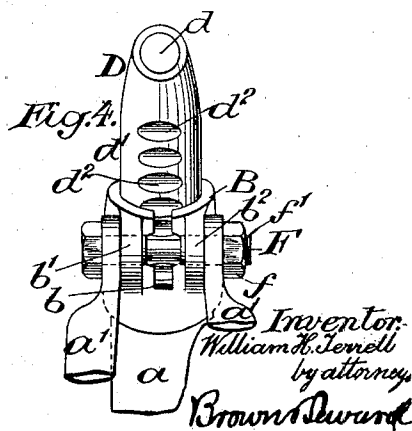
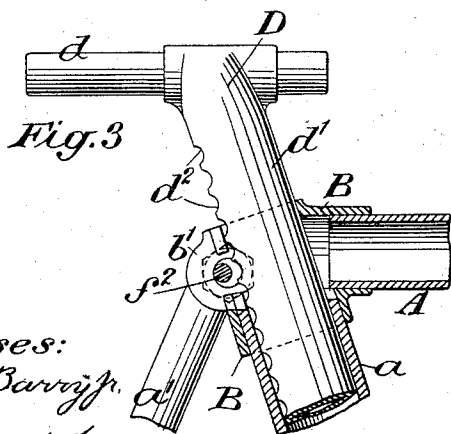
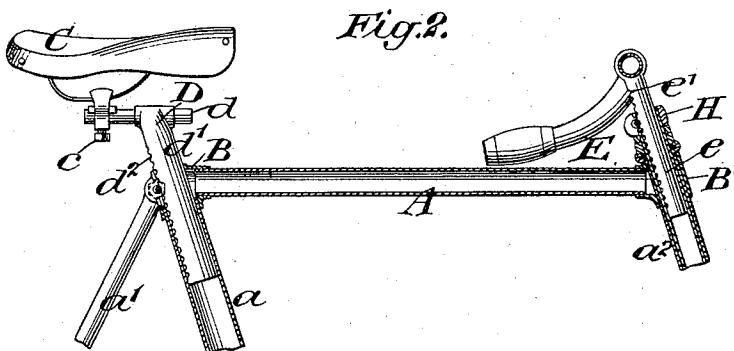
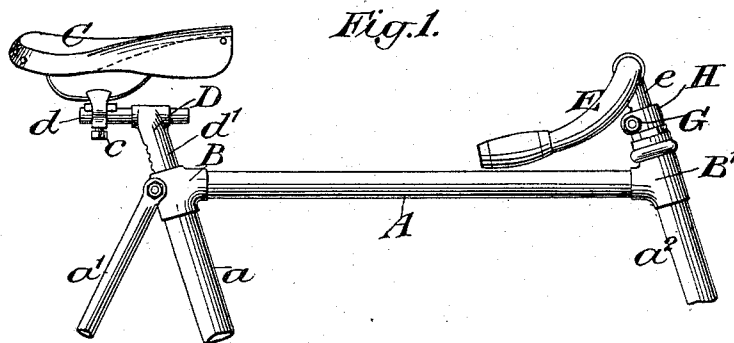


(No Model.)

W. H. TERRELL.  
CLAMP.

No. 566,487.

Patented Aug. 25, 1896.



Witnesses:  
George Barry Jr.  
R. B. Sward.

Inventor:  
William H. Terrell  
by attorney,  
Brown & Sward.

# UNITED STATES PATENT OFFICE.

WILLIAM H. TERRELL, OF YONKERS, NEW YORK.

## CLAMP.

SPECIFICATION forming part of Letters Patent No. 566,487, dated August 25, 1896.

Application filed October 28, 1895. Serial No. 567,154. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. TERRELL, of Yonkers, in the county of Westchester and State of New York, have invented a new and useful Improvement in Clamps, of which the following is a specification.

The object of my invention is to provide a simple and effective device for clamping two telescoping sections together in such a manner as to positively lock the two parts together both against longitudinal slipping or lateral twisting, the clamping being of such form that it may quickly and readily release the two parts when so desired.

This invention is more particularly applicable for use in connection with the class of bicycles in which it is desirable to quickly and accurately adjust the saddle-post and handle-bars to suit people of different heights.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view in side elevation of the upper portion of a bicycle. Fig. 2 is a view of the upper portion of a bicycle in longitudinal vertical section. Fig. 3 is an enlarged detail view of the saddle-post and its adjacent parts, the socket-piece and a portion of the center brace and upper brace of the frame being shown in vertical central section; and Fig. 4 is a back view of the parts shown in Fig. 3.

The upper tubular brace of the bicycle-frame is denoted by A, the center brace by a, the rear brace by a', and the steering-head by a<sup>2</sup>. The socket-piece which connects the braces a', a, and A together is denoted by B, and the bracket which secures the forward end of the brace A to the steering-head is denoted by B'.

The saddle is denoted by C, and it is secured in the usual manner upon the horizontal bar d of the saddle-post D by a suitable clamp c. The downwardly-extended portion of the saddle-post D is denoted by d'.

The handle-bars are denoted by E, and the handle-bar post to which they are secured is denoted by e.

Proceeding to describe my improved clamp, I will first describe the method of clamping the saddle-post and afterward the method of

clamping the handle-bar post. The saddle-post socket-piece B is split, as shown at b, as is usual, and upon opposite sides of said split portion lugs or ears b' b<sup>2</sup> are formed, through which the clamping-screw F extends. The openings in the ears or lugs b' b<sup>2</sup> are sufficiently large to allow of the free turning of the screw F therein. A clamping-nut f is adapted to engage the screw-threaded portion f' of the clamping-screw F, as is usual. The clamping-screw F also passes through the ends of the rear braces a' of the bicycle-frame, which ends are preferably located upon the outside of the ears or lugs b' b<sup>2</sup>.

The opposite walls of the split portion of the socket-piece B are preferably considerably cut away opposite the clamping-screw F for allowing the eccentric, hereinafter to be described, to engage with the saddle-post D. The downwardly-extended portion d' of the saddle-post D is provided with transverse notches d<sup>2</sup>, which are arranged in a vertical row along the back of the said downwardly-extended portion d'.

The clamping-screw F is provided with a suitable eccentric f<sup>2</sup>, which is adapted to be turned into engagement with one of the notches d<sup>2</sup> to lock the saddle-post to the socket-piece B. In the accompanying drawings I have shown this eccentric as being formed by cutting away a portion of the clamping-screw F, but, if so desired, the eccentric might be formed upon the exterior of the said screw. The screw F is so located with respect to the saddle-post D that when the eccentric portion f<sup>2</sup> is turned out of engagement with the notches d<sup>2</sup> the said saddle-post may be freely slid up and down within the socket-piece B.

In operation when it is desired to change the height of the saddle the clamping-nut f' is first unscrewed, and the screw F is then turned until the eccentric portion f<sup>2</sup> is released from one of the notches d<sup>2</sup>. The saddle-post is then raised or lowered to the point desired, and the clamping-screw F is then turned back until the eccentric portion f<sup>2</sup> engages the notch opposite the screw F. The nut f is then screwed up tightly. This tightening of the nut f will lock the screw F against turning and will thereby lock the saddle-post firmly within the saddle-post socket-piece B.

Proceeding to describe the manner of adjusting the handle-bars E up and down, the handle-bar post *e* is provided with a series of transverse notches *e'*, disposed in a vertical row along its back portion, similar to the notches *d'* upon the saddle-post D. These notches are engaged in a similar manner to the notches *d'* by a suitable clamping-screw G, mounted in the handle-bar clip H.

The notches upon the saddle-post or handle-bar post may be at any desired distance apart and may be of the required depth to firmly engage the eccentrics upon the clamping-screws, so that when the said posts are locked in position they will be effectually prevented from slipping downwardly or from twisting within their sockets.

It will further be seen that the saddle and the handle-bars, when locked in position, are perfectly alined with respect to the bicycle, so that it does not require experimenting to get them in the proper alinement. By the use of these notches the rider may find out into what particular notch in the saddle-post or the handle-bar post the eccentrics upon the clamping-screws must be inserted to get the proper height adjustment, and after having once found out the proper notch it will be very easy for the rider to return the saddle or handle-bars to the proper position if they have been adjusted in the meantime for some other person.

While I have described my invention in connection with a bicycle, it is to be understood that it may be used to great advantage in clamping two telescoping sections together

where it is desired to lock them firmly against longitudinal slipping or twisting.

It is evident that slight changes might be resorted to in the construction and operation of the several parts without departing from the spirit and scope of my invention. Hence I do not wish to limit myself strictly to the structure herein set forth; but

What I claim is--

1. In combination, a split socket-piece, a post adapted to slide within the socket-piece and provided with a series of transverse notches, a clamping-screw carried by the socket-piece for clamping the post to the socket-piece, an eccentric on the screw in position to be engaged with one of the notches on the post for further locking the post against longitudinal or lateral movement and means for locking the screw to the socket-piece, substantially as set forth.

2. In combination, a socket-piece, a post adapted to slide within the socket-piece and provided with a series of transverse notches, a clamping-screw carried by the socket-piece and having its body portion cut away to form an eccentric, said eccentric being adapted to engage one of the said notches in the post for locking it against movement in any direction, and a nut engaging said screw for clamping the screw against movement within the socket-piece, substantially as set forth.

WILLIAM H. TERRELL.

Witnesses:

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