

No. 617,565.

Patented Jan. 10, 1899.

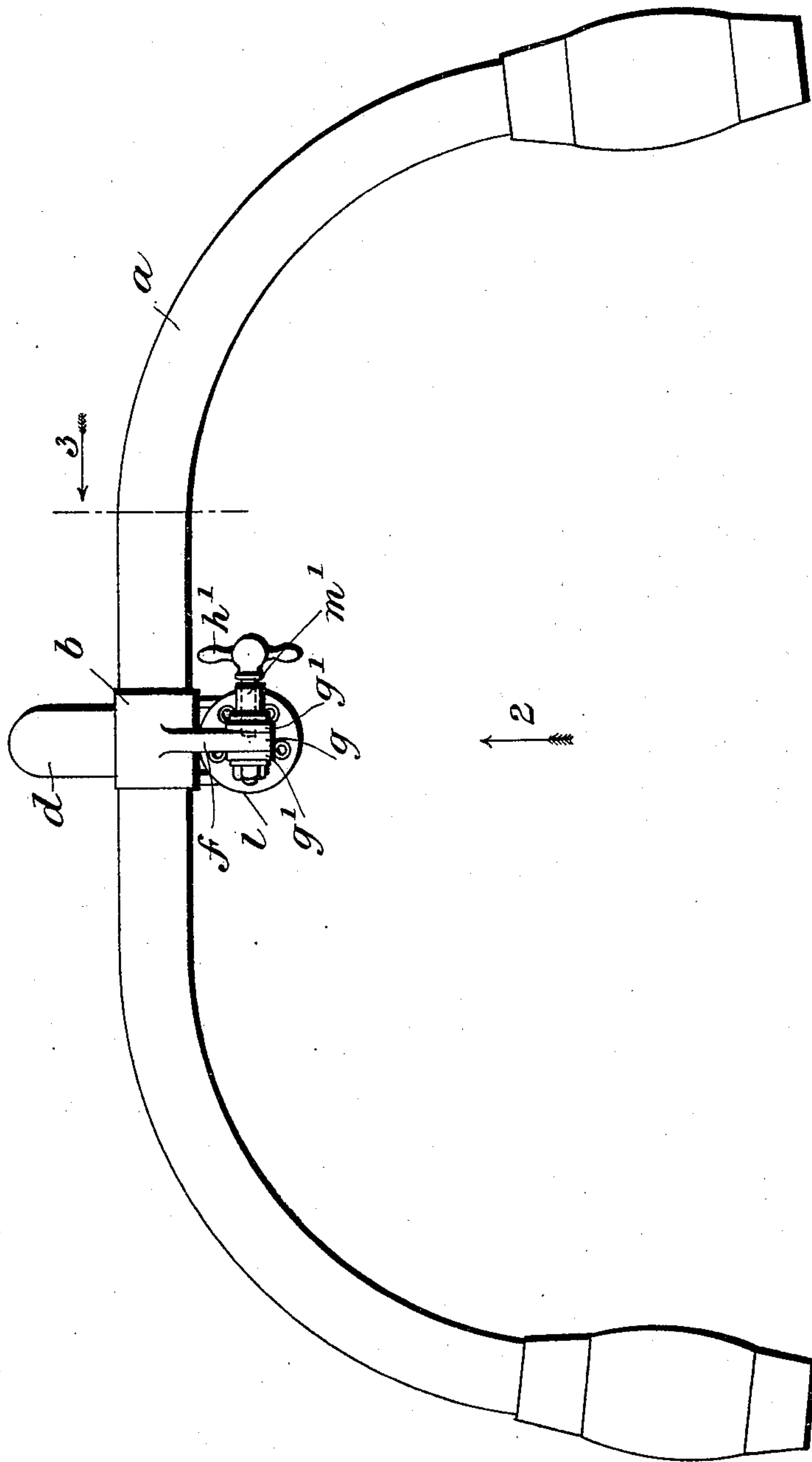
J. W. DEANS.
HANDLE BAR FOR CYCLES.

(Application filed Dec. 29, 1897.)

(No Model.)

4 Sheets—Sheet 1.

Fig. 1.



WITNESSES:
Geo. W. Jackel
Carl Kautsk

INVENTOR
John William Deans
BY *George R. Renger*
ATTORNEYS.

No. 617,565.

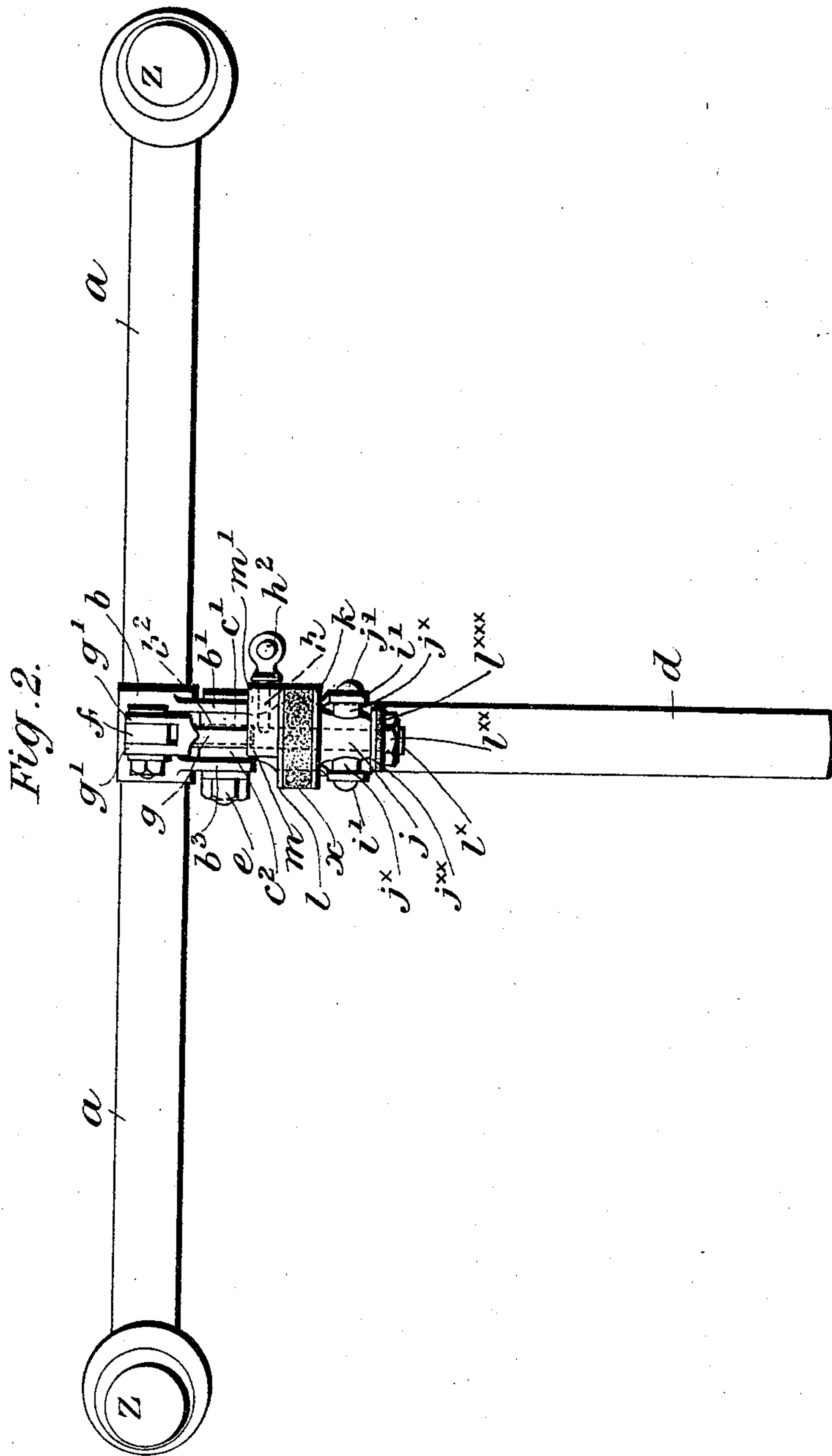
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WITNESSES.

Geo. W. Jackel
Carl Hauke

INVENTOR

John William Deans

BY *Goepel & Raegener*
ATTORNEYS.

No. 617,565.

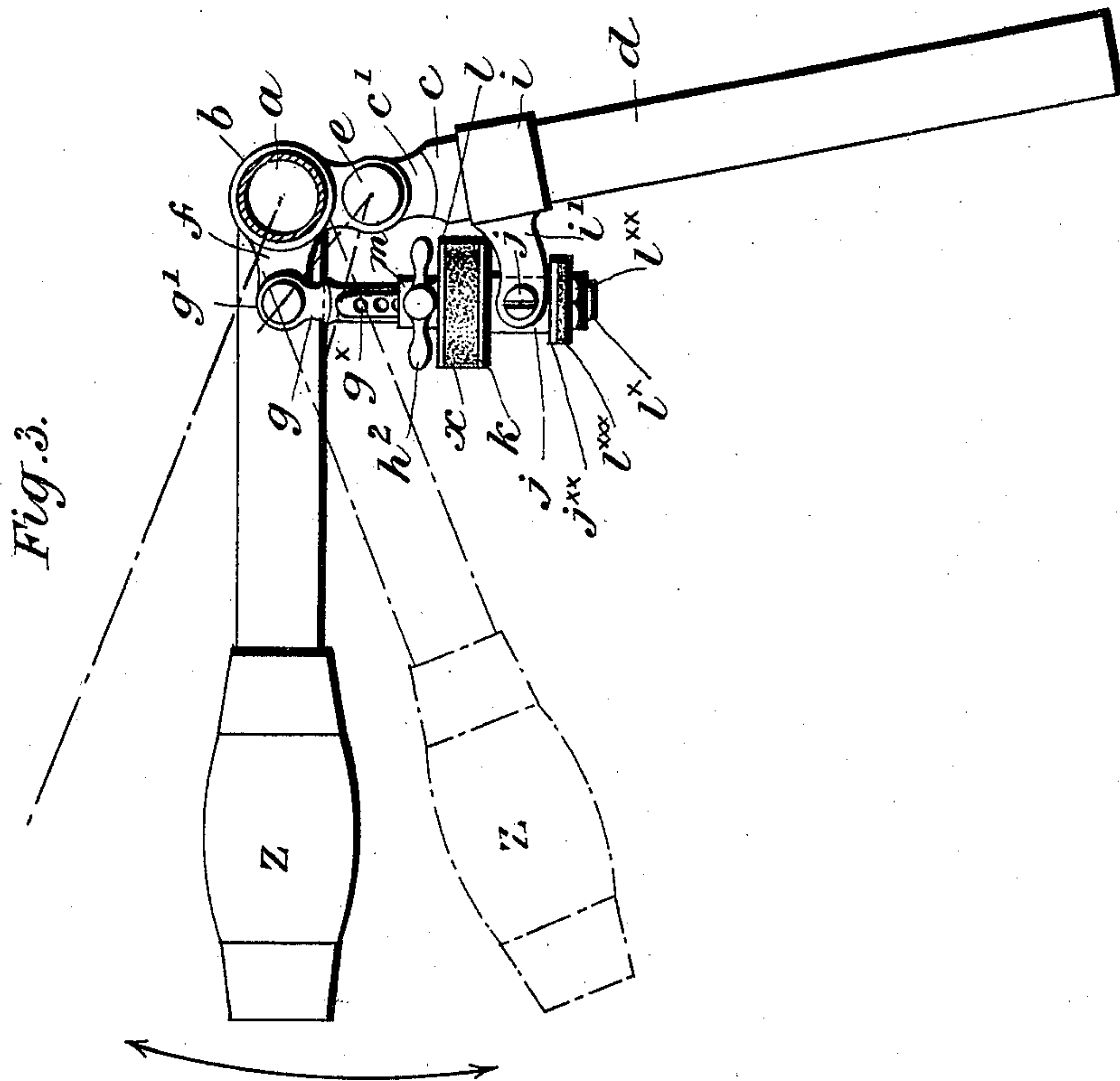
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(No Model.)

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WITNESSES
Geo. H. Jaekel
Carl Kaulbe

INVENTOR
John William Deans
BY *George H. Jaekel*
ATTORNEYS.

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Fig. 4.

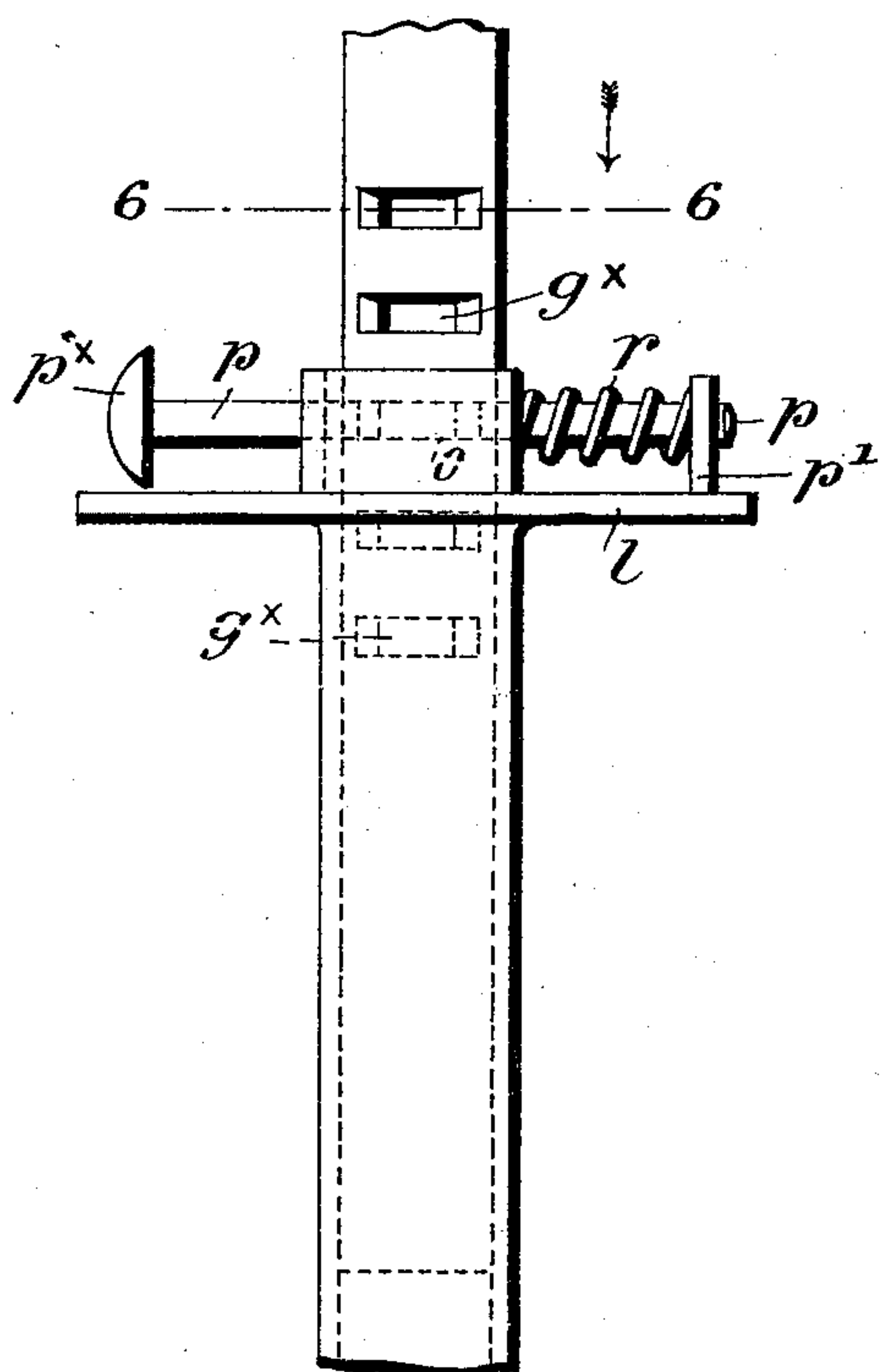


Fig. 5.

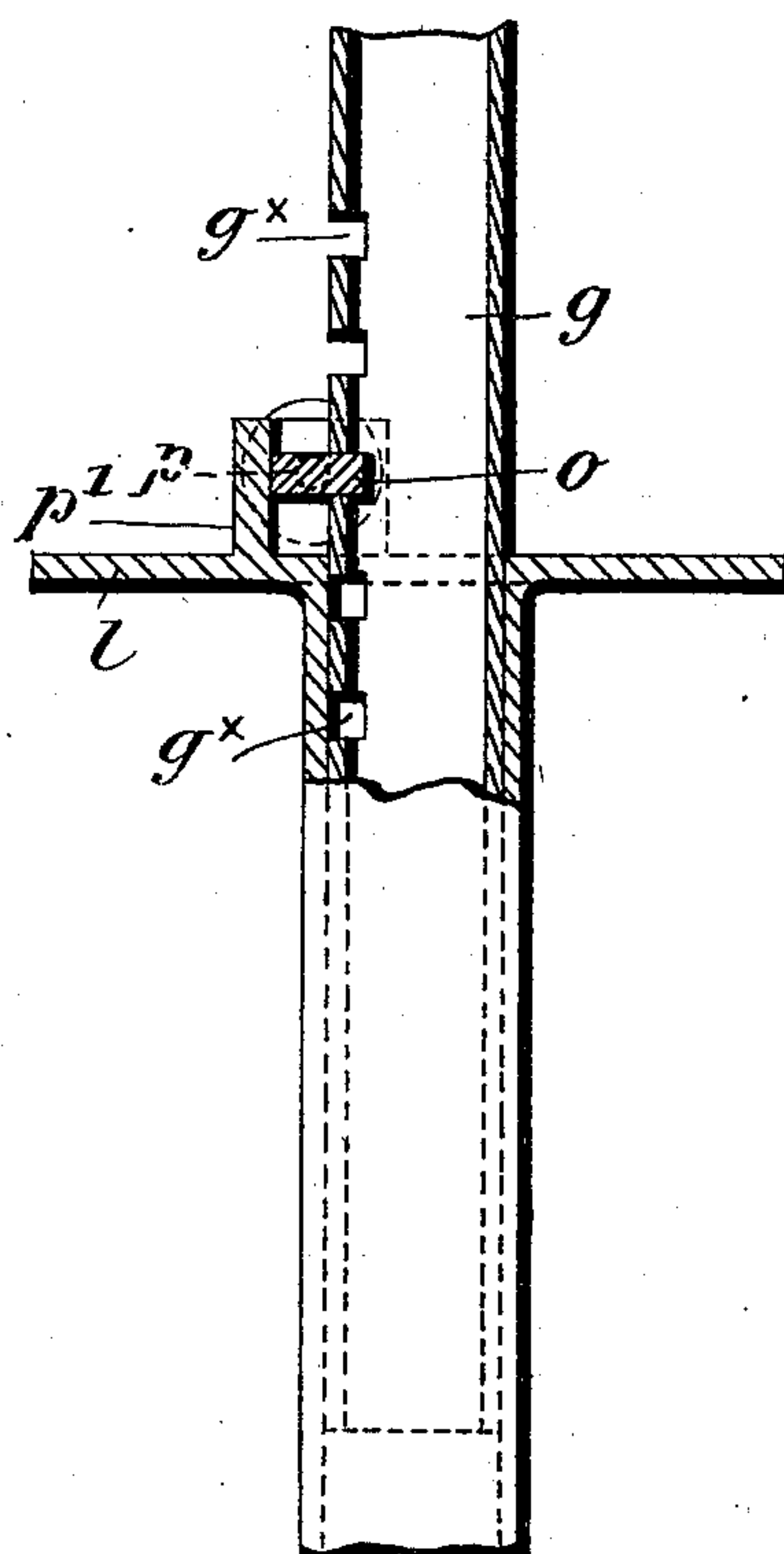
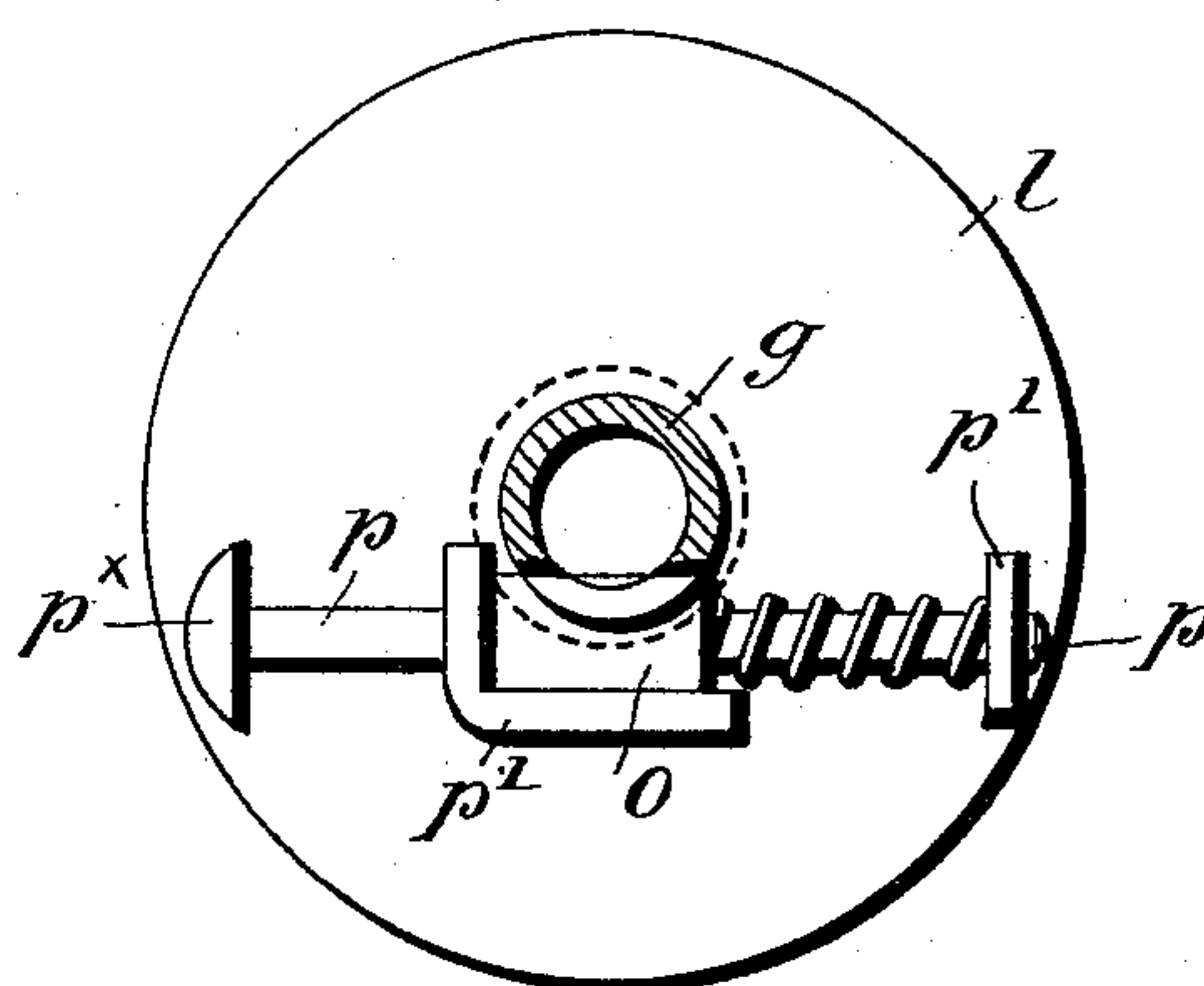


Fig. 6.



WITNESSES:

Geo. H. Jaenkel
Carl Kautle

INVENTOR

John William Deans

BY *Loewy & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN WILLIAM DEANS, OF SELBY, ENGLAND.

HANDLE-BAR FOR CYCLES.

SPECIFICATION forming part of Letters Patent No. 617,565, dated January 10, 1899.

Application filed December 29, 1897. Serial No. 664,377. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM DEANS, a subject of the Queen of Great Britain, residing at Gowthorpe road, Selby, in the county of York, England, have invented certain new and useful Improvements in Handle-Bars for Cycles, of which the following is a specification.

The object of this invention is to provide means for adjusting the handle-bars of cycles at varying angles with the steering-post, so as to bring them into a more convenient position for the rider, and to provide a cushioning device for absorbing the jar of the cycle, so that the same does not pass to the hands of the rider as the handle-bar is grasped in riding.

To this end the invention consists of a handle-bar for cycles, comprising a grip-bar provided with a projecting lug and pivotally connected to the steering-post of the cycle, and a cushioning device pivoted at one end to said lug and at the other end pivotally connected with the steering-post, and, further, in certain details of construction and combinations of parts to be more fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan of the handle-bars of a cycle, showing the means of adjusting the same and of preventing or reducing vibration according to the present invention. Fig. 2 is a view looking in the direction of the arrow 2, Fig. 1. Fig. 3 is a side view—i. e., looking in the direction of the arrow 3, Fig. 1.

a a are the grip-bars, of the ordinary or any suitable curved form, which are brazed or otherwise suitably and rigidly fixed to the socket *b*, which latter is provided with three downwardly-projecting lugs *b'* *b*² *b*³.

c is the block or head end of the head or steering post *d*, said block being provided with two upwardly-extending lugs *c'* and *c*², which latter fit between the lugs *b'* *b*² *b*³ and are there hinged or pivoted by means of the hinge pin or bolt *e*.

f is a lug or crank-like arm extending rigidly from the said socket *b* and pivoted to the forked upper ends *g' g'* of the vertical rod or connection *g*. This rod *g* is provided with notches or holes *g*^x down one side thereof,

into which enters the end *h* of the set-screw or locking device, this latter being provided with the arms *h'*, by which said screw *h* can be firmly screwed against or into the said rod *g*.

i is a collar or mount clipped, brazed, or otherwise rigidly secured to the head-post *d* and having the forked arms or lugs *i' i'* rigidly extending therefrom. In these forked arms or lugs *i' i'* is pivoted the socket *j* (see Fig. 2) by means of trunnions *j*^x on said socket, so that the latter can pivot or turn on the axis *j'*. This socket *j* has a flange *j*^{xx} at the lower end. This socket *j* at its upper end is provided with a flange or disk *k* to support the cushion *x*. *l* is a similar disk carried or formed on the socket *m*, the latter being provided with an extension *m'*, through which the set-screw *h* works. This disk *l* has a downwardly-extending sleeve *l*^x thereon, which passes through the cushion *x* and right down through the socket *j* and is secured in position by the lock-nut *l*^{xx}, (or lock-nuts,) a washer *l*^{xxx}, of soft material, being inserted between the nut *l*^{xx} and the flange *j*^{xx} to prevent rattle.

x is the india-rubber or other suitable elastic pad or cushion between the disks *l* and *k*; or a coiled spring may be used in the place of the rubber cushion.

Thus it will readily be seen that vertical adjustment of the handles *z* can be obtained by unscrewing the screw *h* by means of the arms *h'*, (or equivalent,) so that the rod *g* is released from the screw *h*, and thereupon the handle *z* can be raised or lowered to any desired extent within the limits of the mechanism—i. e., from about the lowermost position shown in dotted lines in Fig. 3 to the uppermost position indicated in dotted lines in such figure—and when the desired adjustment has been obtained thereupon the screw *h* is tightly screwed again into engagement with the rod *g*, and thus the handles are firmly fixed in position. The elastic pad or cushion *x* being interposed between the disks *k* and *l* and the lower end of the rod *g*—i. e., that part of the rod *g* which is below the point where the screw *h* nips or engages said rod—passing freely through the disk *l*, cushion *x*, disk *k*, and socket *j*, thus vibration on the handles is very greatly reduced by the interposition of this cushion *x*.

It will be obvious that any suitable equivalent mechanism or means may be used instead of the set-screw *h* for attaching and releasing the rod *g* to or from the disk *l*. For instance, the rod *g* may be screw-threaded and a revolving collar or nut carried on the disk *l*, screwed on said rod, and thereby raise or lower the latter, or I may use the modified arrangement shown in Figs. 4 to 6, Fig. 4 being a local view in elevation, Fig. 5 a vertical sectional view, and Fig. 6 a cross-sectional view on line 6-6, Fig. 4, of such modified arrangement. In this case the rod *g* is provided with a series of notches *g*^x, with which an enlargement *o* on a horizontal spring-mounted rod *p* is adapted to engage. This rod *p* is adapted to slide in bearings or supports *p*', fixed on the disk *l*, a spring *r* being arranged between one of the bearings *p*' and the enlargement *o* in such wise as to normally keep said enlargement pressed into engagement with one of the notches *g*^x, as shown in Figs. 4, 5, and 6. By pressing endwise on the knob *p*^x on said rod *p* thereby the enlargement *o* is moved clear of the rod *g* and notches thereon, and consequently such rod can now be raised or lowered to the desired extent, and then said locking-piece *o* on the rod *p* will be moved back into engagement with one of the notches *g*^x, and conse-

quently such rod will now be again firmly locked and held in the desired position.

What I claim is—

1. A handle-bar for cycles, consisting of a suitable grip-bar, means for pivoting said grip-bar to the steering-post of the cycle, a collar on said steering-post, lugs extending from said collar, a lug extending from said grip-bar, a flanged socket pivoted to said collar-lugs, a flanged sleeve in said socket, a connecting-bar pivoted to said grip-bar lug and movable in said sleeve, means for securing said sleeve to said connecting-bar, and a cushion arranged between the flanges of the socket and sleeve, substantially as set forth.

2. A handle-bar for cycles, consisting of a pivoted grip-bar, a support attached to the bicycle steering-post, a flanged sleeve movable in said support, a notched connecting-bar movable in said sleeve, means for connecting said connecting-bar with the grip-bar, a spring-actuated rod supported by the flange of said sleeve and adapted to engage the notches of the connecting-bar, and a cushion between said support and the flange of said sleeve, substantially as set forth.

JOHN WILLIAM DEANS.

Witnesses:

WILLIAM DUNN FOSTER,
ARTHUR FRANK SHAY.