No. 610,262. Patented Sept. 6, 1898.

C. S. DIKEMAN.

TUBULAR BAR.

(No Model.) (Application filed Mar. 1, 1894.)

Fig. 1.

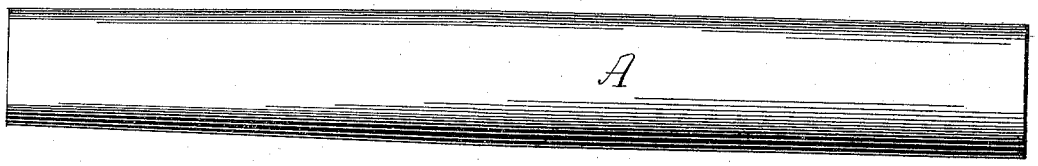


Fig. 2.

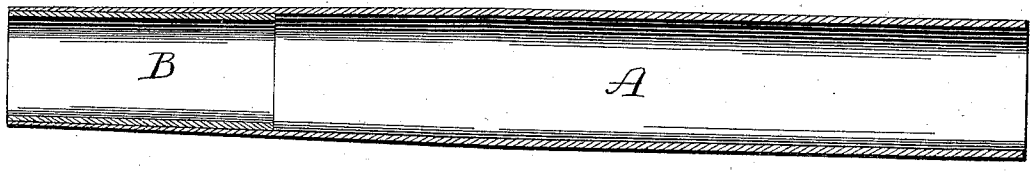
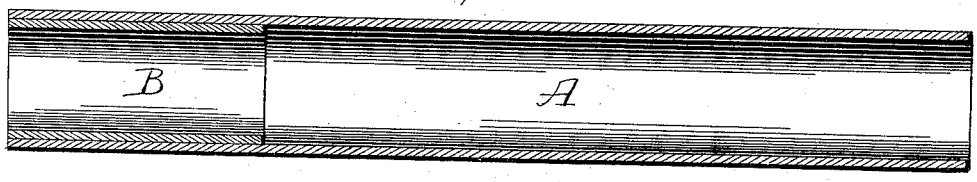


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES S. DIKEMAN, OF TORRINGTON, CONNECTICUT.

TUBULAR BAR.

SPECIFICATION forming part of Letters Patent No. 610,262, dated September 6, 1898.

Application filed March 1, 1894. Serial No. 501,960. (No model.)

To all whom it may concern:

Be it known that I, CHARLES S. DIKEMAN, of Torrington, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Tubular Bars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in tubular bars, particularly to such as are adapted for use in the construction of bicycle-frames, and in the method of making such bars, the object of the invention being to strengthen and reinforce the end of tubular bars.

With this object in view the invention consists in certain novel features of construction and certain novel steps in the method of making tubular bars, as hereinafter set forth, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view of my improved tubular bar. Fig. 2 is a sectional view. Fig. 3 is a view illustrating the bar and reinforcement before being tapered.

In producing my improved tubular bar I first take a tube A of equal diameter throughout its entire length. In the end of this tube I insert a sleeve or short section of tubing B, which is also of an equal diameter throughout its entire length. Having thus inserted the reinforcement of uniform diameter into the end of the tube of uniform diameter, I then taper the end of the tubular bar and the reinforcement within it, the tube being preferably tapered to a point somewhat rearwardly of the inner end of the reinforcement. When completed, the end of the tube will be tapered to the proper extent and the whole length of the reinforcement will be tapered, one end of said reinforcement being coincident with the tapered end of the tube. The tapering of the tubular bar and its reinforcement can be accomplished in any suitable swaging-machine.

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

A section of a bicycle-frame consisting of a tubular bar having a thin wall and a reinforcing-tube in its end and also having a thin wall, said end of the tubular bar and the reinforcing-tube being secured together by the simultaneous taper-swaging operation.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHAS. S. DIKEMAN.

Witnesses:
CHAS. L. MCNEIL;
ISAAC W. BROOKS.