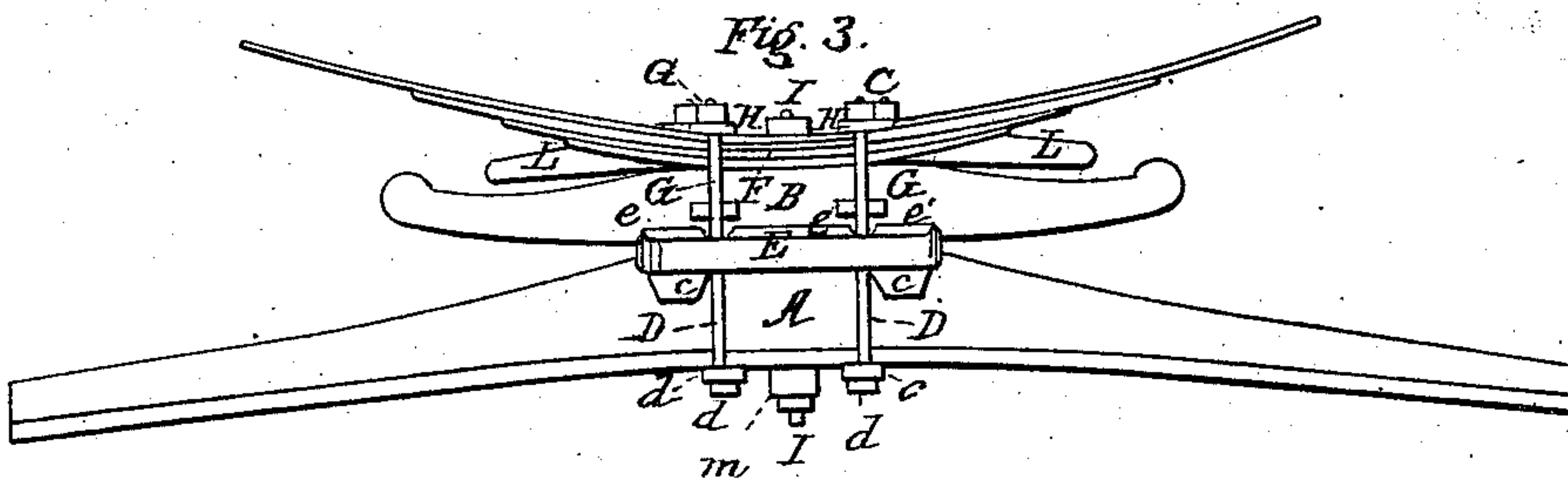
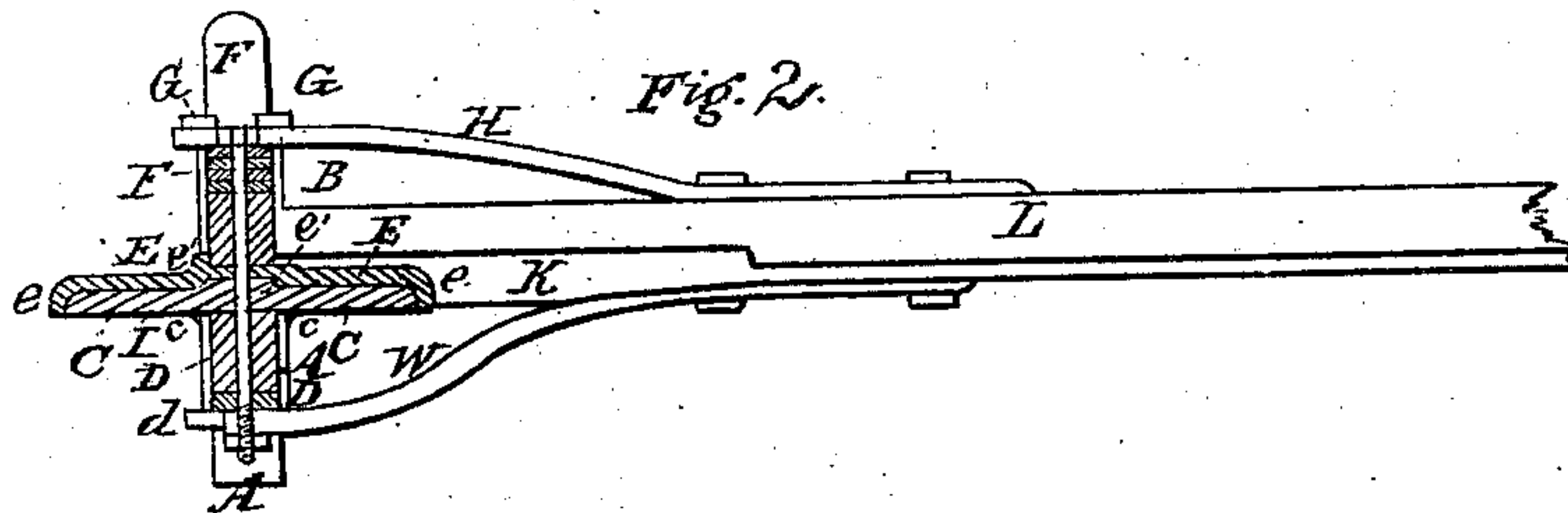
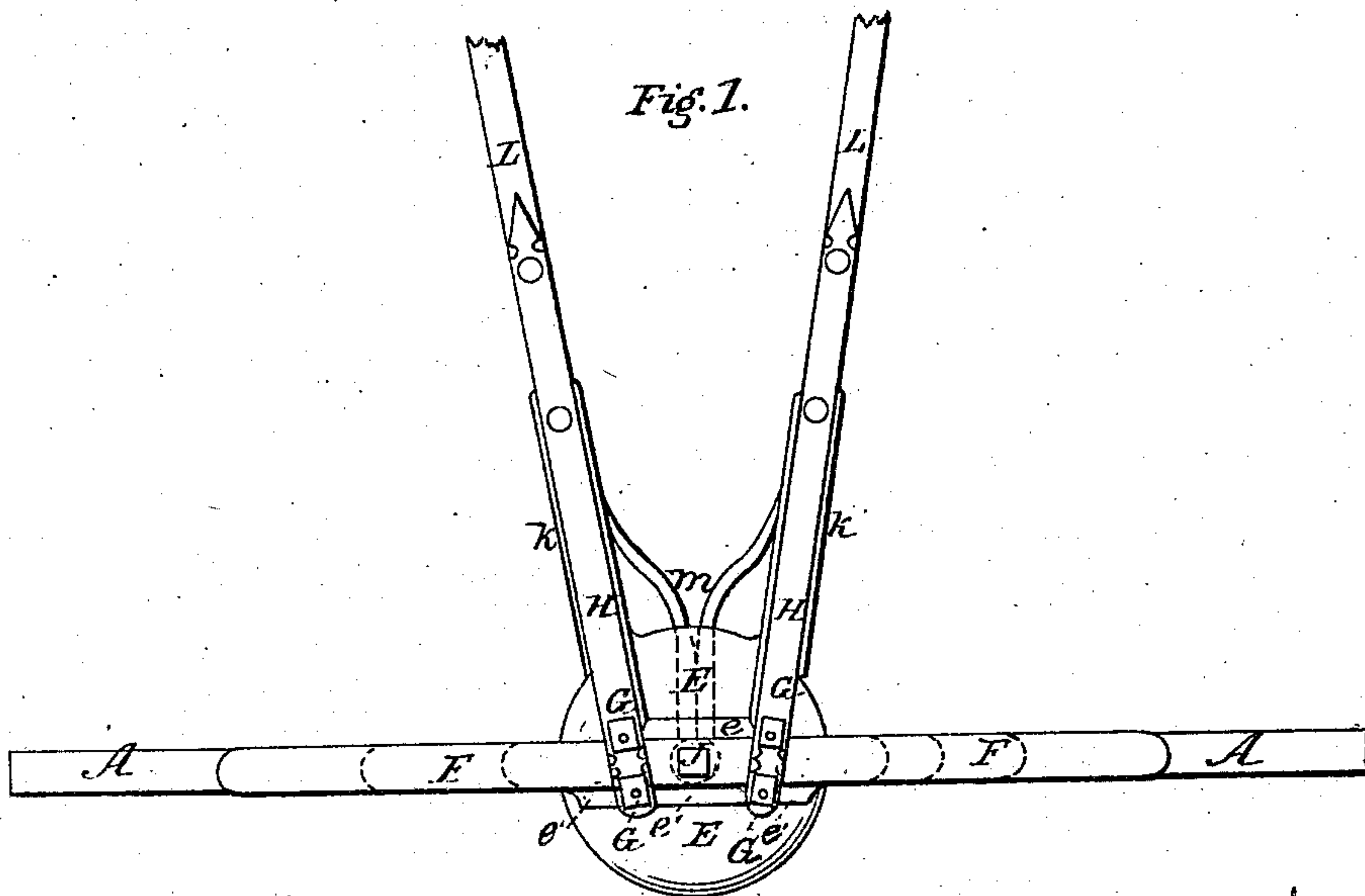


A. BOOTH.  
Coupling for Carriages.

No. 93,404.

Patented Aug. 10, 1869.



Witnesses.  
Saml. J. Mearns.  
Jas. L. Norris.

Inventor.  
Albert Booth,  
by Prindle & Lyon  
Assoc. Attorneys.

# United States Patent Office.

ALBERT BOOTH, OF SPRINGFIELD, ILLINOIS, ASSIGNOR TO A.  
BOOTH, SON & CO., OF SAME PLACE.

*Letters Patent No. 93,404, dated August 10, 1869.*

## IMPROVEMENT IN COUPLING FOR CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, ALBERT BOOTH, of Springfield, in the county of Sangamon, and State of Illinois, have invented certain new and useful Improvements in Couplings for Head-Blocks or Bolsters and Axles; and do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a plan view of my improvement;

Figure 2 is a vertical longitudinal section; and

Figure 3, a front elevation of the same.

Letters of like name and kind refer to like parts in each of the figures.

My invention relates to a class of devices used for coupling or pivoting together the front axle and head-block of a wagon, so as to permit either to revolve horizontally, independent of the other; and

It consists in the peculiar construction of said coupling, by means of which greater strength and durability are secured, as is hereinafter set forth.

In the annexed drawing—

A represents the axle, and

B, the head-block, of usual construction.

Upon the upper side of the axle, at its centre, is a circular disk of cast-metal, C, which is attached thereto by means of the bolts D D, the upper end of each being secured to said disk, while its lower end passes through one end of a clamp, *d*, and is provided with a nut, *d'*.

Each clamp extends transversely beneath the axle, and receives, at its opposite end, a similar bolt, D, so that when said nuts are tightened, the axle and disk are firmly held together.

In order that greater strength may be secured, and the bolts relieved from lateral strain, four lugs *c c* are provided upon the lower end of the disk, and, extending downward, embrace said axle upon opposite sides, so as at all times to preserve the relative positions laterally of said axle and disk.

E represents a circular plate of metal, provided, at its edge, with a flange, *e*, which extends downward, so as to form a recess of a suitable size and depth to contain the disk C.

The plate E is attached to the head-block B, and spring F, by means of lugs *e' e'*, bolts G, and clamps H H, as in case of the disk and axle, while a bolt, I, passing downward through the spring F, head-block B, plate E, disk C, and axle A, secures them together, and furnishes an axial pivot, upon which they may turn.

Extending upward from the centre of the disk C is a hub, *x*, having sloping sides, which fits into a corre-

sponding recess in the lower side of the plate E, and serves to relieve the bolt I from lateral strain, and, at the same time, prevent unnecessary friction between the edge of the plate and the flange of the disk.

Secured to, and forming a part of the plate E, are two arms K K, which extend horizontally to the rear, and furnish a means for connecting the stretchers L L to said plate, each arm being provided with flanges that extend upward and embrace the sides of said stretchers, which have their front ends tenoned within the head-block, and are secured to said arms by means of screws passing through the latter into the former.

Attached to the lower side of the stretchers L L, by means of bolts *l l*, are the forked ends of a brace, M, which, passing forward and downward, are united immediately beneath the axle, and secured thereto by means of the bolt I, passing through an opening in the end of said brace.

Other braces, connecting the upper side of the stretchers with the head-block and lower half of the spring, are formed by extending to the rear the clamps H H, which are attached to said stretchers by means of the same bolts *l l*, used for attaching the lower braces.

The advantages possessed by this coupling are many, among which are greatly increased strength and durability, without material increase in either weight or cost, and it is believed that its desirableness will render its general use certain.

Having thus fully set forth the nature and merits of my invention,

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

1. The disk C, provided with the lugs *c c*, and hub *x*, in combination with the plate E, provided with the flange *e*, lugs *e' e'*, and flanged arms K K, all constructed and arranged substantially as and for the purpose specified.

2. The combination of the axle A, the head-block or bolster B, the disk C, provided with the lugs *c c*, and hub *x*; the flanged plate E, provided with the flanged arms K K; the spring F, the bolts D, G, and I, the clamps *d* and H, the stretchers L L, and the forked brace M, substantially as herein set forth, and for the purpose specified.

In testimony that I claim the foregoing, I have hereunto set my hand, this 9th day of June, 1869.

ALBERT BOOTH.

Witnesses:

GEO. O. MARCY,  
THOS. NALE.