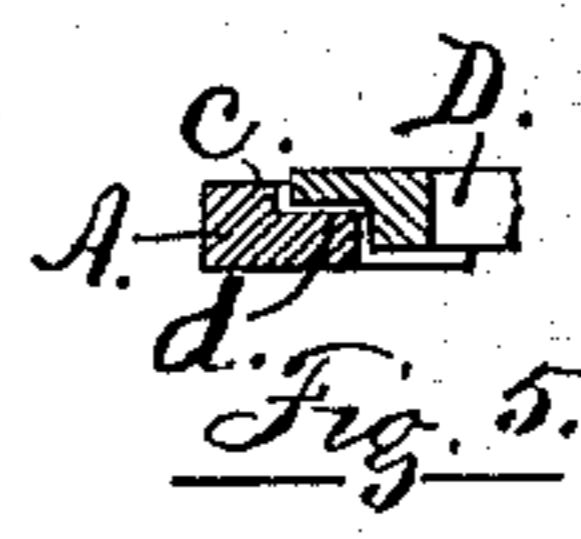
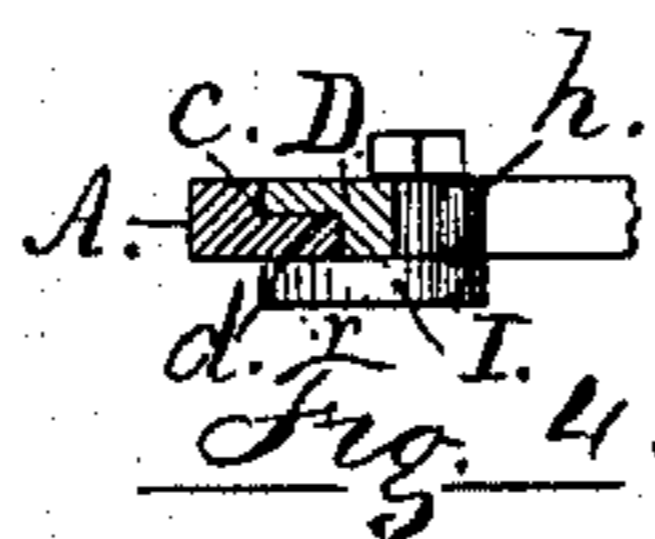
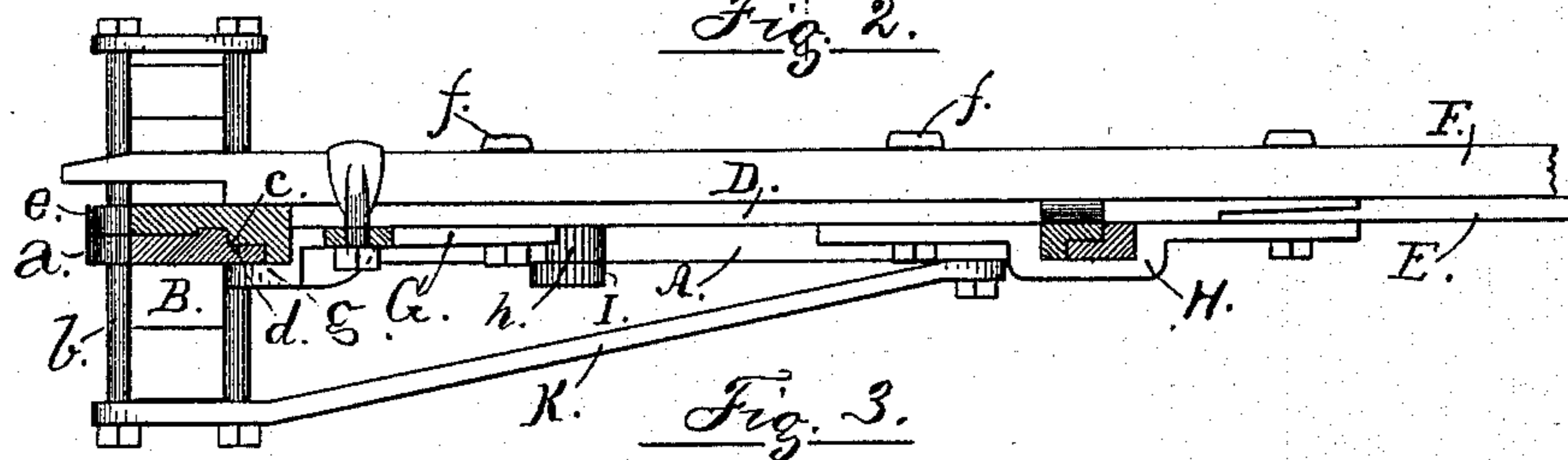
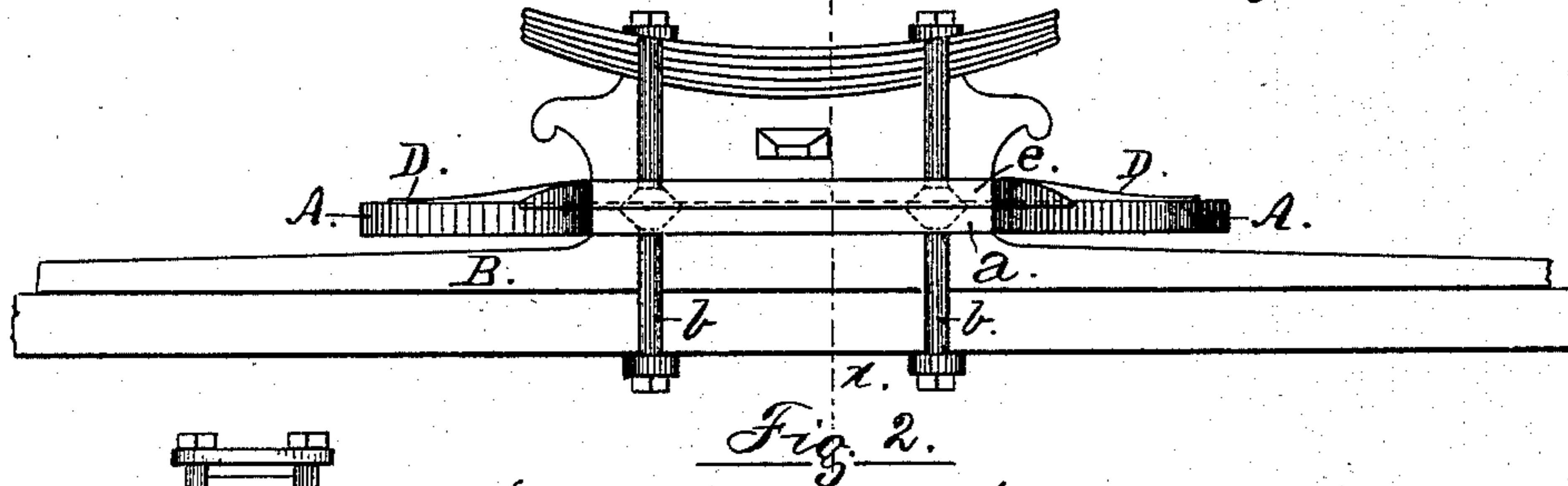
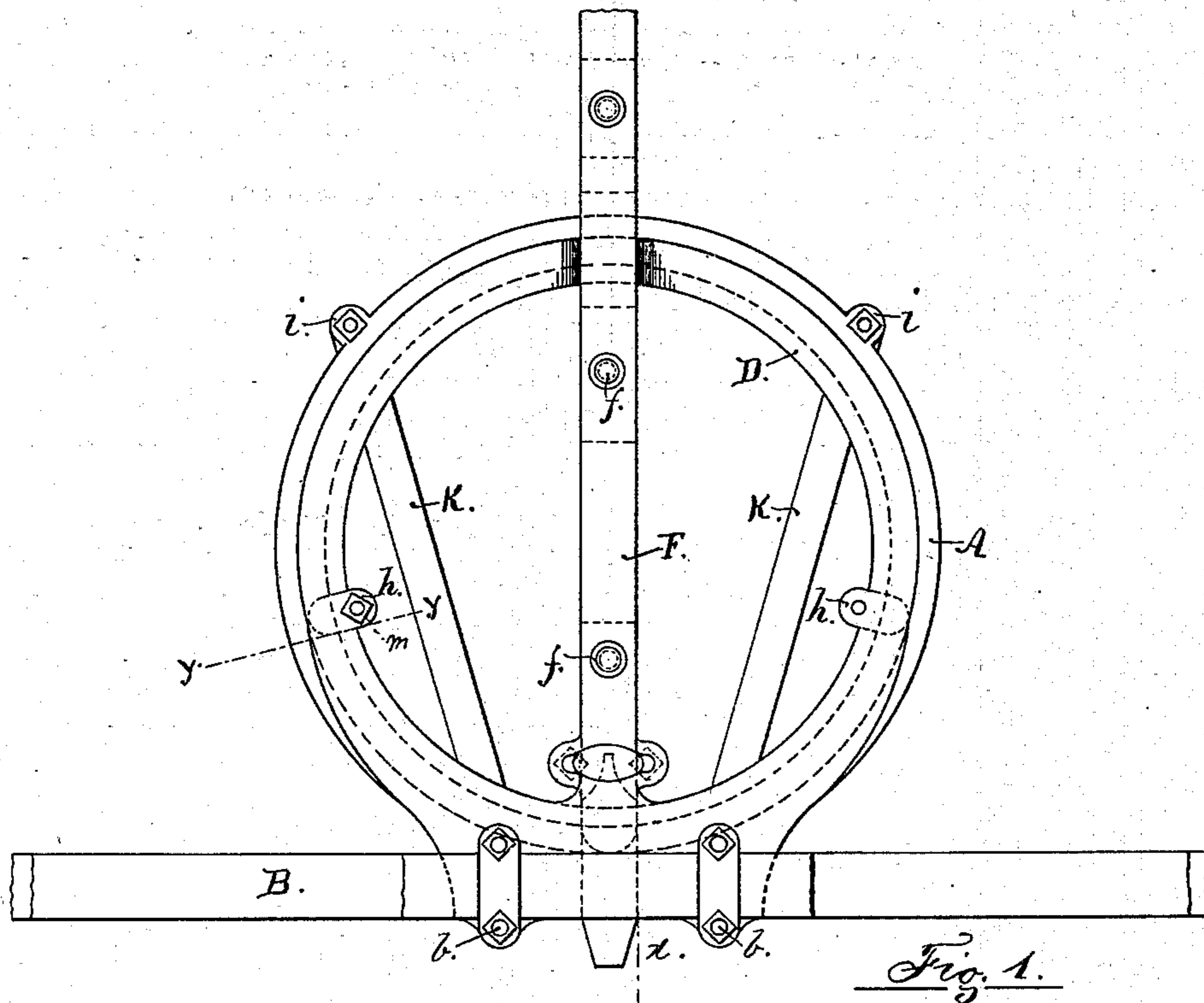


(No Model.)

H. NOLTY, Jr.
FIFTH WHEEL FOR VEHICLES.

No. 413,289.

Patented Oct. 22, 1889.



Witnesses

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HENRY NOLTY, JR., OF LANCASTER, PENNSYLVANIA.

FIFTH-WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 413,289, dated October 22, 1889.

Application filed June 29, 1889. Serial No. 316,084. (No model.)

To all whom it may concern:

Be it known that I, HENRY NOLTY, Jr., a citizen of the United States, residing in Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Fifth-Wheels, of which the following is a specification.

My invention relates to improvements in that class of fifth-wheels in which the parts are connected with the axle and head-block; and the object of my improvement is to dispense with the king-bolt and throw the strain of the draft on the circular portion of the wheel. In fifth-wheels in which a king-bolt is used the whole draft is upon it, and as it presents but a small bearing-surface it frequently gives way, permitting the separation of the parts.

In my improvement one plate of the wheel rests in a recess in the other and the draft acts directly on it, so that the bearing-surface is greatly increased, as will be fully explained.

I attain my object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of a fifth-wheel embodying my invention, the perch, spring, and head-block being in place. Fig. 2 is a front elevation of the same. Fig. 3 is a vertical longitudinal section through the line $x x$, Fig. 1. Fig. 4 is a vertical transverse section through the line $y y$ of the same figure; and Fig. 5 is a transverse section through the plates, showing them separated.

In the drawings, A represents the outer circular plate of the fifth-wheel, having an extension or widened head a , which rests upon the axle B and is secured thereto by bolts b . In the upper inner edge of this plate A there is a recess c formed, which extends entirely around the plate. An inner circular plate D, having a recess d in its lower outer edge corresponding with the recess c in the plate A, rests upon that plate, the recesses being so cut that the plates are rabbeted into each other, as shown in Figs. 4 and 5. Upon the front of the plate D there is a head e , similar to the head a of the plate A. This head rises from the edge of the plate so as to cover the head a when the plates are in their normal position, as seen in Fig. 3. There is a perch-plate E, formed integral with the plate D,

which extends rearwardly somewhat back of the wheel and forms a bearing for the perch F, bolted to it, as shown at f .

There is a plate G, secured to the under side of the perch-plate in front, which has an ear g , that embraces the lower wheel-plate to hold the two plates together, and at the rear of the perch-plate there is an angle-plate H, also bolted to it, which passes under and around the lower wheel-plate for the same purpose. The wheel-plates are further secured in their relative positions by hook-bolts I, passing through ears h in the sides of the upper plate and embracing the under face of the lower plate. The upper ends of the bolts or vertical portions of the hook-bolts are engaged by nuts m , as shown on the left of Fig. 1 and in Fig. 5, and the upper surface of the horizontal portions thereof are placed somewhat below the lower faces of the wheel-plates and have upwardly-extending lugs r formed on their outer ends, which bear against the under side of the lower wheel-plate A, as shown in Fig. 5. As the bearing-surfaces of the wheel-plates wear away, the nuts are tightened up, so as to keep the lugs r in engagement with the wheel-plate A, thus preventing the rattling of those parts which would otherwise ensue from the wearing away of the bearing-faces of the wheel-plates.

On each side of the under wheel-plate, near the perch-plate, there is formed an ear i , to which is bolted a draft-strap k , which passes forward to and under the axle, where it is engaged by one of the bolts b , securing the head a of the lower wheel-plate to the axle.

It will be seen that in the construction of my fifth-wheel the draft or strain is always carried by the pressure of one-half of the outer plate upon the corresponding half of the inner, and that the force is applied directly from the axle. The strain acts uniformly whatever the position of the axle may be with reference to the perch.

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

1. The combination, in a fifth-wheel constructed without a king-bolt or other pivot, of a lower recessed wheel-plate having the front part of the rim secured to the axle, and an upper wheel-plate rabbeted into the lower

plate and having the front parts of the rim thereof secured to the head-block, substantially as specified.

2. The combination, in a fifth-wheel constructed without a king-bolt or other pivot, of a lower recessed wheel-plate having a head formed on the front thereof, by which it is secured to the axle, and an upper wheel-plate rabbeted into the lower and having a head which projects over the head of the lower plate and is connected with the head-block, substantially as specified.

3. In a fifth-wheel, the combination, with a lower recessed wheel-plate provided with a head *a*, secured to the axle, of an upper wheel-plate rabbeted into the lower and having a head *e*, which projects over the head *a* and is connected with the head-block, a perch-plate rigidly secured to the upper wheel-plate, and plates fastened to the perch-plate and hooking under the lower recessed wheel-plate, substantially as and for the purpose specified.

4. In a fifth-wheel, the combination, with a lower wheel-plate having the head thereof connected with the axle and an upper wheel-

plate rabbeted into the lower plate and having the head thereof secured to the head-block, of draft-straps *k*, fastened to the lower wheel-plate and extending forward and secured to the axle, all arranged substantially as and for the purpose specified.

5. The combination, in a fifth-wheel constructed without a king-bolt or other pivot, of a lower plate secured to the axle, an upper plate rabbeted into the lower and connected with the head-block, ears *h*, formed on the upper plate, and hook-bolts *I*, passing through said ears and embracing the under face of the lower plate, a perch-plate rigidly secured to the upper plate, and plates fastened to the perch-plate and hooking under the lower plate, ears *i*, formed on the lower plate, and draft-straps *k*, bolted to said ears and extending to the axle and secured thereto, all constructed and operating substantially as and for the purpose specified.

HENRY NOLTY, JR.

Witnesses:

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