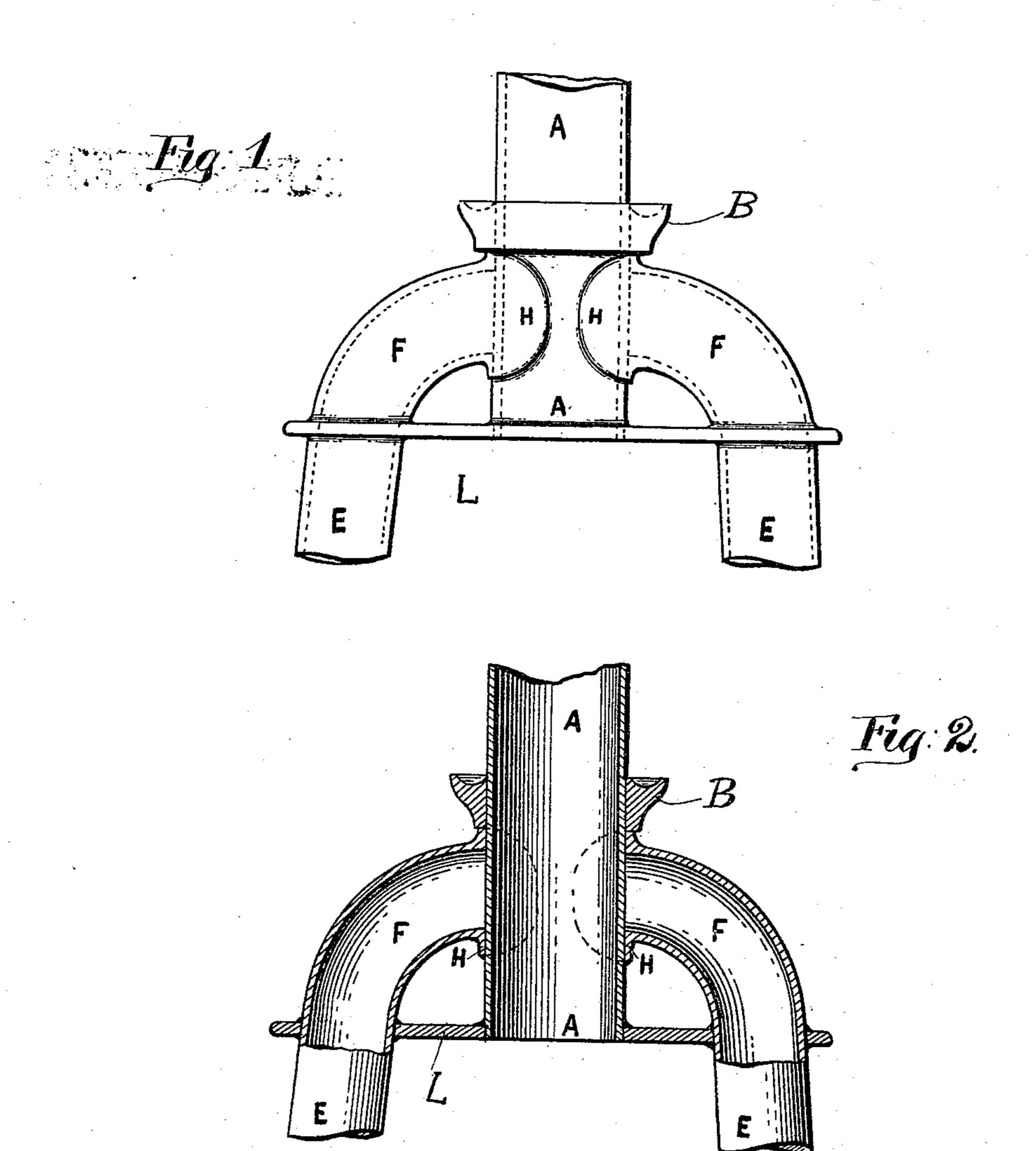
(No Model.)

## G. F. WASHBURN. BICYCLE FRAME.

No. 517,501.

Patented Apr. 3, 1894.



witnesses.

Elwerles E. Bartton E. G. Emanuel Inventor.

Leorge F. Washburn, By Dylvenns Walker

Altorney

## United States Patent Office.

GEORGE F. WASHBURN, OF BOSTON, MASSACHUSETTS.

## BICYCLE-FRAME.

SPECIFICATION forming part of Letters Patent No. 517,501, dated April 3, 1894.

Application filed February 2, 1894. Serial No. 498,896. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. WASHBURN, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Bicycle-Frames, of which the follow-

ing is a specification.

The objects of my invention are to facilitate the construction of bicycle frames, of increased strength, and lightness, at a reduced cost; and it consists in the novel and peculiar construction of the front portion of the frame, embracing the fork, which supports the forward end of the main-frame connected to the steering wheel, as now in common use, and which invention is hereinafter fully described and specifically set forth in the claim.

In the drawings hereto annexed which form a part of this specification, reference is made.

Figure 1 represents a front elevation showing the crotch portion of the fork of the steering-frame constructed according to my invention. Fig. 2 represents a vertical longitudinal section of the same, the upper and lower
end portions of the tubular fork-frame, are

A represents a vertical steel tube having the usual bearing collar B, secured thereon in a permanent manner as heretofore and now in general use for the purpose. It will be understood that the said steel tube A, extends upward a suitable distance and that the upper end portion, is to be provided with the usual steering handles, (not shown) being old and well known, and form no part of my invention, need no further description. Now as the said vertical tube A, at its lower end portion must necessarily be provided with the opposite legs E, E, extending downward at

each side of the usual steering-wheel, (not

shown) and the lower ends having bearings to upon the outward ends of the axle thereof, the steering wheel is guided and operated in the usual manner. Thus it will be seen and understood that in actual use there is very great strain upon the said legs E, and particu- 45 larly at their connections with the lower end portion of the said steel tube A, and in order to secure the greatest strength with a minimum of weight, the said legs E, have been likewise constructed of steel tubes, heretofore. 50 Now in order to connect and secure the legs E, to the tube A, in a very permanent manner, I construct the upper end portions of the said legs E, with a curved, or bent portion F, turned inwardly, and their extreme meeting ends 55 with the said tube A, are provided with projecting lips H, which closely fit upon and partially, or nearly surround the outer surface of the steel tube A, and brazed thereto, in a very permanent manner, at their meeting points, 60 as shown in Figs. 1 and 2. These steel tubular portions and their connections are further strengthened by the flat steel yoke L, provided with suitable corresponding holes and brazed upon the lower end of the center tube 65 A and legs E, E, as shown.

Having thus described my invention, I

claim—

In a bicycle frame, the legs E E, having bent portions F, the ends of which are provided with projecting lips H, which are brazed to the opposite sides of the tube A, substantially as described and for the purposes set forth.

GEORGE F. WASHBURN.

Witnesses:

SYLVENUS WALKER, CHARLES E. CARLTON.