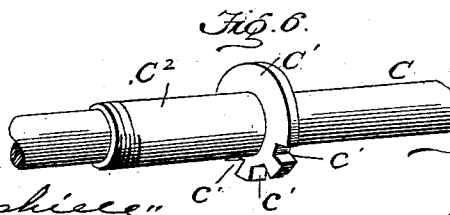
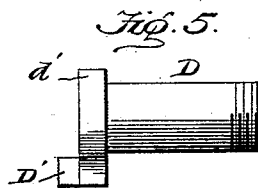
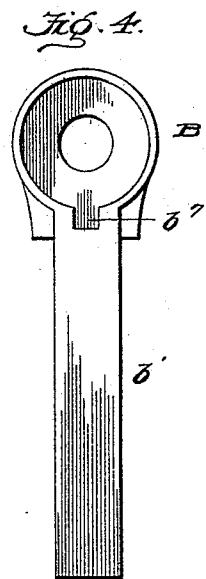
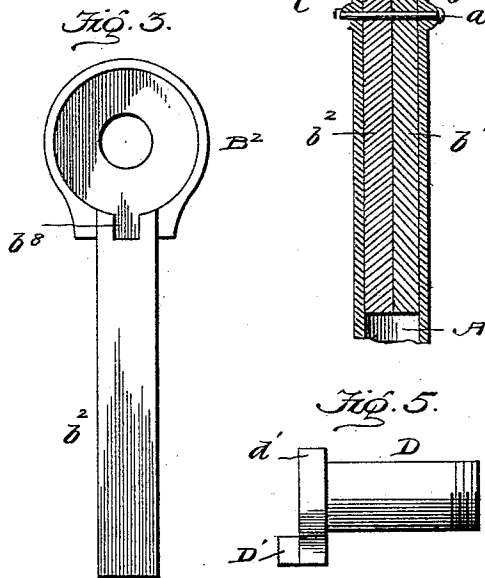
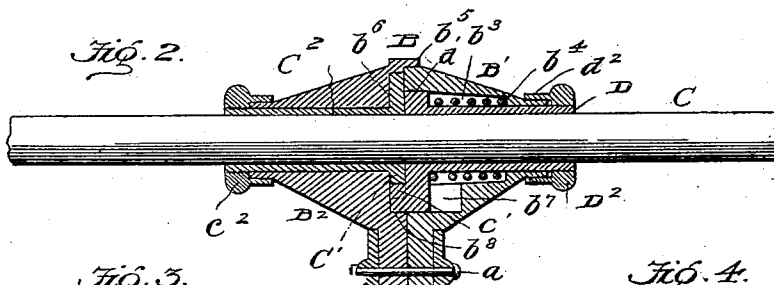
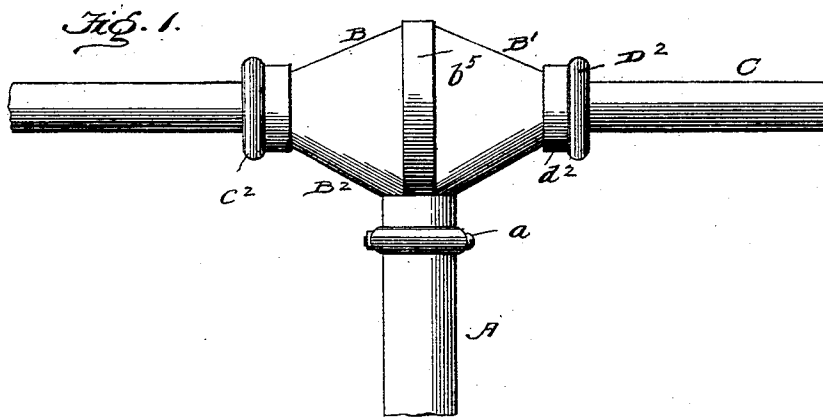


(No Model.)

B. PORTER.
ADJUSTABLE BICYCLE HANDLE BAR.

No. 569,349.

Patented Oct. 13, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

BENJAMIN PORTER, OF ELLENDALE, NORTH DAKOTA.

ADJUSTABLE BICYCLE HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 569,349, dated October 13, 1896.

Application filed May 29, 1896. Serial No. 593,621. (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 Adjustable Bicycle Handle-Bars, of which the following specification contains a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a handle-bar and steering-post having my improved adjusting mechanism. Fig. 2 is an enlarged transverse vertical section thereof. Figs. 3 and 4 show the two members of the tubular handle-bar bearing removed. Fig. 5 shows the tubular latch removed. Fig. 6 is a detail view of the handle-bar.

My invention relates to that class of handle-bars which are capable of being rotated in the steering-post bearing and adjusted so that the handles may be held in any desired position.

The object of the invention is to improve the adjusting mechanism, especially as shown and described in my application filed December 9, 1895, Serial No. 571,586, by continuing the tubular latch outwardly through and beyond the tubular bearing and there providing it with an operating-collar or annular finger-piece; also to relieve the nose of the latch from all strain by mounting it in a slot intersected by the ratchet-wheel, which has notches to register with said slot and receive the middle portion of said nose; also to strengthen the attachment of the ratchet to the handle-bar.

The invention will first be described and then specifically pointed out in the claims.

A is the tubular steering-post, and B is the transverse tubular handle-bar bearing at the upper end thereof. This bearing is formed of two sections B' B², having half-round shanks b' b², which lie face to face and enter the upper end of the post A and are there secured by the transverse bolt a. The section B' is formed with an enlarged bore b³, so as to form the annular internal shoulder b⁴, and the section B² is provided at its inner end with a flange b⁵, which overlies the inner end of the section B', and also forms a chamber b⁶ for the annular ratchet C' on the handle-bar C. This ratchet C' has transverse recesses c' across its periphery, and the bottom portions of the

abutting ends of the two sections are provided with registering recesses b⁷ b⁸, which form a slot or guideway intersecting the annular ratchet-chamber b⁶. The ratchet is provided with an elongated hub C², which extends out beyond the end of the section B², where it is threaded and provided with a collar c², screwed thereon. The ratchet C' is rigidly connected to the handle-bar by brazing its hub thereto; but I do not restrict myself to this manner of connecting the ratchet to the bar, as it may be formed integral therewith, if desired.

D is the tubular latch or bolt, sliding freely in the chamber b³ and projecting out through the end of the section B', where it is provided with external screw-threads. The inner end of the latch or bolt has an annular collar d' thereon, and between the collars d' and b⁴ is placed the spiral spring E, which tends to press the latch or bolt inwardly. The nose D' of the latch or bolt slides freely in the slot or guideway formed by the recesses b⁷ b⁸ and through whichever ratchet notch or recess c' registers therewith. The walls of the notches b⁷ b⁸ therefore receive all the strain from the handle-bar, and thus there will be no liability of the nose of the latch or bolt being broken off or forced out of engagement with the ratchet. The tubular bolt or latch is also held from rotation by reason of its nose sliding in this slot or guideway.

D² is the annular thumb-piece, screwed on the outer end of the tubular bolt or latch and having a flange d², which overlaps the outer end of bearing-section B', so as to prevent pinching the finger and also exclude dust, &c.

The handle-bar C rotates freely in the tubular latch D, but is held from longitudinal movement by means of the annular ratchet.

By removing the bolt a and withdrawing the shanks B² B³ from the steering-post and then unscrewing the collar c² and similarly appearing thumb-piece or collar D² the two bearing-sections may be moved apart along the handle-bar to expose the locking mechanism for cleaning, repair, &c.

I do not claim, broadly, in this application a ring-like or tubular latch sliding on the handle-bar and engaging a ratchet, as that is claimed in my before-mentioned application.

What I claim is—

1. The combination with the tubular bearing and the handle-bar rotating therein and provided with a ratchet, of a tubular latch or bolt mounted in the said bearing, sliding 5 freely along the handle-bar into engagement with the ratchet, and extended out through the end of said bearing and there provided with a finger-piece, substantially as and for the purpose specified.
- 10 2. The combination with the tubular bearing and the handle-bar rotating therein and provided with a ratchet, of a tubular latch or bolt mounted in the bearing, sliding freely 15 along the handle-bar into engagement with the ratchet, and extended outwardly beyond the end of the bearing, and an annular thumb-piece on the outer end of the bolt or latch and having a flange overlapping the end of the bearing, substantially as and for the purpose 20 specified.
- 25 3. The combination with the tubular bearing formed of abutting chambered sections and the handle-bar turning in the said bearing and having a fixed ratchet within the chamber formed between said abutting sections; a bolt slot or guideway being formed in the said sections and intersecting the ratchet-chamber, of a tubular bolt or latch mounted in one section, extended outwardly 30 therethrough and beyond the outer end thereof and provided at its outer end with a finger-piece, and a nose on the inner end of the tubular bolt sliding through said slot or guideway, and through the ratchet recess or opening, whereby the nose will be braced against 35 strain at both sides of the ratchet, substantially as and for the purpose specified.
4. The combination with the tubular bearing formed in two abutting chambered sections, and the handle-bar turning in said bearing, and having a ratchet within the chamber 40 between the said sections; the ratchet having a sleeve-like hub rigidly fastened to the handle-bar and extended out through one bearing-section and there provided with a 45 removable collar, a tubular bolt or latch sliding in the opposite section and provided with a spring pressing it inward, the said tubular bolt extending outwardly through and beyond the bearing-section and there provided 50 with a removable annular finger-piece and the inner end of the said bolt or latch having a nose engaging the fixed ratchet.
- BENJAMIN PORTER.
- Witnesses:
GEO. MERCHANT,
D. W. COLEMAN.