

J. S. MERRILL.

Improvement in Spring Bottom Vehicles.

No. 123,409.

Patented Feb. 6, 1872.

Fig. 1.

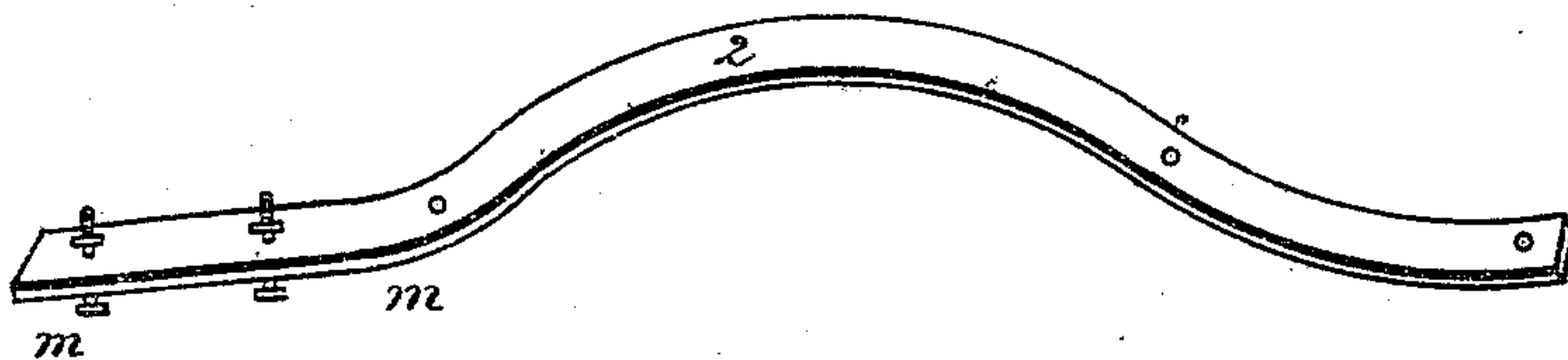


Fig. 2.

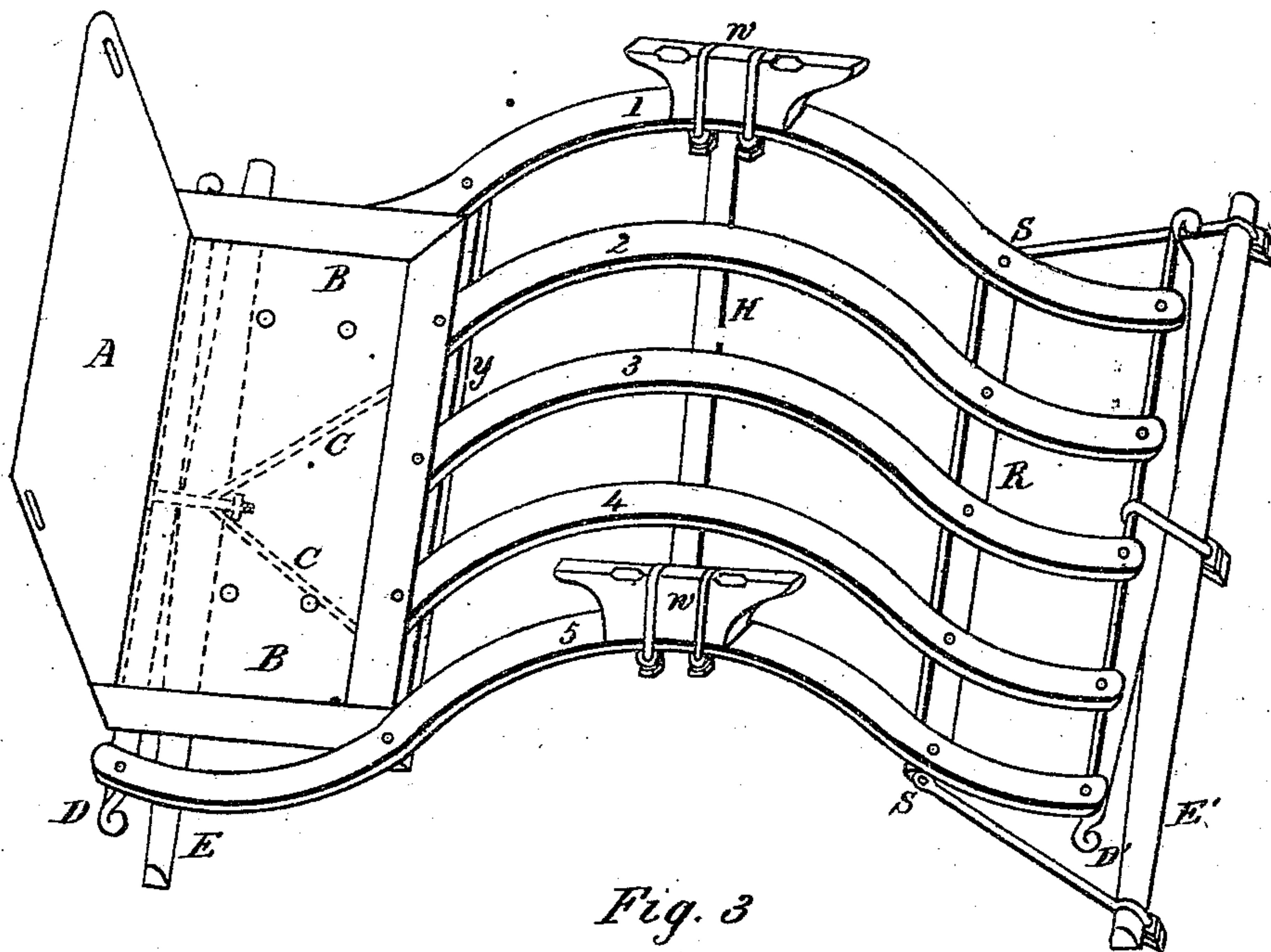
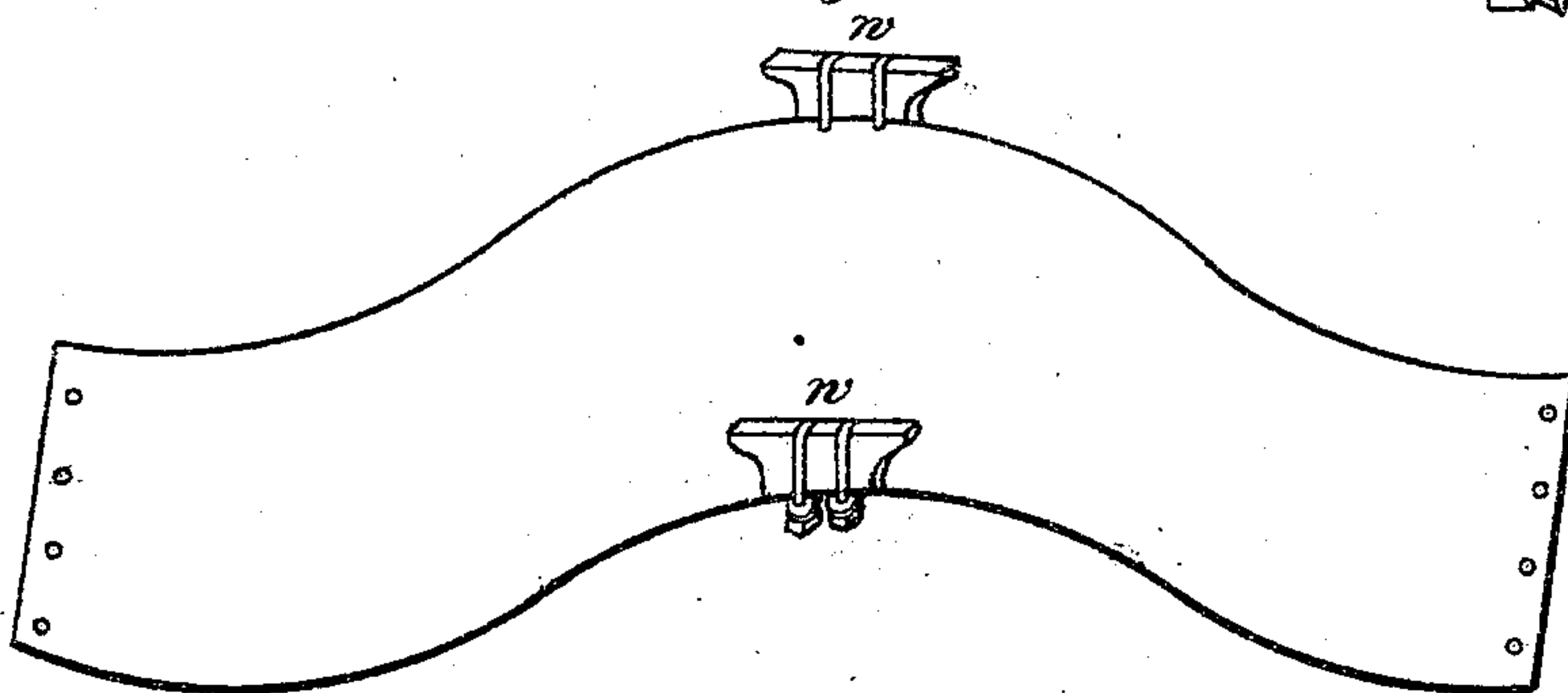


Fig. 3.



Witnesses..

A B Richmond
Roe Reisinger

Inventor.

Joshua S Merrill

UNITED STATES PATENT OFFICE.

JOSHUA S. MERRILL, OF TITUSVILLE, PENNSYLVANIA.

IMPROVEMENT IN SPRING-BOTTOM VEHICLES.

Specification forming part of Letters Patent No. 123,409, dated February 6, 1872.

To all whom it may concern:

Be it known that I, JOSHUA S. MERRILL, of Titusville, in the county of Crawford and State of Pennsylvania, have invented a new and Improved Spring-Bottom for Carriages and Buggies; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon.

The nature of the invention consists in constructing the spring-bottoms of carriages of thin strips or plates of elastic steel bent into semi-elliptic form and connected together by cross-ties and braces, as set forth in the description below. The advantages obtained in my invention are in constructing a strong and light spring-carriage or buggy for rough roads which will combine strength with elasticity, and at the same time to be so constructed as to permit the forward wheel in turning to run under the carriage-bottom, thereby permitting it to turn in narrow roads.

Description.

Figure 2 represents my invention in one of its forms—*i. e.*, when the same is constructed of narrow “strips” of metal. Fig. 3 represents it when constructed of one entire sheet of metal or other elastic material.

E E, Fig. 2, represent the axle; D' D, the front and rear head-blocks. 1 2 3 4 5 are nar-

row springs of steel bent in a half-elliptical form, as shown in the drawing. The ends of these springs are bolted on the head-blocks D D'. Y H R are cross-pieces or ties of wood or metal bolted to the springs to keep them in their proper position. W W are the supports on which the seat is placed. These are bolted to the center cross-tie H. C C is a double brace, shaped like a letter V, through the point of which the “king-bolt” passes, the other end of the arms being bolted to the cross-tie Y. S S are also braces “clipped” or bolted to the axle at E', and attached to the cross-tie R by a joint at S; or for light buggies, instead of a joint at S, the brace may be hammered thin, so that it will spring, and thereby accommodate itself to the spring of the bottom. When it is desired to have a foot-board, as B B, two of the springs, 2 and 4, may be bent, as shown at *m m*, Fig. 1, on which the foot-board B B with the dash A is bolted; and the rear end may be constructed in a similar manner for a boot or trunk-board.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

I claim the springs 1 2 3 4 5, in combination with the cross-ties Y H R and the braces C C and S S, constructed as described for the purposes set forth.

Witnesses: JOSHUA S. MERRILL.

A. B. RICHMOND,
ROE REISINGER.