

No. 621,336.

Patented Mar. 21, 1899.

E. J. GAVIN.
CARRIAGE.

(Application filed Apr. 22, 1898.)

(No Model.)

Fig. 1.

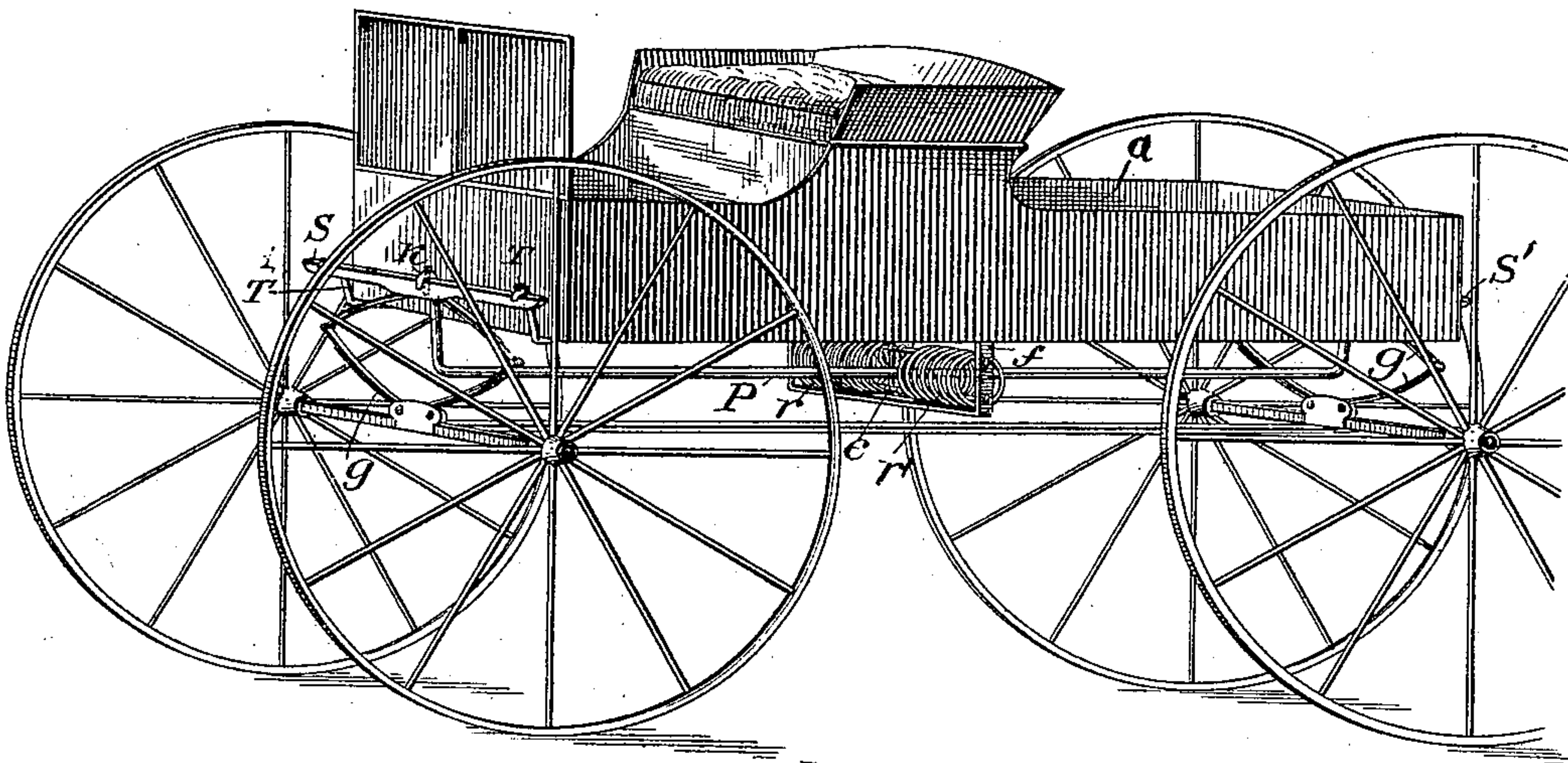


Fig. 2.

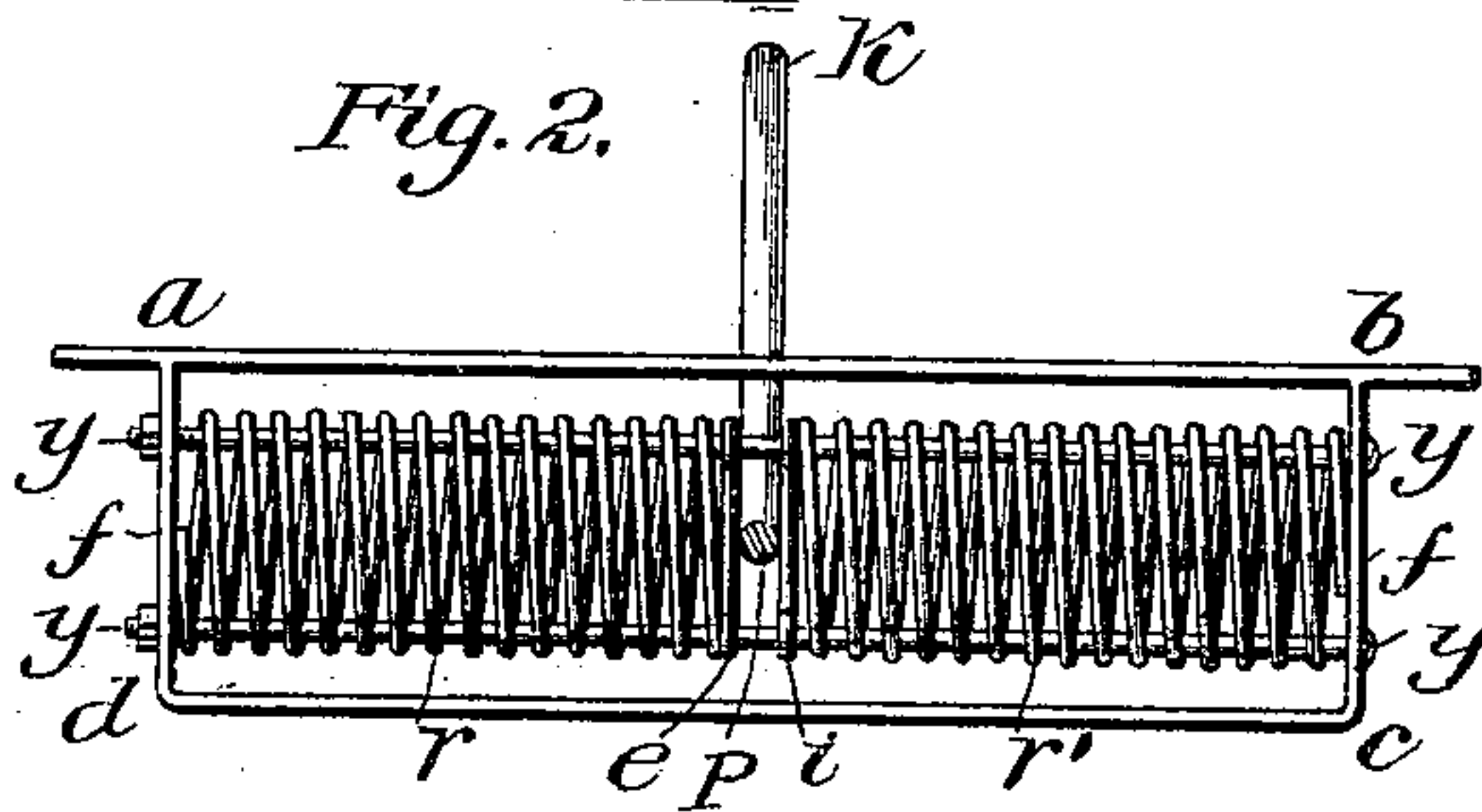
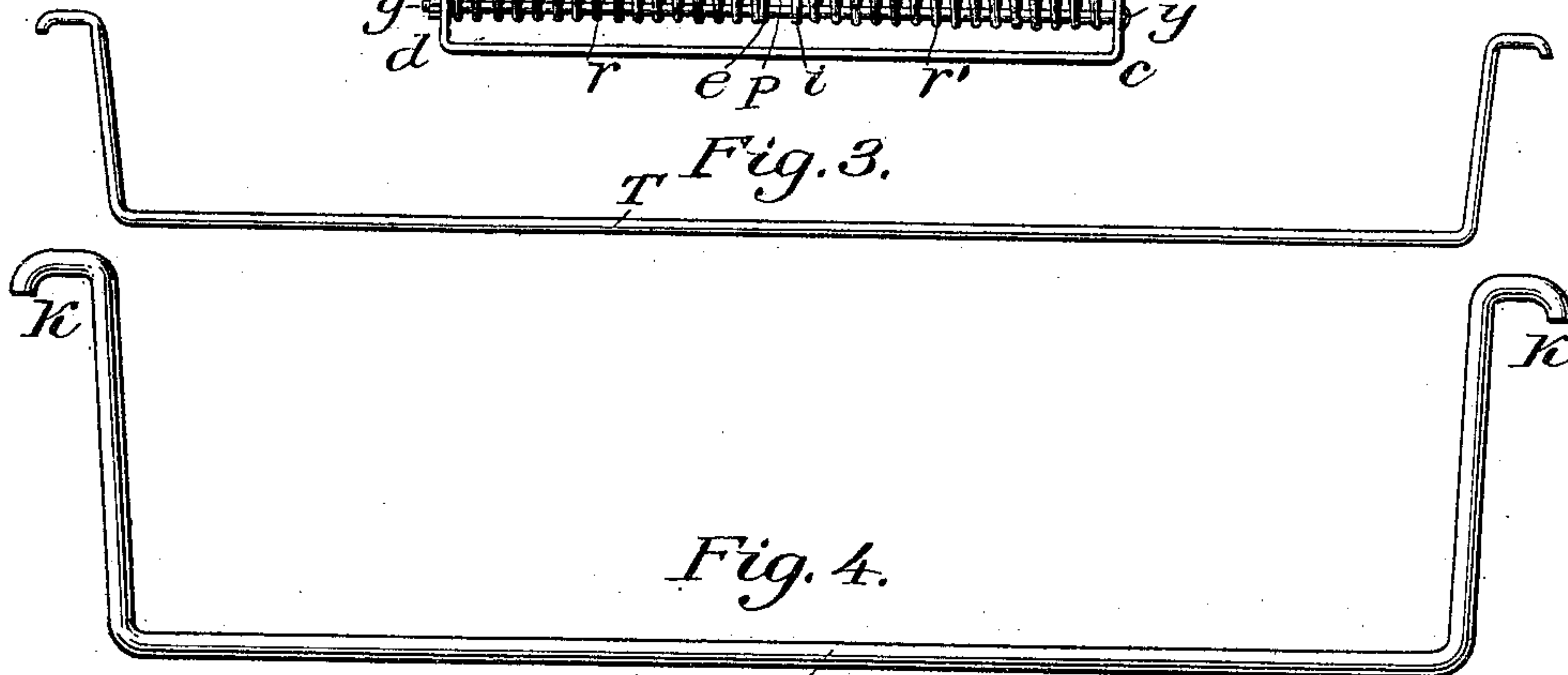


Fig. 3.



Witnesses.

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CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 621,336, dated March 21, 1899.

Application filed April 22, 1898. Serial No. 678,539. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. GAVIN, a citizen of the United States, residing at Pontiac, county of Livingston, and State of Illinois, have invented a new and useful Improvement in End-Spring Buggies, of which the following is a specification.

My invention relates to an improvement in carriages, buggies, and road-wagons having the end-spring.

The objects of my improvement are, first, to make riding more easy, and, second, to cause the box to remain level when one wheel is higher or lower than the other three wheels. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of an end-spring buggy having my improvements applied thereto. Fig. 2 is a front view of the rectangular frame containing the springs r r' , and Figs. 3 and 4 are details.

a represents the buggy box or body, g g' the end springs, and S S' the spring-bars. The body is supported by the bars T and T' , which extend from front to rear, resting at their ends on the spring-bars. These bars are swiveled in an eyebolt or equivalent fastening at ends of the spring-bars. They are also held to the bottom of the body by eyebolts or other loose fastenings, so that the body may sway from side to side, swinging with the bars T and T' .

To the bottom of the body is fixed a rectangular frame a b c d , located at the middle of the body or at either end thereof, or two such frames may be used, if desired. Through this frame are passed and secured the rods y y' ,

and sliding on these rods are the guides e and i . Between the guides e and i and the ends of the frame are placed the coiled springs r and r' , which may be, if desired, fastened to the ends of the frame at f and f' .

The rod P is fastened by its ends K and K' to the centers of the spring-bars S and S' . The body of this rod drops below the buggy-body, so as not to be in contact therewith, and it passes between the guide-rods e and i , which are yieldingly held to a central position by the springs r and r' . The bar P is rigidly held on the spring-bars S and S' , so that it does not have any swinging movement. The effect of the arrangement is that while the buggy-body may swing from side to side the movement will be resisted by the springs r r' and the buggy-body will have an easy swinging motion.

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

1. A buggy-body having a rectangular frame secured to the bottom thereof and springs secured in said frame in combination with a bar extending from one spring-bar to the other and passing between the springs in the rectangular frame substantially as described.

2. The combination of the bar connecting the two end springs, the rectangular frame secured to the bottom of the body, and the resisting-springs, substantially as described.

EDWARD J. GAVIN.

Witnesses:

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J. C. SUMNER.