

B. F. BROWN.

Carriage-Spring.

No. 12,051.

Patented Dec. 12, 1854.

Fig: 2.

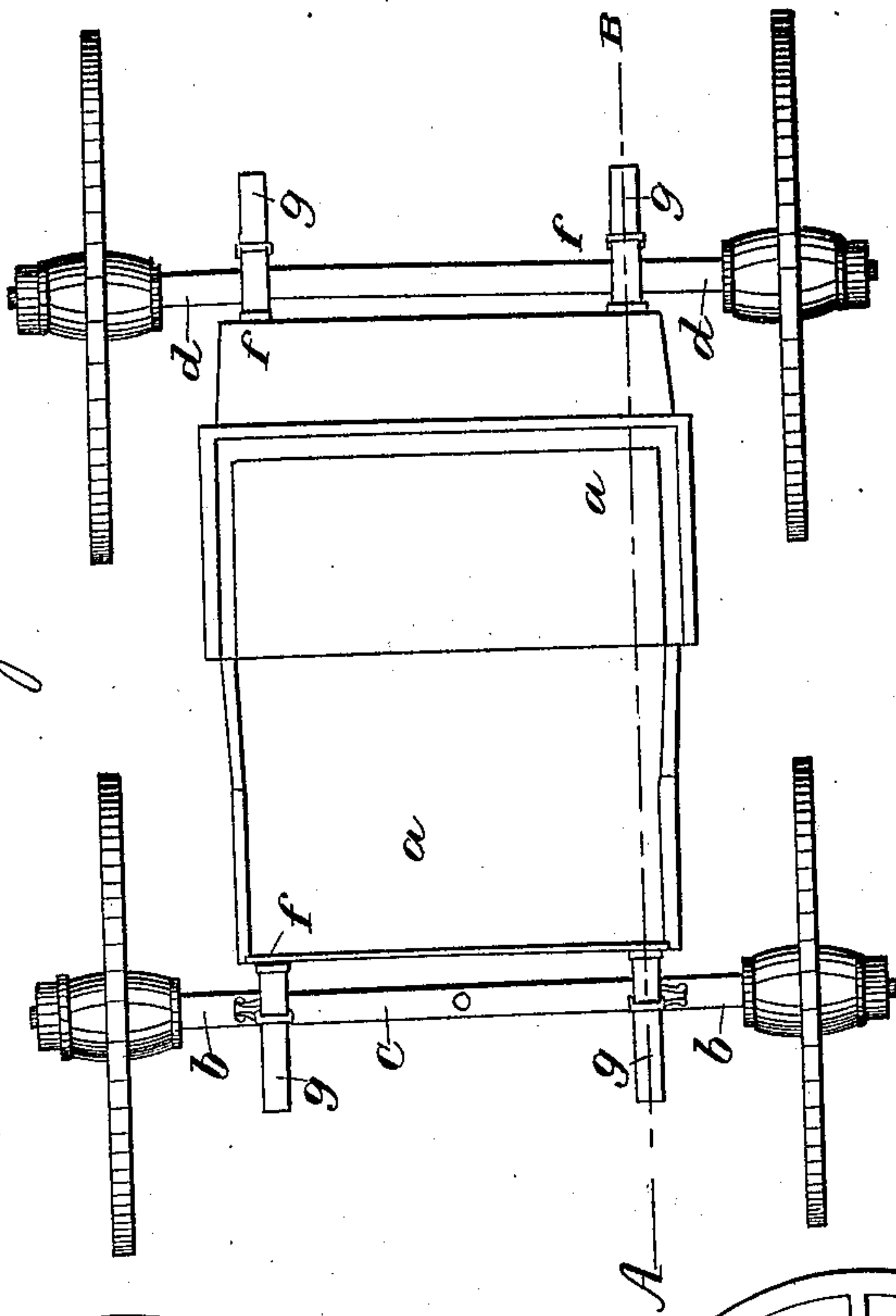


Fig: 1.

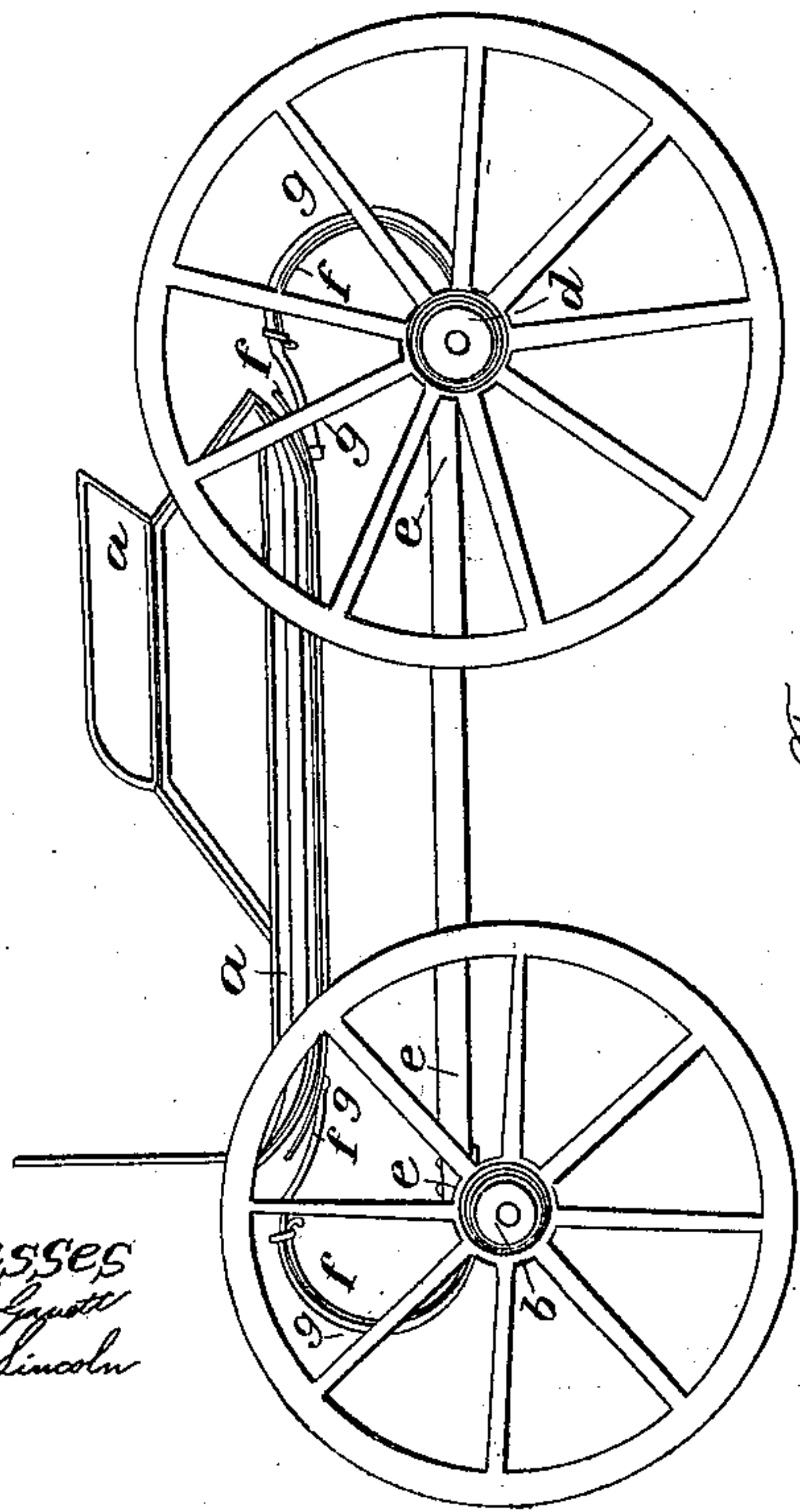
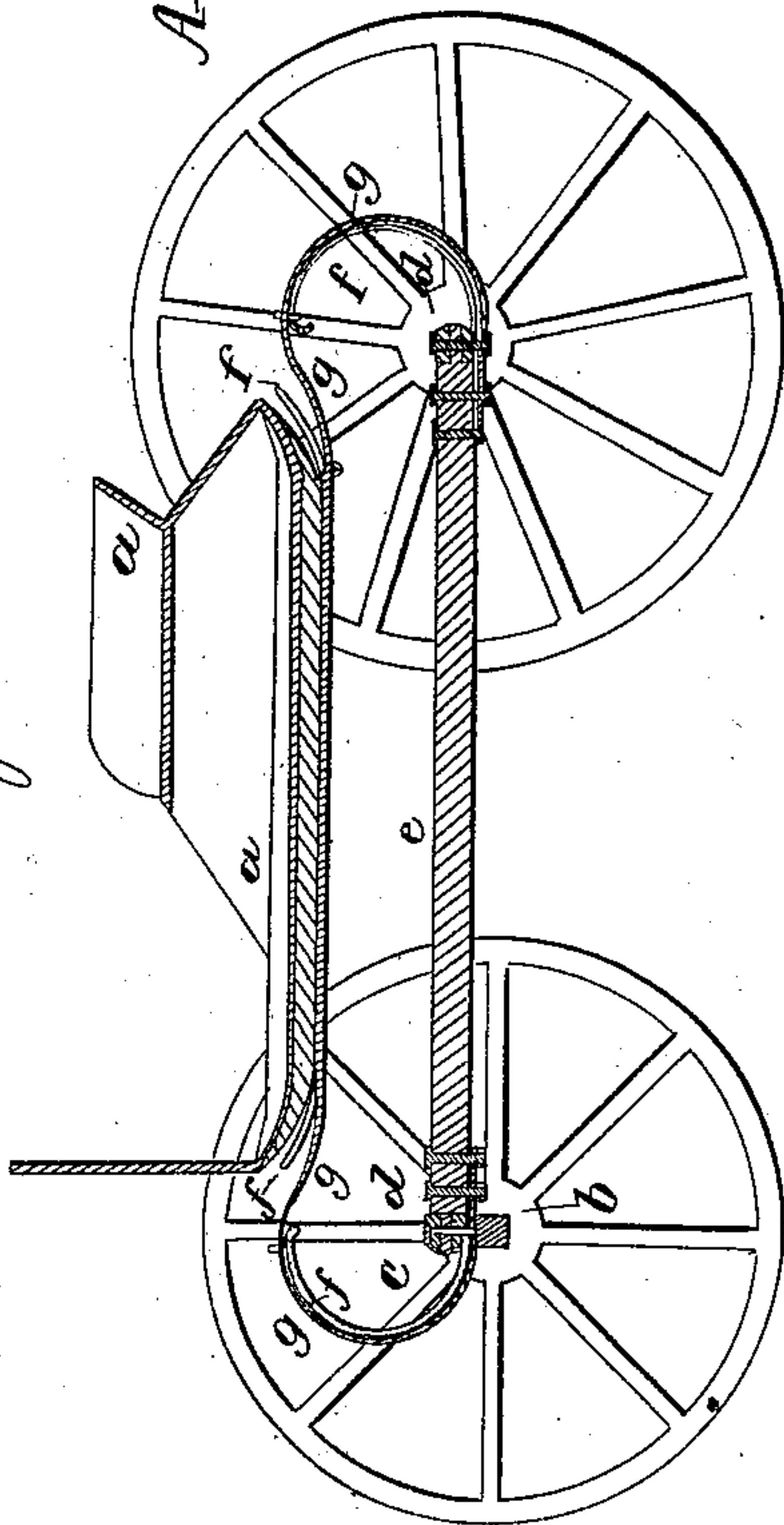


Fig: 3.



Witnesses  
Joseph G. Brown  
F. R. Lincoln



# UNITED STATES PATENT OFFICE.

B. F. BROWN, OF DORCHESTER, MASSACHUSETTS.

## HANGING CARRIAGE-BODIES.

Specification of Letters Patent No. 12,051, dated December 12, 1854.

*To all whom it may concern:*

Be it known that I, B. F. BROWN, of Dorchester, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in the Manner of Hanging Carriage-Bodies, and that the following description, taken in connection with the accompanying drawings hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements by which my invention may be distinguished from others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

The figures of the accompanying plate of drawings, represent my improvements.

Figure 1, is a side elevation of a carriage, with my improvements applied thereto. Fig. 2, is a plan or top view of the same. Fig. 3, is a transverse vertical section taken in the plane of the line A, B, Fig. 2.

The object of my improvements, is to so arrange and construct the devices by which the carriage body is supported, as to insure the greatest possible degree of elasticity, and freedom from sudden jolts or jars in the motion of the said carriage body, and at the same time to materially diminish the weight of the supporting and sustaining devices, and the cost of their construction.

These are the objects contemplated and secured by my improvements, and I effect these results in a very simple and efficacious manner, by combining four C springs, which sustain the weight of the carriage body, with two perches which connect the rear axle to the rocker of the carriage. Two thorough braces pass around the springs, and under the carriage body, and are fastened to the ends of each perch. The motion of the carriage body, is transmitted through the thorough braces and C springs, to the perches, and the elasticity of the perches, is thus made to aid in relieving the jolts or jars of the carriage body. The combined action of the C springs and the perches, produces an elasticity and freedom from sudden jolts in the motion of the carriage, which is very desirable. By this arrangement also, the weight and cost of the carriage is diminished, as by using two perches to connect the rocker and the rear axle, the heavy bracing which is necessarily employed as carriages have heretofore been constructed, is dispensed with.

*a, a*, in the drawings, represents the body of a four-wheeled carriage; *b*, is the front axle; *c* the rocker, and *d*, the rear axle.

*e, e*, are two perches which connect the rocker and rear axle.

*f, f, f, f*, are four C shaped springs, two attached to each perch, the front springs being fastened to the rocker and perch, and the rear springs fastened to the rear axle and perch.

*g g—g g*, are thorough braces, which pass around the springs, being fastened to the ends of each perch, and pass under the body *a, a*, of the carriage, thus connecting the front and rear springs, and sustaining the carriage body.

By the above described arrangement, the motion of the carriage body *a, a*, is transmitted through the braces *g g—g g*, to the C springs *f, f*, &c., and the perches *e, e*, which will thus act with the C springs, in relieving the carriage from sudden jolts or jars. The carriage body by this combined action of the C springs and perches, receives a very easy and elastic motion. If desirable, the thorough braces may be dispensed with, and the C springs attached directly to the bottom of the carriage body *a, a*, but the thorough braces prevent the swaying motion of the carriage body, from twisting or bending the C springs laterally, as they form an elastic, yielding connection between the carriage body and springs.

Having thus described my improvements, I shall state my claims as follows:

What I claim as my invention and desire to have secured to me by Letters Patent is—

The combination of the C springs and perches arranged substantially as above described, for sustaining the weight of the carriage body, and for relieving the said carriage body from sudden jolts, the combined action of the C springs and perches, being such as to give an easy and elastic motion to the carriage body, and further I claim the combination of the C springs, perches, and thorough braces, the said thorough brace, operating to give an easy motion to the carriage body, and preventing the swaying of the said carriage body, from twisting or bending the C springs as above set forth.

B. F. BROWN.

Witnesses:

JOSEPH GAVETT,  
F. R. LINCOLN.