

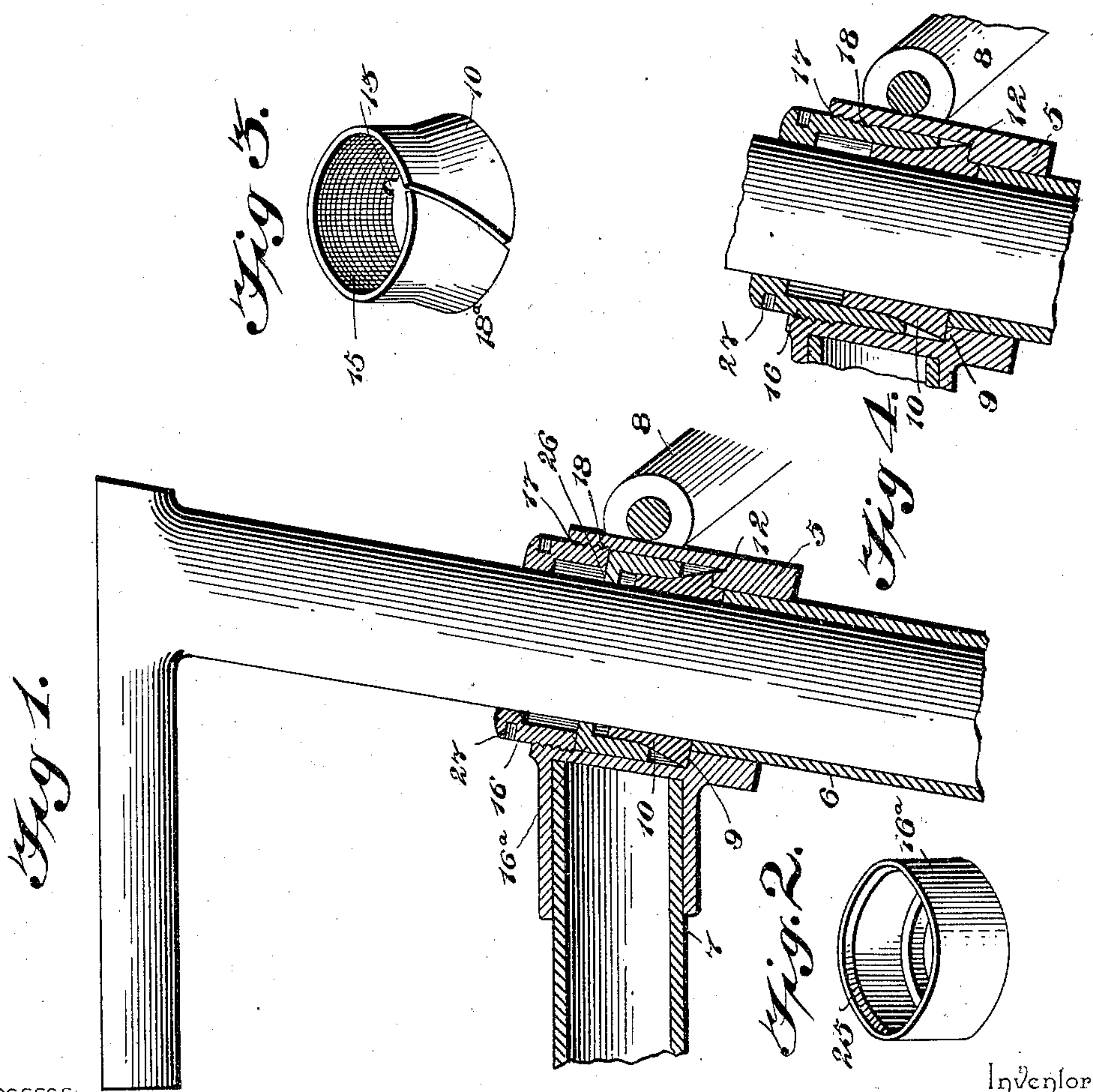
No. 656,567.

Patented Aug. 21, 1900.

J. B. L. MCKENZIE.  
BICYCLE SEAT POST CLAMP.

(Application filed Feb. 6, 1900.)

(No Model.)



Witnesses

John Maupin  
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By *His* Attorneys, JBL McKenzie

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# UNITED STATES PATENT OFFICE.

JOEL BARLOW LAING MCKENZIE, OF RAHWAY, NEW JERSEY.

## BICYCLE-SEAT-POST CLAMP.

SPECIFICATION forming part of Letters Patent No. 656,567, dated August 21, 1900.

Application filed February 6, 1900. Serial No. 4,252. (No model.)

*To all whom it may concern:*

Be it known that I, JOEL BARLOW LAING MCKENZIE, a citizen of the United States, residing at Rahway, in the county of Union and State of New Jersey, have invented a new and useful Bicycle-Seat-Post Clamp, of which the following is a specification.

This invention relates to clamps for the seat-posts of bicycles, whereby the seat-post may be clamped at different points of its adjustment to hold the seat at different elevations, the object of the invention being to provide a cheap and simple construction which will positively hold the seat-post in any position and in which, moreover, there will be no objectionable and unsightly protruding parts.

In the drawings forming a portion of this specification, and in which similar numerals of reference designate like and corresponding parts in the several views, Figure 1 is a view, partially in section and partially in elevation, showing the clamping mechanism carried by the seat-tube forging and gripping the seat-post shown in elevation. Fig. 2 is a detail perspective view of the follower shown in Fig. 1, the position of the follower being reversed. Fig. 3 is a detail perspective view showing the split clamping-ring. Fig. 4 is a sectional view similar to Fig. 1, showing a modification of the invention.

Referring now to the drawings, and more particularly to Figs. 1 and 3, 5 represents the seat-tube forging of a bicycle-frame and to which are connected the seat-tube 6, the top bar 7, and the rear forks 8 in the usual manner. The lower end of the forging 5, which receives the seat-tube 6, has its internal diameter contracted to form a shoulder 9, and within the upper enlarged portion of the forging is disposed a split clamping-ring 10, which rests upon the shoulder 9 and is held from rotation by means of a lug 12, which enters a recess 13 in the lower end of the ring. As shown in the drawings, the split ring 10 has a constant internal diameter, and its inner face is serrated or roughened to secure an efficient grip upon the seat-post. In exterior shape the split ring is cylindrical at its upper portion and is frusto-conical at its lower portion, and in this ring is formed a cut which gives it its split feature, the cut or split being spirally disposed from the upper

edge of the cylindrical portion through the lower edge of the frusto-conical portion and in the direction of rotation of the follower, hereinafter described, to compress the ring. In order to contract this split ring 10 upon the seat-post, a follower 16<sup>a</sup> is disposed slidably within the forging 5, and this follower is in the form of a ring, the inner face of the lower end of which is beveled, as shown at 25, to bear against the tapered portion of the split ring 10, while at the opposite end of the follower is formed an inwardly-directed flange 26, which fits snugly or is adapted to snugly receive the seat-post. A tubular nut 16, having exterior threads 17, is engaged with the threads 18 upon the inner face of the upper end of the forging 5 and is provided with perforations 27 to receive the lugs of a spanner, through the medium of which the nuts may be screwed downwardly and into the forging and correspondingly move the follower upon the split ring to contract it. This operation will cause the split ring to engage the seat-post continuously, and thus firmly hold it with a minimum of pressure, which is not the case where the seat-post is engaged at separate points.

It will be noted that the split 18<sup>a</sup> of the ring is formed at the opposite side of the ring from the recess 13 in order that the engagement of the lug 12 with the recess will not interfere with the contraction and expansion of the ring. This ring is of spring material, so that when the follower is moved upwardly the ring will expand to release the seat-post and permit it to be adjusted.

In Fig. 4 of the drawings there is shown a construction which is the same in every respect as that shown in Fig. 1, with the exception that in substitution of a separate follower and operating-nut these parts are formed integral.

It will be seen that in either of the constructions described the follower may be manipulated to cause the split ring to grip the seat-post continuously of the ring, so that all parts of the ring are closely engaged with the seat-post instead of engaging at intervals.

It will be understood that the nut in each instance may have an angular head for engagement by a wrench and that other modifications may be made in the manufacture of



the structure without departing from the spirit of the invention.

What is claimed is—

1. In a seat-post clamp, the combination  
5 with a hollow block having an interior shoulder provided with a lug, of a split ring disposed upon the shoulder and having a recess with which the lug is engaged to hold the ring from rotation, the upper portion of the ring  
10 being cylindrical and the lower portion thereof frusto-conical and the ring having a serrated inner face, a follower within the block and adapted to receive the frusto-conical portion of the ring to contract the latter, the split  
15 of the ring being disposed spirally from the upper edge thereof to the lower edge, and means engaged with the block for operating the follower.

2. In a seat-post clamp, the combination  
20 with a hollow block having an interior shoulder

provided with a lug, of a split ring disposed upon the shoulder and having a recess with which the lug is engaged to hold the ring from rotation, the upper portion of the ring being cylindrical and the lower portion thereof frusto-conical and the ring having a serrated inner face, and a follower movable in the block and adapted to receive and impinge the frusto-conical portion of the ring to contract the latter, the split of the ring being  
25 spirally disposed from the upper edge thereof in the direction of rotation of the follower to compress the ring.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in  
35 the presence of two witnesses.

JOEL BARLOW LAING MCKENZIE.

Witnesses:

R. S. HARRISON,  
H. M. BENNITT.