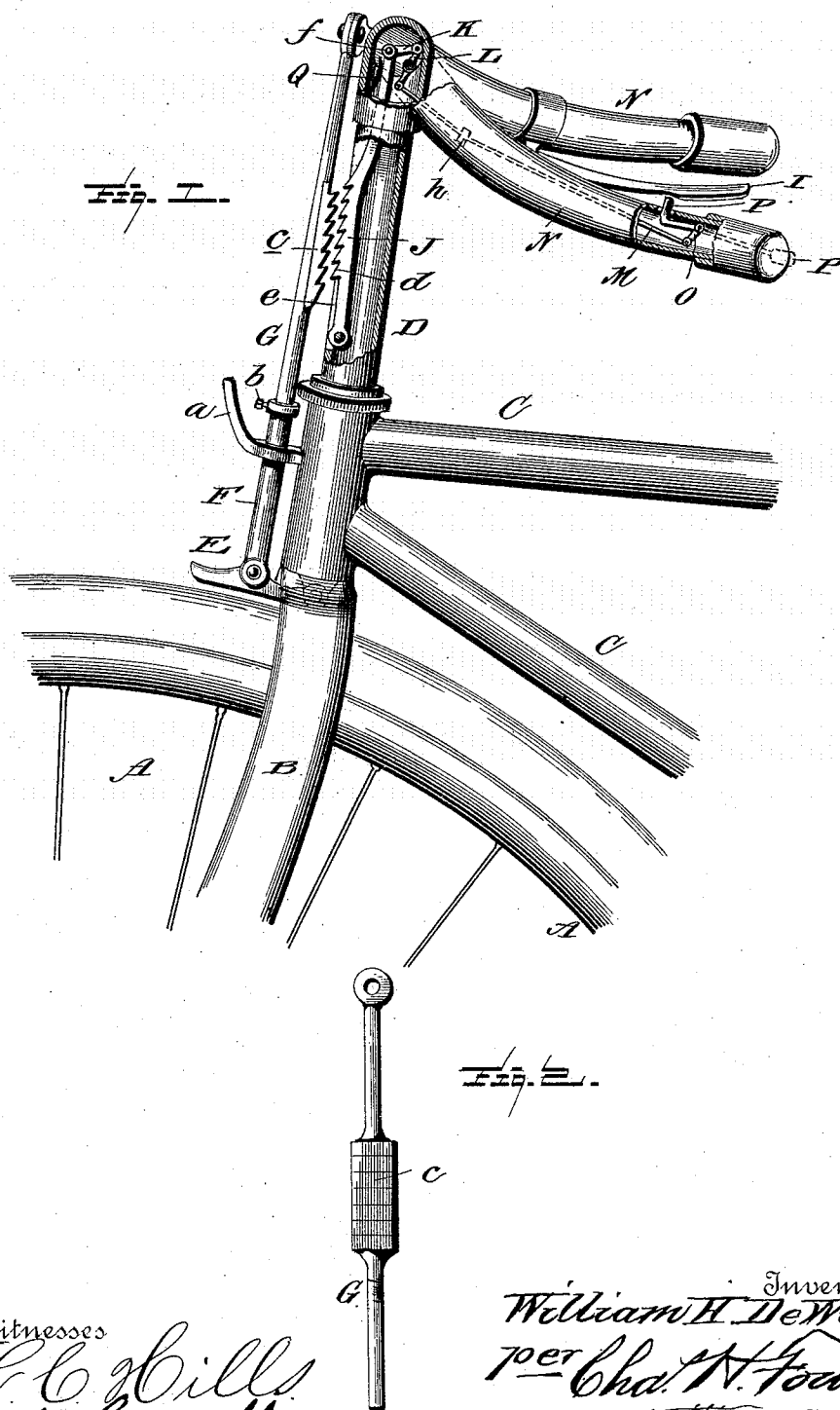


(No Model.)

W. H. DE WITT.
BICYCLE.

No. 472,528.

Patented Apr. 12, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. DE WITT, OF WILKES-BARRÉ, PENNSYLVANIA.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 472,528, dated April 12, 1892.

Application filed October 14, 1891. Serial No. 408,702. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DE WITT, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Bicycles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in bicycles, and pertains more particularly to the brake; and it has for its objects, among others, to provide a novel, cheap, durable, and efficient mechanism, whereby the brake may be held or kept down against the wheel in coasting down hill or whenever desired, so that the hands of the rider will not get cramped, as they often do when obliged to hold the brake-lever to keep the brake down.

The device may be applied to various parts of the bicycle and may be applied to a rear brake as well as to a front brake, and the invention is not restricted to either.

The mechanism I preferably employ is simple in its construction and application, durable and efficient in operation, and does not impair the appearance of a bicycle.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side elevation of a portion of a bicycle, showing my improvement applied, parts being broken away and others in section to better disclose the construction and arrangement of parts. Fig. 2 is a view looking at the rear face of the brake-arm.

Like letters of reference indicate like parts in both views.

Referring now to the details of the drawings by letter, A designates a portion of a wheel of a bicycle, B the fork, and C a portion of the frame.

D is the head, which is hollow for a portion of its length, (the upper part,) as seen in Fig.

1, and projecting from the head to the front is the guide *a*.

E is the brake, of known construction, and to the brake is connected in any suitable manner the arm F, which extends upward through the guide *a* and has detachably connected therewith the arm G, said connections being a set-screw *b* or any other desirable means. The rear face of this arm G is provided with teeth *c*, which are preferably formed on the widened portion of the arm, as seen best in Fig. 2, the said arm being pivotally connected with the brake-lever I in the usual or any suitable manner.

Pivoted within the head at its lower end, as at *c'*, is the arm or bar J, the front face of which is provided with teeth *d*, as seen in Fig. 1, the said arm or bar working through a slot *e* in the front wall of the head, as shown, and at its upper end curved to the rear and extended upward within the head, where it is pivotally connected, as at *f*, with the one end of a link K, the other end of which is pivotally connected with the double crank-arm L, which is pivoted, as at *g*, within the head, and to the other arm of which is pivotally connected the rod M, which extends through the handle-bar N, through a suitable guide *h*, and is pivotally connected with the arm O, pivoted within the handle-bar, and provided with a handle or lug P, extending through a suitable hole in the handle-bar, either upon the side or at the end, as seen in Fig. 1.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings, and, briefly stated, is as follows: For ordinary use the brake is applied in the usual manner and the locking mechanism is not brought into play; but when taking a long coast the brake is put down, and then by means of the handle or lug P the toothed bar J is engaged with the teeth of the bar G and the brake locked. When the bottom of the hill is reached or it is desired to take off the brake, it is readily done by the handle P, which, when released, causes the parts to assume their normal position by reason of the spring Q, which is arranged within the head, as shown, and designed to bear upon the arm J near its upper end to force the same backward out of engagement with the teeth of the bar G.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

- 5 1. The combination, with a bicycle-brake, of a toothed bar connected therewith, a pivoted toothed bar within the head and pivotal connections arranged within the head, and handle-bars for operating the same, as set
10 forth.
2. The combination, with a bicycle-brake, of a toothed bar connected therewith, a piv-

oted toothed arm parallel with said bar and pivoted within the head, pivotal connections for operating the same, and means extending 15 through the handle-bar for operating said means, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM H. DE WITT.

Witnesses:

H. M. PALMER,

ROBERT J. BLAIR.