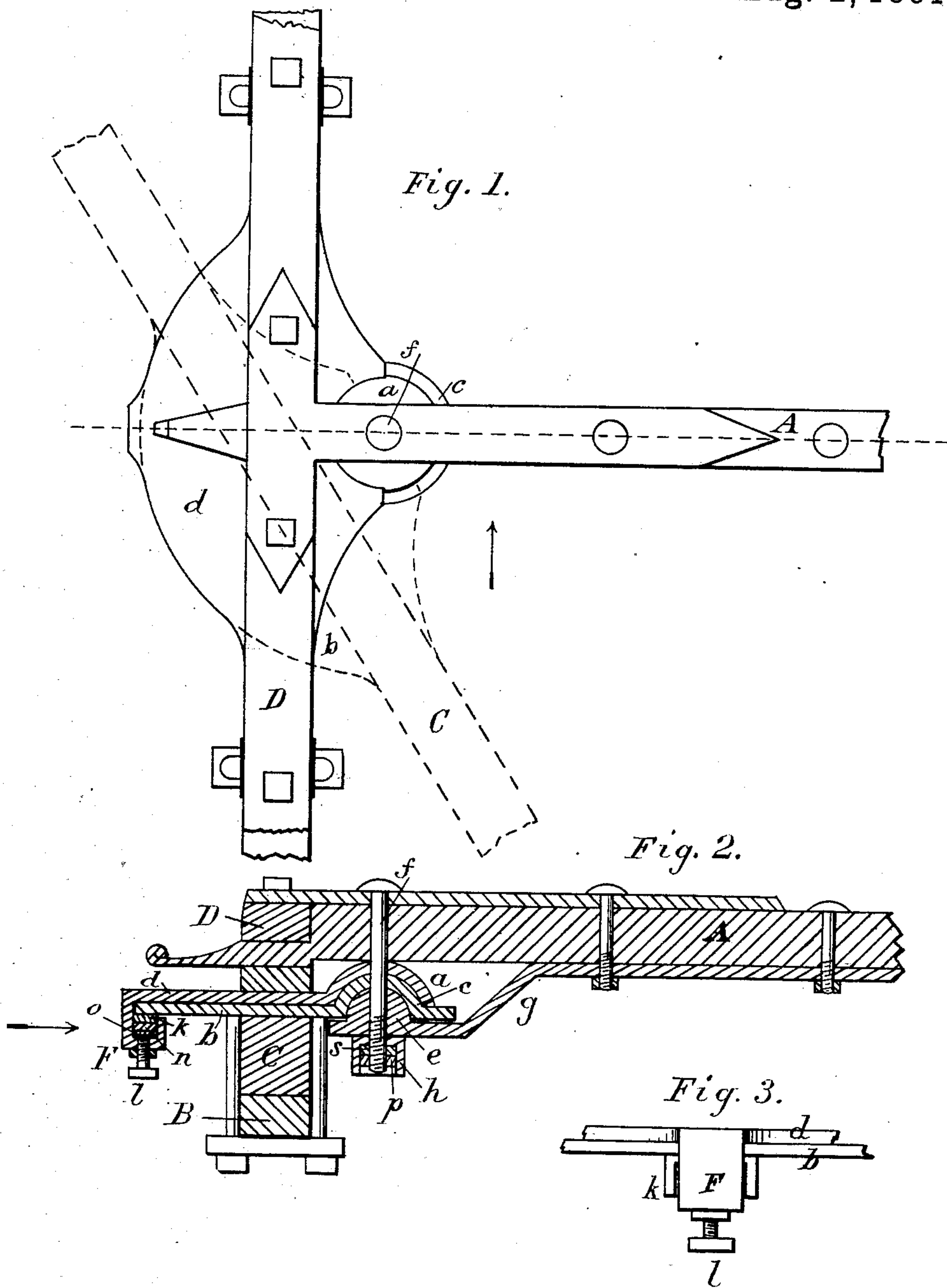


(No Model.)

E. P. JOSLYN.
FIFTH WHEEL FOR VEHICLES.

No. 244,996.

Patented Aug. 2, 1881.



Attest:
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UNITED STATES PATENT OFFICE.

ELIAS P. JOSLYN, OF BROCKPORT, NEW YORK.

FIFTH-WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 244,996, dated August 2, 1881.

Application filed June 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, ELIAS P. JOSLYN, of Brockport, in the county of Monroe and State of New York, have invented a new and useful
5 Improvement in Fifth-Wheels for Vehicles, which improvement is fully set forth in the following specification and accompanying drawings.

The object of my invention is to produce a
10 fifth-wheel for road-vehicles that shall work easily and noiselessly under a loaded axle, the forward parts of the circular bearing-plates being held together by a yielding pressure and the king-bolt passing through three concentric
15 hemispherical or cup-shaped bearing-surfaces arranged one within another for the purpose of perfectly centering the swinging action of the axle under the spring bar or bolster.

Referring to the drawings, Figure 1 represents a plan of my invention; Fig. 2, a vertical section taken centrally along the reach,
20 view indicated by the arrow in Fig. 1; and Fig. 3, a detached view, drawn to a larger scale, showing more clearly the clamp at the front parts of the bearing-plates, view indicated by
25 the arrow in Fig. 2.

In the figures, A is a reach, B an axle, C the stock clipped to said axle, and D a spring-bar attached to the reach, all of ordinary construction. *d* is a metallic plate attached to
30 the under surface of the spring-bar D, and *b* a corresponding plate attached to the stock C, the front edges of said plates being circular and concentric with the king-bolt *f*.

The plate *d*, at a point in rear of the spring-bar, is formed into a hemispherical shell, *a*,
35 convexed upward; and the plate *b* at the same point is provided with a corresponding shell, *c*, fitting perfectly within the shell *a*, as shown.

The under strap or brace, *g*, bolted to the
40 under side of the reach, is provided with a hemispherical upward projection, *e*, which fits within the concavity of the shell *c*, and a king-bolt, *f*, of ordinary construction, passes vertically down through the said parts *a*, *c*, and *e*,
45 concentrically therewith, having a lock-nut, *h*, beneath the brace *g*, as shown.

The plate *d*, at its front edge, has a part projecting over the plate *b*, which enters down-

ward, thence horizontally backward under said
50 plate *b*, thence vertically upward, forming a hook-shaped part, F. Within this hook is placed a gib, *k*, which is held against the under surface of the plate *b* by a set-screw, *l*,
55 passing up through the lower horizontal part of the hook. The end of the set-screw presses directly against a metallic plate, *o*, within the hook, between which plate and the gib *k* is inserted an india-rubber block or cushion, *n*.
60 By this means the gib *k* is held against the plate *b* by a slightly-yielding pressure. As the axle is turned under the spring-bar by being cramped one way or the other, for the purpose
65 of changing the course of the vehicle, the plate *b* slides around between the gib *k* and superincumbent plate *d*. The cushion *n* beneath the gib causes the plate *b* to work more smoothly
70 between said gib and plate *d*, and with less friction and noise. When the axle is swung around beneath the spring-bar D, as above described, the hemisphere *c* turns between the
75 hemispherical shell *a* and the hemisphere *e*. This arrangement of parts perfectly centers the swinging motion of the axle, and the king-bolt is not subjected to detrusion or a shearing strain, this being prevented by the fitting
80 together of the hemispheres, as above described.

The lock-nut *h* is the same as that shown and described in the patent granted to me April
85 13, 1880, and numbered 226,452; and it consists of a square hollow shell, *h*, containing within the rectangular cavity a yielding substance, *s*, and a screw-nut proper, *p*, for the king-bolt. The nut *p*, as described in the patent above
90 mentioned, having its edges fitted to the corresponding inner surfaces of the shell *h*, turns with said shell as the latter is turned in the usual manner by an ordinary wrench. When
95 the shell *h* is turned in such a manner as to carry the nut *p* onto the bolt, the part *s* becomes compressed between the nut and the bottom of the shell. If the part *s* is of a substance similar in nature to india-rubber, its compression beneath the nut *p* will cause it to pinch tightly the bolt *f*, and thus form a lock for the nut *p* and shell. Its elasticity also causes the shell *h* to remain at all times in contact with the strap *g*, which prevents any rattling of the parts.

By placing the center of the swinging motion of the axle in rear of the spring-bar the vehicle is much more quickly and easily turned. This feature alone by itself, however, I do not
5 claim as new.

I claim as my invention—

1. In combination with the axle stock C and spring-bar D of a wagon, the plates *b* and *d*, the latter being provided with a hook-shaped part,
10 F, containing a gib, *k*, plate *o*, and cushion *n*, and a set-screw, *l*, substantially as shown.

2. In combination with the axle C, spring-bar D, and reach A, the plates *b* and *d*, and

the brace *g*, the plate *d* being provided with a hook-shaped part, F, gib *k*, and screw *l*, said
plates and brace being formed respectively
into hemispheres *a*, *c*, and *e*, as shown. 15

3. The plates *d* and *b* of a fifth-wheel of a vehicle, formed into mutually bearing hemispheres *a* and *c* at a point in rear of the axle, 20 and held together by a gib and screw at a point in front of the axle, substantially as shown.

E. P. JOSLYN.

Witnesses:

E. B. WHITMORE,
A. CRITTENDEN.