

No. 616,412.

Patented Dec. 20, 1898.

W. W. DIRKSEN.
ADJUSTABLE HANDLE BAR.

(Application filed Sept. 22, 1897.)

(No Model.)

Fig. 1.

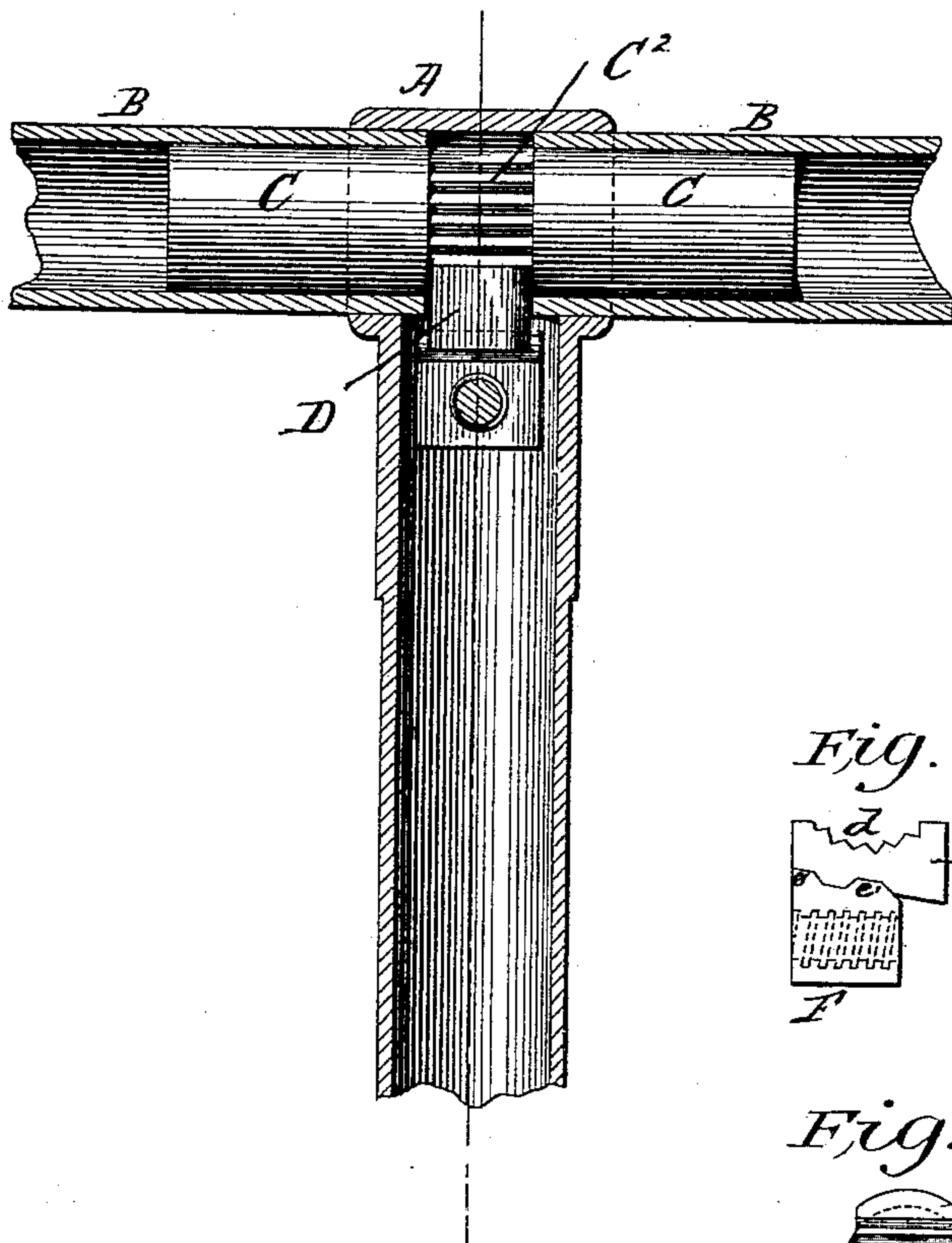


Fig. 2.

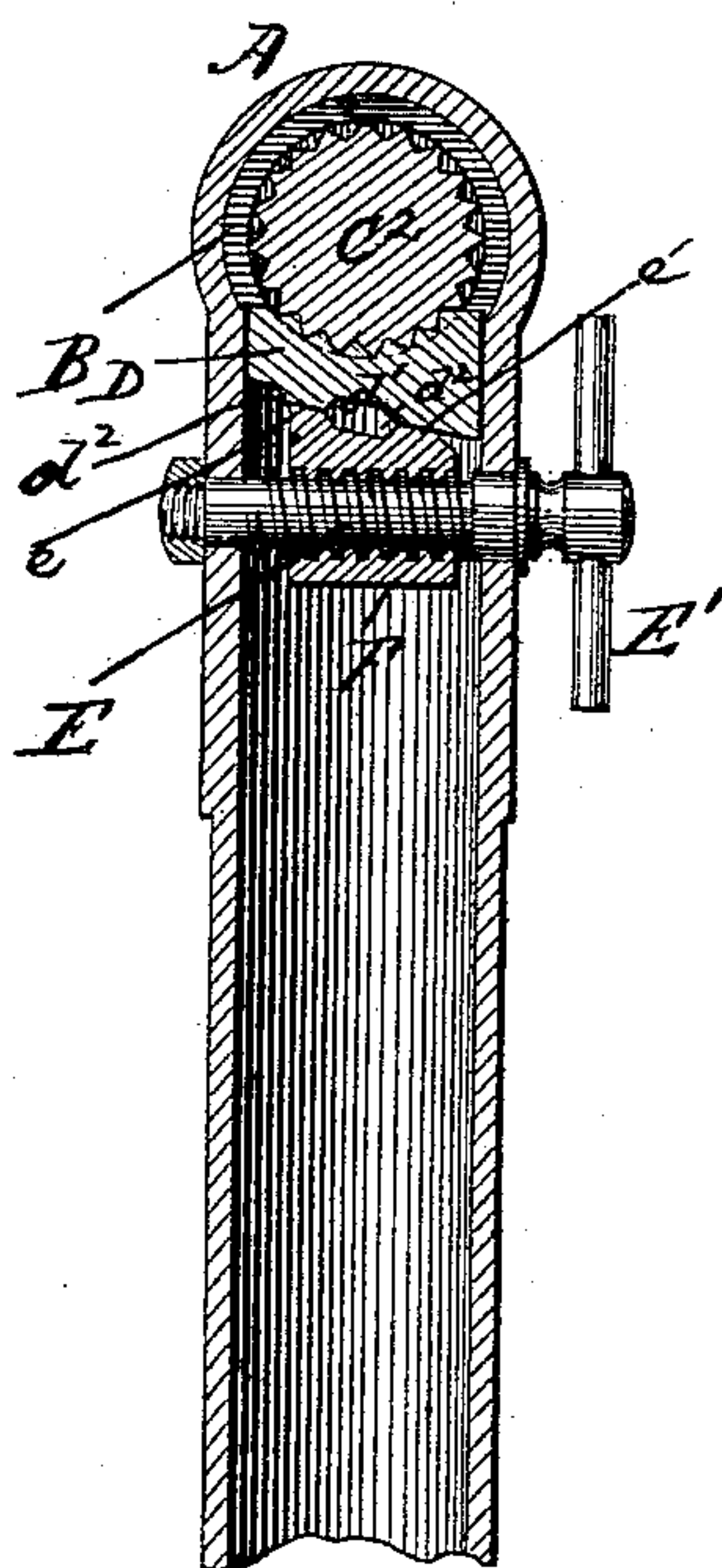


Fig. 3.

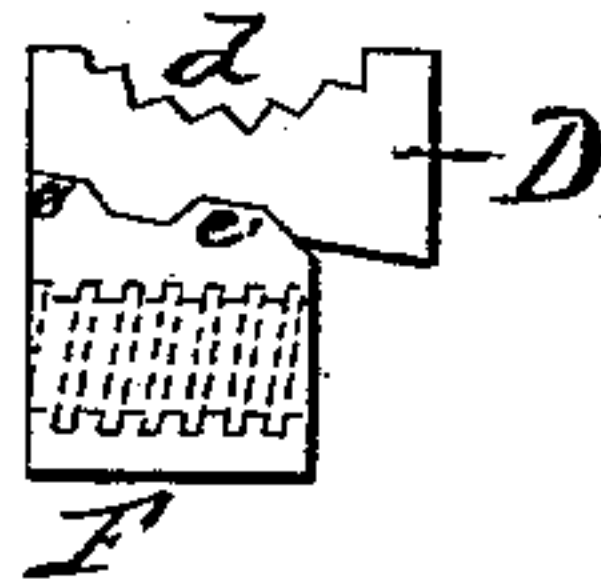
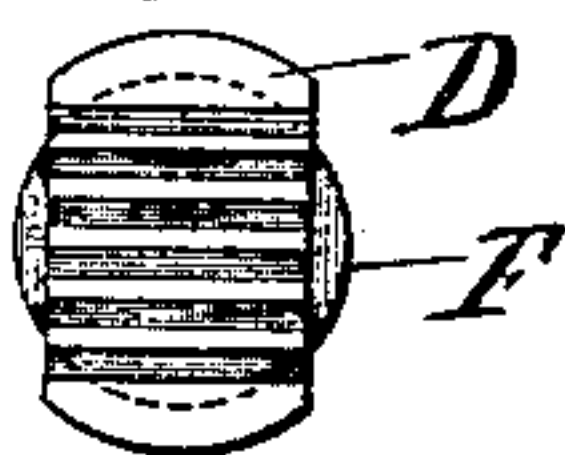


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM W. DIRKSEN, OF JAMESTOWN, NEW YORK, ASSIGNOR OF ONE-HALF TO JACOB OPPENHEIMER, OF SAME PLACE.

ADJUSTABLE HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 616,412, dated December 20, 1898.

Application filed September 22, 1897. Serial No. 652,600. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. DIRKSEN, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Adjustable Bicycle Handle-Bars; 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 devices for adjusting handle-bars of bicycles, whereby the same may be readily raised or lowered and rigidly held at any desired angle of adjustment, and at the same time permitting such adjustment while the machine is in motion and without the use of a wrench or other tool.

The invention consists in a novel construction of locking device to permit the adjustment of the handle-bars, acting to rigidly hold the same in any of the various angles of adjustment.

It further consists in so constructing the parts that the same, while permitting such adjustment of the handle-bars, shall also act to hold the handle-bar endwise relative to the head or T piece and to certain novel features in the construction of parts, all as hereinafter described.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through the head and inner ends of the handle-bar, showing my improvements applied. Fig. 2 is a vertical cross-section on the line $x x$, Fig. 1. Fig. 3 is a side elevation of the locking parts detached. Fig. 4 is a top view of the locking-dog with the sliding clamp partly in dotted lines.

The T-head A and handle-bars or tubes B B may be of any usual or desired construction, said tubes B B being connected to a center piece C by brazing or otherwise, as shall be found most desirable. This center-piece consists of the cylindrical end portions, to which the tubular handles are connected, and a central toothed portion C², which central toothed

portion is made somewhat narrower than the opening in the stem, so that the ends of the handle-bars or tubes shall project in beyond the wall of said stem for a purpose hereinafter described. 55

A dog D, provided with a concaved toothed piece d , is loosely mounted in the head, but of a width to closely engage the inner ends of the handle-bars or tubes and by such engagement 60 to prevent the endwise movement of the handle-bar. The lower face of the dog is formed on an incline and is provided with recesses d' , having inclined side walls d^2 , hereinafter referred to. 65

Mounted on a screw-threaded shaft E is a sliding plate F, provided with an inclined face e and projections e' to engage the inclined face of the dog and the recesses formed therein in the manner and for the purpose hereinafter described. 70

The shaft E is mounted in the stem in any preferred manner and is provided on the end with a handpiece E' in position to be within convenient reach of the rider. It will thus be seen that the rider by turning the handpiece can reciprocate the plate F and either force the dog up into engagement with the toothed portion of the center piece and by such engagement lock the same, and with it 80 the handle-bars, firmly engaged with the head or release the same from engagement and allow the dog to drop and out of engagement when it is desired to adjust the handle-bars, the dog, however, always engaging the inner 85 ends of the handle-bars, as before stated, to prevent the endwise displacement thereof.

When the parts are in position shown in Fig. 3, the projections e' on the sliding plate are shown engaged with the recesses in the dog in the position the parts assume when said dog is released from engagement with the toothed center piece, and in Fig. 2 the parts are shown in the position they assume when the dog is firmly engaged with the said toothed 95 center piece and by which it will be seen that the dog will be abruptly raised into engagement with the toothed center piece upon a slight movement of the handpiece.

Having now described the invention, what is claimed as new, and sought to be secured by Letters Patent, is— 100

1. In a device for permitting the adjustment of the handle-bars of bicycles, the corrugated or roughened center portion, a dog provided with a similar face to engage the center portion and having its lower face formed on an incline, in combination with a reciprocal plate provided with a similar inclined face to engage the dog, and means for reciprocating said plate.
2. In a device for permitting the adjustment of handle-bars, the combination with the handle-bars provided with the corrugated or roughened central portion, a dog provided with a concaved toothed face, and a face formed on an incline, a plate provided with an inclined face to engage the same, a screw on which the same is mounted, and a hand-piece for rotating the screw to reciprocate the plate for the purpose and substantially as described.
3. In a device for permitting the adjustment of the handle-bars, the handle-bars or tubes connected to a center piece, the bars extend-

ing in beyond the inner wall of the stem, a toothed portion formed in the center piece, a dog to engage the toothed portion for locking the handle-bars and to engage the ends of the bars to prevent end movement of the same and means for operating the locking-dog substantially as described.

4. The combination with the handle-bar provided with the roughened or corrugated central portion, a dog provided with a similar face and with a lower inclined face with recesses formed therein, a worm-screw, and a plate also provided with an inclined face and recesses substantially as described, whereby to act to abruptly raise the dog into contact with the handle-bar as set forth.

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

WILLIAM W. DIRKSEN.

Witnesses:

D. D. WOODFORD,
V. H. MARTNO.