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CLEANING STRIP, ROLLER BRUSH BODY AND VACUUM CLEANER

Abstract

The present disclosure discloses a cleaning strip, a roller brush body and a vacuum cleaner. The roller brush body of the present application can be used for cleaning a carpet and the like, cleaning protrusions can extend into the carpet to fully dig up hair in the carpet, meanwhile, each notch is formed between every two cleaning protrusions, the cleaning protrusions have certain flexibility, and thus the carpet can be prevented from being damaged and deformed due to pressing during a cleaning process. In the present application, only a cleaning element needs to be arranged on the roller brush body, is capable of extending into the carpet for cleaning, a user does not need to replace different roller brushes according to different ground surfaces, and machining cost of a roller brush is lower.

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Background/Summary

TECHNICAL FIELD

[0001] The present disclosure relates to the technical field of vacuum cleaners, in particular to a cleaning strip, a roller brush body and a vacuum cleaner.

BACKGROUND OF THE INVENTION

[0002] In order to meet different use for a carpet and a floor by a consumer, a cleaning element of a roller brush of an existing vacuum cleaner mainly includes flocked hard bristles, flocked soft bristles, velvet, straps and the like.

[0003] A current whole strap roller brush can be used only for floors, for a whole strap is mounted on the roller brush, elasticity of the strap is limited due to a large contact area, during carpet cleaning, hair, dust and the like cannot be dug out from gaps of the carpet, a one-machine multi-purpose cleaning effect cannot be achieved, and thus, during carpet cleaning, the roller brush has to be switched to a flocked-type roller brush.

[0004] An existing flocked roller brush can be used only for the carpet, and may damage smooth finish of the floors if it is used for the floors. Thus, in a scene of home or office where there is a carpet and a floor, when a vacuum cleaner is selected, roller brushes made of different materials such as hard bristles, soft bristles, straps, velvets and the like need to be purchased or match for use, so as to conveniently replace the roller brushes, which is inconvenient and prone to causing the roller brushes to be lost, and increases consumption cost.

[0005] Thus, up to now, there is no practical breakthrough of a vacuum cleaner floor brush with one universal roller brush for the floor and the carpet for cleaning different ground surfaces.

[0006] Some roller brushes are provided with at least two types of cleaning elements such as straps and the brush bristles on roller brush bodies for achieving an effect of cleaning different surfaces at the same time at present. However, heights of the straps above surfaces of the roller brushes usually need to be reduced, the effect of cleaning hair in the carpet cannot be achieved directly during carpet cleaning, and the straps cannot extend into the carpet for cleaning. This is because the straps can clean only wider planar regions and cannot extend into the carpet for effectively cleaning the carpet, in addition, the straps are prone to damaging and deforming the carpet due to pressing, a certain influence on an appearance of the carpet is caused after cleaning, namely, in the existing vacuum cleaner, a strap structure in an integrated form cannot achieve the effect of cleaning the carpet.

[0007] Though a row of tooth-shaped structures have been arranged at an outer edge of the strap at present, a main body is still in a wide strap shape, so though it can be used for cleaning a surface of the carpet, it cannot extend into the carpet for cleaning.

[0008] A variety of cleaning elements need to be arranged on one roller brush in the existing roller brush body so that an effect of being applied to cleaning different ground surfaces and avoiding intertangling of hair can be thoroughly achieved.

SUMMARY OF THE INVENTION

[0009] For solving the above technical problems, the present disclosure provides a cleaning strip, applied to a roller brush body of a vacuum cleaner, including a mounting region, where the cleaning strip is a flexible cleaning strip and further includes at least one cleaning protrusion connected with the mounting region, a notch is formed between any two cleaning protrusions, one end of the notch away from the mounting region has a width greater than 0 mm, one end of the notch close to the mounting region has a width greater than or equal to 0 mm, and when the

cleaning strip is arranged on the roller brush body, the notch is formed on an outer surface of a brush body portion.

[0010] The cleaning strip of the present disclosure has the following beneficial effects. [0011] {circle around (1)} The present application changes a routine of an integrated structural design of an existing cleaning strip for a vacuum cleaner, the routine that the existing cleaning strip can be used only for cleaning hard ground surfaces is broken, a roller brush using the cleaning strip of the present application can also be used for cleaning a carpet and the like, the cleaning protrusions can extend into the carpet to fully dig up hair, dirt and the like in the carpet without being limited only to cleaning a surface of the carpet; and meanwhile, the notches are formed between the cleaning protrusions, and the cleaning protrusions have certain flexibility, so that the carpet can be prevented from being damaged and deformed due to pressing during a cleaning process. [0012] {circle around (2)} By using the roller brush mounted or provided with the cleaning strip of the present application, the cleaning protrusions have certain flexibility, and the notches are formed between the cleaning protrusions, so the hair is not prone to being clamped by the cleaning strip or intertangled on the cleaning strip. [0013] {circle around (3)} The cleaning strip of the present application is made of a flexible material without damaging the carpet, meanwhile, dirt on a hard ground surface can be effectively removed by using the roller brush provided with the cleaning strip of the present application, thus, one roller brush can be universally used for cleaning surfaces made of various different soft and hard materials, a user does not need to replace different roller brushes according to different ground surface, and use is quite convenient for the user. Various different cleaning elements do not need to be arranged on a surface of the one roller brush, so machining cost of the roller brush body is reduced and a machining process of the roller brush body is simplified.

[0014] Furthermore, the cleaning strip has a shore hardness A ranging from 30 degrees to 85 degrees and is made of at least one of plastics, silica gel or soft rubber. Thus, with this hardness range, it can be guaranteed that the cleaning strip has certain elastic force and strength, the hair can be effectively scraped when extending into the carpet for cleaning, and too large pressure on the carpet is avoided so as not to press and deform the carpet.

[0015] Furthermore, spacing between ends of any two cleaning protrusions close to the mounting region does not exceed 30 mm.

[0016] The present disclosure further provides a roller brush body. At least one mounting groove for arranging a cleaning strip is arranged on an outer surface of the roller brush body, the cleaning strip includes a mounting region, the mounting region is arranged in the mounting groove, the cleaning strip is a flexible cleaning strip and further includes a plurality of cleaning protrusions connected with the mounting region, a notch is formed between any two cleaning protrusions, one end of the notch away from the mounting region has a width greater than 0 mm, one end of the notch close to the mounting region has a width greater than or equal to 0 mm, and when the cleaning strip is arranged on the roller brush body, the notch is formed on an outer surface of a brush body portion. The roller brush body of the present disclosure includes the cleaning strip, and the cleaning protrusions of the cleaning strip can extend into the carpet to effectively dig up and clear hair and the like in the carpet; the notches are formed between the cleaning protrusions, and the cleaning protrusions have flexible deformability, so that the hair is neither clamped between the adjacent cleaning protrusions, nor intertangled on the roller brush body; and the roller brush body of the present application adopts the flexible cleaning protrusions, so the effect of cleaning a hard surface such as a floor can also be achieved, and thus, the roller brush body in a signal form can match a roller brush for cleaning various different surfaces.

[0017] Further, each cleaning protrusion is columnar, and one end of the notch close to the mounting region has a width greater than 0 mm.

[0018] Further, spacing between ends of any two cleaning protrusions close to the mounting region does not exceed 30 mm.

[0019] Further, each cleaning protrusion has a width ranging from 1 mm to 20 mm.

[0020] Furthermore, at least one of straps, soft bristles and hard bristles is further arranged on the roller brush body.

[0021] Furthermore, at least one of straps, soft bristles and hard bristles is further arranged on the roller brush body.

[0022] The present disclosure further provides a roller brush body, including a body portion and a brush body portion located on an outer side of the body portion, a plurality of cleaning protrusions of the aforementioned cleaning strip are arranged in at least part of a region of an outer surface of the brush body portion, a notch is further formed between any two adjacent cleaning protrusions, one end of the notch away from the brush body portion has a width greater than 0 mm, one end of the notch close to the brush body portion has a width greater than or equal to 0 mm, the notch is formed in an outer surface of the brush body portion, the cleaning protrusions are integrally formed on the outer surface of the brush body portion, and the cleaning protrusions can extend into a carpet during carpet cleaning.

[0023] The present disclosure further provides a vacuum cleaner, including the aforementioned cleaning strip or the aforementioned roller brush body.

Description

BRIEF DESCRIPTION OF DRAWINGS

[0024] FIG. 1 is a schematic three-dimensional structural diagram of a cleaning strip according to Embodiment 1 of the present disclosure.

[0025] FIG. 2 is a schematic partial structural diagram of Embodiment 1 of the present disclosure.

[0026] FIG. 3 is a schematic structural diagram of a notch with two arc-shaped side walls according to Embodiment 1 of the present disclosure.

[0027] FIG. 4 is a schematic three-dimensional structural diagram of a roller brush body according to Embodiment 2 of the present disclosure.

[0028] FIG. 5 is a schematic three-dimensional structural diagram of a transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0029] FIG. 6 is a schematic three-dimensional structural diagram of another transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0030] FIG. 7 is a schematic three-dimensional structural diagram of another transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0031] FIG. 8 is a schematic three-dimensional structural diagram of another transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0032] FIG. 9 is a schematic three-dimensional structural diagram of another transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0033] FIG. 10 is a schematic three-dimensional structural diagram of another transformation form of a roller brush body according to Embodiment 2 of the present disclosure.

[0034] In the accompanying drawings: [0035] 1, cleaning strip; 11, cleaning protrusion; 12, mounting region; 13, notch; [0036] 2, roller brush body; 21, body portion; 211, mounting groove; 22, brush body portion; 221, brush body main body; [0037] 4, strap; and 5, brush.

DETAILED DESCRIPTION OF THE INVENTION

[0038] Preferred embodiments of the present disclosure are described in detail below with reference to the accompanying drawings, so that advantages and features of the present disclosure are easier to understand by those skilled in the art, and thus the protection scope of the present disclosure is defined more clearly.

Embodiment 1

[0039] As shown in FIG. 1 and FIG. 2, the present embodiment is a cleaning strip 1, and the

cleaning strip **1** is a flexible cleaning strip **1** made of a flexible material. "Flexible" here means that the cleaning strip **1** has certain hardness but still has certain deformability and elastic recovery force, for example, at least one of plastics, silica gel or soft rubber may be used. For example, there may be polyurethane (PU) elastomer, thermoplastic elastomer (TPE), polyvinyl chloride (PVC), etc.

[0040] The cleaning strip **1** of the present embodiment includes a mounting region **12** and at least one cleaning protrusion **11** connected with the mounting region **12**, a notch **13** is formed between any two cleaning protrusions **11**, one end of the notch **13** away from the mounting region **12** has a width greater than 0 mm, and one end of the notch **13** close to the mounting region **12** has a width greater than or equal to 0 mm. Namely, no gap may be arranged at a root (one end close to the mounting region **12**) of each cleaning protrusion **11**, and when the cleaning strip **1** is arranged on a roller brush body, the notches are formed on an outer surface of a brush body portion **22**. Namely, each cleaning protrusion **11** has a relatively large length in a width direction of the cleaning strip **1**, thereby guaranteeing that when the cleaning strip **1** is mounted on the roller brush body, a length of the cleaning strip **1** extending into fur of a carpet is large and then effectively cleaning hair in the carpet. It is noted that each cleaning protrusion **11** in the solution of the present embodiment has a relatively large height above a surface of the roller brush body instead of only a sawtooth shape arranged in a limited width of an outer edge of the cleaning strip **1**. Thus, the cleaning protrusions **11** of the present application can fully extend into the carpet to effectively clear the hair in the carpet.

[0041] Therefore, without additionally arranging other cleaning elements, an effect of cleaning a floor and the carpet may be achieved only by using a roller brush provided with the cleaning strip **1** of the present application. During carpet cleaning by using the roller brush provided with the cleaning strip **1** of the present embodiment, the cleaning protrusions **11** can extend into the carpet to clear the hair and the like in the carpet. The notch **13** is formed between any two cleaning protrusions **11** of the cleaning strip **1** of the present application, and the cleaning protrusions **11** are flexible, so the hair is neither prone to being clamped by the adjacent cleaning protrusions **11**, nor prone to being intertangled on the cleaning strip **1**.

[0042] During carpet cleaning by using a floor brush provided with the cleaning strip **1** of the present embodiment, the cleaning protrusions **11** have certain elasticity, so the cleaning protrusions can flap and dig up in the carpet. The cleaning strip **1** can have better adhesive force with the fur of the carpet due to the certain elasticity of the cleaning strip **1**, so friction force between the floor brush and the carpet is greater, the cleaning strip **1** can cause the fur of the carpet to bring stronger tractive force on the floor brush so as to drive the floor brush to automatically move forwards, and dust in gaps of even a long-fur carpet can be easily flapped and dug out to be sucked into a dust cup by a vacuum cleaner without manual push basically. The notches **13** arranged between the respective cleaning protrusions **11** can guarantee that the cleaning strip **1** does not completely press down the fur on a surface of the carpet, and thus an unfavorable influence of collapse of an appearance of the carpet after cleaning is completed is not caused.

[0043] In some implementations, the cleaning strip **1** has a shore hardness A ranging from 30 degrees to 85 degrees. If the hardness of the cleaning strip **1** is too low, there is no effect of digging up the hair and the like. If the hardness of the cleaning strip **1** is too high, on the one hand, the carpet is prone to being damaged, and on the other hand, if gaps between the adjacent cleaning protrusions **11** are too small, the hair is still prone to being intertangled on a surface of the cleaning strip **1**. Thus, in the present application, by controlling the hardness of the cleaning strip **1** to be shore hardness A ranging from 30 degrees to 85 degrees, the cleaning strip **1** has both appropriate flexibility and strength. In addition, the cleaning strip **1** has certain flexibility and elasticity, so the cleaning strip can adapt to an uneven ground surface and effectively clear the hair and the like on different surfaces such as the floor and the carpet and cannot cause the hair to be clamped or intertangled by the cleaning strip **1**.

[0044] In some implementations, an external diameter of each cleaning protrusion **11** gradually decreases towards one end away from the mounting region **12**. For example, each cleaning protrusion **11** may be in at least one shape of tooth shape, taper shape, or truncated taper shape (such as a cone shape or pyramid shape).

[0045] In some implementations, the cleaning strip **1** is in a platy shape and is obtained by forming a notch **13** through punching or cutting an edge of a platy strip, each cleaning protrusion **11** is a region at an edge of the cleaning strip **1** without punching or cutting, and as shown in FIG. **1** and FIG. **2**, each cleaning protrusion **11** is a plurality of tooth-shaped structures arranged at an edge of the strap. Thus, the cleaning strip **1** of the present application may be obtained only by using the strap and the like widely applied in the industry of vacuum cleaners at present and simply punching or cutting an edge of the strap to form some V-shaped grooves or arc-shaped grooves. Therefore, the cleaning strip **1** has extremely low machining cost and simple machining process. “Arc-shaped groove” punched here means that a left side wall and a right side wall of the groove are arc-shaped (as shown in FIG. **3**). A bottom of the punched groove may be in a V shape or an arc chamfer shape. A case where the bottom of the groove is in a V shape is a case where spacing between ends of the respective cleaning protrusions **11** close to the mounting region **12** is 0.

[0046] The present application breaks the routing of the industry, the notches **13** are formed in the strap which cannot play a role in extending into the carpet to directly clear the hair, so as to form the plurality of cleaning protrusions **11**, so the cleaning protrusions **11** can directly extend into the carpet for cleaning, namely, the structure of the cleaning protrusions **11** of the strap is used for directly playing a role in cleaning.

[0047] In other possible implementations, each cleaning protrusion **11** is columnar (for example, may be cylindrical, cuboid, cube, prismatic shape and the like), and one end of each notch **13** close to the mounting region **12** has a width greater than 0 mm. Each cleaning protrusion **11** is columnar, so a width of one end of the notch **13** close to the mounting region **12** needs to be set as greater than 0 mm, and thus it may be guaranteed that there are enough gaps between the respective cleaning protrusions **11**.

[0048] In some implementations, the spacing between ends of any two cleaning protrusions **11** close to the mounting region **12** does not exceed 30 mm. Otherwise, the too large spacing may result in that the surface of the floor or the carpet cannot be effectively cleaned.

[0049] In some implementations, each cleaning protrusion **11** has a width ranging from 1 mm to 20 mm. “Width of the cleaning protrusion **11**” here refers to a length (in a case where the cleaning protrusion **11** is in a tooth shape) or an external diameter (in a case where the cleaning protrusion **11** is in a taper shape, a truncated taper shape or a columnar shape) of the cleaning protrusion **11** in a length direction of the cleaning strip **1**. The width of the cleaning protrusion **11** may be adjusted according to a length of the roller brush. For example, in a small roller brush, as the length of the roller brush is usually in a range from 10 cm to 30 cm, in this case, the width of the cleaning protrusion **11** may be set only as 1 mm, 3 mm, 5 mm or the like. In a large industrial vacuum cleaner, as the length of the roller brush may reach 2 m to 3 m, in this case, the width of the cleaning protrusion **11** may also be set as 20 mm. A proportion for which a set width of each cleaning protrusion **11** accounts in a length direction of the roller brush body is extremely low, for example, it may be 0.05%, 0.1%, 0.2%, 0.5%, 1% or the like. This is for forming a structure of the plurality of cleaning protrusions **11** capable of extending into the carpet for cleaning in the cleaning strip **1**.

Embodiment 2

[0050] The present embodiment is a roller brush body **2**. The roller brush body **2** may be a cleaning brush used for a floor brush of a vacuum cleaner or a cleaning brush of a sweeper or a cleaning brush of a sweeping robot. As shown in FIG. **4** and FIG. **5**, the roller brush body includes a body portion **21**, at least one mounting groove **211** for arranging a cleaning strip **1** is formed in an outer surface of the body portion **21**, and a mounting region of the cleaning strip **1** may be clamped into

the mounting groove **211**. A notch **13** is further formed between any two adjacent cleaning protrusions **11** of the cleaning strip **1**, one end of the notch **13** away from a brush body portion **22** has a width greater than 0 mm, and one end of the notch **13** close to the brush body portion **22** has a width greater than or equal to 0 mm. The roller brush body **2** of the present embodiment breaks the limit of an existing roller brush body **2**, and the cleaning protrusions **11** can not only clear dirt on a surface of a floor, but also extend into a carpet to effectively dig up and clear hair and the like, so an effect of cleaning the hard floor and the carpet may be achieved only by using one cleaning element of the roller brush body **2** of the present embodiment.

[0051] An arrangement mode of the respective cleaning protrusions **11** arranged on the outer surface of the roller brush body **2** is at least one of the following modes: arrangement in an axial direction of the roller brush body **2** (FIG. 5), spiral arrangement along a surface of the roller brush body **2** (FIG. 4), staggered arrangement on the surface of the roller brush body **2** (FIG. 10), and V-shaped arrangement along the surface of the roller brush body **2**. The respective cleaning protrusions **11** may be continuously or discontinuously arranged (FIG. 10). The mounting groove **211** may be of a groove structure in various shapes such as a skewed groove, a straight groove, a V-shaped groove, a groove in a shape of Chinese character “ren” and a spiral groove.

[0052] There may be at least one row of cleaning protrusions **11** arranged on the surface of the roller brush body **2**, two adjacent rows of cleaning protrusions **11** may be staggered as required, for example, the latter row of cleaning protrusions **11** just face gaps between the former row of adjacent cleaning protrusions **11**, and thus the respective rows of cleaning protrusions **11** may play a better role in cooperating and achieve a better effect of cleaning dirt.

[0053] In some possible implementations, as shown in FIG. 6, there may be a plurality of mounting grooves **211** formed in the outer surface of the body portion **21**, and three mounting grooves **211** constitute one group. “One group” means that spacing between mounting grooves **211** in each group is smaller than a distance between two adjacent groups of mounting grooves **211**. According to an order in which a roller brush makes contact with the ground surface when rotating in sequence, cleaning elements arranged in each group of mounting grooves **211** are sequentially a cleaning strip **1**, a strap **4** and a brush **5**. Thus, the surface of the carpet, inside of the carpet and a surface of the hard floor can be effectively cleaned.

[0054] In some possible implementations, the body portion **21** and the brush body portion **22** are two different components. As shown in FIG. 7 to FIG. 10, the brush body portion **22** may include one hollow columnar brush body main body **221**, and the respective cleaning protrusions **11** are integrally formed on an outer surface of the brush body main body **221**. Correspondingly, the roller brush body **2** has one body portion **21** located on an inner side of the brush body main body **221**, so the brush body portion **22** with the plurality of cleaning protrusions **11** may be machined first through extrusion molding, blow molding, foam molding, reverse mould molding and other processes. Then, the brush body portion **22** is connected to an outer surface of the body portion **21** of the roller brush body **2** in a sleeving mode. In other possible implementations, the brush body portion **22** may also be directly arranged on the outer surface of the body portion **21** through injection molding or rubber coating.

[0055] In some implementations, the body portion **21** and the brush body portion **22** may also be an integrally formed component. For example, various soft materials such as plastics, silica gel or soft rubber with a shore hardness A ranging from 30 degrees to 85 degrees may be adopted, a comb shape, a sawtooth shape and a columnar shape may be directly formed on the outer surface of the brush body portion through injection molding, or an integrated structure of the roller brush body with the plurality of cleaning protrusions **11** may be directly produced through extrusion molding, blow molding, foam molding, reverse mould molding and other processes.

Embodiment 3

[0056] The present embodiment is a vacuum cleaner, including the cleaning strip **1** in Embodiment 1 or the roller brush body **2** in Embodiment 2.

[0057] The aforementioned implementations are only for explaining the technical concept and the features of the present disclosure and are intended to make those familiar with this technology understand and implement the contents of the present disclosure but not to limit the protection scope of the present disclosure, and equivalent variations or modifications made according to the spirit essence of the present disclosure are to be covered within the protection scope of the present disclosure.

Claims

1. A cleaning strip (1), configured for a roller brush body of a vacuum cleaner, comprising a mounting region (12), wherein the cleaning strip (1) is a flexible cleaning strip (1) the cleaning strip (1) further comprises a plurality of cleaning protrusions (11) connected with the mounting region (12), a notch (13) is formed between any two cleaning protrusions (11), one end of the notch (13) away from the mounting region (12) has a width greater than 0 mm, one end of the notch (13) close to the mounting region (12) has a width greater than or equal to 0 mm, and when the cleaning strip (1) is arranged on the roller brush body, the notch is formed on an outer surface of a brush body portion (22).
2. The cleaning strip (1) according to claim 1, wherein the cleaning strip (1) has a shore hardness A ranging from 30 degrees to 85 degrees and is made of at least one of plastics, silica gel or soft rubber.
3. The cleaning strip (1) according to claim 1, wherein spacing between ends of any two cleaning protrusions (11) close to the mounting region (12) does not exceed 30 mm.
4. A roller brush body (2), wherein at least one mounting groove for arranging a cleaning strip (1) is formed in an outer surface of the roller brush body, wherein the cleaning strip (1) comprises a mounting region (12), the mounting region (12) is arranged in the mounting groove, the cleaning strip (1) is a flexible cleaning strip (1), the cleaning strip (1) further comprises a plurality of cleaning protrusions (11) connected with the mounting region (12), a notch (13) is formed between any two cleaning protrusions (11), one end of the notch (13) away from the mounting region (12) has a width greater than 0 mm, one end of the notch (13) close to the mounting region (12) has a width greater than or equal to 0 mm, and when the cleaning strip (1) is arranged on the roller brush body, the notch is formed on an outer surface of a brush body portion (22).
5. The roller brush body (2) according to claim 4, wherein each cleaning protrusion (11) is columnar, and one end of the notch (13) close to the mounting region (12) has a width greater than 0 mm.
6. The roller brush body (2) according to claim 4, wherein spacing between ends of any two cleaning protrusions (11) close to the mounting region (12) does not exceed 30 mm.
7. The roller brush body (2) according to claim 4, wherein each cleaning protrusion (11) has a width ranging from 1 mm to 20 mm.
8. The roller brush body (2) according to claim 4, wherein at least one of straps, soft bristles and hard bristles is further arranged on the roller brush body (2).
9. The roller brush body (2) according to claim 5, wherein at least one of straps, soft bristles and hard bristles is further arranged on the roller brush body (2).
10. The roller brush body (2) according to claim 6, wherein at least one of straps, soft bristles and hard bristles is further arranged on the roller brush body (2).
11. A roller brush body (2), comprising a body portion (21) and a brush body portion (22) located on an outer side of the body portion (21), a plurality of cleaning protrusions (11) of the cleaning strip according to claim 1 are arranged in at least part of a region of an outer surface of the brush body portion (22), a notch (13) is further formed between any two adjacent cleaning protrusions (11), one end of the notch (13) away from the brush body portion (22) has a width greater than 0 mm, one end of the notch (13) close to the brush body portion (22) has a width greater than or

equal to 0 mm, the notch is formed in an outer surface of the brush body portion (22), the cleaning protrusions (11) are integrally formed on the outer surface of the brush body portion (22), and the cleaning protrusions (11) can extend into a carpet during carpet cleaning.

- 12. A vacuum cleaner, comprising at least one cleaning strip (1) according to claim 1.
 - 13. A vacuum cleaner, comprising the roller brush body (2) according to claim 4.
 - 14. A vacuum cleaner, comprising at least one cleaning strip (1) according to claim 2.
 - 15. A vacuum cleaner, comprising at least one cleaning strip (1) according to claim 3.
 - 16. A vacuum cleaner, comprising the roller brush body (2) according to claim 8.
 - 17. A vacuum cleaner, comprising the roller brush body (2) according to claim 11.
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