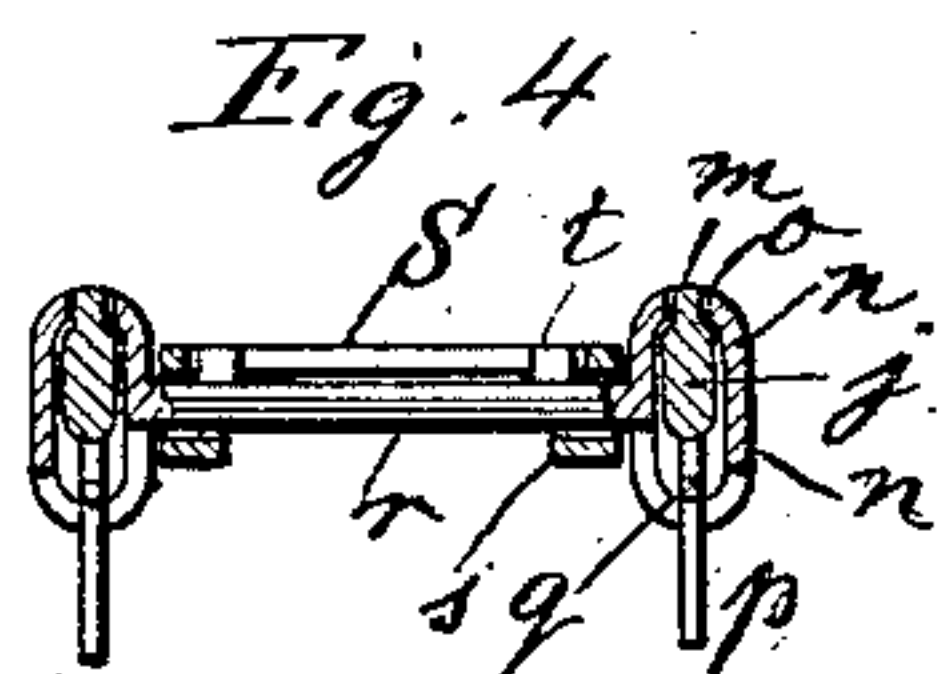
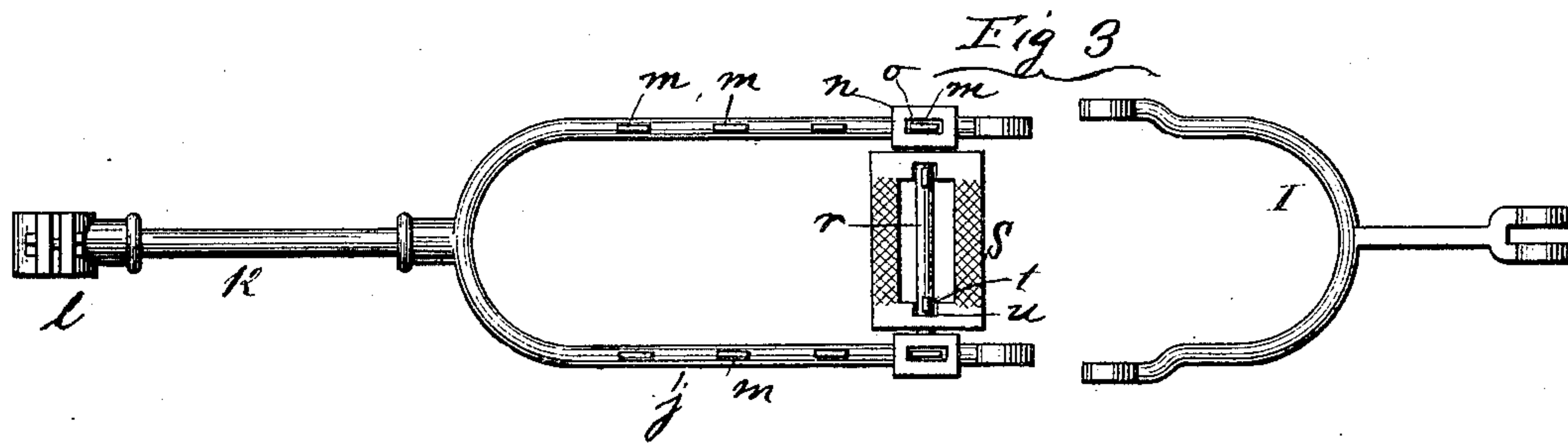
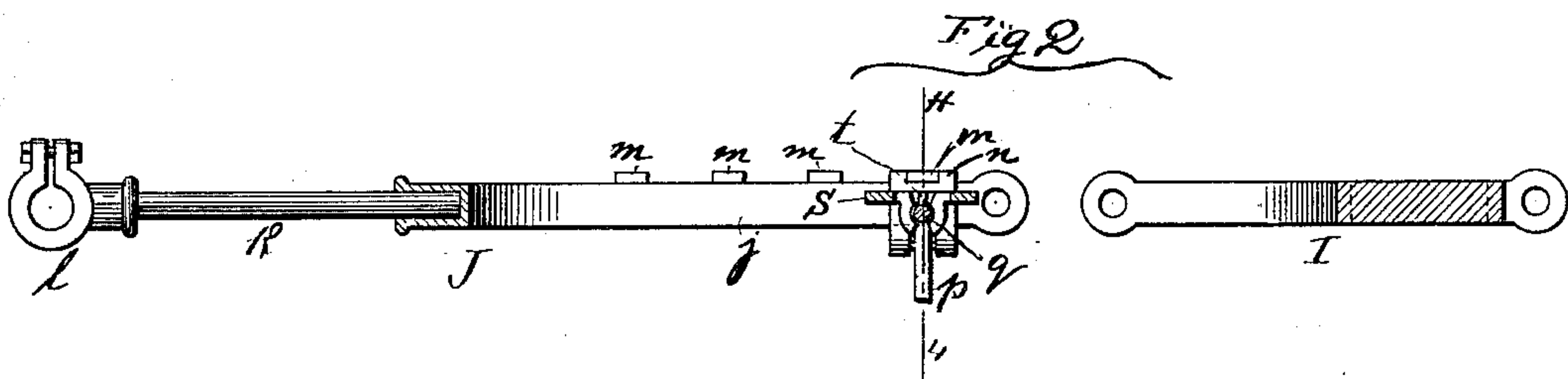
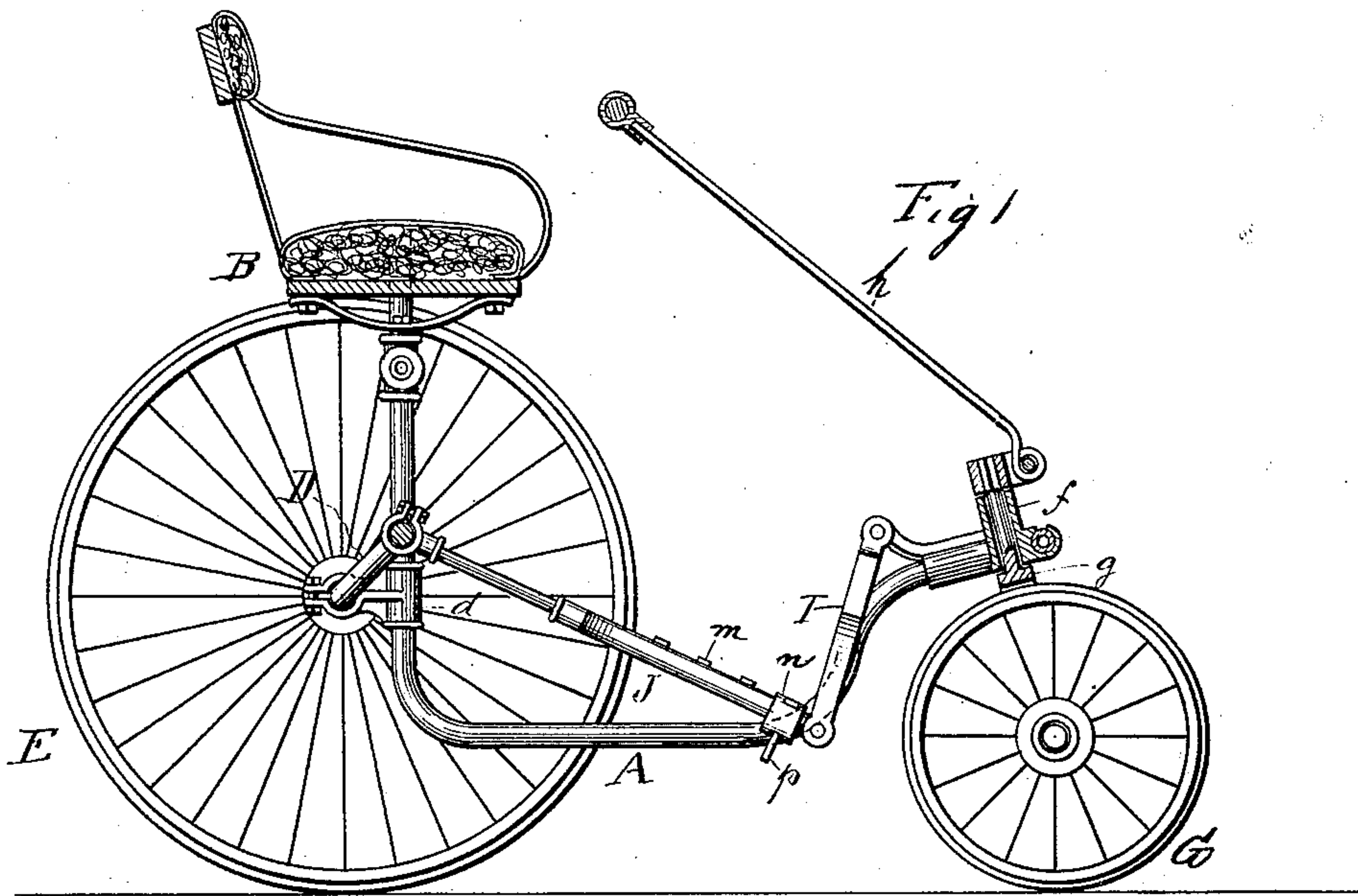


(No Model.)

C. BEER & R. BOND.  
TRICYCLE.

No. 429,715.

Patented June 10, 1890.



Witnesses  
W. Rossiter  
Otto Luebke

Inventors  
Carl Beer  
Richard Bond  
By Wm H Lotz  
Atty.



# UNITED STATES PATENT OFFICE.

CARL BEER AND RICHARD BOND, OF CHICAGO, ILLINOIS.

## TRICYCLE.

SPECIFICATION forming part of Letters Patent No. 429,715, dated June 10, 1890.

Application filed March 24, 1890. Serial No. 345,012. (No model.)

*To all whom it may concern:*

Be it known that we, CARL BEER and RICHARD BOND, citizens of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tricycles, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to velocipedes, and more particularly to tricycles arranged for occupants of either sex, and wherein the treadle is attached to a pitman pivotally coupled to the crank-axle of the hind drive-wheels and  
15 suspended in front to the frame by a pendulum-link; and it consists in a simple and convenient device by which the treadle is made adjustable longitudinally upon the pitman to accommodate it for different-sized occupants,  
20 all as will be more fully hereinafter described, and specifically claimed.

In the accompanying drawings, Figure 1 represents a sectional elevation of a tricycle embodying our improvements; Fig. 2, a side  
25 elevation, and Fig. 3 a plan view, of the pitman with the treadle and pendulum-link detached; and Fig. 4 is a cross-section on line 4 4 in Fig. 2.

Corresponding letters of reference in the  
30 several figures of the drawings designate like parts.

A denotes the frame, usually formed of gas-pipe, with the seat B resting on semi-elliptic springs secured upon the rear vertical portions of frame A, to which below such seat B  
35 by sleeve-couplings are also secured the bracket-bearings *d* for crank-shaft D, having rigidly mounted upon its exterior ends the drive-wheels E. Upon the forward end of  
40 the frame, also by sleeve-couplings, is secured the tubular bearing *f* for the upper trunnion of the bifurcated standard *g*, in which is pivoted the pilot-wheel G, a crank secured upon such trunnion having pivoted a rod *h* with a  
45 handle in convenient position for the occupant to direct the course of this pilot-wheel G.

To a rearwardly-extending eyed bracket of tubular bearing *f* is pivoted the upper end of pendulum-link I, the lower end of which is  
50 bifurcated, and to the lower eyed ends of the prongs of this link I are pivotally connected

the forward eyed ends of the pitman J. This pitman J is usually composed of a U-shaped forward end, the two prongs *j* of which are parallel with each other, of the shank K, se- 55 cured in a socket formed to the central portion of the bow-connection of prongs *j*, and of a compensable journal-box *l*, secured upon the opposite or rear end of shank K, pivotally coupling with crank-shaft D. The prongs 60 *j* of this pitman J have to their upper edges a series of rectangular lugs *m* equal distance apart, and upon each such prong *j* is placed an oval sleeve *n*, the opening in which sleeves vertically is sufficient to clear the lugs *m* and 65 to be shifted over the same. In its top each such sleeve *n* is provided with a slot *o* of a size to admit and engage either one of the lugs *m*, while the length of each sleeve *n* is equal to the space between two adjacent lugs, 70 whereby such sleeves *n* can be adjusted either by being inserted between two such lugs *m* or their slots to engage one or the other of these lugs *m*, thus providing nearly twice the number of adjusting positions than the num- 75 ber of lugs *m* to each prong *j*. Each sleeve *n* is also transversely slotted in its bottom, and in each such slot is suspended a small pendulum-bar *p*, provided with trunnions *q*, that pivotally rest in the opening of sleeve *n* at 80 both sides of its bottom slot. The short portion of these pendulum-bars *p* above trunnions *q*, by the overweight of their pendent lower ends, will be held to abut against the lower edges of prongs *j* of the pitman J, 85 thereby holding the sleeves *n* from being lifted or from disengagement with the lugs *m* after adjustment, while, for adjusting, the bars *p* are swung to one side, when the sleeves can be lifted to slide over lugs *m* to the desired po- 90 sition for engagement with or between the proper lugs, when, with releasing, the bars *p* will at once assume again a vertical position for locking the sleeves on their acquired po- 95 sition. The two sleeves *n* being rigidly connected by a cylindrical cross-bar *r*, the rectangular treadle S, provided with eye-lugs *s* at its bottom ends, is pivoted thereon, and for the purpose that said treadle S will not turn upside down, the cross-bar *r* is provided on 100 its upper edge near its ends with projecting lugs or feathers *t*, and the treadle S has



notches *u*, shouldering against lugs or feathers *t*, thereby allowing a limited swinging movement of the treadle sufficient for accommodating itself to the varying angular positions of the feet of the rider during his propelling operations.

It will be readily seen that with the device shown the treadle can be instantly adjusted upon the pitman to the most commodious position for any-sized occupant, and after thus adjusted it will be automatically locked to be rigid with such pitman.

The face of treadle *S* is serrated for affording a better foothold thereon.

What we claim is—

1. In a tricycle of the class described, and in combination with the bifurcated pitman thereof, and with a series of lugs *m* to the prongs of such pitman, the sleeves *n*, connected by cross-bar *r* and sliding over the prongs of the pitman for engagement with either lugs *m*, and treadle *S*, secured upon cross-bar *r*, all substantially as set forth.

2. In a tricycle of the class described, and in combination with the bifurcated pitman thereof, and with a series of lugs *m* to the

prongs of such pitman, the sleeves *n*, connected by cross-bar *r* and sliding over the prongs of the pitman to engage between either two lugs *m*, slots *o* in these sleeves for engaging either lugs *m*, and treadle *S*, secured upon cross-bar *r*, all substantially as set forth.

3. In a tricycle of the class described, and in combination with the bifurcated pitman thereof, and with a series of lugs *m* to the prongs of such pitman, the sleeves *n*, connected by cross-bar *r* and sliding over the prongs of the pitman to engage between either two lugs *m*, slots *o* in these sleeves to engage either lug *m* of treadle *S*, pivotally secured upon cross-bar *r*, and pendulum-bars *p*, suspended in sleeves *n* and abutting against the prongs of the pitman for locking the parts, all substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CARL BEER.  
RICHARD BOND.

Witnesses:

WILLIAM H. LOTZ,  
OTTO LUEBKERT.