(No Model.)

C. L. PEIRCE.

VEHICLE RUNNER.

No. 401,367. Patented Apr. 16, 1889.

Fig. 1.

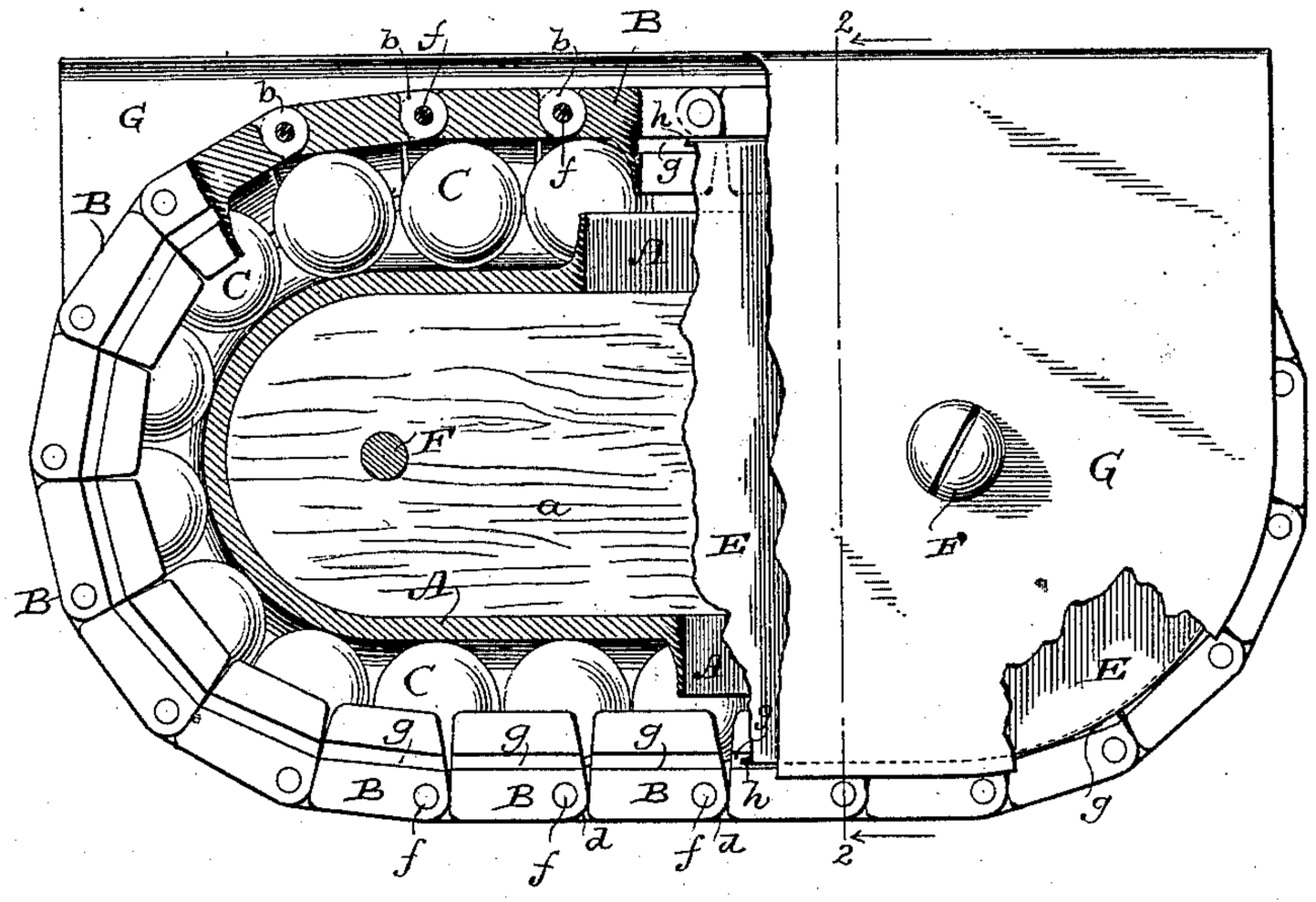


Fig. 2.

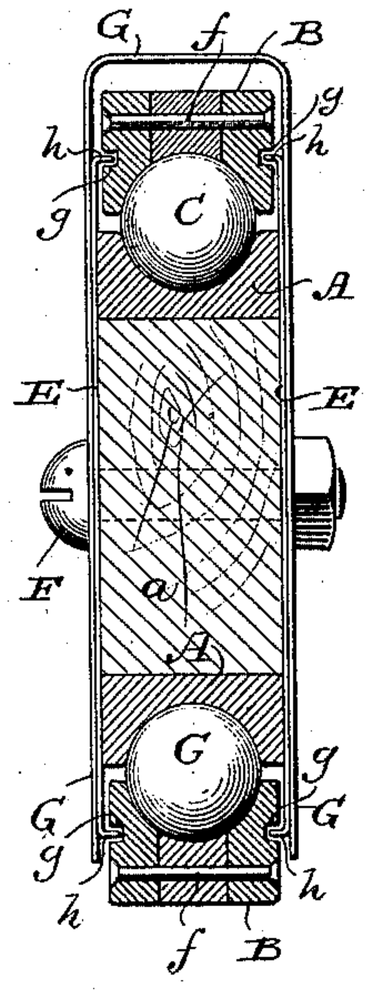


Fig. 4.

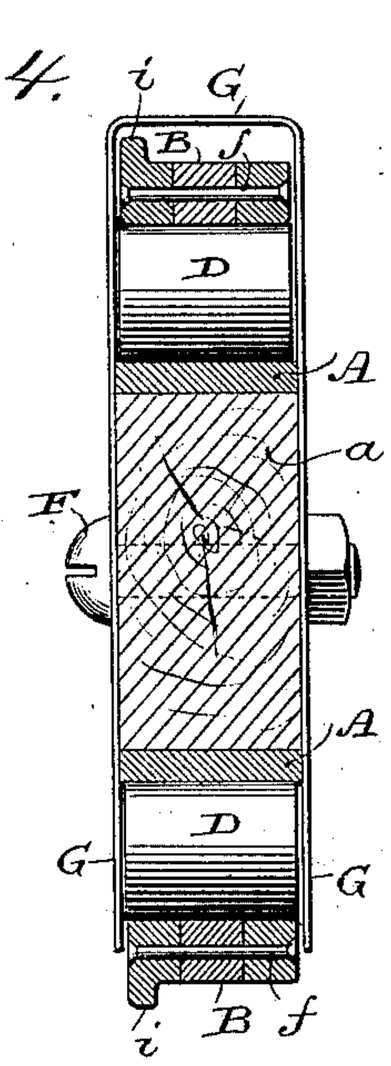
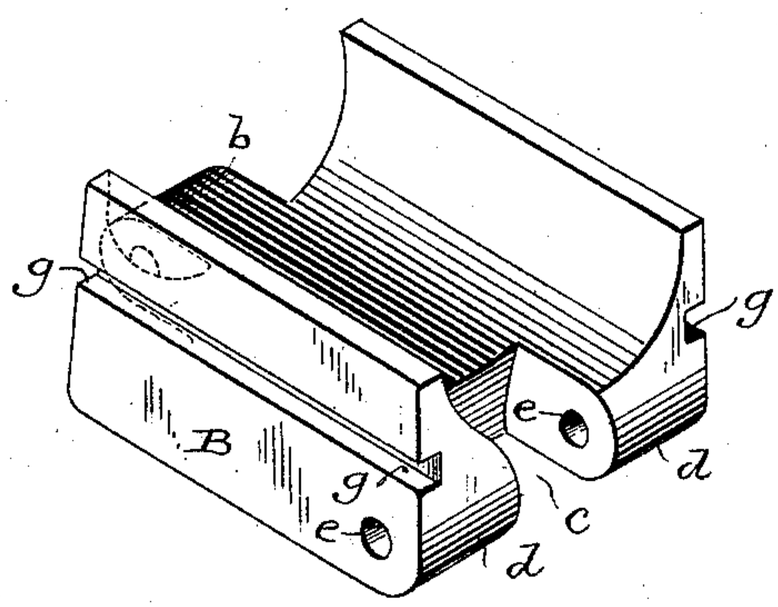


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES L. PEIRCE, OF MILWAUKEE, WISCONSIN.

VEHICLE-RUNNER.

SPECIFICATION forming part of Letters Patent No. 401,367, dated April 16, 1889.

Application filed August 3, 1888. Serial No. 281,853. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. PEIRCE, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Vehicle-Runners; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to vehicle and other runners or devices for facilitating the moving of cars, carriages, wagons, &c., either upon a roadway or plane surface or upon a track, as desired; and it consists in certain peculiarities of construction, as will be set forth hereinafter, and pointed out in the claim.

In the drawings, Figure 1 represents a side elevation of one form of my device partially broken away to better illustrate the details of construction. Fig. 2 is a vertical section on the line 2 2 of Fig. 1. Fig. 3 is a perspective view of one of the blocks or sections of the form of flexible track shown in Fig. 1. Fig. 4 is a vertical sectional view of another form of my device.

A represents the central stationary bearing, which may be either grooved on its outer edge, as shown in Fig. 2, or plain, as shown in Fig. 4, according as to whether spheres or cylinders are designed to be used in connection therewith, the bearing A being practically of the shape of a rectangular body with semicircular ends, and preferably being merely a rim of metal with a center, *a*, of wood or other suitable material, as shown.

B B represent the blocks or sections of which the moving track or runner is composed, Fig. 3 representing one form of them in detail. In this form each block B is provided with a central tongue, *b*, at one end, and is bifurcated at the opposite end to form between the members *d d* of said bifurcated end a recess, *c*, to receive the tongue *b* of the following block, and the tongue *b* and members *d d* are provided with transverse perforations *e* to receive pins or bolts *f*, whereby the several blocks or sections B B are united into an endless runner, and between this runner and the bearing A are interposed a series of balls or spheres, C C, of steel or other suitable material, when the grooved forms of blocks B and bearing A are employed; or, in place of these balls, I may use a series of rolls or cylinders, D D, as shown in Fig. 4, in which case the opposite surfaces of the blocks B and bearing A would be flat, as shown.

In the form of block B shown in Fig. 3 I have also represented exterior longitudinal grooves, *g g*, which are designed for the reception of the flanges *h* on the clamping-plates E, and, if preferred, the described tongue-and-pin connection of the blocks B B may be dispensed with and the said blocks made smooth at their ends without tongues or recesses, and held in place merely by said flanged clamping-plates E, and bolts F, passing through the central portion, *a*, of the bearing A.

In Figs. 1 and 2 I show both forms of connection; but it will be understood that I may use either form alone, if preferred. For additional protection against dirt, small bits of stone, wood, or metal, or other foreign substances, I show a shell or casing, G, which I preferably use, and this casing is of less length than the operative portion of the device, so that if an obstacle is encountered the blocks B will first strike it and ride up over it.

With the rolls or cylinders D D (shown in Fig. 4) I have shown the flat surface-blocks B united by tongue, recess, and pin, and omitted the flanged clamping-plates, but have shown the shell or casing G to prevent lateral displacement of the rolls, and in said figure I show in dotted lines flanges *i* on the exterior surface of the blocks B, to adapt the same to run upon a rail or track; and of course this exterior surface of said blocks may be fashioned or flanged in any manner to correspond with whatever rail or track the same are designed to run upon.

While I have only shown a single runner member in Fig. 1, it will of course be understood that such may be connected together in pairs or otherwise by any proper axle-brace or other means, according to the kind of vehicle to which my invention is to be applied. From the peculiar sliding motion of my device I designate it as an "olisthokine" (sliding mover) rather than a wheel, the place of which it supplies.

Under some circumstances it may be advisable to have each alternate ball or roll of

less diameter than those immediately adjacent thereto, to reduce the amount of friction to the minimum.

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

The combination of a central stationary bearing, a moving track or runner consisting of a series of sliding blocks surrounding said bearing, and a series of loose independent balls or rolls confined between the central bearing and the moving track.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES L. PEIRCE.

Witnesses:

H. G. UNDERWOOD,

WILLIAM KLUG.