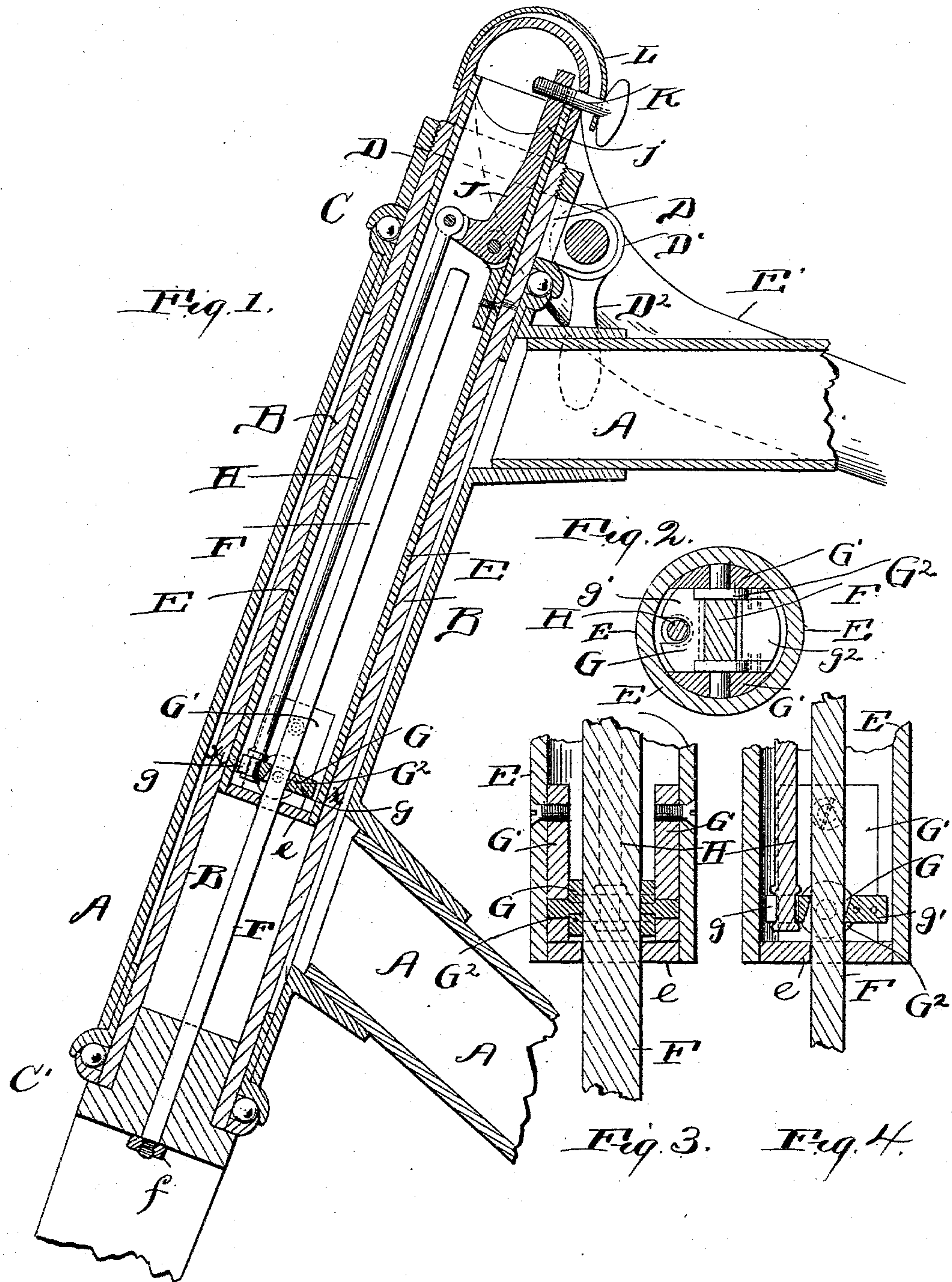


(No Model.)

J. F. BRUNNER & E. J. LAUFFER.
ADJUSTABLE HANDLE FOR BICYCLES.

No. 556,958.

Patented Mar. 24, 1896.



Witnesses.

E. B. Gilchrist

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UNITED STATES PATENT OFFICE.

JOHN F. BRUNNER AND EMIL J. LAUFFER, OF CLEVELAND, OHIO.

ADJUSTABLE HANDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 556,958, dated March 24, 1896.

Application filed October 28, 1895. Serial No. 567,106. (No model.)

To all whom it may concern:

Be it known that we, JOHN F. BRUNNER and EMIL J. LAUFFER, of Cleveland, in the county of Cuyahoga and State of Ohio, have
5 invented certain new and useful Improvements in Adjustable Handles for Bicycles; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in
10 the art to which it pertains to make and use the same.

Our invention relates to improvements in bicycles, and more particularly to the handle and steering stem or head and the connection
15 of the two with the crown of the fork which supports or acts as journals for the steering-wheel; and it consists in the peculiar construction and combination of parts, as will be hereinafter more fully set forth and claimed,
20 whereby the steering-handle may be adjusted up or down to suit the convenience of the rider without the necessity of the rider dismounting from the machine.

In the drawings, Figure 1 is a vertical section illustrating the device made according
25 to our invention. Fig. 2 is a view in section taken through line $x-x$, Fig. 1, showing more clearly the construction of our preferred clutch device. Figs. 3 and 4 are enlarged
30 sectional views taken through the clutch device, showing more clearly its construction and operation.

A represents a portion of the frame of the machine, to which is attached the tubular
35 bearing at the front end of the bicycle, said tubular bearing being formed in the usual and preferred manner, and having journaled in it the steering-post B, which is connected to the crown of the fork supporting the steering-wheel. This steering-post B is supported
40 at its upper and lower portions by means of the usual collars C C' and having the usual antifriction balls or rollers.

D is the clamping-collar which is used to
45 hold in position the steering-post B, and which is operated by means of a nut D' and also provided with a handle D². Extending into the interior of the steering-post is a tube E, which is so constructed as to fit snugly
50 within the steering-post, but at the same time in such a manner as to allow of a free up-and-down sliding motion. To this tube E are

secured in any suitable manner the handle-bars E', the same being rigidly fastened thereto. F represents a stem of irregular shape
55 in cross-section—namely, square, triangular, oval, hexagon, or any other shape of analogous character. This stem F is permanently secured to the crown-piece of the fork which supports the steering-wheel, and through it
60 the steering-post is also secured to the fork by means of the nut f . As hereinbefore stated, the stem F being of irregular shape always keeps the steering-post in proper position in
65 relation to the steering-wheel and does not allow of any misadjustment of the steering-post in relation to the same, as it is always desirable that the handles which operate the steering-post shall be approximately at right
70 angles to the steering-wheel.

At the lower end of the tube E is provided
75 an end piece e , which has a square or irregular-shaped aperture which corresponds with the shape of the stem F and through which said stem passes. Directly above this end
80 piece e we provide a clamping-piece G, which consists of a bushing G' inserted in the lower end of the tube E, and having in its interior a pivoted oscillating piece G². This oscillating piece G² we prefer to construct as shown
85 in the drawings, Figs. 2, 3, and 4—namely, forming it of two pieces g' g^2 —the piece g' having a sharp upper edge and the piece g^2 having a sharp lower edge, so that when the clamping-piece G is oscillated it will either
90 clamp the stem F by means of the sharp edges or release it, depending upon whether the outer edge is raised or lowered. In order to operate this clamping-piece at the lower end of the tube E, we provide a rod H, which is
95 connected to the outer part g of the clamp G at its lower end and to a bell-crank lever J at its upper end. Hence it will be noticed that as the bell-crank lever JK is operated in one direction or the other the clamp will be low-
100 ered or raised, and hence released or tightened upon the stem F. The longer arm j of the bell-crank lever J is connected with an adjustable button K, by means of which it is operated. This button K in turn is held in
an outward or normal position by means of a
spring L, which always tends by its resiliency to hold the long arm of the bell-crank lever J out and hence pull the small arm upward,

and through the medium of the rod H operate the clamp G so that it will hold the stem F in a predetermined position.

To operate our device all that is necessary is to loosen nut D' by means of the handle D², so as to loosen the clamp which releases the steering-post, the button K which releases the clamp at the lower end of tube E, and allow the handle to be raised or lowered, as desired, and thus held until nut D' is tightened. It will thus be seen that the rider can at his option raise or lower the handle-bar while mounted without the use of a tool or other device.

What we claim is—

1. In a bicycle, the combination with the steering-post, of an internal tube adapted to slide in said steering-post, said internal tube provided, at its upper end, with steering-handles, and at its lower end with a clamp adapted to engage a rod extending upward

from the fork of the steering-wheel, all substantially as and for the purpose shown and described.

2. In a bicycle, the combination with a steering-post secured at its lower end to the fork of the steering-wheel, and an irregular-shaped rod secured to the head of the fork and extending upward, of an internal tube provided, at its upper end, with steering-handles, and at its lower end with a clamping device adapted to engage said rod for the purpose shown.

In testimony whereof we sign this specification, in the presence of two witnesses, this 23d day of September, 1895.

JOHN F. BRUNNER.
EMIL J. LAUFFER.

Witnesses:

W. E. DONNELLY,
ELLA E. TILDEN.