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E. LEWIS.

FIFTH WHEEL FOR VEHICLES.

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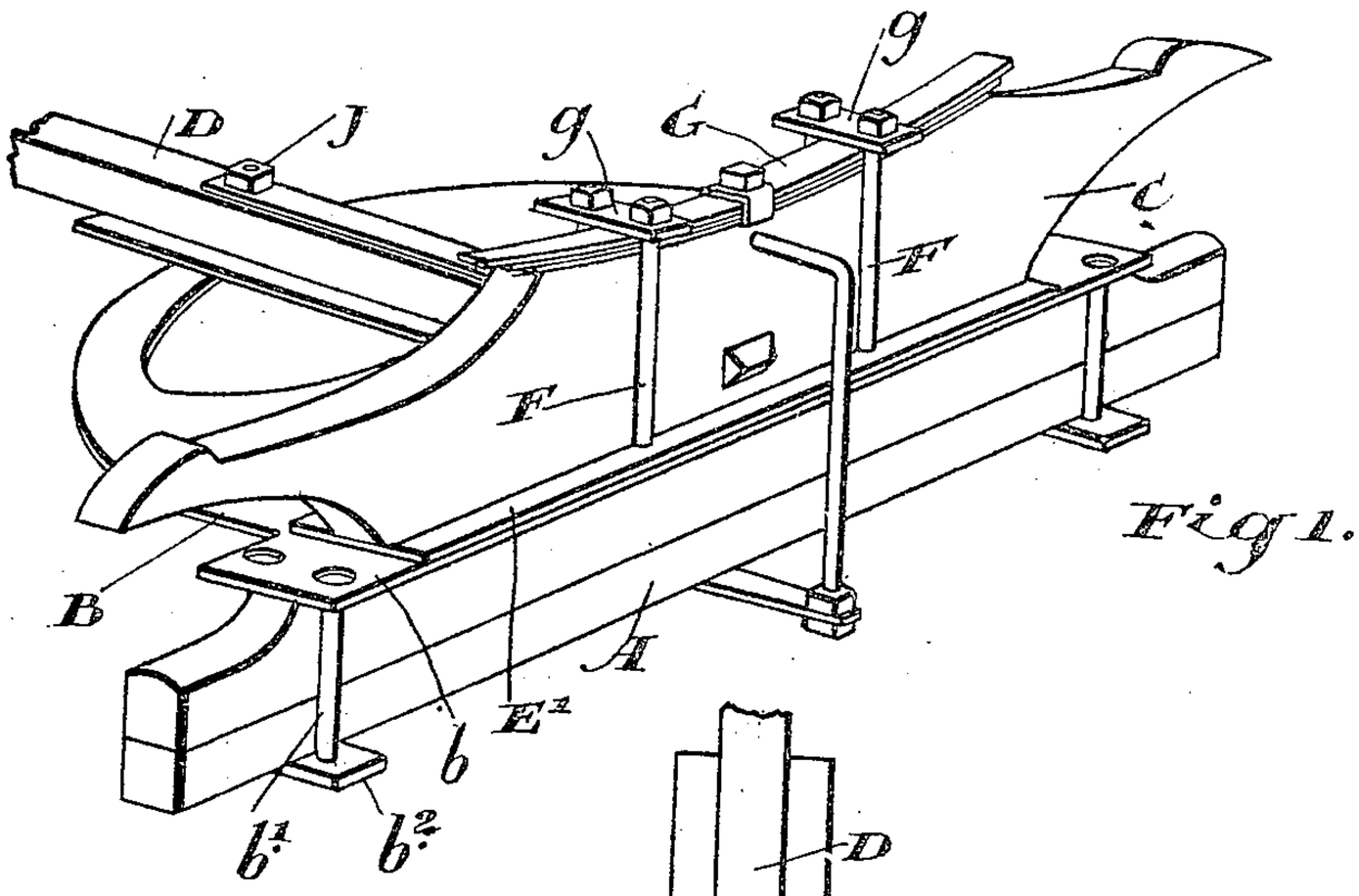

Fig 1.

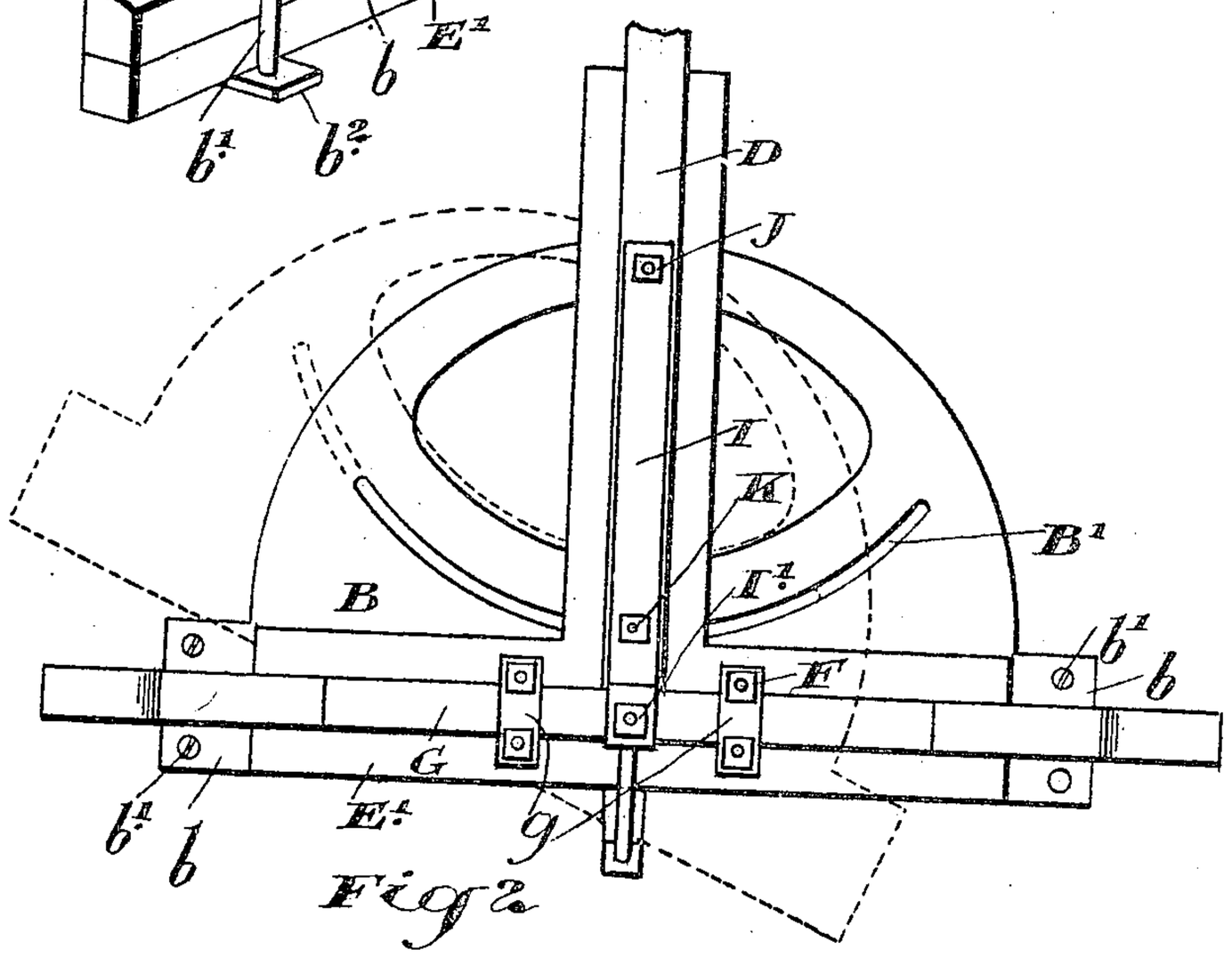

Fig 2.

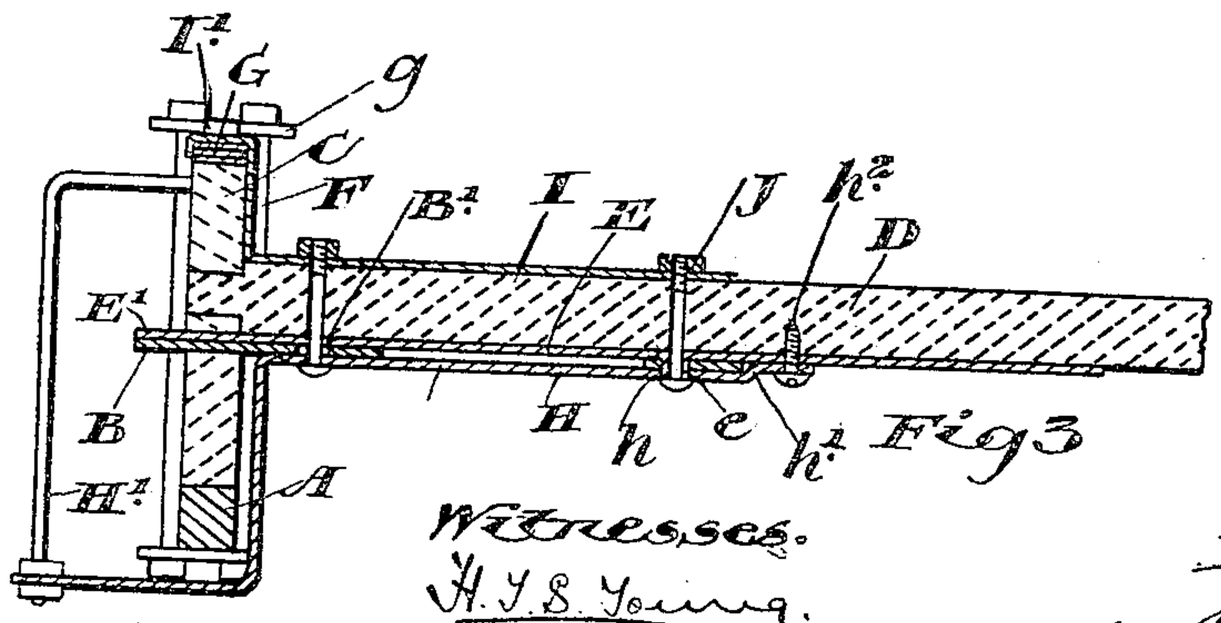

Fig 3

Witnesses.
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EDWARD LEWIS, OF WINNIPEG, CANADA.

FIFTH-WHEEL FOR VEHICLES.

No. 816,168. Specification of Letters Patent. Patented March 27, 1906.

Application filed December 31, 1904. Renewed February 5, 1906. Serial No. 299,542.

To all whom it may concern:

Be it known that I, EDWARD LEWIS, of the city of Winnipeg, in the Province of Manitoba, Canada, have invented certain new and useful Improvements in Fifth-Wheels for Vehicles, of which the following is a specification.

My invention relates to improvements in fifth-wheels for vehicles; and the object of the invention is to so construct the fifth-wheel that the vehicle may be turned in a very much shorter space than vehicles in which the king-bolt passes directly through the head-block and axle, and at the same time the strain on the king-bolt may be lessened; and it consists, essentially, of a segmental plate secured to the top of the axle and provided with an arc-shaped slot in proximity to the axle, a coacting plate substantially T shape in form and secured to the bottom of the head-block and reach, a keeper-plate extending underneath the segmental plate and the axle and attached by an L-shaped rod to the head-block at the front and connected to the T-shaped plate, a reinforcing-plate extending over the reach onto the top of the head-block and a bolt extending through the reinforcing-plate, reach, T-shaped plate, and socket thereof and keeper, the parts being otherwise arranged and constructed in detail as hereinafter more particularly explained.

Figure 1 is a perspective view showing my improved fifth-wheel. Fig. 2 a is a plan view showing in dotted lines the position of the fifth-wheel when turned in one way. Fig. 3 is a longitudinal section.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the axle.

B is a segmental plate, which has the laterally-extending projections b, through which and the plate b^2 extend the bolts b' at each side of the axle, whereby the segmental plate is securely fastened to the axle. The segmental plate is provided with an arc-shaped slot B′, as indicated.

C is the head-block, and D the reach. Beneath the head-block and reach I provide the T-shaped plate E, the head of which extends underneath the head-block C. The reach D is mortised in the head C, as shown. The head E′ of the plate E is secured to the head-block by the bolts F, located at each side of the reach and of the head-block and countersunk in the head E′. The bolts F extend on both sides of the spring G and through the retaining-plates g, superimposed on the spring. The plate E has a depending socket e, formed near the inner end, as shown in Fig. 3.

H is a keeper-plate which has a hole h, through which the socket e extends. The rear end of the plate is bent at h' and secured by a screw h^2 to the reach, and the plate extends forwardly underneath the segmental plate to the axle, at which point it is bent down and passes freely underneath the axle in L-shaped form, the front end being held in position by the L-shaped bolt H′, the bent upper end of which is suitably secured to the front of the head-block C.

I is a reinforcing-plate, which extends along the reach and is bent to pass over the top of the head-block C and springs G thereon, the reinforcing-plate being secured at the front end to the head-block by a bolt I′.

J is the king-bolt, which passes through the reinforcing-plate I, reach D, and socket e of the plate E, which extends through the keeper-plate. It will be seen that the socket e will relieve the strain on the king-bolt.

K is a supplemental bolt, which passes through the keeper-plate H, the slot B′ in the segmental plate B, the plate E, the reach, and the reinforcing-plate I. The bolt K is designed to hold the segmental plate B and plate E closely together, so that they may slide around on each other, the slot B′ being concentric to the king-bolt.

By means of the construction I have described the axle of the vehicle is allowed to turn upon the king-bolt and the reach underneath the vehicle in a smaller space than were it turned on the king-bolt as at present located in the ordinary constructions. It will also be noticed that the movement upon the king-bolt is limited by the L-shaped bolt H′, which prevents the axle turning too far underneath the vehicle.

What I claim as my invention is—

1. In a fifth-wheel for vehicles, in combination, the axle, the segmental plate secured thereto and extending behind the axle, the head-block, the reach suitably secured thereto and the king-bolt passing through the segmental plate in the center of the arc, an L-shaped bolt or brace secured to the head-block and extending forwardly of the same, and a keeper-plate extending underneath the segmental plate and reach and having a for-

wardly - extending end through which the bottom end of the L-shaped bolt extends as and for the purpose specified.

2. In a fifth-wheel for vehicles, in combination the axle, the segmental plate secured thereto and extending behind the axle, the head-block, the reach suitably secured thereto, the T-shaped plate extending underneath the reach and head-block and suitably secured to both, the king-bolt passing through the segmental plate in the center of the arc and through the socket in the T - shaped plate, which extends through the segmental plate, means for limiting the turning movement of the axle and the reinforcing-plate secured to the top of the reach and extending upwardly over the head-block as and for the purpose specified.

3. In combination, the axle, the segmental plate extending behind the axle, the head-block and reach, the T-shaped plate secured to the bottom of the same, the bolts and plates securing the segmental plate to the axle and the T-shaped plate to the head-block, the spring extending underneath the plates at the top of the head-block and the king-bolt extending through the reach and segmental plate and the reinforcing-plate to the reach and extending upwardly over the spring aforesaid and suitably secured to the head-block as and for the purpose specified.

4. The combination with a vehicle - axle and the head-block, of the reach having its end secured to the head-block, a segmental plate having a straight side secured to the axle and its curved side extending to the rear thereof, said plate having a segmental slot, a T-shaped plate having the head of the T secured to the under side of the head-block and its shank secured to the under side of the reach, a king-bolt passing through the reach, T-shaped plate and segmental plate, a limiting-bolt passing through the reach and T-shaped plate and engaging the arc - shaped slot in the segmental plate, a reinforcing-plate secured to the top of the reach and overlapping the head-block, a keeper-plate secured beneath the reach and extending forward beneath the axle, and a brace connecting said forwardly - extended end with the head-block, substantially as described.

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