(No Model.)

J. N. WAITE.

VELOCIPEDE.

No. 345,465. Patented July 13, 1886.

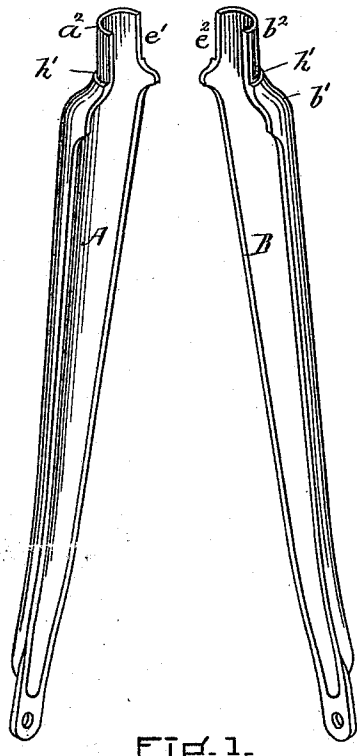


Fig. 1.

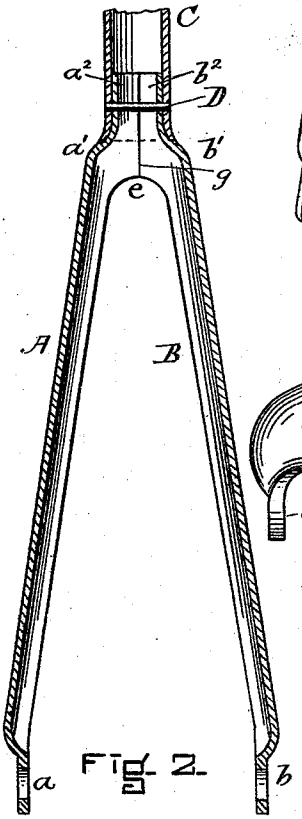


Fig. 2.

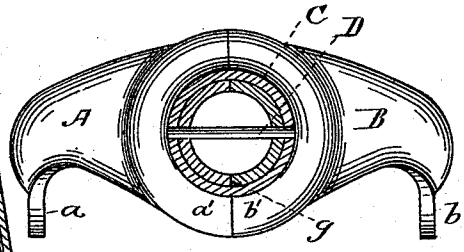


Fig. 4.

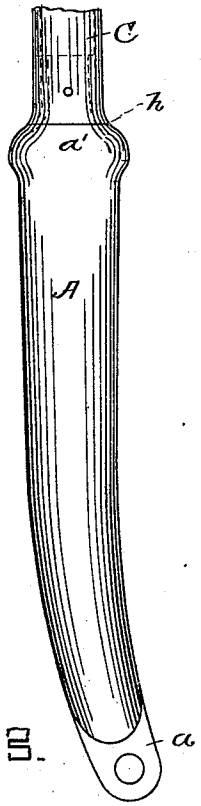


Fig. 3.

WITNESSES.

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UNITED STATES PATENT OFFICE.

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VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 345,465, dated July 13, 1886.

Application filed December 31, 1885. Serial No. 187,303. (No model.)

To all whom it may concern:

Be it known that I, JAMES N. WAITE, of the city of Hartford, in the State of Connecticut, have invented new and useful Improvements in Velocipedes, of which the following is a specification.

My improvements relate more particularly to the construction of forks for connecting the wheels of velocipedes with the frames thereof, and to certain combinations, which will be apparent from the following description, taken in connection with the drawings, in which—

Figure 1 represents the two parts of a bicycle rear fork in elevation. Fig. 2 represents the same in section after having been united and joined with the perch. Fig. 3 represents the same in side elevation. Fig. 4 represents the same in cross-section on the line *x x* in Fig. 2.

These figures show my improvements as applied in one form to the rear fork of a bicycle, although they are equally applicable to other velocipedes or other positions in velocipedes where it is desirable to use the fork or particular portion of the frame in which the wheel and its bearings are to be held, and which is to have a part of the supporting-frame of the velocipede.

Heretofore in the construction of such forks it has been usual to make them either of forged pieces welded together, the arch and neck of the fork being forged in one piece, the fork-ends of the bearings being forged in other pieces, or else to have them of tubing, the tubing being split and partially cut out in order to have an opening for the wheel to revolve between the branches of the fork. The first method has been found to be not only expensive, but heavy and unwieldy, and the second method has been found more expensive, and often destructive of stock and of tools, and also to be faulty in distribution of metal. According to my method of construction, however, the fork is made entirely of sheet metal, which I first cut out or stamp out in approximate form in two pieces, and then completely form and finish the two pieces as complements of each other, and bring them together and unite them to form an integral fork, and then unite or bind them with the perch or other part of the frame of the velocipede, or as will be more particularly described in connection with the drawings, although the bringing together and uniting of the two complementary parts of the fork and of these two pieces with the perch may be accomplished at the same time instead of separately.

A and B are two complementary parts of a bicycle rear fork struck up and cut out of sheet metal, and formed with the lugs *a a* at the lower ends for bearings for the rear wheel or its axle, and with substantially cylindrical shoulders *a' b'*, and the complementary parts of the tenon a^2 b^2, and preferably with a slight rib or shoulder, *h' h'*, of about the thickness of the shell of the perch into which the tenon is to be inserted. I form these parts with the edges e' e^2 of the metal through the tenon and shoulder cut and finished true to a plane, so that when they are brought together, as in Fig. 2, they will form at *g* a fit, or close down over and above the arch *e*.

C is the perch or tubular portion of the frame of the bicycle, a part of which is broken off.

D is a pin, which, after construction of the fork in two parts, as shown, and having formed its neck and the lower part of the perch C to fit each other and the bringing of them together into position, I insert to secure them while the brazing is being done. In this method of construction I get an even distribution of metal, less waste in its cutting out and working, the advantages of tubular construction without the expense of using and wasting actual tube, and a stronger and lighter construction of rear fork, and a better combination of it with the perch.

I claim as new and of my invention—

1. An improved hollow velocipede fork constructed of two complementary pieces of sheet metal, each shaped to form one side of the fork below the arch, and with a lug for the

wheel pin or bearing, and with the edges above the arch fitted and secured and shaped to form together a substantially cylindrical shoulder, and a tenon for jointure with a perch or frame, essentially as set forth.

2. In a velocipede, the combination of a tubular perch, C, a tubular fork in two complementary parts, A and B, and a pin, D, constructed and secured together essentially as set forth.

JAMES N. WAITE.

Witnesses:
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