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PATENT SPECIFICATION

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(54) IMPROVEMENTS IN HANDLEBARS FOR TWO WHEELED VEHICLES

(71) We, PIAGGIO & C. S.p.A., a Societe per Azioni organised under the laws of Italy, of Via Antonio Cecchi 6 - Genova, Italy, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:-

This invention relates to a handlebar assembly for a two wheeled vehicle.

According to the present invention, there is provided a handle bar assembly for a two-wheeled vehicle, comprising a central housing formed by an upwardly open lower part and a removable cover part fitting on to the lower part, the lower part of the housing including an integrally formed member, which is adapted for connection to a vehicle steering tube, and supporting two tubular extensions and a headlamp, the cover part and lower housing part forming a complete housing which encloses the body of the headlamp and the portions of the tubular extensions contained within the lower housing part, the distal parts of the tubular extensions mounting the rider's handgrips.

The invention will be described in more detail, by way of example, with reference to the accompanying drawings in which:-

Figure 1 shows the handlebar assembly in plan view with the cover part removed;
Figure 2 is a cross-sectional view of the handle bar assembly taken along the line X-X of Figure 1;

Figures 3 and 4 show, respectively, views in the direction of arrows A and B in Figure 1, the devices for controlling the change speed gear and the accelerator;

Figures 5 and 6 show, respectively, cross-sectional views taken along the lines yy and zz of Figure 1; and

Figure 7 shows a plan view of the cover part.

Referring now to the figures, the handlebar assembly comprises a central housing with a lower part 1 strengthened by an integrally formed transverse girder 2 having a U shaped cross-section. A collar 3 which is also integrally formed with the lower part 1 connects the lower part 1 to the steering tube. Holes 34 are used to fasten a cover part 4 of the housing to the lower part 1. Internal bridges 5, 6 and 7 and support member 8 are used to support rotatable handle tubes 9 and 10 to the distal ends of which handgrips 11 and 12 are respectively affixed.

The rotatable tube 9 is also equipped with a support member 13 for supporting a clutch control lever 14.

The support member 8 also supports a front brake control lever 15.

The rotatable tubes 9 and 10 carry at their inner ends, respectively, a pulley 16 for controlling the change speed gear and a pulley 17 for controlling the accelerator. The pulleys 16 and 17 are fastened to their respective tubes 9 and 10 by cotter pins 18 and 19.

In this way it is possible to rotatably connect the pulleys 16 and 17 with their respective tubes 9 and 10 and also to prevent the tubes from slipping through their respective supports 5 and 6. Furthermore by using the pulleys 16 and 17 instead of the usual levers the tension of control cables 20 and 21 remains constant.

In order that a friction coupling may be obtained between the tubes 9 and 10 and the supports 5 and 6 washers 22 and front springs 23 are inserted between the control pulleys 16 and 17 and the supporting members 5 and 6.

A headlight 33 is supported at extensions 24 by support brackets 25 which are attached to the lower part 1. By adjusting screws 26 in slots 27 of the lower part 1, the headlight 33 can

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be rotated about a horizontal axis *m-m*.

The handlebar assembly is completed by the cover part 4 which is preferably moulded from a plastics material and is fastened to the lower part 1, which is preferably aluminium alloy, by screws 28. The cover part 2 houses an odometer and speedometer 29, instrument lamps 30 and an ignition switch 31.

The lower part 1 is also equipped with bores 32 to enable a windshield to be attached, if required.

The advantages of the handlebar assembly are essentially in its simple instruction and the ease of replacement and upkeep of the various control levers, pulleys and vehicle instrumentation.

WHAT WE CLAIM IS:

1. A handle bar assembly for a two-wheeled vehicle, comprising a central housing formed by an upwardly open lower part and a removable cover part fitting on to the lower part, the lower part of the housing including an integrally formed member, which is adapted for connection to a vehicle steering tube, and supporting two tubular extensions and a headlamp, the cover part and lower housing part forming a complete housing which encloses the body of the headlamp and the portions of the tubular extensions contained within the lower housing part, the distal parts of the tubular extensions mounting the rider's handgrips.

2. A handle bar assembly according to claim 1, wherein the lower housing part is strengthened by an integrally formed, transverse girder of U shaped cross section.

3. A handle bar assembly according to claim 1 or 2, wherein the removable cover part is connected to the lower housing part by screws.

4. A handle bar assembly according to any of claims 1 to 3, wherein the lower housing part is made of an aluminium alloy.

5. A handle bar assembly according to any of claims 1 to 4, wherein the cover part is made of a plastics material.

6. A handle bar assembly according to any of claims 1 to 5, wherein the cover part supports a speedometer.

7. A handle bar assembly according to any of claims 1 to 6, wherein the tubes are rotatable in supporting members formed integrally within the lower housing part, and each has at its innermost end a cable control pulley.

8. A handle bar assembly according to claim 7, wherein each rotatable tube is frictionally restrained so as to tend to maintain the position to which it is rotated.

9. A handle bar assembly for a two-wheeled vehicle, substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

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The advantages of the handlebar assembly are essentially in its simple instruction and the ease of replacement and upkeep of the various control levers, pulleys and vehicle instrumentation.

WHAT WE CLAIM IS:

1. A handle bar assembly for a two-wheeled vehicle, comprising a central housing formed by an upwardly open lower part and a removable cover part fitting on to the lower part, the lower part of the housing including an integrally formed member, which is adapted for connection to a vehicle steering tube, and supporting two tubular extensions and a headlamp, the cover part and lower housing part forming a complete housing which encloses the body of the headlamp and the portions of the tubular extensions contained within the lower housing part, the distal parts of the tubular extensions mounting the rider's handgrips.

2. A handle bar assembly according to claim 1, wherein the lower housing part is strengthened by an integrally formed, transverse girder of U shaped cross section.

3. A handle bar assembly according to claim 1 or 2, wherein the removable cover part is connected to the lower housing part by screws.

4. A handle bar assembly according to any of claims 1 to 3, wherein the lower housing part is made of an aluminium alloy.

5. A handle bar assembly according to any of claims 1 to 4, wherein the cover part is made of a plastics material.

6. A handle bar assembly according to any of claims 1 to 5, wherein the cover part supports a speedometer.

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