

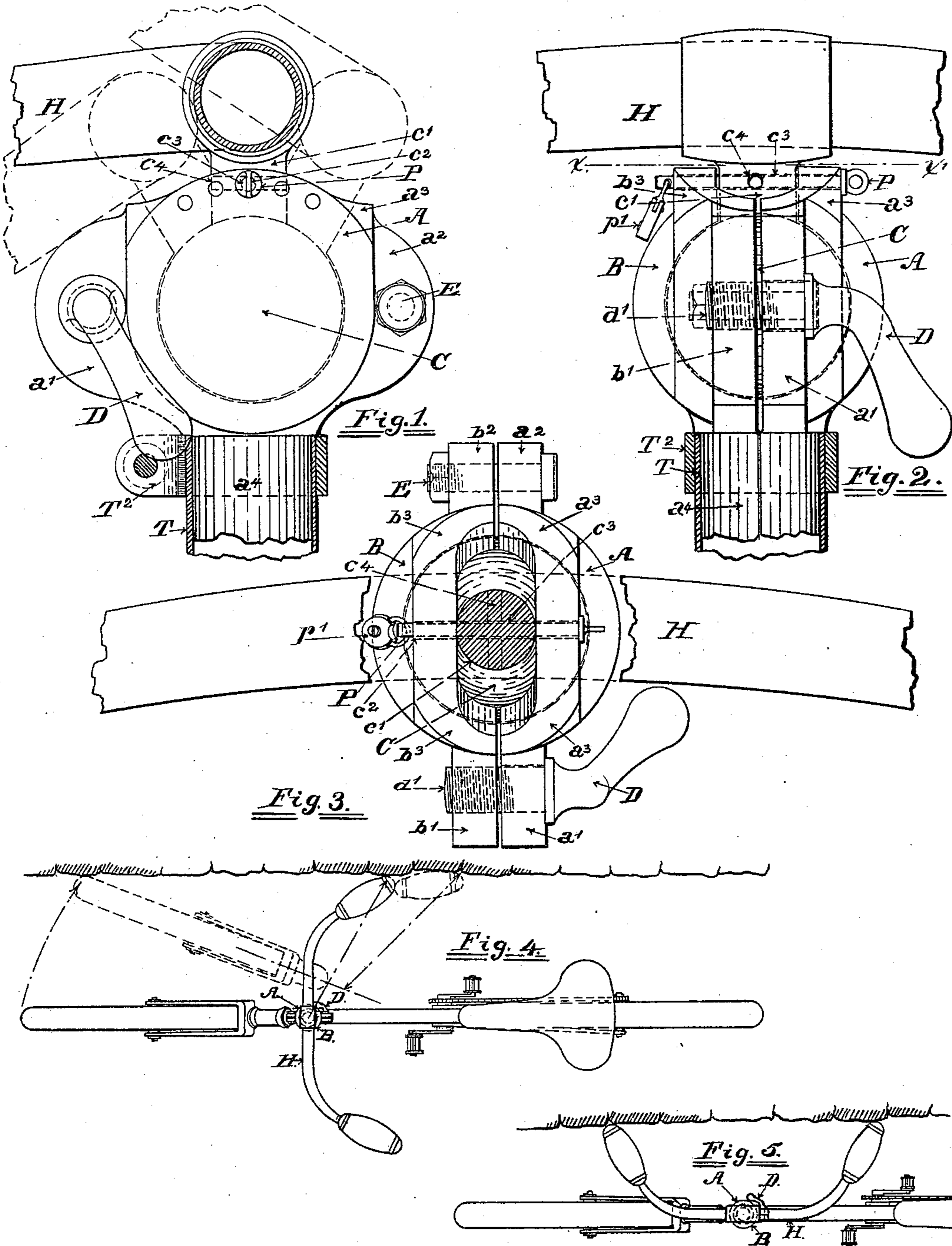
(No Model.)

W. PENBERTHY.

MEANS FOR ADJUSTING HANDLE BARS OF BICYCLES.

No. 579,682.

Patented Mar. 30, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM PENBERTHY, OF DENVER, COLORADO, ASSIGNOR OF ONE-HALF
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MEANS FOR ADJUSTING HANDLE-BARS OF BICYCLES.

SPECIFICATION forming part of Letters Patent No. 579,682, dated March 30, 1897.

Application filed May 25, 1896. Serial No. 592,973. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PENBERTHY, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Means for Adjusting the Handle-Bars of Bicycles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in means for adjusting the handle-bars of bicycles whereby the handles may be raised and lowered at pleasure and also turned to afford a suitable brace for the machine when leaned against a wall or other upright support.

My improved adjusting mechanism consists of the features hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a front view of the device. Fig. 2 is a side elevation thereof, the handle-bar being shown in three positions, two of which are illustrated by dotted lines. Fig. 3 is a horizontal section taken through the stem of the handle-bar, fragments of which are shown extending on either side. Fig. 4 illustrates a bicycle equipped with my improvements, the position of the front wheel and handle-bar previous to adjusting the latter being indicated by dotted lines. Fig. 5 illustrates the position of the handle-bar when adjusted to form a brace.

Similar reference-characters indicate corresponding parts in the views.

Let H designate the handle-bar, carrying a neck c' . On the lower extremity of this neck is formed a ball C, inclosed in a two-part socket A B, connected by bolts D and E. The socket parts A B are formed integral with the stem a^4 , connected with the post of the front fork by a suitable clamp T^2 . The part A of the socket is provided with apertured lugs a' and a^2 . The part B is provided with similar lugs b' and b^2 , having threaded apertures reg-

istering with the apertures in lugs a' and a^2 . The bolts D and E pass through these apertures in the socket parts. The bolt E is fastened by a nut, while the bolt D is equipped with a handle or crank to facilitate adjustment.

The neck c' projects through a slot or elongated opening formed in the socket A B, half of the opening being in each part. To adjust the handle-bars, it is only necessary to loosen the bolt D sufficiently to allow the ball C to move in the socket. The handle-bar may then be raised or lowered at will. This adjustment is illustrated in Fig. 1, in which three positions are shown, one in full lines and two in dotted lines. As the handle-bar is adjusted the neck c' moves in the slot or opening in the top of the socket. When properly adjusted, the bolt D is tightened sufficiently to hold the ball C in place.

It is evident from the construction described that the mechanism allows the handle-bar another adjustment, namely, that illustrated in Fig. 5. In this case the axis of rotation passes through the center of the neck c' and the center of the ball C. Hence this axis coincides with that diameter of the ball which when produced passes longitudinally through the center of the neck. In effecting this adjustment the handle-bar may be turned to occupy any desired angle with its normal position. In Fig. 5 the handle-bar is turned at right angles to its normal position or that illustrated in Fig. 4. When in the position shown in Fig. 5, the handle-bar becomes an efficient brace for the machine when leaned against a vertical wall or similar upright support.

The neck c' is provided with intersecting apertures c^3 and c^4 , formed at right angles to each other and adapted to register with a number of apertures formed in each socket part A B. The handle-bar may be locked in any desired position of adjustment by passing a pin P through an aperture in each part and one of the apertures in the neck. When the handle-bar is in the riding position, as shown in Figs. 1 to 4, inclusive, the pin is passed through the aperture c^4 of the neck, which then registers with the apertures in the socket parts. When, however, the han-

dle-bar is adjusted to afford a supporting-brace, (see Fig. 5,) the pin passes through the aperture c^3 of the neck, which then registers with the apertures in the socket parts.

5 One extremity of the pin P is provided with a hole through which the hasp of a padlock P' may be inserted, whereby the pin may be locked against removal by any one except the person holding the key thereof. This
10 locking feature is particularly useful when the handle-bar is adjusted, as shown in Fig. 5, since the machine cannot be ridden until the bar is turned to its normal position or that shown in Fig. 4, and this cannot be ac-
15 complished except by the person holding the key to the lock. Hence my improved mechanism forms an efficient safeguard against theft.

Having thus described my invention, what
20 I claim is—

1. The combination with the handle-bar having a depending apertured neck terminating in a ball, the twin socket parts inclosing the ball and terminating in a stem adapted
25 to be connected with the post of the front fork, suitable bolts connecting the socket

parts, each of said parts being provided with a number of apertures adapted to register with the aperture in the neck and a locking-pin adapted to be inserted in the aperture of the neck and socket parts substantially as described.

2. The combination with the handle-bar having a depending apertured neck terminating in a ball, the twin socket parts inclosing the ball and terminating in a stem adapted to be connected with the post of the front fork, suitable bolts connecting the socket parts, one of said bolts being provided with a crank, the socket parts being each provided with a number of apertures adapted to register with the aperture in the neck, a locking-pin adapted to pass through the registering apertures in the neck and socket parts, and a suitable lock applied to one extremity of the pin substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM PENBERTHY.

Witnesses:

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