

(19)



(11)

EP 3 439 996 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention of the grant of the patent:
16.06.2021 Bulletin 2021/24

(51) Int Cl.:
B65H 35/00 (2006.01)

(21) Application number: **17718154.2**

(86) International application number:
PCT/NL2017/050220

(22) Date of filing: **06.04.2017**

(87) International publication number:
WO 2017/176119 (12.10.2017 Gazette 2017/41)

(54) DEVICE FOR APPLYING ADHESIVE TAPE TO A SURFACE AND METHOD FOR MANUFACTURING SUCH A DEVICE

VORRICHTUNG ZUM ANBRINGEN EINES KLEBEBANDS AUF EINE FLÄCHE UND VERFAHREN ZUR HERSTELLUNG SOLCH EINER VORRICHTUNG

DISPOSITIF D'APPLICATION D'UN RUBAN ADHÉSIF SUR UNE SURFACE ET PROCÉDÉ DE FABRICATION D'UN TEL DISPOSITIF

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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(30) Priority: **08.04.2016 NL 2016572**

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(43) Date of publication of application:
13.02.2019 Bulletin 2019/07

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US-A1- 2003 145 953 US-A1- 2012 138 234

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Description

[0001] The invention relates to a device for applying adhesive tape to a surface, which device will hereinafter be referred to as adhesive tape dispenser. The invention also relates to a method for manufacturing such a device.

[0002] Adhesive tape dispensers are generally known, and are available in numerous embodiments. In many practical cases, an adhesive tape dispenser is intended to be used for unreeling a roll of packing tape, i.e. a roll that is at least available in a standard width of 50 mm, which does not alter the fact that adhesive tape dispensers that are suitable for use with other rolls of adhesive tape are available as well. The invention is in no way limited to a certain type of adhesive tape nor to certain adhesive tape roll dimensions.

[0003] In many cases, an adhesive tape dispenser is a complex product that is composed of many components. For instance, WO 2008/150608 shows a common embodiment of an adhesive tape dispenser that is intended to be applied for closing boxes by means of packing tape, wherein a user of the adhesive tape dispenser is enabled to use only one hand in the process, so that the user can hold flaps of the box in a position that is necessary to have a closed condition of the box with the other hand, and can also press the adhesive tape on the box. The commonly known adhesive tape dispenser has a frame for receiving an adhesive tape roll, a handle extending from the frame, and a carrier element rotatably arranged in the frame. An adhesive tape roll is placed in the adhesive tape dispenser by transversely sliding the roll on the carrier element. Dimensions of the carrier element are chosen such that it is capable of engaging an inner periphery of an adhesive tape roll in a somewhat clamping fashion, along a portion of its outer periphery. Besides, various dimensions of the adhesive tape dispenser are adapted to a common width and common inner and outer diameters of an adhesive tape roll.

[0004] Further, the frame comprises an insertion opening that is closeable by means of a hingeable lid, a roller, a cutting beam with a metal cutting blade, and a pressing plate. After an adhesive tape roll has been received in the adhesive tape dispenser, a front piece of the adhesive tape is inserted through the insertion opening, and the hingeable lid is subsequently put to a closing position in order to establish contact between the non-adhesive side of the adhesive tape and the roller.

[0005] When the front piece of the adhesive tape that has been inserted through the insertion opening is applied to a box to be closed, with the adhesive side down, the adhesive tape is automatically laid down on the box in a correct manner and fastened as a user moves the adhesive tape dispenser in a straight line, wherein the adhesive tape roll is rotated in the holder on the basis of a pulling force in the adhesive tape obtained as a result thereof, so that adhesive tape is dispensed by the adhesive tape dispenser. When it is desired to cut a piece of adhesive tape that has been put down on a box from the

adhesive tape dispenser, the user, while holding the handle of the adhesive tape dispenser, performs a downward buckling movement with his/her hand in order to thereby put the cutting blade and the pressing plate in contact with the adhesive tape. In this position, the adhesive tape is pressed against the box by means of the pressing plate in order to fixate the adhesive tape against the box and to avoid further movement of the adhesive tape around the roller, while the cutting blade makes a cut in the adhesive tape, along the entire width thereof.

[0006] It follows from the foregoing that the known adhesive tape dispenser comprises a considerable number of different components, namely the frame, the handle, the rotatable carrier element, the hingeable lid, the roller, the cutting beam with the cutting blade, and the pressing plate. The frame has two parts to which the other components of the adhesive tape dispenser are attached through connection means such as screws. Due to the fact that the known adhesive tape dispenser is composed in such a way, the cost price of the adhesive tape dispenser is relatively high, which in fact is not in compliance with the fact that the adhesive tape dispenser is intended to be applied as tool for performing a relatively simple action by hand, combined with a very cheap tool in the form of an adhesive tape roll.

[0007] US 3 972 769 relates to an adhesive tape dispenser according to the preamble of claim 1 that, like the adhesive tape dispenser known from WO 2008/150608, has a frame with two parts to which the other components of the adhesive tape dispenser are attached through connection means such as screws. A further similarity between both adhesive tape dispensers is related to the fact that the adhesive tape dispenser known from US 3 972 769 comprises a handle connected to the frame and a roller. Further, the adhesive tape dispenser known from US 3 972 769 comprises a moveable tongue that has a function in stretching the adhesive tape. Contrary to the adhesive tape dispenser known from WO 2008/150608, the adhesive tape dispenser known from US 3 972 769 does not have a carrier element for an adhesive tape roll. On the basis of contact of the adhesive side of the adhesive tape with the moveable tongue, detachment of the adhesive tape roll from the frame is avoided. In the frame, a small roller is provided that, like the other roller, is in contact with the outer periphery of an adhesive tape roll received in the frame, so that during use of the adhesive tape dispenser the adhesive tape roll can roll along both rollers and it is thereby possible to realize a smooth rotation movement of the adhesive tape roll in the frame. Further, it is noted that the adhesive tape dispenser known from US 3 972 769 is not equipped for cutting the adhesive tape. Nevertheless, the adhesive tape dispenser comprises a considerable number of components that are kept in place between the two frame parts through connection means.

[0008] It is an objective of the invention to provide a new type of adhesive tape dispenser, particularly a type of adhesive tape dispenser that may be realized with a

minimum of components and that can be manufactured in a relatively cheap way as a result thereof. This objective is achieved by providing a device for applying adhesive tape on a surface, which device comprises: a holder for receiving and accommodating an adhesive tape roll, which holder is designed to encompass an adhesive tape roll along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle extending from the holder; and a roller rotatably mounted in the holder for making contact to the outer periphery of an adhesive tape roll received in the holder and for guiding adhesive tape that is taken from an adhesive tape roll during use of the device and applied to a surface, outwardly from the device; wherein the holder is a single integral entirety and has a pressing part with a free end for pressing the adhesive tape against the roller when it is inserted between the roller and the free end of the pressing part; and wherein the roller is retained in the holder exclusively on the basis of a direct connection to the holder.

[0009] According to an insight underlying the invention, it is possible to provide an adhesive tape dispenser of the above-defined construction having the roller and the holder with pressing part formed as a single integral entirety, and to still realize a complete functionality of an adhesive tape dispenser, wherein it is further possible yet not necessary that the holder and the handle are integrated with each other. In particular, the holder is designed to receive and accommodate an adhesive tape roll, the handle is provided to enable a user of the adhesive tape dispenser to take hold of and manipulate the adhesive tape dispenser, and the roller is designed and positioned to guide tape outwardly from the adhesive tape dispenser and to be put to rotation during use of the adhesive tape dispenser, when adhesive tape is taken from an adhesive tape roll received in the holder under the influence of a pulling force, and to drive the adhesive tape roll on the basis thereof in order to realize the rotation movement that is needed for unreeling the adhesive tape roll, and the pressing part of the holder is designed and positioned to press the tape against the roller. In this respect, it is possible for the adhesive tape dispenser to have no other rotatable components besides the roller.

[0010] Not only is the construction of the adhesive tape dispenser according to the invention uncomplicated, it is also a fact that the application thereof does not require any complex actions. For the purpose of installing an adhesive tape roll in the adhesive tape dispenser and guaranteeing that the adhesive tape of that roll can be dispensed by the adhesive tape dispenser in the correct way, the only two steps that need to be taken are inserting the adhesive tape roll in the holder, in such a way that the tape of the roll can be guided from the holder around the roller in a loop, with the non-adhesive side being in contact in the roller, and manipulating a free end of the adhesive tape in order to insert it between the roller and the free end of the pressing part. For the purpose of using the adhesive tape dispenser for applying a strip of adhe-

sive tape on a surface, the only action that needs to be taken is putting the adhesive side of the adhesive tape in contact with the surface at the position of the roller, and moving the adhesive tape dispenser in a direction for pulling the adhesive tape from the adhesive tape dispenser and thereby obtaining an increasing length of strip that gets adhered to the surface. In all actions as mentioned, the adhesive tape dispenser can easily be manipulated by a user by means of the handle.

[0011] According to the invention, the roller is retained in the holder exclusively on the basis of a direction connection to the holder. This means that there is no need for an application of connection means, which contributes highly to realizing the adhesive tape dispenser with only a minimum number of components. A practical example of a direct connection is a snap connection. For example, it may be so that the roller is provided with a carrier shaft at both ends thereof, wherein the holder has two flaps extending at a distance with respect to each other and being provided with an opening, and wherein the roller is arranged between the flaps of the holder with the carrier shafts being received in the openings in the flaps.

[0012] In a practical embodiment of the adhesive tape dispenser according to the invention, the roller has two legs that can be moved apart in a resilient fashion. In that case, an adhesive tape roll can simply be placed in the holder by moving it between the two legs and pressing it in the holder, wherein the legs move apart for realizing a temporarily enlarged opening for allowing the adhesive tape roll to pass, and subsequently spring back to their initial position in which the opening is sufficiently small for hindering a reverse movement of the adhesive tape roll, unless such movement is realized with force, which is the way to remove the adhesive tape roll from the holder again. The possibility to move the legs of the holder apart in a resilient fashion can be obtained, for example, when the holder is manufactured from a suitable plastic. A great advantage of the design in which the holder is designed to encompass an adhesive tape roll along a portion of the outer circumference thereof is that there is no need for applying a rotatable carrier element as known from WO 2008/150608 and as present in many adhesive tape dispensers known in practice, which contributes to simplicity of design of the adhesive tape dispenser according to the invention. In that case, the holder is designed to accommodate an adhesive tape roll exclusively on the basis of partial enclosure.

[0013] Preferably, the holder has an insertion opening as described above, through which an adhesive tape roll can be inserted in the holder. Further, it is practical when the holder, as seen in a direction along the periphery thereof, has a further opening leaving space open to the roller. In that case, the pressing part can be a tongue-shaped peripheral part of the holder, extending all the way towards the roller. The positioning and the design of the pressing part can be chosen such that the roller pushes the pressing part somewhat out of place and that the pressing action of the pressing part on the roller, as

desired, is obtained on the basis thereof, without a need for applying additional means. Preferably, a width dimension of the pressing part is smaller than a general width dimension of the holder, so that there is sufficient space for a user of the adhesive tape dispenser to insert a piece of tape between the roller and the pressing part using his/her fingers. Naturally, it is practical when the general width dimension of the holder is adapted to a usual width of an adhesive tape roll, in particular a roll of packing tape having a usual width of 50 mm.

[0014] The adhesive tape dispenser according to the invention can be entirely manufactured from a single material. A practical example of a suitable material for an integral entirety of the holder and the handle as well as the roller is plastic. On the other hand, it may be desirable to apply different materials for the components of the adhesive tape dispenser as mentioned. The components can be manufactured from different types of plastic, or, for example, it may be so that the integral entirety of the holder and the handle is made of plastic, and that the roller is made from a rubber-like material so as to guarantee optimal grip of the roller on the tape to be guided thereby. Manufacturing the components from different materials offers an easy possibility to provide the components with a different color, which may be desirable from an esthetic point of view.

[0015] Preferably, the adhesive tape dispenser is not only suitable for dispensing tape, but also for cutting a dispensed piece of adhesive tape from the adhesive tape dispenser. In view thereof, the adhesive tape dispenser may be provided with a cutting assembly having a tape fixating part that projects from the holder and a cutting knife that is located in front of a free end of the tape fixating part as seen from the holder. In that case, it is advantageous when the tape fixating part and the holder are integrated with each other, so that in fact only the cutting knife is an additional component. Further, in that case, it is possible to have an adhesive tape dispenser that is composed of no more than the roller, the cutting knife, and an integral entirety of the holder, the handle and the tape fixating part. Besides, a suitable material for the cutting knife is steel or another durable material that is commonly used in knives and other cutting means. The tape fixating part is designed to fixate adhesive tape when a user of the adhesive tape dispenser presses the tape fixating part against a portion of a strip of adhesive tape dispensed by the adhesive tape dispenser. In particular, the tape fixating part can be shaped as a sheet.

[0016] There are various ways in which the cutting knife can be arranged in the adhesive tape dispenser. In conformity with the general concept of the invention, it is preferred when no additional connection means are applied. For example, it is possible to have a design of the adhesive tape dispenser in which a part of the cutting knife is retained in an integral entirety of the holder and the tape fixating part. As alternative and/or additional measure, it is feasible to have a clamping connection of the cutting knife to an integral entirety of the holder and

the tape fixating part.

[0017] The invention further relates to a method for manufacturing a device as defined in the foregoing, hence a device that is designed for applying adhesive tape to a surface, and that comprises the following elements: a holder for receiving and accommodating an adhesive tape roll, which holder is designed to encompass an adhesive tape roll along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle extending from the holder; and a roller rotatably mounted in the holder for making contact to the outer periphery of an adhesive tape roll received in the holder and for guiding adhesive tape that is taken from an adhesive tape roll during use of the device and applied to a surface, outwardly from the device. In the case of the method according to the invention, the holder is formed as a single integral entirety, with a pressing part having a free end for pressing adhesive tape against the roller when the tape is inserted between the roller and the free end of the pressing part, and also the roller is connected to the holder in a direct fashion.

[0018] According to a practical option, the roller is rotatably arranged in the holder on the basis of a snap connection. As noted earlier, it may for example be so that the roller is provided with a carrier shaft at both ends thereof, wherein the holder has two flaps extending at a distance with respect to each other and being provided with an opening. In that case, assuming that the flaps are capable of moving apart in a somewhat resilient fashion on the basis of choice of material in respect of the holder, the roller is pressed between the flaps of the holder, wherein the flaps move apart until the carrier shafts of the rolls snap in the flaps at the position of the openings and the flaps are allowed to spring back at that point, so that the carrier shafts snap in the openings and the roller is retained between the flaps.

[0019] In view of the desire to compose the adhesive tape dispenser of as less as possible components, it is advantageous when the holder and the handle are integrated with each other. In such a case, an integral entirety of the holder and the handle as well as the roller can be formed from a plastic material by means of an injection molding process, which does not alter the fact that another choice of material is also possible, especially in respect of the roller, as indicated earlier. An injection molding process is a process that is known per se and will not be further elucidated here. For the purpose of manufacturing an adhesive tape dispenser in which the roller comprises the same material as the integral entirety of the holder and the handle, it is possible to apply a single injection molding mold that is designed for both forming the integral entirety of the holder and the handle and forming the roller. In that case, all components of the adhesive tape dispenser can be manufactured in a single injection molding stage. Especially, it is possible that the roller is injection molded to the holder, wherein the roller is broken off from the holder in a subsequent step.

[0020] The adhesive tape dispenser according to the

invention can be made in different ways. As addressed above, injection molding is a suitable manufacturing technique. As an alternative, it is possible, for example, to form at least an integral entirety of the holder and the handle by means of an additive manufacturing technique such as 3D printing. In general, it may be practical to form the adhesive tape dispenser entirely from a single material.

[0021] As noted earlier, the device may further comprise a cutting assembly with a tape fixing part that extends from the holder and a cutting knife that is located in front of a free end of the tape fixing part as seen from the holder, for the purpose of cutting adhesive tape from the device. In that case, it is advantageous when the tape fixing part is integrated with the holder, so that the number of components of the adhesive tape dispenser can remain minimal. Further, in that case, it is a practical possibility to form at least an integral entirety of the holder and the tape fixing part from a plastic material by means of an injection molding process, by applying an injection molding mold, and to retain the cutting knife in the integral entirety of the holder and the tape fixing part in the process, by placing the cutting knife in the injection molding mold prior to the injection molding process, and allowing plastic material for forming the holder to flow around a part of the cutting knife during the injection molding process.

[0022] As noted earlier, in the case that the device according to the invention is provided with a cutting assembly, it is possible that the device is composed of no more than the roller, the cutting knife, and an integral entirety of the holder, the handle and the tape fixing part.

[0023] The invention will be further elucidated on the basis of the following description of an adhesive tape dispenser that is composed of only three components. Reference will be made to the drawing, in which equal reference numerals indicate equal or similar components, and in which:

figure 1 shows a side view of the adhesive tape dispenser;
 figure 2 shows a first perspective view of the adhesive tape dispenser;
 figure 3 shows a second perspective view of the adhesive tape dispenser; and figure 4 shows a side view of the adhesive tape dispenser, with an adhesive tape roll received therein.

[0024] Figures 1, 2 and 3 show different views of an adhesive tape dispenser 1 according to an embodiment of the invention. Figure 4 shows a side view of the same adhesive tape dispenser 1, with an adhesive tape roll 2 received therein.

[0025] The adhesive tape dispenser 1 is composed of only three different components. A first component is an integral entirety 3 of a holder 10 for receiving and accommodating an adhesive tape roll 2, a handle 20 extending from the holder 10, which can be taken hold of by a user

of the adhesive tape dispenser 1 for manipulating the adhesive tape dispenser 1, and a sheet-shaped tape fixing part 31 extending from the holder 10 and being part of a cutting assembly 30 that further comprises a cutting knife 32, which cutting knife 32 is a second component of the adhesive tape dispenser 1, and which cutting knife 32 is located in front of a free end 31a of the tape fixing part 31 as seen from the holder 10. The cutting assembly 30 is intended to be applied for cutting adhesive tape from the adhesive tape dispenser 1, as will be elucidated later. In the shown embodiment of the adhesive tape dispenser 1, the cutting assembly 30 has two projecting parts 33 at both sides of the cutting knife 32 that are designed to protect the cutting knife 32, such as when the adhesive tape dispenser 1 unintentionally drops to the floor. A third component of the adhesive tape dispenser 1 is a roller 40 that is rotatably arranged in the holder 10. Preferably, the integral entirety 3 of the holder 10, the handle 20 and the tape fixing part 31 is manufactured from plastic, and the cutting knife 32 is manufactured from metal. The cutting knife 32 can have any suitable shape, and can be toothed, for example. The roller 40 can also be manufactured from plastic. In general, it is preferred when the choice of material of the roller 40 is aimed at guaranteeing a good grip of the roller 40 on adhesive tape 2a to be dispensed by the adhesive tape dispenser 1.

[0026] The design and dimensions of the holder 10 are adapted to the design and dimensions of the adhesive tape roll 2 to be received. In particular, the holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof, as can clearly be seen in figure 4. A first peripheral part 11 of the holder 10 that is destined to encompass a portion of the outer periphery of the adhesive tape roll 2 has a basic part 11a that is located directly above the handle 20 and has a curved leg 11b that extends from the basic part 11a. A second peripheral part 12 of the holder 10 that is destined to encompass a portion of the outer periphery of the adhesive tape roll 2 has a basic part 12a on which the cutting assembly 30 is arranged and a curved leg 12 that extends from the basic part 12a. The two peripheral parts 11, 12 of the holder 10 define a concave supporting surface for the adhesive tape roll 2, which supporting surface has two interruptions, namely a first interruption at the side where the roller 40 is located and a second interruption at an opposite side. This second interruption constitutes an insertion opening 13 through which an adhesive tape roll 2 can be moved, both from outside the holder 10 to the inside and from inside the holder 10 to the outside. For the purpose of retaining the adhesive tape roll 2 in axial direction thereof, the holder 10 has two substantially planar lid parts 14, 15 extending at a distance from each other, in particularly a distance that is adapted to enable an adhesive tape roll 2 of a certain width to be received in the holder 10. In the view of figure 4, the lid part 15 that can be seen is shown as being transparent so as to

let the underlying adhesive tape roll 2 and the underlying roller 40 be fully visible in the figure, among other components.

[0027] Each of the lid parts 14, 15 has a flap 14a, 15a in which an opening 14b, 15b is located. The roller 40 is provided with a carrier shaft 41, 42 at both ends thereof. The roller 40 is retained between the two flaps 14a, 15a, wherein the carrier shafts 41, 42 of the roller 40 are situated in the openings 14b, 15b. The carrier shafts 41, 42 have a circular outer periphery, and the flaps 14a, 15a have a circular inner periphery at the position of the openings 14b, 15b, on the basis of which rotation of the roller 40 in the holder 10 is possible.

[0028] A pressing part 16 extends from the basic part 11a of the first peripheral part 11 of the holder 10, in the direction of the roller 40. In the shown example, the pressing part 16 is realized as a planar sheet having an elongated, rectangular shape. A free end 16a of the pressing part 16 abuts against the roller 40. When adhesive tape 2a unreeled from the adhesive tape roll 2 is inserted between the roller 40 and the free end 16a of the pressing part 16, as shown in figure 4, this has the effect that the adhesive tape 2a is pressed against the roller 40. In that case, a movement of the tape 2a in longitudinal direction thereof is always related to a rotation movement of the roller 40, which rotation movement in turn contributes to a rotation movement of the adhesive tape roll 2 in the holder 10, wherein the last rotation movement enables unreeling the adhesive tape 2a from the adhesive tape roll 2. In figures 2 and 3, it can be seen that a width dimension of the pressing part 16 of the holder 10 is smaller than the general width dimension of the holder 10. This is not necessary, but is preferred because as a consequence thereof, space is available for manipulating the adhesive tape 2a when a new adhesive tape roll 2 has been placed in the holder 10 and a first piece of adhesive tape 2a thereof needs to be inserted between the roller 40 and the free end 16a of the pressing part 16 in order to enable the adhesive tape dispenser 1 to dispense the adhesive tape 2a in the correct way.

[0029] In the following, it is described how placing an adhesive tape roll 2 in the adhesive tape dispenser 1 is done. Normally, in doing so, a user of the adhesive tape dispenser 1 will hold the handle 20 in one hand. In a first instance, the user determines the positioning of the adhesive tape roll 2 with respect to the holder 10 on the basis of the direction which is envisaged for taking adhesive tape 2a from the adhesive tape roll 2. In order to achieve correct use of the adhesive tape dispenser 1, it should be guaranteed that the adhesive tape roll 2 is allowed to rotate in a direction from the roller 40 to the basic part 11a of the first peripheral part 11 of the holder 10, hence a counterclockwise direction in the depiction of figure 4, and can dispense adhesive tape 2a in that situation. While having the adhesive tape roll 2 in the correct position with respect to the holder 10, as mentioned, the user presses the adhesive tape roll 2 in place in the holder 10, by moving the adhesive tape roll 2 be-

tween the legs 11b, 12b of the peripheral parts 11, 12 of the holder 10, therefore through the insertion opening 13 as mentioned earlier, in the direction of the roller 40. When this action has ended, the adhesive tape roll 2 is retained in the holder 10, wherein the adhesive tape roll 2 is retained in the holder 10 in axial direction thereof by the two lid parts 14, 15 of the holder 10, and wherein the legs 11b, 12b of the peripheral parts 11, 12 of the holder 10 prevent detachment of the adhesive tape roll 2 from the holder 10 in radial direction, back through the insertion opening 13. In respect of the latter it is noted that during use of the adhesive tape dispenser 1, the adhesive tape roll 2 is pulled in the direction towards the roller 40, and the adhesive tape roll 2 therefore does not exert force on the legs 11b, 12b of the peripheral parts 11, 12 of the holder 10. The legs 11b, 12b are sufficiently stiff for maintaining their shape when the adhesive tape dispenser 1 is not in use, so that a situation in which the legs 11b, 12b spring back and the insertion opening 13 becomes sufficiently large for allowing the adhesive tape roll 2 to pass cannot occur spontaneously.

[0030] As soon as the adhesive tape roll 2 is located at its place in the holder 10, the user of the adhesive tape dispenser 1 can take appropriate action for letting the adhesive tape 2a come out of the adhesive tape dispenser 1 in a correct way. This is done by pulling a first piece of tape 2a from the adhesive tape dispenser 1 and inserting it between the roller 40 and the free end 16a of the pressing part 16. As noted earlier, the user is granted space for manipulating the adhesive tape 2a with his/her fingers because the pressing part 16 is sufficiently small with respect to the rest of the adhesive tape dispenser 1, and thereby with respect to the adhesive tape 2a, so that it is possible for the user to reach parts of the adhesive tape 2a and take hold thereof. When the adhesive tape 2a extends outwardly from between the roller 40 and the free end 16a of the pressing part 16, the adhesive tape dispenser 1 is ready to be used. In this case, the adhesive tape 2a is guided in a loop around the roller 40, and partially abuts against the roller 40 with the non-adhesive side thereof, while the adhesive side of the adhesive tape 2a is completely exposed and can be applied to a surface according to desire. For the sake of completeness, it is noted that the free end 16a of the pressing part 16 of the holder 10 is in contact with the adhesive side of the adhesive tape 2a.

[0031] It can be understood from the foregoing that when an adhesive tape roll 2 is located in the holder 10 and it is desired to remove it from the holder 10, which will particularly be the case when the adhesive tape roll 2 has been used to the end and consequently cannot supply any more adhesive tape 2a, the only thing that a user of the adhesive tape dispenser 1 needs to do is take hold of the adhesive tape roll 2 and exert force in the direction away from the roller 40. No further action is needed for moving the adhesive tape roll 2 in radial direction out of the holder 10, therefore through the insertion opening 13, wherein the legs 11b, 12b of the periph-

eral parts 11, 12 of the holder 10 move apart and the insertion opening 13 temporarily can become sufficiently large for allowing the adhesive tape roll 2 to pass as a result thereof. Besides, the design of the holder 10 is such that the normal size of the insertion opening 13, hence the size of the insertion opening 13 associated with the normal shape of the legs 11b, 12b, is sufficiently small to also prevent spontaneous detachment of a used-up adhesive tape roll 2 from the holder 10.

[0032] The adhesive tape dispenser 1 serves to apply tape 2a on a surface (not shown). A known application of an adhesive tape dispenser 1 is for closing a box, for example, wherein two flaps of the box are held in a position for letting the box be closed, and wherein subsequently a strip of adhesive tape 2a is applied for fixating the mutual position of the two flaps. The surface on which the adhesive tape 2a needs to be applied will usually be a composed surface, hence a surface that consists of two or more parts. As first step in the use of the adhesive tape dispenser 1, the user presses a free piece of adhesive tape 2a that projects from the adhesive tape dispenser 1 on the surface, in particular on a desired initial position of the strip of adhesive tape 2a to be applied. Subsequently, the user pulls the taper dispenser 1 away from the initial position, in a direction in which the adhesive tape 2a can be dispensed by the adhesive tape dispenser 1. In the process, the user holds the handle 20 in one hand. As soon as the user starts to move the adhesive tape dispenser 1, rotation of the roller 40 is realized, and rotation of the adhesive tape roll 2 in the holder 10 is also realized on the basis thereof. As the adhesive tape 2a is pressed against the roller 40 by the pressing part 16, unreeling the adhesive tape 2a takes place in a controlled fashion, an appropriate tension prevailing in the adhesive tape 2a. A usual way of applying a strip of adhesive tape 2a is pulling the strip from the adhesive tape dispenser 1 first, with an initial piece of the strip being attached to the surface to be covered, and subsequently allowing the strip to come into contact with the surface in a single movement by moving the adhesive tape dispenser 1 downwardly with respect to the surface.

[0033] When a strip of adhesive tape 2a has been put in place, this strip can be easily detached from a piece of adhesive tape 2a projecting from the adhesive tape dispenser 1 by buckling the adhesive tape dispenser 1 in such a way that the tape fixating part 31 is put to a position for fixating the mutual position of the strip and the adhesive tape dispenser 1 and subsequently pressing the cutting knife 32 through the piece of adhesive tape 2a that is stretched between the tape fixating part 31 and the roller 40 in the process.

[0034] It follows from the foregoing that realizing the adhesive tape dispenser 1 with only a minimum of components does not affect the normal ease of use of the adhesive tape dispenser 1. The function of the adhesive tape dispenser 1 according to the invention for applying adhesive tape 2a on a surface can be performed by a user in a manner known per se, involving a natural way

of doing. Both inserting an adhesive tape roll 2 in the holder 10 and removing an adhesive tape roll 2 from the holder 10 is very simple and only requires taking hold of the adhesive tape roll 2 and subsequently moving the adhesive tape roll 2 in the appropriate radial direction.

[0035] In comparison to existing designs of adhesive tape dispensers, the adhesive tape dispenser 1 according to the invention can be manufactured in a relatively simple way. According to one of the possibilities, the integral entirety 3 of the holder 10, the handle 20 and the tape fixating part 31 is manufactured through injection molding. To that end, an injection molding mold (not shown) is applied in a manner known per se, which defines an internal space that can be filled with fluid plastic, wherein the design of the said space is adapted to the shape as desired of the said entirety 3. Preferably, the injection molding mold is suitable to receive the cutting knife 32 prior to the injection molding process and to keep the cutting knife 32 positioned in the correct manner in the space during the injection molding process, so that the cutting knife 32 is directly integrated in the said entirety 3 and does not need to be arranged in the entirety 3 in a separate step. Besides, the roller 40 can also be formed from plastic in an injection molding process. To that end, a separate injection molding mold can be applied, but it is also possible that the roller 40 is formed in the same injection molding mold as the entirety 3 of the holder 10, the handle 20 and the tape fixating part 31, either in another space than the space for forming the said entirety 3 or in the same space, wherein in the latter case, the roller 40 is injection molded to the said entirety 3, and is broken off therefrom in a subsequent step. In any case, the manufacturing method of the adhesive tape dispenser 1 still involves a step of assembling the roller 40 with the other components of the adhesive tape dispenser 1. In the shown example of the adhesive tape dispenser 1, this step involves nothing more than pressing the roller 40 between the flaps 14a, 15a of the lid parts 14, 15 of the holder 10, wherein the flaps 14a, 15a move apart until the carrier shafts 41, 42 of the roller 40 snap in the openings 14b, 15b of the flaps 14a, 15a and the flaps 14a, 15a subsequently spring back to their original position, on the basis of which the roller 40 ends up being retained between the flaps 14a, 15a.

[0036] It will be clear to a person skilled in the art that the scope of the invention is not limited to the examples discussed in the foregoing, but that several amendments and modifications thereof are possible without deviating from the scope of the invention as defined in the attached claims.

[0037] As noted earlier, it is advantageous if the cutting knife 32 is manufactured from metal. That does not alter the fact that within the framework of the invention, it is possible for the cutting knife 32 to be manufactured from plastic and to form an integral entirety of plastic with the holder 10, the handle 20 and the tape fixating part 31. In such a case, the adhesive tape dispenser 1 according to the invention is of an even simpler design than the em-

bodiment described in the foregoing on the basis of the figures. Another option that is available within the framework of the invention is providing the adhesive tape dispenser 1 without cutting assembly 30. Further, in that case, it is possible that the adhesive tape dispenser 1 is composed of at only two parts, namely the roller 40 and an integral entirety of the holder 10 and the handle 20.

[0038] Within the framework of the invention, it is not necessary that the holder 10 and the handle 20 are integrated with each other, but this is preferred in order to keep the number of components of the adhesive tape dispenser 1 to a minimum. For the sake of completeness, it is noted that the term "are integrated with each other" should be understood as "forming a single integral entirety with each other", wherein the possibility exists that the said integral entirety comprises yet other parts besides the parts as mentioned.

[0039] A possible summary of the invention is as follows. An adhesive tape dispenser 1 for dispensing adhesive tape 2a, that is destined to be used for applying a strip of adhesive tape 2a to a surface, is composed of a minimal number of components. In essence, the adhesive tape dispenser 1 comprises a holder 10 for receiving and accommodating an adhesive tape roll 2, which holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle 20 extending from the holder 10; and a roller 40 rotatably mounted in the holder 10 for making contact to the outer periphery of an adhesive tape roll 2 received in the holder 10 and for guiding adhesive tape 2a that is taken from an adhesive tape roll 2 during use of the adhesive tape dispenser 1 and applied to a surface, outwardly from the adhesive tape dispenser 1. The holder 10 is a single integral entirety and has a pressing part 16 with a free end 16a for pressing the adhesive tape 2a against the roller 40 when it is inserted between the roller 40 and the free end 16a of the pressing part 16. The roller 40 is retained in the holder 10 exclusively on the basis of a direct connection to the holder 10. Further, the holder 10 and the handle 20 can be integrated with each other.

[0040] The fact that the holder 10 is a single integral entirety that has a pressing part 16 as first aspect of the invention defined in the claims and the fact that the roller 40 is retained exclusively on the basis of a direct connection to the holder 10 as second aspect of the invention defined in the claims can be considered separately. Thus, in the first place, an invention can be defined that involves providing a device for applying adhesive tape 2a to a surface, which device comprises: a holder 10 for receiving and accommodating an adhesive tape roll 2, which holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle 20 extending from the holder 10; and a roller 40 rotatably mounted in the holder 10 for making contact to the outer periphery of an adhesive tape roll 2 received in the holder 10 and for guiding adhesive tape 2a that is taken from

an adhesive tape roll 2 during use of the device and applied to a surface, outwardly from the device; wherein the holder 10 is a single integral entirety and has a pressing part 16 with a free end 16a for pressing adhesive tape 2a against the roller 40 when it is inserted between the roller 40 and the free end 16a of the pressing part 16; and wherein it is optional that the roller 40 is retained in the holder 10 exclusively on the basis of a direct connection to the holder 10; and in the second place, an invention can be defined that involves providing a device for applying adhesive tape 2a to a surface, which device comprises: a holder 10 for receiving and accommodating an adhesive tape roll 2, which holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle 20 extending from the holder 10; a roller 40 rotatably mounted in the holder 10 for making contact to the outer periphery of an adhesive tape roll 2 received in the holder 10 and for guiding adhesive tape 2a that is taken from an adhesive tape roll 2 during use of the device and applied to a surface, outwardly from the device; and a pressing mechanism 16 for pressing adhesive tape 2a against the roller 40 when it is inserted between the roller 40 and the pressing mechanism 16; wherein the roller 40 is retained in the holder 10 exclusively on the basis of a direct connection to the holder 10; and wherein it is optional that the holder 10 is a single integrated entirety and the pressing mechanism 16 comprises a part of the holder 10.

[0041] By analogy with the above, in the first place, an invention can be defined that involves providing a method for manufacturing a device for applying adhesive tape to a surface, which device comprises: a holder 10 for receiving and accommodating an adhesive tape roll 2, which holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle 20 extending from the holder 10; and a roller 40 rotatably mounted in the holder 10 for making contact to the outer periphery of an adhesive tape roll 2 received in the holder 10 and for guiding adhesive tape 2a that is taken from an adhesive tape roll 2 during use of the device and applied to a surface, outwardly from the device; wherein the holder 10 is formed as a single integral entirety of a pressing part 16 having a free end 16a for pressing adhesive tape 2a against the roller 40 when it is inserted between the roller 40 and the free end 16a of the pressing part 16; and wherein it is optional that the roller 40 is directly connected to the holder 10; and in the second place, an invention can be defined that involves providing a method for manufacturing a device for applying adhesive tape to a surface, which device comprises: a holder 10 for receiving and accommodating an adhesive tape roll 2, which holder 10 is designed to encompass an adhesive tape roll 2 along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle 20 extending from the holder 10; a roller 40 rotatably mounted in the holder 10 for making contact to

the outer periphery of an adhesive tape roll 2 received in the holder 10 and for guiding adhesive tape 2a that is taken from an adhesive tape roll 2 during use of the device and applied to a surface, outwardly from the device; and a pressing mechanism 16 for pressing adhesive tape 2a against the roller 40 when it is inserted between the roller 40 and the pressing mechanism 16; wherein the roller 40 is directly connected to the holder 10; and wherein it is optional that the holder 10 is formed as a single integral entirety and the pressing mechanism 16 is provided as a part of the holder 10.

[0042] Specific aspects of the invention defined in the claims, as addressed in this text, are similarly applicable to the possible inventions defined in the preceding two paragraphs.

Claims

1. Device (1) for applying adhesive tape (2a) to a surface, comprising:
 - a holder (10) for receiving and accommodating an adhesive tape roll (2), which holder (10) is designed to encompass an adhesive tape roll (2) along a portion of the outer periphery thereof while also retaining it in axial direction thereof;
 - a handle (20) extending from the holder (10); and
 - a roller (40) rotatably mounted in the holder (10) for making contact to the outer periphery of an adhesive tape roll (2) received in the holder (10) and for guiding adhesive tape (2a) that is taken from an adhesive tape roll (2) during use of the device (1) and applied to a surface, outwardly from the device (1); **characterized in that** the holder (10) is a single integral entirety and has a pressing part (16) with a free end (16a) for pressing the adhesive tape (2a) against the roller (40) when it is inserted between the roller (40) and the free end (16a) of the pressing part (16); and wherein the roller (40) is retained in the holder (10) exclusively on the basis of a direct connection to the holder (10).
2. Device (1) according to claim 1, wherein the roller (40) is provided with a carrier shaft (41, 42) at both ends thereof, wherein the holder (10) has two flaps (14a, 15a) extending at a distance with respect to each other and being provided with an opening (14b, 15b), and wherein the roller (40) is arranged between the flaps (14a, 15a) of the holder (10) with the carrier shafts (41, 42) being received in the openings (14b, 15b) in the flaps (14a, 15a).
3. Device (1) according to claim 1 or 2, wherein the holder (10) has two legs (11b, 12b) that are designed to be moved apart in a resilient fashion.
4. Device (1) according to any of claims 1-3, wherein a width dimension of the pressing part (16) of the holder (10) is smaller than a general width dimension of the holder (10).
5. Device (1) according to any of claims 1-4, further comprising a cutting assembly (30) having a tape fixating part (31) that extends from the holder (10) and a cutting knife (32) that is located in front of a free end (31a) of the tape fixating part (30) as seen from the holder (10), for the purpose of cutting adhesive tape (2a) from the device (1), wherein the tape fixating part (31) is integrated with the holder (10).
6. Device (1) according to claim 5, composed of no more than the roller (40), the cutting knife (32), and an integral entirety (3) of the holder (10), the handle (20) and the tape fixating part (31).
7. Method for manufacturing a device (1) for applying adhesive tape (2a) to a surface, which device (1) comprises: a holder (10) for receiving and accommodating an adhesive tape roll (2), which holder (10) is designed to encompass an adhesive tape roll (2) along a portion of the outer periphery thereof while also retaining it in axial direction thereof; a handle (20) extending from the holder (10); and a roller (40) rotatably mounted in the holder for making contact to the outer periphery of an adhesive tape roll (2) received in the holder (10) and for guiding adhesive tape (2a) that is taken from an adhesive tape roll (2) during use of the device (1) and applied to a surface, outwardly from the device (1); wherein the holder (10) is formed as a single integral entirety, with a pressing part (16) having a free end (16a) for pressing adhesive tape (2a) against the roller (40) when it is inserted between the roller (40) and the free end (16a) of the pressing part (16); and wherein the roller (40) is connected to the holder (10) in a direct fashion.
8. Method according to claim 7, wherein the roller (40) is rotatably arranged in the holder (10) on the basis of a snap connection.
9. Method according to claim 7 or 8, wherein the holder (10) and the handle (20) are integrated with each other.
10. Method according to claim 9, wherein an integral entirety of the holder (10) and the handle (20) as well as the roller (40) are formed from a plastic material by means of an injection molding process, and wherein a single injection molding mold is applied that is designed for both forming the integral entirety of the holder (10) and the handle (20) and forming the roller (40).

11. Method according to claim 10, wherein the roller (40) is injection molded to the holder (10), and wherein the roller (10) is broken off from the holder (10) in a subsequent step.
12. Method according to claim 9, wherein at least an integral entirety of the holder (10) and the handle (20) is formed by means of an additive manufacturing technique such as 3D printing.
13. Method according to any of claims 7-12, wherein the device (1) is entirely manufactured from a single material.
14. Method according to any of claims 7-12, wherein the device (1) further comprises a cutting assembly (30) having a tape fixating part (31) that extends from the holder (10) and a cutting knife (32) that is located in front of a free end (31a) of the tape fixating part (30) as seen from the holder (10), for the purpose of cutting adhesive tape (2a) from the device (1); and wherein the tape fixating part (31) is integrated with the holder (10).
15. Method according to claim 14 insofar as dependent on any of claims 7-11, wherein at least an integral entirety of the holder (10) and the tape fixating part (31) is formed from a plastic material by means of an injection molding process, by applying an injection molding mold, and wherein the cutting knife (32) is retained in the integral entirety of the holder (10) and the tape fixating part (31), by placing the cutting knife (32) in the injection molding mold prior to the injection molding process, and allowing plastic material for forming the holder (10) to flow around a part of the cutting knife (32) during the injection molding process.
16. Method according to claim 14 or 15, wherein the device (1) is composed of no more than the roller (40), the cutting knife (32), and an integral entirety (3) of the holder (10), the handle (20) and the tape fixating part (31).

Patentansprüche

1. Vorrichtung (1) zum Anbringen von Klebeband (2a) auf eine Fläche, umfassend:
- einen Halter (10) zur Aufnahme und Unterbringung einer Klebebandrolle (2), wobei der Halter (10) so ausgebildet ist, dass er eine Klebebandrolle (2) entlang eines Abschnitts ihres Außenumfangs umschließt und sie gleichzeitig in ihrer axialen Richtung hält;
 - einem Griff (20), der sich vom Halter (10) aus erstreckt und

- eine Rolle (40), die drehbar in dem Halter (10) angebracht ist, um Kontakt mit dem Außenumfang einer in dem Halter (10) aufgenommenen Klebebandrolle (2) herzustellen und um Klebeband (2a), das während der Verwendung der Vorrichtung (1) von einer Klebebandrolle (2) entnommen und auf eine Fläche angebracht wird, von der Vorrichtung (1) nach außen zu führen;

dadurch gekennzeichnet, dass

der Halter (10) eine einzige integrale Gesamtheit ist und ein Presse teil (16) mit einem freien Ende (16a) zum Pressen des Klebebandes (2a) gegen die Rolle (40) aufweist, wenn es zwischen der Rolle (40) und dem freien Ende (16a) des Presse teils (16) eingelegt ist; und wobei die Rolle (40) in dem Halter (10) ausschließlich aufgrund einer direkten Verbindung mit dem Halter (10) gehalten wird.

2. Vorrichtung (1) nach Anspruch 1, wobei die Rolle (40) an ihren beiden Enden mit einer Trägerwelle (41, 42) versehen ist, wobei der Halter (10) zwei im Abstand zueinander verlaufende Klappen (14a, 15a) aufweist und mit einer Öffnung (14b, 15b) versehen ist und wobei die Rolle (40) zwischen den Klappen (14a, 15a) des Halters (10) angeordnet ist, wobei die Trägerwellen (41, 42) in den Öffnungen (14b, 15b) in den Klappen (14a, 15a) aufgenommen sind.
3. Vorrichtung (1) nach Anspruch 1 oder 2, wobei der Halter (10) zwei Schenkel (11b, 12b) aufweist, die federnd auseinander bewegbar ausgebildet sind.
4. Vorrichtung (1) nach einem der Ansprüche 1-3, wobei eine Breitenabmessung des Presse teils (16) des Halters (10) kleiner ist als eine allgemeine Breitenabmessung des Halters (10).
5. Vorrichtung (1) nach einem der Ansprüche 1-4, ferner umfassend eine Schneidanordnung (30) mit einem Bandbefestigungsteil (31), der sich von dem Halter (10) aus erstreckt, und ein Schneidmesser (32), das von dem Halter (10) aus gesehen vor einem freien Ende (31a) des Bandbefestigungsteils (30) angeordnet ist, zum Zwecke des Abschneidens von Klebeband (2a) von der Vorrichtung (1), wobei der Bandbefestigungsteil (31) mit dem Halter (10) integriert ist.
6. Vorrichtung (1) nach Anspruch 5, die aus nicht mehr als der Rolle (40), dem Schneidmesser (32) und einer integralen Gesamtheit (3) aus dem Halter (10), dem Griff (20) und dem Bandbefestigungsteil (31) zusammengesetzt ist.
7. Verfahren zur Herstellung einer Vorrichtung (1) zum Anbringen von Klebeband (2a) auf eine Fläche, wo-

- bei die Vorrichtung (1) umfasst: einen Halter (10) zum Aufnehmen und Unterbringen einer Klebebandrolle (2), wobei der Halter (10) so gestaltet ist, dass er eine Klebebandrolle (2) entlang eines Abschnitts ihres Außenumfangs umschließt, während er sie auch in ihrer axialen Richtung festhält; einen Griff (20), der sich von dem Halter (10) erstreckt; und eine Rolle (40), die drehbar in dem Halter angebracht ist, um mit dem Außenumfang einer in dem Halter (10) aufgenommenen Klebebandrolle (2) in Kontakt zu kommen und um Klebeband (2a), das während der Verwendung der Vorrichtung (1) von einer Klebebandrolle (2) genommen und auf eine Fläche aufgebracht wird, von der Vorrichtung (1) nach außen zu führen;
- wobei der Halter (10) als ein einziges einstückiges Ganzes ausgebildet ist, mit einem Andruckteil (16), das ein freies Ende (16a) aufweist, um Klebeband (2a) gegen die Rolle (40) zu drücken, wenn es zwischen die Rolle (40) und das freie Ende (16a) des Andruckteils (16) eingeführt wird; und wobei die Rolle (40) direkt mit dem Halter (10) verbunden ist.
8. Verfahren nach Anspruch 7, wobei die Rolle (40) auf der Basis einer Schnappverbindung drehbar im Halter (10) angeordnet ist.
9. Verfahren nach Anspruch 7 oder 8, wobei der Halter (10) und der Griff (20) miteinander integriert sind.
10. Verfahren nach Anspruch 9, wobei eine integrale Gesamtheit des Halters (10) und des Griffs (20) sowie die Rolle (40) aus einem Kunststoffmaterial mittels eines Spritzgießverfahrens geformt werden und wobei eine einzige Spritzgießform verwendet wird, die sowohl zum Formen der integralen Gesamtheit des Halters (10) und des Griffs (20) als auch zum Formen der Rolle (40) ausgelegt ist.
11. Verfahren nach Anspruch 10, wobei die Rolle (40) an den Halter (10) angespritzt wird, und wobei die Rolle (40) in einem nachfolgenden Schritt von dem Halter (10) abgebrochen wird.
12. Verfahren nach Anspruch 9, wobei zumindest eine integrale Gesamtheit des Halters (10) und des Griffs (20) mittels einer additiven Fertigungstechnik, wie z. B. 3D-Druck, geformt wird.
13. Verfahren nach einem der Ansprüche 7-12, wobei die Vorrichtung (1) vollständig aus einem einzigen Material hergestellt ist.
14. Verfahren nach einem der Ansprüche 7-12, wobei die Vorrichtung (1) ferner eine Schneidanordnung (30) mit einem Bandbefestigungsteil (31), der sich von dem Halter (10) aus erstreckt, und einem Schneidmesser (32) umfasst, das von dem Halter (10) aus gesehen vor einem freien Ende (31a) des Bandbefestigungsteils (30) angeordnet ist, um Klebeband (2a) von der Vorrichtung (1) abzuschneiden; und wobei der Bandbefestigungsteil (31) mit dem Halter (10) integriert ist.
15. Verfahren nach Anspruch 14, insofern abhängig von einem der Ansprüche 7-11, wobei zumindest eine integrale Gesamtheit des Halters (10) und des Bandbefestigungsteils (31) aus einem Kunststoffmaterial mittels eines Spritzgießverfahrens geformt wird, indem eine Spritzgießform verwendet wird, und wobei das Schneidmesser (32) in der integralen Gesamtheit des Halters (10) und des Bandbefestigungsteils (31) gehalten wird, indem das Schneidmesser (32) vor dem Spritzgießverfahren in die Spritzgießform gelegt wird und dem Kunststoffmaterial erlaubt wird, zum Formen des Halters (10) während des Spritzgießverfahrens um einen Teil des Schneidmessers (32) herumzuzießen.
16. Verfahren nach Anspruch 14 oder 15, wobei die Vorrichtung (1) aus nicht mehr als der Rolle (40), dem Schneidmesser (32) und einer integralen Gesamtheit (3) aus dem Halter (10), dem Griff (20) und dem Bandbefestigungsteil (31) zusammengesetzt ist.

30 Revendications

1. Dispositif (1) pour appliquer du ruban adhésif (2a) sur une surface, comprenant:

- un support (10) destiné à recevoir et à contenir un rouleau de ruban adhésif (2), lequel support (10) est conçu pour englober un rouleau de ruban adhésif (2) le long d'une partie de la périphérie extérieure de celui-ci tout en le retenant aussi dans la direction axiale de celui-ci;
- une poignée (20) s'étendant depuis le support (10); et
- un galet (40) monté à rotation dans le support (10) pour réaliser un contact avec la périphérie extérieure d'un rouleau de ruban adhésif (2) reçu dans le support (10) et pour guider le ruban adhésif (2a) qui est pris d'un rouleau de ruban adhésif (2) pendant l'utilisation du dispositif (1) et qui est appliqué à une surface, vers l'extérieur depuis le dispositif (1);

caractérisé en ce que le support (10) est une totalité simple d'un seul tenant et comporte une partie de pression (16) avec une extrémité libre (16a) pour presser le ruban adhésif (2a) contre le galet (40) quand il est inséré entre le galet (40) et l'extrémité libre (16a) de la partie de pression (16); et dans lequel le galet (40) est retenu dans le support

- (10) exclusivement sur la base d'une connexion directe avec le support (10).
2. Dispositif (1) selon la revendication 1, dans lequel le galet (40) est pourvu d'un axe porteur (41, 42) à ses deux extrémités, dans lequel le support (10) comporte deux flasques (14a, 15a) s'étendant à distance l'un par rapport à l'autre et pourvus d'une ouverture (14b, 15b), et dans lequel le galet (40) est placé entre les flasques (14a, 15a) du support (10), les axes porteurs (41, 42) étant reçus dans les ouvertures (14b, 15b) des flasques (14a, 15a).
 3. Dispositif (1) selon la revendication 1 ou 2, dans lequel le support (10) comporte deux ailes (11b, 12b) qui sont conçues pour être écartées de façon résiliente.
 4. Dispositif (1) selon l'une quelconque des revendications 1-3, dans lequel une dimension de largeur de la partie de pression (16) du support (10) est plus petite qu'une dimension de largeur générale du support (10).
 5. Dispositif (1) selon l'une quelconque des revendications 1-4, comprenant en outre un ensemble de coupe (30) comportant une partie de fixation de ruban (31) qui s'étend depuis le support (10) et un couteau coupeur (32) qui se situe devant une extrémité libre (31a) de la partie de fixation de ruban (30), vue depuis le support (10), dans le but de couper le ruban adhésif (2a) du dispositif (1), dans lequel la partie de fixation de ruban (31) est intégrée au support (10).
 6. Dispositif (1) selon la revendication 5, composé uniquement du galet (40), du couteau coupeur (32) et d'une totalité d'un seul tenant (3) du support (10), de la poignée (20) et de la partie de fixation de ruban (31).
 7. Procédé de fabrication d'un dispositif (1) pour appliquer du ruban adhésif (2a) sur une surface, lequel dispositif (1) comprend: un support (10) destiné à recevoir et à contenir un rouleau de ruban adhésif (2), lequel support (10) est conçu pour englober un rouleau de ruban adhésif (2) le long d'une partie de la périphérie extérieure de celui-ci tout en le retenant aussi dans la direction axiale de celui-ci; une poignée (20) s'étendant depuis le support (10); et un galet (40) monté à rotation dans le support pour réaliser un contact avec la périphérie extérieure d'un rouleau de ruban adhésif (2) reçu dans le support (10) et pour guider le ruban adhésif (2a) qui est pris d'un rouleau de ruban adhésif (2) pendant l'utilisation du dispositif (1) et qui est appliqué à une surface, vers l'extérieur depuis le dispositif (1); dans lequel le support (10) est une totalité simple d'un seul tenant et comporte une partie de pression (16) avec une extrémité libre (16a) pour presser le ruban adhésif (2a) contre le galet (40) quand il est inséré entre le galet (40) et l'extrémité libre (16a) de la partie de pression (16); et dans lequel le galet (40) est connecté au support (10) de façon directe.
 8. Procédé selon la revendication 7, dans lequel le galet (40) est monté à rotation dans le support (10) sur la base d'une connexion par pression.
 9. Procédé selon la revendication 7 ou 8, dans lequel le support (10) et la poignée (20) sont intégrés l'un à l'autre.
 10. Procédé selon la revendication 9, dans lequel une totalité d'un seul tenant du support (10) et de la poignée (20) ainsi que le galet (40) sont formés à partir d'une matière plastique au moyen d'un processus de moulage par injection, et dans lequel on applique un seul moule de moulage par injection qui est conçu à la fois pour former la totalité d'un seul tenant du support (10) et de la poignée (20) et pour former le galet (40).
 11. Procédé selon la revendication 10, dans lequel le galet (40) est moulé par injection sur le support (10), et dans lequel on sépare le galet (10) du support (10) dans une étape consécutive.
 12. Procédé selon la revendication 9, dans lequel au moins une totalité d'un seul tenant du support (10) et de la poignée (20) est formée au moyen d'une technique de fabrication additive telle que l'impression tridimensionnelle.
 13. Procédé selon l'une quelconque des revendications 7-12, dans lequel le dispositif (1) est entièrement fabriqué à partir d'un seul matériau.
 14. Procédé selon l'une quelconque des revendications 7-12, dans lequel le dispositif (1) comprend en outre un ensemble de coupe (30) comportant une partie de fixation de ruban (31) qui s'étend depuis le support (10) et un couteau coupeur (32) qui se situe devant une extrémité libre (31a) de la partie de fixation de ruban (30), vue depuis le support (10), dans le but de couper le ruban adhésif (2a) du dispositif (1); et dans lequel la partie de fixation de ruban (31) est intégrée au support (10).
 15. Procédé selon la revendication 14 lorsqu'elle dépend de l'une quelconque des revendications 7-11, dans lequel au moins une totalité d'un seul tenant du support (10) et de la partie de fixation de ruban (31) est formée à partir d'une matière plastique au moyen d'un processus de moulage par injection, en appliquant un moule de moulage par injection, et

dans lequel le couteau coupeur (32) est retenu dans la totalité d'un seul tenant du support (10) et de la partie de fixation de ruban (31) en plaçant le couteau coupeur (32) dans le moule de moulage par injection avant le processus de moulage par injection, et en laissant la matière plastique servant à former le support (10) s'écouler autour d'une partie du couteau coupeur (32) pendant le processus de moulage par injection.

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- 16.** Procédé selon la revendication 14 ou 15, dans lequel le dispositif (1) est composé uniquement du galet (40), du couteau coupeur (32) et d'une totalité d'un seul tenant (3) du support (10), de la poignée (20) et de la partie de fixation de ruban (31).

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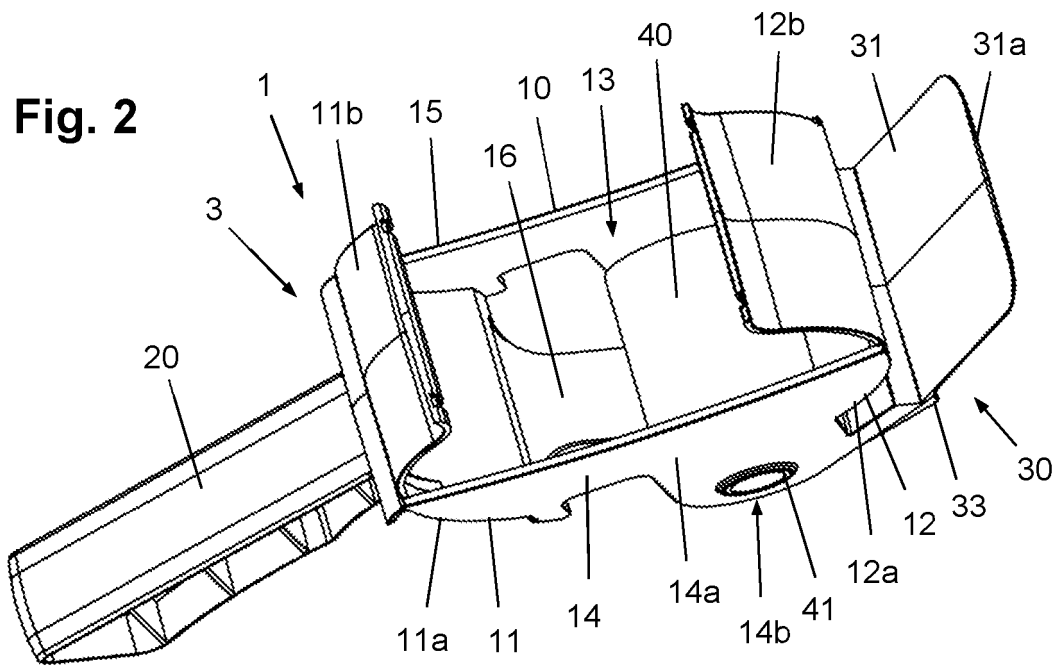
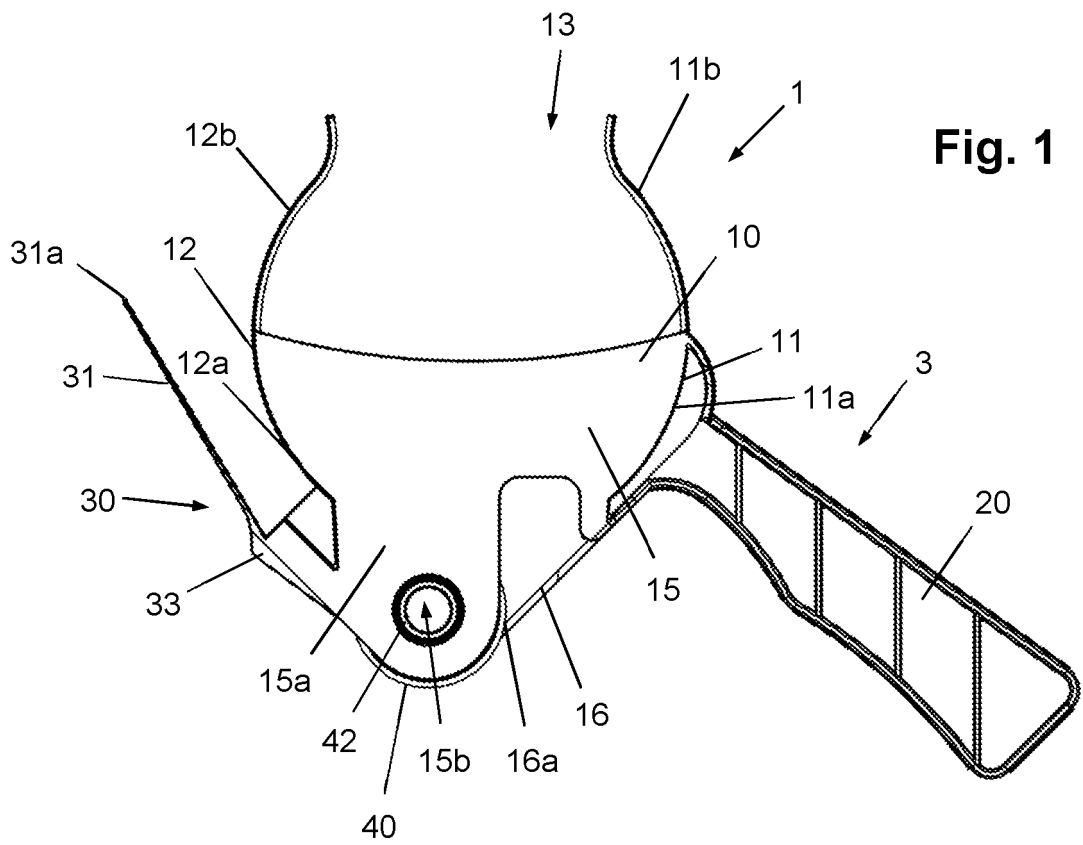
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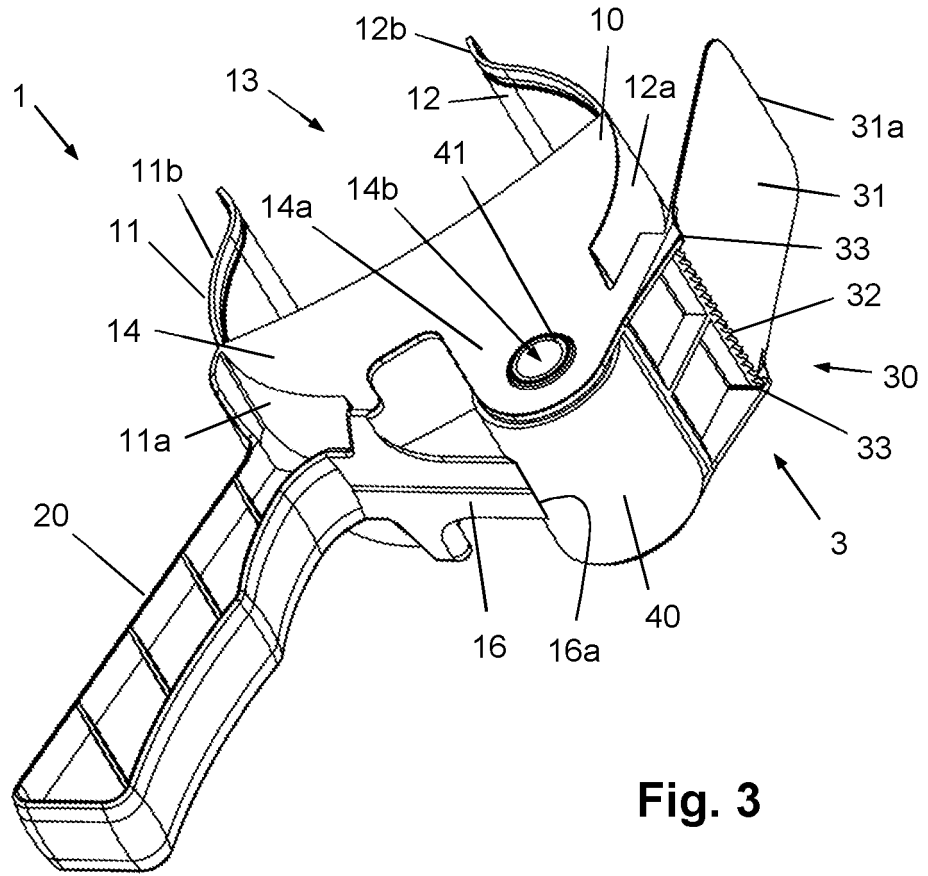


Fig. 3

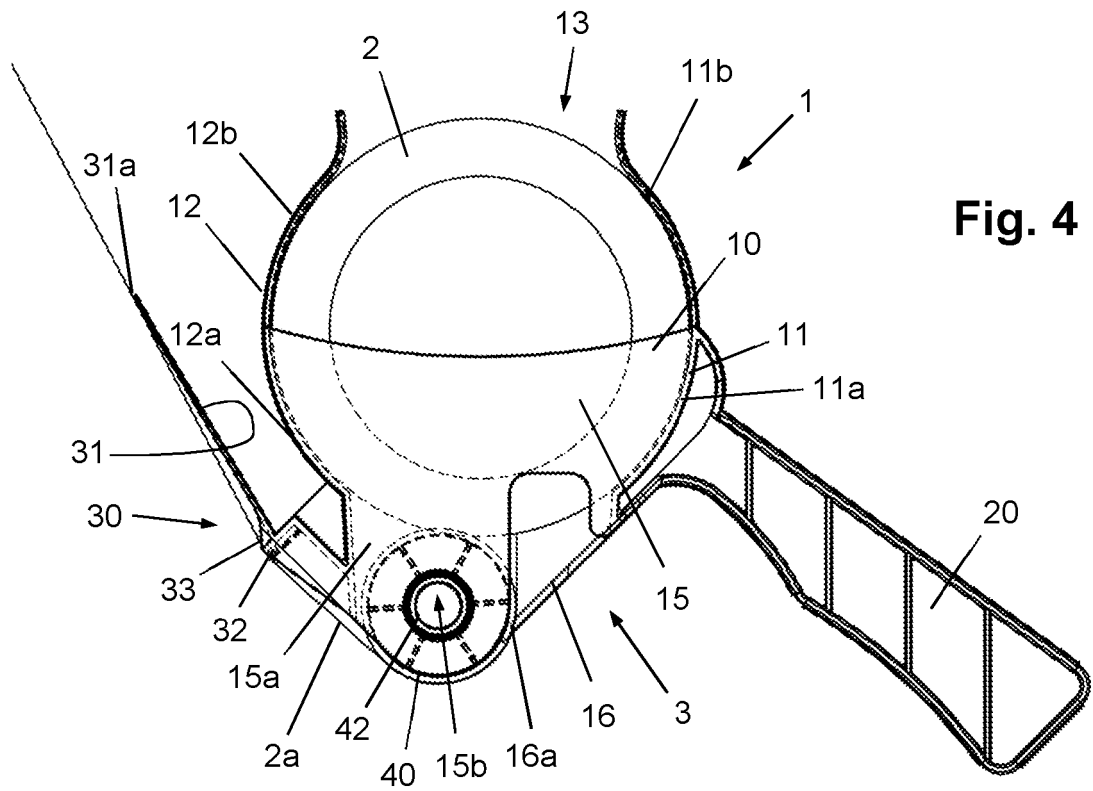


Fig. 4

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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