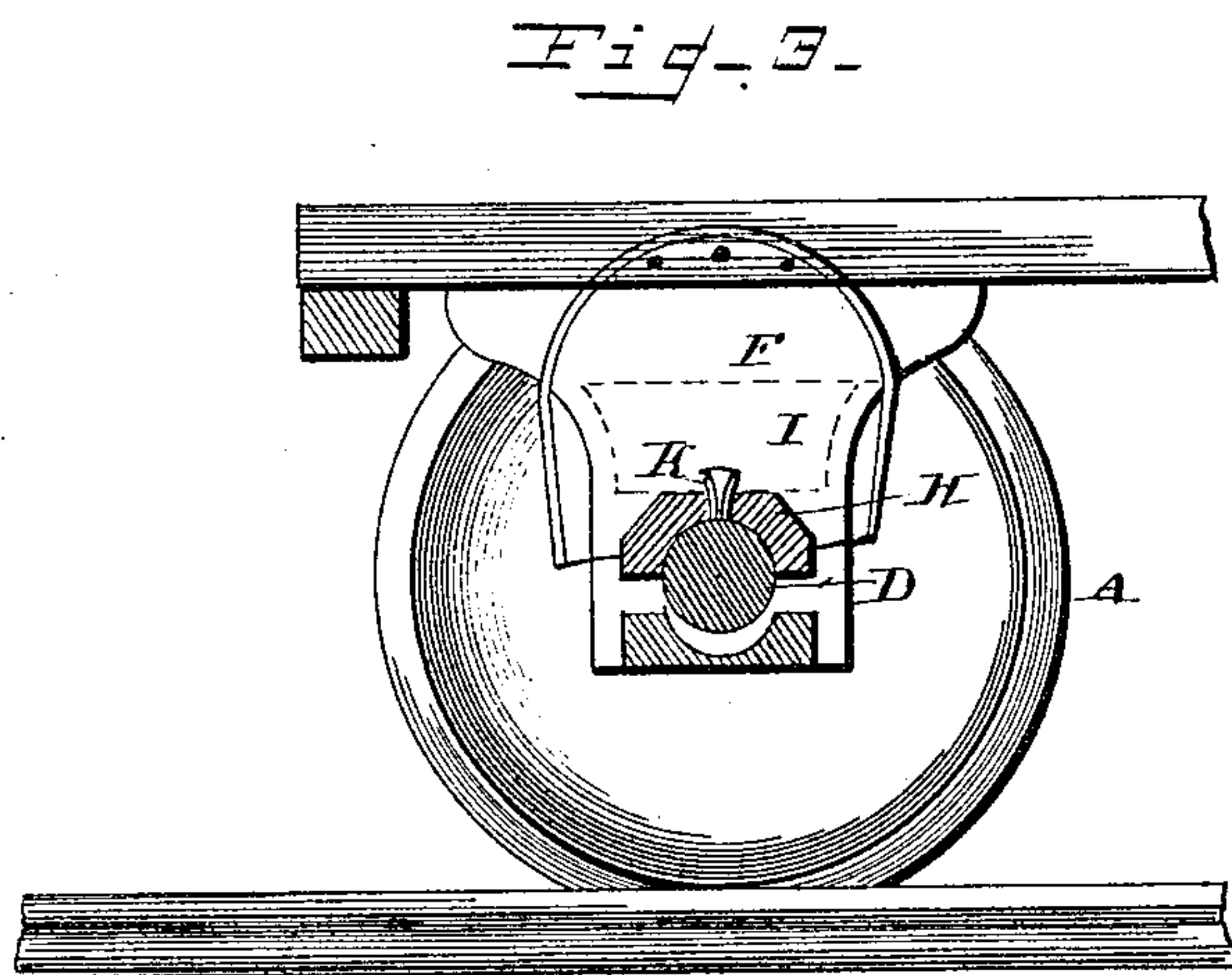
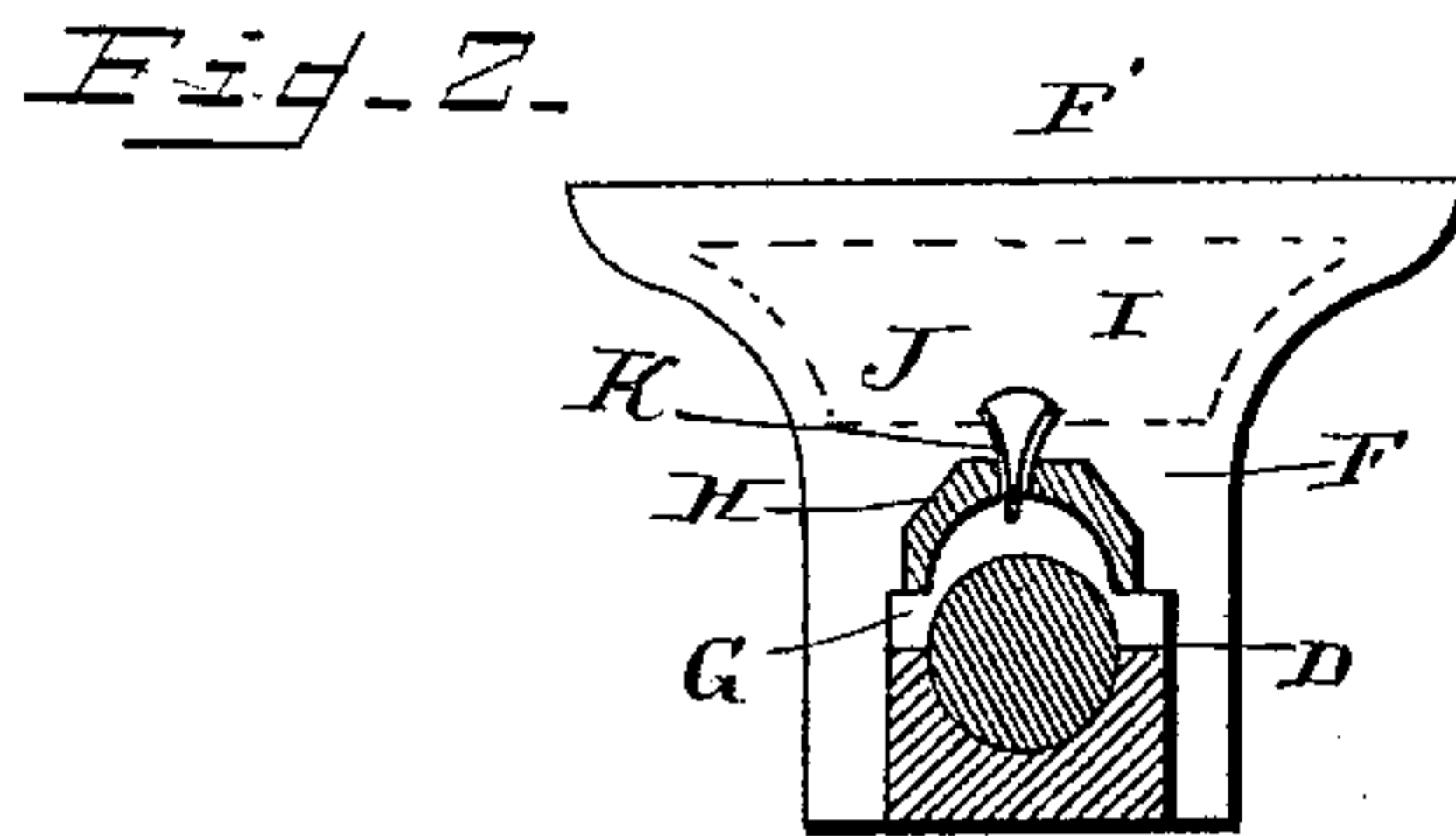
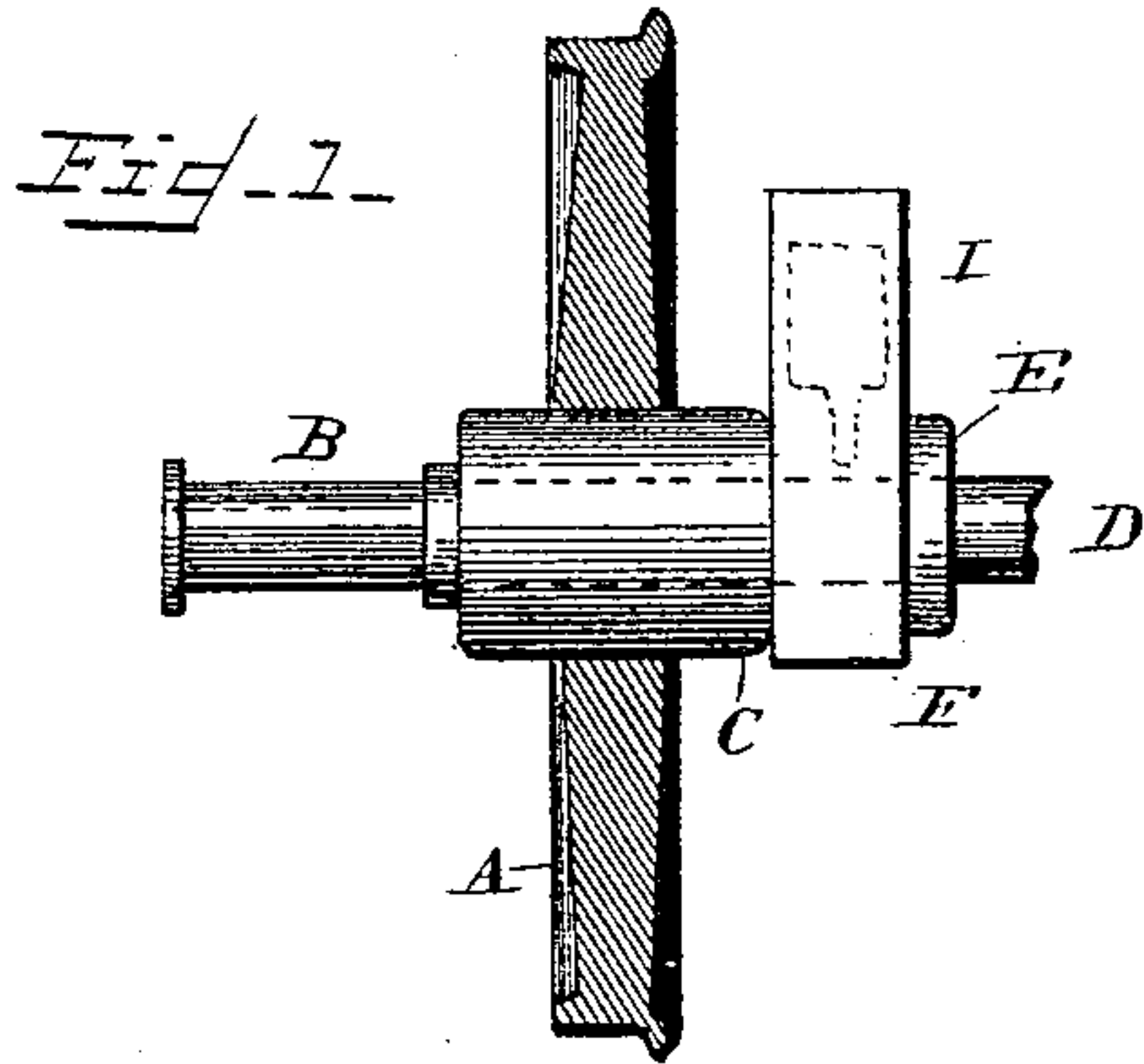


(No Model.)

F. S. TULL.
CAR TRUCK.

No. 389,343.

Patented Sept. 11, 1888.



Witnesses,
Wm. T. Huntmann.

H. C. Kennedy.

Inventor,
F. S. Tull.
By *his* Attorney
F. M. O'Leary.

UNITED STATES PATENT OFFICE.

FRANCIS SHALIS TULL, OF GALVESTON, TEXAS.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 389,343, dated September 11, 1888.

Application filed December 22, 1886. Renewed April 11, 1888. Serial No. 270,278. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS SHALIS TULL, of Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Railway-Car Trucks; 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 railway-car trucks; and it consists in providing the axle inside the wheel with a supplementary journal and shoulder and a supplementary journal-box supported above the inside journal by the truck-frame, said supplementary journal-box being immediately over the inside journal and arranged so as to support the truck on the inside journal should the outside journal become broken or inoperative by reason of a hot box or otherwise, all of which will be more fully hereinafter specified, and pointed out in the claim.

In the accompanying drawings, Figure 1 represents a front sectional view of a railway-car wheel and a portion of an axle provided with the usual outside journal, and also provided with my supplementary inside journal and journal-box. Fig. 2 represents a side elevation of the supplementary journal-box, and also a sectional view of the axle therein. In this view the parts are shown in their normal position, the brass being elevated above the inside journal. Fig. 3 represents a side elevation of the supplementary journal-box and journal, the several parts being shown in the position they occupy when the truck-frame and car are supported by the inside supplementary box.

Like letters of reference indicate like parts in the several views.

The letter A indicates the car-wheel, and B the usual outside journal.

C represents the hub of the wheel, and D the axle inside the wheel. Said axle is provided with a shoulder, E.

F is a supplementary box encircling the inside journal, G. The inner side of the hub C acts as a shoulder for the box F, and the inner side of the hub and the shoulder E limit the lateral movement of the box F. The upper part of the box F (indicated by the letter F')

is secured to the under side of the truck-frame by bolts or other suitable means. This supplementary box is normally carried above the inside journal; but it is lowered to engage and rest upon the axle or supplementary journal G should the outside journal be broken.

H indicates a brass block secured in the box F and supported above the inside journal or bearing, G. This block is shown in Fig. 2 in its normal position when the outside journal is unbroken.

The letter I indicates an oil-reservoir in the supplementary box F. This reservoir is located immediately above the inside journal, G. The reservoir I is provided with a central bottom opening, J. Said opening communicates with a corresponding opening in the brass H, whereby communication may be had with the oil-reservoir I and supplementary journal G, so as to admit oil to said journal when the box is called into requisition.

K is a valve fitting into a circular bevel-seat in the bottom of the reservoir I. This valve is provided with a stem, K', which projects downwardly through the openings in the reservoir and brass. It will be observed, Fig. 2, that this stem is normally carried immediately above, but in close proximity to, the upper side of the inside journal, so that should the outside journal become broken and inadequate to support the truck, the truck-frame thereby being lowered and supported by the inside box, the said stem and valve are thereby elevated, thus permitting the oil in the reservoir to flow and lubricate the supplemental journal G. The valve-stem is of less diameter than the openings through which it passes, so that when the stem and valve are elevated the oil will flow freely onto the supplemental journal.

Owing to the fact that the whole weight of a car rests on the journals, said journals frequently break from the excessive weight. The greatest danger, however, to the journal arises from hot boxes. The excessive friction incident thereto is a frequent cause of breakage of the journal, and such an accident is usually attended with disastrous results.

The object of my invention, as hereinbefore specified, is to temporarily provide a means for supporting the truck and car when these breaks of the journal occur, and it will be ap-

parent that the means above described effectively serve that purpose.

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

5 The combination, with a car truck, wheel, and axle, of a supplemental journal-box arranged on the inner side of the wheel and provided with an oil-reservoir and valve, said valve being operated by the dropping of the

truck in case of breakage of the outer or end journal of the axle, substantially as set forth. 10

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

FRANCIS SHALIS TULL.

Witnesses:

JAS. W. HALE,

RICHARD B. S. GRIM.