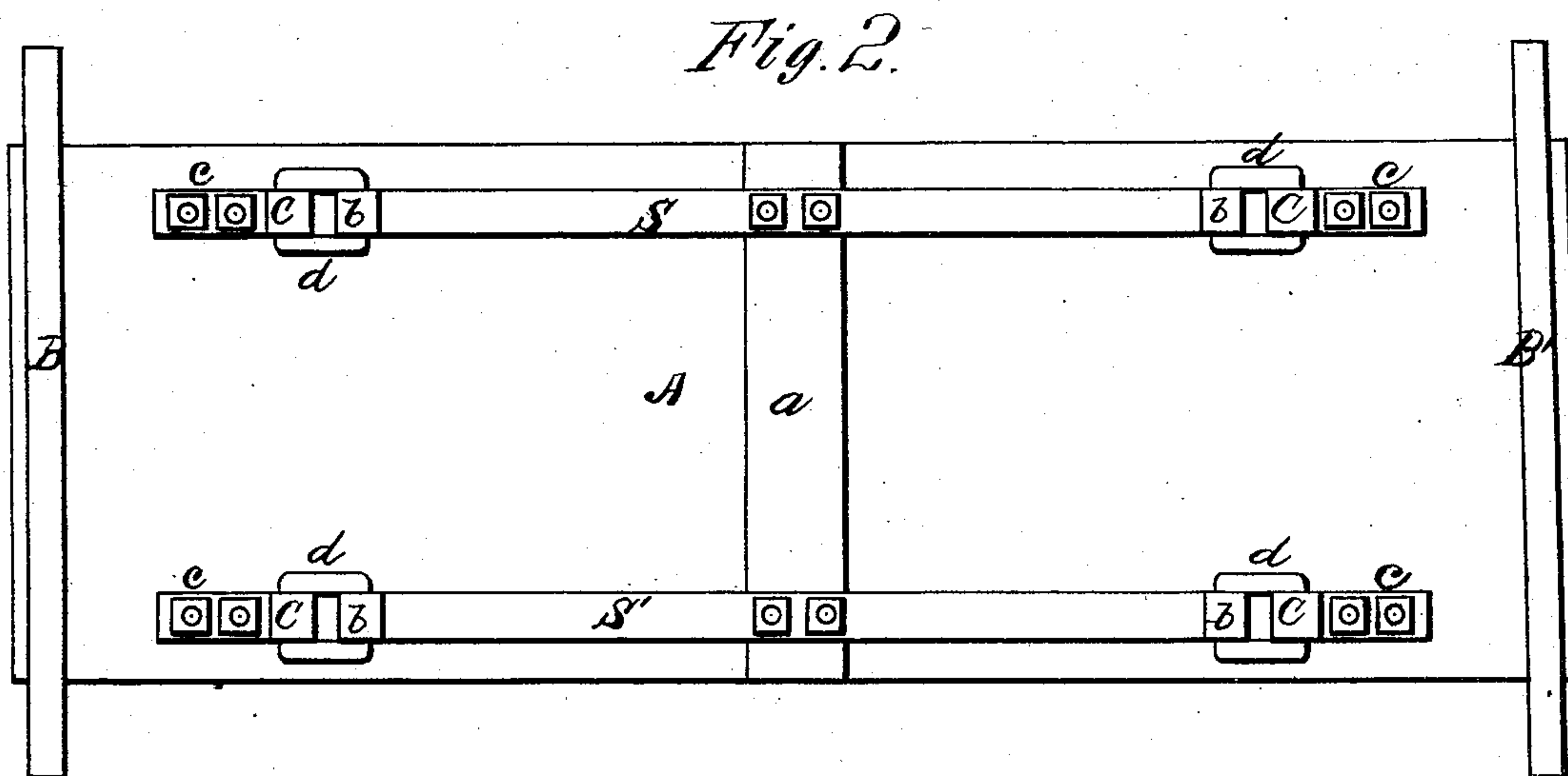
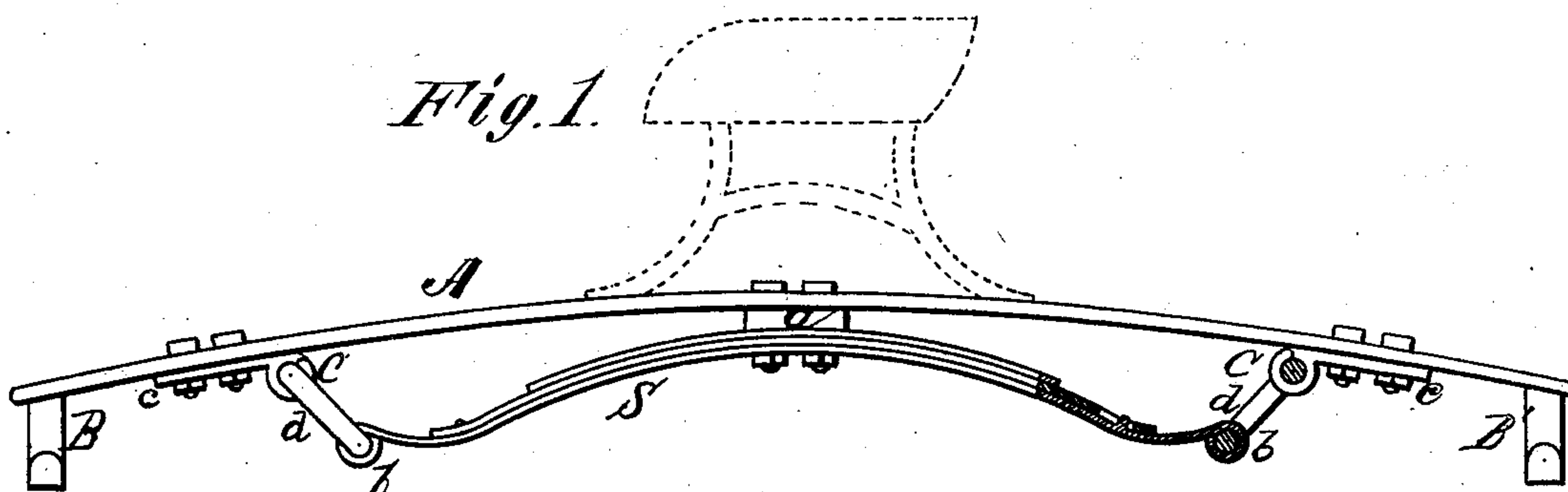


**R. KNAPP.**  
**Buck-Board Wagons.**

No. 155,451.

Patented Sept. 29, 1874.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

RENSSELAER KNAPP, OF GLEN'S FALLS, NEW YORK.

## IMPROVEMENT IN BUCK-BOARD WAGONS.

Specification forming part of Letters Patent No. **155,451**, dated September 29, 1874; application filed August 25, 1874.

*To all whom it may concern:*

Be it known that I, RENSSELAER KNAPP, of Glen's Falls, in the county of Warren and State of New York, have invented a new and valuable Improvement in Buck-Board Buggies; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of my buck-board buggy. Fig. 2 is a bottom view, and Fig. 3 is a sectional view, of the same.

This invention has relation to buck-boards for wagons or buggies; and the nature of the invention consists in combining with a buck-board, which may be of one piece, or consist of a number of slats, a spring, which is secured to the said buck-board at each of its longitudinal edges, whereby I am enabled to construct the buck-board of thin stuff and secure a more complete and equal yielding thereof to shocks occasioned by inequalities in a road. It also consists in a batten applied transversely to the buck-board at or near the middle of its length, to which batten are secured the sustaining-springs, whereby the said board is braced when under strain, and, when slats are used instead of a single piece, serves to prevent lateral displacement thereof, all as will be hereinafter more fully explained.

In the annexed drawings, A designates my improved buck-board, having a suitable upward curvature, which is rigidly secured to two transverse bolsters, B B', of a wagon. These bolsters are secured to the sand-bars in front by means of a king-bolt, and in rear by a number of bolts and nuts, in the usual well-known manner.

On account of its superior toughness and elasticity, I prefer to use the timber of the rock-elm tree in the construction of my buck-board, but do not confine myself to any special variety. I also use, instead of a single board, a number of slats, which are, in like manner, secured to the bolsters B, and are prevented from lateral displacement by means of a batten, *a*, which is applied, at or near the middle of their length, to the under sides, both of the slats and single board.

S S' designate curved metallic springs of such length that, when they are rigidly secured at the middle of their length to the batten *a*, their ends shall extend nearly to the ends of the buck-board A, as shown in Fig. 1. These springs are applied at each of the lateral edges of the buck-boards, and each of their extremities is provided with a hook, *b*, for a purpose hereinafter to be explained.

In the drawings these springs are represented as consisting of several scales superposed, the one above the other, and suitably bolted together; but they may be constructed of a single piece of steel where such a variation would prove desirable.

C designates hooks, having shanks *c*, by means of which they are rigidly secured to the under side of the buck-board A at or near its front and rear ends. These hooks receive links *d*, preferably of rectangular form, into which are secured the hooks *b* upon the ends of the springs S S', by means of which the said springs are removably applied to the buck-board.

It will be seen that, by means of the springs S S', I have been enabled to construct the buck-board of thin materials, and consequently have greatly lessened the weight to be borne by the wheels; also, that the yielding of the said board has been made more regular and easier; and, finally, that, by the application of a batten to the under side of the slats, I have prevented lateral spread thereof and afforded a brace by which the springs are more durably secured to the buck-board or to the slats.

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

1. In a buck-board for wagons, the combination of the sustaining-springs S S' and hooks C with the buck-board A, substantially as specified.

2. The combination of the batten *a* with the buck-board A, springs S S', and hooks C, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

RENSSELAER KNAPP.

Witnesses:

WILLIAM H. PIKE,  
JAMES W. HILKINS.