ABSTRACT

A dispenser for dispensing tissue paper. The dispenser includes a housing defining a volume for receiving both a center-feed tissue paper roll and a tissue paper stack, a first dispensing opening situated in the housing for dispensing tissue paper from a center-feed tissue paper roll, and a second dispensing opening situated in the housing for dispensing tissue paper sheets from a tissue paper stack.
Fig. 9
DISPENSER FOR DISPENSING TISSUE PAPER AND METHOD FOR DISPENSING TISSUE PAPER

CROSS-REFERENCE TO PRIOR APPLICATION

This application is a §371 National Stage Application of PCT International Application No. PCT/EP2009/054627 filed Apr. 17, 2009, which is incorporated herein in its entirety.

TECHNICAL FIELD

The present application pertains to a dispenser for dispensing tissue paper, in particular kitchen paper, tissue paper towels, facial tissues, toilet paper, napkins, etc., which is either distributed in the form of a center-feed tissue paper roll or in the form of a tissue paper stack. The application, furthermore, pertains to a method for dispensing the tissue paper from a dispenser.

BACKGROUND

In the field of dispensers for tissue paper in private homes as well as in public spaces, in particular in public bathrooms, different technologies have been employed up to date.

One dispenser technology which can be found frequently is the provision of a dispenser for dispensing sheets from a tissue paper stack. In this type of dispenser, the tissue paper sheets are typically inserted into an inner volume defined by the housing of the dispenser and the tissue paper sheets can be taken from the dispenser through an opening that is situated in the bottom wall of the dispenser. This opening is typically shaped in the form of a relatively wide slot or a relatively flat ellipse, such that sheets can be dispensed through this opening. In this type of dispenser, substantially the entire length of the tissue paper sheets fits through the opening, while the wall around the opening still supports the tissue paper stack.

The stack of papers is typically provided in the form of a C-folded, Z-folded or concertina-folded fashion, such that the dispensing of one sheet automatically transports the subsequent sheet into the dispensing position. The sheets of the tissue paper stack to be dispensed through this opening are oriented such that the wall of the dispensing housing, in which the dispensing opening is provided, is substantially parallel to the plane of the folded paper sheets. Accordingly, the sheets are dispensed in a fashion substantially perpendicular to the plane defined by them.

A second technology that can be found frequently uses the so-called center-feed tissue paper rolls. In a center-feed tissue paper roll, the tissue paper is dispensed starting from the innermost winding of the paper in the center of the roll and progressing towards the outside. This concept is inherently different from the concepts in which tissue paper is simply unwound from a paper roll, starting from the outermost winding and progressing towards the inside.

In order to enable proper dispensing functions of the center-feed tissue paper roll, the center-feed tissue paper roll is typically placed in an upright position, i.e., the axis of the center-feed tissue paper roll is oriented vertically. A dispensing opening of the respective dispenser is typically situated such that the center of the center-feed tissue paper roll and the center of the dispensing opening are aligned with one another. The dispensing action then takes place by dispensing the tissue paper through the dispensing opening from the inside of the center-feed tissue paper roll towards the outside, substantially along the direction of the axis of the center-feed tissue paper roll.

As the two dispenser types are technically and dimensionally different, a user has to make a choice between either a dispenser for dispensing sheets of a tissue paper stack or a dispenser for dispensing tissue paper from a center-feed tissue paper roll.

U.S. Pat. No. 4,811,878 pertains to a universal towel dispenser in which stacked paper can be dispensed through a lengthy dispensing opening and rolled tissue paper can be dispensed by unwinding the tissue paper roll likewise through a lengthy slot.

SUMMARY

In the field of tissue paper dispensers, in particular for dispensing tissue paper towels in private homes, it is desirable to provide a dispenser which can be used flexibly and which allows the user to flexibly choose between different distribution types of tissue paper.

Accordingly, it is desired to provide a dispenser for dispensing tissue paper which dispenses tissue paper from a dispenser as to the papers used.

According to a first aspect, the dispenser for dispensing tissue paper has a housing which defines a volume for receiving both a center-feed tissue paper roll and a tissue paper stack. Situated in the housing is a first dispensing opening for dispensing tissue paper from a center-feed tissue paper roll and a second dispensing opening is situated in the housing for dispensing tissue paper from a tissue paper stack.

By the provision of these two different dispensing openings, namely the first dispensing opening, which is suitable for dispensing tissue paper from a center-feed tissue paper rolls, and the second dispensing opening, which is suitable for dispensing tissue paper from a tissue paper stack, it becomes possible using the same dispenser for dispensing at least two different types of tissue paper distributions, namely either center-feed tissue paper rolls or tissue paper stacks. Accordingly, it becomes possible for the user to mount a dispenser in a suitable location, e.g., in the bathroom or in the kitchen of a private home, and dispense tissue paper towels in a flexible fashion.

In particular, the user obtains full flexibility as to his choice of different tissue paper distributions. Furthermore, the choice of tissue paper can be adjusted to the needs of the user. The solution according to the present disclosure has the advantage that only a single dispenser will be needed for dispensing center-feed tissue paper rolls or tissue paper stacks.

It is to be understood that in use either a center-feed tissue paper roll or a tissue paper roll are situated in the volume of the dispenser but that the volume of the dispenser is suitable to receive either of the two distribution types. Accordingly, depending on the paper that is actually loaded into the dispenser, either the first dispensing opening or the second dispensing opening is used and the respective other dispensing opening is unused for dispensing. In other words, only one of the two dispensing openings is active at a time.

In certain embodiments, the first dispensing opening for dispensing tissue paper from a center-feed tissue paper roll is substantially circular, preferably, for example, oval.
The second dispensing opening for dispensing tissue paper from the tissue paper stack is substantially oblong, preferably, for example, rectangular.

[0017] The second dispensing opening for dispensing tissue paper from the tissue paper stack may have a length and at least a width, and the first dispensing opening for dispensing tissue paper from a center-feed tissue paper roll has a maximum dimension which is substantially shorter than the length of the second dispensing opening.

[0018] In other words, the first dispensing opening is adapted to dispense paper from a center-feed tissue paper roll, which implies that the dispensing opening has a substantially circular shape, preferably, for example, an oval or elliptical shape, or, at least, has a geometry which resembles the geometry of the needs of a center-feed tissue paper roll. The second dispensing opening for dispensing tissue paper stack has an oblong shape, preferably, for example, a rectangular shape, and has a length which is substantially longer than the maximum dimension of the first dispensing opening such as to fit the needs of dispensing tissue paper from a tissue paper stack.

[0019] Put differently, the second dispensing opening has a rather oblong shape, whereas the first dispensing opening has a rather circular shape, such as to fit the respective dispensing needs on the basis of the different tissue paper distributions, in particular on the basis of the actual dispensing locations of the different tissue paper distributions.

[0020] In order to adapt the technical properties of the dispenser to the two different tissue paper distributions which are dispensable from the dispenser, in particular to their respective dispensing locations, the first dispensing opening, in a particular embodiment is situated substantially in the center of a wall of the housing of the dispenser and the second dispensing opening is substantially situated at an edge or a corner of a wall of the housing, preferably, for example, at a front edge, a back edge, side edge or situated in an angle across a corner of the housing.

[0021] The provision of the first dispensing opening substantially in the center of a wall, preferably, for example, in the wall that is used for receiving the dispensing openings, results in a proper dispensing of the center-feed tissue paper roll, in particular when it is placed substantially centered with respect to the first dispensing opening into the housing. This is the case as the center-feed tissue paper roll dispenses the paper from the center of the upright-standing roll, substantially along the axis of the center-feed roll.

[0022] The provision of the second dispensing opening substantially at the edge of a wall of the housing enables dispensing of tissue paper from a tissue paper stack through this second dispensing opening. This is the case as the tissue paper stack dispenses the tissue paper sheets from the top or bottom of the stack. Accordingly, the tissue paper is dispensed from the tissue paper stack starting from the top or the bottom of the tissue paper stack such that at least the top or the bottom of the tissue paper stack is typically situated at the edge of the wall.

[0023] The dispensing direction of the tissue paper sheets, in a particular embodiment, is situated in the plane of the paper sheets of the stack. In particular, this way of dispensing is inherently different from the conventional way of dispensing tissue paper sheets from a tissue paper stack in which the dispensing direction is substantially perpendicular to the plane of the paper sheets.

[0024] In certain embodiments, the first dispensing opening and the second dispensing opening are situated in the same wall of the housing, preferably, for example, in a bottom wall or a top wall of the housing. By providing both dispensing openings in the same wall of the housing it becomes possible dispensing the tissue paper almost substantially at the same location of the dispenser such that the usability of the dispenser is increased. In addition to that, the provision of the dispensing openings in the bottom of the dispenser reduces the intake of unwanted matter into the dispensing housing and reduces in particular dust intake or other contaminations. When bearing in mind that typically one of the dispensing openings is unused because tissue paper is dispensed only either through the first dispensing opening or the second dispensing opening depending on the paper loaded into the dispenser, the location in the bottom wall is advantageous.

[0025] The first dispensing opening and the second dispensing opening may be situated substantially in the same plane. In other words, the first and second dispensing openings are situated in a plane wall of the housing, preferably, for example, a plane bottom wall or a top wall of the housing.

[0026] In a particular embodiment, the first dispensing opening includes a tearing means, preferably, for example, teeth, a serrated section, a section of reduced width, a knife section or an elastic nozzle, in order to aid at tearing off the tissue paper dispensed from the center-feed tissue paper roll. The tissue paper distributed in a center-feed tissue paper roll is typically continuous such that a tearing means aids the user in tearing of a portion of the tissue paper.

[0027] The edges of the second dispensing opening are, in particular embodiments, substantially even and/or smooth in order to maintain the integrity of the tissue paper sheets and not to destroy the tissue paper dispensed from the tissue paper stack.

[0028] In order to adjust the geometry of the respective dispensing openings, the second dispensing opening has, in particular embodiments, a length which corresponds substantially to a width of a folded paper sheet of the tissue paper stack. In other words, the dispensing operation through the second dispensing opening is enabled such that the short dimension of the tissue paper sheet fits through the dispensing opening, but the long dimension does not.

[0029] In certain embodiments, the second dispensing opening is situated such that a sheet of tissue paper can be dispensed from the tissue paper stack in a direction extending in the plane of the paper sheet, preferably, for example, in a direction extending along the long side of the sheet.

[0030] The first dispensing opening and the second dispensing opening may be connected to one another. The connection of the two dispensing openings can be advantageous for inserting the tissue paper of the center-feed tissue paper roll into the first dispensing opening and, on the other hand, increases the flexibility of the dispenser.

[0031] In certain embodiments, the housing of the dispenser includes a cover which can be removed in order to access the volume defined by the housing in order to place a center-feed tissue paper roll or a tissue paper stack into the housing. The cover, in a particular embodiment, includes a cover section which borders to a wall carrying the first dispensing opening, and an insertion channel is provided which is intended to enable the insertion of tissue paper from the center-feed tissue paper roll into the first dispensing opening, wherein, when the cover is removed, the insertion channel is fully accessible.
In certain embodiments, the insertion channel is open to the outside, in particular when the cover is opened. By means of the insertion channel, an easy servicing of the dispenser can be achieved, in particular while threading the tissue paper of the center-feed tissue paper roll through the first dispensing opening. Naturally, threading can be done by pushing the tissue paper from above through the first dispensing opening. However, in this case the center-feed tissue paper roll would have to be lifted in order to provide the user with an access to the first dispensing opening from the inside of the housing. The provision of the insertion channel enables, however, an easy insertion by just sliding a length of the tissue paper along the insertion channel directly into the first dispensing opening.

In particular embodiments, the housing has a circular, semi-elliptical or elliptical cross-section, but may, of course, have other cross-sections which are suitable for receiving a center-feed tissue paper roll as well as a tissue paper stack.

The mounting is mountable to a wall via a docking system, preferably, for example, by means of a positive fit, a hook and loop fastener, an adhesive, an adhesive strip and/or a magnet. Using a docking system has the advantage that the housing can be removed for refilling or for placing it in a different position, for example on a table or using the dispenser also in a mobile or semi-mobile mode.

The volume of the housing can, in a particular embodiment, be dimensioned such as to receive a tissue paper stack such that the plane of the respective sheets is situated in a direction in which the dispensing direction of tissue paper from a center-feed tissue paper roll would be directed.

The housing of the dispenser may be manufactured using at least two different materials, preferably, for example, a substantially transparent or translucent material and a substantially opaque material, wherein the substantially transparent or translucent material may provide a ripping-level indicating window.

In a second aspect, a method for dispensing paper from a dispenser is suggested, wherein either a tissue paper stack or a center-feed tissue paper roll is provided, the tissue paper stack or the center-feed tissue paper roll is situated in the dispenser housing, and tissue paper is dispensed either from the center-feed tissue paper roll through the first dispensing opening or from the tissue paper stack through the second dispensing opening.

**BRIEF DESCRIPTION OF THE FIGURES**

Embodiments of the invention will be described in more detail below, with reference to the Figures, in which:

FIG. 1 is a schematic perspective view of a dispenser in a first embodiment, including a first and a second dispensing opening;

FIG. 2 is a schematic perspective view of a dispenser in a second embodiment;

FIG. 3 is another schematic perspective view of the dispenser of FIG. 2, shown while dispensing a tissue paper from a tissue paper stack through the second dispensing opening;

FIG. 4 is yet another perspective view of the dispenser of FIGS. 2 and 3 while dispensing tissue paper from a center-feed tissue paper roll through the first dispensing opening;

FIG. 5 is a schematic perspective view of a dispenser having a first and a second dispensing opening;

FIG. 6 is another schematic perspective view showing a different dispenser having two dispensing openings;

FIG. 7 is another schematic perspective view of yet another dispenser having two dispensing openings;

FIG. 8 is another schematic perspective view of yet another dispenser having a first dispensing opening and a second dispensing opening which are connected to one another;

FIG. 9 is a schematic perspective view of a dispenser including a docking system;

FIG. 10 is a different dispenser in a schematic perspective view, having a docking system;

FIG. 11 shows a dispenser in a schematic view with a half-opened cover and including a tissue paper stack;

FIG. 12 shows a dispenser in a fully opened position including a center-feed tissue paper roll;

FIG. 13 is a schematic perspective view of yet another dispenser housing having a substantially rectangular cross-section;

FIG. 14 shows the dispenser of FIG. 13 in another perspective;

FIGS. 15 shows the dispenser of FIGS. 13 and 14 with the lid opened;

FIG. 16 shows a detail of the first dispensing opening and the second dispensing opening of the embodiment shown in FIGS. 13 to 15;

FIG. 17 shows a detail of a dispensing opening including an insertion channel; and

FIG. 18 is yet another detail of two dispensing openings and an insertion channel.

**DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS**

In the following, different embodiments of the present disclosure will be described by reference to the attached Figures. Identical or similar features will be denoted by the same reference numerals and repeated description thereof may be omitted.

FIG. 1 shows a schematic perspective view of a dispenser 1 according to a first embodiment. The dispenser comprises a housing 2 which defines a volume for receiving either a center-feed tissue paper roll or a tissue paper stack.

In the bottom wall 20 of the housing 2, a first dispensing opening 3 is provided which is used for dispensing tissue paper from a center-feed tissue paper roll in a case in which a center-feed tissue paper roll is inserted into the volume of the housing 2.

A second dispensing opening 4 is provided in the bottom wall 20 of the housing 2, which is used for dispensing tissue paper sheets from a tissue paper stack in a case in which a tissue paper stack is inserted into the volume of the housing 2.

As will be appreciated, the first dispensing opening 3 is substantially situated in the center of the bottom wall 20 of the housing 2, such that a center-feed tissue paper roll, if it is placed into the volume of the housing 2, is enabled to dispense the paper through the first dispensing opening 3. As is common knowledge, a center-feed tissue paper roll dispenses the paper from the inside to the outside, wherein the first winding that is dispensed is the winding that is situated on the innermost section of the center-feed tissue paper roll. A center-feed tissue paper roll will typically be placed in a more
or less upright position into the dispenser 1 and will dispense the paper substantially along the axis defined by the center-feed tissue paper roll.

Accordingly, the concept for dispensing of a center-feed tissue paper roll is inherently different from that of dispensing tissue paper from the outer windings towards the inner windings of a conventional tissue paper roll. In particular, in conventional tissue paper rolls, the dispensing direction is substantially perpendicular to the axis of the roll, whereas in a center-feed tissue paper roll the dispensing direction is substantially along the axis of the center-feed tissue paper roll.

When placing a tissue paper stack into the volume defined by the housing 2, the tissue papers can be dispensed through the second dispensing opening, which is, as can be appreciated from FIG. 1, situated substantially at the edge of the bottom wall 20 of the housing 2. The second dispensing opening 4 has a length L that substantially corresponds to the width of the tissue paper sheets, in particular the folded tissue paper sheets, of the tissue paper stack. The tissue paper sheet will be dispensed from the tissue paper stack through the second dispensing opening 4 in a dispensing direction that is situated in the plane defined by the tissue papers in the stack. As the tissue paper sheets are usually provided in a folded manner on the tissue paper stack, typically in an interleaved manner such as C-folded, Z-folded or concertina folded, the length L of the second dispensing opening 4 can, in particular embodiments, correspond to the width of the folded tissue paper sheet.

The second dispensing opening 4 has a width W which is substantially shorter than the length L of the second dispensing opening 4. In other words, the dispensing opening 4 has a substantially oblong shape or, at least, a substantially rectangular, such that its length L is substantially longer than its width W. The length L and the width W are measured at the respective maximum dimensions.

The first dispensing opening 3 is dimensioned in a substantially circular, oval or elliptical shape. The shape of the first dispensing opening 3, shown in FIG. 1, has a maximum dimension D which is substantially shorter than the length L of the second dispensing opening 4.

However, in an embodiment which is not shown in the Figures, the first dispensing opening may also have the shape of a cross, a plus-sign, a star or any other suitable form which is suitable for dispensing tissue paper from a center-feed tissue paper roll.

The reason why the second dispensing opening 4 is situated substantially towards the edge, or, in the embodiment shown in FIG. 1, directly at the edge of the bottom wall 20 of the housing 2, is that the tissue paper will be dispensed from the top (or the bottom) of the tissue paper stack. This top or bottom of the tissue paper stack will be situated at the side of the volume defined by the housing 2 and, thus, at the edge of the wall 20 carrying the second dispensing opening 4.

As will be appreciated from FIG. 1, the first dispensing opening 3 and the second dispensing opening 4 are situated in the same wall, namely the bottom wall 20, of the housing 2. As the bottom wall 20 is a flat wall, the first dispensing opening 3 and the second dispensing opening 4 are substantially situated in the same plane.

In order to aid in tearing the tissue paper that is dispensed from the center-feed tissue paper roll, the first dispensing opening 3 is provided with a tearing means 30 in the form of a toothed or serrated section. In other embodiments it is also contemplated using as the tearing means a knife, a section of reduced width or an elastic nozzle which exerts high friction and/or jams the dispensed paper in order to aid at tearing the desired length of paper off the continuous dispensed paper.

The cross-shaped, plus-sign-shaped or star-shaped openings which are described above can also be used to aid in tearing off the tissue paper. In particular, the fact that the width of the opening decreases towards the pointed corners of these shapes, the corners can be used to jam the paper and aid in tearing it off.

The tearing means can be integrally formed with the dispenser housing but can also be provided in the form of a separate insert, in particular when using a different material such as an elastic nozzle or a knife edge.

The edges 40 of the second dispensing opening 4 are substantially even and/or smooth in order to maintain the integrity of the tissue paper sheets and in order not to damage the tissue paper that is to be dispensed through this opening.

FIG. 2 shows a dispenser 1 in a substantially reverse arrangement as that shown in FIG. 1. Accordingly, the second dispensing opening is situated still at an edge of the bottom wall 20, but is, now, directed towards the front side, opposed to the situation shown in FIG. 1, in which the dispensing opening was situated to the rear side.

FIG. 3 shows an embodiment of the dispenser 1 in which a tissue paper stack 5 is dispensed through the second dispensing opening 4. The housing 2 of the dispenser 1 of FIG. 3 has substantially a circular cross-section.

FIG. 4 shows yet another embodiment of a dispenser 1, having a housing 2 with a semi-elliptical cross-section. FIG. 4 shows an embodiment in which a center-feed tissue paper roll dispenses center-feed paper 6 through the first dispensing opening 3.

In FIGS. 5 to 8, different arrangements of the first dispensing opening 3 and the second dispensing opening 4 in the same schematic housing 2 of a dispenser 1 are shown.

In the embodiment shown in FIG. 5, the first dispensing opening 3 is provided in a substantially circular form and is situated substantially in the center of the bottom wall 20 of the housing 2. The second dispensing opening 4 is provided at the rear side of the dispenser 1 and is situated at the edge of the bottom wall 20. The second dispensing opening 4 has an oblong, or lengthy, shape resembling a parallelogram. The second dispensing opening has a relatively long length L and a relatively small width W. Furthermore, the length L of the second dispensing opening 4 is considerably longer than the maximum dimension D of the first dispensing opening 3.

FIG. 6 shows a dispenser in another embodiment, having a first dispensing opening 3 which includes a toothed section 30 and a smooth section 32, wherein the first dispensing opening 3 has a substantially elliptical shape. The second dispensing opening 4 resembles that shown in FIG. 5.

The length L of second dispensing opening 4 is considerably longer than the maximum dimension D of the first dispensing opening 3.

FIG. 7 shows an arrangement of the first and second dispensing openings in which the position of the second dispensing opening 4 is placed on the front side of the dispenser 1, compared to FIG. 6, in which the second dispensing opening 4 was situated at the rear side.

In FIG. 7, it can also be seen that the second dispensing opening 4 also includes an indentation 42, which extends into the wall 22 of the dispenser housing 2 which is
perpendicular to the bottom wall 20. This indentation 42 enables easier gripping of tissue paper sheets to be dispensed.

[0082] FIG. 8 shows yet another embodiment in which the first dispensing opening 3 and the second dispensing opening 4 are connected to one another. This embodiment might have advantages when it comes to inserting the tissue paper to be dispensed from the center of the center-feed tissue paper roll into the first dispensing opening 3.

[0083] Typically, it can be difficult to push the paper from the center-feed tissue paper roll through the first dispensing opening 3 from the inside of the housing, in particular as the center-feed tissue paper roll is typically situated directly above the first dispensing opening. Due to the toothed circumference of the first dispensing opening 3 it is also not desired that a user reaches through the first dispensing opening 3 in order to pull the initial bit of the tissue paper out from the center of the center-feed tissue paper roll. Accordingly, it is desirable to have a somewhat more extended opening to insert the tissue paper into the first dispensing opening 3. In this respect, a different approach will be shown with reference to FIGS. 17 and 18 in the following.

[0084] FIG. 9 is an embodiment of a dispenser 1 showing a housing 2 which is mounted to a wall via a docking system 7. The docking system 7 can be made such that the dispenser can simply be slid into the docking system from above and can, in the same manner, be removed from the docking system 7. Here, a positive fit, preferably, for example, in the form of a dove-tail fit, can be used. As an alternative, an adhesive, an adhesive strip, a hook and loop fastener, or a magnet could be used to connect the housing to the docking system.

[0085] A removable dispenser 1 is advantageous when it comes to mobile and flexible use of the dispenser, in particular when a user intends to take the dispenser to a different location, e.g., to a table in the kitchen, where tissue paper might be needed.

[0086] In the embodiment shown, the housing 2 has a first section 26 which is made from a substantially transparent or translucent material and a second section 28 which is made from a substantially opaque material. A window 27 is present which enables determining the filling status of the dispenser. Naturally, the housing could also be made from a single material.

[0087] FIG. 10 shows a concept of a dispenser 1 which is similar to that shown in FIG. 9, but the window 27 does not extend over the complete length of the dispenser housing, but is somewhat shorter.

[0088] FIG. 11 shows a dispenser 1 having a housing 2 with a cover 24, wherein the cover 24 is hinged to the housing in the upper section of the housing 2. The cover 24 is shown in a half-opened position in FIG. 11. In the volume which is defined by the housing 2 a tissue paper stack 50 is shown. The tissue paper stack has a width WS and a length LS and the tissue papers are provided in an interfolded form, e.g., in a Z-fold, a concertina-fold or even a C-fold manner.

[0089] It becomes immediately apparent that, as the dispensing openings are situated in the bottom wall 20, the tissue paper sheets of the sheet stack 50 are dispensed in a direction which is situated in the plane of the respective tissue paper sheets. The tissue paper sheets are dispensed in a direction which extends along the length LS of the paper stack but not, as in conventional dispensers, perpendicular to the plane defined by the tissue papers.

[0090] FIG. 12 shows the dispenser of FIG. 11 in another filling state and with a fully opened cover 24. In this filling state a center-feed tissue paper roll 60 inserted into the volume defined by housing 2. The paper of the center-feed tissue paper roll 60 will be dispensed through the first dispensing opening 3.

[0091] When comparing FIGS. 11 and 12, it becomes apparent that the dispensing direction of the center-feed tissue paper roll 60 corresponds to the dispensing direction of the stacked sheet papers 50 and the axis of the center-feed tissue paper roll 60 is substantially situated in the plane defined by the tissue paper sheets.

[0092] The dispenser housing can be provided with different cross-sections, in particular rather circular, rather elliptical or rather semi-elliptical cross-sections.

[0093] In FIGS. 13 and 14, yet another shape of a dispenser 1 is shown. As will be appreciated, the housing has a substantially rectangular shape or, rather, a hat-like cross-section.

[0094] Nevertheless, the structure as to the technical features, namely the first dispensing opening 3, the second dispensing opening 4, which are both situated in the bottom wall 20 of the housing 2, are provided in a similar manner as in the embodiments described before.

[0095] The first dispensing opening 3 is provided in a rather circular manner and is situated more or less in the center of the bottom wall 20 of the housing 2. The second dispensing opening 4 is provided with a longitudinal shape and is situated more towards the edge of the bottom wall 20.

[0096] Due to the rectangular shape of the housing 2, the volume that is defined by the housing 2 is substantially rectangular. This may lead to a situation in which the tissue paper stack fits perfectly inside the volume, but the center-feed tissue paper roll might be slightly deformed, resulting in a rather elliptical shape of the center-feed tissue paper roll in the inserted state. Nevertheless, the dispensing opening of the center-feed tissue paper roll will be placed above the dispensing opening 3, such that dispensing from the center-feed tissue paper roll becomes possible.

[0097] FIG. 15 shows the dispenser of the embodiment of FIGS. 13 and 14 with an opened cover, exposing a tissue paper stack 50 situated inside the volume defined by the housing 2. In this arrangement, and in order to aid while filling the dispenser, a support 80 is provided, onto which the tissue paper stack 50 may rest and which guides the tissue paper stack 50 into a position in which the first (and any subsequent) tissue paper sheets can be retrieved from the dispenser 1.

[0098] In an embodiment which is not shown in the Figures, it is contemplated to include in the dispenser a biasing means which biases the stack of paper towards the second dispensing opening 4 such that the first paper to be dispensed is always in perfect alignment with the dispensing opening.

[0099] However, in typical C-fold, Z-fold or concertina-folded papers it is not necessary to provide a biasing means as the dispenser is self-biasing in the sense that a user, when taking a tissue paper from the dispenser, automatically pulls out a section of the following paper due to the friction of the papers with one another.

[0100] FIG. 16 shows, in detail, the bottom wall 20 of the dispenser shown in FIGS. 13 to 15, with the first dispensing opening 3 and the second dispensing opening 4. The first dispensing opening 3 includes a toothed section 30 as well as a smooth section 32, wherein the smooth section 32 is intended, inter alia, to ease the insertion of the first bit of tissue paper through the dispensing opening 3.
The second dispensing opening 4 has an edge 40 forming a smooth circumference and has a length \( L \) which substantially extends beyond the maximum dimension \( D \) of the first dispensing opening 3.

In order to improve the situation with respect to insertion of the center-feed tissue paper into the dispensing opening, FIG. 17 suggests adding to the first dispensing opening 3 an insertion channel 9 which enables sliding an initial portion of the tissue paper into the dispensing opening 3. To this end, the insertion channel 9 extends between the first dispensing opening 3 and a position 90 bordering to a lower part of a cover 240. In other words, the lower wall 20 of the dispenser housing extends into a lower part of the cover 240, wherein a split line 242 is present where the cover 24 and the bottom wall 20 split when the cover 24 is opened. The insertion channel 9 extends up to the split line 242 such that, when the cover 24 is opened, an initial piece of tissue paper from the center-feed tissue paper roll can be inserted into the insertion channel 9 and slid towards the first dispensing opening 3. This greatly improves the initial setup of the dispenser with respect to the center-feed tissue paper roll insertion.

FIG. 18 shows yet another embodiment in the same manner as that disclosed in FIG. 17, whereas the insertion channel 9 extends between the first dispensing opening 3 and the position 90 at the split line 242 between the bottom wall 20 and the bottom wall of the cover 240. The insertion channel 9 crosses, however, also the second dispensing opening 4.

1. A dispenser for dispensing tissue paper comprising:
   a housing defining a volume for receiving both a center-feed tissue paper roll and a tissue paper stack; the housing defining a volume for receiving either a center-feed tissue paper roll or a tissue paper stack;
   a first dispensing opening situated in the housing for dispensing tissue paper from a center-feed tissue paper roll; and
   a second dispensing opening situated in the housing for dispensing tissue paper sheets from a tissue paper stack.

2. The dispenser according to claim 1, wherein the first dispensing opening is substantially circular, and the second dispensing opening is substantially oblong.

3. The dispenser according to claim 1, wherein the second dispensing opening has a length and at least a width, and the first dispensing opening has a maximum dimension which is substantially shorter than the length of the second dispensing opening.

4. The dispenser according to claim 1, wherein the first dispensing opening is situated substantially in the center of a wall of the housing and the second dispensing opening is situated substantially at an edge of the wall of the housing.

5. The dispenser according to claim 1, wherein the first dispensing opening and the second dispensing opening are situated in the same wall of the housing.

6. The dispenser according to claim 1, wherein the first dispensing opening and the second dispensing opening are situated in the same plane.

7. The dispenser according to claim 1, wherein the first dispensing opening comprises at least one tearing element.

8. The dispenser according to claim 1, wherein the edges of the second dispensing opening are substantially even or smooth in order to maintain the integrity of the tissue paper sheets while dispensing.

9. The dispenser according to claim 1, wherein the second dispensing opening has a length which substantially corresponds to a width of a tissue paper sheet, or a folded tissue paper sheet, of the tissue paper stack.

10. The dispenser according to claim 1, wherein the second dispensing opening is situated such that a sheet of tissue paper can be dispensed from the tissue paper stack in a direction extending in the plane of a paper sheet of the tissue paper stack.

11. The dispenser according to claim 1, wherein the first dispensing opening and the second dispensing opening are connected to one another.

12. The dispenser according to claim 11, wherein the connection is accomplished by the provision of an insertion channel.

13. The dispenser according to claim 1, wherein the first dispensing opening is connected to an insertion channel which is open towards the outside of the housing.

14. The dispenser according to claim 1, wherein the housing comprises a cover which can be opened to access the volume defined by the housing, the cover comprising a cover section bordering to a wall which carries the first dispensing opening, and wherein an insertion channel is defined in the wall, the insertion channel extending to a border between the cover section and the wall.

15. The dispenser according to claim 1, wherein the housing has a circular, semi-elliptical or an elliptical cross-section.

16. The dispenser according to claim 1, wherein the housing is mountable to a wall via a docking system, by a positive fit, a hook and loop fastener, an adhesive, an adhesive strip, or a magnet, or a combination thereof.

17. The dispenser according to claim 1, wherein the volume of the housing is dimensioned such as to receive a tissue paper stack in an orientation such that the plane of the respective sheets of the tissue paper stack points in the dispensing direction which a center-feed tissue paper roll received in the housing would have.

18. The dispenser according to claim 1, wherein the housing comprises at least a substantially transparent or translucent material and a substantially opaque material, wherein the substantially transparent or translucent material provides a filling-level indicating window.

19. A method for dispensing paper from a dispenser according to claim 1, comprising the steps of:
   providing either a tissue paper stack or a center-feed tissue paper roll in the housing and dispensing tissue paper from:
   the center-feed tissue paper roll through the first dispensing opening; or
   the tissue paper stack through the second dispensing opening.

20. The dispenser according to claim 5, wherein the same wall of the housing in which the first dispensing opening and the second dispensing opening are situated is a bottom wall or a top wall of the housing.

* * * * *