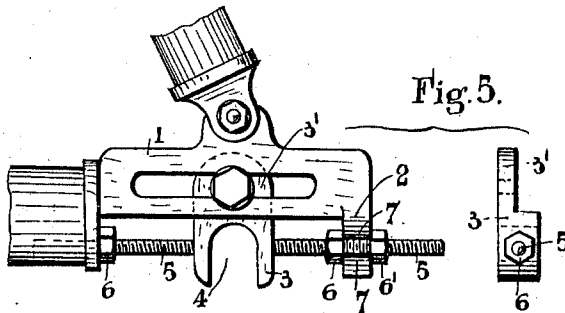
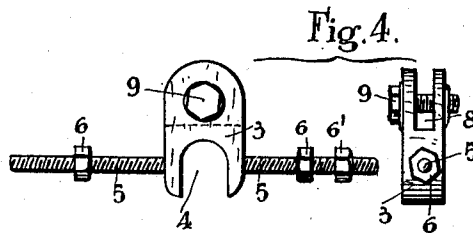
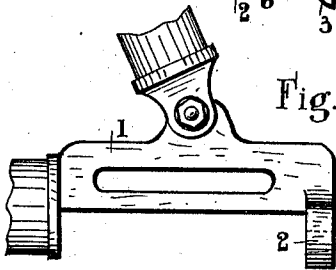
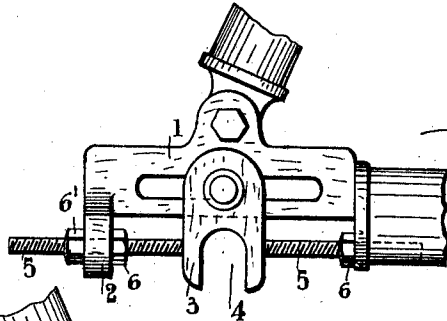
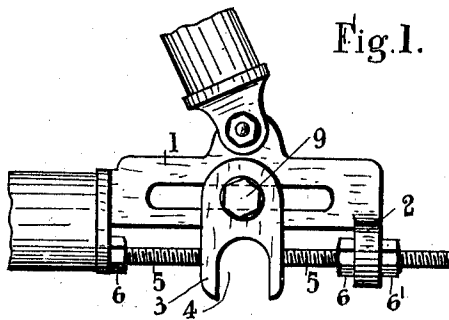


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BICYCLE CHAIN ADJUSTING MEANS.
APPLICATION FILED MAR. 25, 1910.

974,573.

Patented Nov. 1, 1910.



WITNESSES:
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UNITED STATES PATENT OFFICE.

GUSTAVE KINDERMANS, OF VILVORDE, BELGIUM.

BICYCLE-CHAIN-ADJUSTING MEANS.

974,573.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed March 25, 1910. Serial No. 551,561.

To all whom it may concern:

Be it known that I, GUSTAVE KINDERMANS, a subject of the Belgian King, and residing at Vilvorde, Belgium, have invented new and useful Improvements in Bicycle-Chain-Adjusting Means; and I do hereby declare the following to be a full, clear, and exact description of the same.

My present invention relates to means for adjusting the chains and mounting the driving wheels of bicycles and the like, characterized by the fact that on the usual flat pieces to which the tubes of the rear forks of the frame are attached, are adjustably arranged blocks provided with open vertical slots to receive the ends of the driving wheel-axle and having on opposite sides longitudinal screw-threaded rods, one of which extends freely into the tube of the lower fork and may be secured by means of a screw-nut, while the other is guided in a slotted lug of the said flat piece and secured by two screw-nuts, a screw-bolt extending through the upper part of the adjustable block and a longitudinal slot in the flat piece, for the purpose of securing the adjustable block at three different points and thus preventing it from moving accidentally on the said flat piece.

The invention will be readily understood from the following description taken in connection with the accompanying drawings, in which:

Figure 1 is a side elevation showing the outer side of the flat piece connecting the tubes of the frame and the chain adjusting means mounted on said flat piece. Fig. 2 shows the inner side elevation of same. Fig. 3 shows the flat piece with the adjusting means removed. Fig. 4 shows the adjusting means removed from the flat piece, and Fig. 5 is the outer side elevation of the flat piece and the adjusting means, showing a modification.

In these drawings, 1 represents the usual flat piece to which the tubes of the frame are attached as shown and which is provided with the usual longitudinal slot, in which the sliding-block 3 may be adjusted. The lower part of the latter is provided with an open vertical slot 4 wherein the end of the driving wheel-axle (not shown) is secured by screw-nuts as usually. The upper part of the sliding block 3 is forked so as to have a deep groove 8 into which extends the flat piece 1, a screw-bolt 9 extending through

the sliding-block and the longitudinal slot of the flat piece 1 serving to secure the block on the latter.

The sliding block 3 is made integral with screw-threaded rods 5, 5 extending from opposite sides, and one of which extends into the lower horizontal tube and may be secured by a screw-nut 6, while the other is guided in an open vertical slot 7', provided in a depending lug 2 of the flat piece 1 and may be secured by means of two screw-nuts 6, 6'. After loosening the inner screw-nuts 6, 6 and screw-bolts 9, the tension of the chain may be easily adjusted by turning the outer nut 6', bearing against the outer side of the piece 1 and causing the block 3 to slide longitudinally on said piece 1. The tension of the chain being adjusted, the inner screw-nuts 6, 6 are tightened against the lug 2 and the horizontal frame-tube respectively and the screw-bolt 9 is also tightened in the block 3. In this way, the latter will be secured at three different points so that it cannot be accidentally moved when the wheel-axle is removed from or mounted into the slot 4 of the block 3.

In the modification shown in Fig. 5, the rear threaded rod 5 is guided and held between two horizontal jaws 7, 7 of the lug 2, and the sliding block 3 has a single upper part 3' (not forked) sliding on the inner side of the piece 1. In this modification, the block 3 may be removed laterally from the piece 1, whereas in the construction shown in Figs. 1, 2, 3 and 4, the block 3 must be removed downwardly.

It will be seen that in the present arrangement the slide block 3 and therefore the driving wheel-axle may be adjusted forwardly and rearwardly owing to the screw-threaded rods 5, 5 and nuts 6, 6, 6' mounted on the same, while in the old arrangements the wheel-axle can only be adjusted rearwardly. On the other hand, after tightening the screw-nuts 6, 6 and the bolt 9 of my arrangement, the wheel-axle cannot be moved rearwardly as in the old constructions wherein a single nut, say the outer nut 6', is provided for holding the adjustable part in place.

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

1. In a bicycle-chain adjusting device, the combination with the rear forks, a flat piece connecting said forks, and a horizontal slot

in said flat piece, of a slotted sliding-block, a screw-bolt extending through the upper part of said block and through the horizontal slot of the flat piece, a screw-threaded
5 rod made integral with said block and extending freely into the lower horizontal fork, a screw-nut on said rod between the fork and the sliding-block for securing the rod in place, a second screw-threaded rod
10 made integral with the block and extending from the opposite side thereof, means for guiding said second rod in the flat piece, and means for securing it in adjusted positions, substantially as set forth.
15 2. In a bicycle-chain adjusting device, the combination with the rear forks, a flat piece connecting said forks, and a horizontal slot in said flat piece, of a slotted sliding-block, a screw-bolt extending through the upper
20 part of said block and through the horizontal slot of the flat piece, a screw-threaded

rod made integral with said block and extending freely into the lower horizontal fork, a screw-nut on said rod between the fork and the sliding-block for securing the
25 rod in place, a second screw-threaded rod made integral with the block and extending from the opposite side thereof, a depending lug on said flat piece and a suitable slot in said lug, said second screw-threaded rod ex-
30 tending freely through the slot in said lug, and a screw-nut between the block and the lug for securing the rod in place, substantially as set forth.

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

GUSTAVE KINDERMANS.

Witnesses:

CHARLES HOOVER,
GREGORY PHELAN.