

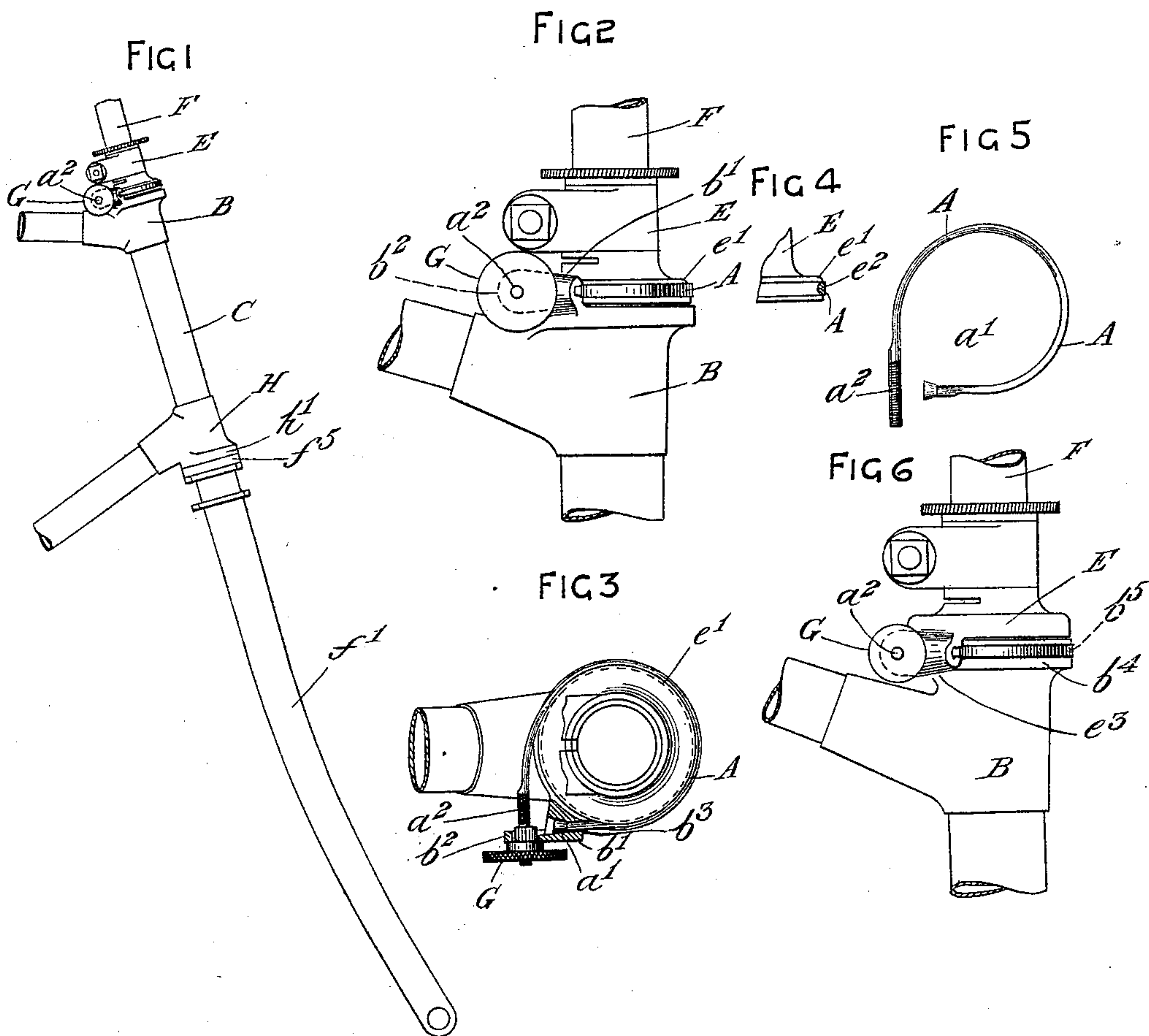
(No Model.)

2 Sheets—Sheet 1.

R. W. SMITH.
STEERING LOCK FOR SAFETY BICYCLES.

No. 583,130.

Patented May 25, 1897.



WITNESSES.

Charles Bosworth Kelley
Herbert Whitehouse

INVENTOR.

Robert W. Smith

(No Model.)

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FIG 7

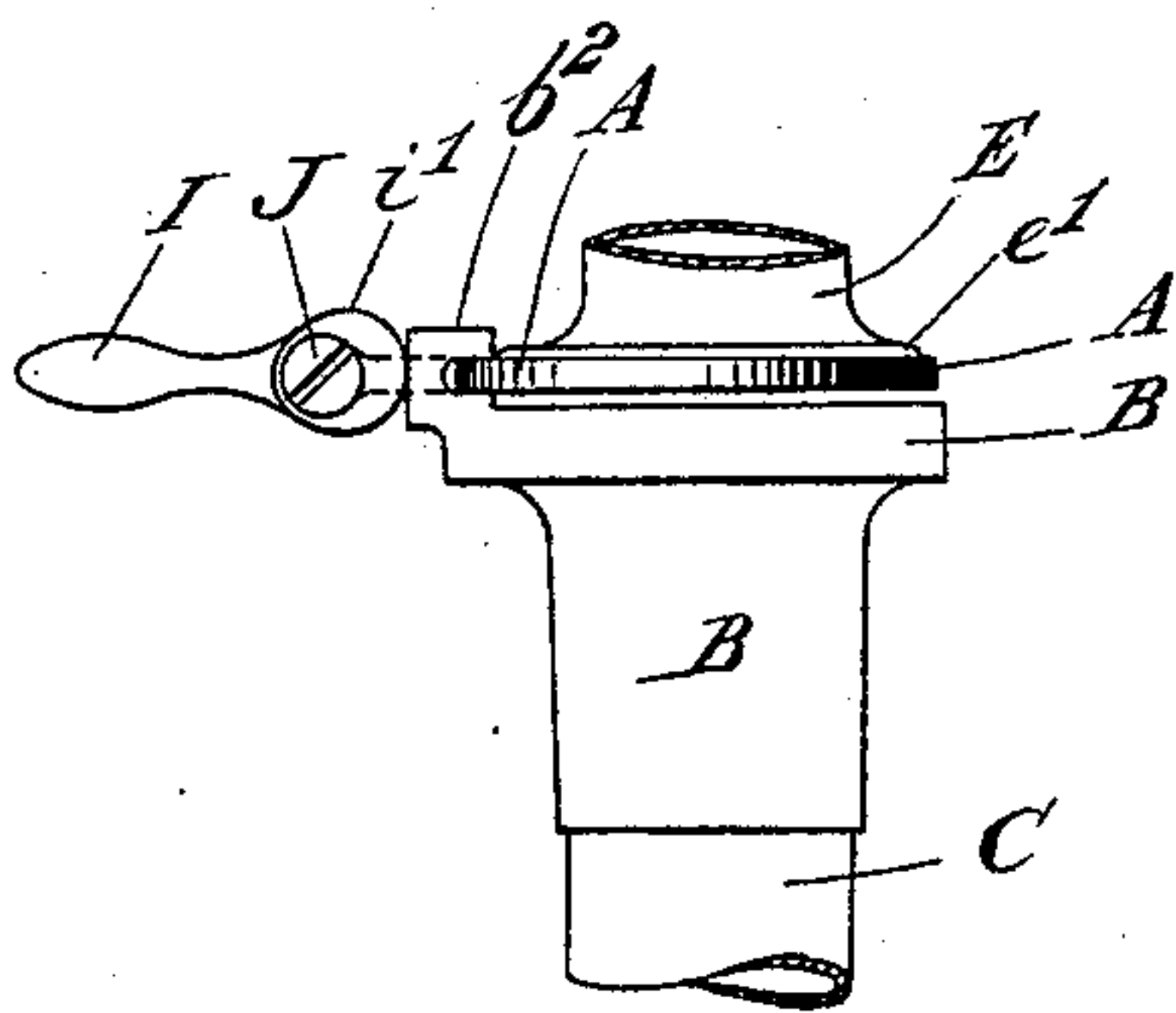
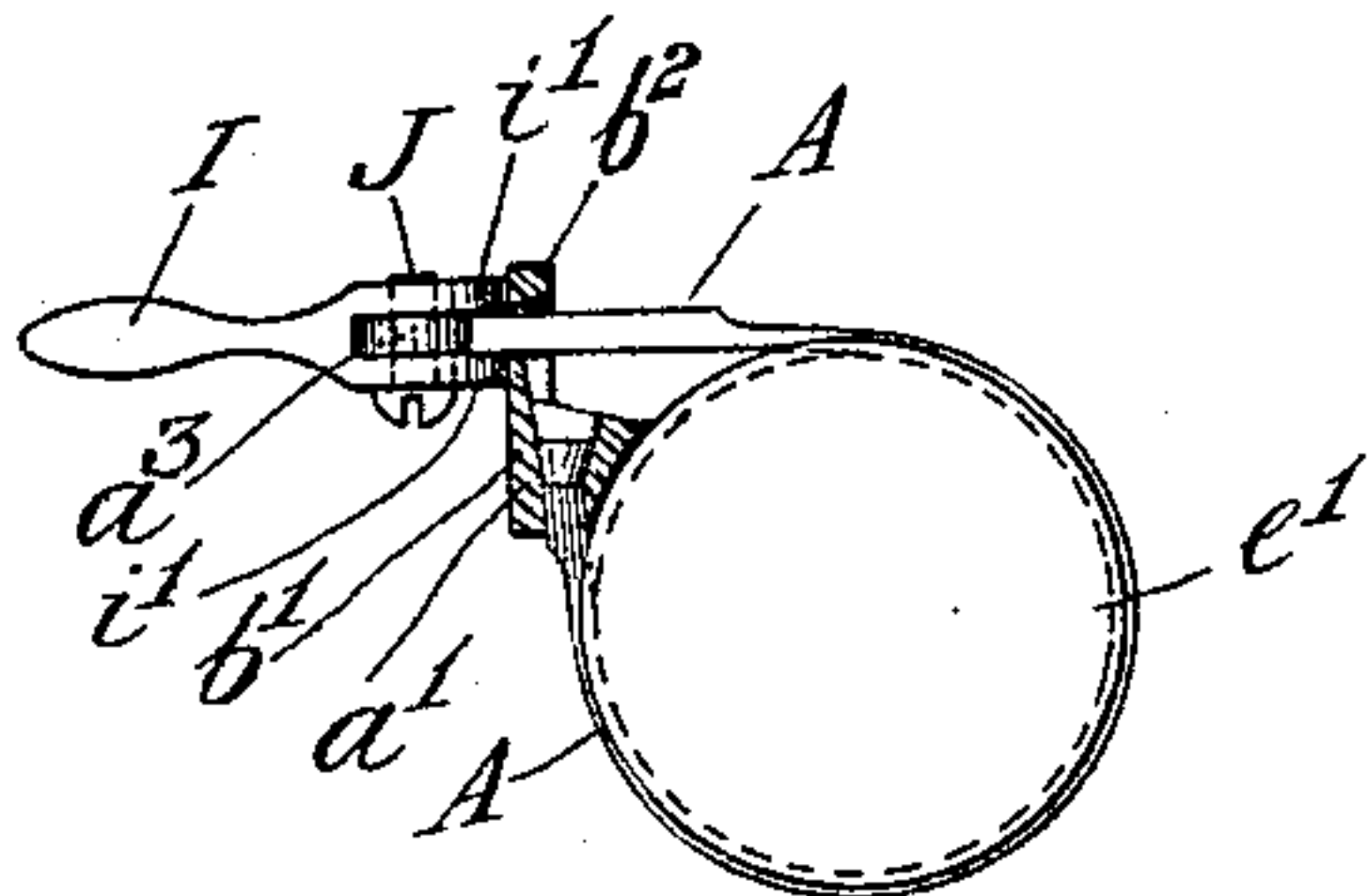


FIG 8



WITNESSES.

Charles Bismuth Kelley—
Herbert Whitcomb

INVENTOR.

Robert W. Smith

UNITED STATES PATENT OFFICE.

ROBERT WALKER SMITH, OF ASTWOOD BANK, ENGLAND.

STEERING-LOCK FOR SAFETY-BICYCLES.

SPECIFICATION forming part of Letters Patent No. 583,130, dated May 25, 1897.

Application filed July 16, 1896. Serial No. 599,435. (No model.) Patented in England August 4, 1894, No. 14,969, and in France June 6, 1895, No. 247,938.

To all whom it may concern:

Be it known that I, ROBERT WALKER SMITH, a subject of Her Majesty the Queen of Great Britain and Ireland, residing at Astwood Bank, in the county of Worcester, England, have invented a certain new and useful Improved Steering-Lock for Safety-Bicycles and other Front-Steering Velocipedes, of which the following is a specification.

The invention has been patented in Great Britain, No. 14,969, dated August 4, 1894, and in France, No. 247,938, dated June 6, 1895.

This invention consists of the herein-described improved steering-lock, which is more particularly designed for use on safety-bicycles to lock the steering-pillar and steering-wheel in a line with or at any desired angle to the other wheel, so that when thus locked the safety-bicycle can readily be supported leaning against a wall or other support.

My invention can also be similarly applied to other front-steering velocipedes.

I will describe my invention as applied to a safety-bicycle and refer to the accompanying drawings, on which—

Figure 1 shows the front fork and the steering-post and steering-pillar of a safety-bicycle with my invention applied. Fig. 2 shows the upper part of the same on an enlarged scale. Fig. 3 is a plan of the same. Fig. 4 is an elevation of the lower part of the steering-pillar clip. Fig. 5 shows the spring part of my improved steering-lock separately. Fig. 6 shows a slightly-different method of applying my said invention, and Figs. 7 and 8 illustrate a further modification of my invention.

The same letters of reference indicate the same or corresponding parts in all the figures of the drawings.

Referring first more particularly to Figs. 1 to 5, both inclusive, in carrying out my invention I provide a light spring-steel or other metal gripping-band A, which encircles the collar part e' of the usual clip E, which is fixed on the steering-pillar F, which latter turns in the steering-post C, the steering-pillar F having as usual the wheel-fork f' at its lower end carrying the steering-wheel axle and steering-wheel, which latter are not shown on my drawings. The end a' of the gripping-band A is fixed to or engages with a boss b' ,

formed on the top lug B of the steering-post C, and the other end, a^2 , of the gripping-band A passes transversely through an eye b^2 , which may and by preference does form a portion of the boss b' . This end a^2 of the gripping-band A is screw-threaded and provided with a milled or other nut G, which bears against the eye b^2 and by turning which the gripping-band A can either be tightened up so as to grip the collar part e' of the clip E of the steering-pillar, and thus lock the steering-pillar F to the steering-post C in any desired position, or by turning the nut G in the opposite direction the gripping-band A can be loosened so as to allow of the steering-pillar turning freely in the steering-post when the machine is being ridden. There is or may be a groove e^2 , turned in the collar e' of the steering-pillar clip E, (see Fig. 4,) in which groove the gripping-band A engages, and is thereby prevented from getting out of place on the collar.

The gripping-band A can conveniently be made from a piece of round steel or other metal wire, which, as shown in Figs. 3 and 5, is filed or otherwise formed into a half-round section where it passes round the collar e' , and in order to secure the end a' of the gripping-band to the boss b' this end a' may be headed, as shown, and the gripping-band threaded through the hole b^3 in the boss b' or be otherwise fixed thereto, or the gripping-band A may be made in any other convenient way.

Instead of the gripping-band A being carried by the boss b' on the top lug B to surround and grip the collar e' on the steering-pillar clip E, as above described, and shown by Figs. 1, 2, and 3, this arrangement may be reversed—that is to say, the gripping-band A may, as shown in Fig. 6, be similarly carried by a boss e^3 , formed with the top clip E or other part of the steering-pillar F and arranged to surround and grip the collar b^4 of the top lug B of the steering-post C, in which collar there will then be turned a groove b^5 , in which the said gripping-band A fits.

Instead of the gripping-band A being applied to the top lug of the steering-post and the collar e' of the clip of the steering-pillar, as above described, and illustrated by my drawings, it will be evident that without de-

parting from the nature of my invention I may similarly apply the said gripping-band to the bottom lug H and lower collar f^5 of the steering-pillar.

5 Instead of screwing the end a^2 of the gripping-band A and providing the same with a nut for tightening or loosening the same, as above described with reference to Figs. 1 to 6, both inclusive, I may provide the gripping-
 10 band A with other equivalent means for these purposes—such, for instance, as shown in Figs. 7 and 8, where the end of the gripping-band A which projects through the ear b^2 is provided with a lever-cam I, jointed thereto by
 15 the pin J. The part i' of the lever-cam, which bears on the face of the ear b^2 is made eccentric, so that when the lever is turned in one direction the cam will tighten up the gripping-band, and when the lever is turned in
 20 the opposite direction the gripping-band will be free and allow the steering-pillar to turn.

What I claim as my invention, and desire to secure by Letters Patent, is—

25 1. The combination with the steering-pillar and fixed steering-post of a safety-bicycle or other front-steering velocipede, of a gripping-band which encircles the collar on the steering-pillar and at one end is fixed to the top
 30 lug or to the bottom lug of the steering-post, the other end of the said gripping-band passing through an ear on said lug and provided

with means whereby the gripping-band can be tightened around the said collar or released therefrom, for the purpose and substantially as hereinbefore set forth. 35

2. The combination with the steering-pillar and fixed steering-post of a safety-bicycle or other front-steering velocipede, of a gripping-band which encircles the collar part of the top
 40 lug or of the bottom lug of the fixed steering-post and at one end is fixed to a boss formed with a collar on the steering-pillar, the other end of the said gripping-band passing through an ear on the said boss and provided with
 45 means whereby the gripping-band can be tightened around the said collar part of the lug or released therefrom, for the purpose substantially as set forth.

3. In combination, the steering-pillar, the fixed steering-post, a collar on one of said
 50 parts, a gripping-band embracing said collar and having one of its ends fixed to the other part, and with its opposite end threaded and a nut engaging said threaded end, substantially as described. 55

In witness whereof I have hereunto set my hand in presence of two witnesses.

ROBERT WALKER SMITH.

Witnesses:

CHARLES BOSWORTH KETLEY,
 HERBERT WHITEHOUSE.