(No Model.)

W. C. SHIPHERD.

FIFTH WHEEL.

No. 281,307. Patented July 17, 1883.

Fig. 1.

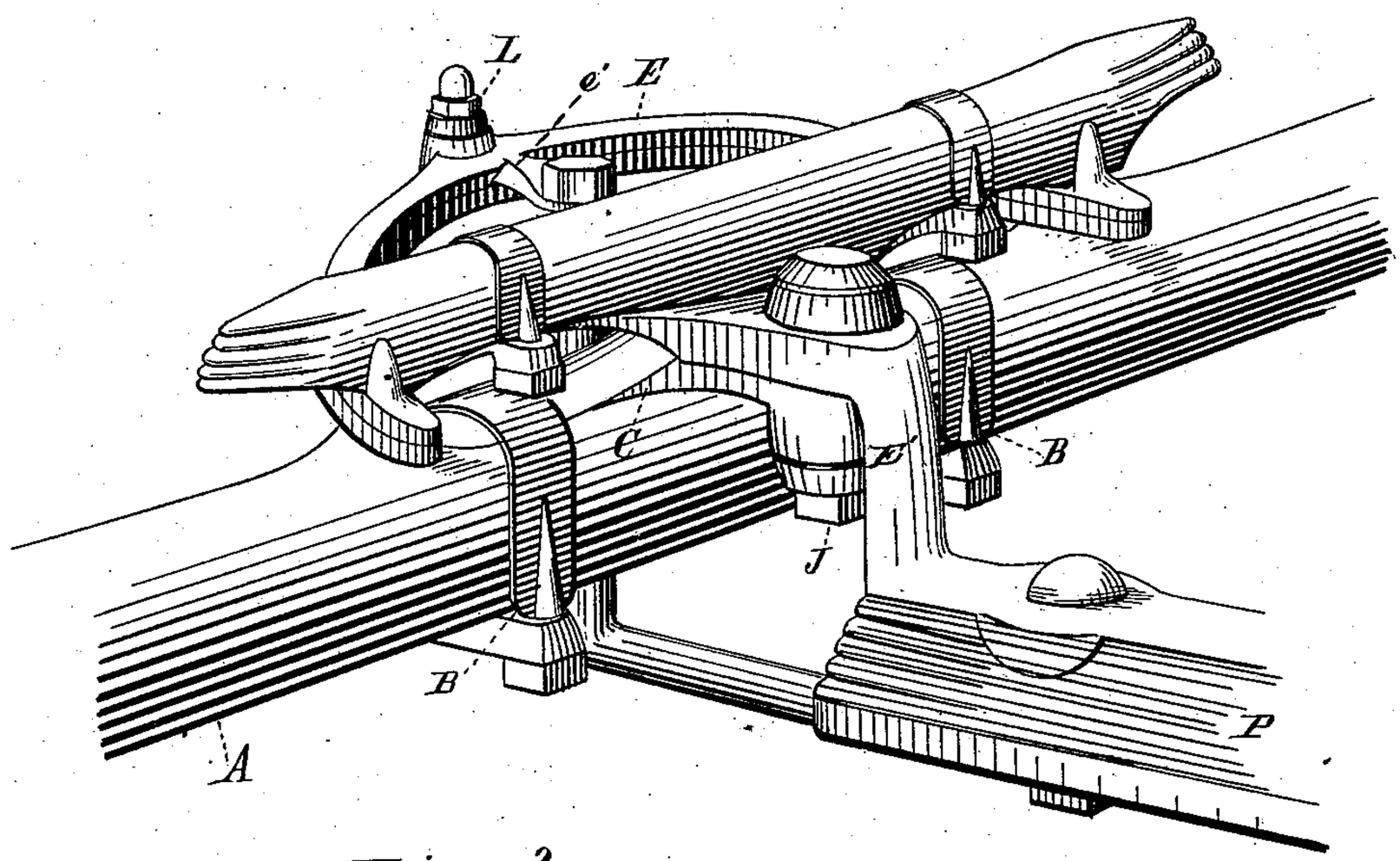

Fig. 2.

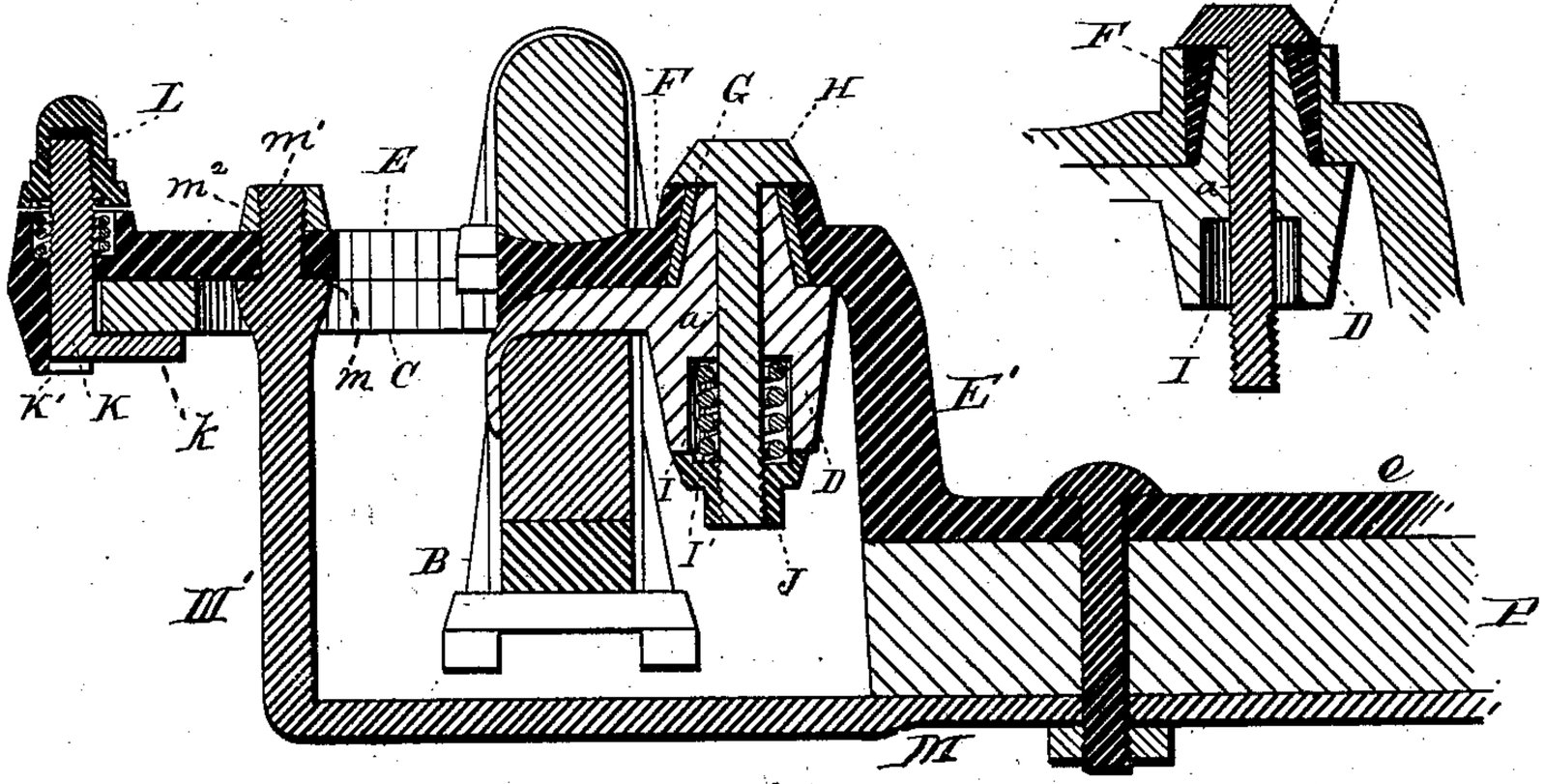

Fig. 3.

WITNESSES

W. Engel

C. H. Dorer.

William C. Shipherd INVENTOR

By Leggett & Leggett ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM C. SHIPHERD, OF CLEVELAND, OHIO.

FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 281,307, dated July 17, 1883.

Application filed October 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SHIPHERD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Fifth-Wheels for Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to fifth-wheels for vehicles; and it consists in the parts and combination of parts, as will be hereinafter fully set forth and claimed.

In the drawings, Figure 1 is a view in perspective of a fifth-wheel embodying my invention. Fig. 2 is a vertical cross-section, taken through my fifth-wheel, showing its construction more clearly. Fig. 3 is a view in section of a part of my device, showing another manner of forming a washer which I use in connection with my device.

A represents an axle of a vehicle, to which is secured, by means of suitable clips, B B, the lower plate or segment, C, of my fifth-wheel.

Extending out from the segment C, and rearward of the axle A, is a conoidal-shaped pivot, D, on which is journaled the upper segment, E, of the fifth-wheel.

Between the bearing F of the upper segment, E, and the pivot D is a packing, G, of leather, rubber, or other like or suitable material. The function of this packing G is to prevent any noise that might arise from the contact of the two metals.

From the bearing F of the upper segment an arm, E′, extends downward, and is prolonged rearward, as shown at *e*, this rearward prolongation being bolted to the upper side of the coupling-pole P. To the lower side of this coupling-pole is bolted an arm, M, which projects forward of the axle, and is bent upward, as shown at M′, this upwardly-bent portion being shouldered, as shown at *m*, and having above said shoulder a screw-threaded portion, *m′*, which passes through a radial cross-bar, *e′*, of the upper segment, and secured thereto by a nut, m^2. While the arm E′ and its rearward prolongation *e* serve as a means of attaching the upper segment firmly to the coupling-pole, the arm M and its upwardly-bent shouldered portion serve as an additional means of attachment, and also to firmly brace and support the forward-projecting portion of said upper segment.

H is a bolt, which is provided with a flat head, and also with an angular or irregular shaped portion contiguous to the head, said angular portion fitting in an opening, *a*, which passes vertically through the center of the pivot D. This opening may be of any irregular shape to correspond to the irregular-shaped portion of the bolt and prevent said bolt from turning.

Beneath the pivot D is a recess, I, which is adapted to receive a spiral spring or an elastic washer, I′, through which the lower or threaded end of the bolt H passes. (See Fig. 2.) The nut J, which is screwed on the end of the bolt H, acts to compress the spring or washer I′ against the end of the recess, and thus the bolt H is prevented from making a noise, while it is loose enough to allow of the free revolution of the upper segment.

K is a bolt, the head *k* of which is formed at a right angle to the shank. This bolt K is secured in a socket, K′, on the upper segment in such a manner that its head extends under and acts to support the lower segment. The socket K′ extends downward across and below the edge of the lower segment, and is open on its rear side, in order that the head *k* of the bolt K may project laterally directly from the socket, so that the side walls of said socket will prevent said head from swinging sidewise and escaping from under the lower segment, which it would otherwise be liable to do. The threaded end of the bolt K is provided with an elastic or spring washer, which may be a spiral spring, as shown in Fig. 2, against which the nut L impinges, thus acting to take up any wear that may occur between the parts, and prevent the noise that would result from such wear or looseness.

It is obvious that, if desirable, the conoidal-shaped pivot may be secured to the upper segment and the journal to the lower segment. It will operate equally as well either way.

What I claim is—

1. In a fifth-wheel or turn-table of a vehicle, the combination, with the conoidal pivot D of the lower segment, of the corresponding-shaped

bearing F of the upper segment, and the interposed packing G, substantially as described, and for the purpose set forth.

2. The combination, with the axle and the lower segment secured thereto, and having the attached pivot in the rear thereof, of the upper segment having a bearing to receive said pivot, and provided with the radial cross-bar *e'*, and the downwardly-extended arm E', having the rearward prolongation *e*, the coupling-pole having said prolongation secured to its upper side, the arm M, secured to the under side of the coupling-pole, extending forward under the axle, and having the upwardly-bent portion M' secured to the radial cross-bar of the upper segment, in front of the axle, and the spring-controlled angle-bolt arranged to hold the forwardly-projecting upper and lower segment together, substantially as described.

3. The combination, with the lower segment, of the upper segment having a socket extending downward across and below the front edge of said lower segment and open at its rear side, and the bolt extending through said socket and having a head projecting laterally therefrom directly under the lower segment, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM C. SHIPHERD.

Witnesses:

ALBERT E. LYNCH,

W. E. DONNELLY.