No. 649,362. Patented May 8, 1900.

J. RYAN & C. OTIS.

BICYCLE HANDLE BAR.

(Application filed June 28, 1899.)

(No Model.)

Fig. 1

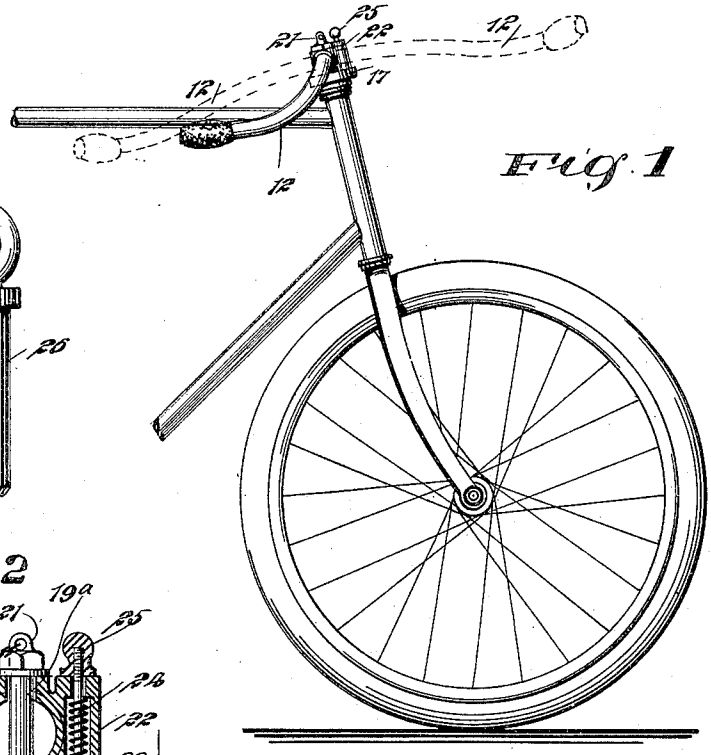


Fig. 7

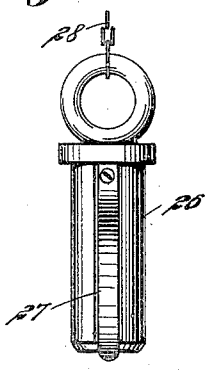


Fig. 2

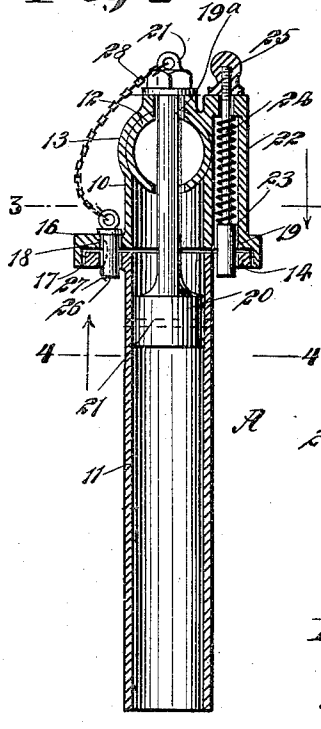


Fig. 3

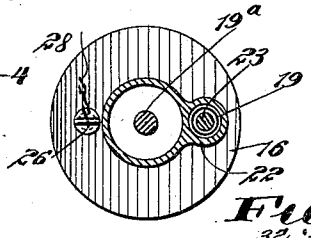


Fig. 6

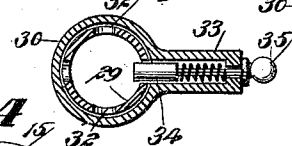


Fig. 4

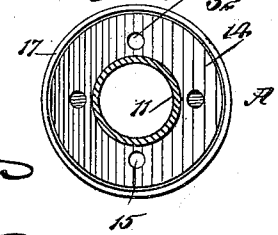
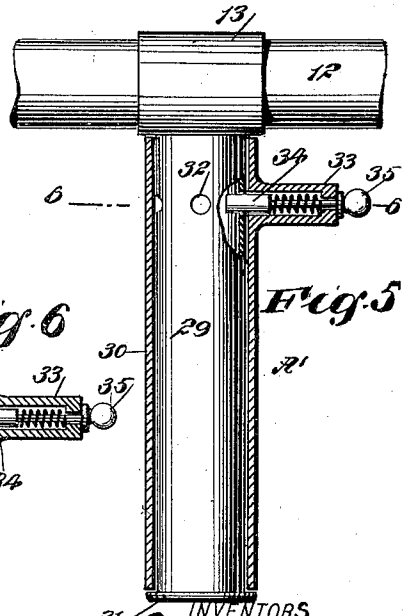


Fig. 5



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BICYCLE HANDLE-BAR.

SPECIFICATION forming part of Letters Patent No. 649,362, dated May 8, 1900.

Application filed June 28, 1899. Serial No. 722,191. (No model.)

To all whom it may concern:

Be it known that we, JOHN RYAN and CHARLES OTIS, of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and useful Improvement in Bicycle Handle-Bars, of which the following is a full, clear, and exact description.

The object of our invention is to so construct the handle-bar for bicycles and like machines that it may be as securely attached to the front fork of the machine as the ordinary bar and so that the handle-bar may be laterally adjusted relative to the frame and quickly and positively locked in such adjusted position, the adjustment of the handle-bar being accomplished without interfering with the riding position of the front wheel.

The prime object of the invention is to provide means for adjusting the handle-bar without affecting the position of the front wheel until one of the handle-bars strikes or is over the upper main tube of the machine and the other handle extends forwardly over the wheel, thereby enabling bicycles and such machines to be packed closely side by side and also enabling a person to lead the machine without taking up much room on a sidewalk or road.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the forward portion of a bicycle having the improved handle-bar applied, the position of the handle-bar in its extreme lateral adjustment being shown in dotted lines. Fig. 2 is a vertical central section through the improved handle-bar and its stem. Fig. 3 is a transverse section taken practically on the line 3 3 of Fig. 2. Fig. 4 is a transverse section taken practically on the line 4 4 of Fig. 2. Fig. 5 is a partial side elevation and partial sectional view of a slight modification in the construction of the handle-bar. Fig. 6 is a transverse section taken practically on the line 6 6 of Fig. 5, and Fig. 7 is an enlarged side elevation of a locking-plug used in connection with the form of the device shown in Fig. 2.

The stem A of the handle-bar is made in two sections, a lower or main section 11 and an upper section 10, the two sections being adjustable one upon the other. The handle-bar 12 is secured in the usual manner to a central sleeve 13, attached to the upper portion of the stem A. A horizontal flange 14 is formed at the upper end of the lower section 11 of the stem, and this flange 14 is provided with a series of circularly-arranged apertures 15, equidistant apart. A flange 16 is likewise formed at the bottom portion of the upper section 10 of the stem, and the flange 16 is provided with a downwardly-extending marginal rib 17, that fits loosely over the margin of the lower flange 14, as shown in Fig. 2. The flange 16 for the upper section 10 of the stem is provided with two diametrically-opposing apertures 18 and 19, and when one aperture in the upper flange is in registry with an aperture in the lower flange the opposing aperture in the upper flange will be immediately over an aperture 15 in the lower flange 14, as illustrated in Fig. 2. The two sections 10 and 11 of the stem A are pivotally connected through the medium of a post 19^a, which is usually provided with an enlargement 20 at its lower end, and said enlargement is fitted in the lower portion 11 of the stem A, being securely held therein by a pin 21 or its equivalent, while the main reduced portion of the post 19^a extends upward through the central portion of the handle-bar and central portion of the sleeve 13 out beyond the upper end of the said sleeve, and a suitable cap-nut 21 and washer are located at the outer end of the post 19^a, as illustrated in Fig. 2.

The two sections of the stem A are adjusted in position principally through the medium of a spring-controlled bolt 23, that is held to slide in a casing 22, formed at one side of the upper section 10 of the stem and extending to the flange 16, the bottom of the casing being over the opening 19 in said flange 16, and

normally the spring of the bolt forces the lower end of said bolt out through the opening 19 and into an opening 15 in the flange of the lower section 11 when the opening 19 is in registry with an opening 15, as shown in Fig. 2. The stem 24 of the bolt 23 extends loosely out through the top of the casing 22 and is provided with an attached handle 25, whereby the bolt 23 may be drawn out of engagement with the flange 14 on the lower section of the handle-bar stem.

When the handle-bar is transversely of the frame or in position for riding, it is positively held in such position by passing a plug 26 through the opening 18 in the flange of the upper section of the stem and through a corresponding opening 15 in the flange of the lower section of the handle-bar stem, as shown in Fig. 2. The plug 26 is preferably provided with an attached spring 27, that acts to prevent the plug from accidentally moving from the apertures through which it is passed, and a chain 28 or its equivalent is usually employed to connect the plug 26 with the cap-nut 21 on the pivot-post 19^a. Thus it will be observed that the plug 26, having been carried out of engagement with either of the flanges 14 and 16, and the bolt 23, having been withdrawn from engagement with the lower flange 14, the handle-bar may be carried over to the right or to the left, so that one portion of the bar will strike against the upper main brace of the frame and the other portion will extend forwardly over the wheel, as shown in dotted lines in Fig. 1, enabling the wheel to be placed close to a wall or a number of wheels to be packed quite close together, and, furthermore, enabling a person to lead a bicycle and stand close to the front wheel.

In Fig. 5 we have illustrated a slight modification in the construction of the handle-bar in which the locking device is at the side. In this modification the stem A′ of the handle-bar is made in two vertical telescopic sections 29 and 30, the inner section 29 being provided with a flange 31 at its bottom, thus preventing the section 29 from being withdrawn from the section 30, and the section 29 is further provided with a series of circumferentially-arranged openings or apertures 32. A spring-controlled bolt 34, carried by a casing 33, is adapted to enter any of said apertures or openings 32. The casing 33 is connected with the outer section 30 of the handle-bar stem, and the bolt is provided at its outer end with a suitable knob 35 to facilitate the manipulation of the bolt.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A handle-bar stem for bicycles, consisting of two pivotally-connected sections, one being capable of turning upon the other, the two sections being provided with opposing disks, the disk of one section being provided with diametrically-located apertures and the disk of the other section with a series of apertures, a spring-controlled bolt carried by the section having the disk containing the two apertures, the bolt being adapted to pass through one of said apertures, and an auxiliary bolt having a spring attached to it and connected by a chain with the upper section, said bolt being adapted to pass through any two registering apertures of the said two disks, as and for the purpose specified.

2. A handle-bar stem for bicycles, comprising two sections, the lower section having an apertured disk at its upper end, and the upper section carrying the handle-bar and having at its lower end an apertured disk fitting upon the disk of the lower section, and at one side, a bolt-casing, a post secured in the lower section and projecting through the handle-bar and the upper section and pivotally connecting the sections together and securing the handle-bar in the upper section, and a spring-pressed bolt in the casing of the upper section and engaging registering apertures in the disks of said sections, substantially as described.

3. A handle-bar stem for bicycles, comprising a lower section having a plain apertured disk at its upper end, an upper section carrying the handle-bar and having at its lower end a flanged apertured disk fitting upon the disk of the lower section, and at one side, a bolt-casing, a post secured in the lower section and projecting through the handle-bar and upper section and pivoting the said sections together and securing the handle-bar in the upper section, and a spring-pressed bolt in the casing of the upper section and engaging registering apertures in the said disks, substantially as described.

4. A handle-bar stem for bicycles, comprising a lower section having an apertured disk at its upper end, an upper section carrying the handle-bar and having an apertured disk at its lower end, a post secured in the lower section and projecting through the handle-bar and the upper section and pivotally connecting the sections together and securing the handle-bar in the upper section, a cap-nut on the post, a casing on the upper section, a spring-bolt in the casing and adapted to engage registering apertures in the disks, an auxiliary bolt for engaging the apertures of the disk on the side opposite the spring-bolt and a chain secured to the auxiliary bolt and to the cap-nut, substantially as described.

5. A handle-bar stem for bicycles, consisting of a lower section having a plain apertured disk at its upper end, an upper section having a flanged apertured disk at its lower end, a rod secured in the lower section and extending through the handle-bar and upper section and pivoting the sections together, a casing on one side of the upper section, a

spring-pressed bolt in the casing and adapted to engage registering apertures in the disk, and an auxiliary bolt or plug having a spring attached to it and connected by a chain with the upper section, said plug or bolt being adapted to engage registering apertures of the disk on the side opposite the first-named bolt, substantially as herein shown and described.

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