

D. A. JOHNSON.

Improvement in Fifth Wheels for Carriages.

No. 125,397.

Patented April 9, 1872.

Fig. 1.

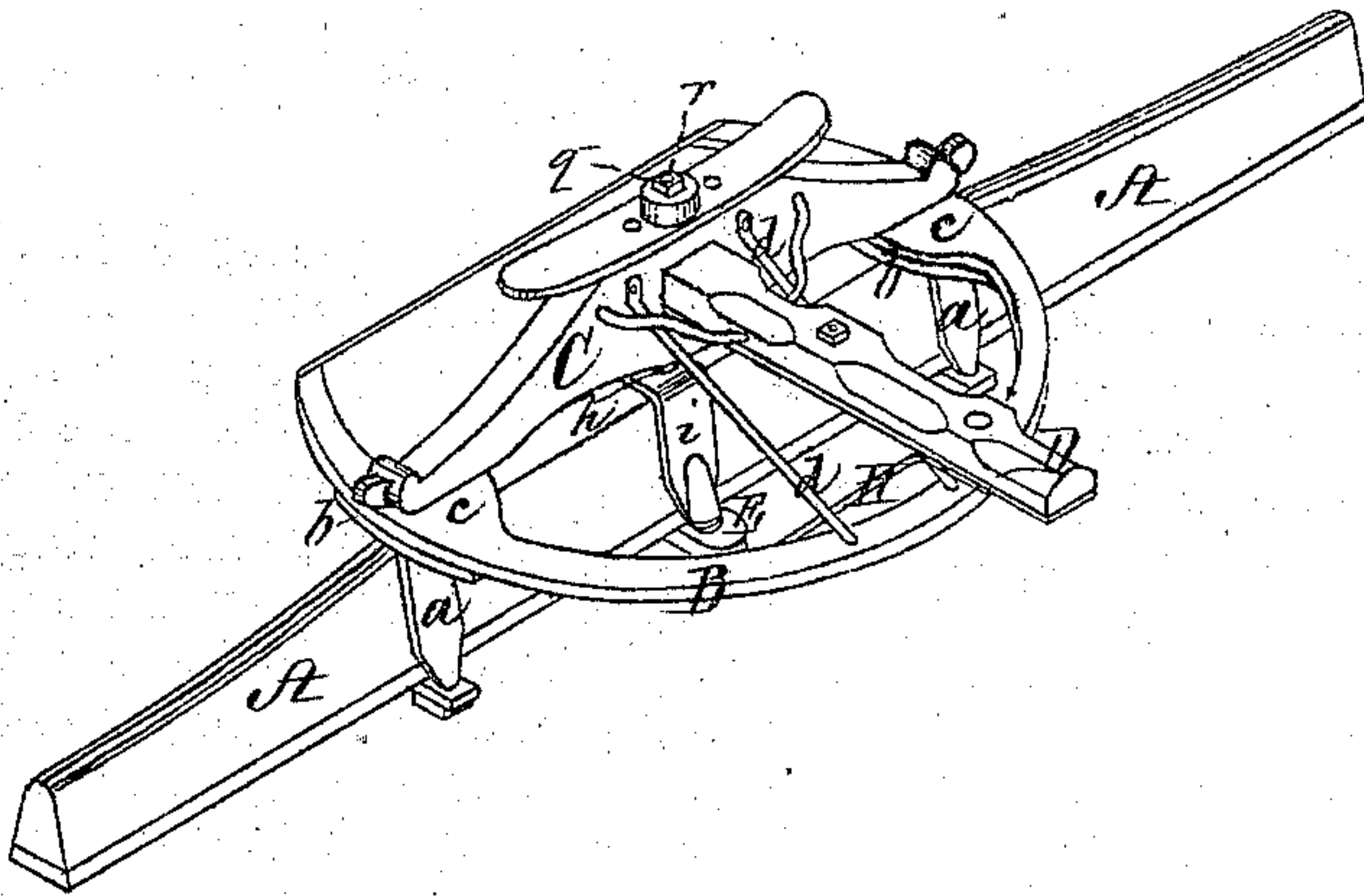


Fig. 2.

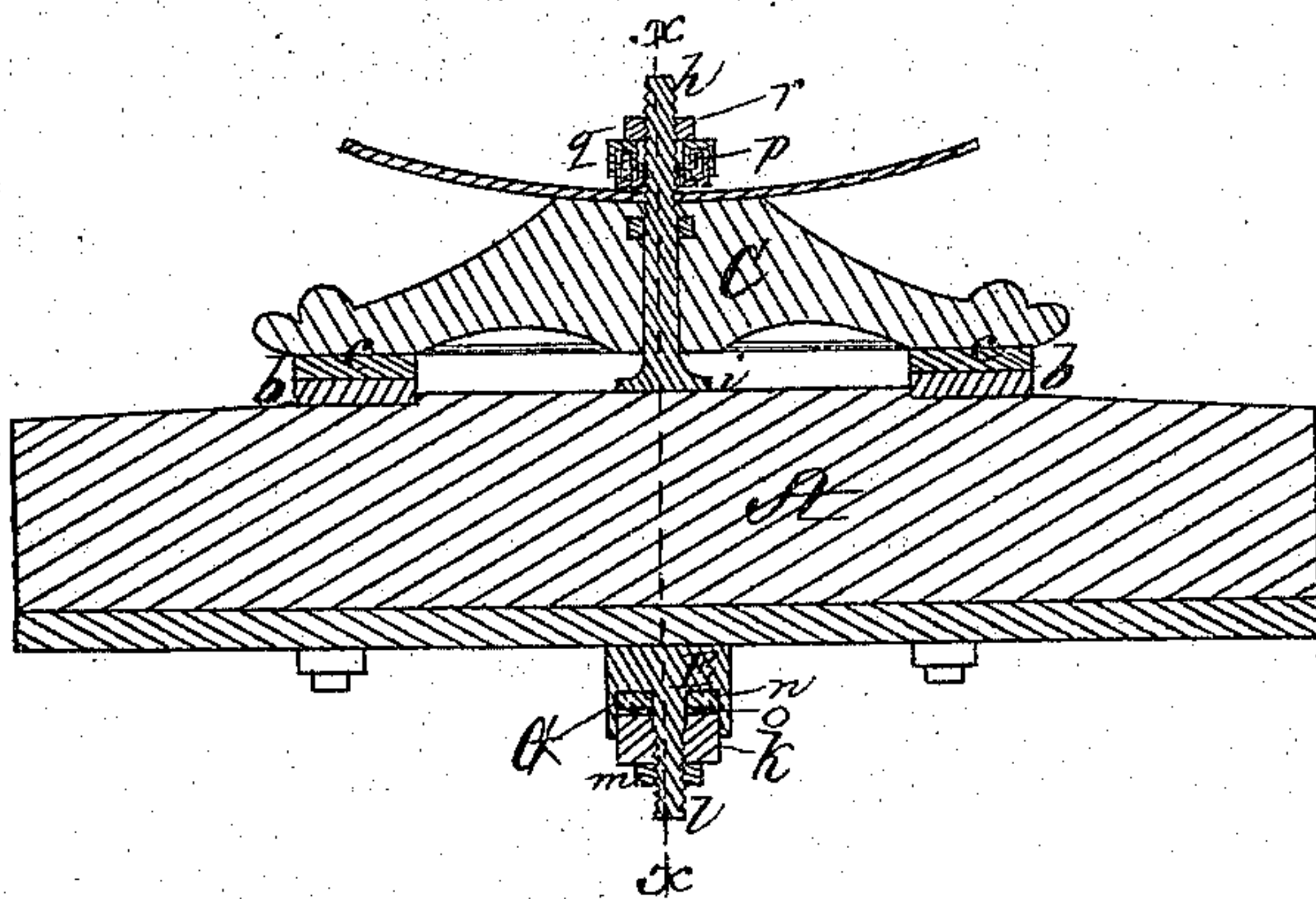
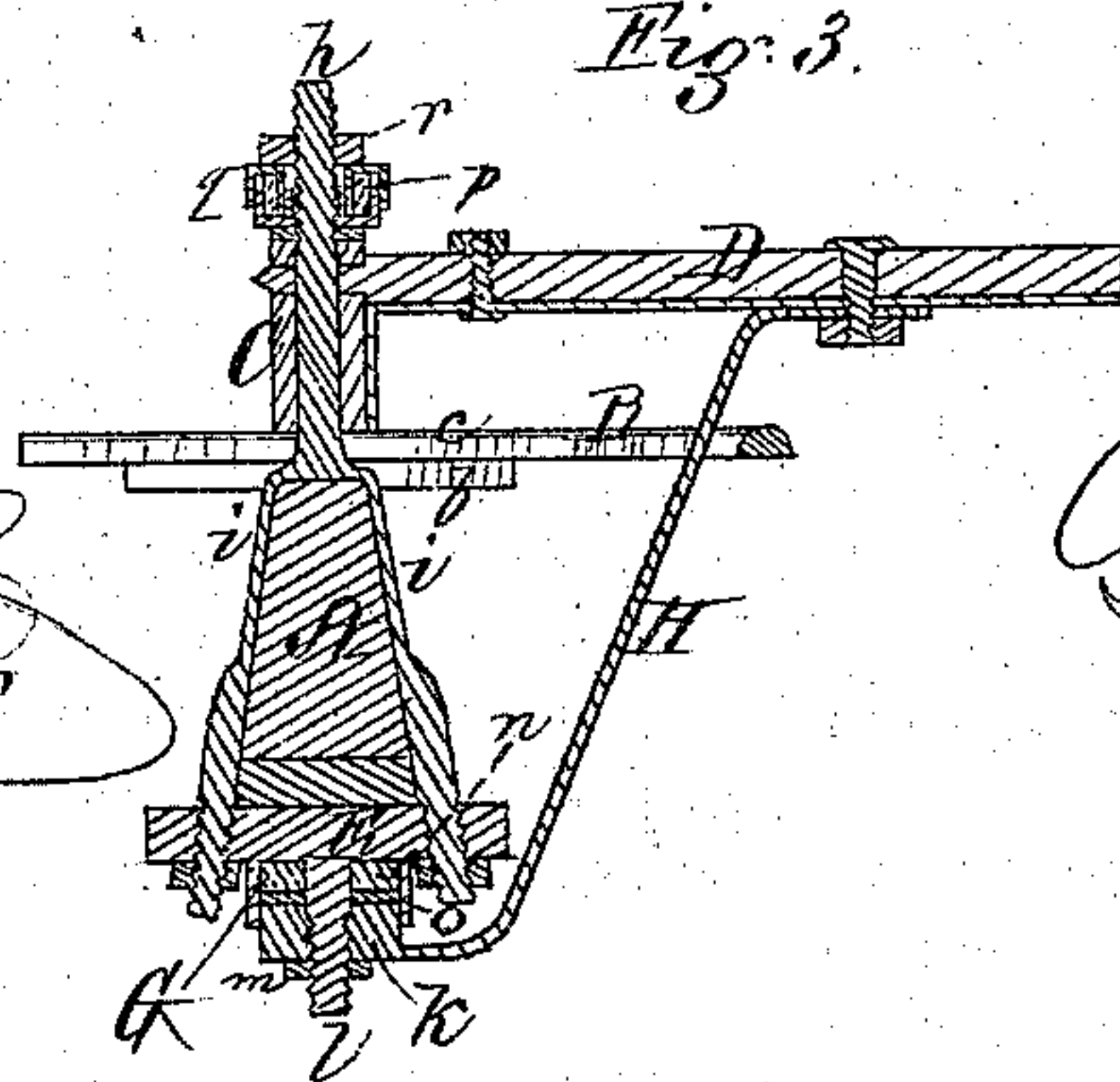


Fig. 3.



Witnesses,

P. E. Stearns
W. W. Stearns

Inventor,

D. A. Johnson

UNITED STATES PATENT OFFICE.

DANIEL A. JOHNSON, OF BOSTON, ASSIGNOR TO HIMSELF AND JOHN OSGOOD FROST, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN FIFTH-WHEELS FOR CARRIAGES.

Specification forming part of Letters Patent No. 125,397, dated April 9, 1872.

To all whom it may concern:

Be it known that I, DANIEL A. JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in "Fifth-Wheels" of Carriages, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of my improved "fifth-wheel" applied to the front axle of a carriage. Fig. 2 is a longitudinal section through the center of the same. Fig. 3 is a transverse section on the line *x x* of Fig. 2.

My invention consists in a "fifth-wheel" for carriages provided with enlargements, in combination with corresponding enlarged bearing-plates secured to the axle, whereby a wider surface is afforded for the fifth-wheel to turn on, and the liability of wear and consequent rattling of the parts incident to the fifth-wheels of the ordinary construction are avoided; and my invention also consists in steadying the fifth-wheel by braces extending from it to the head-block in which the end of the perch is secured, instead of by braces extending to the perch; and my invention also consists in surrounding the bolt to which the lower end of the brace from the perch is secured with a thimble or socket for the reception of a projection on the end of the brace, by which means the strain is taken off the bolt, which is thereby prevented from being bent or broken, a rubber washer being introduced within the socket, if desired; and in connection with a fifth-wheel, my invention also consists in the application to the upper end of the transom-bolt of an elastic washer, provided with a guard or casing, which allows it to yield, whereby the fifth-wheel is kept firmly down on its bearings without binding, and is allowed to yield slightly when the carriage is turned or tipped, thus preventing the transom-bolt from being injured, and affording further security against rattling.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A is the front axle of a carriage, to which are secured, by bands or

straps *a*, two plates, *b b*, which afford broad bearing-surfaces, upon which rest the enlargements *c c* projecting from the inside of the fifth-wheel B. When the carriage is moving in a straight direction the enlargements *c c* rest squarely on their bearing-plates *b b*, which, on account of the extent or width of their surfaces, insure the friction being distributed evenly thereon; consequently but little wear takes place, the small amount produced being uniform, and the rattling of the parts being avoided. *d d* are two braces extending from the back of the fifth-wheel B to the back of the head-block C, these braces serving to more effectually stiffen and steady the fifth-wheel and prevent vibration than the braces heretofore employed, which extended directly between the perch D and the fifth-wheel B. *h* is the transom-bolt projecting up from a band or strap, *i*, to the bottom of which is secured the yoke E, provided with a thimble or socket, G, for the reception of a projection, *k*, on the lower end of the brace H, the upper end of which is secured to the perch. This projection is fitted over a bolt, *l*, extending down from the yoke through the center of the thimble, a nut, *m*, being employed to keep the end of the brace in place. Within the socket and surrounding the bolt *l* is placed an elastic washer, *n*, protected by a metallic washer, *o*, by which construction the projection *k* of the brace H is caused to bear against the inside of the thimble, whereby the strain on the bolt *l* is relieved, and it is prevented from being bent or broken. *p* is an elastic washer applied to the top of the transom-bolt *h*. This washer is inclosed within a guard or casing, *q*, formed of two dish-shaped portions, fitting one within the other, a central boss on one fitting into a corresponding boss on the other and surrounding the bolt, to prevent the contact of the washer therewith, and thus, when the washer is compressed by a screw-nut, *r*, the fifth-wheel is prevented from binding on its bearings, and at the same time allowed to yield slightly when the carriage is turned or tipped.

Claims.

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

1. The "fifth-wheel" B, with its enlargements

c c, in combination with the bearing-plates *b b* secured to the axle A, constructed and operating substantially as and for the purpose set forth.

2. I also claim the braces *d d* extending from the "fifth-wheel" to the "head-block" C, substantially as and for the purpose described.

3. I also claim the thimble or socket G surrounding the bolt *l*, in combination with the brace H, with its projection *k* fitting therein, and with or without an elastic washer, substantially as and for the purpose set forth.

4. I also claim the elastic washer *p* inclosed within a guard or casing, *q*, applied to the transom-bolt *h*, in combination with the nut *r*, "head-block" C, and "fifth-wheel" B, operating substantially in the manner and for the purpose described.

Witness my hand this 8th day of February, A. D. 1872.

DANIEL A. JOHNSON.

In presence of—

P. E. TESCHEMACHER,
N. W. STEARNS.