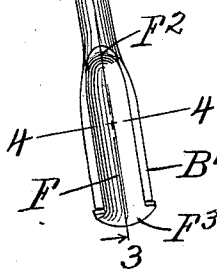
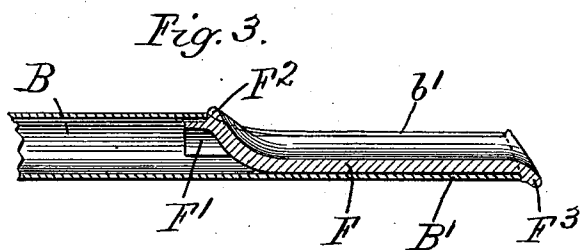
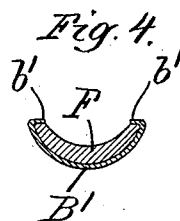
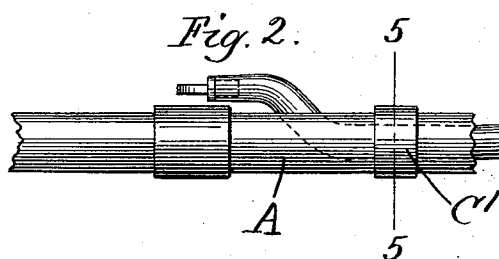
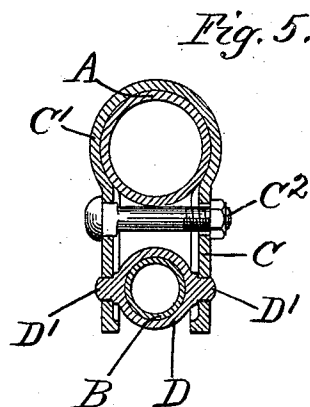
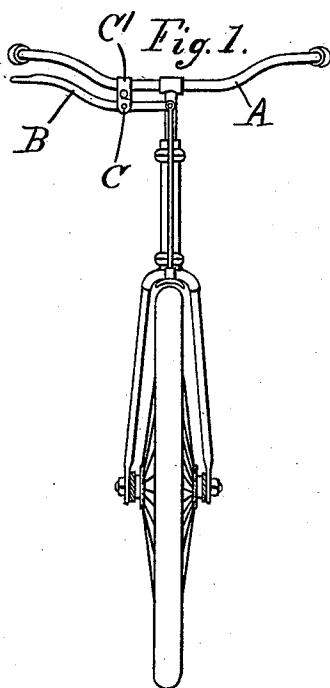


(No Model.)

T. B. JEFFERY.
VELOCIPED BRAKE LEVER.

No. 568,352.

Patented Sept. 29, 1896.



Witnesses,
E. T. Wray.
Jean Elliott

Inventor,
Thos. B. Jeffery
by *Dunton & Dunton*
his attys.

UNITED STATES PATENT OFFICE.

THOMAS B. JEFFERY, OF CHICAGO, ILLINOIS.

VELOCIPEDE BRAKE-LEVER.

SPECIFICATION forming part of Letters Patent No. 568,352, dated September 29, 1896.

Application filed January 12, 1895. Serial No. 534,618. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. JEFFERY, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Velocipede Brake-Levers, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

In the drawings, Figure 1 is a front elevation of a velocipede having my improved brake-lever. Fig. 2 is a plan of the brake-lever and a piece of the handle-bar to which it is attached, the same being shown on a larger scale than in Fig. 1. Fig. 3 is a section at the line 3 3 on Fig. 2 on a still more enlarged scale. Fig. 4 is a section at the line 4 4 on Fig. 2 on substantially the same scale as Fig. 3. Fig. 5 is a detail section at the line 5 5 on Fig. 2 on the same scale as Figs. 3 and 4.

A represents the handle-bar of usual construction.

B is the brake-lever.

C is the yoke or clamping-clip which connects the brake-lever to the handle-bar.

D is a trunnioned eyelet or collar which encircles the brake-lever and is made rigid with it, and by means of its trunnions furnishes the brake-lever with its pivots for bearings in the yoke C. The yoke C at the part C' clamps and accurately fits the handle-bar, and the two branches or end portions extend parallel and receive the clamping-bolt C², which is inserted through them close to the handle-bar. Beyond the bolt-holes the end parts of the clamp have suitable seats or bearings facing each other for the trunnions D' D' of the collar D, which is fitted and secured rigidly on the brake-lever. The tightening of the bolt C² is thereby adapted to both bind the clamp onto the handle-bar and bind the trunnioned collar D between the ends of the clamp and with its trunnions seated suitably therein so that they cannot escape.

By the use of the collar with trunnions, as described, I am enabled to avoid drilling the brake-lever for the purpose of pivoting it. This is of considerable importance in view of the fact that I aim, primarily, to make the brake-lever as light as is consistent with giving it the necessary rigidity, and for this purpose I make it hollow, preferably by using

metal tubing. I make the handpiece B' integral with the lever B, and give it suitable size to be conveniently grasped by the hand in use, by expanding or spreading the metal, as shown in the drawings, so that it is an arc of a larger circle than the remainder of the lever, being concavo-convex in cross-section.

When tubing is used for the brake-lever, the handpiece is developed into the form described by rifting the tubing for a suitable distance and spreading it on a suitable mandrel or die to the desired extent. I prefer also to fortify the handpiece by filling the cavity, as shown in the drawings. I find it convenient to use for this purpose a hard-rubber filling-piece F, which is retained in the metal by folding the edges of the latter to form flanges, as seen at b'. The edges thus folded are those produced by rifting the tube when the brake-lever is made of tubing. The filling-piece F is preferably furnished with a nipple F', adapted to enter the tubular portion of the lever beyond the rift of the inner limit of the handpiece, and with beads F² and F³ at the inner and outer ends, respectively, which stop, the former at the inner limit of the rift or spread portion and the latter at the end, and thereby prevent the filling-piece from being driven in too far and also suitably finish and ornament the lever. The lateral edges of the handpiece having the flanges b', are preferably parallel, so that the filling-piece F may be inserted endwise from the end of the lever after it is otherwise finished. It may be sufficiently retained by the grip of the flanges, or a cement, as shellac, may be employed to prevent its escape.

I do not limit myself to making the brake-lever of metal tubing, though this is a preferred and most convenient method; also, I do not limit myself to making the trunnions of the collar D penetrate the arms of the clamp C, although they are so illustrated. It is only essential that the trunnions should obtain seats or bearings in the said arms, so that the tightening of the clamping-bolt will cause the trunnion to be securely retained between the arms.

I claim—

In a velocipede, in combination substantially as set forth a hollow brake-lever having the handpiece formed integrally there-

with by rifting and expanding the end portion of the lever into concavo-convex form such handpiece having its edges folded or clenched inwardly, and a filling-piece adapted to seat in the concavity of said handpiece
5 and be retained by the folded or clenched edges of the same.

In testimony whereof I have hereunto set

my hand, in the presence of two witnesses, at Chicago, Illinois, this 9th day of January, 1895.

THOS. B. JEFFERY.

Witnesses:

JOHN E. SULLIVAN,
O. B. JONES.