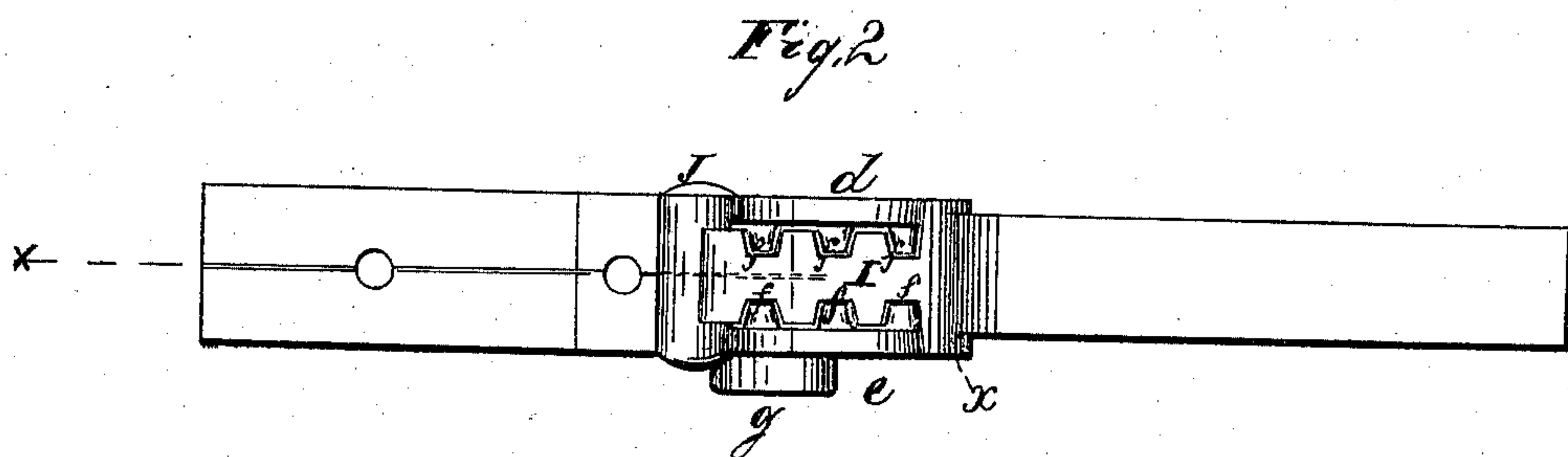
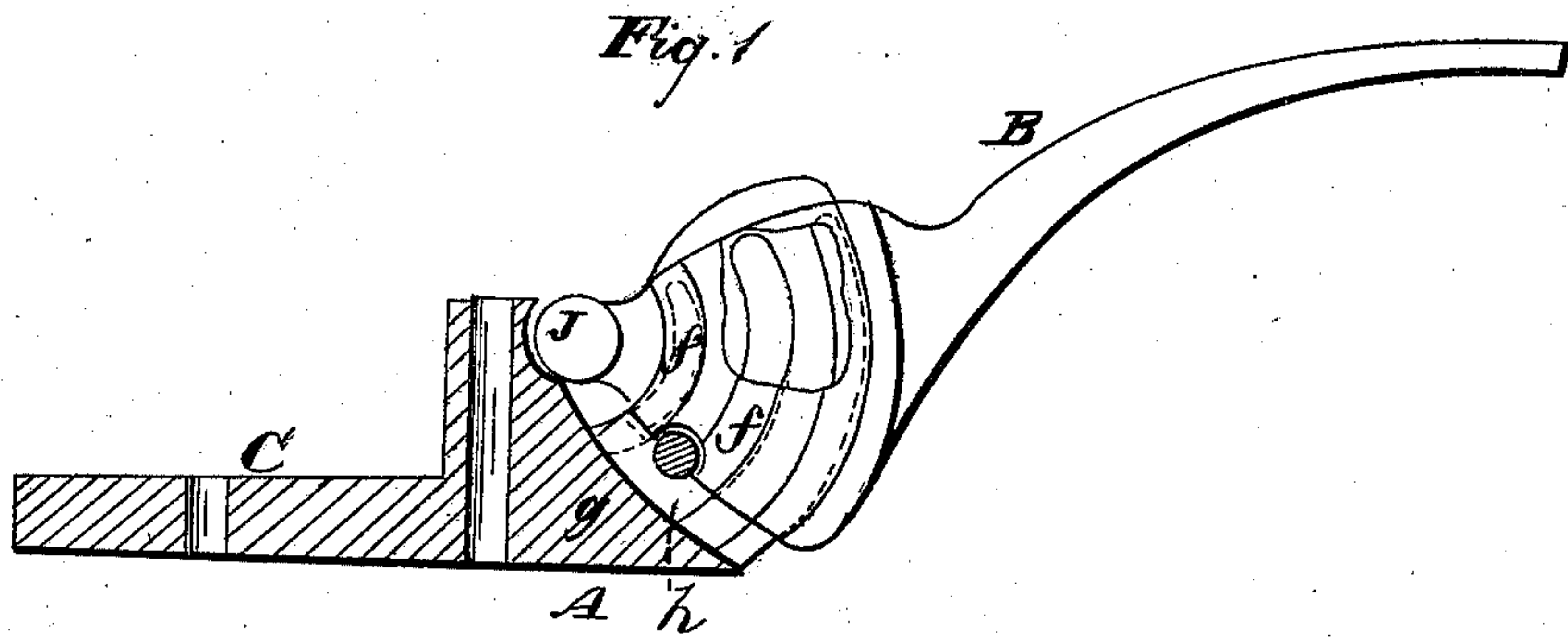


A. S. JOHNSON.

Thill Coupling.

No. 81,642.

Patented Sept. 1, 1868.



*Witnesses:*  
*Wm. A. Morgan*  
*G. L. Cotton*

*Inventor:*  
*A. S. Johnson*  
*per Wm. M. Co.*  
*Attorney*

# UNITED STATES PATENT OFFICE.

ALFRED S. JOHNSON, OF WAUPUN, WISCONSIN, ASSIGNOR TO HIMSELF  
AND ENOCH VAN WIE, OF SAME PLACE.

## IMPROVEMENT IN CARRIAGE-COUPPLINGS.

Specification forming part of Letters Patent No. 81,642, dated September 1, 1868.

*To all whom it may concern:*

Be it known that I, ALFRED S. JOHNSON, of Waupun, in the county of Fond du Lac and State of Wisconsin, have invented a new and useful Improvement in Carriage-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to an improvement in the method of coupling the thills of buggies or the poles of carriages to the axle; and it consists in the construction and arrangement of the parts of which it is composed in the manner hereinafter described.

Figure 1 represents a vertical longitudinal section of the coupling through the line *x x* of Fig. 2. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

A represents the part which is attached to the axle. B is the part which is attached to the thills or shafts. The part A (the shank C of which is bolted or secured to the axle) is formed of two pieces, riveted or bolted together, forming jaws *d e*, on the inner sides of which are one or more curved ribs and gains in the form of screw-threads, as seen in the drawing at *f*. The space between the two jaws is marked I. This part A may be made of malleable iron in a single piece.

*g* is a screw or bolt, which passes through the jaws, with a piece of rubber or other elastic material behind it to prevent its rattling or getting loose. *h* indicates the rubber.

The part B, which is attached to the thills, shafts, or pole, is made to fit into the space I, with corresponding ribs or square curved threads and gains and recesses, as seen in the drawing.

J is a central wrist or pivot, which is at the extreme end of B, and rests in a bearing or box in the part A, as seen in the drawing.

The part A being fast and rigidly connected with the axle, turns upon the pivot J, as upon a hinge, while the threads of the two parts receive the strain or draft.

The threads or ribs *f* form segments or sections of concentric rings, the circles of which are described from the center of the pivot J, so that while J is the center of motion the thills are free to work up and down at all times, and the ribs are always in contact.

To make the connection between the two, the thills or pole are raised to nearly a perpendicular position, or so that the center J is fairly in its bearing or box, when the ribs or threads will engage with each other, as seen in the drawing, as the thills are brought down. There is no possibility of the thills or pole becoming detached, without again raising them, as before mentioned. It will be seen that the coupling is readily made, and that it is perfectly safe and reliable.

I do not limit myself to any particular number of the ribs and gains, and they may be confined entirely to one side, leaving the other side of the space I blank, if desired.

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

A thill-coupling, formed of the parts A and B, constructed, arranged, and operating substantially as shown and described, for the purpose set forth.

The above specification of my invention signed by me this 18th day of June, 1868.

ALFRED S. JOHNSON.

Witnesses:

E. M. BEACH,  
SIMON HEATH.