

No. 717,684.

PATENTED JAN. 6, 1903.

J. HUMPHREYS.
TUBE SPLICING.

APPLICATION FILED MAR. 20, 1902.

NO MODEL.

Fig. 1.

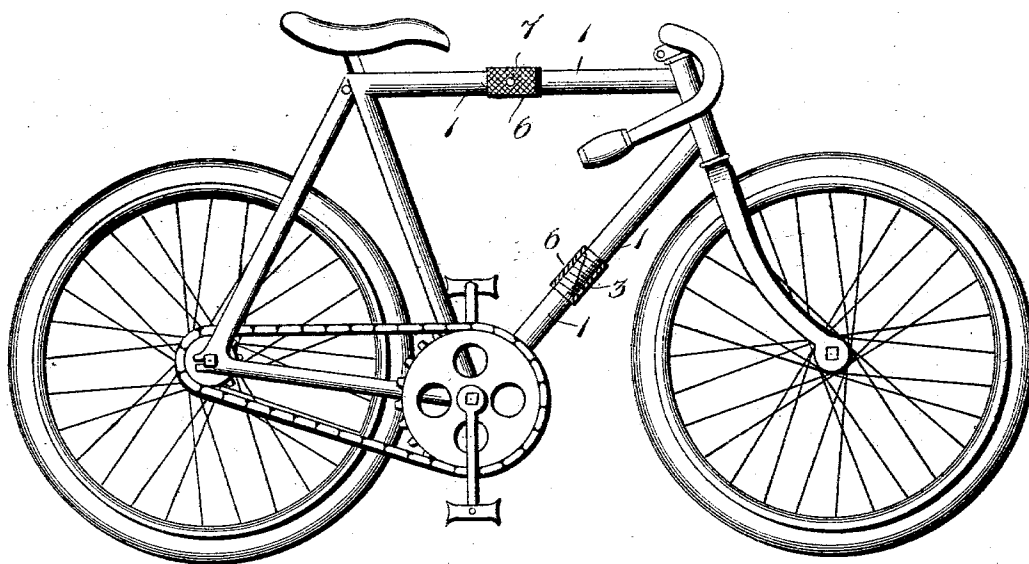
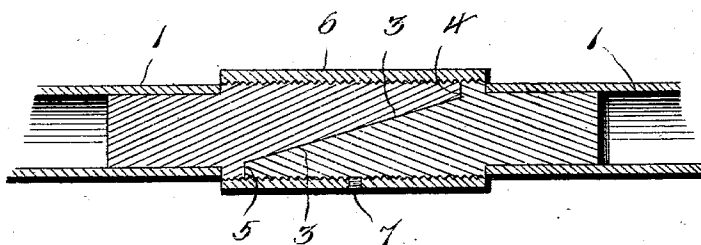


Fig. 2.



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JOHN HUMPHREYS, OF CHEMAINUS, CANADA.

TUBE-SPLICING.

SPECIFICATION forming part of Letters Patent No. 717,684, dated January 6, 1903.

Application filed March 20, 1902. Serial No. 99,123. (No model.)

To all whom it may concern:

Be it known that I, JOHN HUMPHREYS, a subject of the King of Great Britain, residing at Chemainus, in the Province of British Columbia and Dominion of Canada, have invented certain new and useful Improvements in Tube-Splittings; and I do declare the following to be a full, clear, and exact description of this invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to tube-splicing, and more particularly to the splicing of tubes constituting a bicycle-frame, whereby the frame may be separated for purposes of more convenient transportation or storage.

The object of the invention is to provide simple, durable, inexpensive, and effective means for connecting the adjacent ends of two tubes.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation of a bicycle, illustrating the application of my invention, the upper horizontal and the lower diagonal tubes of the frame being shown, each consisting of two parts connected together by the splices, the splice of the horizontal tube being shown in side elevation, while that of the diagonal tube is shown in section; and Fig. 2 is an enlarged longitudinal sectional view through the adjacent ends of two tubes, illustrating the manner in which they are spliced together.

Referring to the drawings, 1 denotes the adjacent ends of two tubes which it is desired to removably splice together. In the end of each tube is brazed or otherwise secured a plug, the outer end of which is provided with a long beveled surface 3, terminating at each end in abrupt shoulders 4 and 5. These beveled faces of the plugs are brought together, with the stops of one plug abutting against those of the other, and thus preventing an

endwise movement of said plugs toward each other. The plugs when matched constitute a solid cylinder, and this cylinder is exteriorly screw-threaded to receive a coupling-sleeve 6, which is interiorly screw-threaded to take the threads of the so-formed solid cylinder and lock the parts together. The sleeve entirely surrounds the joint and hides the same and is preferably checked or roughened to permit of its being grasped and securely held while being turned and when screwed in position may be prevented from becoming accidentally unscrewed by a set-screw 7, the head of which is countersunk in said sleeve, so as to be flush therewith, and the opposite end of which is clamped to the plug.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

The combination with two tubes, of plugs, each of which has a smooth end to fit within the tube and a shoulder to abut against the end of the tube and each of which is threaded and provided with a beveled face formed with abrupt shoulders at its outer end, said faces adapted to be placed into engagement and the face of one plug to abut against the shoulder of the other plug, and a screw-threaded sleeve to engage with the screw-threaded surfaces of said plugs, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN HUMPHREYS.

Witnesses:

GEO. R. ELLIOTT,
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