(No Model.)

J. L. YOST & J. B. McCUNE.

BICYCLE.

No. 366,287. Patented July 12, 1887.

Fig. 1.

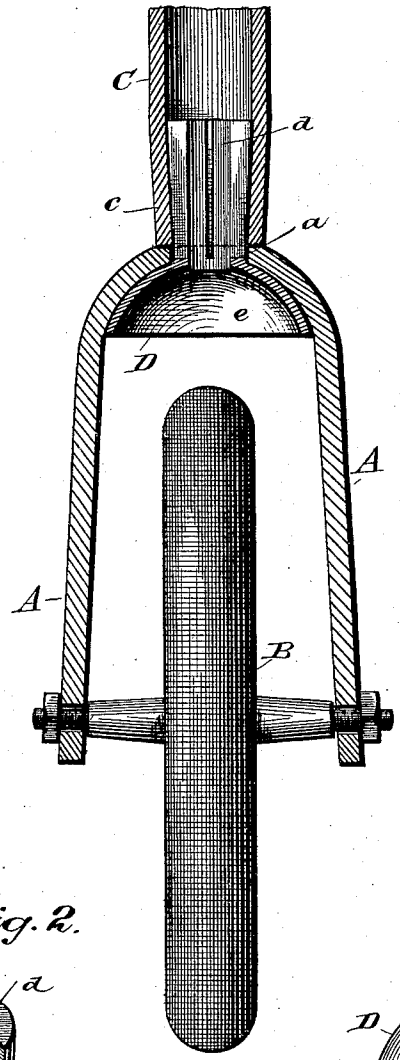


Fig. 2.

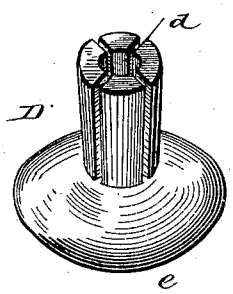


Fig. 4.

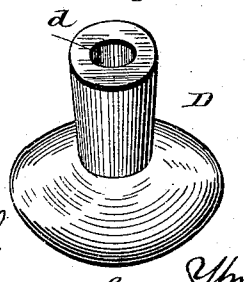
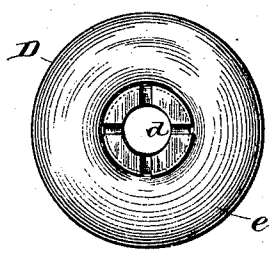


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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BICYCLE.

SPECIFICATION forming part of Letters Patent No. 366,287, dated July 12, 1887.

Application filed April 18, 1887. Serial No. 235,258. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH L. YOST and JOSEPH B. McCUNE, citizens of the United States, residing at Worcester, Worcester county, Massachusetts, have invented new and useful Improvements in Bicycles, of which the following is a specification.

This invention relates to certain new and useful improvements in bicycles; and it consists, substantially, in such features of construction, arrangement, and combinations of parts as will hereinafter be more particularly described, and pointed out in the claims.

The invention is more especially directed to the manner of attaching or securing the rear or small wheel fork to the "backbone" of a bicycle; and the object of the invention is to provide a fastening of the character referred to which shall be of such firm and secure nature as that all tendency to twisting or distortion of the fork at this point will be overcome, all as will be more fully understood from the description hereinafter following, when taken in connection with the accompanying drawings, wherein—

Figure 1 represents in section the rear fork of a bicycle, together with a portion of the backbone, showing our improvement applied thereto. Fig. 2 represents in perspective a view of the thimble by which attachment of the fork to the lower end of the backbone is effected, the same indicating such thimble as when split longitudinally; and Fig. 3 is a top or plan view thereof. Fig. 4 is a similar view to Fig. 2, representing the attaching-thimble as continuous, or without being split.

In the practice of our invention we resort to a thimble having at its lower end a conical or bell-shaped portion designed to fit beneath the two sides of the fork at where they are bent or turned downwardly, such thimble being preferably, though not necessarily, split or divided longitudinally for its entire length, and in either case to be slightly tapering or conical to fit the correspondingly-shaped end of the backbone into which the said thimble is inserted.

Reference being had to the several parts by the letters marked thereon, A represents the rear fork of a bicycle, in which is held the rear or smaller wheel, B, the said fork being first formed into a straight piece having a central opening or aperture, *a*, and afterward bent or turned around into the form indicated.

C represents a portion of the lower extremity of the backbone of a bicycle, the same being formed, as usual, of a hollow tube; but in the present instance the interior thereof is given a slight taper, as indicated at *c*, for the purpose to be described.

D represents a thimble having a central opening, *d*, extending therethrough and formed with a conical or bell-shaped base, *e*, the said thimble being in like manner tapered to correspond with the lower tapered end of the backbone. This thimble may be constructed of either of the forms shown by Figs. 2 and 4; but, preferably, we split the same transversely down to the point of intersection thereof with its base, by which the same is given a tendency to spring slightly outward from said base. If by dividing the same for its length the necessary outward inclination is not obtained, the several sections thereof are then slightly sprung, in order that when the said thimble is inserted into the tapered extremity of the backbone the tendency will be to expand of itself and be thereby held. The conical or bell-shaped base is designed to conform to the shape of and fit beneath the ends of the fork at where they are turned or branched outwardly, to thereby strengthen said fork at these points and prevent distortion or breakage thereof due to weight imposed upon the machine in use, after which the several parts are united by the ordinary brazing process, and thus will be apparent the advantages of this form of connection over that of the simple thimble heretofore employed, minus the base.

From the foregoing description it will be seen that by the use of the contrivance herein resorted to a very firm or secure connection of the fork to the backbone is had, and that distortion of the fork at its point of connection with the backbone is entirely obviated.

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

1. In a bicycle, the combination, with the lower extremity of the backbone and the rear-wheel fork having central aperture, of a thimble uniting the two, having an expanded or bell-shaped portion fitting beneath the two sides of said fork, substantially as described.

2. In a bicycle, the combination, with the backbone having its lower extremity tapered internally and the rear-wheel fork having central aperture, of a thimble correspondingly tapered and formed with a conical or bell-shaped base fitting beneath the fork, substantially as shown, and for the purpose described.

3. In a bicycle, the combination, with the backbone having the interior of its lower end beveled upwardly and the rear fork having central aperture, of a thimble passing through said aperture and entering the backbone, the same being split for its length in opposite directions and formed with a conical or bell-shaped base fitting beneath the fork, substantially in the manner and for the purpose described.

4. The combination, with the fork for the rear wheel of a bicycle, and the backbone having the interior of its lower extremity tapered upwardly, as shown, of a thimble, also tapered, and having a base fitting beneath the side of the fork, the said thimble being hollow and split for its length in opposite directions, whereby the same will expand on insertion into the backbone, substantially as and for the purpose described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

JOSEPH L. YOST.
JOSEPH B. McCUNE.

Witnesses:
WILLIAM MAYNARD,
FRANK W. AYMAR.