PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Handlebar Carrier for Cycles

I, FOONG U SAN, a Citizen of the Federation of Malaya, of 83A, Kuala Kangsgar Road, Ipoh, State of Perak, Malaya, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to handlebar carriers for cycles and of the kind adapted to be mounted upon the handlebar.

According to the present invention a cycle handlebar carrier comprises a frame having fore and aft transversely disposed parts and a pair of lateral parts continuous with the fore and aft parts, and rear part having between its ends means to attach it to the mid-position of the handlebar with the said lateral parts abutting against the handlebar between mid-position and the ends of the handlebar.

Further, in accordance with the present invention a cycle handlebar carrier comprises a frame in the form of a length of rod or tubing shaped to define a symmetrical loop with a rear part adapted to be secured to the handlebar and side parts adapted between the ends thereof to abut against the handlebar opposite sides of the centre of the handlebar to provide a frame predominantly projecting forwardly from the handlebar, a clip member secured to the mid-position of said rear part and apertured for receiving a member threaded into the mid-position of the handlebar, said slip member projecting forwardly from the rear part of the handlebar.

Desirably the said frame carries within its perimeter foldable members adapted to cooperate with inwardly disposed additional elements of the frame for securing articles to the frame.

An embodiment of the invention is hereinafter described with reference to the accompanying drawing, in which:—

Fig. 1 is a plan of the carrier in collapsed condition, prior to attachment to a cycle.

Fig. 2 is a side view of the carrier, showing retaining means for articles to be carried raised for engagement with the articles placed on the carrier.

Fig. 3 is a corresponding view from the rear, with the clamping means raised, but without any articles in place.

Fig. 4 is a detail, as seen from the underside of the carrier, showing the hinged mounting of the clamping member near the front of the frame.

As seen in Fig. 1, the carrier comprises an outer frame 10, made of bent metal rod or alloy tubing, having the shape of an irregular hexagon, of which the rear end 11 has fixed to it a forwardly directed clip 12 having holes 13 by means of which it can be secured upon the top of the handlebar, as by engaging in a selected hole the centre bolt which is often used to fix the handlebar to the steering column, or alternatively by means of a bolt screwed into a hole capped into the handlebar. The sides of the frame are cross-connected by two parallel members 14 and 15, one close to the rear end and the other near the front end. Two parallel members 16 and 17 extend longitudinally of the outer frame from the rear end 11 as far as the front cross-member 15, where they may be looped together, and another cross-member 18 is arranged between these longitudinal members at a convenient distance from their front end. All the parts of the framework may be secured together by spot-welding, brazing or the like.

Upon the sides of the outer frame there are fitted tubular cushions 19, made of rubber or plastic tubing, for example, these cushions being adjustable by sliding to positions where they will abut against the handlebar when the carrier is mounted in place and thereby comprise two of the three points of suspension of

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the outer frame, the clip 12 constituting the other point.

Upon the rear cross-member 14, there is hingedly mounted a fence 20 which normally lies down upon the top of the members 16 and 17, but can be raised upon its hinge so as to stand approximately at right angles to the plane of the carrier, or preferably at an angle of about 80 degrees thereto, as seen in Fig. 2.

The front cross-member 15 and the member 18 extending between the longitudinal members 16 and 17 are bridged by a cover plate 21, made of sheet steel, brass or other suitable material, the front and rear edges of which are shown as curled over the members 15 and 18, or may be secured thereto by other means. The side edges of this cover plate 21 are turned down to form flanges 22, in which there is mounted a spindle 23 having a helical spring 24 coiled around it; the ends of the spindle 23 projecting beyond the flanges 22 are drilled to receive the parallel ends 25 of another clamping member 26 having a palmate extremity 27, formed for example by bending the middle portion of a wire to zigzag or W-shape, and then bending the ends to engage in diametrical holes near the ends of the spindle 23.

As shown in Fig. 4, the spring 24 has one extremity engaged on a diametrical pin in the spindle, and the other extremity forms a tail 28 engaging beneath the cross-member 18; the spindle will therefore tend to bring down the member 26 to lie flat upon the top of the carrier as seen in Fig. 1, or to cause it to engage with a parcel or other object resting upon the carrier, as seen in Fig. 2, the fence 20 being raised to engage the object at the same time. The palmate shape of the extremity 27 of the clamping member 26 enables it to engage firmly with objects of various widths, but in the case of a narrow object, such as a bottle, the neck of the latter can be pointed forward and fitted between the sides of the member 26 while the bottom of the bottle is rested against the fence 20.

The carrier may also be arranged to support an umbrella when in use to protect the rider of the cycle; for this purpose, the clip 12 is provided with a socket 29 into which the handle of the umbrella can be inserted, being then locked in place at the desired height by means of a screw 30.

In addition to the frame members, the clamping members may also be made of metal rod or of alloy tubing, while the cover plate 21 may be made of sheet brass or the like, pressed to shape and impressed with suitable designs or inscriptions.

WHAT I CLAIM IS:—

1. A handlebar carrier for cycles comprising a frame having fore and aft transversely disposed parts and a pair of lateral parts continuous with the fore and aft parts, and rear part having between its ends means to attach it to the mid-position of the handlebar with the said lateral parts abutting against the handlebar between mid-position and the ends of the handlebar.

2. A handlebar carrier for cycles comprising a frame in the form of a length of rod or tubing shaped to define a symmetrical loop with a rear part adapted to be secured to the handlebar and side parts adapted between the ends thereof to abut against the handlebar opposite sides of the centre of the handlebar to provide a frame predominantly projecting forwardly from the handlebar, a clip member secured to the mid-position of said rear part and apertured for receiving a member threaded into the mid-position of the handlebar, said clip member projecting forwardly from the rear part of the handlebar.

3. A handlebar carrier according to Claim 2, in which the frame is provided with one or more cross-members and a pair of longitudinal members, all rigidly connected thereto, so as to form an open platform for supporting objects placed thereon, and also with means for clamping the objects in position.

4. A handlebar carrier according to Claim 3, in which the clamping means comprise a hinged fence arranged near the back of the frame and adapted to be raised for the objects to abut against it.

5. A handlebar carrier according to Claim 3 or 4, in which the clamping means comprise a spring-controlled member hinged near the front of the frame, this member being adapted to press backwards and downwards upon the objects.

6. A handlebar carrier according to Claim 5, in which the spring-controlled clamping member is secured upon a spindle mounted beneath a cover plate bridging two of the frame members, a coiled spring controlling the clamping member being engaged with the spindle and also with the cover plate.

7. A carrier attachment according to Claim 2, in which the clip secured to the rear part of the frame is provided with a socket into which the handle of an umbrella can be inserted and locked in place.

8. A carrier attachment for a cycle, adapted to be mounted upon the handlebar of the cycle, substantially as described with reference to and as illustrated in the accompanying drawing.

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the outer frame, the clip 12 constituting the other point.

Upon the rear cross-member 14, there is hingedly mounted a fence 20 which normally lies down upon the top of the members 16 and 17, but can be raised upon its hinge so as to stand approximately at right angles to the plane of the carrier, or preferably at an angle of about 80 degrees thereto, as seen in Fig. 2.

The front cross-member 15 and the member 18 extending between the longitudinal members 16 and 17 are bridged by a cover plate 21, made of sheet steel, brass or other suitable material, the front and rear edges of which are shown as curled over the members 15 and 18, or may be secured thereto by other means. The side edges of this cover plate 21 are turned down to form flanges 22, in which there is mounted a spindle 23 having a helical spring 24 coiled around it; the ends of the spindle 23 projecting beyond the flanges 22 are drilled to receive the parallel ends 25 of another clamping member 26 having a palmate extremity 27, formed for example by bending the middle portion of a wire to zigzag or W-shape, and then bending the ends to engage in diametrical holes near the ends of the spindle 23.

As shown in Fig. 4, the spring 24 has one extremity engaged on a diametrical pin in the spindle, and the other extremity forms a tail 28 engaging beneath the cross-member 18; the spindle will therefore tend to bring down the member 26 to lie flat upon the top of the carrier as seen in Fig. 1, or to cause it to engage with a parcel or other object resting upon the carrier, as seen in Fig. 2, the fence 20 being raised to engage the object at the same time. The palmate shape of the extremity 27 of the clamping member 26 enables it to engage firmly with objects of various widths, but in the case of a narrow object, such as a bottle, the neck of the latter can be pointed forward and fitted between the sides of the member 26 while the bottom of the bottle is rested against the fence 20.

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