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(54) Fully adjustable motorcycle
Völlig verstellbares Motorrad
Motocyclette complètement réglable

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Description

The present invention relates to a motorcycle comprising a seat, a handlebar assembly with left and right handle grips and an adjustable foot peg assembly supported by a frame assembly joining front and rear wheels, a front wheel being dirigibly supported by said frame assembly for steering of said motorcycle and handlebar assembly being operatively connected to said front wheel for steering thereof.

It is well known that there are a wide variety of types of motorcycles, each generally geared to a certain type of rider. For example, there are the so-called "racing bikes" in which the rider operates in a substantially crouched position so as to afford low wind resistance, low center of gravity and high performance. In addition, there are the "touring bikes" in which the rider is seated in more an upright position for cross country touring. Obviously, many motorcycle riders enjoy both racing and touring operation. With the types of motorcycles heretofore proposed, it has been necessary for a single rider to own more than one motorcycle in order to enjoy all types of riding.

The positioning of the handlebar relative to the seat is a determinative factor in whether a bike is a touring bike or a racing bike. Therefore, in order to provide a motorcycle that is adjustable between both touring and racing configurations, it would be essential to provide an arrangement for adjusting the handlebar position.

In addition to the positioning of the handlebars, the positioning of the foot pegs of a motorcycle vary depending upon the application. That is, with a racing bike, the foot pegs are normally placed high and to a rearward position so as to permit the rider to operate in a crouched and semi inclined position. With a touring bike, or the other hand, the foot peg should be positioned lower and forward.

In addition to the variation in the height position and fore and aft location of the handlebars for either touring or racing operation, the position of the handle grips relative to the longitudinal center of the motorcycle also varies between racing and touring bikes. With a racing bike, it is the practice to have the handle grips positioned closer to the longitudinal center line of the motorcycle. In a touring bike, on the other hand, the handle grips are spaced more widely apart from the longitudinal center line.

In addition to the differences in riding position between racing and touring bikes, there is also the question of adaptation of a given motorcycle to riders of varying stature. It is, of course, desirable if the motorcycle can be adjusted so as to accommodate riders of varying stature. These problems obviously become more acute when the motorcycle is also designed so as to be adjustable for operation in either racing or touring positions.

DE-U-85 22 790 shows a handle bar assembly for a motorcycle, said handlebar assembly comprising two handle grips which are adjustable with respect to the steering axis of the entire handlebar assembly defined by the steering axis of the front fork assembly.

A motorcycle of the initially indicated type is known from EP 0 685 538 A3 showing a device for adjusting the position of the foot pegs, which are eccentrically supported by two revolving plates. However, this known motorcycle cannot be sufficiently adapted to different riding postures so as to change the motorcycles handling characteristics, particularly as regards the positioning and the arrangement of the handle bar assembly.

Accordingly it is an objective of the present invention to provide an improved motorcycle of the above mentioned type that is more comprehensively adjustable to a variety of riding positions that permit a racing operation in a sportive, substantially crouched position and touring operation in a relaxed rather upright position.

According to the present invention, this objective is performed by a riding position adjusting means comprising at least means for mounting said handle bar assembly for movement relative to said frame assembly generally within an arc about an axis extending transversely to said frame assembly between a lowered forward position for racing posture and an elevated rearward position for touring posture and in that the steering axis of said handle bar assembly is moveable only in the vertical plane through a centre line of the motorcycle and fixedly adjustable at different positions.

Accordingly, the centre of gravity as well as the wind resistance can be adapted to the speed and the way of riding and moreover, the handling characteristics of the motorcycle can be changed.

According to a preferred embodiment of the present invention, left and right handle grips are provided separately and are adapted to be interlocking engaged in such a manner that both handle grips are moveable together as a unitary structure.

Further preferred embodiments of the present invention are laid down in further dependent claims.

Hereinafter, the present invention is explained and illustrated in greater detail by means of preferred embodiments of the invention and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a front elevational view of a fully adjustable motorcycle constructed in accordance with an embodiment of the invention.

Figure 2 is a side elevational view thereof.

Figure 3 is a schematic side elevational view showing the range of adjustments of the handlebars, seat and foot pegs so as to accommodate either touring or racing postures for riders of varying stature.

Figure 4 is a partially exploded perspective view showing the frame assembly, handlebar, seat and foot peg mounting.

Figure 5 is a side elevational view showing the handlebar mounting system and the adjustments therefor.

Figure 6 is a perspective view, partially exploded, showing the adjusting mechanism for the handle grips of the handlebar assembly.
Figure 7 is a top plan view showing the front cowling, handlebars and handle grips.

Figure 8 is a side elevational view, with portions broken away, showing the foot peg adjusting construction.

Figure 9 is an enlarged cross sectional view taken along the line 9-9 of Figure 8.

Figure 10 is an exploded perspective view of the foot peg adjusting mechanism.

Figure 11 is an exploded perspective view, in part similar to Figure 10, showing an embodiment wherein the foot pegs at each side of the motorcycle can be adjusted simultaneously.

Figure 12 is a further exploded perspective view showing the remainder of the construction and the foot peg adjustment at the opposite side of the motorcycle.

Figure 13 is an enlarged cross sectional view taken generally along the line 13-13 of Figure 11.

Figure 14 is a partially schematic view showing the range of adjustments of the various adjustable components of the motorcycle.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring first to Figures 1, 2 and 4, a fully adjustable motorcycle constructed in accordance with an embodiment of the invention is depicted generally and is identified by the reference numeral 21. The motorcycle 21 is comprised of a frame assembly, indicated generally by the reference numeral 22 and which is made up of a number of welded components including a main frame member 23 that has a seat mounting portion 24 and a pair of spaced apart, forwardly extending arms 25. A forging assembly or weldment 26 is provided at the rear of the main frame member 23 and is connected suitably to this main frame member. A trailing arm 27 is pivotally supported in a suitable manner to the main frame assembly 22 for pivotal movement about a pivot axis 28. A rear wheel 29 is journaled in an appropriate manner at the rear end of the trailing arm 27.

A combined engine/transmission assembly 31 is carried in a suitable manner by the frame assembly 22 and drives the rear wheel 29 through a chain 32. The type of engine 31 and drive arrangement employed for driving the rear wheel 29 may be varied. In the illustrated embodiment, however, the power unit 31 is a transversely disposed, four cylinder, in line engine that is water cooled and to this end a cooling radiator 33 is mounted transversely across the front portion of the frame assembly 22 in a suitable manner.

A front wheel 34 is journaled at the forward end of a leading arm 35 which is, in turn, pivotally supported by the frame assembly 22 in a suitable manner. The support for the front wheel 34 on the arm 35 is such that the wheel 34 is dirigible relative to the arm 35 for steering of the motorcycle. A front fork assembly 36 is carried at the forward end of the arm 35 and serves to provide this steering for the front wheel.

A seat 37 is affixed to a seat carrier 38 which is, in turn, connected to the frame assembly and particularly the weldment or forging 26. The seat carrier 38 is provided with a telescopic assembly 39 that permits the seat 37 to be raised and lowered as shown by the arrow B in Figure 2 so as to accommodate riders of varying stature.

A handlebar assembly, indicated generally by the reference numeral 41 is supported by means of an adjusting mechanism, indicated generally by the reference numeral 42, at the front of the seat 37. As will become apparent, the handlebar assembly 41 is capable of adjustment along an arc so as to accommodate varying rider positions. A pair of handle grips 43 are adjustably carried at the outer end of the handlebar assembly 41 in a manner so as to also permit their adjustment, as also will be described.

The handlebar assembly 41 has a shaft portion 44 (Figure 4) that is coupled through a connection to the front fork 36 for steering of the front wheel 34. This connection may be of a shaft type including a plurality of universal joints and a sliding splined connection so as to accommodate the adjustment of the handlebar assembly 41 relative to the front fork 36. Any suitable mechanism may be utilized for this purpose. Alternatively to a shaft having universal joints and a sliding splined connection, a flexible shaft or the like may also be employed for this connection.

The range of adjustment of the handlebar assembly 41 is shown by the arrow A in Figure 2. The adjustment of the handlebar assembly 41 is indicated by the arrows D in Figure 1.

A foot peg assembly, indicated generally by the reference numeral 45 is carried at the lower end of the frame assembly 22 in an adjustable manner so that the foot peg assembly 45 may be adjusted through an arc indicated by the arrow C in Figure 2. The foot peg assembly 45 includes rear foot pegs 46 and front foot pegs 47.

The adjusting mechanism 42 for the handlebar assembly 41 will now be described by particular reference to Figures 4 and 5. This adjusting mechanism permits the handlebar assembly 41 to be moved generally through an arc, indicated at 49 in Figure 3 between a lowered position so that the rider may assume a racing posture or a raised position in which the rider may assume a touring posture. In addition, the adjusting mechanism permits some fore and aft adjustment independent of the up and down adjustment so as to accommodate riders of varying heights. As may be seen in Figure 3, the arc 49 lies around a transverse center point 51 and encompasses the handlebar assembly 41 and foot pegs 46.

 Riders are shown in phantom at 52. These riders, in their racing position, will have their center of gravity 53 at a relatively low point. However, when operating in a touring posture, the center of gravity 53a will be raised along a line 54. The way this is accomplished will become apparent. The handlebar adjusting mechanism permits the handlebars to be moved between a position 41a that accommodates a taller stature rider in a racing position,
a position 41b that accommodates a shorter stature rider in racing position, and corresponding raised touring positions 41c and 41d that accommodate the taller and shorter riders in the touring position. The range of adjustment is shown in the shaded line area in Figure 3. It will be seen that it lies generally along the arc 49.

Referring now primarily to Figures 4 and 5, the adjusting mechanism 42 includes a journal block 55 which has a tube portion 56 that receives the shaft 44 for journaling the handlebar assembly 41. In this way, the tube portion 56 acts like the head pipe of a conventional motorcycle. Upper and lower bearing plates 57 and 58 are affixed relative to the tube section 56. In the illustrated embodiment, the tube section 56 and journal portion 55 are supported by a pair of angularly disposed hydraulic cylinders 59 and a generally longitudinally disposed hydraulic cylinder 61. The cylinders 59 have pivot connections 62 at their forward ends to the journal assembly 55 and specifically to the top bearing plate 57 thereof. At the opposite ends, the cylinder assemblies 59 have pivotal connections 63 to a respective plate 64 that has a pivot portion 65 that is journaled within a trunion 66 at the forward end of the frame member 25.

A parallel link 67 has one of its ends pivotally connected at 68 to the plate 65. The opposite end of the links 67 are pivotally connected to the lower bearing plate 58 of the journal assembly 55 by a pivot pin 69. As a result of this connection, extension of the cylinder assemblies 59 will permit fore and aft adjustment of the journal assembly 55 between the positions 41b and 41d and the positions 41a and 41c.

The cylinder 61 has a pivotal connection at its forward end to the journal 55 which pivotal connection is shown by the reference numeral 71. The rear end of the cylinder assembly 61 is pivotally connected by means of a pivot pin 72 to a mounting bracket 73 which is, in turn, affixed to the frame member 23 by means of one or more threaded fasteners 74. This linkage construction formed by the cylinders 59 and 61 obviously permits the handlebar assembly 41 to be adjusted through the positions as described. A suitable locking mechanism may be incorporated in the cylinders 59 and 61 so as to hold them in the desired adjusted position.

A cowlng assembly 75 may be attached to the journal member 55 in an appropriate manner so that the cowlng 75 will move upwardly and downwardly and inwardly and outwardly with the handlebar assembly 41 so as to afford shielding for the rider 52 regardless of the riding posture.

In the illustrated embodiment, the cylinder 61 was disposed in a generally horizontal position. As may be seen in the alternate line position 61a of Figure 4, the cylinder 61 may be positioned in a vertical orientation. Also, rather than utilizing three cylinders as in the described embodiments, one of the cylinders 59 may be deleted.

In addition to the adjustment of the handlebar assembly 41 as thus far described as accommodated by the adjusting mechanism 42, it also may be possible, as aforementioned, to permit individual adjustment of the handle grips 43. Such a construction is shown in Figures 6 and 7. In these figures, the handlebar assembly 41 has a slightly different configuration from that shown in Figures 1 through 4 so as to permit this adjustment. However, it should be readily apparent to those skilled in the art how this is accomplished.

Basically, the handlebar assembly 41 has a journal portion 76 to which the shaft 44 of the previously described embodiment may be affixed. There are a pair of bifurcated arm portions 77 that receive pivot pins 78 which pivot pins 78 in turn pass through journal portions 79 of the handle grips 43. There are provided trunion portions 81 on each of the journal portions 79 which journal ends of timing links 82. The opposite ends of the links 82 have pivotal connections to respective arms 83 of a timing mechanism that includes a bearing plate 84 and which is affixed to the handlebar assembly 41 in a suitable manner. The arms 83 have gear sectors 85 formed at their inner ends which cooperate with each other so as to insure that pivotal movement of the arms 83 will occur simultaneously to actuate the timing links 82 and pivot the handle grips 43 in the direction of the arrows shown in Figure 7.

A locking link 86 has a pin 87 formed at one end which extends through a slot 88 formed in one of the levers 83. A clamping lever 89 is connected to a threaded portion of the pin 87 and when rotated will clamp the arm 83 in its adjusted position. The link 86 is connected by means of a threaded fastener 91 to the handlebar assembly 41 so as to accomplish the locking of the handle grips 43 in their adjusted positions. The handle grips 43 may be rotated to a close in position relative to the frame assembly 22 for the racing posture or rotated outwardly therefrom in a touring posture. These alternative positions and relative height which may be accomplished through the aforesaid adjustment of the handlebar assembly 41 as a whole may be seen in Figure 14.

An adjusting mechanism for the foot pegs 45 will now be described by particular reference to Figures 8 through 10. In this embodiment of the invention, the foot peg 46 at each side of the motorcycle 21 is independently adjustable between the racing and touring positions. In addition, adjustment of the fore and aft position at each side is independently adjustable so as to accommodate riders of varying stature. As has been previously noted, the foot peg assembly 45 includes a rearward foot peg 46 and a forward foot peg 47. The forward foot peg 47 is affixed to a lever 92 which is, in turn, pivotally supported at the end of an adjusting lever 93. This pivotal connection is provided by a pivot pin portion 94 of the foot peg 46 which passes through the lever 92 and which is affixed to the end of the adjusting lever 93.

The adjusting lever 93 is pivotally supported by a pivot pin 95 that is affixed to a pair of spaced apart support plates 96 formed as part of the frame assembly 22. These support plates 96 are conveniently attached to the frame weldment 26 as clearly shown in Figure 9.
An eccentric bearing disk 97 is affixed to the adjusting lever 93 by means of threaded fasteners 98. In addition, a ratchet locking plate 99 is affixed by these fasteners also to the eccentric bearing disk 97. The locking plate 99 has oppositely facing ratchet teeth 101 and 102 that are normally engaged by means of a pair of locking pawls 103 and 104. The locking pawls 103 and 104 are held in their locked position by means of leaf springs 105 which are all mounted within a mounting assembly 106. A release cam 107 is journaled between the locking pawls 103 and 104 and is connected to a shaft 108 of a lock release 109 having a knob like configuration. When the operator desires to adjust the position of the foot pegs 45, the release knob 109 is moved in one direction or the other so that the release cam 107 will release one of the locking pawls 103 and 104 and permit the foot peg 45 to be adjusted.

A mechanism is incorporated so as to insure that the foot pegs 46 and 47 assume a generally parallel path of travel during their pivotal movement. This is accomplished by means of a bearing block 111 that is affixed around the eccentric bearing member 97. The bearing block 111 has a pair of lugs 112 and 113. The lug 112 has a pivotal connection to one end of a link 114. The opposite end of the link 114 is pivotally connected by means of a pivot pin 115 to a bell crank portion 116 of the lever 92. A further link 117 is pivotally connected to the lug 113 of the bearing plate and extends forwardly to a pivotal connection 118 on the frame 22. The links 114 and 117 cooperate so as to effect slight pivotal movement of the lever 92 when the adjusting arm 93 rotates so as to keep the pegs 46 and 47 in a substantially horizontal position regardless of the adjustment. Fine adjustment of the foot pegs 46 and 47 is accomplished by rotating the pivotal connection 118 to accommodate different stature riders.

As may be seen in Figure 3, this adjusting mechanism permits the foot pegs 46 to be moved along generally an axis between a position 46a so as to accommodate a tall rider in a touring position, a position 46b to accommodate a short rider in a touring position, a position 46c so as to accommodate a short rider in a racing position and a position 46d to accommodate a tall rider in a racing position. Some of these foot peg positions are also shown in Figure 14.

In the embodiment of Figures 8 through 10, the foot pegs 45 at each side of the motorcycle were independently adjustable. Obviously, there are certain advantages to a construction which permits simultaneous adjustment of the foot pegs and Figures 11 through 13 show such an embodiment. In this embodiment, the locking mechanism and foot peg construction at one side of the motorcycle is the same as that already described. For that reason, this construction will not be described again in detail. Rather, components of this embodiment which are the same as the previously described embodiment have been identified by the same reference numerals.

In this embodiment, a sprocket 151 is also affixed to the eccentric disk 97 by the fasteners 98. A chain 152 interconnects the sprocket 151 for rotation with a second sprocket 153 that is affixed to a shaft 154. The shaft 154 extends transversely across the width of the motorcycle 21 and has a further sprocket 155 affixed to the end of the shaft 154 adjacent the foot peg assembly 45 at the opposite side of the motorcycle. This foot peg assembly is also affixed and supported in the manner already described to a further adjusting arm 93. Because of the similarity of the construction, components at this side which are the same as those at the opposite side have been identified by the same reference numerals and further description is not believed to be required.

The sprocket 155 drives a chain 156 that drives a further sprocket 157 which is affixed by the fasteners 98 to the eccentric disk 97 associated with the foot pegs at this side. The connection of the disk 97 to the lever 93 is the same and there is also provided a link 114 which is connected to the lever 92 at this side so as to keep the foot pegs in a horizontal position. However, rather than employing the link 117 at this side, the portion 113 of the bearing plate 111 is connected pivotally to an adjusting assembly 158. In all other regards, this embodiment is the same as those previously described.

From the foregoing description, it should be readily apparent that the described embodiments are highly effective in permitting the use of a single motorcycle that can be configured so as to permit a rider to assume either a racing or touring posture. In addition, the construction permits the accommodation of riders of varying stature in either of these positions. Of course, the foregoing description is that of preferred embodiments of the invention. Various changes and modifications may be made without departing from the scope of the invention, as defined by the appended claims.

Claims

1. Motorcycle (21) comprising a seat (37), a handlebar assembly (41) with left and right handle grips (43) and an adjustable foot peg assembly (45) supported by a frame assembly (22) joining front (34) and rear (29) wheels, a front wheel (34) being dirigibly supported by said frame assembly (22) for steering of said motorcycle (21), said handlebar assembly (41) being operatively connected to said front wheel (34) for steering thereof, characterised by a riding position adjusting means comprising at least means (42) for mounting said handlebar assembly (41) for movement relative to said frame assembly (22) generally within an arc about an axis extending transversely to said frame assembly (22) between a lowered forward position for racing posture and an elevated, rearward position for touring posture, and in that the steering axis of said handlebar assembly (41) is movable only in the vertical plane through a centre line of the motorcycle and fixedly adjustable at different positions.
Motorcycle (21) as claimed in claim 1, characterised by left and right handle grips (43) provided separately and adapted to be interlockingly engageable in such a manner that both handle grips (43) are moveable together as a unitary structure.

Motorcycle (21) as claimed in at least one of the preceding claims 1 or 2, characterised in that, both handle grips (43) of the handlebar assembly (41) are moveable vertically and/or longitudinally of the vehicle (21).

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 3, characterised in that, both handle grips (43) of the handlebar assembly (41) are simultaneously moveable laterally opposite to each other.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 4, characterised in that, the means (42) for mounting the handlebar assembly (41) includes a linkage assembly.

Motorcycle (21) as claimed in claim 5, characterised in that, the linkage assembly includes a first link (59) pivotally connected at one end to a journal (55) for the handlebar assembly (41) and pivotally connected at its other end to the frame assembly (22), and a second link (61) angularly disposed to the first link (59) and pivotally connected at one end thereof to said journal assembly (55) and at the other end thereof to said frame assembly (22).

Motorcycle (21) as claimed in claim 6, characterised in that, the links (51, 61) are adjustable for length for accommodating riders of different stature in either the touring or racing postures.

Motorcycle (21) as claimed in claim 4, characterised in that, the handle grips (43) are adjustable relative to the handlebar assembly (41) between a first position spaced closely adjacent to the longitudinal centre line of the motorcycle (21) and a second position spaced outwardly therefrom.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 8, characterised in that, the handle grips (43) are simultaneously adjustable relative to the handlebar assembly (41).

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 9, characterised in that, the handle grip assemblies are pivotally supported by the handlebar assembly (41).

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 10, characterised by a geared connection between the handle grips (43) of the handlebar assembly (41) for simultaneous movement thereof.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 11, characterised by a locking means (86) for locking the handle grips (43) of the handlebar assembly (41) in an adjusted position.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 12, characterised by a means for mounting said foot peg assembly (45) for movement relative to said frame assembly (22) between a first position positioned forwardly and low relative to the frame assembly (22) to accommodate a rider (52) seated in a touring position and a second position spaced upwardly and rearwardly from said first position along an arc so as to accommodate the feet of a rider (52) in a racing position.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 13, characterised in that, the arc of adjustment of the foot peg (45) and the arc of adjustment of the handlebar assembly (41) lie substantially on the same circle (49) and the centre (51) thereof is disposed midway therebetween.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 14, characterised in that, the foot peg assembly (45) comprises a pair of spaced apart pins carried by a lever (92).

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 15, characterised by means for pivoting the lever (92) upon movement between the first and second positions of the foot pegs (46, 47) in order to maintain the foot pegs (46, 47) in a substantially horizontal position.

Motorcycle (21) as claimed in at least one of the preceding claims 1 to 16, characterised by a seat (37) adjustably carried by the frame assembly (22) for accommodating a rider (52).

Patentansprüche

1. Motorrad (21) mit einem Sitz (37), einer Lenkstangenanordnung (41) mit lin kem und rechtem Lenkergriff (43) und einer einstellbaren Fußstützenanordnung (45), welche gehalten ist von einer ein Vorderrad (34) mit einem Hinterrad (29) verbindingen Rahmenanordnung (22), wobei das Vorderrad (34) lenkbar von der Rahmenanordnung (22) gelagert ist zur Steuerung des Motorrades (21) und die Lenkstangenanordnung (41) operativ mit dem Vorderrad (34) verbunden ist zur Lenkung derselben, gekennzeichnet durch Sitzpositioneneinstell einrichtungen mit mindestens einer Vorrichtung (42) zur Anbringung der Lenkstangenanordnung (41) derart, daß sie relativ zur Rahmenanordnung
(22) allgemein innerhalb eines Bogens um eine sich quer zur Rahmenanordnung (22) erstreckenden Achse zwischen einer abgesenkten, vorderen Position, für eine Rennstellung, und einer angehobenen, hinteren Position für eine Reisestellung bewegbar ist, und daß die Lenkachse dieser Lenkstangenanordnung (41) nur in einer vertikalen, durch die Mittellinie des Motorrades gehenden Ebene bewegbar und an verschiedenen Positionen fest einstellbar ist.

9. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 8, dadurch gekennzeichnet, daß die Lenkergriffe (43) relativer zur Lenkstangenanordnung (41) simultan einstellbar sind.

10. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 9, dadurch gekennzeichnet, daß die Lenkergriffanordnungen schwenkbar von der Lenkstangenanordnung (41) gehalten sind.

11. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 10, gekennzeichnet durch eine Zahnverbindung zwischen den Lenkergriffen (43) der Lenkstangenanordnung (41) zu deren gleichzeitigen Bewegung.

12. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 11, gekennzeichnet durch eine Verriegelungseinrichtung (86) zur Verriegelung der Lenkergriffe (43) der Lenkstangenanordnung (41) in einer eingestellten Position.

13. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 12, gekennzeichnet durch Einrichtungen zur Anbringung der Fußstützenanordnung (45) für eine relative Bewegung zur Rahmenanordnung (22) zwischen einer ersten Position, die bezüglich zur Rahmenanordnung (22) vorne und abgesenkt angeordnet ist und zur Anpassung an einen in der Reisestellung sitzenden Fahrer (52) und eine zweite Position, die nach oben und nach hinten von der ersten Position entlang eines Bogens beabstandet ist, zur Aufnahme der Füße eines in Rennstellung sitzenden Fahrers (52).

14. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 13, dadurch gekennzeichnet, daß der Bogen zur Einstellung der Fußstützenanordnung (45) und der Bogen zur Einstellung der Lenkstangenanordnung (41) im wesentlichen auf dem gleichen Kreis (49) liegen, und daß dessen Mittelpunkt (51) in der Mitte zwischen beiden angeordnet ist.

15. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 14, dadurch gekennzeichnet, daß die Fußstützenanordnung (45) ein Paar voneinander beabstandeter Stifte umfaßt, die von einem Hebel (92) gehalten sind.

16. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 15, gekennzeichnet durch Einrichtungen zum Verschwenken des Hebels (92) aufgrund einer Bewegung zwischen der ersten und zweiten Position der Fußstützen (46,47),

7. Motorrad (21) nach Anspruch 5, dadurch gekennzeichnet, daß die Verbindungsanordnung ein erstes Verbindungsglied (59) enthält, das schwenkbar an einem Ende eines Achszapfens (55) für die Lenkstangenanordnung (41) und schwenkbar an seinem anderen Ende mit der Rahmenanordnung (22) verbunden ist, und daß ein zweites Verbindungsglied (61) mit einem Winkel zum ersten Verbindungsglied (49) angeordnet und an seinem einen Ende mit der Achszapfanordnung (55) und an seinem anderen Ende mit der Rahmenanordnung (22) schwenkbar verbunden ist.

8. Motorrad (21) nach Anspruch 4, dadurch gekennzeichnet, daß die Lenkergriffe (43) bezüglich der Lenkstangenanordnung (41) zwischen einer ersten Position, die enger zur Längsmittellinie des Motor-
um die Fußstützen (46,47) in einer im wesentlichen horizontalen Position zu halten.

17. Motorrad (21) nach mindestens einem der vorstehenden Ansprüche 1 bis 16, gekennzeichnet durch einen Sitz (37), der von der Rahmendarung (22) zur Anpassung an einen Fahrer (52) einstellbar gehalten ist.

Revendications

1. Motocyclette (21) comprenant un siège (37), un assemblage de guidon (41) ayant des poignées gauche et droite (43) et un assemblage de repose pieds (45) réglable supporté par un assemblage de cadre (22) reliant des roues avant (34) et arrière (29), une roue avant (34) étant montée, de manière à pouvoir être dirigée, sur ledit assemblage de cadre (22) pour la direction de ladite motocyclette (21), ledit assemblage de guidon (41) étant connecté en fonctionnement à ladite roue avant (34) pour sa direction, caractérisée par un moyen de réglage de position d'assise comprenant au moins un moyen (42) pour monter ledit assemblage de guidon (41), afin de se déplacer par rapport audit assemblage de cadre (22), globalement suivant un arc autour d'un axe s'étendant transversalement audit assemblage de cadre (22), entre une position avant abaissée pour une position de course et une position arrière élevée pour une position de tourisme, et en ce que l'axe de direction dudit assemblage de guidon (41) est déplaçable seulément dans le plan vertical, via un axe de la motocyclette et réglable rigide en différentes positions.

2. Motocyclette (21) selon la revendication 1, caractérisée par des poignées gauche et droite (43) prévues séparément et adaptées pour pouvoir s'engager de manière inter-verrouillable, afin que les deux poignées (43) puissent se déplacer ensemble comme une structure monobloc.

3. Motocyclette (21) selon au moins l'une des revendications 1 ou 2 précédentes, caractérisée en ce que les deux poignées (43) de l'assemblage de guidon (41) sont déplaçables verticalement et/ou longitudinalnalement par rapport au véhicule (21).

4. Motocyclette (21) selon au moins l'une des revendications 1 à 3 précédentes, caractérisée en ce que les deux poignées (43) de l'assemblage de guidon (41) sont déplaçables simultanément latéralement à l'opposé l'une de l'autre.

5. Motocyclette (21) selon au moins l'une des revendications 1 à 4 précédentes, caractérisée en ce que le moyen (42) pour monter l'assemblage de guidage (41) comprend un assemblage d'articulation.

6. Motocyclette (21) selon la revendication 5, caractérisée en ce que l'assemblage d'articulation comprend une première liaison (59) connectée pivotante par une extrémité à un tourillon (55) pour l'assemblage de guidon (41) et connectée pivotante, par un autre extrémité, à l'assemblage de cadre (22), et une deuxième liaison (61) disposée anguleusement par rapport à la première liaison (59) et connectée pivotante, par sa première extrémité, audit assemblage de tourillon (55) et, par sont autre extrémité, audit assemblage de cadre (22).

7. Motocyclette (21) selon la revendication 6, caractérisée en ce que la longueur des liaisons (51, 61) est réglable pour s'adapter à des conducteurs de nature différente, dans les positions de tourisme ou bien de course.

8. Motocyclette (21) selon la revendication 4, caractérisée en ce que les poignées (43) sont réglables par rapport à l'assemblage de guidon (41) entre une première position espacée intimement adjacente à l'axe longitudinal de la motocyclette (21) et une deuxième position espacée vers l'extérieur de ce dernier.

9. Motocyclette (21) selon au moins l'une des revendications 1 à 8 précédentes, caractérisée en ce que les poignées (43) sont réglables simultanément par rapport à l'assemblage de guidon (41).

10. Motocyclette (21) selon au moins l'une des revendications 1 à 9 précédentes, caractérisée en ce que les assemblages de poignée sont montés pivotant sur l'assemblage de guidon (41).

11. Motocyclette (21) selon au moins l'une des revendications 1 à 10 précédentes, caractérisée par une connexion à engrenage entre les poignées (43) de l'assemblage de guidon (41), pour permettre leur déplacement simultané.

12. Motocyclette (21) selon au moins l'une des revendications 1 à 11 précédentes, caractérisée par un moyen de verrouillage (86) pour verrouiller les poignées (43) de l'assemblage de guidon (41) dans une position réglée.

13. Motocyclette (21) selon au moins l'une des revendications 1 à 12 précédentes, caractérisée par un moyen pour monter ledit assemblage de cale-pieds (45) afin de se déplacer par rapport audit assemblage de cadre (22), entre une première position située à l'avant et basse par rapport à l'assemblage de cadre (22) pour s'adapter à un conducteur (52) assis dans une position de tourisme, et une deuxième position espacée vers le haut et vers l'arrière de ladite première position, suivant un arc, de manière à s'adapter au pied d'un conducteur (52) située dans une position de course.
14. Motocyclette (21) selon au moins l'une des revendications 1 à 13 précédentes, caractérisée en ce que l'arc de réglage du cale-pieds (45) et l'arc de réglage de l'assemblage de guidon (41) se situent sensiblement sur le même cercle (49) et son centre (51) est disposé à mi-chemin entre eux.

15. Motocyclette (21) selon au moins l'une des revendications 1 à 14 précédentes, caractérisée en ce que l'assemblage de cale-pieds (45) comprend un couple de tiges espacées entre elles, supportées par un levier (92).

16. Motocyclette (21) selon au moins l'une des revendications 1 à 15 précédentes, caractérisée par un moyen pour faire pivoter le levier (92) lors d'un déplacement entre les première et deuxième positions des cale-pieds (46, 47), en vue de maintenir les cale-pieds (46, 47) dans une position sensiblement horizontale.

17. Motocyclette (21) selon au moins l'une des revendications 1 à 16 précédentes, caractérisée par un siège (37) monté réglable sur l'assemblage de cadre (22), pour loger un conducteur (52).
Figure 14