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(54) WATER WRINGING MOP

(57) The invention provides a water wringing mop, belongs to the technical field of cleaning tools, and solves the problem that it is hard to clean a wiping object in the prior art. The water wringing mop provided by the invention comprises a wiping object and a rod body. The rod body is externally sleeved with a sleeve capable of ascending and descending along the rod body, the upper end of the wiping object is connected to the sleeve, the lower end of the wiping object is connected to the lower end of the rod body, the lower end of the rod body is provided with a detachably connected compressing piece, the compressing piece fixedly connects the lower end of the wiping object to the lower end of the rod body, and the upper end of the wiping object is detachably connected with the sleeve. According to the invention, the upper end of the wiping object is detachably connected to the sleeve and the lower end of the wiping object is detachably connected to the lower end of the rod body, so that it is convenient to replace or clean the detached wiping object, it is cleaned more cleanly after being detached, the floor mopping effect of the cleaned mop is better, and the service life of the mop is prolonged as the wiping object can be replaced. By arranging a distribution plate, when the sleeve falls, the wiping object can be fully dispersed under a guiding action of the distribution plate, so that floor mopping is facilitated. A detaching tool is connected to the rod body in a clamping manner, so that the mop is ready access upon use.

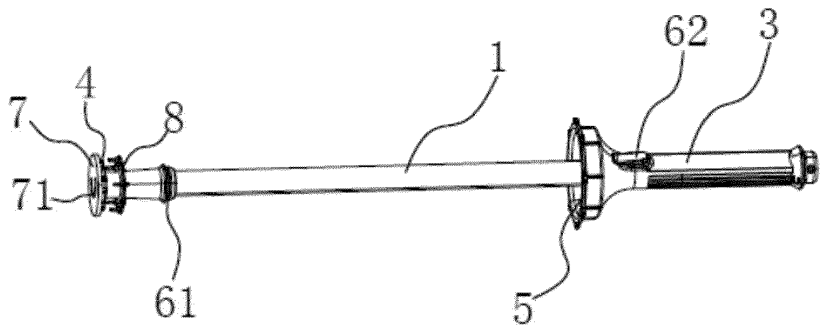

Fig. 4

EP 3 991 626 A1

Description

Technical Field

[0001] This invention belongs to the technical field of cleaning tools, and in particular relates to a water wringing mop.

Background of the Invention

[0002] A mop, also known as a swab, refers to a long-handle cleaning tool which scrubs a floor, and also refers to a long-handle cleaning tool in general. The mop is a common cleaning tool for families and public places. In a modern life, the mop is widely used.

[0003] After the water wringing mop is used, a wiping object for wiping becomes dirty and dirt which is hardly cleaned is attached to the mop. As the wiping object in the prior art is fixed to a rod body of the mop and is hardly cleaned, and the floor mopping effect is worse and worse and even the floor is dirty when being mopped because of more and more dirt accumulated on the wiping object after long time use of the mop, some parts of which are hardly cleaned, a user can only clean or replace the mop frequently, so that the physical output of the user is increased, a lot of cleaning water is wasted, and the service life of the mop is not long.

Summary of the Invention

[0004] The objective of the invention is to provide an easily cleaned water wringing mop to solve the problem in the prior art.

[0005] The objective of the invention can be realized by the following technical scheme: a water wringing mop includes a wiping object and a rod body, wherein the rod body is externally sleeved with a sleeve capable of ascending and descending along the rod body, the upper end of the wiping object is connected to the sleeve, and the lower end of the wiping object is connected to the lower end of the rod body, the lower end of the rod body is provided with a detachably connected compressing piece, the compressing piece fixedly connects the lower end of the wiping object to the lower end of the rod body, and the upper end of the wiping object is detachably connected with the sleeve.

[0006] The sleeve descends along the rod body to drive the wiping object to descend to be in contact with a ground to mop. The sleeve ascends along the rod body to drive the wiping object to ascend to cling to the rod body to wring water. The upper end of the wiping object is detachably connected to the sleeve, and the lower end of the wiping object is detachably connected to the lower end of the rod body. When the upper and lower ends are detached, only the wiping object is left without other plastic parts, so that the wiping object can be directly cleaned or replaced conveniently. The mop is cleaned more cleanly after being detached without being cleaned frequently, so that the physical power and the water consumption of the user are saved. The floor mopping effect of the cleaned mop is better, and the service life of the mop is prolonged as the wiping object can be replaced.

[0007] In the abovementioned water wringing mop, the compressing piece is provided with an external thread, and the lower end of the rod body is provided with an internal thread matched with the external thread.

[0008] It is convenient to detach the wiping object and the rod body via a thread connection, and it can also be that the compressing piece is internally provided with the internal thread and the lower end of the rod body is provided with the corresponding external thread relatively.

[0009] In the abovementioned water wringing mop, the sleeve and the wiping object are fixedly connected via an elastic cord. It is convenient to detach the wiping object from the sleeve to replace and clean.

[0010] In the abovementioned water wringing mop, a locking mechanism capable of locking an axial direction of the sleeve when the sleeve descends to the lower end of the rod body is further arranged between the rod body and the sleeve.

[0011] The locking mechanism plays a role of preventing the sleeve from retreating during floor mopping, so that the sleeve is located at the bottom all the time, and the wiping object does not retreat as a result of a floor mopping action.

[0012] In the abovementioned water wringing mop, the locking mechanism includes a lower limiting groove disposed in a lower portion of the rod body and a limiting block, capable of being buckled into the lower limiting groove, disposed on an inner wall of the sleeve, the limiting block being movably mounted on the sleeve and having a trend of compressing the rod body continuously.

[0013] When it is needed to use the mop, it is needed to lay down the wiping object. At the time, the limiting block can be pressed, the sleeve slides to the lower limiting groove along the rod body, the limiting block is buckled into the limiting groove to enter a locked state after being loosened, and the sleeve cannot move axially along the rod body, so that the mop can be used to mop the floor.

[0014] In the abovementioned water wringing mop, the upper end of the rod body is provided with an upper limiting groove when the sleeve ascends to a middle portion of the rod body, the limiting block being capable of being embedded into the upper limiting groove and the axial position thereof being locked.

[0015] When the mop is not used, it is needed to put the wiping object aside. At the time, the sleeve is at the highest position, namely, the upper end of the wiping object is located in the middle portion of the rod body. The wiping object is embedded into the upper limiting groove by means of the locking mechanism, so that it is convenient to store and transport the wiping object. When it is needed to use the mop to mop the floor, the limiting action of the limiting structure is relieved, so that the sleeve and the wiping object can slide downwards along

the rod body under the effect of gravity.

[0016] In the abovementioned water wringing mop, the lower end of the compressing piece is provided with a discal supporting piece, the supporting piece is detachably connected with the compressing piece, the compressing piece is provided with a detaching hole, through which a tool is inserted conveniently, the supporting piece is provided with an avoidance hole corresponding to the detaching hole, and the supporting piece is configured to lean the wiping object against the ground during floor mopping to increase the contact area of the wiping object and the ground, so that the floor mopping efficiency is higher. The supporting piece and the compressing piece can be in either threaded connection or clamping connection, so that it is convenient to mount, detach and replace. By arranging the detaching hole, it can be inserted and detached by means of the tools. Compared with bare-handed detachment, it is more labor-saving. The avoidance hole corresponds to the detaching hole. During detachment, the tool penetrates through the avoidance hole and the detaching hole to detach.

[0017] In the abovementioned water wringing mop, the lower end of the rod body is provided with a distribution plate above the compressing piece. The distribution plate has an effect that the wiping object can be fully dispersed under the guiding action of the distribution plate when the sleeve falls, so that it is convenient to mop the floor.

[0018] In the abovementioned water wringing mop, the compressing piece is further provided with a holding portion, through which the mop is held by a hand conveniently. Bare-handed detachment is facilitated by arranging the holding portion on the compressing piece.

[0019] In the abovementioned water wringing mop, the rod body is movably connected with a detaching tool, the detaching tool can be inserted into the detaching hole and the avoidance hole, the detaching tool is further provided with a scraper and/or a comb, a section of the detaching tool is in an arc-shaped opened ring shape, and the detaching tool can be connected to the rod body in a clamping manner.

[0020] The detaching tool can be inserted into the detaching hole and the avoidance hole smoothly, so that it is convenient to detach the compressing piece quickly. The scraper and the comb can scrape dirt attached to the wiping object. By arranging the detaching tool in an arc-shaped opened ring shape and connecting the detaching tool to the rod body in a clamping manner, the detaching tool is ready access upon use, so that it is quite convenient.

[0021] Compared with the prior art, according to the invention, the upper end of the wiping object is detachably connected to the sleeve and the lower end of the wiping object is detachably connected to the lower end of the rod body, so that it is convenient to replace or clean the detached wiping object, it is cleaned more cleanly after being detached, the floor mopping effect of the cleaned mop is better, and the service life of the mop is prolonged as the wiping object can be replaced. By arranging the locking mechanism, the sleeve in a floor moping state and a non-floor mopping state can be limited, and thus, axial play thereof is prevented; by arranging the supporting piece, the wiping object leans against the ground during floor mopping, so that the contact area of the wiping object and the ground is increased and the floor mopping efficiency is higher; by arranging the distribution plate, when the sleeve falls, the wiping object can be fully dispersed under the guiding action of the distribution plate, so that floor mopping is facilitated. By forming the detaching hole and the avoidance hole, it is convenient to detach by means of the detaching tool or bare-handed detachment is facilitated by virtue of the holding portion. By arranging the detaching tool movably connected therewith on the rod body, the detaching tool is access upon use, and it is quite convenient. The scraper and/or the comb are arranged to remove attachments on the wiping object.

Brief description of the Drawings

[0022]

Fig. 1 is a three-dimensional structural diagram I of the invention.

Fig. 2 is a three-dimensional structural diagram II of the invention.

Fig. 3 is a three-dimensional structural diagram of Fig. 1 after a wiping object is hidden.

Fig. 4 is a partial three-dimensional structural diagram of Fig. 3.

Fig. 5 is a three-dimensional structural diagram of Fig. 4 after a part of structure is hidden.

[0023] In the drawings, 1, rod body; 2, wiping object; 3, sleeve; 4, compressing piece; 41, holding portion; 42, detaching hole; 5, elastic cord; 6, locking mechanism, 61, lower limiting groove; 62, limiting block; 7, supporting piece; 71, avoidance hole; 8, distribution plate; 9, detaching tool; 91, scraper; 92, comb.

Detailed Description of Embodiments

[0024] Specific embodiments of the invention are described below, and further description on the technical scheme of the invention is made below in combination with the drawings. The invention is not limited to the embodiments.

[0025] As shown in Fig. 1 to Fig. 5, the water wringing mop of the invention includes a wiping object 2 and a rod body 1, wherein the rod body 1 is externally sleeved with a sleeve 3 capable of ascending and descending along the rod body 1, the upper end of the wiping object 2 is connected to the sleeve 3, and the lower end of the wiping object 2 is connected to the lower end of the rod body 1, the lower end of the rod body 1 is provided with a detachably connected compressing piece 4, the compressing piece 4 fixedly connects the lower end of the wiping

object 2 to the lower end of the rod body 1, and the upper end of the wiping object 2 is detachably connected with the sleeve 3.

[0026] The sleeve 3 descends along the rod body 1 to drive the wiping object 2 to descend to be in contact with a ground to mop. The sleeve 3 ascends along the rod body 1 to drive the wiping object 2 to ascend to cling to the rod body 1 to wring water. The upper end of the wiping object 2 is detachably connected to the sleeve 3, and the lower end of the wiping object is detachably connected to the lower end of the rod body 1. When the upper and lower ends are detached, only the wiping object 2 is left without other plastic parts, so that the wiping object can be directly cleaned or replaced conveniently. The mop is cleaned more cleanly after being detached. The floor mopping effect of the cleaned mop is better, and the service life of the mop is prolonged as the wiping object 2 can be replaced.

[0027] The compressing piece 4 is provided with an external thread (not shown in the drawings), and the lower end of the rod body 1 is provided with an internal thread (not shown in the drawings) matched with the external thread. It is convenient to detach the wiping object 2 and the rod body 1 via a thread connection, and it can also be that the compressing piece 4 is internally provided with the internal thread and the lower end of the rod body 1 is provided with the corresponding external thread relatively.

[0028] The sleeve 3 and the wiping object 2 are fixedly connected via an elastic cord 5. It is convenient to detach the wiping object 2 from the sleeve 3 to replace and clean.

[0029] A locking mechanism 6 capable of locking an axial direction of the sleeve 3 when the sleeve 3 descends to the lower end of the rod body 1 is further arranged between the rod body 1 and the sleeve 3. The locking mechanism 6 includes a lower limiting groove 61 disposed in a lower portion of the rod body 1 and a limiting block 62, capable of being buckled into the lower limiting groove 61, disposed on an inner wall of the sleeve 3, the limiting block 62 being movably mounted on the sleeve 3 and having a trend of compressing the rod body 1 continuously. The locking mechanism 6 plays a role of preventing the sleeve 3 from retreating during floor mopping, so that the sleeve 3 is located at the bottom all the time, and the wiping object 2 does not retreat as a result of a floor mopping action.

[0030] When it is needed to use the mop, it is needed to lay down the wiping object 2. At the time, the limiting block 62 can be pressed, the sleeve 3 slides to the lower limiting groove 61 along the rod body 1, the limiting block 62 is buckled into the limiting groove 61 to enter a locked state after being loosened, and the sleeve 3 cannot move axially along the rod body 1, so that the mop can be used to mop the floor.

[0031] The upper end of the rod body 1 is provided with an upper limiting groove (not shown in the drawings) when the sleeve 3 ascends to a middle portion of the rod body 1, the limiting block 62 being capable of being embedded into the upper limiting groove and the axial position thereof being locked. When the mop is not used, it is needed to put the wiping object 2 aside. At the time, the sleeve 3 is at the highest position, namely, the upper end of the wiping object 2 is located in the middle portion of the rod body 1. The wiping object is embedded into the upper limiting groove by means of the limiting block 62, so that it is convenient to store and transport the wiping object. When it is needed to use the mop to mop the floor, the limiting action of the limiting block 62 is relieved, so that the sleeve 3 and the wiping object 2 can slide downwards along the rod body 1 under the effect of gravity.

[0032] The lower end of the compressing piece 4 is provided with a discal supporting piece 7, and the supporting piece 7 is detachably connected with the compressing piece 4. The supporting piece 7 is configured to lean the wiping object 2 against the ground during floor mopping to increase the contact area of the wiping object 2 and the ground, so that the floor mopping efficiency is higher. The supporting piece 7 and the compressing piece 4 can be in either threaded connection or clamping connection, so that it is convenient to mount, detach and replace. The compressing piece 4 is further provided with a holding portion 41, through which the mop is held by a hand conveniently. Bare-handed detachment is facilitated by arranging the holding portion 41 on the compressing piece 4. The compressing piece 4 is provided with a detaching hole 42, through which a tool is inserted conveniently, and the supporting piece 7 is provided with an avoidance hole 71 corresponding to the detaching hole 42. By arranging the detaching hole 42, it can be inserted and detached by means of the tools. Compared with bare-handed detachment, it is more labor-saving. The avoidance hole 71 corresponds to the detaching hole 42. During detachment, the tool penetrates through the avoidance hole 71 and the detaching hole 42 to detach.

[0033] The lower end of the rod body 1 is provided with a distribution plate 8 above the compressing piece 4. The distribution plate 8 has an effect that the wiping object 2 can be fully dispersed under the guiding action of the distribution plate 8 when the sleeve 3 falls, so that it is convenient to mop the floor.

[0034] The rod body 1 is movably connected with a detaching tool 9, the detaching tool 9 can be inserted into the detaching hole 42 and the avoidance hole 71, the detaching tool 9 is further provided with a scraper 91 and/or a comb 92, a section of the detaching tool 9 is in an arc-shaped opened ring shape, and the detaching tool 9 can be connected to the rod body 1 in a clamping manner.

[0035] The detaching tool 9 can be inserted into the detaching hole 42 and the avoidance hole 71 smoothly, so that it is convenient to detach the compressing piece 4 quickly. The scraper 91 and the comb 92 can scrape dirt attached to the wiping object 2. By arranging the detaching tool 9 in an arc-shaped opened ring shape and connecting the detaching tool to the rod body 1 in a clamp-

ing manner, the detaching tool is ready access upon use, so that it is quite convenient.

[0036] The principle of the water wringing mop of the invention is as follows: when it is needed to mop the floor, the limiting block 62 is pressed first, the sleeve 3 slides downwards along the rod body 1 after the limited state is relieved, the sleeve 3 slides downwards to drive the wiping object 2 connected therewith to slide downwards together, the wiping object 2 descending encounters the distribution plate 8 below, and the unfolding area of the wiping object 2 is increased under the guiding action of the distribution plate 8, and as a result of action of the supporting piece 7 below, the wiping object 2 leans against the ground, the contact area with the ground is increased, and when the limiting block 62 slides to the lower limiting groove 61, buckling of the limiting block 62 and the lower limiting groove 61 is loosened, so that it is started to mop the floor; when it is needed to wring and squeeze water, the limiting block 62 is then pressed, the sleeve 3 under an action force of the user slides upwards along the rod body 1 after the limited state is relieved, the sleeve 3 slides upwards to drive the wiping object 2 connected therewith to slide upwards together to squeeze water; if it is needed to clean or replace the wiping object 2, it is only needed to detach the wiping object from two ends of the wiping object 2; the connection between the bottom of the wiping object 2 and the compressing piece 4 may be inserted into the avoidance hole 71 and the detaching hole 42 by means of the detaching tool 9, and the elastic cord 5 is detached from the sleeve 3 directly at the connection between the top of the wiping object 2 and the elastic cord 5; if there are attachments hard to clean on the wiping object 2, the attachments can be removed by using the scraper 91 or the comb 92 on the detaching tool 9, and the detaching tool 9 can be directly connected to the rod body 1 in a clamped manner after use.

[0037] According to the invention, the upper end of the wiping object 2 is detachably connected to the sleeve 3 and the lower end of the wiping object is detachably connected to the lower end of the rod body 1, so that it is convenient to replace or clean the detached wiping object 2, the mop is cleaned more cleanly after being detached without being cleaned frequently, so that the physical power and the water consumption of the user are saved. The floor mopping effect of the cleaned mop is better, and the service life of the mop is prolonged as the wiping object 2 can be replaced. By arranging the locking mechanism 6, the sleeve 3 in a floor moping state and a non-floor mopping state can be limited, and thus, axial play thereof is prevented; by arranging the supporting piece 7, the wiping object 2 leans against the ground during floor mopping, so that the contact area of the wiping object 2 and the ground is increased and the floor mopping efficiency is higher; by arranging the distribution plate 8, when the sleeve 3 falls, the wiping object 2 can be fully dispersed under the guiding action of the distribution plate 8, so that floor mopping is facilitated; and by forming the detaching hole 42 and the avoidance hole 71, it is convenient to detach by means of the detaching tool 9 or bare-handed detachment is facilitated by virtue of the holding portion 41; and by arranging the detaching tool 9 movably connected therewith on the rod body 1, the detaching tool is access upon use, and it is quite convenient. The scraper 91 and/or the comb 92 are arranged to remove attachments on the wiping object 2.

[0038] The specific embodiments described herein are merely illustrations of spirit of the invention. Various modifications or supplements can be made on the described specific embodiments or can be replaced a similar manner by those skilled in the art without deviating from the spirit of the invention or surpassing the scope defined by the attached claims.

Claims

1. A water wringing mop, comprising a wiping object (2) and a rod body (1), wherein the rod body (1) is externally sleeved with a sleeve (3) capable of ascending and descending along the rod body (1), the upper end of the wiping object (2) is connected to the sleeve (3), and the lower end of the wiping object (2) is connected to the lower end of the rod body (1), wherein the lower end of the rod body (1) is provided with a detachably connected compressing piece (4), the compressing piece (4) fixedly connects the lower end of the wiping object (2) to the lower end of the rod body (1), and the upper end of the wiping object (2) is detachably connected with the sleeve (3).

2. The water wringing mop according to Claim 1, wherein the compressing piece (4) is provided with an external thread, and the lower end of the rod body (1) is provided with an internal thread matched with the external thread.

3. The water wringing mop according to Claim 1, wherein the sleeve (3) and the wiping object (2) are fixedly connected via an elastic cord (5).

4. The water wringing mop according to Claim 1 or 2 or 3, wherein a locking mechanism (6) capable of locking an axial direction of the sleeve (3) when the sleeve (3) descends to the lower end of the rod body (1) is further arranged between the rod body (1) and the sleeve (3).

5. The water wringing mop according to Claim 4, wherein the locking mechanism (6) comprises a lower limiting groove (61) disposed in a lower portion of the rod body (1) and a limiting block (62), capable of being buckled into the lower limiting groove (61), disposed on an inner wall of the sleeve (3), the limiting block (62) being movably mounted on the sleeve (3) and having a trend of compressing the rod body (1)

continuously.

6. The water wringing mop according to Claim 5, wherein the upper end of the rod body (1) is provided with an upper limiting groove when the sleeve (3) ascends to a middle portion of the rod body (1), the limiting block (62) being capable of being embedded into the upper limiting groove and the axial position thereof being locked.

7. The water wringing mop according to Claim 1 or 2 or 3, wherein the lower end of the compressing piece (4) is provided with a discal supporting piece (7), the supporting piece (7) is detachably connected with the compressing piece (4), the compressing piece (4) is provided with a detaching hole (42), through which a tool is inserted conveniently, and the supporting piece (7) is provided with an avoidance hole (71) corresponding to the detaching hole (42).

8. The water wringing mop according to Claim 1 or 2 or 3, wherein the lower end of the rod body (1) is provided with a distribution plate (8) above the compressing piece (4).

9. The water wringing mop according to Claim 1 or 2 or 3, wherein the compressing piece (4) is further provided with a holding portion (41), through which the mop is held by a hand conveniently.

10. The water wringing mop according to Claim 7, wherein the rod body (1) is movably connected with a detaching tool (9), the detaching tool (9) can be inserted into the detaching hole (42) and the avoidance hole (71), the detaching tool (9) is further provided with a scraper (91) and/or a comb (92), a section of the detaching tool (9) is in an arc-shaped opened ring shape, and the detaching tool (9) can be connected to the rod body (1) in a clamping manner.

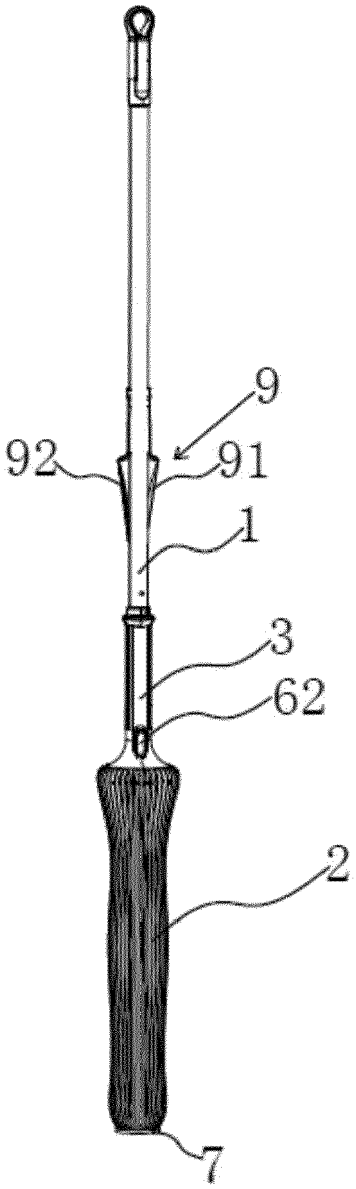

Fig. 1

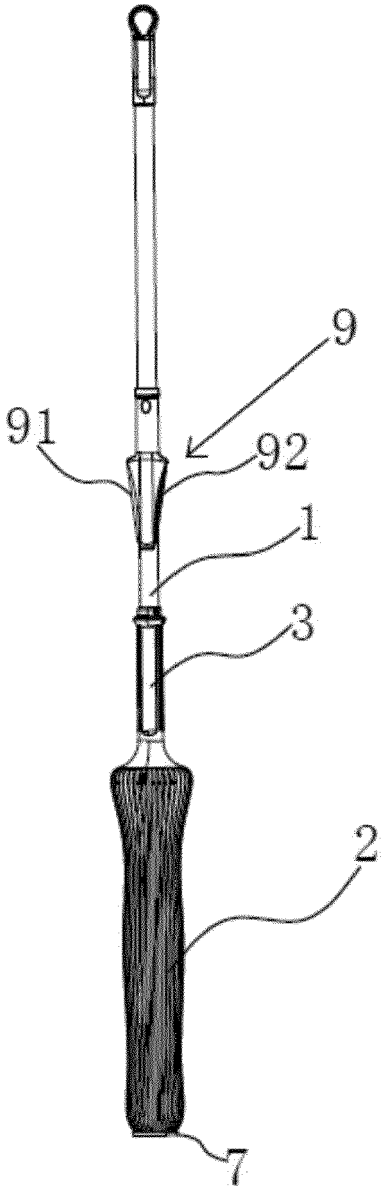

Fig. 2

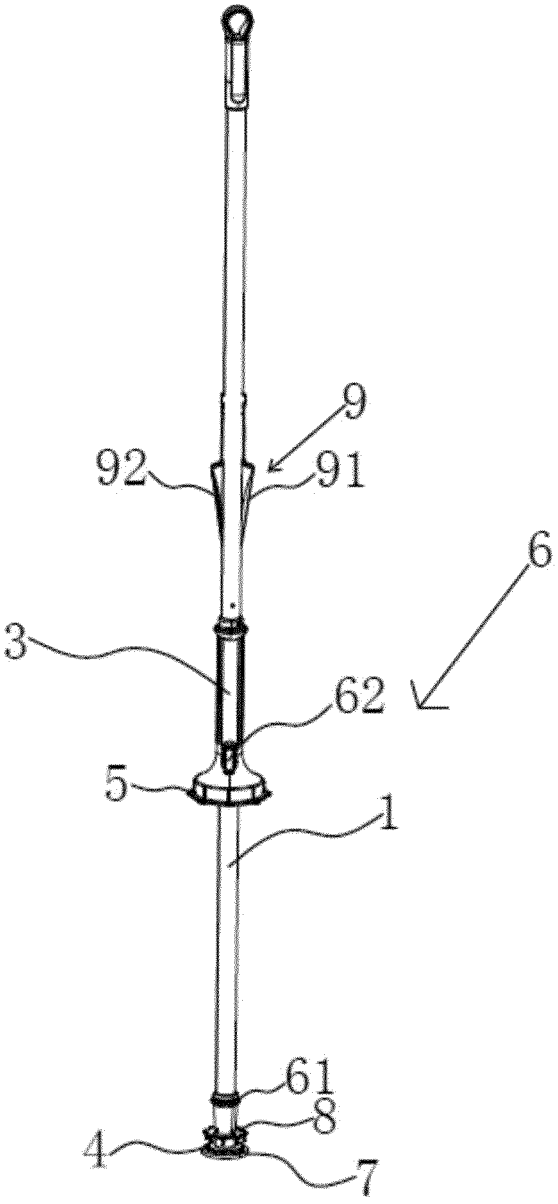

Fig. 3

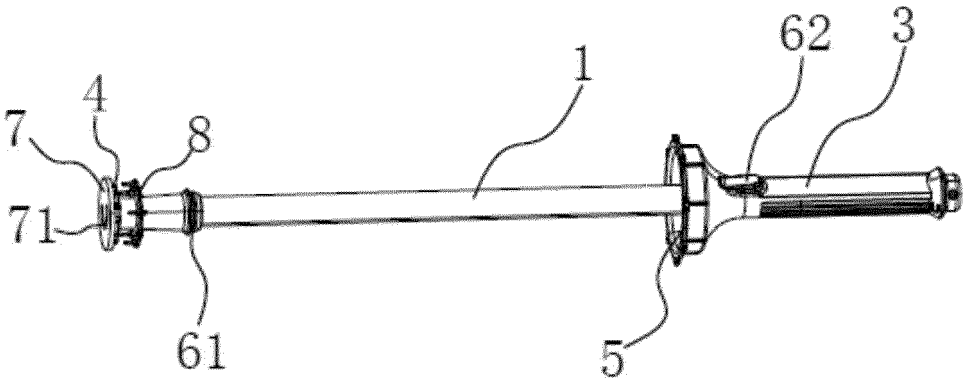

Fig. 4

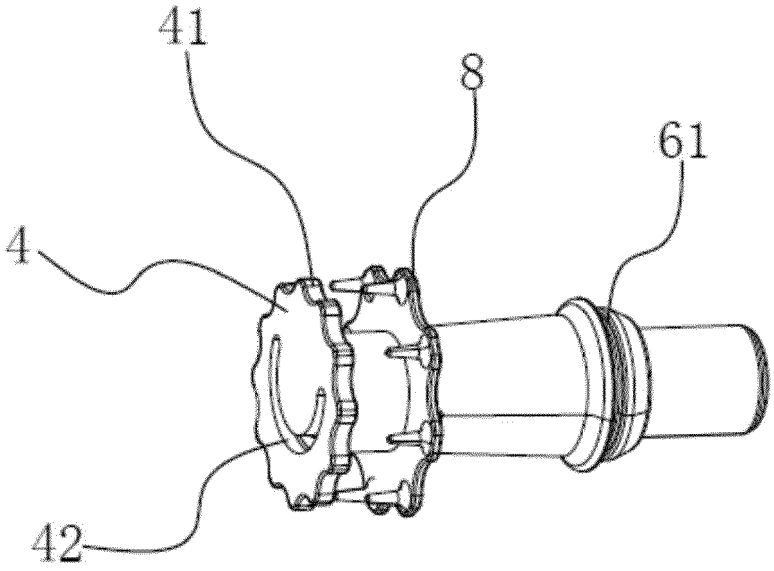

Fig. 5

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EUROPEAN SEARCH REPORT

Application Number
EP 21 20 5448

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1 The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	16 March 2022	Hubrich, Klaus

CATEGORY OF CITED DOCUMENTS

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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