

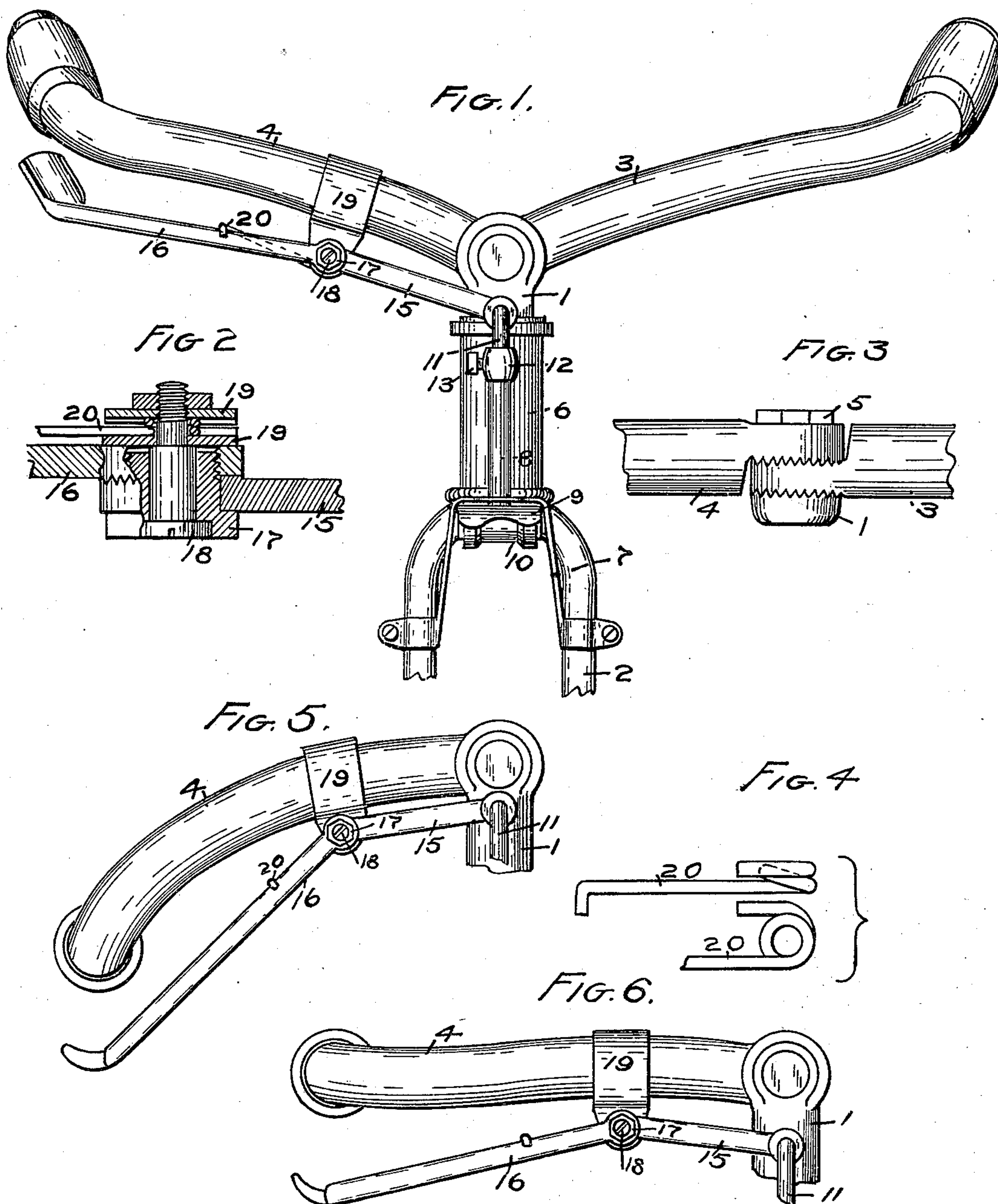
No. 671,435.

Patented Apr. 9, 1901.

C. K. DAVIS.
BICYCLE BRAKE.

(Application filed Nov. 27, 1899.)

(No Model.)



WITNESSES:

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BICYCLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 671,435, dated April 9, 1901.

Application filed November 27, 1899. Serial No. 738,394. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE K. DAVIS, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Bicycle-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

10 This invention relates to a bicycle brake mechanism wherein the brake is actuated by a lever held in close proximity to the handle-bars, so that the hand that grasps the handle-bar can operate the lever.

15 The chief feature of this invention consists in making the lever of two members adjustably united at the fulcrum of the lever, whereby the form of the lever can be adjusted to suit the various forms and positions of handle-bars. In other words, the outer member of the lever is adjustable with relation to the inner member of the lever and also with relation to the handle-bar, so that such outer member can be so placed with relation to the

20 handle-bars of the various forms that it will be in easy reach of one holding the handle-bars. It is of peculiar value in combination with handle-bars whose position can be shifted, and especially that class of handle-bars that are so mounted on the steering-post that the outer ends thereof can be elevated or lowered. Its chief virtue, however, is the ability to employ such brake-lever in connection with the various kinds of handle-bars already made and on the market. These and the other features of my invention will be understood from the accompanying drawings and the description following of one form of device embodying my said invention, and

30 the scope of said invention will be understood from the claims following said description.

In the drawings, Figure 1 is a front elevation of the handle-bars, steering-post, and brake mechanism combined therewith. Fig. 2 is a partial section of the joint between the two members of the brake-lever. Fig. 3 is a plan of the joint between the handle-bars. Fig. 4 is a detail view of the spring for holding the brake-lever in an inoperative position. Figs. 5 and 6 are elevations of a han-

dle-bar and brake-lever in positions varying from that shown in Fig. 1.

In detail the drawings herein presented for illustrating the nature of this invention show a steering-post 1, with a fork 2 at the lower end broken away. Its upper end, as appears in Fig. 3, has one face serrated or toothed, and to it there are bolted the handle-bars 3 and 4 by means of the bolt 5. This construction enables the outer ends of the handle-bars to be elevated and lowered or fastened, as desired.

6 is the sleeve of the bicycle-frame, through which the steering-post extends and in which it operates. This part of the bicycle herein shown is an old construction, and I do not wish to limit myself to it, as the brake mechanism herein set forth can be used upon any form or construction of bicycle. On the fork 2 of the steering-post I clamp an expansive guide-bracket 7, through whose upper end the tube 8 extends and vertically reciprocates when actuated. A casing 9 is secured to the lower end of the tube 8 and carries the rubber brake-roller 10. The form and arrangement of the brake piece or roller and the means for carrying it are immaterial to this invention, and as herein shown it is substantially the same as that set forth in the former patent to Emerson Davis and myself, No. 590,700, dated September 20, 1897. The novel feature in this part of the construction consists in the guide-bracket 7, whose arms are laterally expansible to accommodate the bracket to steering-post forks of varying sizes and widths.

The rod 11 is adjustably secured within the upper end of the tube 8 by means of the binder 12, having in it the set-screw 13. This construction permits the longitudinal or vertical adjustment of the rod 11 and tube 8 to accommodate steering-posts of varying lengths.

The brake is effected by moving the brake-roller down in contact with the tire of the bicycle-wheel, which is not here shown. This downward movement of the brake-roller is caused by the brake-lever, that here consists of two members—an inner member 15, pivoted at one end to the upper end of the rod 11 and secured at the other end to the outer

member 16. Said two members of the brake-lever are provided with engaging faces having on them radial teeth or serrations, as shown in Fig. 2, and when placed on the ends of said members of the brake-lever are held by the hollow screw, as seen in Fig. 2. The lever thus formed is fulcrumed on the bolt 18, that extends through said hollow screw 17 and through the lower end of the bracket 19, that is clamped about one of the handle-bars. There is also a spring 20 coiled about the bolt 18, with one end held by the clamping-bracket 19 and the other end bearing down upon the outer member 16 of the brake-lever. The function of this spring is to hold the brake-roller out of engagement with the bicycle-wheel tire. From this description it is obvious that the position of the outer member 16 of the brake-lever can be adjusted or, in other words, the form of the brake-lever modified to suit various shapes of handle-bars and the various positions in which handle-bars may be placed and yet bring the lever within convenient reach, and all this without affecting the parts of the brake mechanism that are mounted on the steering-post.

In Figs. 1, 5, and 6 three positions of the handle-bars are shown with three forms or positions of the brake-lever. The form or position of the brake-lever is modified by loosening the bolt 18 and hollow nut 17, then turning the outer member 16 of the lever into the desired position, and then tightening the hollow nut and bolt.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A bicycle-brake including a brake-lever consisting of two members in substantial alinement with each other so united that the shape of the lever can be modified.

2. A brake-lever consisting of two members so united at the fulcrum of the lever that the position of one member can be altered with relation to the other member of the lever.

3. The combination with the handle-bar of a bicycle, of a bracket secured thereon, and a brake-lever fulcrumed to said bracket and consisting of two members so united that the position of one member of the lever can be altered independently of the other member of the lever.

4. The combination with the steering-post of a bicycle and handle-bars so mounted thereon that their outer ends can be elevated or lowered, of an adjusted bracket on one handle-bar, and a brake-lever fulcrumed to said bracket and formed of two members so united that the shape of the lever can be adjusted to accommodate the various positions of the handle-bar.

5. The combination with a steering-post of a bicycle and suitable handle-bars mounted thereon, of a vertically-movable rod or tube mounted on the steering-post, a brake-piece at the lower end thereof, a bracket secured to a handle-bar, and a brake-lever pivoted to said rod or tube and fulcrumed to said bracket, said lever consisting of two members so united at the fulcrum that the handle end of the lever can be adjusted with relation to the handle-bar.

6. The combination with the handle-bars of a bicycle, of a bracket secured thereon, a brake-lever consisting of two members with their adjacent ends perforated and radially serrated, and a clamping-bolt extending through said ends of the brake-lever and said bracket for mounting said lever on said bracket so that the position of the members of the lever with relation to each other can be altered.

In witness whereof I have hereunto affixed my signature in the presence of the witnesses herein named.

CLARENCE K. DAVIS.

Witnesses:

V. H. LOCKWOOD,
M. C. BUCK.