No Model.)

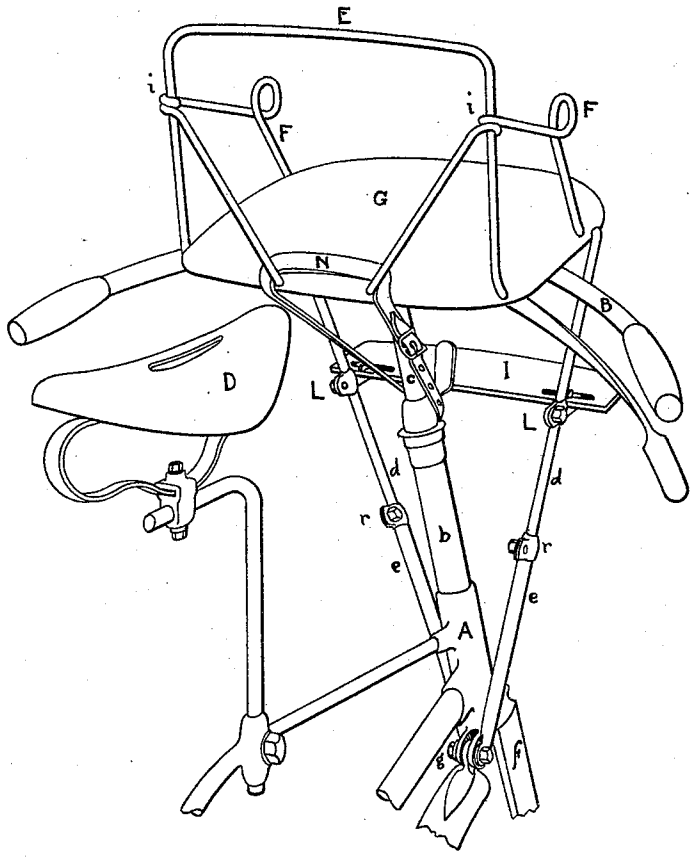
2 Sheets—Sheet 1.

H. E. COOKE.

SEAT FOR VELOCIPEDES.

No. 479,056. Patented July 19, 1892.

Fig. 1.



Howard E. Cooke

INVENTOR

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(No Model.) 2 Sheets—Sheet 2.

H. E. COOKE.

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Fig. 2.

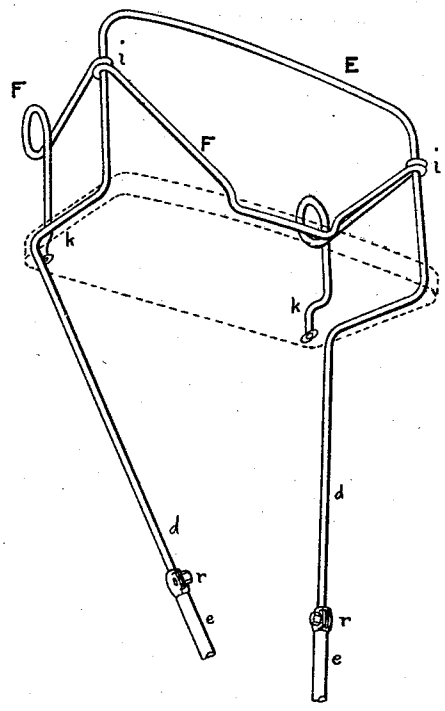


Fig. 3.

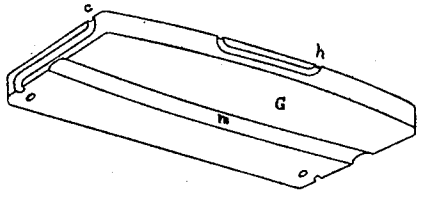


Fig. 6.

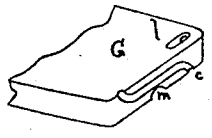


Fig. 4.

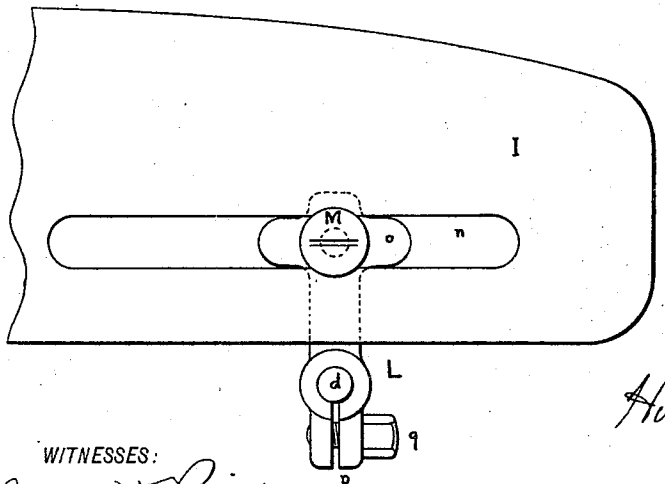
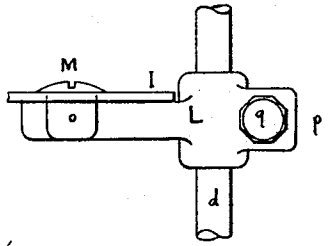


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SEAT FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 479,056, dated July 19, 1892.

Application filed September 25, 1891. Serial No. 406,865. (No model.)

To all whom it may concern:

Be it known that I, HOWARD E. COOKE, a citizen of the United States, residing at the city of Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bicycles and Tricycles, of which the following is a specification.

My invention relates to an improvement in the construction of bicycles and tricycles, its object being to provide the same with a detachable chair for carrying a child; and it consists in the peculiar construction of the said chair, combining therein great strength, simplicity, and lightness, and in so attaching the same to the bicycle or tricycle as that the center of the seat shall rest as near as may be directly over the carrying-arm of the handle-bar, so that the chair will revolve as the handle-bar revolves in steering the wheel, thus bringing the weight of the body substantially in line with the carrying-arm of the handle-bar and substantially balanced thereon, and also in certain details and particulars in the construction, arrangement, and combination of parts, substantially as will be hereinafter described, and then more fully pointed out in the appended claims.

The accompanying drawings, consisting of Sheets 1 and 2, illustrate my invention, in which—

Figure 1 is a perspective view of the frame of a Safety bicycle with my improved carrying-chair attached to the handle-bar. Fig. 2 is a perspective view of the chair-frame with adjustable connecting-rods. Fig. 3 is a perspective view of the under side of the seat detached from the chair-frame. Fig. 4 is a plan view of the foot-rest with its adjustable supporting-brackets attached thereto. Fig. 5 is a side elevation of the supporting-bracket. Fig. 6 is a perspective view of a portion of the upper side of the seat, showing groove in surface for the reception of the arm-shoulder.

Like letters of reference indicate corresponding parts throughout the several views.

A indicates the frame of a Safety bicycle, having the usual front and rear forks, within and to which the wheels are attached in the usual manner.

B indicates the handle-bar for steering the wheels, connected at its center to its carrying-arm C, which is connected to the front forks through the tubular forward uprights *b* of the frame.

D is the rider's seat.

E is the frame of the carrying-chair seat, and is constructed of one continuous piece of flexible metal, preferably wire of sufficient strength and size, so bent as to form a back-support and to fit tightly into the groove *c c*, formed in the side edges of the seat G, and fastened securely therein by staples or other suitable means. The ends of the wire are bent downward at the front corners of the seat, forming the connecting-rods *d d*, and are carried downward, converging as they approach the shoulders of the front forks and extending into the tubular clamp-sockets *e e*, which at their lower ends are rigidly attached by a bolt or other well-known means to the front forks *f* at or near their shoulders *g*, and so attached as to be readily detached when desired. The connecting-rods *d d* are made to converge as they approach the front forks, whereby all liability of contact with the rider's knees in driving the wheel is removed.

F indicates the arms and back-braces, consisting of one continuous piece of metal, preferably of wire of sufficient strength and size, which at the middle of its length is fitted into a short groove *h* in the rear edge of the seat G and firmly fastened therein by staples or other well-known means. The ends are then respectively bent upward and wound tightly around uprights of the back-support at *i i* and are then carried forward and bent into suitable shapes for arms of the chair, thence carried downward and so bent as to form the shoulders *k k*, made to fit into short grooves *l l*, formed in the upper surface of the chair-seat G, near the front corners, and thence carried downward through the chair-seat at the corners and firmly secured thereto by riveting upon the under side of the seat or by any other well-known means.

G indicates the chair-seat, of wood or other suitable material, having a groove *m* extending centrally across the under side thereof, the groove being made to conform to and closely fit over and upon the top of the handle-bar B; also having the grooves *c c* formed in the side edges of the seat, into which the wire frame is fitted and fastened, as hereinbe-

fore described, and also having the grooves *l l* formed in the upper surface of the seat, near the front corners, for the reception of the shoulders *k k* for the purpose of strengthening and steadying the arm, and having, also, the groove *h* formed in the rear edge of the seat, into which is fitted and fastened the back-braces, as described. A chair thus constructed possesses great strength, lightness, and simplicity, qualities especially desirable in a carrying-chair of a bicycle.

I indicates an adjustable foot-rest, of metal or wood, having therein longitudinal slots *n n*.

L L indicate two metallic brackets for supporting the foot-rest, having thereon, respectively, lugs *o o*, fitting into the slots *n n*, to which brackets the foot-rest is fastened by screws M M, working into the lugs *o o*. The brackets L L are each provided with the well-known clamps *p p*, so made as to be gripped around the connecting-rods *d d* by means of a screw-bolt *q*. The foot-rest can thus be adjusted at different points upon the connecting-rods within moderate limits, the screws M M and bolts *q q* being loosened, and thus allowing the lugs *o o* to slide in the slots *n n* as the brackets are moved up or down on the converging connecting-rods. The clamp-sockets *e e* are iron or steel tubes attached at their lower ends to the front forks *f f*, at or near their shoulders *g*, by a bolt or other suitable fastening and each having at its upper end a clamp *r*, so constructed as to be gripped around the connecting-rods by means of a screw-bolt for firmly grasping the connecting-rods *d d* as they slide into the sockets, thus permitting the chair to be adjusted to varying sizes of bicycles. It is obvious, of course, that the connecting-rods *d d* might be continued downward and connected directly with the front forks without the use of the clamp-sockets. Seat G may be held down in its place upon the handle-bar by a strap N, attached to the arm of the handle-bar and to the rear of the seat, or the seat may be held in place by any other suitable fastening upon the handle-bar itself. The chair when thus placed in position upon the handle-bar is held firmly thereon by the connecting-rods *d d* and tubular clamp-sockets *e e*, rigidly connected to the front forks, as described, and by the strap N. As thus located its center of gravity is directly, or nearly so, over the carrying-arm of the handle-bar, and consequently is so evenly balanced thereon that it offers no substantial obstacle or difficulty in steering or driving the wheel.

In the case of carrying-chairs or other carriers arranged to hang upon and located substantially wholly upon one side of the handle-bar or carrying-arm when the carrying-arm is revolved by the rider in changing the direction of the wheel the body carried sways outward, and thereby seriously disturbs the equilibrium of the bicycle. This disturbance increases very greatly the labor of the rider in maintaining the equilibrium. This objectionable feature is considerably aggravated in the case of a chair carrying a child beyond what it would be in the case of a chair or other structure carrying an inanimate object because of the frequent independent and sudden movements of the child, which add very much to the disturbing effect produced by its momentum. By means of my invention, however—that is, the arranging of the chair centrally over the head of the carrying-arm—the chair and its occupant, when the carrying-arm is revolved in changing the direction of the wheel by the rider, revolves upon the head of the carrying-arm and about its own center, and consequently the weight and momentum of the child carried offers no appreciable disturbance of the equilibrium of the bicycle, so that the force exerted by the weight of the child is exerted substantially in the direction and line of the carrying-arm. The weight of the body occupying the carrying-chair being so centrally located and evenly balanced tends to steady the handle-bar and render the steering even more easy than without it.

The arrangement of the chair over the handle-bar makes it very convenient for the rider to care for the child without in any way seriously interfering with the steering or driving of the wheel. The child is by this arrangement carried with great safety, being as far removed as possible from the mechanism, and so less liable in case of accident to become entangled therein.

The chair may be attached to any of the common styles of Safety bicycles or tricycles without any defacing or marring thereof and may be readily detached when desired.

What I claim as my invention is—

1. In a Safety bicycle or tricycle, the combination of the handle-bar B and carrying-arm C with a child's carrying-chair arranged centrally over and above the head of the carrying-arm and secured thereto either in a permanent or detachable manner, substantially as described.

2. In a Safety bicycle or tricycle, a child's carrying-chair having groove *m* formed in the under side of the seat, in combination with the handle-bar B and carrying-arm C, arranged centrally upon and over the handle-bar and head of the carrying-arm and secured thereto either in a permanent or detachable manner, substantially as described.

3. In a Safety bicycle or tricycle, a child's carrying-chair consisting of seat G, having therein grooves *c c* and *m*, frame E, and strap N, arranged centrally over and upon the handle-bar B and head of carrying-arm C and secured thereto either in a permanent or detachable manner, in combination with the connecting-rods *d d*, connecting the chair to the front forks, substantially as described.

4. In a Safety bicycle or tricycle, a child's carrying-chair consisting of seat G, having therein grooves *c c*, *l l*, *m*, and *h*, the frame E, back-braces F, and strap N, arranged cen-

trally over and upon the handle-bar B and head of the carrying-arm C and secured thereto either in a permanent or detachable manner, in combination with connecting-rods *d d*, connecting the chair to the front forks, substantially as described.

5. In a Safety bicycle or tricycle, a child's carrying-chair arranged centrally over and above the handle-bar B and head of the carrying-arm C and secured thereto either in a permanent or detachable manner, in combination with connecting-rods *d d*, connecting the chair to the front forks, substantially as described.

6. In a Safety bicycle or tricycle, the child's carrying-chair arranged centrally over and above the handle-bar B and carrying-arm C and secured thereto either in a permanent or detachable manner, in combination with adjustable connecting-rods *d d* and clamp-sockets *e e*, provided with clamps *r r*, connecting the chair to the front forks, substantially as described.

7. The adjustable foot-rest I, having therein slots *n n*, the brackets L L, provided with lugs *o o*, the screws M M, and clamps *p p*, in combination with a child's carrying-chair arranged centrally over and above the handle-bar B and the head of carrying-arm C and secured thereto either in a permanent or detachable manner and converging connecting-rods *d d*, connecting the chair to the front forks, substantially as described.

HOWARD E. COOKE.

Witnesses:
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JEFFERSON ARAND.