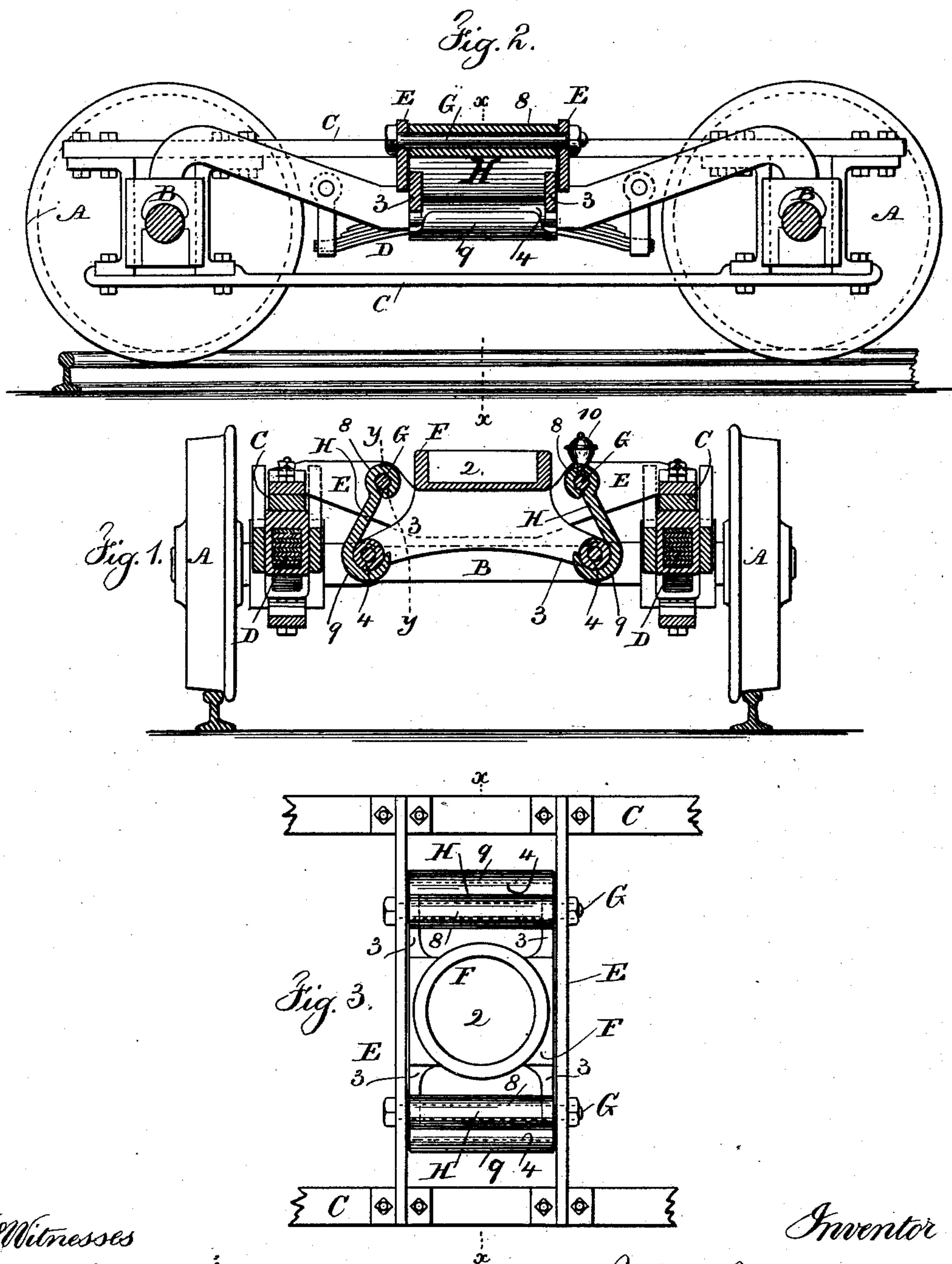


(No Model.)

J. JOHNSTON.
TRUCK FOR LOCOMOTIVES.

No. 374,305.

Patented Dec. 6, 1887.



Witnesses

Chas H. Smith
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UNITED STATES PATENT OFFICE.

JOHN JOHNSTON, OF JERSEY CITY, NEW JERSEY.

TRUCK FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 374,305, dated December 6, 1887.

Application filed July 11, 1887. Serial No. 243,947. (No model.)

To all whom it may concern:

Be it known that I, JOHN JOHNSTON, of Jersey City, in the county of Hudson and State of New Jersey, have invented an Improve-
5 ment in Trucks for Locomotive-Engines, of which the following is a specification.

Trucks for locomotive-engines have heretofore been constructed with cross-bars passing in front and behind a bearing-block, upon
10 which the forward end of the boiler rests, and in which there is a cylindrical recess receiving a similar projection below the boiler, so that the truck may swivel at this place, and between the bearing-block and the cross-bars
15 of the truck-frame there are inclined suspending-links—two at each side—which allow the truck to move laterally as the engine runs around a curve. A device of this general character as first employed may be seen in
20 Letters Patent No. 32,377, granted to A. F. Smith February 11, 1862.

In trucks of this character there is a very heavy strain and wear upon the joints of the links, it is difficult to lubricate the parts,
25 and the dust lodging upon them increases the rapidity of wear, and in practice it is found necessary to replace the links and the bolts very frequently, and in case it becomes necessary to separate the truck from the locomotive, for repairs or otherwise, it can only be
30 done by the removal of six or eight nuts or bolts.

The object of my present invention is to distribute the weight over a large area, so as
35 to prevent the metal cutting under the weight and motion, and to provide for separating the truck from the bearing-block with facility.

In place of using the four suspending-links, I introduce two hook-shaped suspending-
40 plates extending from one cross-bar to the other, so as to obtain the largest surface possible for the weight to rest upon, and at the same time the principal parts of the truck remain unchanged and the efficiency is not injured.
45

In the drawings, Figure 1 is a cross-section of the truck at the line *x x*. Fig. 2 is a longitudinal section at the line *y y*, and Fig. 3 is a plan view at the central portion of the
50 truck.

The wheels A, axle B, side frames, C, springs D, and cross-bars E are such as are usually employed in locomotive-trucks, and these parts vary according to the character of the locomotive.

F is the bearing-block, having a circular cavity, 2, at the central upper part for the reception of the cylindrical projection below the forward part or flue-chamber of the boiler, and this bearing-block F has the downwardly-projecting
55 flanges and arms 3, as heretofore usual; but instead of separate links being bolted to the four projecting ends of the arms, these arms are connected by cylindrical bearings 4, either cast with or bolted to the arms, so that these cylindrical bearings run fore and aft at the lower
60 side portions of the bearing-block. It will be observed that the bearing-block is between the transverse frames or cross-bars E, as usual; but instead of four links—two on each side—
65 being bolted to these cross-bars E, I make use of two bolts, G—one on each side—parallel to but closer together than the cylindrical bearings 4, and the suspending-plates H are of a
70 width corresponding to the distance between the cross-bars E, and they are made with tubular eyes 8 at the upper ends, through which the bolts G pass, and with hook-shaped lower ends, 9, that pass beneath and inclose these cylindrical bearings 4 upon the bearing-
75 block F. 80

By the foregoing construction the truck as a whole can turn or swivel at the cylindrical projection that enters the recess 2, and the truck-frame can slide laterally, the cross-bars
85 E moving in front and back of the bearing-block F, and in so doing the suspending-plates H swing upon the bolts G, and the hooks 9 turn slightly upon the cylindrical bearings 4. The length of surface upon the bolts G and
90 upon the bearings 4 is so great that the weight of the locomotive is distributed upon a large area, and the surfaces in contact do not cut into each other, and it is easy to lubricate such surfaces by oil applied upon the tops of
95 the bearings 4, and also within oil-cups that may be applied at 10 upon the tubular bearings of the suspending-plates H; and when the truck-frame is to be separated from the bearing-block it can be easily done by raising up
100

such bearing-block until the lower ends of the suspending-plates unhook from the cylindrical bearings 4.

I claim as my invention—

- 5 The combination, with the truck-frame having the cross-bars E, and the bearing-block F, having cylindrical bearings 4 between such cross-bars, of the suspending-plates H, having hook-shaped lower ends, 9, for the bear-

ings 4, and tubular eyes 8, extending from one cross-bar to the other, and the bolts G, which pass through the tubular eyes and cross-bars, substantially as set forth.

Signed by me this 5th day of July, 1887.

JOHN JOHNSTON.

Witnesses:

JOHN JELLY,

THOMAS S. JOHNSTON.