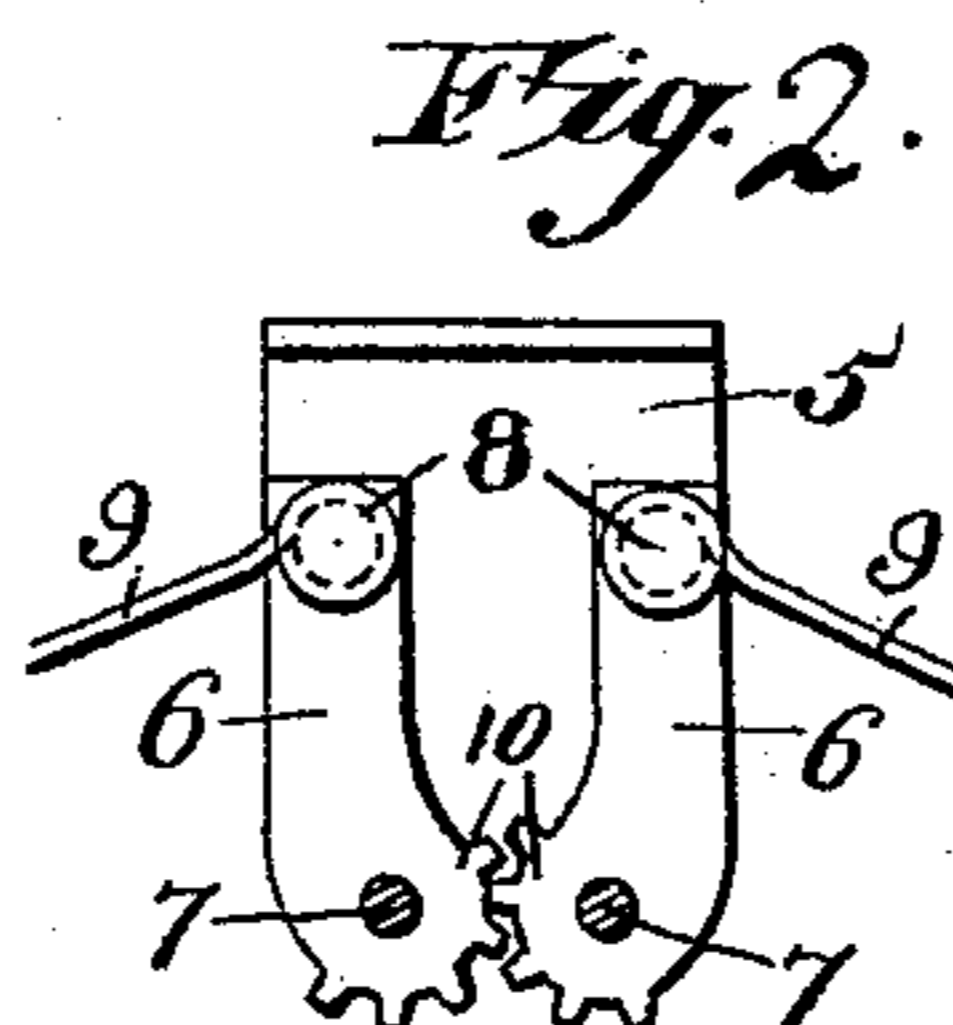
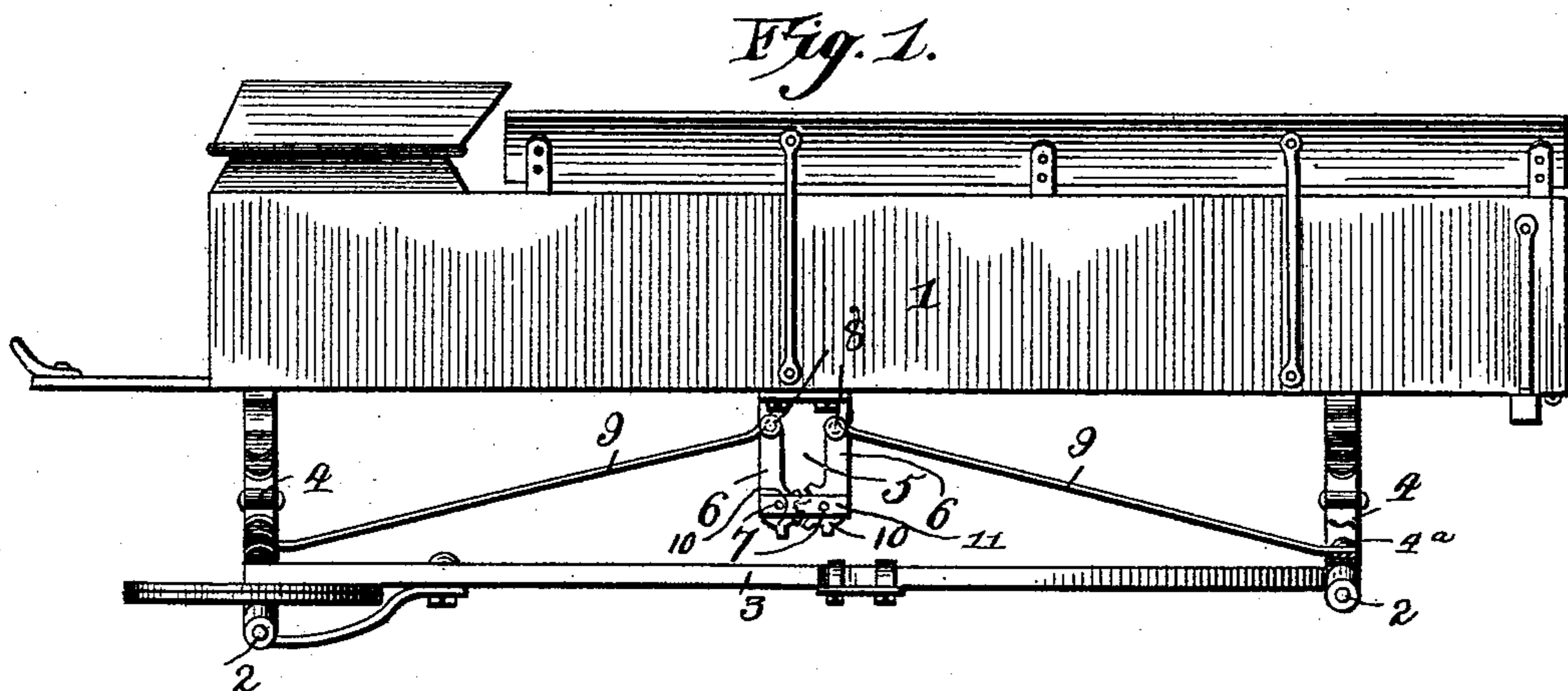


(No Model.)

S. TRUMBORE.  
WAGON SPRING BRACE.

No. 444,469.

Patented Jan. 13, 1891.



Witnesses  
H. G. Dieterich.

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# UNITED STATES PATENT OFFICE.

SAMUEL TRUMBORE, OF EASTON, PENNSYLVANIA.

## WAGON-SPRING BRACE.

SPECIFICATION forming part of Letters Patent No. 444,469, dated January 13, 1891.

Application filed September 5, 1890, Serial No. 363,984. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL TRUMBORE, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Wagon-Spring Brace, of which the following is a specification.

My invention relates to a wagon-spring brace that is adapted to take the strain off the springs or the bolts which connect said springs to the axles and also to the body when the wagon is going up or down hill; and it consists in certain features of novelty to be hereinafter described and claimed.

In the drawings, Figure 1 is a side view of the device, showing the wagon-bed and the axles, the wheel being left off and one of the springs being broken away. Fig. 2 is a detail view of the equalizing-segments of Fig. 1. 1 represents the wagon-body; 2, the axles; 3, the pole connecting the axles; and 4, ordinary elliptic springs.

The principal form of my invention shown in Fig. 1 consists of a bracket 5, secured to the bottom of the body between the axles and extending downwardly. A pair of levers or arms 6 6 are pivoted near their lower ends to opposite sides of the bracket 5 on pins 7 7, and their upper ends are provided with pins 8 8, with which are connected the inner ends of spring-rods 9 9, extending upwardly and inwardly from the bolts 4<sup>a</sup>, connecting the springs 4 4 to the axles, one of the springs being broken away to show the connection of one of the bolts with one of the spring-rods. The lower ends of the levers or arms 6 6 are provided with intermeshing segments 10 10, their object being to equalize the movements, thus constituting the levers 6 6 equalizing-levers. The pins 7 7 are connected by a brace 11. By this construction it will be seen that when the springs are depressed the spring bars or braces, both back and front are so arranged that the slack is taken up automatically and the body of the wagon cannot move back and forth. Consequently there is no side strain on the bolts holding the springs. It has been attempted to overcome the difficulty by the use of a chain run from the body to the axles; but this is defective, because as

soon as the springs are depressed the chain becomes too long.

The position of the parts shown in Fig. 1 may be reversed—i. e., the spring-rods may be secured to the bolts connecting the springs to the body and the bracket to the pole.

What I claim is—

1. The combination, with the body, axles, and springs of a wagon, of a bracket secured to the body and arranged between the axles, vertically-disposed equalizing-levers having their lower ends fulcrumed in the bracket and engaging each other, and rods connected with the upper ends of said levers and extending to the springs, substantially as and for the purpose set forth.

2. The combination, with the body, axles, and springs of a wagon, of a bracket secured to the wagon-body between the axles, a pair of levers having their lower ends pivoted to said bracket and con rolled by each other, and rods connected with the free upper ends of the levers and with the springs, substantially as and for the purpose set forth.

3. The combination, with the body, axles, and springs of a wagon, of a bracket connected with the wagon between the axles, a pair of vertically-disposed levers pivoted to said bracket and provided with intermeshing segments, and spring-rods connected with the free ends of the levers and with the springs, substantially as and for the purpose set forth.

4. The combination, with the body, axles, and springs of a wagon, of a bracket connected with the wagon-body between the axles, a pair of pins, a pair of levers pivoted on said pins and provided at their lower ends with intermeshing segments, a brace connecting said pins, and rods connected with the free ends of the levers and with the springs, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

SAMUEL TRUMBORE.

Witnesses:

J. BRUNNER,

FRED. G. CONRAD.