

(No Model.)

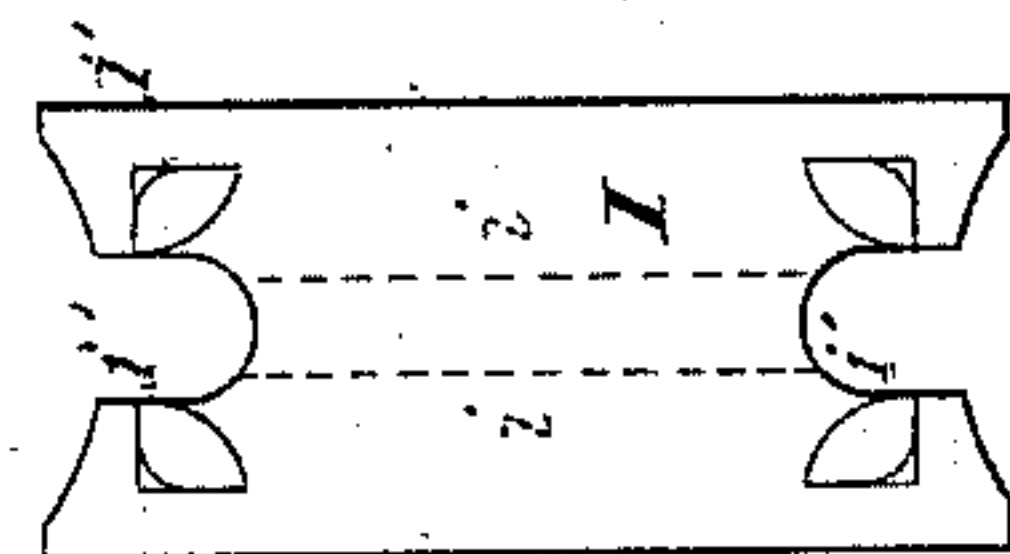
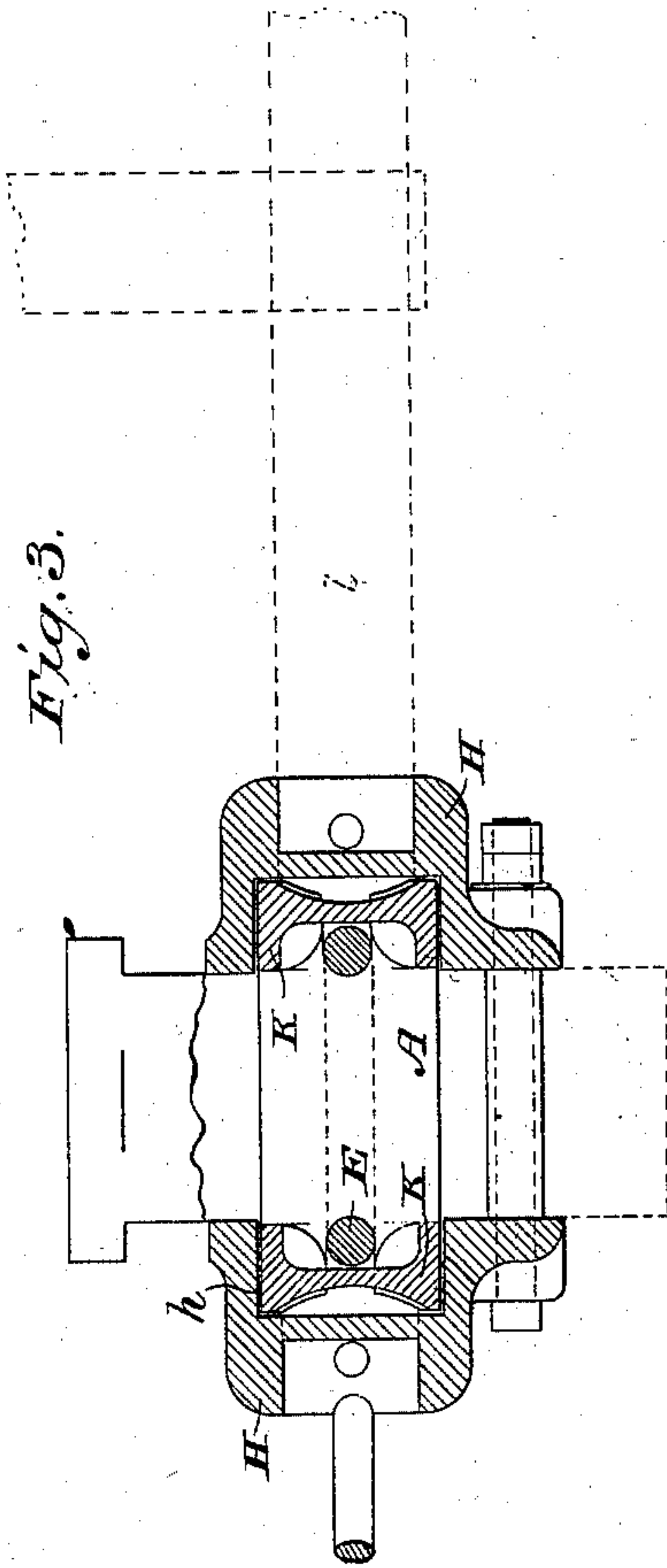
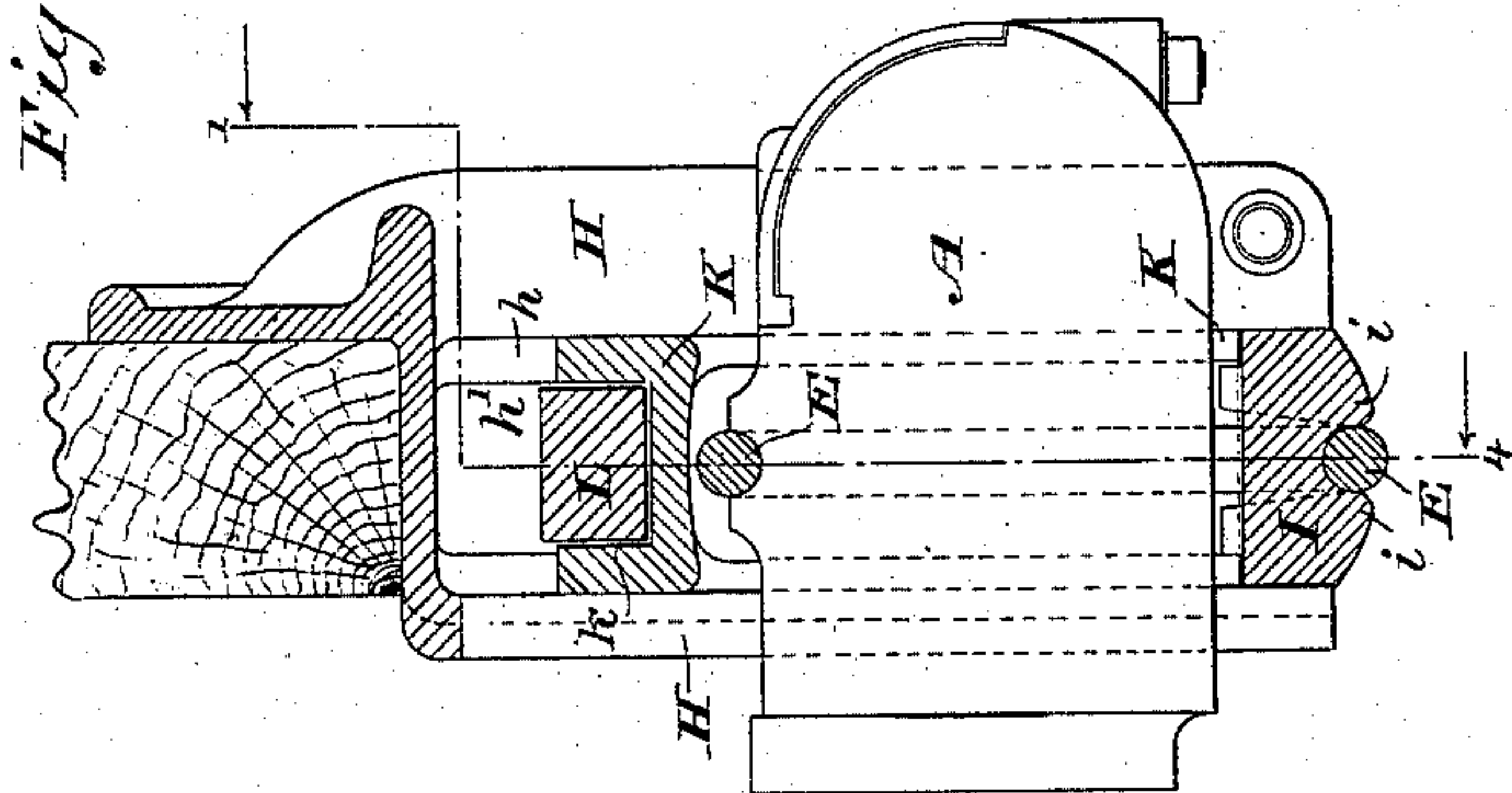
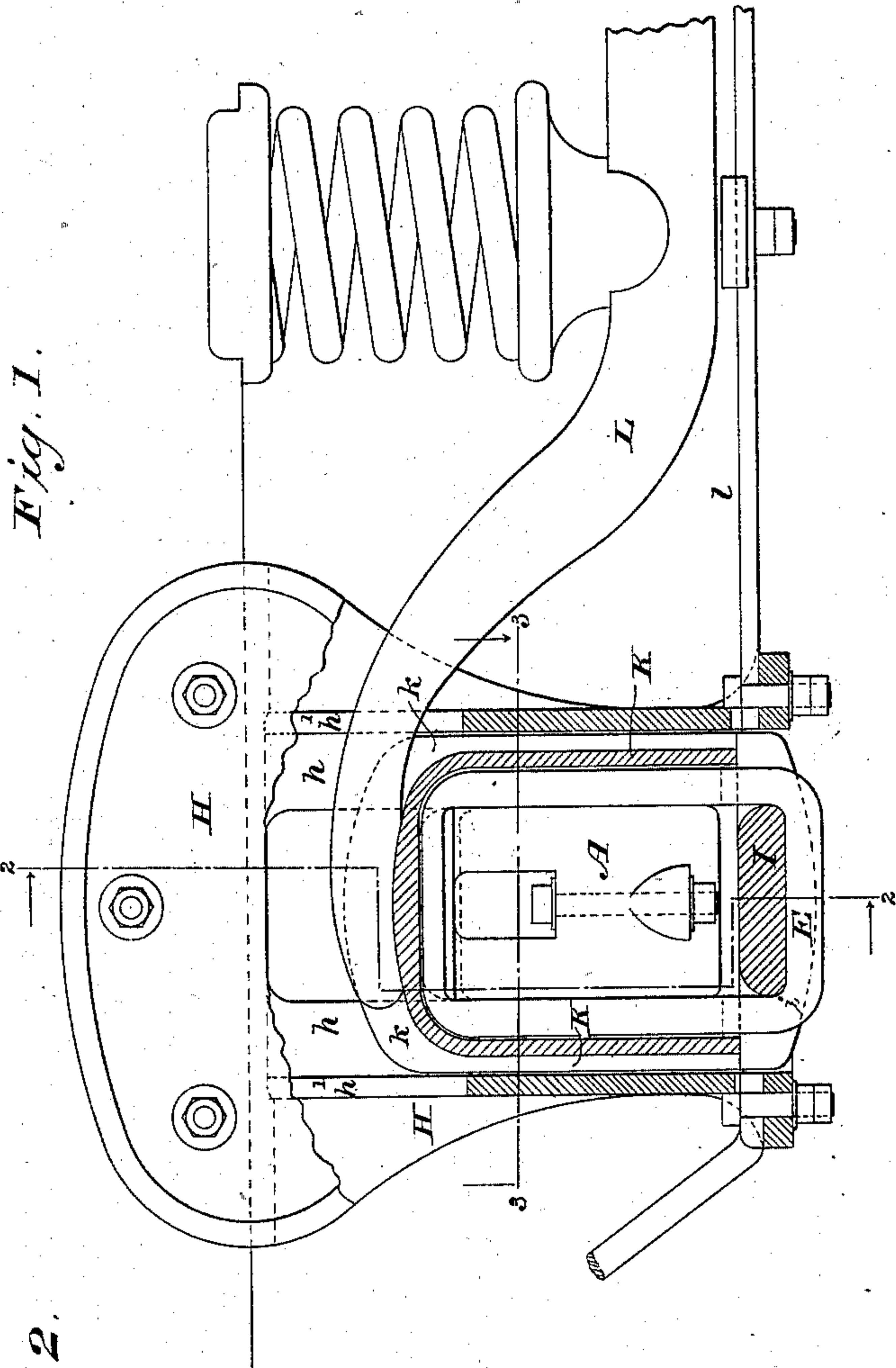
2 Sheets—Sheet 1.

W. S. G. BAKER.

CAR AXLE BOX.

No. 282,149.

Patented July 31, 1883.



WITNESSES

Wm A. Sinkler.
Henry A. Lamb.

INVENTOR

William S. G. Baker

By his Attorneys

Baldwin, Hopkins & Peckham.

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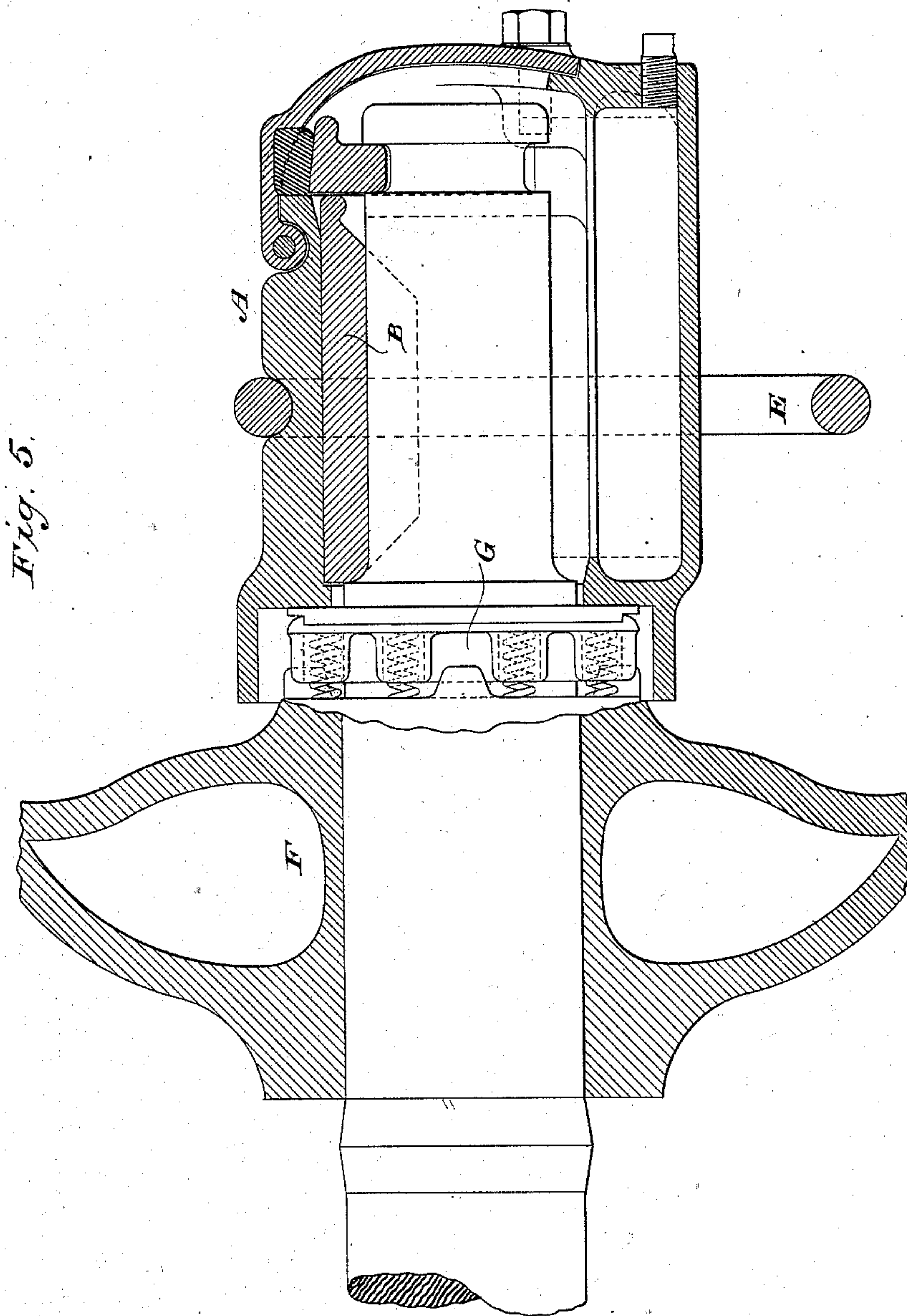
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UNITED STATES PATENT OFFICE.

WM. S. G. BAKER, OF BALTIMORE, MARYLAND.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 282,149, dated July 31, 1883.

Application filed May 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. G. BAKER, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Car-Axle Boxes, of which the following is a specification.

My invention relates to the general class of car-axle boxes shown in Letters Patent of the United States heretofore granted to me September 20, 1881, and April 24, 1883, respectively numbered 247,236 and 276,210; and the object of the invention is, first, to adapt in an efficient manner the car-axle boxes of the general character shown in those patents to the trucks of steam-cars as now in general use, and, second, to improve the general construction.

In the accompanying drawings, Figure 1 is an end view, partly in section; Fig. 2, a vertical section on the line 2 2 of Fig. 1; Fig. 3, a horizontal section on the line 3 3 of Fig. 1; Fig. 4, a detail view of the supporting block or step; and Fig. 5 is a longitudinal section with some of the parts removed.

The general construction of the axle-box A, the saddle or bearing B, the suspension-link E, the wheel-hub F, and the spring-actuated washer G, interposed between the wheel-hub and the car-axle box, is substantially like that disclosed in the patents above mentioned, and needs no description.

The depending pedestal H, between the legs or jaws of which the axle-box A plays, is rigidly bolted to the framing of the car, and is stayed by suitable braces. The link E, suspended from the top of the axle-box, sustains the supporting frame or step I, which is provided with a suitable seat for the link on its under face, and is slotted or notched at each end for the reception of the upright sides of the link. This step or seat is illustrated in detail in Figs. 2 and 4, from which it will be perceived that guard ridges or projections *i* are formed on its under face along the sides of the link-seat, so as to prevent the link being displaced. Upright lugs *i'* are formed on the upper side of the step I, near each corner at the sides of the slots in the ends of the step, and are preferably curved as shown. The spring-frame fits down over these lugs, as illustrated in Figs. 1 and 3, so that lateral displacement

of the step or spring-frame relatively to each other is prevented. The inner walls of the legs of the pedestals are formed with vertical recesses *h*, preferably rectangular in cross-section, for the reception of the legs of an inverted U-shaped spring-frame, K, which straddles the axle-box and suspending-link, and rests upon the ends of the supporting-step I, which also fits in the vertical recesses *h*. It will be perceived that as the supporting-step fits in the recesses in the pedestal-jaws and the link is held in place on top of the axle-box, the axle-box is held against any horizontal turning motion. The spring-frame K is formed on its upper face with a seat or socket, *k*, for the reception of the end of the spring equalizing and sustaining beam L, the lugs of the pedestal being slotted at *h'* to accommodate the beam. The opposite end of the beam L is supported in the same way upon another axle-box, and the car-body is mounted upon springs S in the usual way. A brace-rod, *l*, extends from the pedestal of one axle-box to the other. Under this construction the pivot of the suspension-link E is its bearing on the under face of the step I, and the car-axle box can move laterally, so as to give ample play to prevent jerks or jars in passing curves, the vertical movement of the block I and the spring-frame K within the pedestal accommodating this action.

Under the organization described and shown it is obvious that the weight of the car-body may be applied on a spring interposed between the body and the upper face of the spring-frame K within the legs of the pedestal.

In the construction herein described and shown, as well as in my prior patent, No. 276,210, the axle-box is secured to the axle so as to prevent its lateral movement thereon, and this feature, in connection with the construction and movements above described, constitutes a very superior construction.

The right to hereafter file other applications for any subject-matter herein described or shown but not claimed or fully claimed is reserved.

I am aware that, broadly, it is not new to support the equalizing-beams by spring frames or boxes placed between the jaws of the pedestals and supported by links swung from the tops of the axle-boxes.

I claim as my invention—

1. The combination, substantially as set forth, of the pedestal, the axle-box, the straddling U-shaped spring-frame placed between the legs of the pedestal, the suspension-link, upon which the spring-frame rests, the supporting step or seat sustained by said link, and means for applying the weight of the car-body at the top of the spring-frame.
2. The combination, substantially as set forth, of the pedestal, the jaws of which are provided with vertical recesses on their inner faces, a straddling U-shaped spring-frame, which fits and moves vertical in said recesses, the axle-box, the link suspended therefrom, the supporting-step, which is sustained by the link and receives the weight or thrust of the spring-frame, and means for applying the weight of the car-body on the spring-frame.
3. The combination, substantially as set forth, of the pedestal having vertical recesses on the inner faces of its depending jaws, a straddling U-shaped spring-frame, which fits and moves vertically in said recess, the axle-box, the link suspended therefrom, and the supporting-step, which moves vertically in the recess in the pedestal-jaws, and is supported by the suspending-link to sustain the weight of the spring-frame.

4. The combination, substantially as set forth, of the pedestal, the axle-box, the straddling U-shaped spring-frame, which fits in the vertical recesses in the pedestal-jaws, the suspending-link, and the supporting-step having a link-seat on its under face and slotted ends for the reception of the link.

5. The combination, substantially as set forth, of the pedestal, the axle-box, the spring-frame, the suspending-link, and the supporting-step so organized as to hold the axle-box against horizontal turning motion.

6. The combination, substantially as set forth, of the pedestal, the axle-box, the axle so mounted therein as to be held firmly against endwise motion, the suspending-link, the spring-frame supported by the link, and means for holding the axle-box against horizontal turning motion.

In testimony whereof I have hereunto subscribed my name this 2d day of May, A. D. 1883.

WM. S. G. BAKER.

Witnesses:

CHAS. W. KOHLMAN,
J. P. BAKER.