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TRUMAN H. ALLEN.

Improvement in mode of Attaching Springs to Vehicles.

No. 121,570.

Patented Dec. 5, 1871.

Fig. 1.

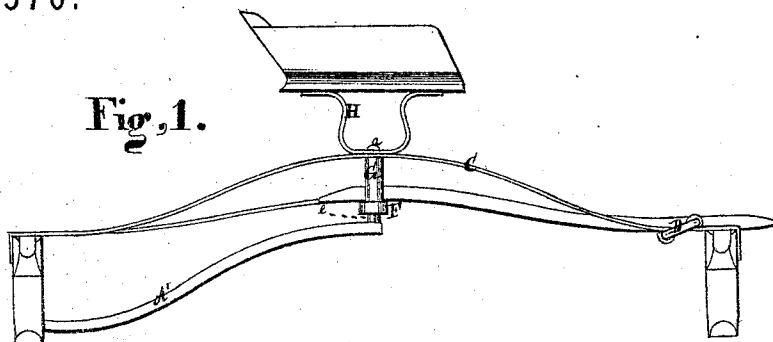


Fig. 2.

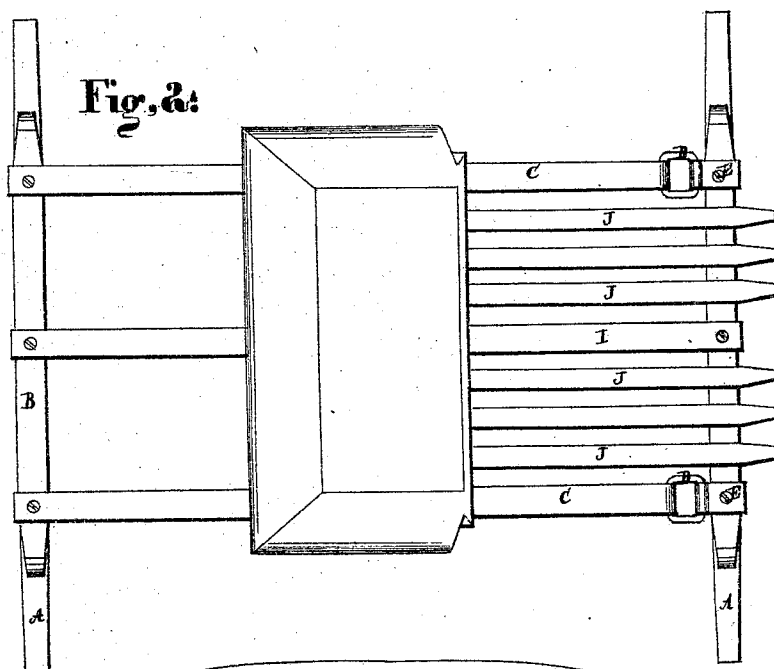
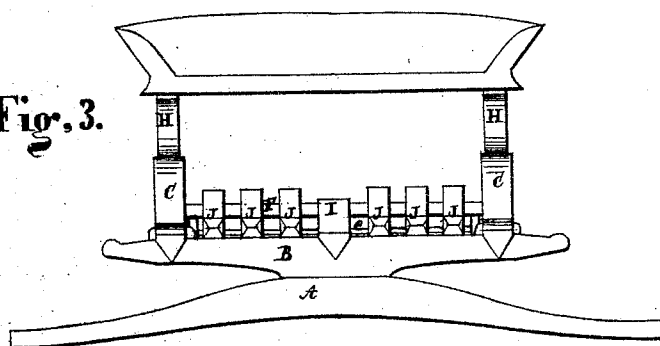


Fig. 3.



Witnesses.

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TRUMAN H. ALLEN, OF CORRY, PENNSYLVANIA.

IMPROVEMENT IN MODES OF ATTACHING SPRINGS TO VEHICLES.

Specification forming part of Letters Patent No. 121,570, dated December 5, 1871.

To all whom it may concern:

Be it known that I, TRUMAN H. ALLEN, of Corry, in the county of Erie and State of Pennsylvania, have invented a certain new and Improved Carriage-Spring or Road-Wagon; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing making a part of the same.

Figure 1 is a side view of the carriage-spring. Fig. 2 is a top view. Fig. 3 is a front view.

Like letters of reference denote like parts in the different views.

The object of this invention is to provide a light, durable, and easy spring-bottom for a buggy, thereby dispensing with the ordinary elliptic spring, and of which the following is a detailed description:

The spring-bottom referred to is applied to that class of buggies having no body or box in which to ride, the seat being mounted upon longitudinal springs, the ends of which are attached to the front and hind axle-trees, or the bolsters thereof, and which springs form the bottom on which the seat is mounted and the feet of the riders rest as aforesaid.

In the drawing, Fig. 2, A A represent the axle-trees, and B B' the bolsters, which are or may be like those in ordinary use. Directly to the upper side of the bolster B is secured in a rigid manner one end of the side spring C, whereas the opposite end is attached to the front bolster by the intervention of links D, said links being secured to the bolster by means of flat hooks or eyes E, thereby allowing the links a freedom of movement. To the lower ends of said links are attached the ends of the side springs, as shown in Figs. 1 and 2, in which it will be obvious that such connection allows to the springs a free swinging movement longitudinally. F, Fig. 3, is a cross-rail connecting the two side springs, and which are attached thereto by a

pair of studs, G, through which passes a bolt, *a*, thereby connecting the cross-rail, stud-spring, and seat-raisers H in a secure and permanent manner to each other, as shown in the side view, Fig. 1. Midway between the springs C is a spring, I, Fig. 2, the ends of which are bolted to the front and hind bolsters, and the middle thereof is bolted to the cross-rail, and upon which it is supported. J is a series of rails, which, together with the springs, form an open bottom on which to rest the feet of the rider. The cross-rail above described is connected to the hind axle-tree by a pair of rods, A', the after ends of which are fixed to the axle-tree, whereas the front ends are pivoted to the extreme ends of a cross-bar, *c*, Fig. 3, running parallel with and under the cross-rail F, and to which it is attached at each end by short studs *e*, Fig. 1. Thus pivoting the front ends of the rods A' to the cross-bar allows to them a freedom of movement when the springs are depressed; hence there is less strain exerted on the connection than if the attachments were made in a rigid manner; therefore the rods are prevented from breaking away when unusual strain may be exerted upon the springs. This arrangement of the springs, and the combination thereof with the axle-trees and the cross-rail and bar, produces a very light and elastic bottom or bed on which to ride, the whole being simple in construction, strong, and therefore durable.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the springs C, springs I, studs G, cross-rail F, cross-bar *c*, and braces A', pivoted to said cross-bar *c*, as described, substantially in the manner as set forth, and for the purpose specified.

TRUMAN H. ALLEN.

Witnesses:

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