

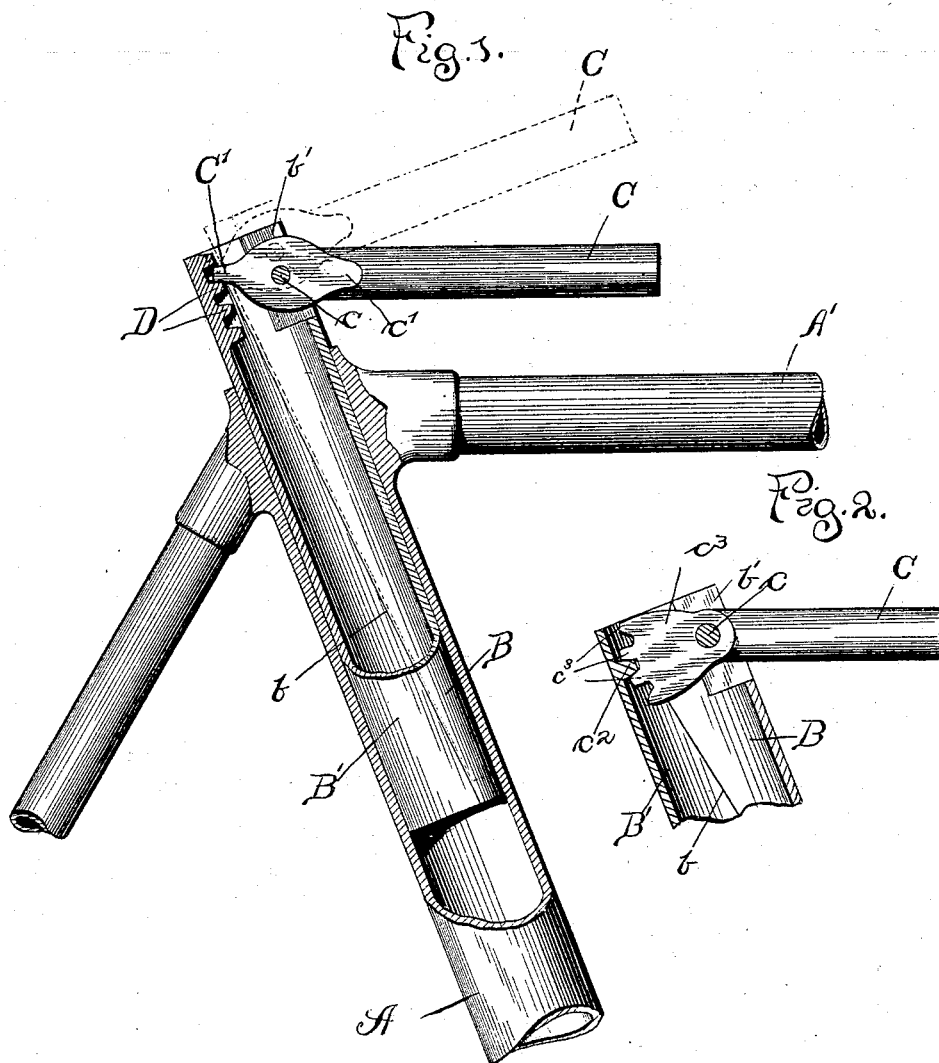
No. 650,100.

Patented May 22, 1900.

T. F. SHERIDAN.  
SEAT POST FOR BICYCLES.

(Application filed Aug. 7, 1899.)

(No Model.)



Witnesses:

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# UNITED STATES PATENT OFFICE.

THOMAS F. SHERIDAN, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THOMAS A. BANNING, OF SAME PLACE.

## SEAT-POST FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 650,100, dated May 22, 1900.

Application filed August 7, 1899. Serial No. 726,408. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS F. SHERIDAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Seat-Posts for Bicycles, of which the following is a specification.

My invention relates more particularly to that class of seat-posts which are used in connection with bicycles of the safety or rear-driven type, a type of bicycles in which there is a diamond or other frame having what is known as a "pillar-tube" in which the seat-post is insertible, and particularly to the means by which this seat-post is automatically held in position, adjusted, or removed from its position, as will more fully herein-after appear.

The principal object of my invention is to provide a simple, economical, and efficient seat-post for bicycles formed of two wedges, to one of which is pivoted the seat-post lever by which the post is held in position or removed therefrom; and the invention consists in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a broken elevation of a portion of a bicycle-frame fitted with a seat-post constructed in accordance with my improvements and partly in section; and Fig. 2, an elevation of a portion of a seat-post, showing a modified form, partly in section.

In the art to which this invention relates it is well known that the seat-post formed of two plano-convex wedges is the best type in the art; and the object of my invention is to improve this type by simplifying its construction, reducing the cost of its manufacture, and providing means for making desired adjustments to compensate for wear, so that the seat-supporting lever can occupy at all times a substantially-horizontal plane.

In constructing my improvements and using them in connection with the pillar-tube A of a bicycle-frame I provide a seat-post formed of two wedges, one of which, B, is tapered downwardly and has its large end at the top and the other of which is tapered upwardly

and has its large end at the bottom and which preferably form two plano-convex wedges. These parts may be formed of a tube split diagonally, as shown at *b*, or of two substantially-semicylindrical wedges which are struck up from appropriate blanks.

To hold the saddle in position and at the same time firmly secure the seat-post in engagement with the pillar-post of a bicycle, a seat-supporting lever C is provided and pivoted at *c* to the downwardly-tapering member. This seat-supporting lever is preferably formed of a tube flattened at *c'*, so that it is considerably narrower at this point than it is in diameter at the cylindrical point to enable it to easily enter a slot in the upper end of the downwardly-tapering member. This member is preferably provided with a block or flat surface *b'*, which may be brazed therein or formed integral with the wedge by swaging inwardly.

As above suggested, the seat-supporting lever is pivotally secured to the downwardly-tapering member of the seat-post. It also has a rearwardly-extending portion C', arranged to engage with a toothed rack D on the inner surface of the upwardly-tapering member of the seat-post. This construction is provided for the purpose of permitting the lever when the saddle is placed thereon and is depressed either by the weight of the rider or by hand to force the other member upwardly, and thus lock the parts in position. It also provides a means for compensating for wear of the parts or the expanding of the pillar-tube. For instance, should the pillar-tube of the bicycle-frame expand to such an extent that the seat-supporting lever would be tilted downwardly and its free end contact the upper tie-rod A' it would in ordinary instances be necessary to raise the entire seat-post and at the same time change the inclination of the saddle. With this construction, however, the extending portion C' of the seat-supporting lever can be arranged to engage the next lower tooth in the rack, and thus compensate for the expansion and permit the seat-supporting lever to occupy at all times when in use a substantially-horizontal position.

When it is desired to remove my improved seat-post from connection with a bicycle-frame, all that is necessary to do is to raise the seat-supporting lever to the position shown in dotted outline in the drawings, which action raises the downwardly-tapering member of the post, relaxes the wedge action, and thus permits both parts to be removed from the pillar-tube or frame.

In Fig. 1 of the drawings I have shown the upwardly-tapering member of the seat-post as provided with a rack or recesses or indentations adapted to engage with an extension on the seat-supporting lever. It will be readily seen, however, that these parts can be reversed—that is, the upwardly-tapering member of the post could have a single tooth projection  $c^2$  and the rear portion of the seat-supporting lever could be made in the form of a segmental gear  $c^3$  and arranged in the form shown in Fig. 2 of the drawings.

I claim—

1. In a seat-post for bicycles, the combination of two tapering members forming wedges, and a seat-supporting lever pivotally secured to one member and adjustably engaging directly with the other member, whereby the adjusting engagement is had wholly through the parts themselves, substantially as described.

2. In a seat-post for bicycles, the combination of a downwardly-tapering member, an upwardly-tapering member, a seat-supporting lever pivoted to the downwardly-tapering member and adjustably engaging directly

with the upwardly-tapering member, substantially as described.

3. In a seat-post for bicycles, the combination of a downwardly-tapering member, an upwardly-tapering member, a seat-supporting lever pivotally secured to the downwardly-tapering member and having a rearwardly-extending portion, and a tooth or projection on the upwardly-tapering member engaging with the extending portion of the seat-supporting lever, substantially as described.

4. In a seat-post of the class described, the combination of a downwardly-tapering member having plano-convex surfaces, an upwardly-tapering member having plano-convex surfaces and provided with a tooth on its inner surface, and a seat-supporting lever pivoted to the downwardly-tapering member and provided with a rearwardly-extending portion engaging the tooth of the upwardly-tapering member, substantially as described.

5. In a seat-post for bicycles, the combination of a downwardly-tapering member, an upwardly-tapering member, a seat-supporting lever pivotally secured to the downwardly-tapering member and provided with a rearwardly-extending portion entering a recess or indentation in the upwardly-tapering member, substantially as described.

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