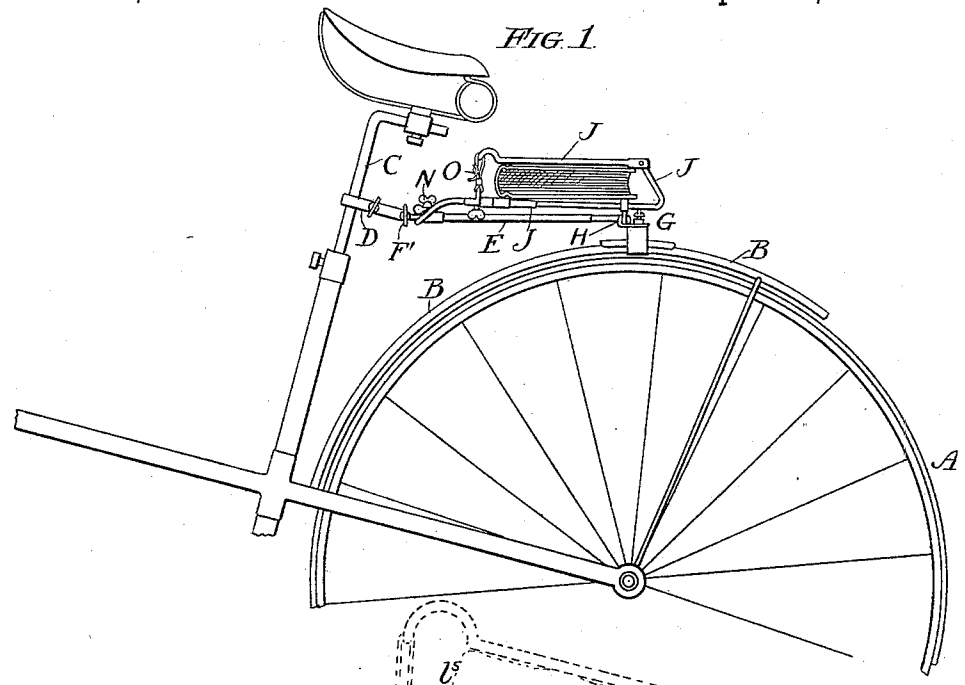
(No Model.) 2 Sheets—Sheet 1.

R. COATES.

COMBINED STAND AND CARRIER FOR BICYCLES.

No. 460,332. Patented Sept. 29, 1891.

FIG. 1.



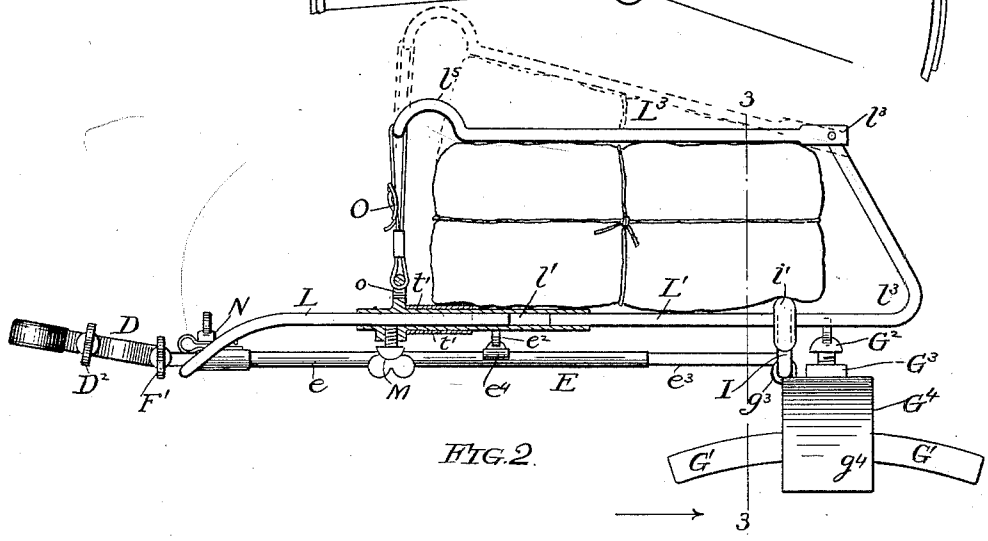


FIG. 2.

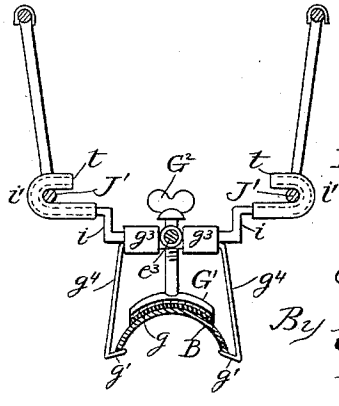


FIG. 3.

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 4.

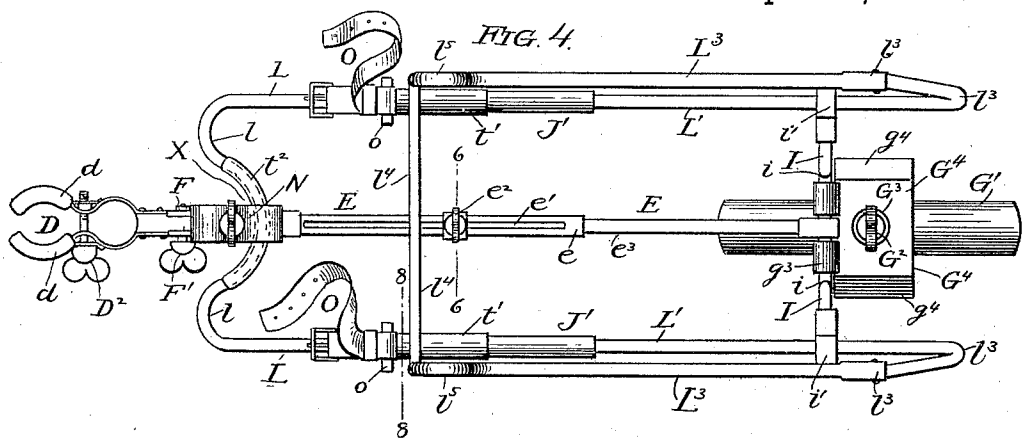

FIG. 6.

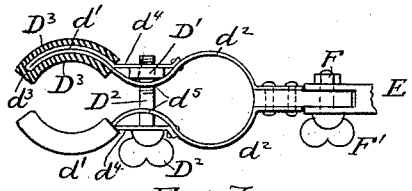

FIG. 7.

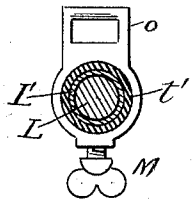

FIG. 8.

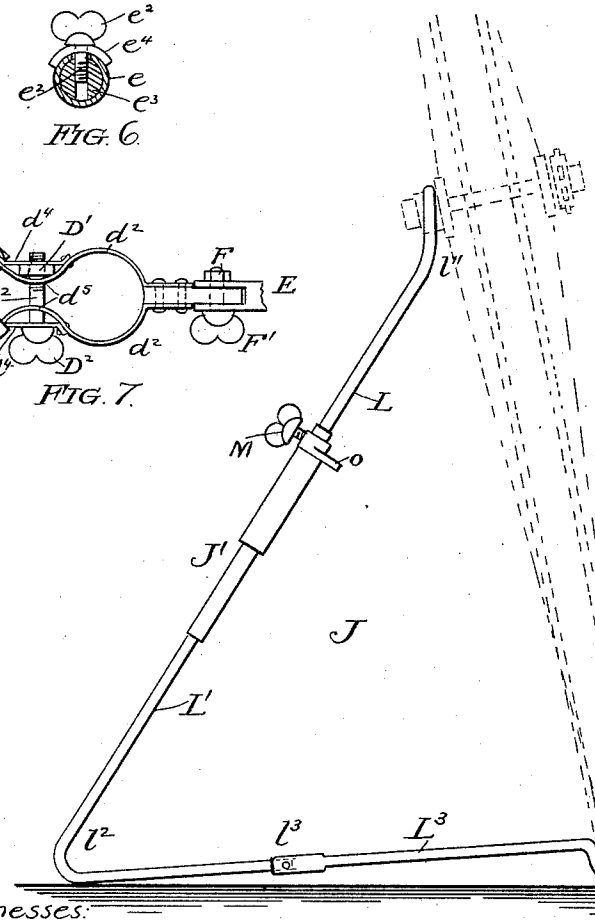

FIG. 5.

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UNITED STATES PATENT OFFICE.

ROBERT COATES, OF CHICAGO, ILLINOIS.

COMBINED STAND AND CARRIER FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 460,332, dated September 29, 1891.

Application filed January 27, 1891. Serial No. 379,258. (No model.)

To all whom it may concern:

Be it known that I, ROBERT COATES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Bicycle-Stands and Luggage-Carriers, of which the following is a specification, reference being had to the accompanying drawings, which are made a part hereof, and in which—

Figure 1 is a side elevation of a portion of a bicycle, showing the improved luggage-carrier in place thereon. Fig. 2 is a side elevation of said luggage-carrier removed from the machine and on a larger scale. Fig. 3 is a section thereof on the line 3 3, Fig. 2, looking in the direction of the arrow. Fig. 4 is a plan view of the said luggage-carrier. Fig. 5 is an elevation of a portion thereof that is adapted for use as a bicycle-support, the position of the wheel being indicated by dotted lines. Fig. 6 is a section on the line 6 6, Fig. 4. Fig. 7 is a plan view of the saddle-rod clamp, the rubber covering of one of the jaws being shown in section. Fig. 8 is a section on the line 8 8, Fig. 4.

The object of the present invention is to provide a luggage-carrier having a removable part which is adapted to be used as a support for holding the machine in upright position; and to this end said invention consists in certain features of novelty, that are particularly pointed out in the claims hereinafter.

Referring to the drawings, A represents the rear wheel, B the mud-guard, and C the saddle-rod, of a Safety bicycle.

D is a clamp adapted to clamp the saddle-rod C. E is a reach having its front end connected with said clamp by a hinge-joint F, and G is a second clamp adapted to clamp the mud-guard B and connected to the rear end of the reach by a hinge-joint H.

The clamp D consists of a pair of jaws d, formed of spring-plates of sufficient length to give them the necessary flexibility, bent outward at d', so as to form curved sockets for embracing the saddle-rod, and at d^2 to cause them to open automatically. They are doubled on themselves at d^3, and the portions d^4 carried back and riveted at the bends d^2. Between the two outward bends d' and d^2 the main portions of the plates have inward bends d^5, and in the space left between this inward bend and the portion d^4 of one of the jaws a nut D′ is situated. Through this nut works a thumb-screw D^2, the head of which bears against the portion d^4 of the other jaw, both of said jaws being provided with perforations of sufficient size to permit of the passage of the screw and of its slight relative lateral movement incident to the opening and closing of the jaws. Soft rubber tubing D^3 is stretched over the jaws in order to prevent them from bruising the saddle-rod. The saddle-rods of all bicycles do not occupy the same position with relation to the other parts of the machine. The one shown in the drawings is slightly inclined toward the rear; but many of them have even a less inclination, while others have a greater inclination, and still others are not inclined at all. It is in order to enable the luggage-carrier to be used on any machine irrespective of the position of the saddle-rod that the clamp D is connected to the reach by the hinge F, and in order to hold the clamp and reach in proper relative position when once set a clamp-screw F′ is placed at the hinge-joint.

The clamp G consists of a follower G′ of a shape corresponding approximately to the external shape of the mud-guard B, a thumb-screw G^2, swiveled to said follower, a nut G^3, through which said screw works, and a straddle G^4, to which said nut is secured. This straddle consists of a piece of sheet metal bent so as to form depending legs g^4, which straddle the mud-guard and have at their lower ends hooks g' for engaging beneath said guard, as shown more clearly in Fig. 3. To secure the clamp to the mud-guard the hooks g' are engaged beneath its edges and the set-screw G^2 turned so as to press and hold the follower G′ firmly against the top of the guard, the under side of said follower being provided with a lining g of some soft material—such as rubber or felt—for preventing it from bruising the machine.

Not only does the inclination of the seat-rod differ in different machines, but the distance between said rod and a given point in the circumference of the mud-guard varies materially. It is in view of this fact that the

reach E is made adjustable in length and the clamp G is hinged loosely to it. This hinge H enables the attaching of the clamp to the mud-guard either at its summit or upon either side of the summit. The reach E consists of a tube *e*, provided with a longitudinal slot *e'*, through which passes a clamp-screw e^2, that screws into the solid portion e^3 and bears against a curved clamp-plate e^4, resting upon the outside of the tube. By this means the reach may be adjusted to any required length.

I is a cross-tree, which forms a T with the reach, and g^3 are lips projecting from the margin of the top of the straddle G^4 and bent around the two arms of the cross-tree, constituting the hinge-joint H. Outside of these lips the arms of the cross-tree are offset, as at *i*, and their extremities are bent so as to form hooks *i'*.

J is a removable part, which is used alone, as shown in Fig. 5, for the purpose of supporting the bycicle, and which is used in connection with a strap or similar device, as presently described, to constitute a parcel-holder. It has two approximately parallel side bars J', each made of two parts L and L', the parts L of the two side bars being integral and the portion *l*, which unites them, being bent so as to form a crotch X, for a purpose that will appear presently. The free ends of the parts L project into sockets *l'*, formed in the extremities of the parts L', and are there secured by set-screws M, whereby the side bars may be adjusted in length. The parts L' are bent at l^2, so as to form an angle of, say, sixty degrees, and to their extremities extension-pieces L^3 are hinged, as at l^3. These extension-pieces are integral, and adjoining the portion l^4, that unites them, each of them is provided with an outward bend l^5. To use this part J as a support the hub of the machine is placed in the crotch X and the bends l^5 placed against the periphery of the wheel some distance from the floor. The wheel is then rolled until the two bends l^5 rest upon the floor, one upon each side of the vertical plane of the hub. When in this position, they form stops for preventing the wheel from rolling, and the side bars J' form props for sustaining it in a nearly vertical position, the said side bars being bent at *l''* in order that their upper ends may conform to the inclination of the wheel. By making the side bars J' adjustable in length the support may be adjusted to fit machines of different sizes.

Figs. 1, 2, 3, and 4 show this part J in use as the parcel-holder of the luggage-carrier, all of its various parts being lettered J in Fig. 1. To use it as a parcel-holder the portion *l* is inserted between the jaws of a clamp N, that is secured to the reach E, and the rear extremities of the side bars sprung together, so that they will pass between the extremities of the hooks *i'*, after which they are allowed to separate and enter said hooks, as shown more clearly in Fig. 3. The luggage is then placed upon the side bars J' and the hinged extensions L^3 brought down on top of it and there secured by straps O, as shown in Figs. 1 and 2. The straps pass through openings formed through lugs *o*, formed on the parts L', and embrace the portion l^4, that unites the extensions l^3. The hooks *i'*, the side bars J', and the portion *l* are incased in soft-rubber tubing at *t*, *t'*, and t^2, respectively, for deadening sound and preventing the parts from being marred.

It will be understood that when the part J is used as a support the hinge l^3 is without function, it being provided, simply, for enabling this part to be used as a parcel-holder.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A support for bicycles, consisting of side bars J', having bends l^2, the portion *l*, uniting said bars at top and having crotch X, and the extensions L^3, having bends l^5, substantially as set forth.

2. A support for bicycles, consisting of adjustable side bars J', having bends l^2, the portion *l*, uniting said bends and having crotch X, and the extensions L^3, having bends l^5, substantially as set forth.

3. A bicycle-support consisting of side bars J', having bends l^2, the portion *l*, uniting said bars and having crotch X, the extensions L^3, having bends l^5, and the portion l^4, uniting said extensions, substantially as set forth.

4. A bicycle-support having the side bars J', consisting of integral part L L *l*, having crotch X, the parts L' L', having bends l^2 l^2 and sockets *l'* *l'*, into which the extremities of part L L *l* project, the set-screws M M, the extensions L^3 L^3, having bends l^5 l^5, and the portion l^4, uniting said extensions, substantially as set forth.

5. The combination, with the side bars J', having the hinged extensions L^3, of the straps for drawing said extensions toward said side bars, and means for attaching the whole to a machine, substantially as set forth.

6. The combination, with the side bars J', having the slotted lugs *o*, and the hinged extensions L^3, of the straps O, passing through said openings and adapted to engage said extensions for drawing them down, and means for attaching the whole to a machine, substantially as set forth.

7. The combination, with a parcel-holder, of a clamp adapted to clamp the saddle-rod, and a second clamp adapted to clamp the mud-guard, substantially as set forth.

8. The combination, with a parcel-holder, of a pair of clamps and a reach connecting said clamps, said parcel-holder being secured to said reach, substantially as set forth.

9. The combination of a pair of clamps D and G, an adjustable reach connecting said clamps, and a parcel-holder secured to said reach, substantially as set forth.

10. The combination, with a parcel-holder

and means for supporting the rear end thereof, of a hinged clamp adapted to clamp the saddle-rod, substantially as set forth.

11. The combination, with a parcel-holder and means for supporting the rear end thereof, of a clamp adapted to clamp the saddle-rod, a hinge-joint between the clamp and parcel-holder, and a set-screw F′ for securing the clamp in position, substantially as set forth.

12. The combination, with a parcel-holder and means for supporting the front end thereof, of a clamp adapted to clamp the mud-guard, and connections between said clamp and parcel-holder, having a hinge-joint, substantially as set forth.

13. The combination, with a parcel-holder, of a pair of clamps and connections between said clamps and parcel-holder, having hinge-joints, substantially as set forth.

14. The combination, with a parcel-holder, of a clamp consisting of a pair of spring-plates doubled on themselves at d^3 and having the two outward bends d' and d^2 and the inward bend d^5, the portions d^4, spanning said inward bends, the nut D′, and the clamp-screw D^2, substantially as set forth.

15. The combination, with a parcel-holder, of a clamp having depending hooks for engaging beneath the mud-guard, a follower for resting on the mud-guard, and a clamp-screw swiveled to one and threaded to the other of these parts, substantially as set forth.

16. The combination, with a parcel-holder, of the straddle G^4, having depending hooks g' for engaging beneath the mud-guard, the follower for resting upon the top of the mud-guard, a clamp-screw swiveled to said follower, and a nut secured to the straddle and through which said screw works, substantially as set forth.

17. The combination, with a parcel-holder, of the clamp D, the reach E, connected to said clamp and having cross-tree I, the clamp G, and the lips g^3, embracing said cross-tree and connecting the clamp G thereto, substantially as set forth.

18. The combination of the clamps D and G, the reach E, connecting them and having the cross-tree I, said cross-tree having the hooks i', the clamp N, secured to the reach, and the parcel-holder having spring side bars J′, said holder being secured by clamp N and resting in said hooks, substantially as set forth.

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