

J. REYNOLDS.  
CARRIAGE.

No. 3,653.

Patented July 9, 1844.

Fig. 1.

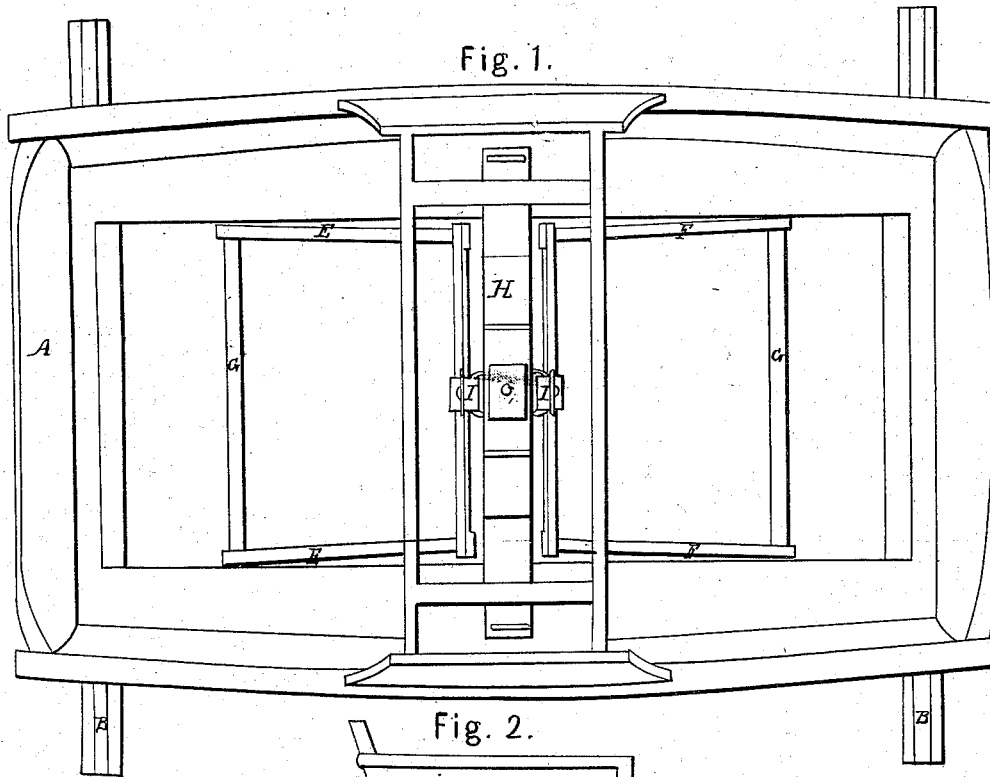
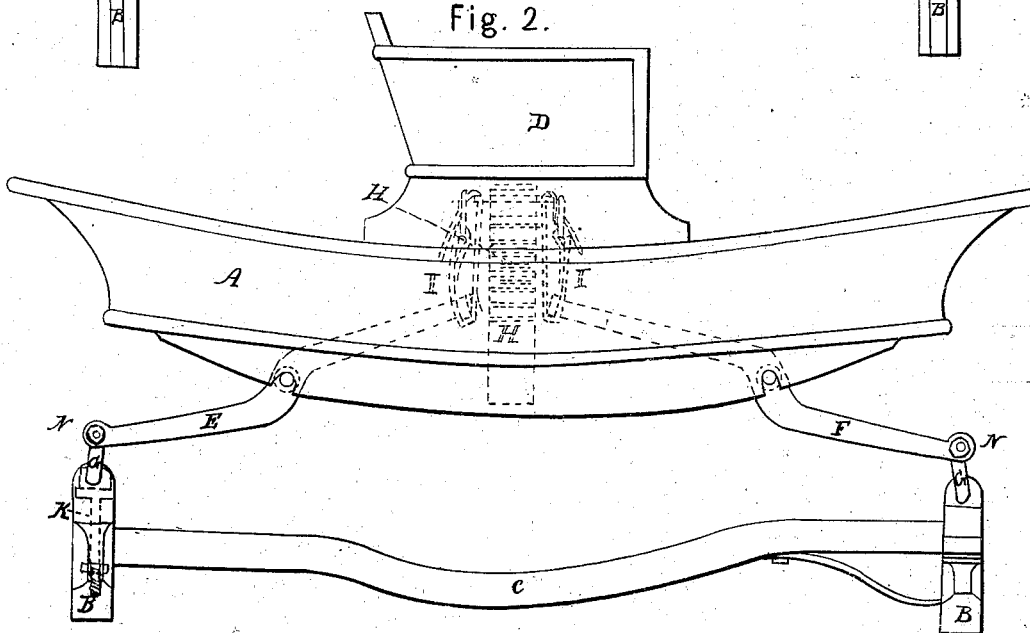


Fig. 2.



# UNITED STATES PATENT OFFICE.

JOHN REYNOLDS, OF NEWBERRY, PENNSYLVANIA.

IMPROVEMENT IN THE METHOD OF HANGING CARRIAGE-BODIES, &c.

Specification forming part of Letters Patent No. **3,653**, dated July 9, 1844.

*To all whom it may concern:*

Be it known that I, JOHN REYNOLDS, of Newberry, Lycoming county, Pennsylvania, have invented a new and useful Improvement in Hanging Carriage-Bodies, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a top view with the seat removed. Fig. 2 is a side elevation.

The carriage-body A, axle-trees B, perch C, and seat D are made in the usual manner.

The improvement consists in combining with the carriage-body and axle-trees two metallic frames E F, each of said frames being suspended by one of its ends to the outer extremities of a curved vibrating rolling crank-shaft G, vibrated in boxes fixed on the axle-trees and on the opposite end to a spring H, placed in the body of the carriage, which in this modification consists of an elliptic spring placed in the middle of the carriage-body, under the seat, the connection being effected by means of straps I, attached to the frames and spring, or by any other suitable fixtures. The carriage-body rests upon these vibrating metallic frames in a horizontal position, and rises and falls in that position without canting to one side or the other by weight added to either side, end, or corner of the carriage. The sides of these metallic frames pass through openings in the bottom of the body and are covered with lining or left exposed, as preferred, one-half of the frame being within the body and one-half outside. The middle cross-bars of the frames project beyond the sides thereof and form axles, which turn in boxes in the under sides of the sides of the body of the carriage. The rollers G are made in the form of double crank-shafts with wrists on their extremities, the rear one of which is fixed in a permanent position when the body is raised, and the forward crank-roller vibrates in boxes on the forward axle-tree. The four lower extremities of the aforesaid metallic frames are perforated with round apertures to admit the

aforesaid wrists of the crank-rollers G, on which screw-threads are cut for nuts N, screwed thereon.

To elevate the carriage-body, the crank-shafts are turned till the wrists are uppermost. The rear roller is then secured in that position by a vertical bolt K, passed through it and the hind axle-tree. The forward crank-shaft, or that which turns on the front axle-tree, is allowed to vibrate or turn in its boxes fastened on the head-block of the forward or front axle-tree.

In riding and when the body descends the elliptic spring closes, the frames approximate to a horizontal position, and the front crank-shaft turns toward the tongue or shafts. As the body rises movements, the reverse of those just mentioned take place, and when it is desired to lower the carriage or wagon body the aforesaid vertical bolt K is withdrawn from the crank-axle and axle-tree, which allows the crank-axles to turn and reverse their positions, bringing the wrists below the level of the axles or rollers, instead of above them, in which position both rollers will vibrate or turn, allowing the body to swing to and fro longitudinally.

I am aware that springs have been attached to the bottom of the carriage, and that these have been connected with the frame by means of levers, and therefore I do not claim this general arrangement as of my invention; but

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

Combining the springs which are arranged within the seat of the carriage and the levers jointed to the body of the carriage with the cranked shafts, one of which is permitted to rock, and both being so connected and arranged as to admit of being reversed with facility to hang the body of the carriage high or low, as herein described.

JNO. REYNOLDS.

Witnesses:

WM. P. ELLIOTT,  
A. E. JOHNSON.