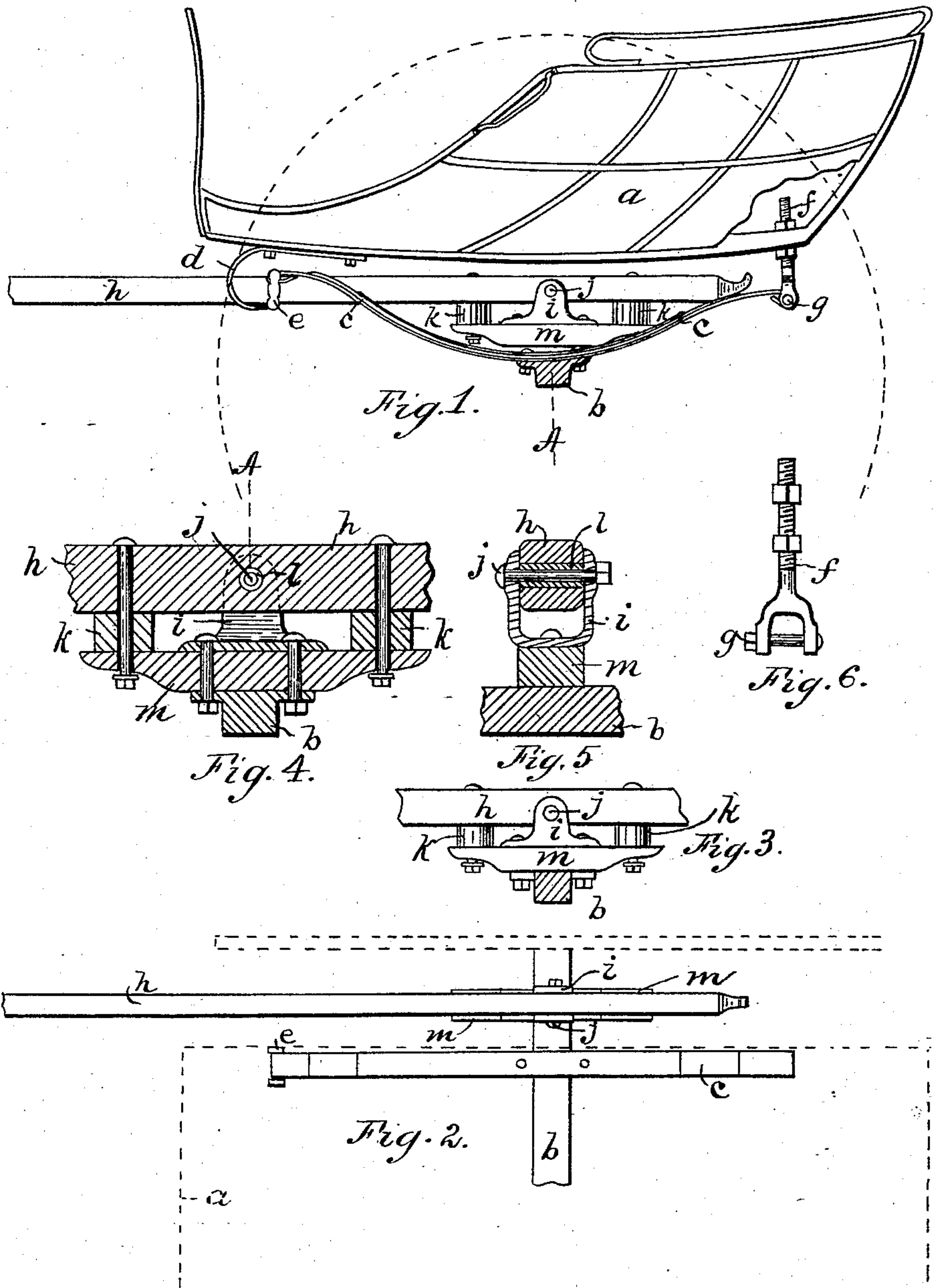


(No Model.)

R. F. BRIGGS.  
TWO WHEELED VEHICLE,

No. 279,531.

Patented June 19, 1883.



Witnesses:  
Chas. S. Gooding  
Eugene Humphrey

Inventor:  
Richard F. Briggs,  
per Porter & Hutchinson  
his attys.



# UNITED STATES PATENT OFFICE.

RICHARD F. BRIGGS, OF SALISBURY, MASSACHUSETTS.

## TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 279,531, dated June 19, 1883.

Application filed April 19, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, RICHARD F. BRIGGS, of Salisbury, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Two-Wheeled Vehicles, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

10 This invention relates to two-wheeled vehicles; and it consists in the construction and combination of the divers devices embodied therein, as hereinafter more particularly and fully set forth and claimed.

15 In said drawings, Figure 1 is a side elevation of a vehicle embodying my invention, the axle being shown in transverse section, the wheel being indicated by a dotted line, and the front portion of the shafts being broken  
20 away for want of room. Fig. 2 is a top or plan view, showing the rear portion of the right-hand or "off" shaft, a portion of the axle, and the right-hand spring, the body and off wheel being indicated by dotted lines. Fig.  
25 3 is a detached side elevation, showing the axle in transverse section, the buffer-block, the buffers, the shaft-shackle, and a section of the shaft. Fig. 4 is a vertical section taken in the line of the axis of the shaft, and showing the same parts as in Fig. 3. Fig. 5 is a  
30 vertical section, taken as on line A, Figs. 1 to 4, and showing the same parts as in Figs. 3, 4, except the buffers. Fig. 6 is a front or rear elevation of the stirrup by which the rear ends of  
35 the springs and body are connected.

In said views, *a* represents the body, *b* the axle, and *c* the springs, the latter being one of the well-known forms of semi-elliptic springs, and are secured to the axle, at their  
40 center, by being bolted to lugs formed upon the axle, as shown, or by any of the other well-known means, and being secured to the axle at such distance apart that each spring will be directly beneath a side sill of body *a*  
45 when the latter is in position thereon. The front of the body is pivotally connected with the springs by means of bows *d*, which are bolted to the side sills of the body, a link, *e*, connecting said bow and spring in the well-  
50 known manner. The rear ends of said springs

are connected with the body by means of stirrup *f*, the shank of which passes up through the side sill, and is therein rigidly secured by a screw-nut, both above and below the sill, which nuts are threaded on said shank, as  
55 shown, the eye of the spring being secured between the forks of the stirrup by the pivot-bolt *g*, as shown. Whatever change in the length of the spring may result from its deflection by being loaded is compensated for by  
60 the pivotal link *e*, by which its front end is connected with bows *d*. A buffer-block, *m*, is secured to axle *b*, upon either side, at the proper points for shafts *h*, and upon said block is secured, as shown, a shackle, *i*, between the ears  
65 whereof the shaft *h* is secured by the pivot-bolt *j*, and upon either side of said shackle *i* a buffer of elastic rubber, or spring, *k*, is interposed between block *m* and shaft *h*, said buffers being secured in position by a small bolt  
70 or rod passing through the shaft, buffer, and rod, as shown. By means of the vertical adjustability of one end of the body relatively to its supporting-spring, as by stirrup *f*, the proper level of the body may be attained when  
75 horses of different heights are at different times used in the same carriage; and by means of the pivotal connection of the shafts with the axle, independent of the body and its springs, and by arranging buffers *k* upon either side  
80 of the shaft, upon a rigid bed or block, *m*, secured to axle *b*, the slight vertical motion that is imparted to the shaft by the stepping of the horse is absorbed by said buffers, thereby allowing the inertia of the body and its load to  
85 hold the same continuously level, undisturbed by the motion of the horse, while the resistance of buffers *k* prevents undue rocking of the carriage.

It will be obvious that the devices by which  
90 the height of the body relatively to the supporting-spring at one end is varied can be arranged at either the rear or front end of the body, as desired; and instead of the rubber buffers *k* coiled springs or a flat spring may be arranged  
95 between block *m* and shaft *h* to accomplish the same result. A packing, *l*, of anti-friction or cushioning material is shown as inserted in shaft *h* to serve as the bearing for the pivot-bolt *j* to prevent wear and rattling.  
100

I claim as my invention—

1. In a two-wheeled vehicle, the combination of axle *b* and shafts *h*, pivotally connected thereto, and a buffer arranged upon  
5 each side of the pivot of the shafts, upon supports secured to the axle, whereby the axle and shafts are held in relative position, but with a slight yielding motion, substantially as specified.
- 10 2. The combination of body *a*, springs *c*,

axle *b*, and shafts *h*, pivotally connected with the axle and with buffers *k*, arranged upon either side of said pivot, and seated upon a support rigidly secured to the axle, all substantially as specified.

RICHARD F. BRIGGS.

Witnesses:

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