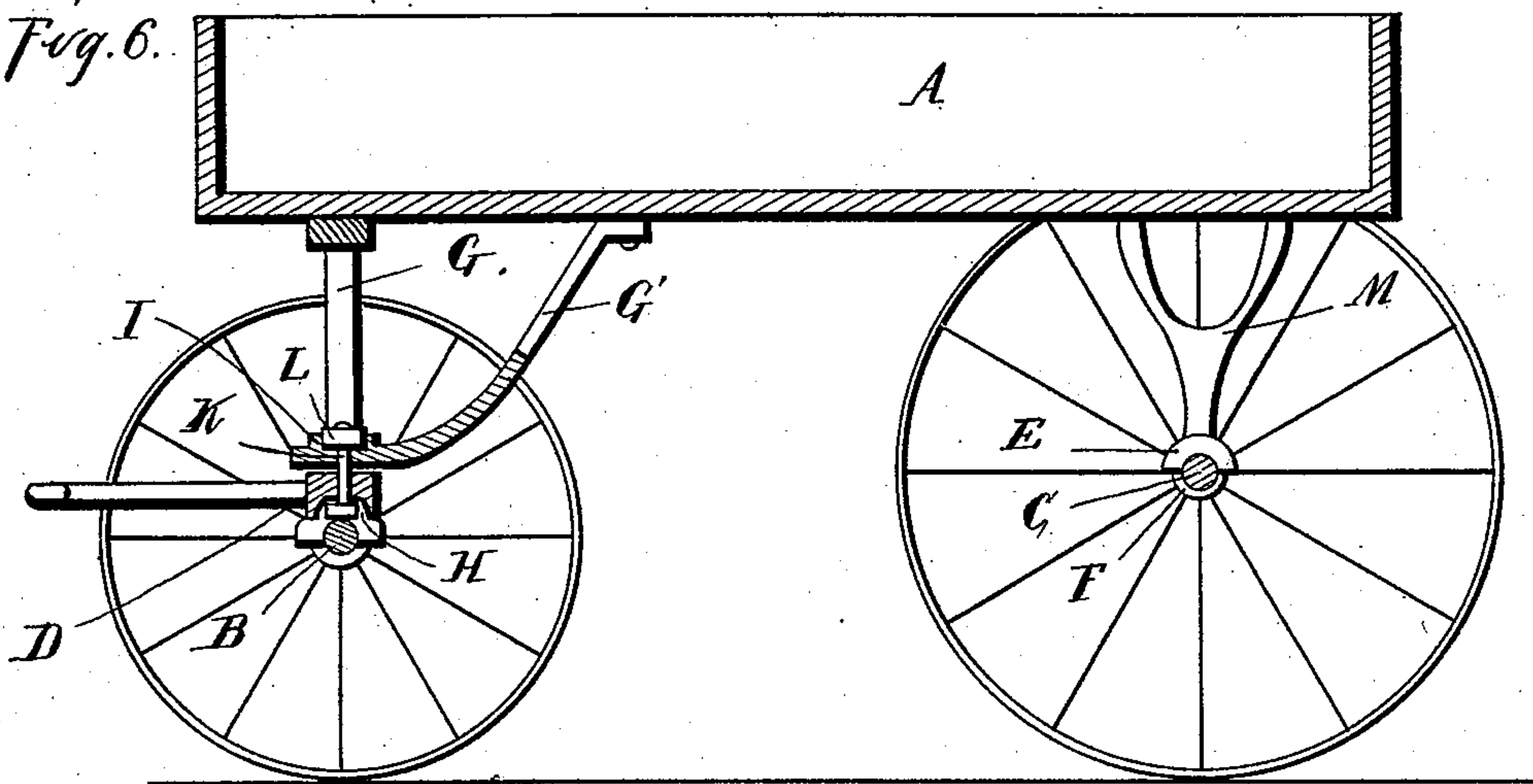


Fig. 8.

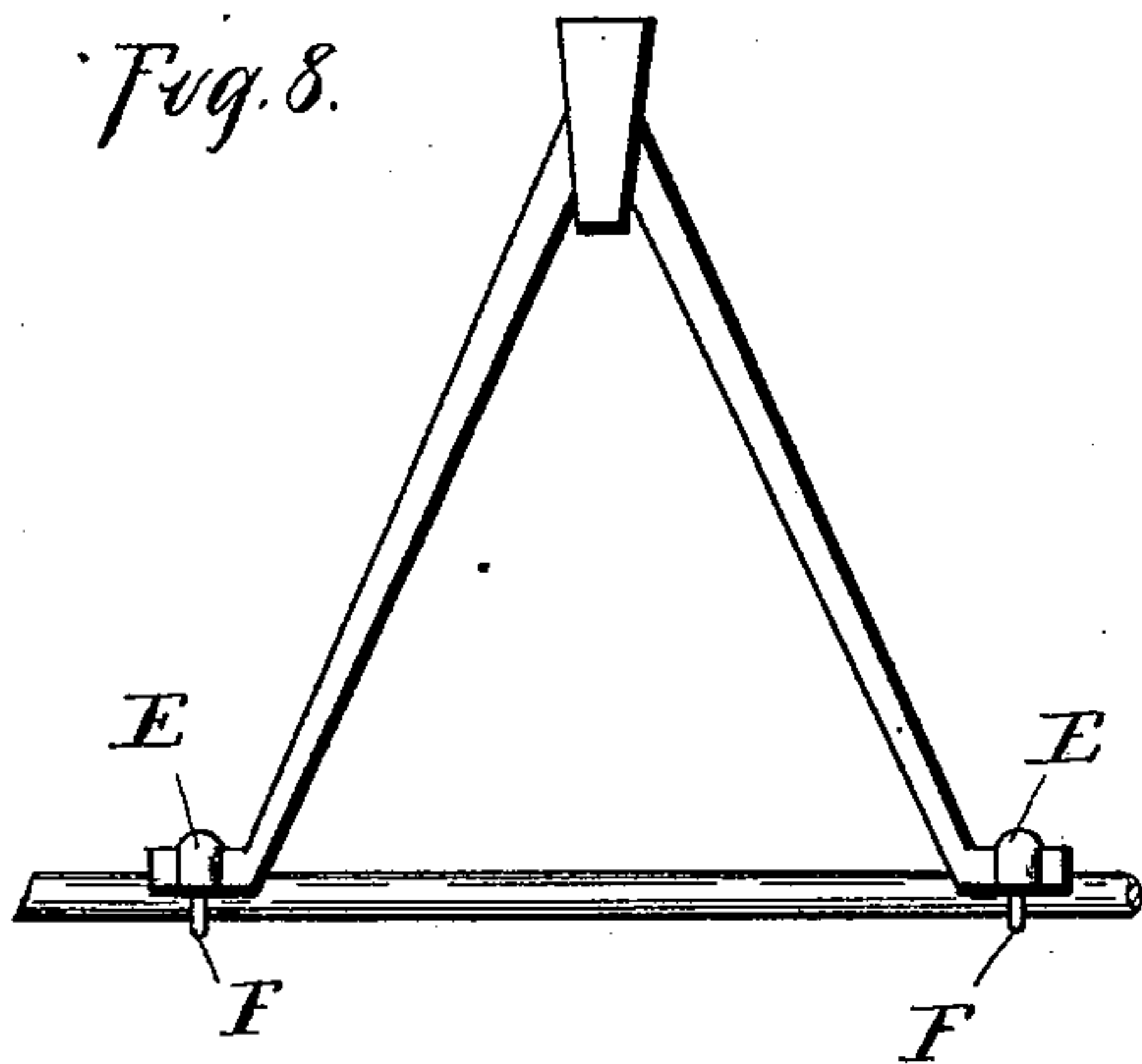
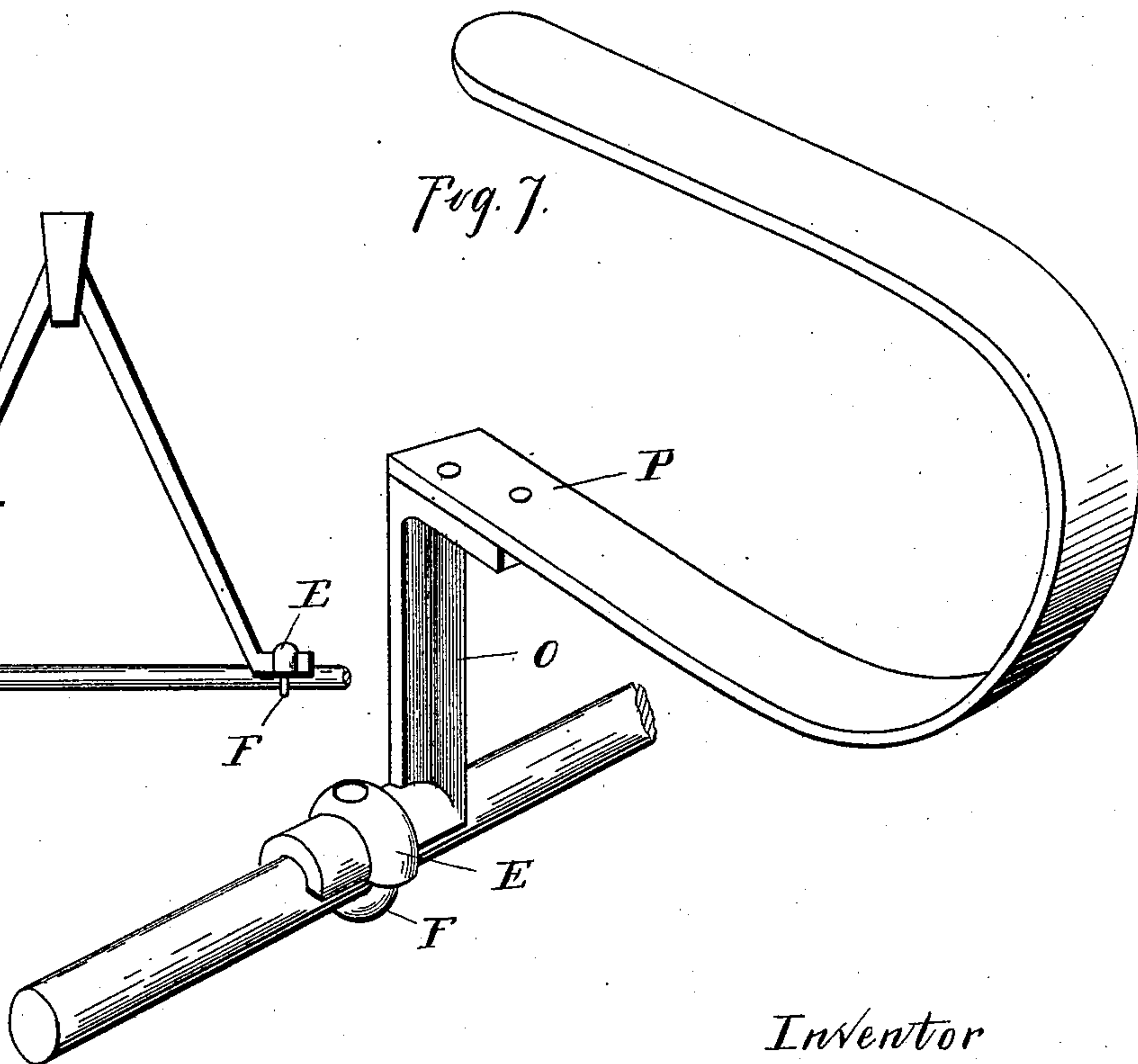


Fig. 7.



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UNITED STATES PATENT OFFICE.

FRANK H. HARRIS, OF TOLEDO, OHIO.

WAGON RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 465,370, dated December 15, 1891.

Application filed December 26, 1890. Serial No. 375,910. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. HARRIS, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
5 invented certain new and useful Improvements in Wagon Running-Gear, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful
10 improvements in wagon running-gear; and it consists in the peculiar construction of the axle-cap and brackets designed to rest upon the axle, and of an eyebolt having the eye
15 portion sleeved upon the axle, and a bolt portion passing through a socket formed in the cap and headed thereon; and, further, in the peculiar construction of the axle-cap and
20 bolster and the means for securing the king-bolt therein, and, further, in the peculiar construction and combination of the various parts, all as more fully hereinafter described.

My invention is especially designed to be used in the construction of toy express-wagons and other similar devices, and I have
25 shown it in the drawings applied to an express-wagon of this type.

In the drawings, Figure 1 is an elevation of the front axle of a toy express-wagon embodying my invention. Fig. 2 is a top plan
30 view thereof. Fig. 3 is a cross-section on line $x x$ in Fig. 2. Fig. 4 is a detached perspective view of the rear bracket. Fig. 5 is a detached perspective view of the eyebolt. Fig. 6 is a
35 vertical central longitudinal section through the wagon and gear. Figs. 7 and 8 are views showing the application of different parts to the axle.

A is the body, B is the front axle, and C is the rear axle, of an express-wagon of ordinary
40 construction.

D is the axle-cap, having the central bearing or yoke D' and the end bearing D^2 , resting upon the top of the front axle B. This cap is provided near its ends with the raised bear-
45 ings E, which are provided with a central aperture extending through the top.

F is an eyebolt, of wrought or malleable iron, the eye portion a thereof being sleeved upon the axle, while the bolt portion b passes
50 through the aperture in the raised bearing E. The bearing E is provided with a suitable saddle or recess F' , and adapted to engage

over and fit the top of the eye portion a of the eyebolt.

When the axle-cap is placed upon the axle, 55 with the bearing E engaging the eyebolt in the manner described, the operator, placing the eyebolts upon the anvil or other suitable block, heads the bolt portion b , as shown in Fig. 3. The same operation will tightly clamp 60 the eye portion a upon the axle and prevent any lateral movement thereof in addition to securing the axle-cap to the axle by the head formed upon the bolt portion b .

G is a bolster provided with suitable up- 65 wardly - extended arms or brackets G' , by means of which it is secured to the under side of the wagon-body.

H is a squared socket formed on the under side of the axle-cap in the central bearing D' , 70 while a corresponding squared bearing I is formed on the top of the bolster G. The bolster and axle-cap are apertured to receive a king-bolt K, the head of which is engaged in the bearing H, while the bolt extends up 75 through the bolster. A suitable nut L being placed upon this bolt, it is turned down until it engages in the squared bearing I in the bolster, and then the two parts may be firmly se- 80 cured together by turning the bolster upon the axle-cap, the bearing I carrying the nut with it, while the bolt-head is prevented from being turned by engaging in the squared bearing H. It is evident, if the bolster is now 85 secured to the body of the wagon, that the parts cannot become disengaged except by turning the axle a number of times around beneath the body, which is not likely to happen in the ordinary use of such a wagon.

M are the brackets supporting the rear por- 90 tion of the body upon the rear axle. These brackets are provided with a suitable bearing E, the same as on the axle-cap, and the eyebolt F is engaged upon the rear axle, the parts being secured together in the same man- 95 ner described for the front axle.

While I have shown my improved device applied to the running-gear of a toy wagon, it is evident that the same construction may be employed in securing gears of other ve- 100 hicles to the axle. For instance, in Fig. 7 I have shown it employed in securing a bracket O to the axle, which bracket carries a spring P, designed to be employed in the manufac-

ture of baby-carriages, and in Fig. 8 I have shown it employed in securing the forked ends of the backbone of a tricycle to the rear axle.

It is evident that many other uses may be found for my improvements, and I do not limit myself to its specific use to wagon running-gear.

What I claim as my invention is—

In a wagon running-gear, the combination, with the axle-cap and bolster, of a bearing on the under side of the axle-cap, adapted to re-

ceive the head of the king-bolt, the king-bolt having its head secured therein and extending through the top of the axle-cap, and a bolster apertured to receive the nut on said bolt, substantially as described.

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

FRANK H. HARRIS.

Witnesses:

L. G. RICHARDSON,
EDW. S. BARKDULL.