

(No Model.)

2 Sheets—Sheet 1.

S. BRAMALL.
BICYCLE.

No. 529,700.

Patented Nov. 27, 1894.

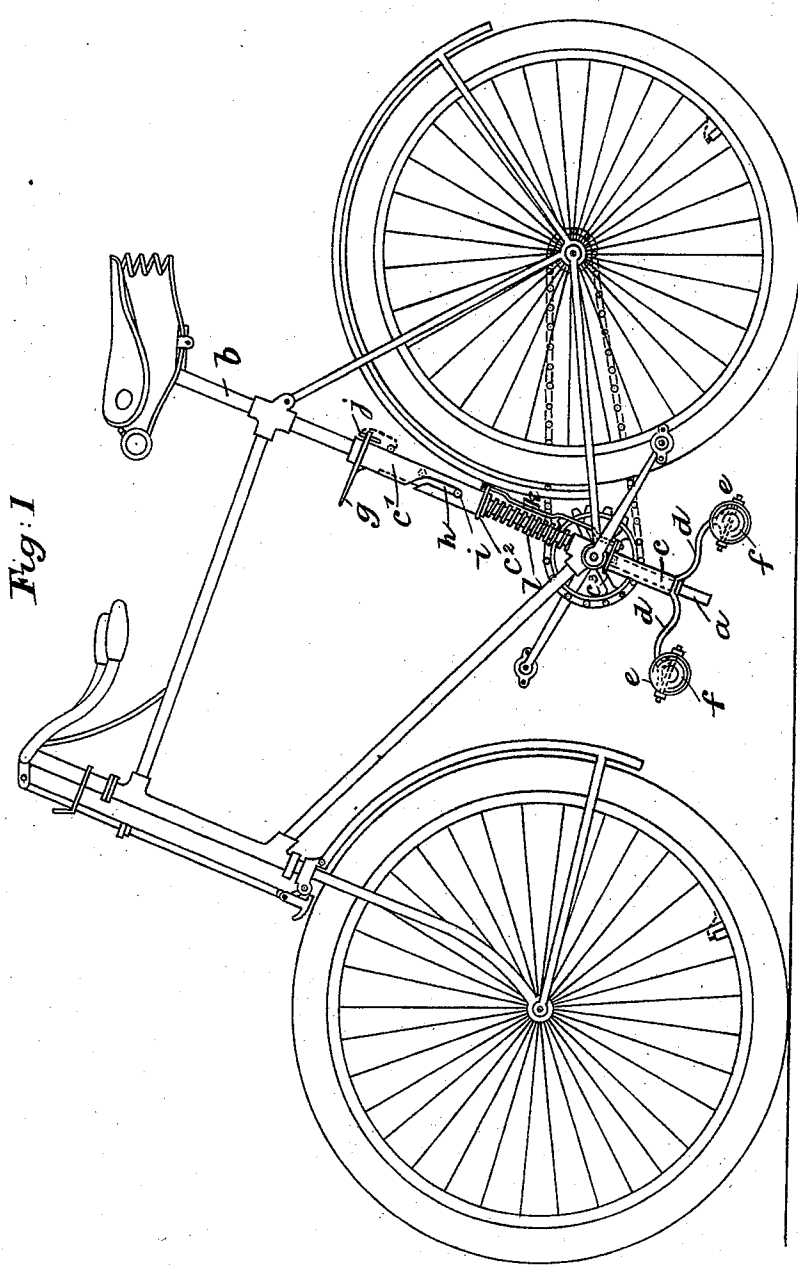


Fig. 1

Witnesses:
Parks A. Mc Bride
Chas. A. Mugg

Inventor
Sidney Bramall,
by
W. H. Babcock
Attorney.

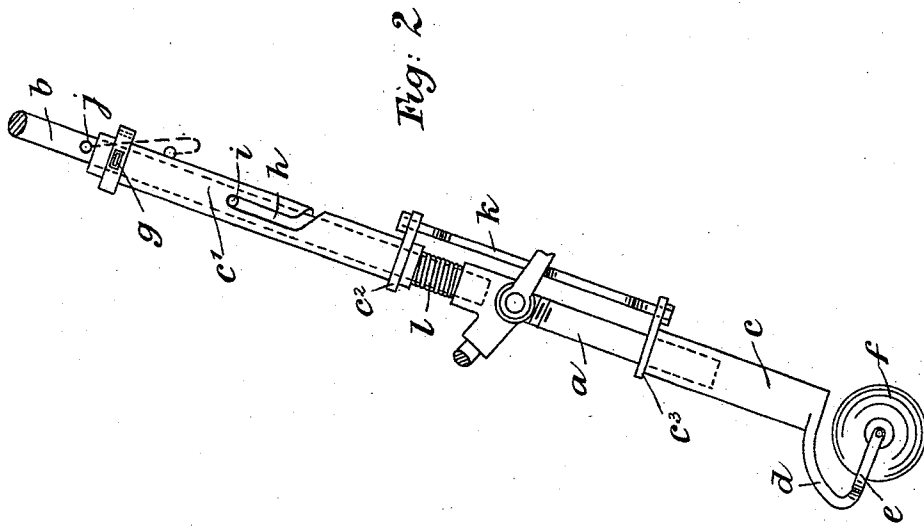
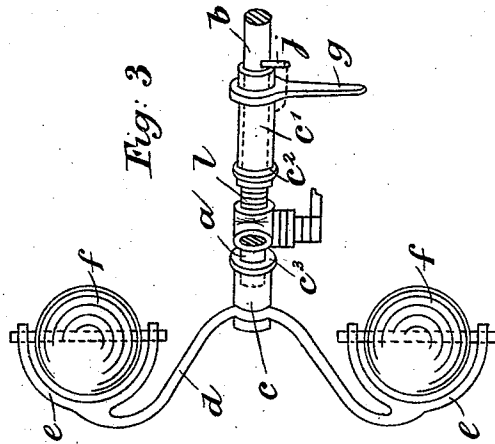
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2 Sheets—Sheet 2.

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No. 529,700.

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Witnesses:
Parks A. McBride
Chas. A. Wuyff

Inventor,
Sidney Bramall,
by
W. H. Babcock,

UNITED STATES PATENT OFFICE.

SIDNEY BRAMALL, OF LONDON, ENGLAND.

BICYCLE.

SPECIFICATION forming part of Letters Patent No. 529,700, dated November 27, 1894.

Application filed December 27, 1893. Serial No. 494,837. (No model.) Patented in Belgium December 30, 1893, No. 107,608, and in France February 16, 1894, No. 234,321.

To all whom it may concern:

Be it known that I, SIDNEY BRAMALL, a subject of the Queen of Great Britain and Ireland, residing at 20 High Holborn, London, in the county of Middlesex, England, have invented certain new and useful Improvements in Bicycles, of which the following is a specification, the same having been patented in France February 16, 1894, No. 234,321, and in Belgium December 30, 1893, No. 107,608.

These improvements are illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a bicycle with the improvements applied thereto. Fig. 2 is an elevation of the improvements when in action. Fig. 3 is a plan of the same.

Like letters of reference refer to like parts throughout the several views.

My invention secures steadiness of the machine at starting; balancing of the machine without absolutely stopping it in the midst of town traffic; and a perfect rest for the cyclist when desired. It adds very little to the weight of the machine, and can easily be applied at a trifling cost to about ninety per cent. of existing machines without altering or weakening their frames. According to my invention I attach in direct line with the nearly upright bar *b* a short rod, *a*, to the treadle boss in any convenient manner, preferably by a screw which may easily be withdrawn when it may be required to detach the apparatus hereinafter described. Around the rod, *a*, I place a tube or casing, *c*, to the lower end of which I attach a cross-bar, *d*, which is curved and furnished at either of its ends with a claw, *e*, within which is placed an india rubber or other suitable ball or roller, *f*, which, when actuated by the means hereinafter described, rotates in the same direction as the wheels of the bicycle. The positions of the curved cross-bar, and balls or rollers when not in use are conveniently within the radius of the pedals of the bicycle, and at a suitable distance from the ground in the direction of the bicycle wheels. The bar, *b*, is inclosed for a convenient part of its length in a similar tube or casing, *c'*, to the tube or casing, *c*, hereinbefore referred to. The upper part of the tube or casing, *c'*, is furnished with a handle, *g*, facing front or rear as may be desired, and in a

convenient part of said tube or casing is a slot, *h*, which works on a pin, *i*, conveniently placed in the bar, *b*. To the lower end of the tube or casing, *c'*, is attached a ring or band, *c²*, which is affixed by a nut or other suitable means to the upper end of a rod or bolt, *k*, which is bent inward and outward, and the lower end of which rod is affixed to a ring or band, *c³*, corresponding to the ring or band, *c²*, attached to the upper end of the tube or casing, *c*. In a convenient position near the handle, *g*, I may affix to the tube or casing, *c'*, a small pin, *j*, which may be received into a convenient recess in the bar, *b*. Around the bar, *b*, and attached at its lower end to the treadle boss, and at its upper end to the ring or band, *c²*, at the bottom of the tube or casing, *c'*, is a spiral spring, *l*.

Having described the several parts of which my invention consists, I proceed to explain the manner in which these parts are actuated, and their effects when actuated. The handle, *g*, being pressed downward until it has traveled for about two inches in the slot, *h*, the pin or stud, *i*, impinges on the tube or casing, *c'*, causing it to revolve a quarter turn. Further pressure of the handle, *g*, by hand or foot causes the tubes or casings, *c*, and *c'*, to descend until the balls or rollers *f*, *f* reach the ground at right angles to their normal positions. Then the cyclist by keeping the handle, *g*, pressed down may at his option move on slowly or stop altogether in an upright position. When the pressure is removed from the handle the apparatus retires to its normal position, and thus enables the rider to proceed at any desired speed. Should he desire to dismount and leave his machine he may insert the pin, *j*, in a recess on the bar, *b*, and thus cause the machine to stand upright at rest.

It is obvious that by the arrangement herein specified great assistance is given not only to ordinary cyclists in town and country, but also to lady cyclists, military cyclists, and beginners.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In combination with the wheels and

treadles of a bicycle, the upright rods *a b* attached to the treadle boss, the sleeves *c c'* sliding on them respectively, a device connecting the said sleeves in order that they may move together, a replacing spring bearing against one of the said sleeves, and a support attached to the lower sleeve and arranged to press against the ground when the said sleeve is lowered, for the purpose set forth.

2. In combination with the wheels and frame of a bicycle, upright rods *a b* attached to the treadle boss, sleeves *c c'* capable of longitudinal and axial motion on the said rods respectively, a replacing spring bearing against one of the said sleeves, a cross-bar *d* carried by the lower sleeve *c*, wheels *f* mounted in the said cross bar and normally in line with the direction of motion, and a device connecting the said sleeves to move together, one of the said sleeves being provided with a slot *h* which is partly longitudinal partly oblique and receives a stud on the rod over which the said sleeve moves in order that the depression

of the said sleeve may cause the wheels *f* to turn across the line of motion of the machine as they approach the ground and act as a support substantially as set forth.

3. In a bicycle the combination of the wheels and frame with the upright rods *a b*, the sleeves *c c'* moving longitudinally and axially thereon, the bolt or rod *k* connecting the said sleeves, the handle *g* on the upper sleeve, the rings or bands *c² c³* on the said sleeves respectively, the pin *i* of the rod *b* received in the slot *h* of rod *b*, the pin *j* attached to the said sleeve and fitting into a recess, the said rod above it, the replacing spring *l*, a cross-bar *d* carried by the lower sleeve *c*, and wheels *f* mounted in the said cross-bar and arranged to press against the ground when said sleeve is lowered, substantially as set forth.

Dated this 21st day of November, 1893.

SIDNEY BRAMALL.

Witnesses:

P. O'HALLORAN,
P. H. BAILY.