

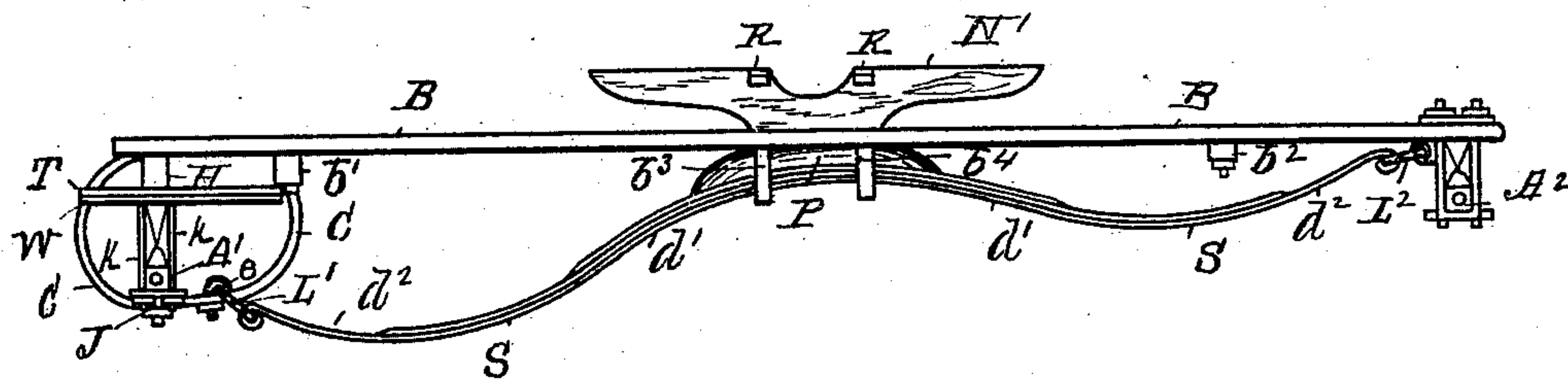
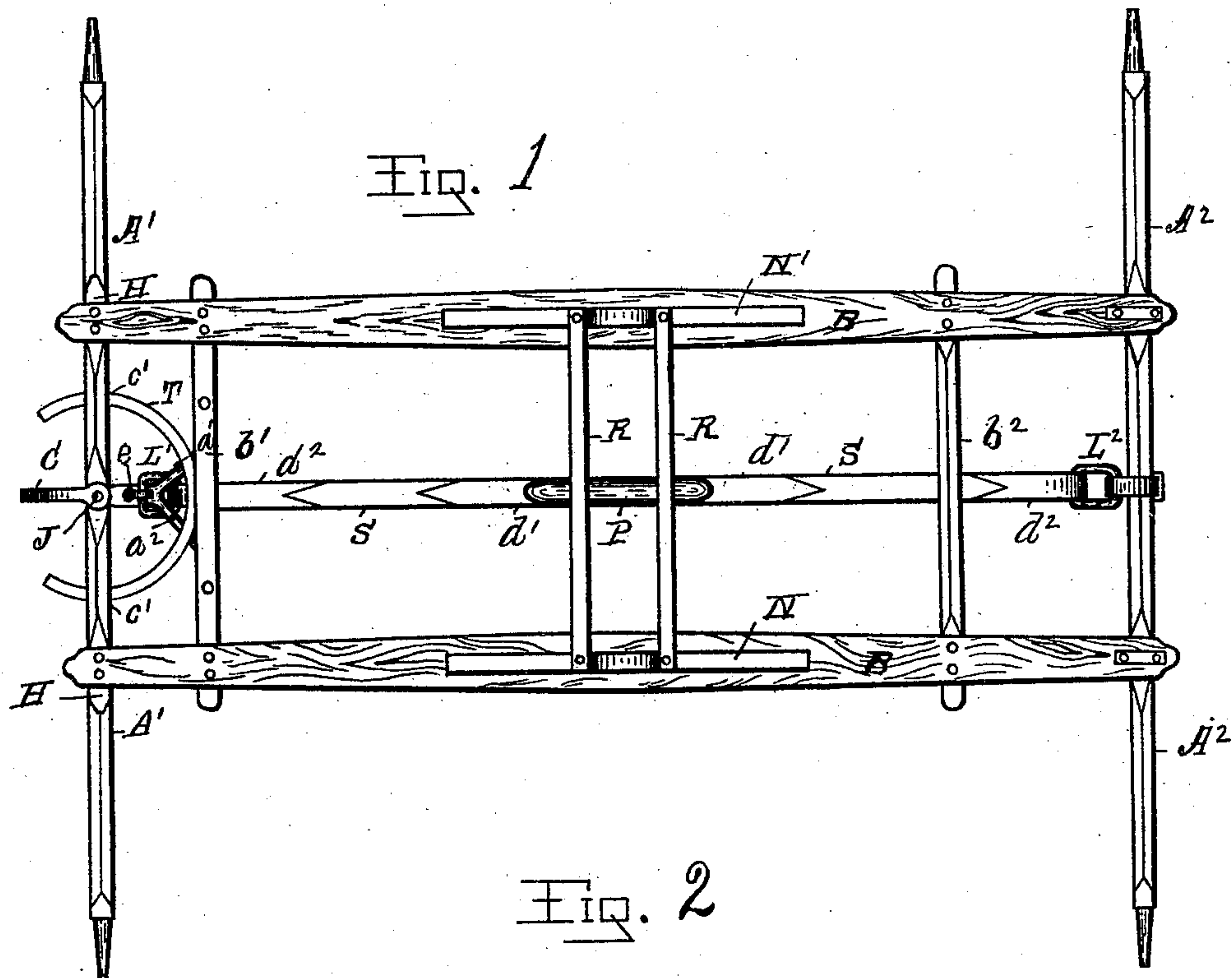
(No Model.)

2 Sheets—Sheet 1.

H. F. WEST.
SPRING BOARD WAGON.

No. 360,938.

Patented Apr. 12, 1887.



WITNESSES:

WITNESSES
Geo. A. Garby
Charles S. Brintnall

INVENTOR

Harrison J. West
by W. C. Hagan his atty

(No Model.)

2 Sheets—Sheet 2.

H. F. WEST.
SPRING BOARD WAGON.

No. 360,938.

Patented Apr. 12, 1887.

Fig. 5

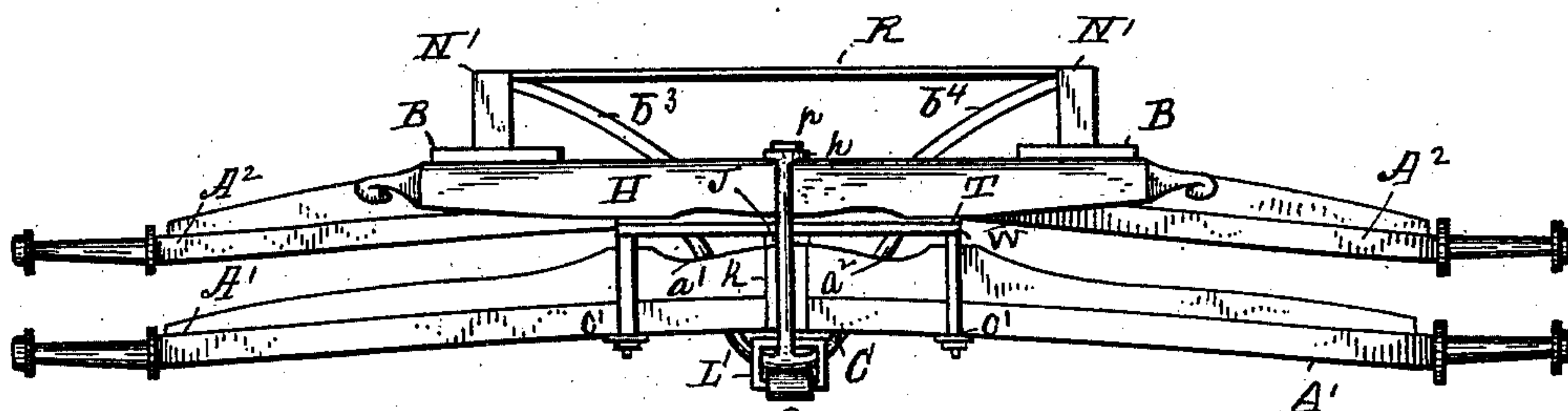
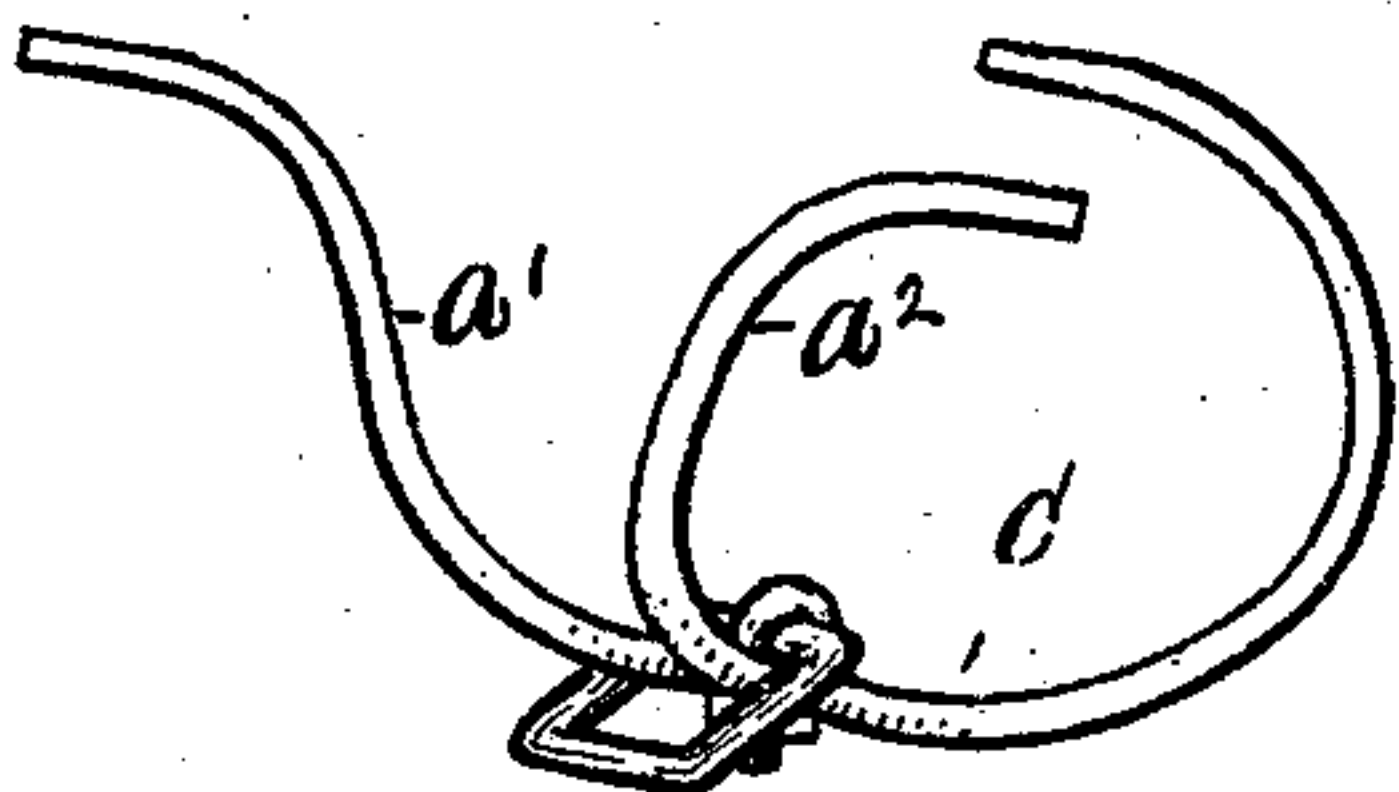


Fig. 3

Fig. 4

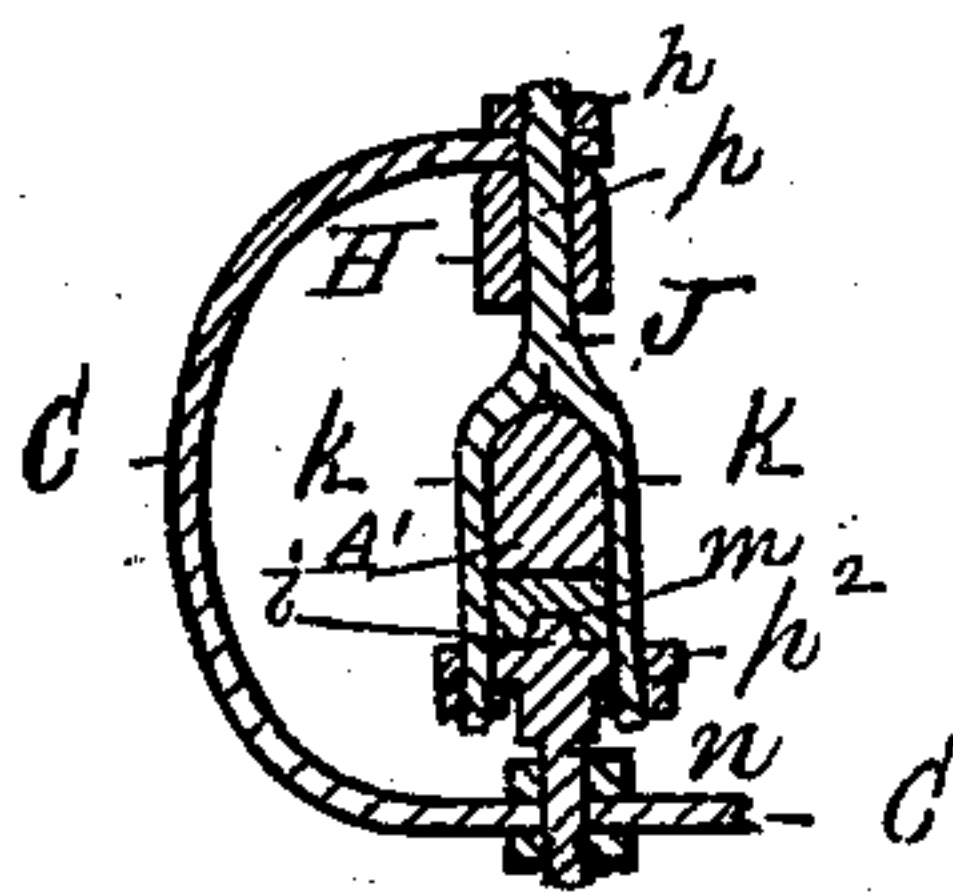
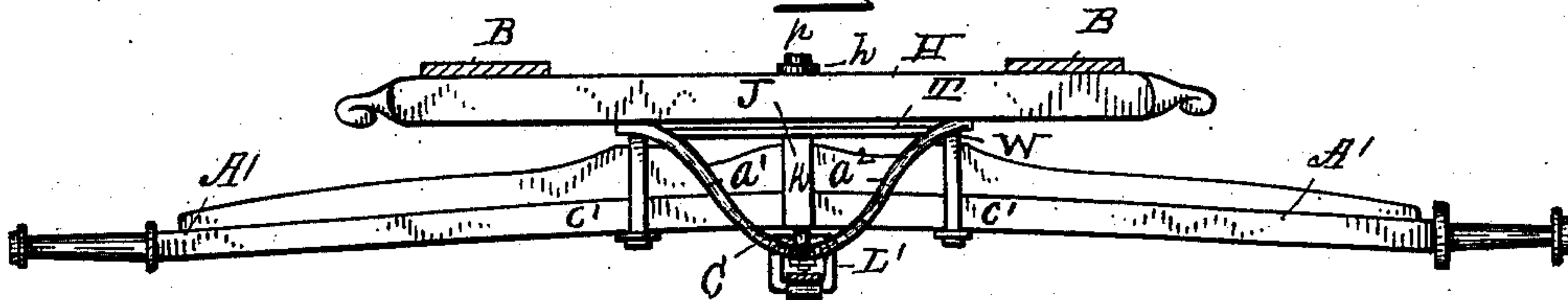


Fig. 6

WITNESSES:

Geo. A. Darby

Charles S. Brintnall

INVENTOR

Harrison F. West

by W. C. Hagan his atty

UNITED STATES PATENT OFFICE.

HARRISON F. WEST, OF GRAFTON, NEW YORK.

SPRING-BOARD WAGON.

SPECIFICATION forming part of Letters Patent No. 360,938, dated April 12, 1867.

Application filed July 13, 1886. Serial No. 207,876. (No model.)

To all whom it may concern:

Be it known that I, HARRISON F. WEST, of Grafton, Rensselaer county, State of New York, have invented new and useful Improvements in Spring-Board Wagons, of which the following is a specification.

My invention relates to improvements in spring-board wagons; and the object and purpose of my invention is to make such devices better suited to the purpose for which they are designed.

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

Of the illustrations, Figure 1 is a top view of a wagon spring-board containing my invention. Fig. 2 is a side elevation of the apparatus shown at Fig. 1. Fig. 3 is a front end elevation of the mechanism that is shown at Figs. 1 and 2. Fig. 4 is a side elevation of the head-block, axle, and curved brace, taken from the inside face of these parts and upon that side which is the reverse of that shown at Fig. 3, with the spring-boards proper shown in cross-section. Fig. 5 is a perspective of the curved brace, shown as detached from the other parts and made with a link-eye and forked to connect with the front cross-bar of the spring-boards and then curved to pass under and against the lower side of the axle for the passage through it thereat of the lower journal end of the king-bolt, and which brace therefrom is bent to pass up in front of the axle and head-block to the top of the latter for the passage of the upper end of the king-bolt through the upper end of said brace. Fig. 6 is a cross-section of the king-bolt and its clip-yoke for attachment to the axle.

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 spring-boards proper, which are made of wood. The letter b' indicates a front cross-brace, and b^2 a rear cross-brace, that connect the two spring-boards.

The letter H designates the head-block; A' , the front axle; A^2 , the hind axle; W, the fifth-wheel, which is clipped to the upper face of

the axle at c' ; and the letter T indicates the turn-plate, attached to the under side of the head-block so as to be coincidently over the fifth-wheel.

The letters N' N' designate the seat-blocks, which are each of them attached to the upper surface of one of the boards B, and the letters R R designate cross bars or rods connecting the seat-blocks.

The letter S designates a centrally-arranged steel spring, and which at its front end, by means of the link L' , connects with an eye, e , made in the curved brace C, and L^2 designates a link connecting the rear end of the spring S with the hind axle. From where connected at the front and rear by the links this spring S curves downwardly at d' , and upwardly at d^2 where adjacently below the seat-blocks, and the letters $b^3 b^4$ designate braces that at their outer ends connect oppositely with the seat-blocks N', and therefrom curve downwardly and inwardly, to be rigidly clipped to the spring-block P, to which latter the spring S is also clipped.

The letter C designates a curved brace, that is forked so as to produce the two rearwardly-extended arms $a' a^2$, each one of which is attached at its outer end to the under side of the front cross-bar, b' , at opposite ends of the latter.

The letter e indicates a link-eye that is formed in said curved brace a little in advance of where its forked ends unite to and with the body of the brace, and from thence the latter is extended frontwardly beneath the axle to receive the lower end of the king-bolt, and then this brace curves outwardly, frontward, upwardly, and then inwardly to rest on the top of the head-block, and thereat made with a passage-way to receive the upper journal end of the king-bolt.

The letter J designates the king-bolt, having a clip-yoke, k , adapted to pass around the axle and be secured to the latter. The upper end of the king-bolt clip-yoke is provided with a king-bolt pin, p , adapted to pass up through the head-block and upper end of the brace C, and to be secured therein by a head-nut, h . The plate p^2 of the clip-yoke on its under surface is constructed with a king-bolt pin, n , adapted to pass through the curved

brace C thereat. The upper face of the clip-plate p^2 has formed on its upper face a projection, i , which is adapted to journal in a passage-way, m , made in the bottom of the axle, and the function of this projection i and passage-way a thus made in the axle and clip-plate is to prevent the king-bolt clip from sliding laterally on the axle. By thus connecting the spring S with the head-block by means of the brace C and the boards and said spring by means of the rods $b^3 b^4$, and the boards with each other, the combined spring-boards and metallic spring S have a connected elasticity, so that any downward pressure upon the boards from the seat tends to make them yield together, and they operate differently from older constructions where metallic springs were connected directly with the spring-board by means of links and without the connection of the metallic spring with the head-block and hind axle.

As the curved brace C performs other functions than merely sustaining the spring S by means of its link-eye, said brace may be made without said eye, and the link L' made to connect directly with the head-block, and, if desired, the rods $b^3 b^4$ may connect directly with the boards B, instead of with the seat-blocks thereon.

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

1. In a spring-board wagon, the combination, with the boards B B, made with connecting cross-bars $b^1 b^2$, of the curved brace C, having the forked and curved arms $a' a^2$, adapted to connect at their rearwardly and upwardly extended ends with the cross-bar b^1 , and frontwardly from where thus forked constructed to pass under the axle to receive the lower journal end of the king-bolt thereat, and therefrom curved frontwardly, upwardly, and then inwardly to the top of the head-block, to re-

ceive thereat the upper journal end of the king-bolt, substantially in the manner as and for the purposes set forth.

2. The combination, with the spring-boards B B, connected by the cross-bars $b^1 b^2$ and made with seat-blocks $N' N'$, of the spring S, centrally connected with said seat blocks or boards by means of rods, a link connecting the rear end of said spring with the hind axle, and a link connecting the front end of said spring S with the curved brace C, substantially in the manner as set forth.

3. In a spring-board wagon, the combination of the king-bolt J, made with the clip-yoke k , and clip-plate p^2 , to pass around the front axle to be secured thereat, the upper journal end, p , at the top of the clip-yoke, and the lower journal end on the bottom of said clip-plate, and the curved brace C, having the forked arms $a' a^2$, adapted to connect with the front cross-bars of the spring-boards, and said curved brace frontwardly from where forked being adapted to receive the lower journal end of the king-bolt, and therefrom curved to pass over the top of the head-block to receive the upper journal end of the king-bolt thereat, substantially in the manner as and for the purposes set forth.

4. The combination, with the king-bolt J, made with the clip-yoke k , upper journal end, p , clip-plate p^2 , made with the lower journal end, n , on its bottom surface, the projection i , made on its inner upper surface, and the axle A' , made with the passage-way m , substantially as and for the purposes set forth.

Signed at Troy, New York, this 23d day of June, 1886, and in the presence of the two witnesses whose names were by them hereto written.

HARRISON F. WEST.

Witnesses:

GEO. M. PAYFER,
W. E. HAGAN.