(No Model.)

R. A. KANE.

TELESCOPIC JOINT.

No. 546,699. Patented Sept. 24, 1895.

Fig. 2.

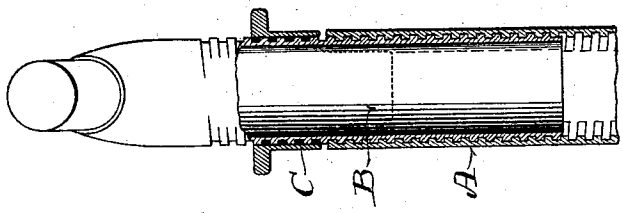


Fig. 1.

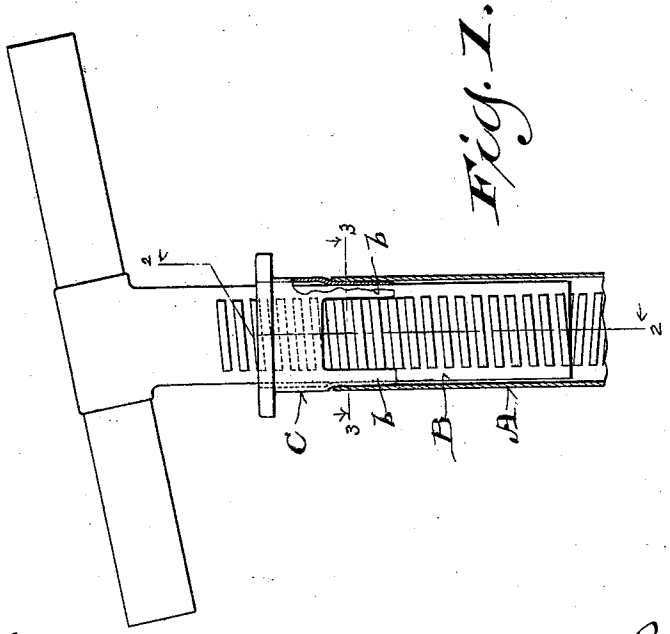
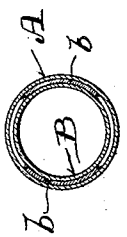


Fig. 3.



Witnesses:
Geo. W. Young,
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UNITED STATES PATENT OFFICE.

ROBERT A. KANE, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF TO CHARLES J. BODENBACH, OF SAME PLACE.

TELESCOPIC JOINT.

SPECIFICATION forming part of Letters Patent No. 546,699, dated September 24, 1895.

Application filed July 10, 1895. Serial No. 555,483. (No model.)

To all whom it may concern:

Be it known that I, ROBERT A. KANE, a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Telescopic Joints; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for one of its objects to provide for the ready vertical adjustment of bicycle saddle-posts and handle-bar shanks without the use of a wrench. However, the application of said invention is various; and it consists in certain peculiarities of construction and combination of parts constituting a telescopic joint, as hereinafter set forth, with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents an elevation of one application of my telescopic joint, partly in section; Fig. 2, a section of the same as viewed on line 2 2 of the preceding figure, and Fig. 3 a horizontal section taken on line 3 3 of the first figure.

Referring by letter to the drawings, A represents the upper portion of a bicycle-seat-post tube, and in accordance with my invention the interior of this tube is preferably provided with two series of alternate ridges and depressions, each series being diametrically opposite the other and occupying approximately one-quarter of the inner circle of said tube. It may be desirable in some instances to employ only one series of the alternate ridges and depressions or to have more than two series; but this is a matter of mechanical detail and does not in any way affect the invention.

As a matter of convenience in the manufacture of my invention, the upper end of the tube A is tapped for a suitable distance and then operated upon by a suitable tool to cut away the thread at one or more intervals of the circle, the remainder of the thread being the alternate ridges and depressions above specified.

Engaging the tube is a saddle-post B, exteriorly provided with alternate ridges and depressions similar to those in the said tube, and loose on the post is a flanged sleeve C, having as many depending preferably tapered tongues *b* as there are interruptions of the alternate ridges and spaces on said post, the tongues and said interruptions being in register.

To place the post in the tube, its ridged portion or portions are brought into register with a corresponding smooth inner portion or portions of said tube, and the desired vertical adjustment being attained a partial revolution of said post will suffice to cause it to interlock with the aforesaid tube, after which the sleeve C is pushed down to bring its tongue or tongues into position to lock the aforesaid post against rotary movement, the preferred tapering of said tongue or tongues giving the latter the function of a wedge, in order that it may bind tight in its working position and be thus held against tendency to work up out of place.

From the foregoing it will be seen that by a lift of the tongued sleeve clear of the tube a reasonably fine vertical adjustment of the post may be had, and that no wrench or other tool is necessary in the operation.

While I have shown and more particularly described my invention in connection with a bicycle saddle-post, it is equally applicable in connection with a bicycle-handle-bar shank, and it is also applicable in the construction of stools, chairs, and various other articles having adjustable parts, it being practical to employ a socket instead of the tube herein specified.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A telescopic-joint comprising one section having a bore provided with interrupted alternate ridges and depressions, another section engaging the former and also provided with corresponding interrupted ridges and depressions, and a sliding sleeve on the inner section of the joint provided with as many tongues as there are interruptions of said ridges and depressions pertaining to each of the joint-sections.

2. A telescopic-joint comprising one section having a bore provided with an interrupted thread, another section engaging the former and also provided with an interrupted thread,

and a sliding sleeve on the inner section provided with as many tongues as there are interruptions of the thread pertaining to each of the joint-sections.

3. A bicycle tube having its bore provided with interrupted alternate ridges and depressions, a post or shank engaging the tube and also provided with corresponding interrupted ridges and depressions, and a sliding sleeve on the post or shank provided with as many tongues as there are corresponding interruptions of the ridges and depressions pertaining to said tube and post.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ROBERT A. KANE.

Witnesses:
N. E. OLIPHANT,
H. G. UNDERWOOD.