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(54) **LEAST VOLUME OF FOLDING HANDLE BAR FOR BICYCLE**

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(57) **ABSTRACT**

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The least volume of folding handle bar for bicycle comprises a handle bar including a first handle bar and a second handle bar wherein the connections of the first and second handle bar locating handle holders, each of it having a hollow body, and each handle holder where side of they installing two connecting members in parallel horizon, locating a gap between they and connecting members of one of handle holder locating a hole of each of they, which including a pin put into said holes of connecting members; a stem coupling to the first and second handle bars; and a control screw device which one side of it coupling to the pin through the gap of the connecting members and fastening or releasing the handle bars by the other side of it touching the connecting members of the handle bar.

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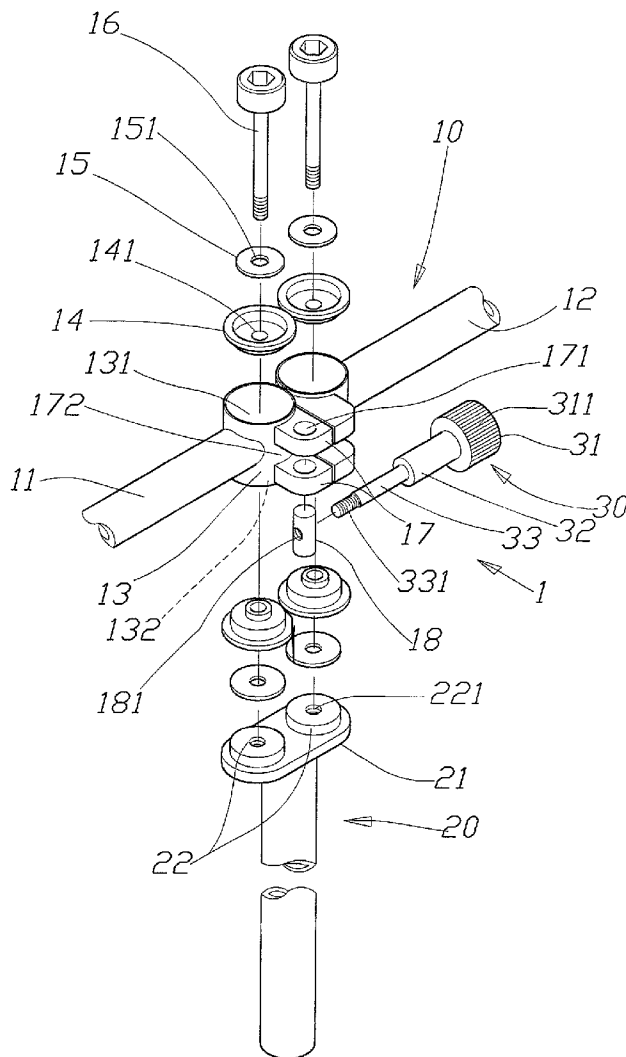
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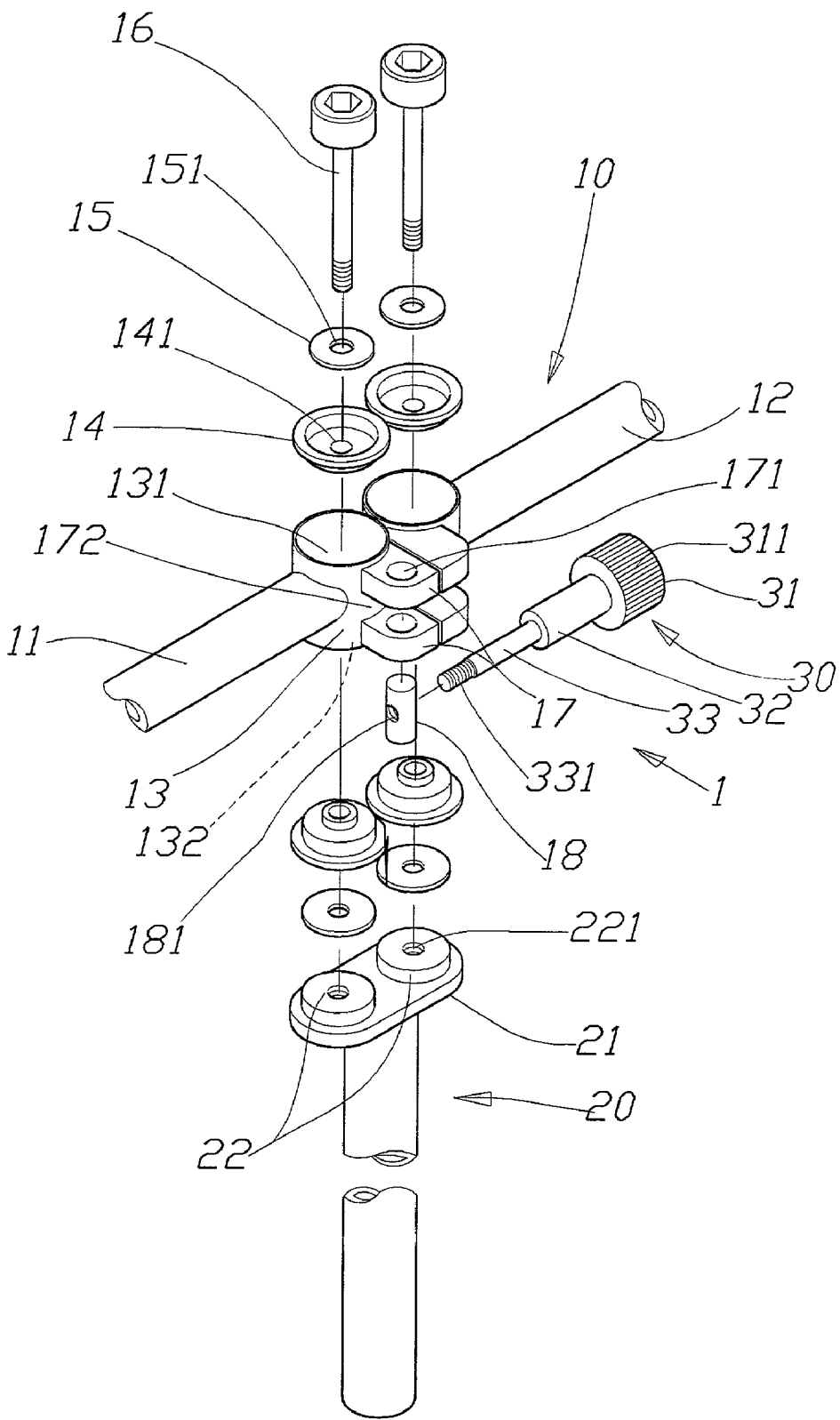


Fig. 1

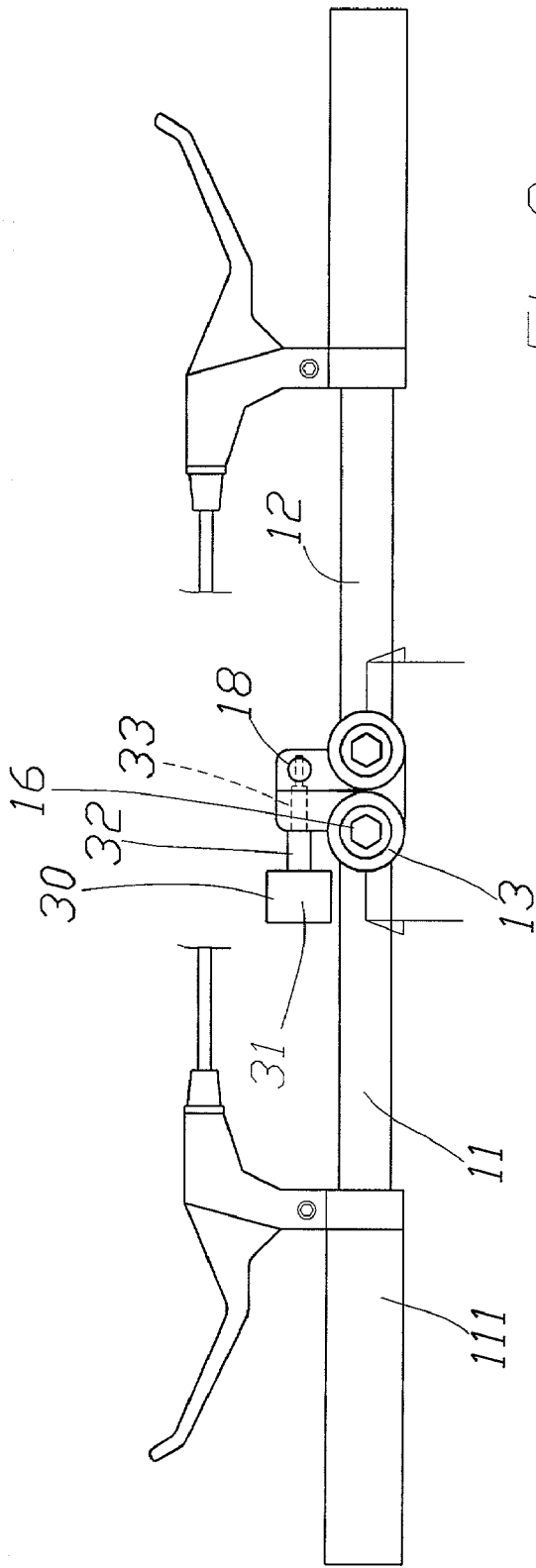


FIG. 3

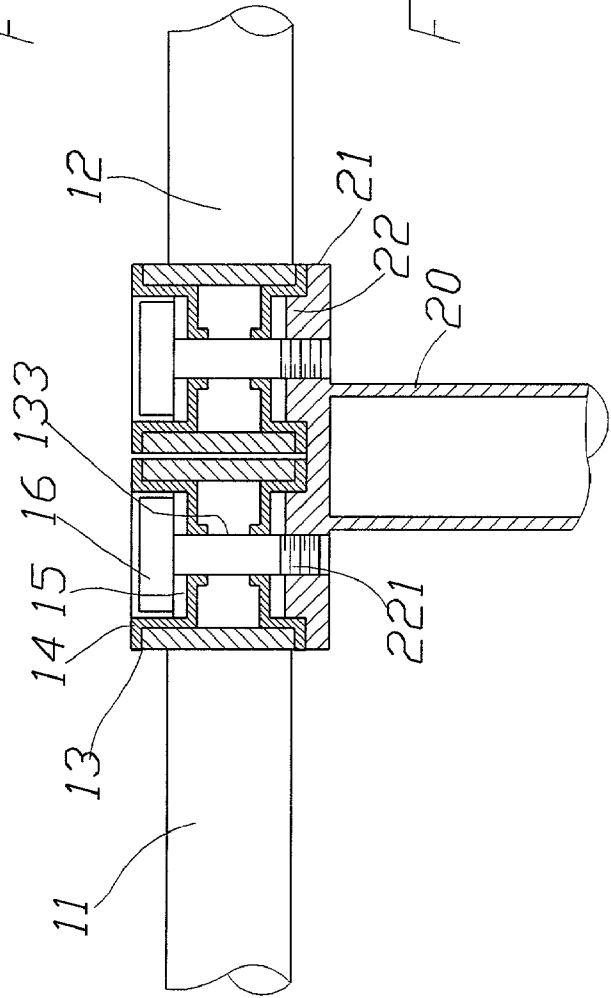
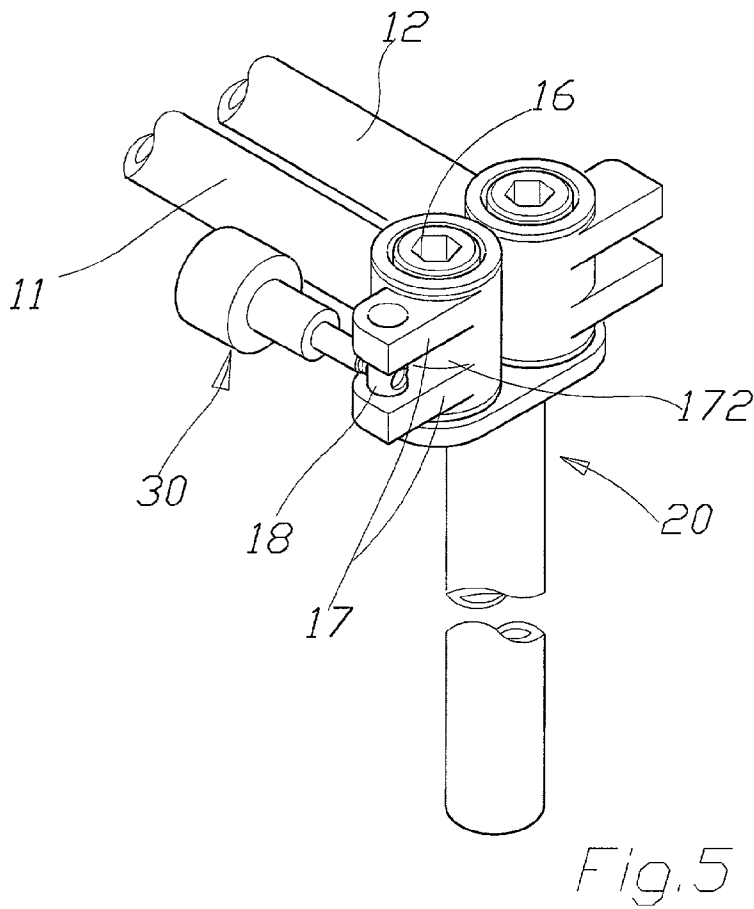
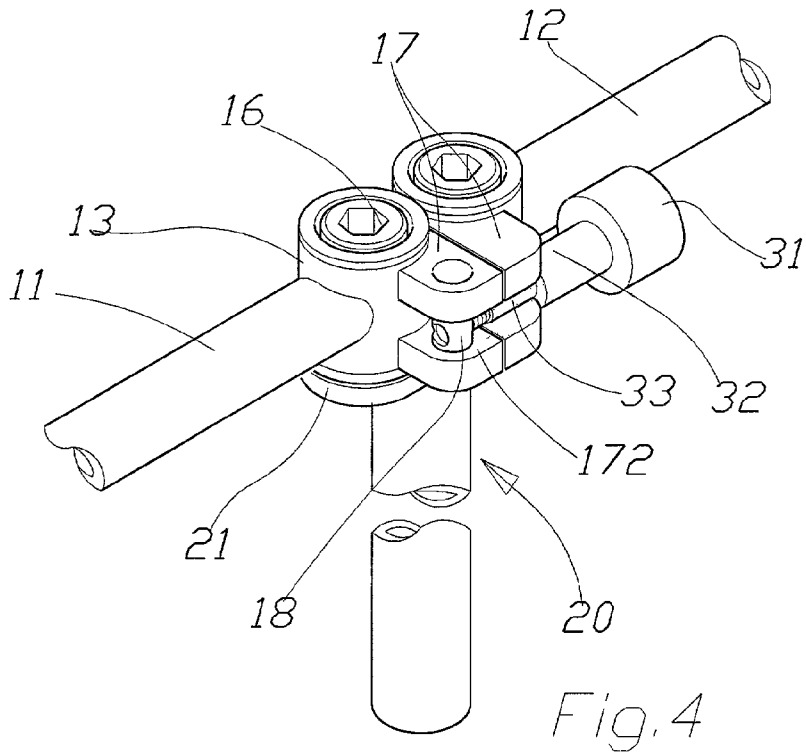


FIG. 2



LEAST VOLUME OF FOLDING HANDLE BAR FOR BICYCLE

FIELD OF THE INVENTION

[0001] The present invention relates to a folding handle bar device and more particularly, to a rapid and convenient folding handle bar device of bicycle for the least volume of the folding bar.

DESCRIPTION OF THE RELATED ART

[0002] The bicycle is one of the tools to replace walking and it is an exercise and a leisure action in one of quality modern times. So the bicycle is much loved in modern times according to properties of exercise and leisure. In order to bring for convenience whether in habitat or go out, the structure of bicycle adapts to shrink. More important, the bicycle already has developed the folding structure, adding mobility and usability, in order to be carried by car or others vehicles. The structure of the folding bicycle has much portions of folding structure and it is designed, each portion of folding structure, for deciding the volume of the bicycle. It is to achieve the advantage of transport, storage and carrying for convenience. However, the handle bar controls the safety for the bicycle, and so far the design of the folding handle bar is hard to include the safety of structure and the convenience of use. Meanwhile, the folding handle bar needs the tools to fasten or release.

BRIEF SUMMARY OF THE INVENTION

[0003] Therefore it is an object of the invention to provide a folding handle bar for bicycle which the advantage of handle bar folds with least volume of folding structure.

[0004] Another object of this invention to provide a folding handle bar for bicycle is rapid and convenient operation handle bar.

[0005] Still another object of this invention to provide a folding handle bar structure is different form conventional folding handle bar.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0006] The appended claims particularly point out and distinctly claim the subject matter of this invention. The various objects, advantages and novel features of this invention will be more fully apparent from a reading of the following detailed description in conjunction with the accompanying drawings in which like reference numerals refers to like parts, and in which:

[0007] FIG. 1 is an explosive view of this invention;

[0008] FIG. 2 is a sectional view of this invention;

[0009] FIG. 3 is a top view for the handle bar of this invention;

[0010] FIG. 4 is an assembly drawing for before folding handle bar of this invention; and

[0011] FIG. 5 is an assembly drawing for after folding handle bar of this invention.

DETAIL DESCRIPTION OF PREFERRED EMBODIMENT

[0012] Referring to FIG. 1, the folding handle bar for bicycle comprises a folding handle bar 1 including a handle

bar 10, a stem 20 and control screw device 30, and the handle bar 10 includes a first handle bar 11 and a second handle bar 12, both of them having same structure. The side of first handle bar 11 locates a handle grip 111 (refer to FIG. 3) and the other side installed a handle holder 13 which locates two rooms 131,132 at each side, rooms 131,132 connected by a path 133 at center. Meanwhile, the rooms 131,132 could replace a hollow body of handle holder 13. There is a fastening housing 14 and a pad 15 to locate each room of handle holder 13 wherein the pad 15 is a plastic friction lining and could replace a bearing. Both the fastening housing 14 and the pad 15 are located holes 141,151, and a screw blot 16 goes through the holes 141,151 and the path 133. In addition, the side of handle holder 13 installed a connecting member 17 locating a hole 171 and a gap 172, and the hole 171 located one of handle bars and had a pin 18 locating a hole 181 with screw thread insert where the pin 18 connected the connecting members with holes 171,172 and the hole 181 set the gap 172 of the connecting members 17. The stem 20 coupled to the handle bar 10 which top of it couples to a bracket 21 installed two columns 22 in order to couple to the first and second handle bar 11,12 that have a hole 221 with screw thread insert. Also, the control screw device 30 includes a screw cap 31, a fastening screw part 32 and a screw rod part 33, and the diameter of the fastening screw part 32 is bigger than the gap 172 between the connecting members 17. The diameter of the screw rod part 33 is smaller than the fastening screw part 32 and the gap 172 between the connecting members 17. The screw cap 31 locates a screw thread on it for hand to fasten or release. The side of screw rod part 33 has screw threads for coupling to the hole 181 of pin 18.

[0013] Referring to FIG. 2, the folding handle bar for bicycle takes the columns 22 of stem 20 inserting the lower rooms 132 of first, second handle bar 11,12. And, the screw blot 16 through the fastening housing 14, the pad 15 and the path 133 fastens with the holes 221 of the columns 22. Finally, the screw rod part 33 of control screw device 30 couples to the hole 181 of pin 18 via the gap 172 of connecting members 17 of first handle bar 11 and fastens on the connecting member 17 of second handle bar 12 with the fastening screw part 32.

[0014] Referring to FIGS. 4 and 5, the release-operation folding handle bar releases the control screw device, coupled to the pin 18, in order to take the fastening screw part off the connecting members 17 of the second handle bar 12, and moved the control screw device to the first handle bar 11. Then, the first and second handle bar 11, 12 fold to the collocation by moving in horizon.

[0015] While this invention has been described in reference to illustrative embodiments, this description is not intended to be construed in a limiting sense. Various modifications and combinations of the illustrative embodiments, as well as other embodiment of the invention, will be apparent to persons skilled in the art upon reference to the description. The teachings and concepts of the present invention may be applied to other types of components, systems and structures the principles of the present invention are practicable in a number of applications and technologies. It is therefore intended that the appended claims encompass any such modifications or embodiments.

What is claimed is:

1. The least volume of folding handle bar for bicycle comprising:

a handle bar including a first handle bar and a second handle bar wherein the connections of said first and second handle bar locating handle holders, each of it having a hollow body, and each handle holder where side of they installing two connecting members in parallel horizon, locating a gap between they and connecting members of one of handle holder locating a hole of each of they, which including a pin put into said holes of connecting members;

a stem coupling to the first and second handle bars; and

a control screw device which one side of it coupling to said pin through the gap of said connecting members and fastening or releasing said handle bars by the other side of it touching said connecting members of said handle bar.

2. The least volume of folding handle bar for bicycle of claim 1 wherein said stem installs two columns, locating screw thread for inside of they, which couples to said handle bars by screw bolts through the hollows of said handle holders.

3. The least volume of folding handle bar for bicycle of claim 1 wherein said handle holder locates two rooms at each side.

4. The least volume of folding handle bar for bicycle of claim 1 wherein said each room of handle holder further includes a fastening housing, locating a hole in center.

5. The least volume of folding handle bar for bicycle of claim 1 wherein said fastening housing includes a pad, locating a hole in center.

6. The least volume of folding handle bar for bicycle of claim 1 wherein said connecting members have a gap between each other in horizon.

7. The least volume of folding handle bar for bicycle of claim 1 wherein said connecting members of one of handle holder locate a hole of each of they in order to assemble with said pin.

8. The least volume of folding handle bar for bicycle of claim 1 wherein said pin have a hole in center in order to connect with said control screw device.

9. The least volume of folding handle bar for bicycle of claim 1 or 7 wherein said control screw device includes a screw cap, a fastening screw part and a screw rod part.

10. The least volume of folding handle bar for bicycle of claim 9 wherein the diameter of said fastening screw part is bigger than said gap between said connecting members.

11. The least volume of folding handle bar for bicycle of claim 9 wherein the diameter of said screw rod part is smaller than said fastening screw part and said gap between said connecting members.

12. The least volume of folding handle bar for bicycle of claim 9 wherein said screw cap locates a screw thread on it for hand to fasten or release.

13. The least volume of folding handle bar for bicycle of claim 1 wherein said handle holder locates two rooms at each side and two rooms connect by a path at center.

14. The least volume of folding handle bar for bicycle of claim 5 wherein said pad replaces a bearing.

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