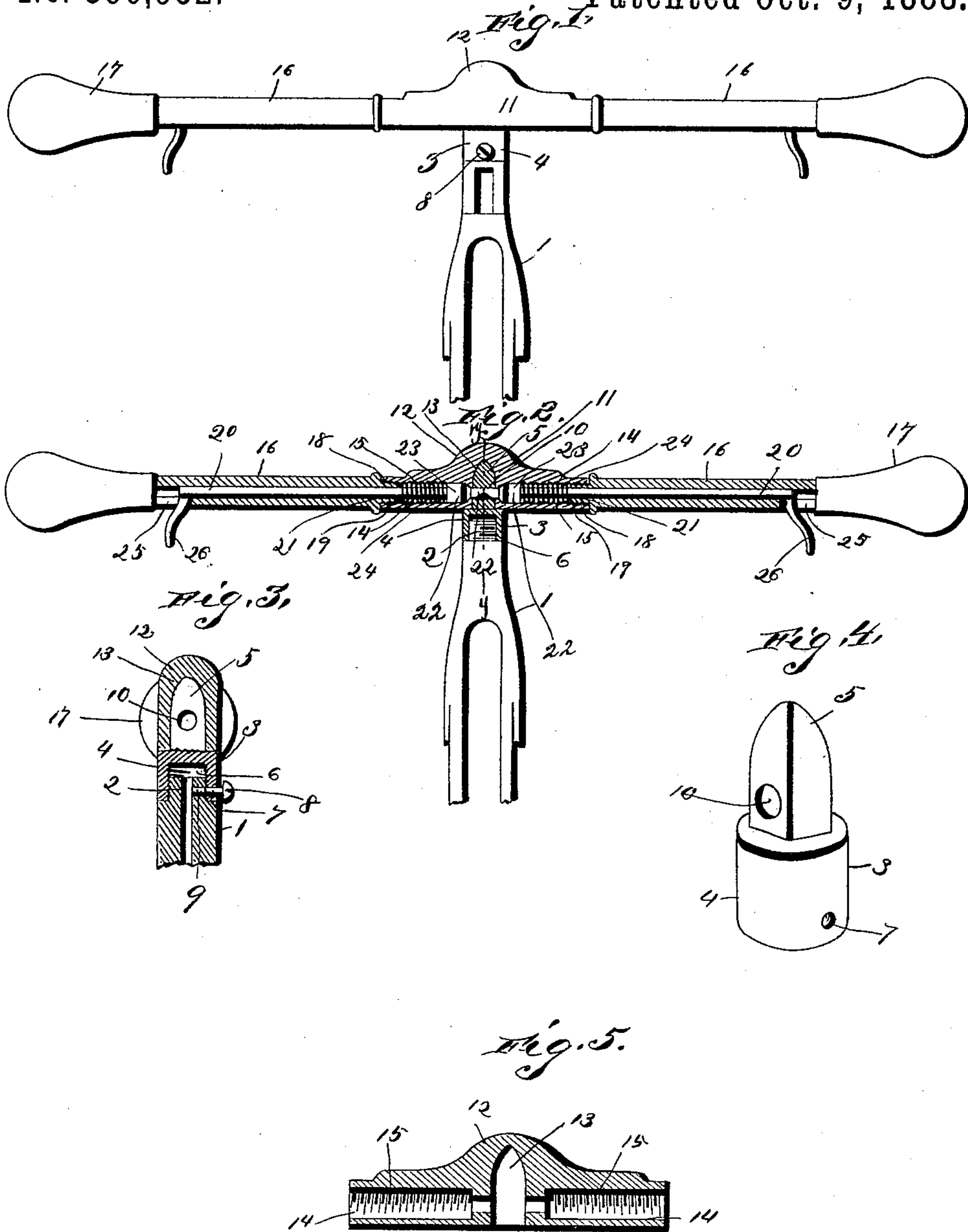


(No Model.)

F. M. DRAKE.  
BICYCLE.

No. 390,952.

Patented Oct. 9, 1888.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

FRED M. DRAKE, OF WILKES-BARRÉ, PENNSYLVANIA.

## BICYCLE.

SPECIFICATION forming part of Letters Patent No. 390,952, dated October 9, 1888.

Application filed June 13, 1888. Serial No. 276,905. (No model.)

*To all whom it may concern:*

Be it known that I, FRED M. DRAKE, a citizen of the United States, residing at Wilkes-Barré, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Handle-Attaching Devices for Bicycles, of which the following is a specification.

My invention relates to devices for attaching the handle-bar to the fork of a bicycle; and its object is to prevent the rider taking a "header," as it is termed, when the front wheel strikes an obstacle.

My invention consists in attaching the handle-bar removably to the upper end of the fork or steering-bar of a bicycle in such a manner that it can be instantly detached therefrom by the rider of the machine by the operation of suitable devices for the purpose; and my invention further consists in certain details of such device, to be hereinafter fully described, and then particularly pointed out in the claims.

In order that my invention may be clearly understood, I will now describe the same with reference to the accompanying drawings, in which—

Figure 1 is a front elevation of the parts assembled. Fig. 2 is a vertical longitudinal section. Fig. 3 is a section on the line *yy*, Fig. 2. Fig. 4 is a detail perspective view. Fig. 5 is a section of my coupling-cap, whereby the improvements may be applied to various styles of bicycle.

Referring to the drawings, 1 represents the upper end of the fork of a bicycle, which is provided with a screw-threaded end, 2, for the attachment of my improvements.

3 represents a cap or casting consisting of a cylindrical portion, 4, which is formed with a pyramidal vertical extension, tenon, or projection, 5. The cylindrical portion of the cap is provided with an axial screw-threaded circular opening, 6, from which extends laterally a screw-threaded perforation, 7. The cap being screwed onto the screw-threaded end 2 of the fork, it is further secured by means of a set-screw, 8, screwed into perforation 7 and into a circular screw-threaded opening, 9, in the screw-threaded end of the fork. For the attachment of the handle-bar (presently to be

described) I perforate or bore the pyramidal extension 5 of the cap 3 across from one face to its opposite face, as seen at 10.

The handle-bar is constructed as follows: 11 is its center casting or coupling-piece, which is provided with a central bulge or enlargement, 12, on its upper side. Extending from the lower side of the center casting a considerable distance into its enlargement 12 is a pyramidal mortise or opening, 13, in which fits snugly the pyramidal extension or tenon of the cap 3, the circular bore 10 of the extension extending longitudinally of the casting. In line with the bore 10 of the extension of the cap circular openings 14 extend longitudinally through the casting to each end, and these openings are enlarged and screw-threaded at 15. Into the screw-threaded portions of the openings 14 are screwed the ends of the handle portions proper of the handle-bar, and they are constructed as follows:

16 are metallic or other tubes, into one end of each of which is fitted a wooden or other handle or grip-piece, 17. The other ends are fitted with caps 18, which are provided with externally screw-threaded tubular ends or necks 19, which screw into the ends of the casting 11.

20 are longitudinally-sliding bars or rods within the tubes 16, and which are rectangular in cross-section, and the axial openings 21 of the cap 18, through which these rods pass, are also rectangular.

Fitted on the outer ends of rods 20 are catches 22, which are shouldered at 23 to permit the outward pressure of spiral springs 24, surrounding the rods 20, which bear thereon and also on the ends of necks 19, whereby the catches and their rods are normally passed inward toward each other.

The outer ends of the catches 22 are beveled on their under side, to permit the tenon 5 of cap 3, when received by mortise 13, to force the catches outwardly by the engagement of its wedge-shaped end, and when the parts are fully engaged the catches will spring into the opening in the tenon.

At the outer under sides of the tubes 16 are longitudinal slots 25, through which project finger-pieces or triggers 26, secured to the outer ends of sliding rods 20, whereby when



an outward pull is brought to bear on both of which the catches at the inner ends of the rods are retracted and the handle-bar released by pulling it away from the bicycle, and hence  
5 when the latter strikes an obstacle the object of my invention is attained.

Having described my invention, I claim—

1. The combination, with a bicycle having its fork provided with a perforated projection  
10 or extension, of the hollow handle-bar fitting at its center over the said projection or extension, and the longitudinally-movable rods located in the bore of the handle-bar and engaging the perforations in the projection or ex-  
15 tension, substantially as specified.

2. In a bicycle, the cap secured on a threaded portion of the fork, and provided with a pyramidal projection having a transverse perforation, in combination with a hollow handle-  
20 bar provided with a central pyramidal mortise fitting on the said projection, the spring-actuated rods sliding in the bore of the handle-bar, engaging at their inner ends in the perforation of the projection, and provided at their outer  
25 ends with finger-pieces which operate in slots in the handle, substantially as specified.

3. The combination, with the pyramidal projection on the fork of a bicycle, and provided with a transverse perforation, of the  
30 hollow handle-bar provided with a center-piece having a pyramidal mortise fitting on the projection, and the spring-actuated rods sliding in the bore of the handle-bar and engaging the registering perforation in the pro-  
35 jection, the extremities of the rods being beveled or tapered, as and for the purpose specified.

4. A hollow handle-bar of a bicycle having therein spring-rods provided with catches at  
40 their inner ends, and finger-pieces or triggers projecting through slots in the handle-bar, substantially as set forth.

5. In combination with the longitudinally-perforated casting or center-piece of a bicycle handle-bar, removable tubular ends of the  
45 same, rods sliding therein provided with finger-pieces or triggers projecting through slots in the tubular ends, and catches sliding in said perforations and fixed to the inner ends of said rods, and engaging a perforated tenon  
50 at the upper end of the fork, substantially as set forth.

6. In combination with the longitudinally-perforated casting or center-piece of a bicycle handle-bar provided with screw-threads, tubes  
55 having grip-pieces or handles at their outer ends and screw-threaded perforated caps at their inner ends adapted to be screwed into the screw-threads of the center-piece, rods sliding in said tubes provided with finger-  
60 pieces projecting through slots in the tubes, catches at the inner ends of said rods, and spiral springs surrounding the latter and having bearing against said caps, and the catches whereby the latter are adapted to engage a  
65 perforated tenon at the upper end of the fork, as set forth.

7. In combination with the fork of a bicycle provided with a screw-threaded portion, a cap having a screw-threaded opening, whereby it  
70 may be screwed on the said screw-threaded portion, and a perforated tenon extending upwardly from said cap, a removable handle-bar provided with catches adapted to engage said  
75 perforated tenon, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRED M. DRAKE.

Witnesses:

S. C. STRUTHERS,  
JOHN HANN.