

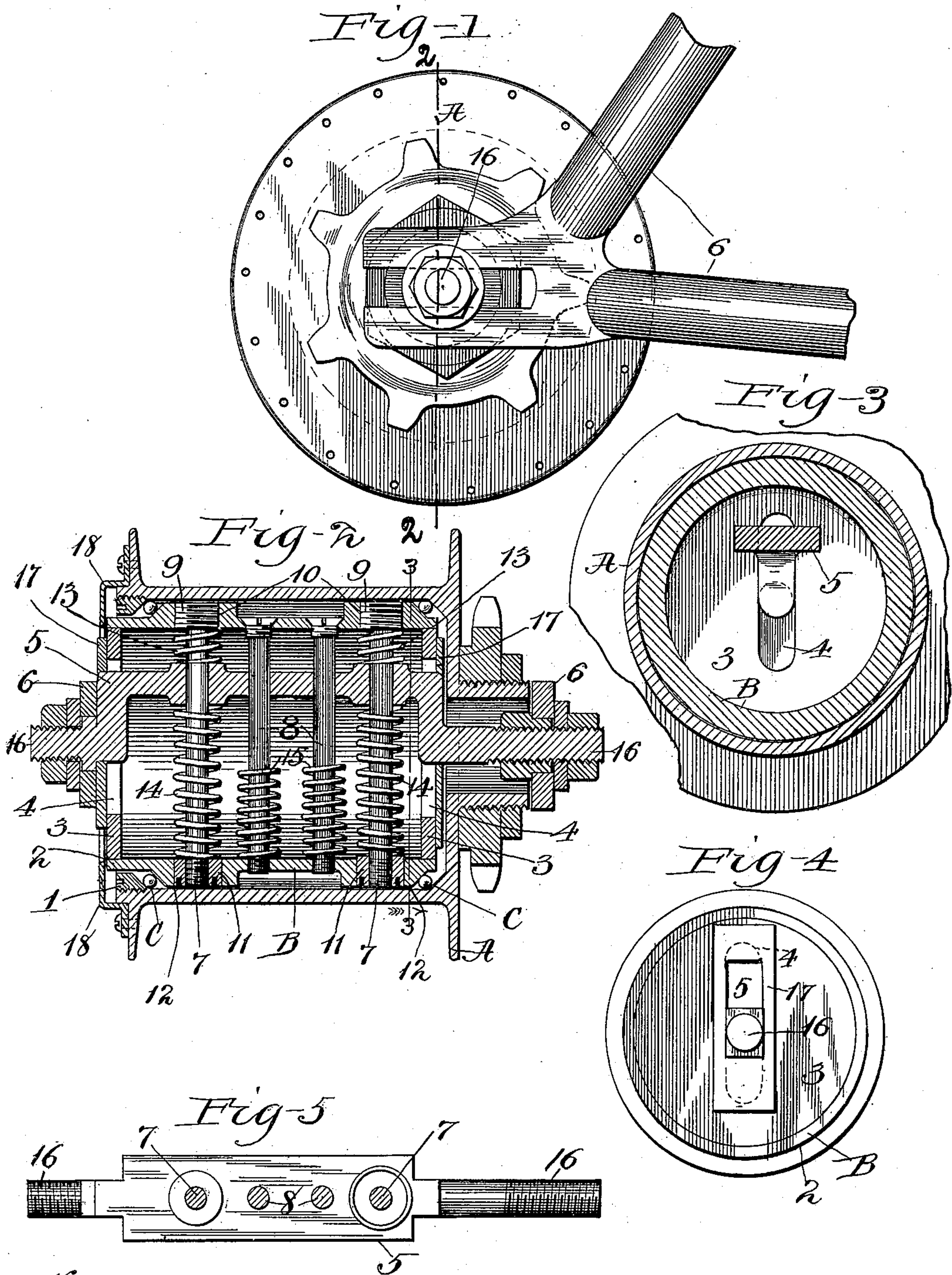
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Patented Nov. 22, 1898.

T. KIERAKOWICZ & J. LUCAS.
HUB FOR VEHICLE WHEELS.

(Application filed Apr. 30, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

TEODOR KIERAKOWICZ AND JOSEF LUCAS, OF CHICAGO, ILLINOIS.

HUB FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 614,726, dated November 22, 1898.

Application filed April 30, 1898. Serial No. 679,287. (No model.)

To all whom it may concern:

Be it known that we, TEODOR KIERAKOWICZ and JOSEF LUCAS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hubs for Vehicle-Wheels; and we 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 appertains to make and use the same.

Our invention relates to a novel construction in a hub for vehicle and particularly bicycle wheels, the object being to provide a device of this character which will serve as a cushioned support for the frame; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating our invention, Figure 1 is a fragmentary side elevation of the rear end portion of a bicycle-frame in which a hub constructed in accordance with our invention is mounted. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a sectional view on the line 3 3 of Fig. 2. Fig. 4 is a detail end elevation of the inner drum. Fig. 5 is a top plan view of the bridge.

The hub A of the vehicle-wheel is mounted upon an inner drum B, about which it revolves, ball-bearings C being interposed between said drum B and hub A and adjusted by means of the cone 1. The ends 2 of the drum B are closed by means of the plates 3, each of which is provided with a slot 4, extending radially across the center thereof, but not to the periphery. Said plates 3 are so placed that the slots 4 correspond in position, so as to permit the passage therethrough and guide a bridge 5, formed of a single piece of metal adapted to support the frame 6 of the vehicle. Guide-bolts 7 and 8 pass through said drum B parallel with each other and with said slots 4 in said plates 3 and pass through openings in said bridge 5, which is slidingly movable on and also guided thereby. Said bolts 7 are provided with large screw-threaded heads 9, adapted to fit within the screw-threaded openings 10 in said drum B and at their other ends are adapted to receive collars 11, adapted to fit snugly within openings

12 in said drum B. Springs 13 are adapted to be interposed between said bridge 5 and the heads 9 of said bolts and springs 14 between said bridge 5 and said collars 11. Said collars 11 being adjustable are adapted to regulate the tension of said springs 14. The bolts 8 are mounted in said drum B between the bolts 7 in any suitable manner and are adapted to serve as guides to hold the supplemental springs 15 in position to receive the bridge as the latter approaches the lower limit of its movement, thereby preventing it from striking the lower end of the slot in case of an unusual jar.

The end portions 16 of the bridge 5 are screw-threaded and are adapted to normally project from the center of the drum B, while the portion thereof within the drum extends upwardly in the manner of a crank, thus enabling longer and thus more yielding springs to be interposed beneath said bridge than would otherwise be possible. Plates 17 are loosely mounted upon said end portions 16 of said bridge 5 adjacent the plates 3 and are adapted to protect the slots 4 against the admission of dust. Annular flanges 18 are mounted upon the flanges of said hub A and project inwardly slightly over the drum B, thereby preventing the entrance of dust into the bearings C.

The hub herein shown illustrates the hub of the rear wheel of a bicycle and is therefore provided with the usual means for securing a sprocket-pinion thereon and securing the device in the frame, and such means being common we omit description of same. The springs 13 serve to prevent the bridge from striking the upper ends of the slots 4 when rebounding.

We claim as our invention—

1. A hub for vehicle-wheels comprising the hub proper revolubly mounted upon a drum rigidly held against rotation, slots in the ends of said drum, a bridge passing through said drum and said slots, guide-bolts rigidly mounted in said drum and passing through said bridge, springs surrounding said guide-bolts and bearing against said bridge, and means for mounting the projecting portions of said bridge in the vehicle-frame, substantially as described.

2. A hub for vehicle-wheels comprising the

hub proper revolubly mounted upon a drum rigidly held against rotation, slots in the ends of said drum, a bridge passing through said drum and said slots, guide-bolts rigidly
5 mounted in said drum and passing through said bridge, springs around said guide-bolts bearing at one end against said bridge and at their other ends against adjustable collars on said bolts, and means for mounting the
10 projecting portions of said bridge in the vehicle-frame, substantially as described.

3. A hub for vehicle-wheels comprising the hub proper rotatably mounted upon a drum rigidly held against rotation, a bridge pass-
15 ing centrally through said drum and having a crank-shaped portion within said drum, guide-bolts passing through said drum and through said crank-shaped portion of said bridge, and springs interposed between said
20 crank-shaped portion of said bridge and the end portions of said guide-bolts, substantially as described.

4. A hub for vehicle-wheels comprising the hub proper rotatably mounted upon a drum rigidly held against rotation, a bridge pass- 25 ing centrally through said drum and having a crank-shaped portion within said drum, guide-bolts passing through said drum and through said crank-shaped portion of said bridge, springs interposed between said crank- 30 shaped portion of said bridge and the end portions of said guide-bolts, guide-bolts between said first-named guide-bolts, and springs on said last named guide-bolts adapted to receive the bridge to cushion the same in case of an 35 unusual jar, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

TEODOR KIERAKOWICZ.
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Witnesses:

EMIL M. HUTHKUS,
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