

(No Model.)

J. H. HENDRICK & J. P. KELLY.
VELOCIPEDE.

No. 539,899.

Patented May 28, 1895.

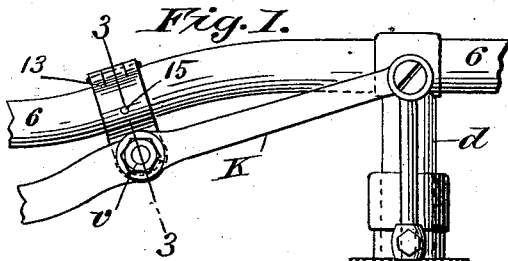


Fig. 3.

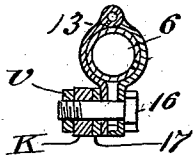


Fig. 4.

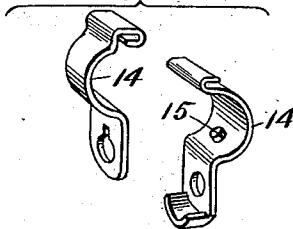


Fig. 5.

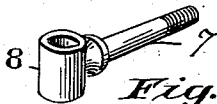


Fig. 6.

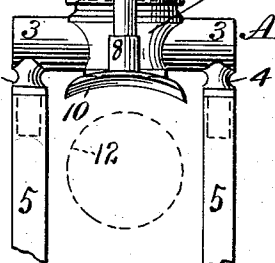
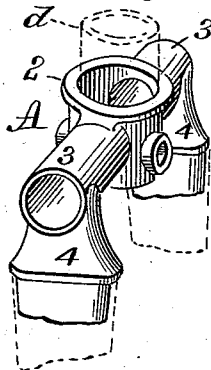
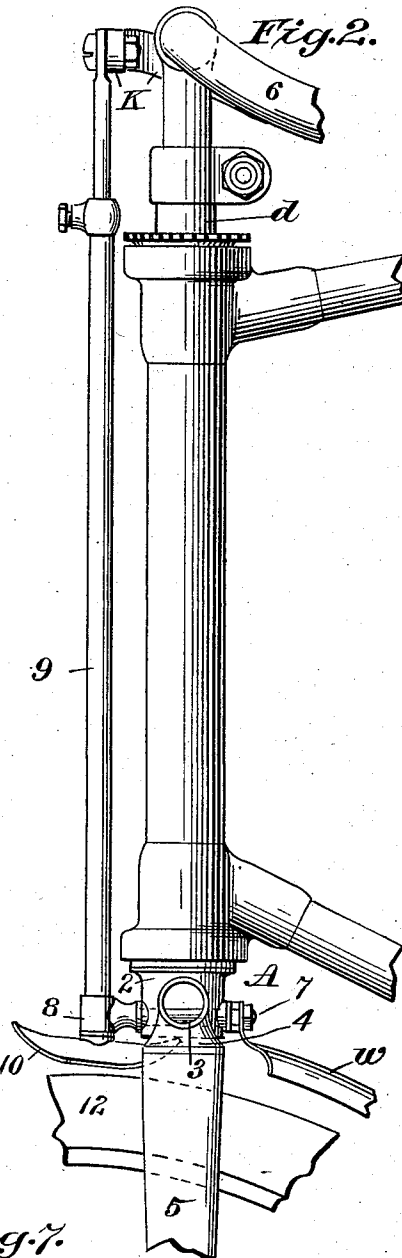
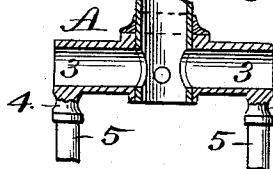


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOEL H. HENDRICK AND JARVIS P. KELLY, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNORS TO THE WARWICK CYCLE MANUFACTURING COMPANY, OF SAME PLACE.

VELOCIPEDÉ.

SPECIFICATION forming part of Letters Patent No. 539,899, dated May 28, 1895.

Application filed June 6, 1893. Serial No. 476,798. (No model.)

To all whom it may concern:

Be it known that we, JOEL H. HENDRICK and JARVIS P. KELLY, citizens of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Velocipedes, of which the following is a specification.

This invention relates to bicycles, the object being to improve the details of construction of certain parts thereof all as hereinafter fully described and more particularly pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a front elevation of the bicycle-head, showing a portion of the handle-arms thereof and of the forks having applied thereto improved means for attaching the brake-lever and the brake-rod to the machine constructed according to our invention. Fig. 2 is a side elevation of the parts illustrated in Fig. 1, showing, however, in addition to what is there illustrated a section of a wheel-tire and the upper end of a mud-guard attached near the fork-crown. Fig. 3 is a sectional view on line 3 3, Fig. 1. Fig. 4 is a perspective view illustrating handle-arm clamping devices, to be below described. Fig. 5 is a perspective view of the brake-rod, sleeve-bolt, or hanger. Fig. 6 is a perspective view of the fork-crown. Fig. 7 is a longitudinal section of the fork-crown and of portions of the forks and the lower end of the head.

The object of this invention is to provide improved attachments for connecting the brake-lever and brake-rod to the handle-bar and to the fork-crown of the machine, to the end that the said lever and rod may be removed from the machine, or be reapplied thereto without dismounting any parts of the device except those interposed immediately between said brake-rod and brake-lever.

In the drawings, A is the fork-crown which is constructed by drop-forging the same from wrought iron or steel, and consists of its central, cylindrical body, 2, the horizontal arms, 3, 3, extending from the opposite sides thereof and the pending fork-stubs, 4, beneath said arms, all of said parts being integrally formed

in the said drop-forging. After forging said part the said body, 2, is properly bored through, vertically, to receive the lower end of the inner tube, *d*, of the bicycle head, B, a section of which tube is shown in Fig. 7, and in dotted lines in Fig. 6, said lower end of the tube, *d*, being suitably brazed, or otherwise rigidly attached to the fork-crown. The said horizontal arms, 3, of the fork-crown are bored longitudinally, as shown in Figs. 2, 6, and 7, to remove the surplus stock from the interior and lighten this portion of the machine, and the opening so produced in said arms, 3, extends transversely through the end of said tube, *d*, within the fork-crown, as shown in Fig. 7, thereby providing means on the machine for inserting a carrying-rod through the crown of the fork which may extend laterally from the machine, in opposite directions, thereby providing convenient means for attaching light articles that it may be desirable to carry thereon. The forks, 5, are brazed or otherwise rigidly connected with the said fork-stubs, 4, on the fork-crown. The handle-bars, 6, are secured to the upper extremity of said inner tube, *d*, in the usual way.

A sleeve-bolt, 7, having a sleeve, 8, on its forward end is secured in the fork-crown, A, as shown in Fig. 2, with its axis at right angles to the length of the bolt. The shank of said bolt passes transversely through holes which are shown as formed across said fork-crown from the front to the rear side thereof and somewhat below the axis of the arms, 3, of said crown, so as not to interfere with said open passage through said arms and crown. The said sleeve, 8, therefore, occupies a position vertically axial and in advance of the front side of said crown which adapts it to receive the lower end of the brake-rod, 9, which has the requisite sliding movement in said sleeve, the usual brake-shoe, 10, being secured to the lower end of said rod in proximity to the rim of the wheel, 12, of the machine. The said brake-rod has no other connection with the head of the machine than that afforded by said sleeve-bolt at its lower end, where the greatest strain comes when the brake is applied to the wheel. The upper ex-

tremity of said brake-rod has a pivotal connection, as shown, with the end of the brake-lever, K. The said brake-lever is pivotally hung to the handle-bar, 6, by means of a clip, 13, formed of two hinged sections as shown in Figs. 1 and 3, or having interlocking ends, as shown by the parts, 14, 14, Fig. 4. The two members of said clamp fit tightly around the handle-bar and are prevented from slipping from their adjusted position thereon by a short stud, 15, which enters a perforation in said bar. A bolt, 16, passes through the lower ear lugs of said clamp members, as illustrated in Fig. 3, and through a washer, 17, and through said brake-lever, and constitutes a pivot, on which the latter swings, for operating the brake-rod in the usual way, and a nut, v, on the outside of said lever retains the latter in place on said bolt.

The above described means for attaching the brake-lever, K, to the handle-bar, and for attaching the lower end of the brake-rod to the fork-crown, provide improved means for hanging said brake devices on the machine, whereby the dismounting of said devices from the latter is greatly facilitated, and is accomplished as follows: The nut on the extremity of the bolt, 7, at the rear side of the fork-crown, is removed and said bolt is withdrawn from the fork-crown without detaching the bolt from the lower end of the brake-rod; and then the nut, v, is removed from the end of the bolt, 16, of the handle-bar-clamp, 13, and the brake-lever is then free to come off from said bolt and the dismounting of said brake parts is fully accomplished without the disturbance or derangement of any other part of the machine. It is obvious that when said nut, v, is removed from the bolt, 16, the latter may be withdrawn from the lower ends of the said clamp members and the entire clamp be then taken off from the handle-bar. Thus the dismounting of said brake-lever,

brake-rod, and brake, from the machine, and its remounting thereon, are greatly facilitated. The said sleeve-bolt, which is secured to the fork-crown, as above described, has a shank of sufficient length to provide means whereby the upper end of a mud-guard, w, for the wheel of the machine may be secured properly on the machine, the rear extremity of said bolt passing through the upper end of said guard and being secured on the shank, 7, thereof by the same nut thereon which secures the bolt to the fork-crown.

What we claim as our invention is—

1. In a bicycle, a fork crown having intermediate between its ends the horizontal transverse hole, a bolt,—having a sleeve at its forward end which is placed with its axis transverse to the length of the bolt, and screw-threaded at its rear extremity,—passed through the perforated crown, receiving on its rear end the confining nut, in combination with the brake-rod guided for its reciprocal movement through the said sleeve, substantially as described.

2. In a bicycle, the combination with the fork crown having intermediately between its ends the horizontal transverse hole, of a bolt, 7,—having the sleeve, 8, at its forward end, and screw-threaded at its rear extremity,—passed through the perforated crown, the mud-guard having an upper portion thereof set over the rearwardly protruding end of said bolt, a nut for confining said bolt to the crown and for confining said mud-guard upon said protruding end of the bolt, and the brake-rod playing vertically through the sleeve, substantially as described.

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