(No Model.)

B. PORTER.

BICYCLE HANDLE BAR.

No. 566,794. Patented Sept. 1, 1896.

Fig. 1.

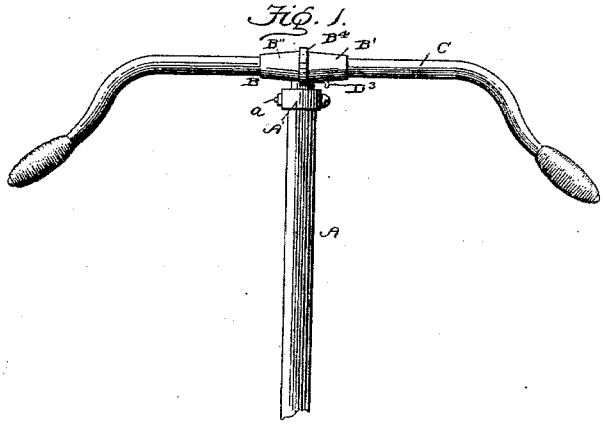

Fig. 2.

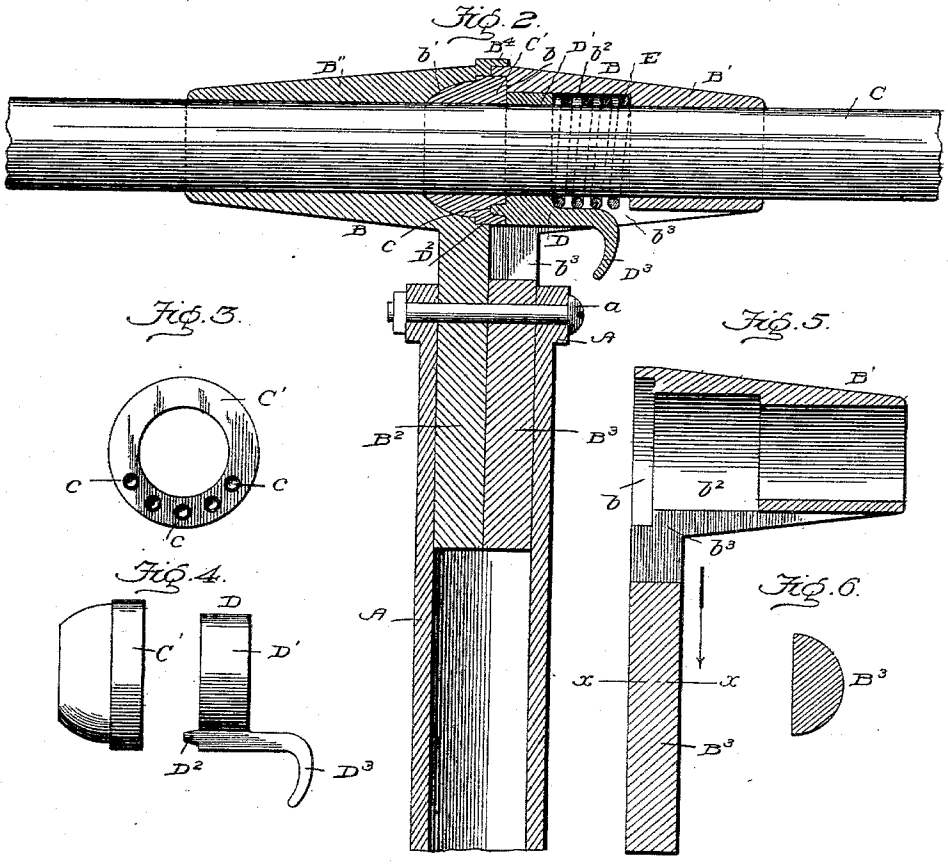

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Witnesses:
Wm. C. Dashiell
J. W. Mothershead

Benjamin Porter
Inventor
By A. P. Evans & Co
Att'ys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN PORTER, OF ELLENDALE, NORTH DAKOTA.

BICYCLE HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 566,794, dated September 1, 1896.

Application filed December 9, 1895. Serial No. 571,586. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN PORTER, a citizen of the United States, residing at Ellendale, Dickey county, North Dakota, have invented certain new and useful Improvements in Bicycle Handle-Bars, of which the following specification contains a full, clear, and exact description, reference being had to the accompanying drawings, forming part thereof, and in which—

Figure 1 is an elevation of a handle-bar and steering-post with my improvements applied. Fig. 2 is an enlarged transverse vertical section thereof. Figs. 3, 4, 5, and 6 are details of the ratchet-wheel, latch, and right-hand section of the head of the steering-post, respectively.

My invention relates to that class of handle-bars which have an adjustable rotary movement to permit of the raising or lowering of the handles.

The object of my invention is to provide a handle-bar which may be very easily adjusted by means of a thumb-latch mounted to slide along the handle-bar, or in the direction of the length thereof, into engagement with an annular ratchet or equivalent device on the handle-bar; also, to provide such a construction which shall be simple, inexpensive, and not liable to get out of order.

A is the steering-post, having its transverse tubular head B formed of two sleeves B B′, provided with depending half-round shanks B^2 B^3, which fit within the upper end of the said post, where they are secured by a transverse bolt *a*, which passes through an ornamental annular flange or collar A′ on the upper extremity of the post and through both of said shanks. The handle-bar C passes through the sleeves or bearings B B′ and may be rotated therein, as will be presently described. The handle-bar C is provided at its middle with a fast ratchet-wheel formed of an annular rib or flange C′, which is provided in its flat side next to the sleeve B′ with a series of tapering holes or recesses *c*, though peripheral teeth would serve the same purpose. This ratchet-wheel is inclosed within annular recesses *b b′* in the abutting ends of the sleeves B B′, where it is entirely concealed, said recesses being shaped to conform to the flat and convex faces of the wheel. The sleeve B′ has the inner end of its bore enlarged, as shown at b^2, and has a longitudinal slot b^3 in its lower side at its inner end, this slot also extending through the upper portion of the shank B^3.

D is the latch, formed of a ring D′, which slides freely along the handle-bar and within the chamber formed at b^2 in sleeve B′, and the tapering nose D^2 and thumb-piece D^3, which are secured to the lower portion of the ring, the nose D^2 projecting inwardly into any one of the ratchet-recesses *c* and the thumb-piece extending outwardly and working through the slot b^3, where it may be engaged by the rider's thumb.

E is a spiral spring encircling the handle-bar within the chamber b^2 and bearing against the ring D′ to force the nose D^2 of the bolt into the ratchet-recesses. As the nose of the bolt and the ratchet-apertures are tapering, wear will be taken up, so that a snug fit will be effected and rattling prevented. It will be seen that the rider, while grasping the handle-bar with his right hand, may draw the latch outwardly by simply engaging the thumb-piece of the latch with his right thumb. Thus the handle-bar may be rotated and adjusted at any time to raise and lower the handles, and this by a perfectly natural movement. There are no exposed parts in the rider's way and nothing liable to be broken even when the machine is roughly handled. In order to better exclude dust, I preferably form the sleeve B with a flange B^4, which overlaps the adjacent end of the sleeve B′.

Having thus described the invention, what I claim is—

1. The combination with a transverse tubular head at the upper end of the steering-post, of the handle-bar extending through and turning in said head, and provided within said head with a fast ratchet-wheel or annular collar, and a latch sliding in the head in the direction of the length of the handle-bar into engagement with said ratchet or collar to lock the handle-bar; said latch having a thumb or finger piece exposed through a slot in the head, substantially as described.

2. The combination with the transverse tubular bearing at the upper end of the steering-post, and the non-slidable handle-bar rotating axially in said bearing, of a latch in

the form of a ring or sleeve encircling and sliding along the handle-bar and having an exposed operating device, and a ratchet with which said ring or sleeve like latch enters into locking engagement to lock the handle-bar in its adjusted position, substantially as set forth.

3. The combination with the transverse tubular head formed of two abutting recessed or chambered sleeves having depending parallel shanks to connect with the steering-post, of the rotary handle-bar, extending through said sleeves and provided with a fast annular ratchet-wheel or collar within the abutting recessed or chambered ends of said sleeves, a latch sliding in one of the sleeves in the direction of the length of the handle-bar to engage the ratchet or collar with its inner end or nose, and a thumb or finger piece projecting from the latch through a slot in the sleeve, substantially as described.

4. The combination with the internally-chambered, transverse tubular head for the steering-post, of the rotary handle-bar extending through and turning in said head, an annular ratchet-wheel or collar fast on the handle-bar within the chambered head, a latch comprising a ring sliding on the handle-bar within the head, a nose projecting from the ring into engagement with the ratchet or collar, a thumb-piece projecting from the ring through a slot in the head and a spring pressing the latch toward the ratchet or collar, substantially as described.

5. The combination with the transverse tubular head formed of two abutting sleeves chambered or recessed at their adjacent ends and one of the sleeves having the inner portion of its bore enlarged and provided with a longitudinal slot, extending from its inner end, and the shanks for securing the sleeves together and to the steering-post, of the rotary handle-bar extending through the said sleeves, and provided between their abutting ends with an annular ratchet or collar, and a latch consisting in a ring sliding on the handle-bar within said enlarged bore, a spring encircling the handle-bar and pressing the ring inwardly, a nose projecting from the ring toward and into engagement with said ratchet or collar and a thumb-piece projecting from the collar through said slot in the sleeve, substantially as described.

6. The combination with the transverse, tubular, chambered bearing, consisting in two abutting sleeves having means for securing them together and to the steering-post, and the handle-bar turning axially in said bearing, of a ratchet concealed within the chambered portion of the bearing, and a concealed latch entering into locking engagement with the ratchet and having an exposed operating device; the said latch-and-ratchet mechanism being exposed for cleaning and repair upon the separation of said abutting sleeves, substantially as set forth.

BENJAMIN PORTER.

Witnesses:
C. R. KENNEDY,
A. T. COLE.