

(No Model.)

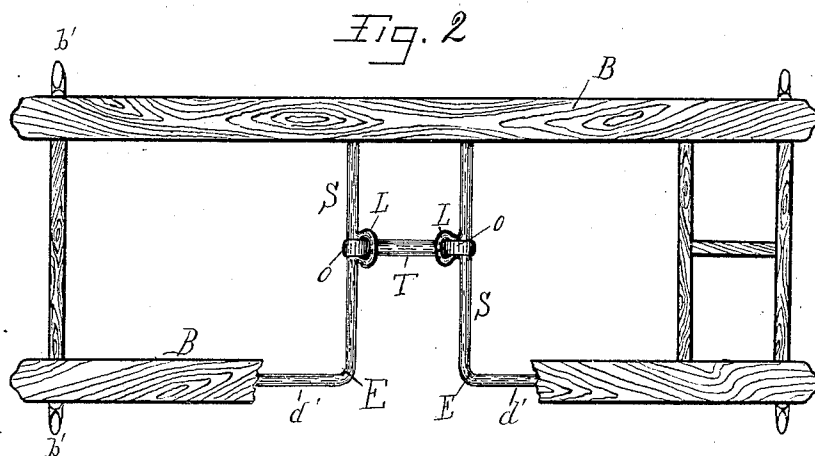
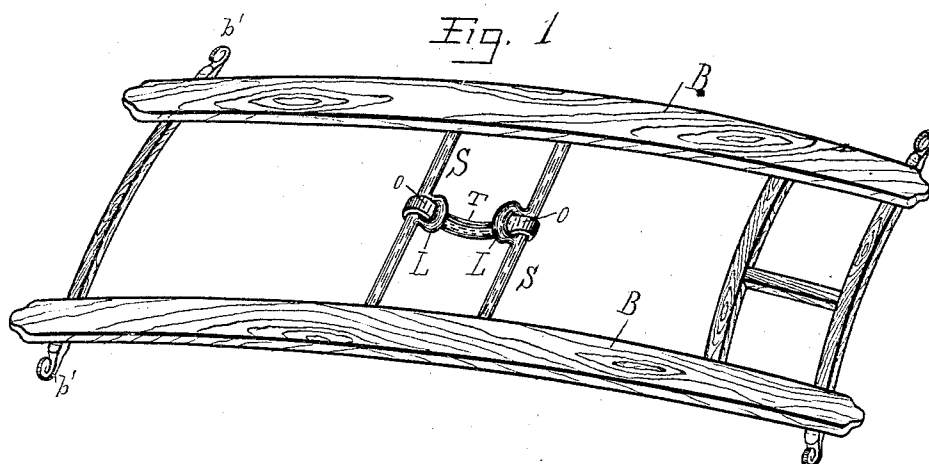
2 Sheets—Sheet 1.

J. K. P. PINE.

WAGON SPRING BOARD.

No. 341,051.

Patented May 4, 1886.



WITNESSES

Geo. A. Garby

Charles S. Brintnall

INVENTOR

James K. Pine

by W. Hagan atty

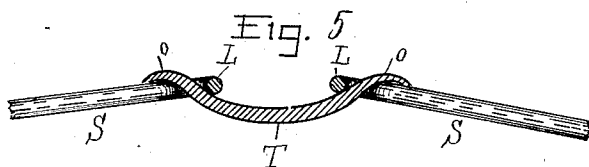
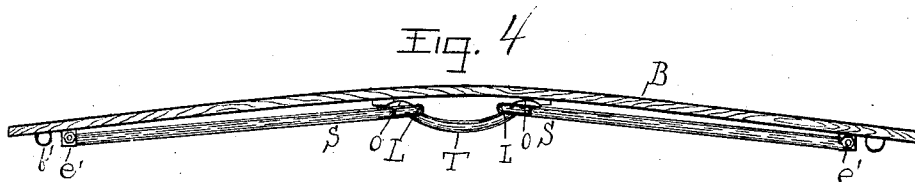
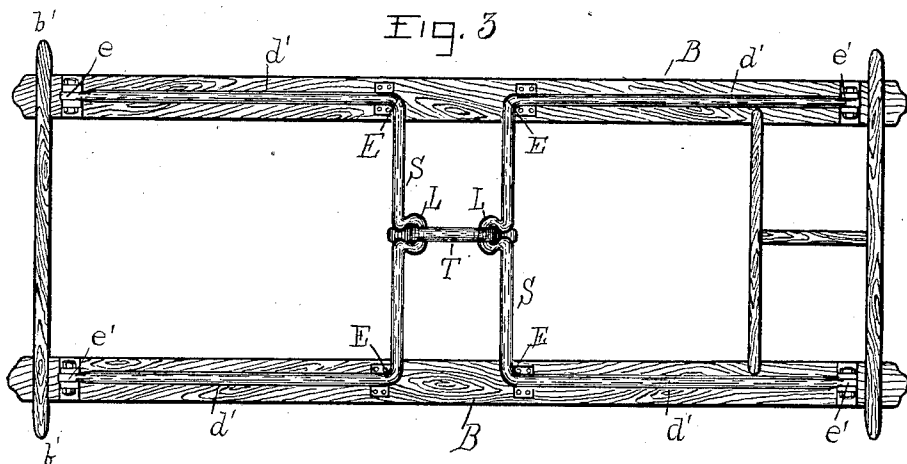
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UNITED STATES PATENT OFFICE.

JAMES K. P. PINE, OF LANSINGBURG, NEW YORK.

WAGON-SPRING BOARD.

SPECIFICATION forming part of Letters Patent No. 341,051, dated May 4, 1886.

Application filed February 16, 1886. Serial No. 192,086. (No model.)

To all whom it may concern:

Be it known that I, JAMES K. P. PINE, of the village of Lansingburg, county of Rensselaer, and State of New York, have invented a new and useful Improvement in Wagon-Spring Boards, of which the following is a specification.

My invention relates to wagon-spring boards and certain improvements therein, having for their object the better adaptation of such devices to the use for which they are designed.

Accompanying this specification, to form a part of it, there are two plates of drawings containing five figures illustrating my invention, with the same designation of parts by letter-reference used in all of them.

Of these illustrations, Figure 1 shows a perspective of a spring-board containing my invention. Fig. 2 shows a top view of the spring-board illustrated at Fig. 1, but with the central part of one of the boards broken out. Fig. 3 shows a view of the same spring-board, with what is its under side when in position turned toward the sight. Fig. 4 is a side elevation of the spring-board. Fig. 5 shows a vertical section of the bar which underlaps and overlaps the inner ends of the springs, and on which the latter adjust, with each of the springs divided longitudinally where looped at their inner ends for the reception of the interlocking and adjusting bar.

The several parts of the mechanism thus illustrated are designated by letter-reference, and the function of the parts is described, as follows:

The letters B B designate the boards, and *b' b'* the end cross-bars, which are adapted to rest on the head-block and rear axle and which are of the ordinary and usual construction.

The letters S designate two metal springs, which are each at their ends *e'* oppositely pivoted to the boards. These springs at their sides *d'* are parallel to the boards B, and at their opposite ends, E, are made at or about at right angles to their sides and the sides of the boards B. The letter L designates a loop centrally formed on the inner end of each of said springs S, said loops being made to pro-

ject beyond their ends proper; and T designates a bar made with reversing and double ogee curves *o o*, and adapted at each end to be passed up through one of the loops L of each spring, to interlock the two springs adjustably thereon, so that as the springs are forced down at their connected centers they will, as they approach each other thereat, adjust on said bar T.

When the springs are attached and adjusted for use, they project upwardly at their connected inner ends, as shown at Fig. 4, and when the board, which is also crowned, flattens down under pressure the springs also flatten down centrally as moved on their hinged end connections at *e'*, so as to divide up with the board the strain put upon it. The form of the springs thus connected centrally and hinged at their outer ends causes the springs to differ in their action from that class of springs which are rigidly secured at their outer ends, and where they centrally engage with a torsional elasticity by direct contact.

The bar T furnishes two points of adjustment—one at each of its ends—and thus divides up and distributes the benefit of the spring-support to the board.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the springs S, which at their outer ends are hinged to the boards, with their sides parallel or nearly parallel to the boards, their opposite ends at right angles to the boards, and centrally made with the outwardly-projecting loops at their inner ends, L, of the bar T, made with the reversing ogee curves *o o*, adapted at its outer ends to be passed from beneath up through said loops L, and to rest adjustably thereat on the said springs, substantially as and for the purposes set forth.

Signed at Troy, this 22d day of January, 1886, and in the presence of two witnesses whose names are hereto written.

J. K. P. PINE.

Witnesses:

CHARLES S. BRINTNALL,
GEO. A. DARBY.