(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 442 709 A1**

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **91301136.7**

(22) Date of filing: **12.02.91**

(51) Int. Cl.[5]: **A47K 10/36**, B26F 3/02, B65H 16/02

(30) Priority: **13.02.90 US 479403**

(43) Date of publication of application: **21.08.91 Bulletin 91/34**

(84) Designated Contracting States: **AT BE CH DE DK ES FR GB GR IT LI LU NL SE**

(71) Applicant: **SONOCO PRODUCTS COMPANY**
P.O. Box 160
Hartsville South Carolina 29550 (US)

(72) Inventor: **Wilfong, Harry B., Jr.**
104 Carrington Lane
Hartsville, South Carolina 29550 (US)
Inventor: **Haenni, Edwin W.**
103 Pine Lake
Hartsville, South Carolina 29550 (US)

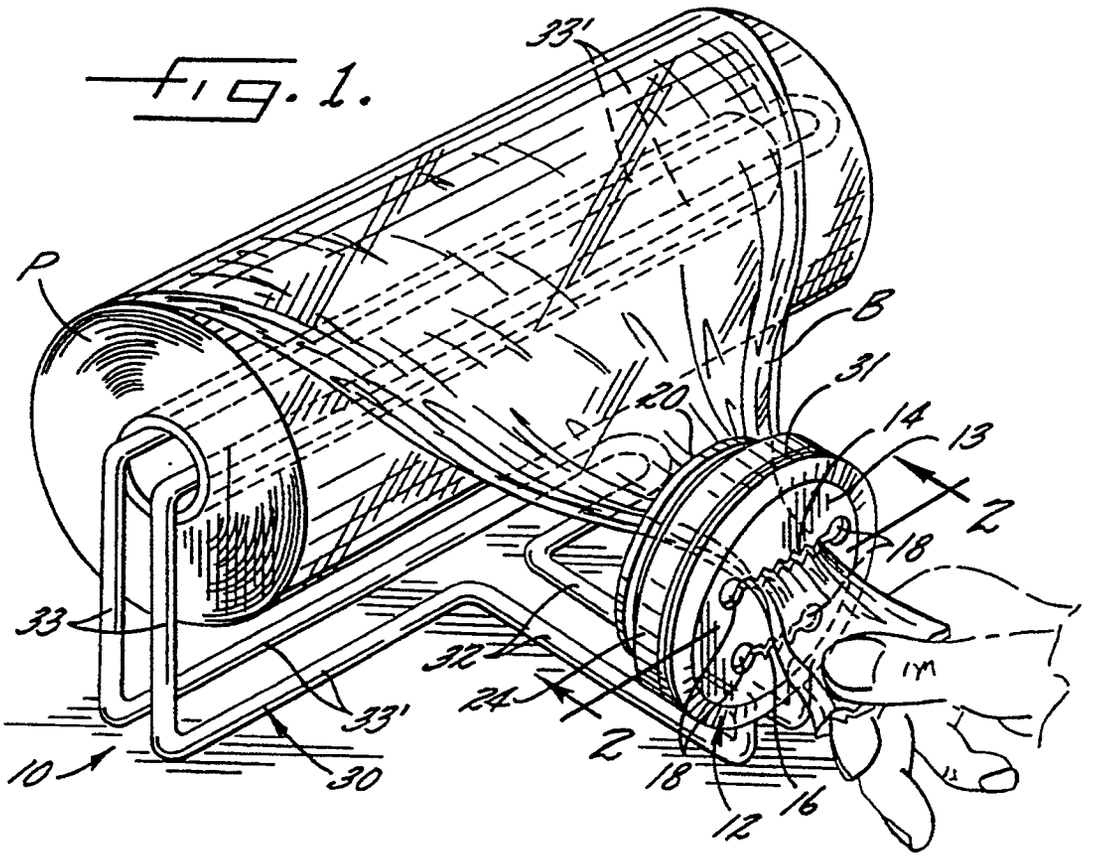
(74) Representative: **Dodd, David Michael et al**
c/o Mewburn Ellis, 2 Cursitor Street
London EC4A 1BQ (GB)

(54) **A mounting and dispensing apparatus for a cylindrical package of wound flexible plastic bags or the like.**

(57) A mounting and dispensing apparatus (10) is provided for cylindrical package (P) of wound flexible plastic bags (B) or the like which are serially joined to each other along transverse severance lines. A dispensing nozzle (12) has at least one dispensing slot (14) extending therethrough for receiving the leading bag of a package of bags and for resisting free movement of bags being pulled therethrough to facilitate severance of each consecutive bag from an immediately following bag joined thereto along the severance line. A sturdy rack (30) includes a portion (31) for carrying the nozzle (12) in a position to define a first plane, a bag package mounting portion (33) including at least one leg (33') defining a second plane extending in a direction parallel to and spaced from the first plane and being configured to removably receive and mount at least one package (P) of wound bags in an optimum position with respect to and at an optimum distance from the dispensing slot (14) in the nozzle (12) and a connecting portion (32) extending in a direction between and generally perpendicular to said first and second planes and secured at one end to the nozzle mounting portion (31) and at the other end to the bag package mounting portion (33). Provisions are made for mounting of the apparatus (10) on an upper or lower and inside or outside surface of a counter top, wall, housing or the like in a plurality of positions wherein the bag pack extends generally horizontally or vertically and either upwardly or downwardly or inwardly or outwardly of the surface.

EP 0 442 709 A1

Fig. 1.



A MOUNTING AND DISPENSING APPARATUS FOR A CYLINDRICAL PACKAGE OF WOUND FLEXIBLE PLASTIC BAGS OR THE LIKE

Field Of The Invention

This invention relates to a mounting and dispensing apparatus for a cylindrical package of wound flexible plastic bags or the like which are serially joined to each other along transverse severance lines and which includes a dispensing nozzle, a sturdy rack and means adapting the apparatus for mounting on an upper or lower and inside or outside surface of a counter top, wall, housing or the like in a plurality of positions wherein the bag pack extends generally horizontally or vertically and either upwardly or downwardly or inwardly or outwardly of the surface.

Background Of The Invention

Cylindrical packages of wound flexible plastic bags or the like which are serially joined to each other along transverse severance lines for severing each consecutive bag from an immediately following bag joined thereto along the severance line have become increasingly popular in the grocery and retail product industries. These packages of wound plastic bags are utilized at check-out counters and at various other locations throughout the grocery or retail product stores for packaging articles to be purchased by the consumer. Due to the flexible nature of these plastic bags and the natural tendency of the plastic material and, thus, the bags to cling together, consumers have found it difficult to remove and detach consecutive bags from a roll of such bags which is mounted on a conventional, simple rack wherein the leading bag of the package simply hangs down like a roll of paper towels.

To overcome this problem, the assignee of the present invention has heretofore developed what has become known in the industry as a "JAWS" dispensing nozzle for being mounted in a counter top, wall, housing or the like and for receiving and serially dispensing plastic grocery bags or the like from a tubular supply package of such bags serially joined together along perforated lines. Commonly owned **U.S. Patent 4,793,539** discloses such a dispensing nozzle which includes a dispensing slot of zig-zag configuration, together with a thread-up opening communicating with such slot and specifically illustrated in such patent as being mounted in a bore in a grocery store check-out counter top, with the bag supply package being mounted below the counter top on a conventional rack device. Commonly owned **U.S. Patent No. 4,930,385** discloses an improved dispensing nozzle of the described type, and wherein two circular threadup openings are disposed at respective opposite ends of a zig-zag dispensing slot. While these designs of bag dispensing nozzles have worked satisfactorily and have solved many of the problems of satisfactorily separating each consecutive plastic bag from the wound roll of such bags by the consumer or store personnel in the retail products and grocery industry, problems have remained with respect to providing a unitary apparatus for mounting of such bag dispensing nozzle and separate rack device so as to position the dispensing nozzle and bag package at desired locations within the stores and to correctly position the bag package with respect to the dispensing nozzle.

The assignee of the present invention has also developed several designs of tube-type dispensers for containing or storing a cylindrical package of such plastic bags and which includes the dispensing slot configuration of the earlier bag dispensing nozzles therein so as to form a self-contained bag storage and dispensing apparatus, as disclosed in commonly owned **U.S. Applications Serial Nos. 07/349,289 and 07/433,502.** However, these self-contained tubular storage and dispensing devices for plastic bags did not solve the problem of flexibility in mounting of such devices in desired locations and at desired positions throughout grocery and retail product stores.

Object And Summary Of The Invention

Accordingly, it is the object of this invention to overcome the above discussed problems and to provide a mounting and dispensing apparatus for a cylindrical package of wound flexible plastic bags or the like which may be mounted in various desired positions in various locations of grocery and retail product stores and which mounts the package of bags at an optimum position with respect to and at an optimum distance from a dispensing nozzle carried by such apparatus.

By this invention, it has been found that this object may be accomplished by providing a mounting and dispensing apparatus for a cylindrical package of wound flexible plastic bags or the like which includes generally the following.

A dispensing nozzle is provided which includes a plate. At least one elongate dispensing slot extends through the plate for receiving the leading bag of the package of bags for consecutive movement of the bags therethrough and is configured for resisting free movement of the bags being pulled therethrough to facilitate severance of each consecutive bag from an immediately following bag joined thereto along the severance line. The nozzle may include a hollow sleeve defining a central passageway for the passage of the bags therethrough integrally extends in a per-

pendicular direction from one side of the plate and is of dimensions to define a flange portion on the plate extending perpendicularly outwardly beyond the outer periphery of the sleeve. A member is removably secured to the outer periphery of the sleeve to define a flange portion on the sleeve which is spaced from the flange portion on the plate.

A sturdy rack, preferably of wire, is provided which includes a portion for carrying the nozzle in a position to define a first plane and, preferably, configured to be positioned generally around the sleeve and between the flange portions on the plate and the sleeve of the nozzle for mounting the nozzle on the rack. A bag package mounting portion comprises one leg or a plurality of connected parallel legs extending in a direction parallel to each other and defining a second plane spaced from and parallel to the first plane. This mounting portion is configured to removably receive and mount a package or packages of wound bags in an optimum position with respect to and at an optimum distance from the dispensing slot in the nozzle. A connecting portion extends in a direction between and generally perpendicular to the first and second planes and is secured at one end thereof to the nozzle mounting portion and at the other end to the bag package mounting portion.

Means form a part of the apparatus for adapting the apparatus to be mounted on an upper or lower and inside or outside surface of a counter top, wall, housing or the like in a plurality of positions wherein the bag pack extends generally horizontally or vertically and either upwardly or downwardly or inwardly or outwardly of the surface.

The rack may include a bag package mounting portion configured to removably receive and mount two packages of wound bags in parallel positions and the dispensing nozzle could include a second elongate dispensing slot therein for receiving the leading bag of the second package of bags. The rack may preferably comprise two wire members extending generally parallel in spaced relation with each other through the bag package mounting portion and the connecting portion for defining surfaces suitable for use as the means to mount the apparatus in a plurality of free standing positions and by being adapted to receive screws and washers therebetween at desired locations to secure the apparatus in a desired position. Also, the dispensing nozzle sleeve portion preferably includes an external thread and the member removably secured to the outer periphery of the sleeve to define the flange portion on the sleeve may comprise a threaded nut sized to threadingly engage the thread on the sleeve so the threaded nut and flange portion of the plate also may be used as the means for adapting the apparatus to be mounted on the surface of a counter top, wall, housing or the like when the dispensing nozzle is positioned in an aperture therethrough.

Brief Description of The Drawings

Some of the objects and advantages of this invention have been discussed broadly above, other objects and advantages will become apparent in the detailed description of preferred embodiments of this invention to follow, when taken in conjunction with the accompanying drawings, in which :

Figure 1 is a perspective view of a preferred embodiment of mounting and dispensing apparatus constructed in accordance with this invention and illustrating a wound package of flexible plastic bags mounted thereon and being dispensed therefrom and shown in a generally horizontal position ;

Figure 2 is a front elevational view, taken generally along the line 2-2 of the apparatus of Figure 1 and illustrating particularly the bag dispensing nozzle ;

Figure 3 is a sectional view of the bag dispensing nozzle of Figure 2 and taken generally along the line 3-3 of Figure 2 ;

Figure 4 is an exploded perspective view of the apparatus of Figure 1 with the package of bags removed therefrom ;

Figure 5 is a perspective view of the apparatus of Figure 1 with the wound package of bags mounted therein and being dispensed therefrom and shown in a generally vertical position ;

Figure 6 is an elevational view of the apparatus of Figure 1 shown mounted under the horizontal surface of a wall and extending downwardly therefrom in a generally horizontal position ;

Figure 7 is an elevational view of the apparatus of Figure 1 shown mounted on a vertical surface of a wall and extending outwardly therefrom in a generally vertical position ;

Figure 8 is an elevational view of the apparatus of Figure 1 shown mounted on a vertical surface of a wall and extending outwardly therefrom in a generally horizontal position ;

Figure 9 is an elevational view of the apparatus of Figure 1 mounted with the dispensing nozzle extending through the aperture of a wall and with the apparatus extending upwardly from the wall in a generally horizontal position for dispensing of the bags downwardly of the wall ;

Figure 10 is a perspective of the apparatus of Figure 1 mounted within a box-like housing having a door and with the dispensing nozzle extending through and mounted in the aperture of a vertical wall ;

Figure 11 is a perspective view of the apparatus of Figure 1 with the dispensing nozzle mounted through an aperture in a check-out counter top and with the rack extending downwardly from the counter top in a generally horizontal position for dispensing of the bags upwardly of the counter

top ;
Figure 12 is a sectional view taken generally along the line 12-12 of Figure 11 ;
Figure 13 is an elevational view, partly in section, illustrating two apparatuses of Figure 1 mounted within a housing and having one of the apparatuses mounted with the dispensing nozzle extending through an aperture in a vertically extending wall and with the apparatus in a generally horizontal position and with the second apparatus mounted on an upper horizontal wall of the housing and with the apparatus extending downwardly in a generally horizontal position and with the bags of the second apparatus extending through and being dispensed from the nozzle of the first apparatus ;
Figure 14 is a perspective view of a second embodiment of a wire rack constructed with a bag package mounting portion of generally block W-shaped configuration for receiving and mounting two packages of wound plastic bags ;
Figure 15 is an elevational view of a mounting and dispensing apparatus utilizing the second embodiment of a wire rack illustrated in Figure 14 and with the nozzle thereof mounted in an aperture of a counter top or horizontally extending wall and having the wire rack extending below such counter top in a generally horizontal position for dispensing of the bags upwardly from the upper surface of the counter top ;
Figure 16 is a perspective view of a third embodiment of a wire rack constructed with a bag package mounting portion of generally block U-shaped configuration for receiving and mounting two packages of wound plastic bags ;
Figure 17 is an elevational view of a mounting and dispensing apparatus utilizing the third embodiment of a wire rack illustrated in Figure 16 and with the nozzle thereof mounted in an aperture of a counter top or horizontally extending wall and having the wire rack extending below such counter top in a generally horizontal position for dispensing of the bags upwardly from the upper surface of the counter top ; and
Figure 18 is a perpendicular view of a fourth embodiment of a wire rack constructed with a bag package mounting portion having a single leg for receiving and mounting a single package of wound plastic bags.

Detailed Description Of Preferred Embodiments Of The Invention

Referring now to the drawings, there are disclosed several preferred embodiments of the mounting and dispensing apparatus, generally indicated at **10**, of this invention for a cylindrical package **P** of wound flexible plastic bags **B** which are serially joined to each other along transverse severance lines in a manner well understood by those with ordinary skill in the art. It is to be understood that other embodiments of the apparatus could be constructed utilizing the novel features described herein.

Referring firstly to Figures 1-5 of the drawings, the mounting and dispensing apparatus **10** for a cylindrical package **P** of wound flexible plastic bags **B** includes the following.

A dispensing nozzle **12** includes a generally flat plate **13**. At least one elongate dispensing slot **14** extends through the plate **13** for receiving the leading bag **B** of the package **P** for consecutive movement of the bags **B** therethrough (Figures 1 and 5) and is configured for resisting free movement of the bags being pulled therethrough to facilitate severance of each consecutive bag **B** from an immediately following bag **B** joined together along severance lines. Preferably, the dispensing slot **14** of the nozzle **12** is of zig-zag configuration along its length and defines opposing spaced apart side edges **14'**, **14"**, of saw tooth-like configuration and such that each side edge comprises alternating V-shaped projections and recesses and with the projections on each side edge being laterally aligned with the recesses on the opposite side edge, as disclosed more fully in commonly assigned application **07/331,962**. A second elongate dispensing slot **16** may be provided for extending through the plate **13** and which is configured like the first dispensing slot **14**, except that it may be of shorter length for accommodating a narrower package **P** of bags **B**. While all of the bag dispensing nozzles **12** illustrated in the drawings include two dispensing slots **14, 16,** it should be understood that such dispensing nozzles **12** could include only one of the dispensing slots **14, 16.**

The dispensing nozzle **12** may also include a thread-up opening **18** having at least a portion of generally circular configuration and extending through the plate **13** and communicating with the dispensing slot **14, 16** and being of a size to permit the free end of the leading bag **B** of the package **P** to be manually threaded therethrough and such that the bag may then be moved into the dispensing slot **14, 16.** Such thread-up openings **18** may communicate with one or both of the ends of the dispensing slot **14, 16** (as more fully disclosed in commonly owned application **07/331,962**) or may communicate with a central portion of the dispensing slot **14, 16** (as disclosed in commonly owned **U.S. Patent 4,793,539**). The circular portion of the thread-up openings **18** are preferably of a diameter greater than the lateral distance between opposing side edges **14'**, **14"** or **16'**, **16"** of the dispensing slots **14, 16.**

The dispensing nozzle **12** may include a hollow sleeve **20** defining a central passageway **21** for the passage of the bags **B** therethrough and integrally extending in a perpendicular direction from one side

of the plate **13** and being of dimensions to define a flange portion **22** on the plate **13** extending perpendicularly outwardly beyond the outer periphery of the sleeve (Figure 3). A member **24** is removably secured to the outer periphery of the sleeve **20** to define a flange portion on the sleeve which is spaced from the flange portion **22** of the plate **13** (Figure 3).

Preferably, the plate **13** of the dispensing nozzle **12** is of circular outline and the sleeve **20** is of tubular configuration. The sleeve **20** preferably includes an external thread **20'** and the member **24** preferably comprises a threaded nut sized to threadingly engage the thread **20'** on the sleeve **20** so that the threaded nut **24** may be removed from and adjustably positioned on the sleeve **20.**

The bag package mounting and dispensing apparatus **10** further includes a sturdy rack **30.** This rack **30** is preferably constructed of wire material, such as 5/16" wire, for providing the sturdy construction, as shown in the drawings hereof. However, the rack **30** may also be constructed of other materials, such as elongate metal bars or plates suitably bent or welded together to form the desired construction, plastic or other sturdy materials. The rack **30** includes a portion **31** for carrying the nozzle **12** in a position to define a first plane (Figures 1 and 5). This nozzle carrying portion **31** may simply have the plate **13** of the dispensing nozzle secured thereto or formed integrally therein, or, in the case of use of a dispensing nozzle **12** having a sleeve **20** (as described above), the nozzle carrying portion **31** would be configured to be positioned generally around the sleeve **20** and between the flanged portions **22, 24** on the plate **13** and the sleeve **20** of the nozzle **12** for mounting of the nozzle **12** on the rack **30** in the position to define the first plane.

The rack **30** further includes a bag package mounting portion **33** comprising a plurality of connected parallel legs **33'** extending in a direction parallel to each other and spaced from the first plane and, preferably, the legs **33'** of the bag package mounting portion **33** define a second plane which is parallel to the first plane of the nozzle carrying portion **31** (Figures 1, 5, 14 and 16). The bag package mounting portion **33** is configured to removably receive and mount one or more packages **P** of wound bags **B** in an optimum position with respect to and an optimum distance from the dispensing slot **14, 16,** in the dispensing nozzle **12.** The rack **30** further includes a connecting portion **32** secured at one end thereof to the nozzle carrying portion **31** and at the other end to the bag package mounting portion **33** and preferably, extending in a direction between and perpendicular to the first and second planes.

Preferably, the rack **30** may comprise two wire members extending generally parallel in spaced relation with each other through the bag package mounting portion **33** and the connecting portion **32.** In the nozzle mounting portion **31,** the wire member comprises generally an arcuate curved segment which defines the first plane and is configured to be positioned around the sleeve **20** and between the flanged portions **22, 24** on the plate **13** and the sleeve **20** of the nozzle **12,** as discussed above. The wire members forming each of the portions **31, 32, 33** may comprise integral extensions of the same member bent into desired configurations, as shown in the drawings, or may comprise separate members welded together or otherwise joined at desired connecting points.

As shown in Figures 1-5, the bag package mounting portion **33** of the rack **30** is of a generally block U-shaped configuration wherein the connecting portion **32** extends from generally the center of one of the outside legs **33'** of the U-shaped bag package mounting portion **33** and the other outside leg of the U-shaped bag package mounting portion **33** is adapted to receive a package **P** of bags **B** (Figures 1 and 5).

As an alternative, the connecting portion **32** may extend from generally the center or connecting leg of the U-shaped bag package mounting portion 33 so that each of the outer legs of **33'** the bag package mounting portion **33** may receive and mount packages **P** of bags **B** (Figures 16 and 17). Also, the bag package mounting portion **33** may be of generally block W-shaped configuration (Figure 14) and the connecting portion **32** could extend from one of the outer legs **33'** of the W-shaped bag package mounting portion **33** so that the other two parallel legs of the W-shaped bag package mounting portion are adapted to receive packages **P** of bags **B** (Figures 14 and 15). As a further alternative (Figure 18), the bag package mounting portion **33** of the rack **30** may comprise a single leg **33'** and the connecting portion **32** would be connected at one end thereof to one end of the leg **33'** so as to adapt the bag package mounting portion **33** of this embodiment to receive and mount a single package **P** of wound bags **B.**

With all of the above described arrangements of mounting and dispensing apparatus **10,** the packages **P** of bags **B** are preferably mounted in a generally parallel relationship to the dispensing slots **14, 16** of the dispensing nozzle **12** and at optimum distances therefrom to facilitate separation of the bags at the severance lines by the resistance provided by the dispensing slots **14, 16** in the nozzle **12.** The spacing of the wire members in the wire rack **30** are such that the package **P** of wound bags **B** is removably held on the bag package mounting portion **33,** and various widths of packages **P** of bags **B** may be accommodated and held in desired position with respect to the dispensing nozzle **12.**

The bag package mounting and dispensing apparatus **10** further includes means forming a part of the apparatus **10** or rack **30** adapting the apparatus **10** or rack **30** to be mounted on an upper or lower and inside or outside surface of a counter top, wall, hous-

ing or the like in a plurality of positions wherein the bag pack **P** extends generally horizontally or vertically and either upwardly or downwardly or inwardly or outwardly of the surface (Figures 1, 5, 6-13, 15 and 17).

This mounting means may comprise, firstly, surfaces formed by the spaced two-wire construction of the rack **30** wherein the two-wire members extend generally parallel in spaced relation with each other through the bag package mounting portion **33** and the connecting portion **32** so as to adapt the wire rack **30** to being positioned (Figure 1) on a surface wherein the connecting portion **32** and the leg **33'** of the bag package mounting portion **33** which is connected to the connecting portion **32** are resting on the top of a surface with the package **P** of bags **B** extending upwardly therefrom and generally horizontally. Also, the rack **30** may be positioned on a surface (Figure 5) such that the connecting leg of the U-shaped bag package mounting portion **33** is resting thereon with the leg of the mounting portion **33'** receiving the package **P** of bags **B** extending upwardly therefrom to position the package **P** of bags **B** in a generally vertical orientation. The wire rack **33** may be free standing in these positions or screws and washers may be utilized such that the screw extends between the two-wire members and into the surface for securing the rack **30** in position.

As shown in Figure 6, the rack **30** of the apparatus **10** is mounted on the under horizontal surface of a wall and extends downwardly therefrom to position the package **P** of bags **B** in a generally horizontal position. The rack **30** is mounted to the surface of the wall by screws and washers **S**. As shown in Figures 7 and 8, the rack **30** is shown mounted on a vertical surface of a wall and extends outwardly therefrom. In Figure 7, the package **P** of bags **B** is in a generally vertical position and in Figure 8 the package **P** of bags **B** is in a generally horizontal position. The rack **30** in both Figures 7 and 8 is secured to the surface of the wall by screws and washers **S**.

Referring now to Figure 9, the apparatus **10** is mounted with the dispensing nozzle **12** extending through an aperture of a wall and with the apparatus **10** extending upwardly from the wall and having the package **P** of bags **B** in a generally horizontal position for dispensing of the bags downwardly of the wall. In this mounting arrangement, the flange **22** of the plate **13** and the flange formed by the threaded member **24** receive the wall therebetween to mount the apparatus **10**.

In Figure **10**, the apparatus **10** is mounted within a box-like housing having a door and with the dispensing nozzle **12** extending through and mounted in an aperture of a vertical wall of the box-like housing to produce a self-contained device **10** which may be conveniently moved and located at any desired location within a retail or grocery store.

Referring now to Figures 11 and 12 the apparatus **10** of this invention is mounted with the dispensing nozzle **12** mounted through an aperture in a check-out counter top and with the rack **30** extending downwardly from the counter top and positioning the package **P** of bags **B** in a generally horizontal position for dispensing of the bags **B** upwardly of the counter top. In this embodiment, the counter top is held within the nozzle **12** in the manner described above with respect to Figure 9.

In Figure 13, two apparatuses **10** in accordance with this invention are mounted within a housing having one of the apparatuses **10** mounted with the dispensing nozzle **12** extending through an aperture in a vertically extending wall or housing and with the rack **30** extending rearwardly from such wall and mounting the package **P** of bags **B** in a generally horizontal position. The second apparatus **10** is mounted behind the first apparatus **10** on the inside surface of an upper horizontal wall of the housing and with the rack **30** extending downwardly therefrom to position the package **P** of bags **B** in a generally horizontal position. The second apparatus **10** has the dispensing nozzle **12** removed therefrom and the bags **B** from the package **P** carried by this second apparatus **10** extend through the second dispensing slot in the nozzle **12** of the first apparatus **10**.

With respect to Figures 14 and 15, there is shown an apparatus **10** having the second embodiment of rack **30** of this invention having a bag package mounting portion **33** of the generally W-shaped configuration for receiving and mounting two packages **P** of bags **B**. The dispensing nozzle **12** of this second embodiment of apparatus **10** is mounted in an aperture of a counter top or horizontally extending wall and has the block W-shaped wire rack **30** extending below such counter top and with the two packages **P** of bags **B** in generally horizontal positions for dispensing of bags **B** upwardly from the upper surface of the counter top and through the two dispensing slots **14, 16** in the nozzle **12**.

Referring now to Figures 16 and 17, there is shown an apparatus 10 having the third embodiment of a rack **30** with a bag mounting portion **33** of the type shown in Figure 16 which utilizes a generally block U-shaped bag package mounting portion **33** for receiving two packages **P** of bags **B** and wherein the dispensing nozzle **12** is mounted in an aperture of a counter top or horizontally extending wall and has the wire rack **30** extending below such counter top and with the two packages **P** of bags **B** in generally horizontal positions for dispensing of the bags upwardly from the upper surface of the counter top through both dispensing slot **14, 16** of the nozzle **12**.

Thus, the present invention has provided a mounting and dispensing apparatus **10** for a cylindrical package **P** of wound flexible plastic bags **B** or the like which is constructed to removably receive one or two packages **P** of bags **B** and to mount such pack-

ages **P** of bags **B** at optimum positions with respect to at optimum distances from a dispensing slot or slots **14, 16** in a dispensing nozzle **12.** The apparatus **10** includes means forming a part of the apparatus **10** for adapting the apparatus **10** to be mounted on an upper or lower and inside or outside surface of a counter top, wall, housing or the like in a plurality of positions wherein the bag pack **P** extends generally horizontally or vertically and either upwardly or downwardly or inwardly or outwardly of the surface.

Although specific preferred embodiments have been illustrated and described and specific terms have been utilized in the description of such preferred embodiments, it is to be understood that other preferred embodiments could be constructed in accordance with this invention. Likewise, the terms and descriptions used herein are used in a generic and descriptive sense only and not for purposes and limitation. The scope of the invention is defined in the following claims.

Claims

1. An apparatus for mounting a tubular package of bags which are joined along perforated severance lines and for dispensing the bags from the package, and comprising
   a dispensing nozzle comprising a tubular sleeve, a plate overlying and secured to one end of said sleeve, and at least one elongate dispensing slot extending through said plate, with said slot being configured for resisting the free movement of bags therethrough, and
   a sturdy rack formed of a rod-like material and supporting said dispensing nozzle and comprising
      (a) a bag package mounting portion which comprises at least one linear leg having a free end so as to be adapted to receive a tubular package of bags coaxially thereupon,
      (b) a nozzle carrying portion which is arcuately curved in the form of at least a major portion of a circle and which closely surrounds at least a major portion of the circumference of said tubular sleeve, and
      (c) a connecting portion interconnecting said bag package mounting portion and said nozzle carrying portion.

2. A mounting and dispensing apparatus, as set forth in Claim 1, wherein said dispensing slot of said nozzle is positioned generally parallel with said linear leg of said rack and is of zig-zag configuration along its length and defines opposing spaced-apart side edges of sawtooth-like configuration, and such that each side edge comprises alternating V-shaped projections and recesses, and with the projections on each side edge being laterally aligned with the recesses of the opposite side edge.

3. A mounting and dispensing apparatus, as set forth in Claim 2, wherein said dispensing nozzle further includes a thread-up opening having at least a portion of generally circular configuration and extending through said plate and communicating with said dispensing slot and being of a size to permit the free end of the leading bag of the package of bags to be manually threaded therethrough and such that the bag may then be moved into said dispensing slot.

4. A mounting and dispensing apparatus, as set forth in Claim 3, wherein said circular portion of said thread-up opening has a diameter greater than the lateral distance between said opposing side edges of said dispensing slot.

5. A mounting and dispensing apparatus, as set forth in Claim 3, wherein said dispensing nozzle includes a second thread-up opening extending through said plate and being of the same configuration as said first thread-up opening, and wherein said respective thread-up openings communicate with respective opposite ends of said dispensing slot.

6. A mounting and dispensing apparatus, as set forth in Claim 1, wherein said plate of said dispensing nozzle is of circular outline and has a diameter greater than that of said sleeve of said dispensing nozzle to define a circumferential flange.

7. A mounting and dispensing apparatus, as set forth in Claim 6, wherein said sleeve of said dispensing nozzle includes an external thread ; and further comprising means for securing said nozzle carrying portion to said sleeve and comprising a threaded nut sized to threadingly engage said thread on said sleeve, and whereby said threaded nut and said flange on said plate may be used as means for adapting said apparatus to be mounted on the surface of a counter top, wall, housing or the like when said dispensing nozzle is positioned in an aperture therethrough.

8. A mounting and dispensing apparatus, as set forth in Claim 1 or 7 wherein said dispensing nozzle includes a second elongate dispensing slot extending through said plate and being parallel with and spaced from said first dispensing slot for receiving the leading bag of a second package of bags for consecutive movement of the

bags therethrough and being configured generally like said first dispensing slot for resisting free movement of bags being pulled therethrough to facilitate severance of each consecutive bag from an immediately following bag joined thereto along a severance line.

9. A mounting and dispensing apparatus, as set forth in Claim 8, wherein said bag package mounting portion of said rack further comprises a second linear leg which is parallel to said first-mentioned linear leg and which has a free end so as to be adapted to receive a second tubular package of bags coaxially thereupon.

10. Mounting and dispensing apparatus, as set forth in Claim 8, wherein said second dispensing slot is of a length less than the length of said first dispensing slot for accommodating bags of less width.

11. Mounting and dispensing apparatus, as set forth in Claim 1, wherein said rack comprises two wire-like members extending generally parallel in spaced relation with each other for defining surfaces suitable for use as means to mount said apparatus in a plurality of free standing positions and by being adapted to receive screws and washers therebetween at desired locations to secure said apparatus in a desired position.

12. A mounting and dispensing apparatus, as set forth in Claim 1, wherein said bag package mounting portion of said rack comprises a generally block U-shaped configuration.

13. A mounting and dispensing apparatus, as set forth in Claim 1, wherein said bag package mounting portion of said rack comprises a generally block W-shaped configuration.

14. A mounting and dispensing apparatus, as set forth in Claim 1, wherein said rack comprises generally 5/16" wire.

15. A sturdy rack formed of a rod-like material and being adapted to receive and mount a tubular package of bags, and comprising
a bag package mounting portion which comprises at least one linear leg having a free end so as to be adapted to receive a tubular package of bags coaxially thereupon,
a nozzle carrying portion which is arcuately curved in the form of at least a major portion of a circle and with said nozzle carrying portion being positioned at a medial location along the length of said one linear leg and defining a plane which is parallel to and laterally spaced from said one linear leg, and
a connecting portion interconnecting said bag package mounting portion and said nozzle carrying portion.

16. A sturdy rack, as set forth in Claim 15, wherein said bag package mounting portion comprises a plurality of interconnected and parallel linear legs.

17. A sturdy rack, as set forth in Claim 15, wherein said bag mounting portion comprises one leg.

18. A sturdy rack, as set forth in Claim 15, 16 or 17 wherein said rack comprises two wire-like members extending generally parallel in spaced relation with each other for defining surfaces suitable for use as means to mount said rack in a plurality of free-standing positions and by being adapted to receive screws and washers therebetween at desired locations to secure said rack in a desired position.

19. The sturdy rack as set forth in Claim 15 wherein said bag package mounting portion further comprises a second linear leg which is parallel to and laterally spaced from said first mentioned leg and which is connected to said first mentioned leg by a connecting leg which extends perpendicularly therebetween.

20. The sturdy rack as set forth in Claim 19 wherein said connecting portion is joined to said second linear leg and extends perpendicularly between said second linear leg and said nozzle carrying portion.

21. The sturdy rack as set forth in Claim 19 wherein said connecting portion is joined to said connecting leg and extends perpendicularly between said connecting leg and said nozzle carrying portion.

22. The sturdy rack as set forth in Claim 15 wherein said bag package mounting portion further comprises a second linear leg and a third linear leg which are each parallel to and laterally spaced from said first mentioned leg, and with said first, second an third linear legs being coplanar and being interconnected by a connecting leg which extends perpendicularly therebetween.

23. The sturdy rack as set forth in Claim 22 wherein said connecting portion is joined to and extends perpendicularly between one of said second and third linear legs and said nozzle carrying portion, and wherein the other of said second and third linear legs having a free end so as to be adapted to receive a second tubular package of bags coaxially thereon.

24. The sturdy rack as set forth in Claim 15 wherein said nozzle carrying portion further comprises a single linear leg, and wherein said connecting portion is joined to the end thereof which is opposite said free end and extends perpendicularly between said single linear leg and said nozzle carrying portion.

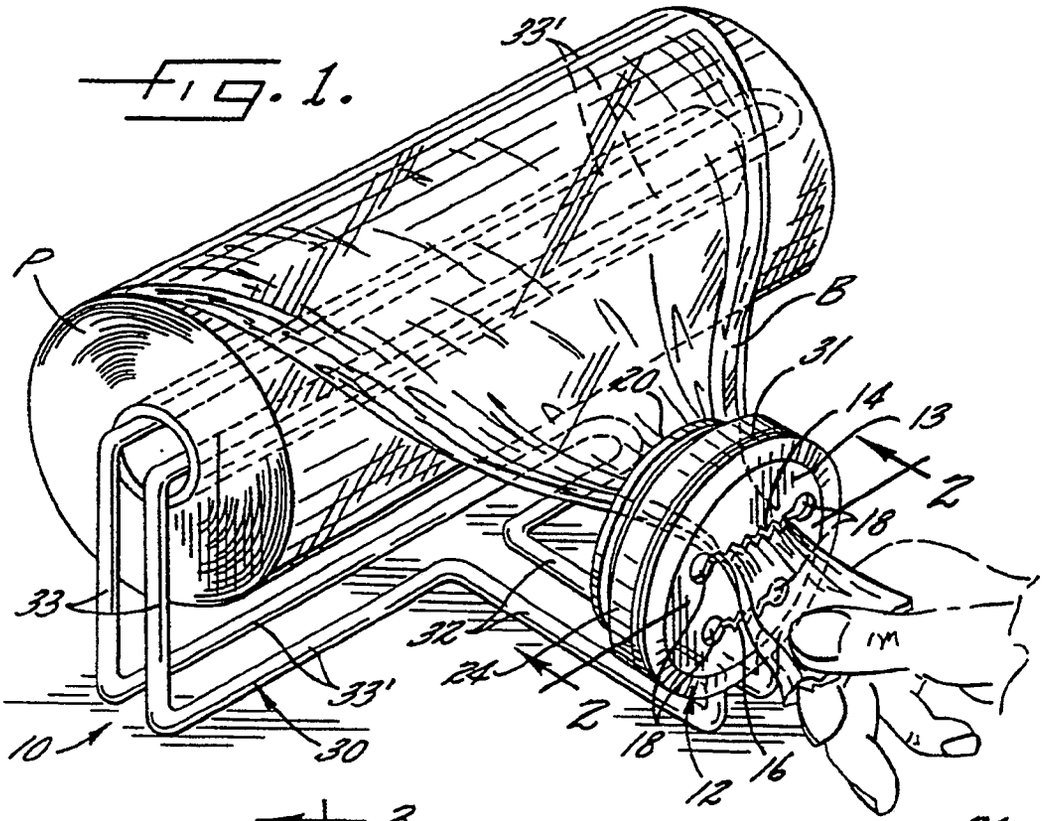


Fig. 1.

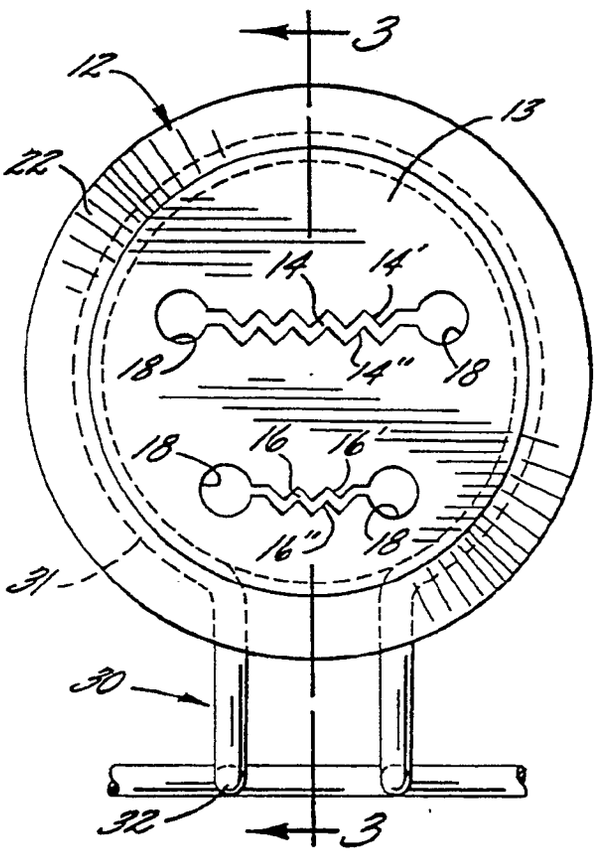


Fig. 2.

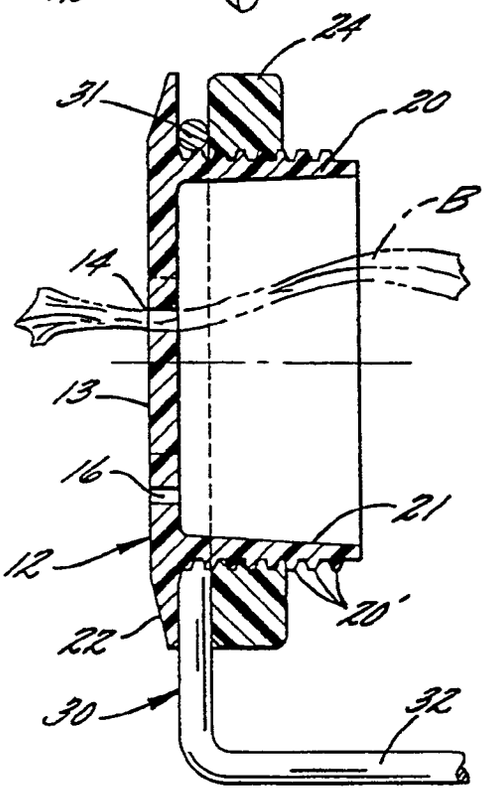


Fig. 3.

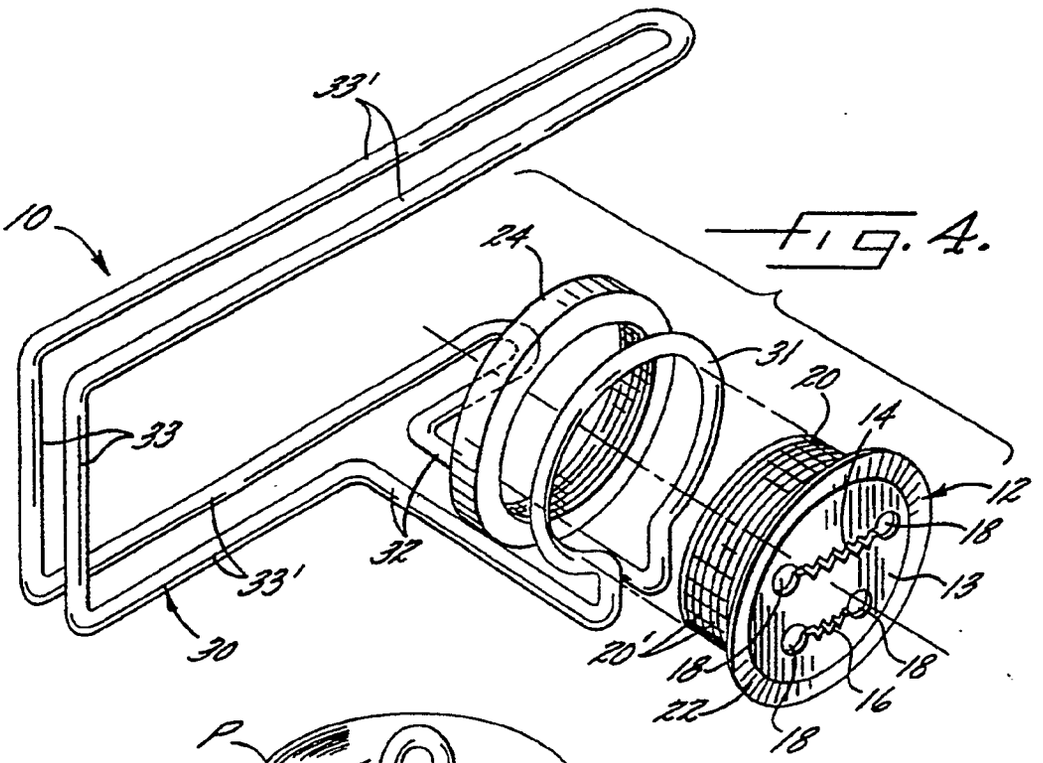

331'
10
24
31
20
14
12
33
18
32
13
331'
30
20'
18
18
16
22
18

Fig. 4.

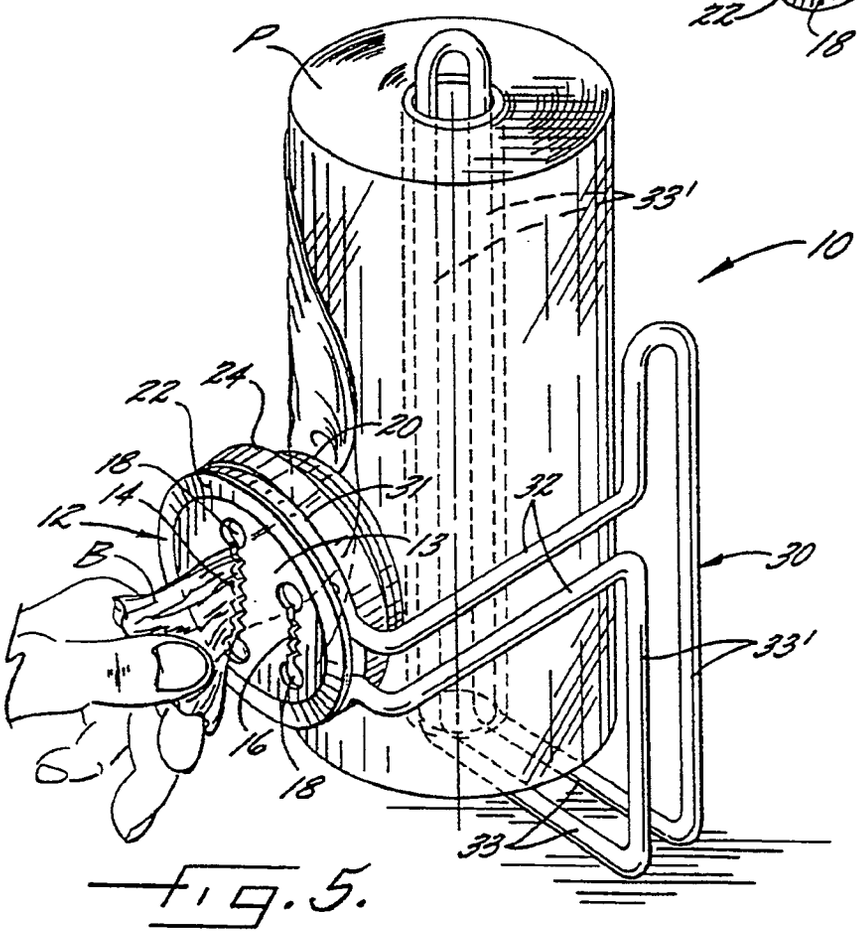

P
331'
10
22
24
20
18
31'
32
14
12
13
B
30
331'
16
18
33

Fig. 5.

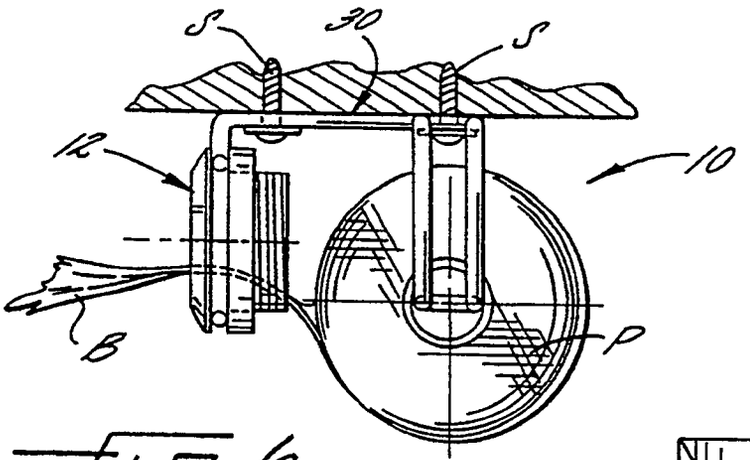


FIG. 6.

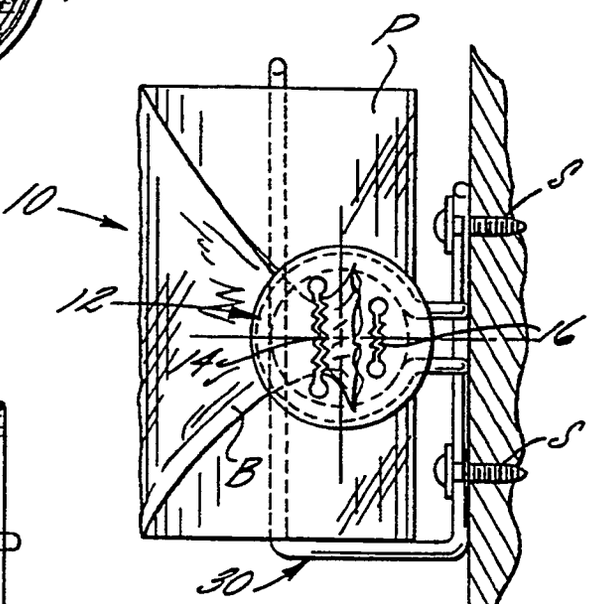


FIG. 7.

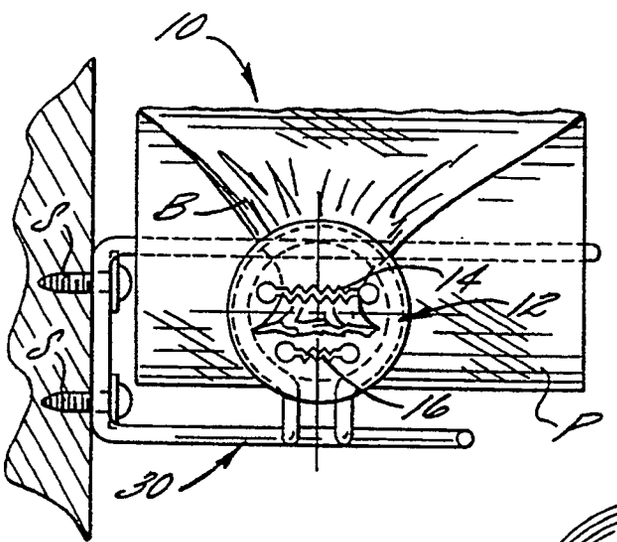


FIG. 8.

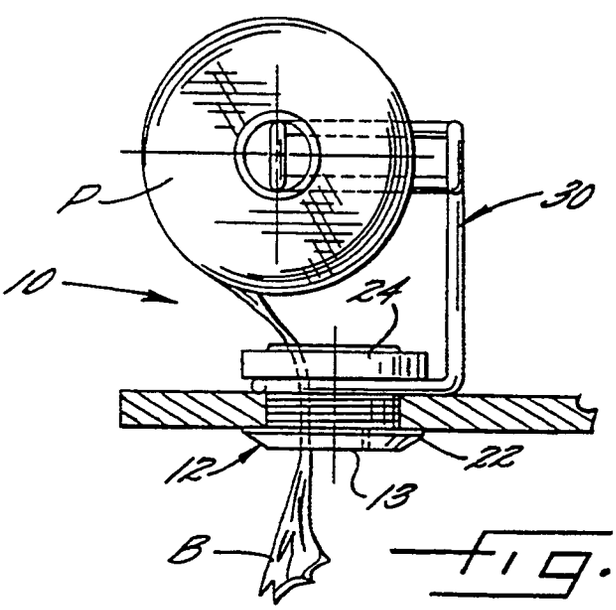


FIG. 9.

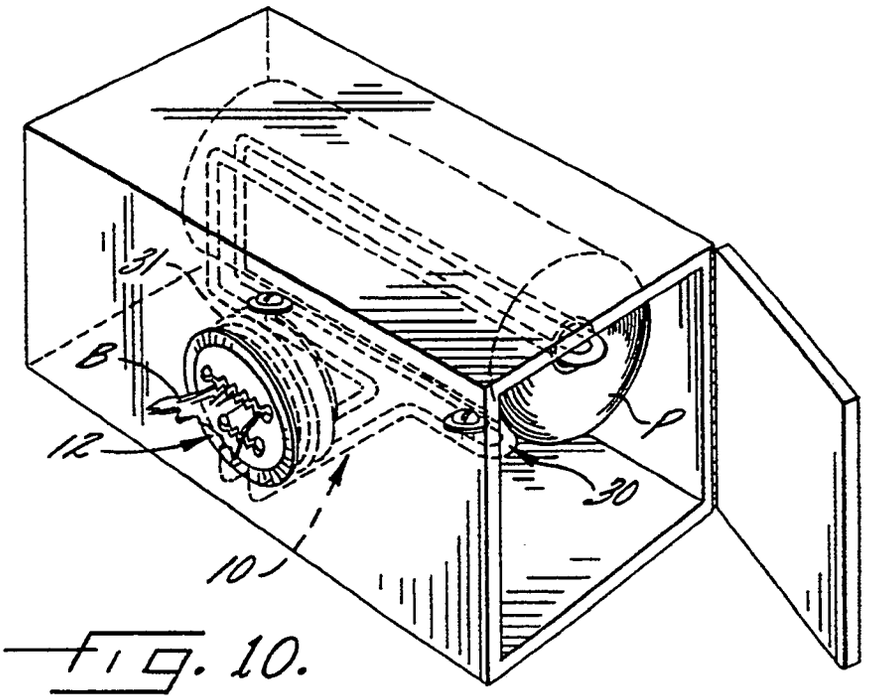


Fig. 10.

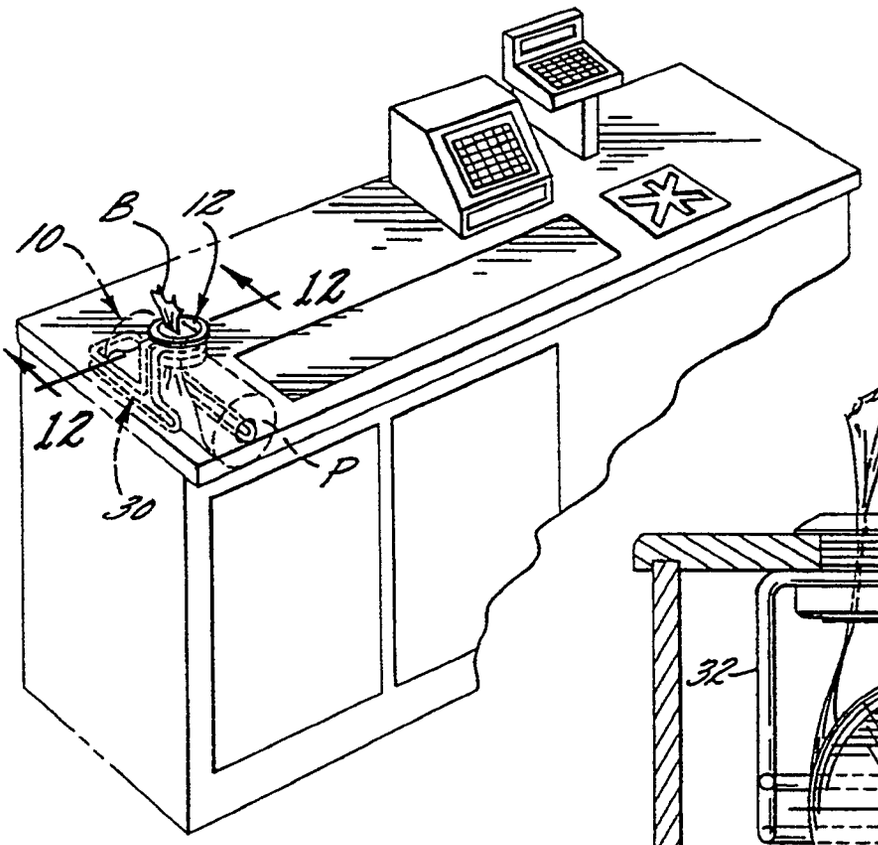


Fig. 11.

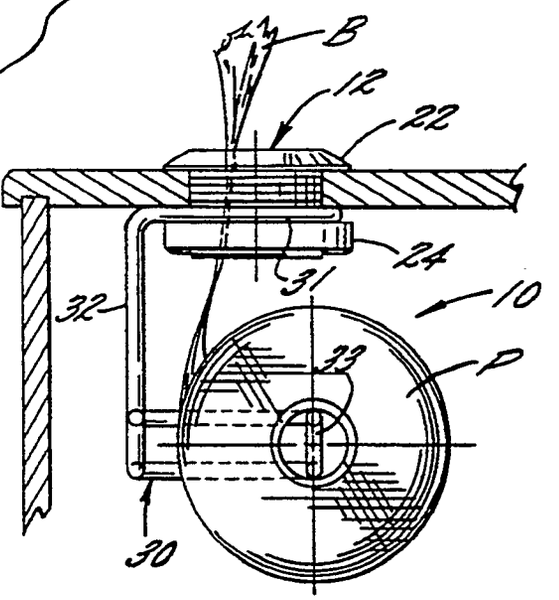


Fig. 12.

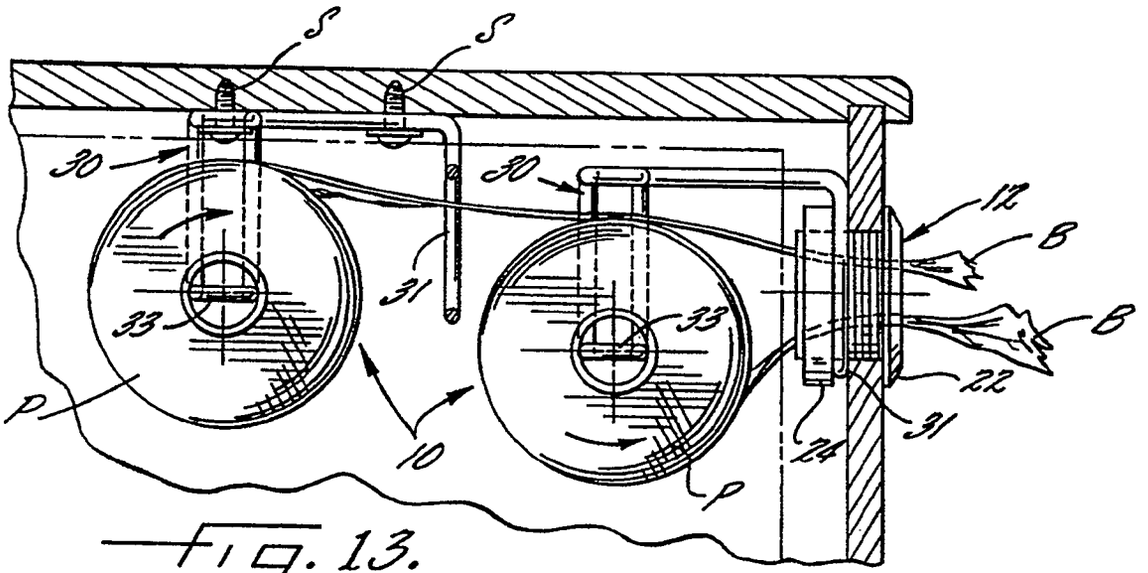


FIG. 13.

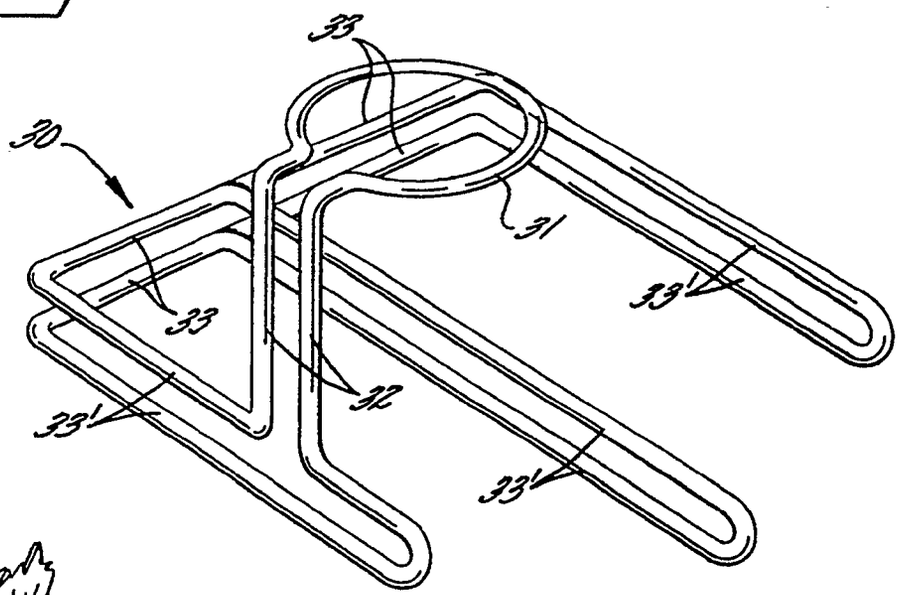


FIG. 14.

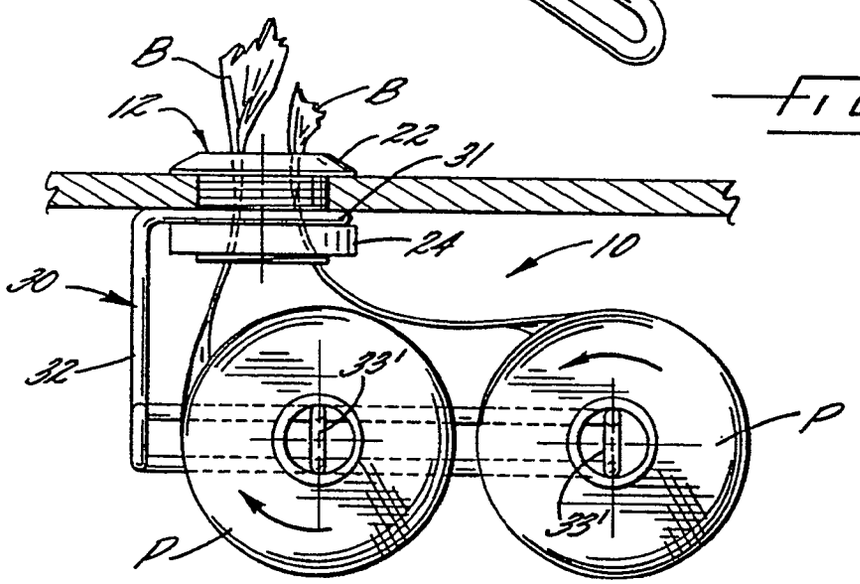


FIG. 15.

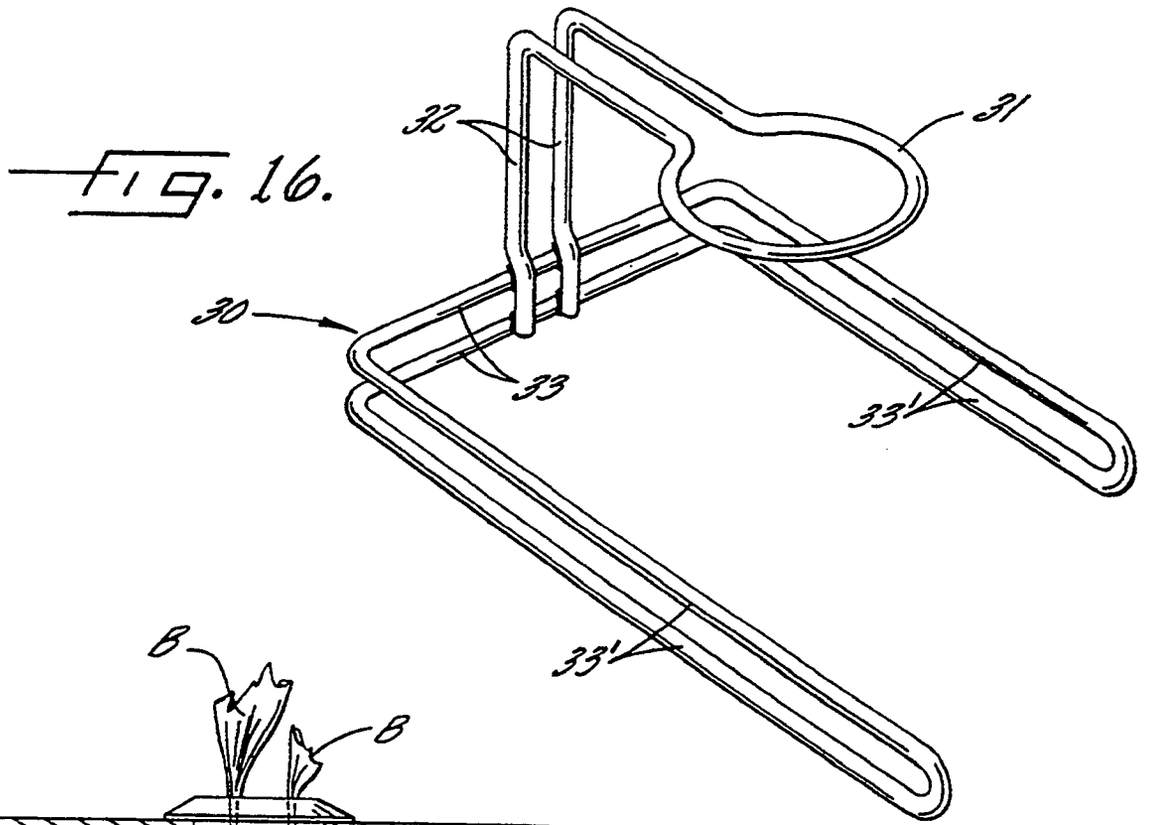


Fig. 16.

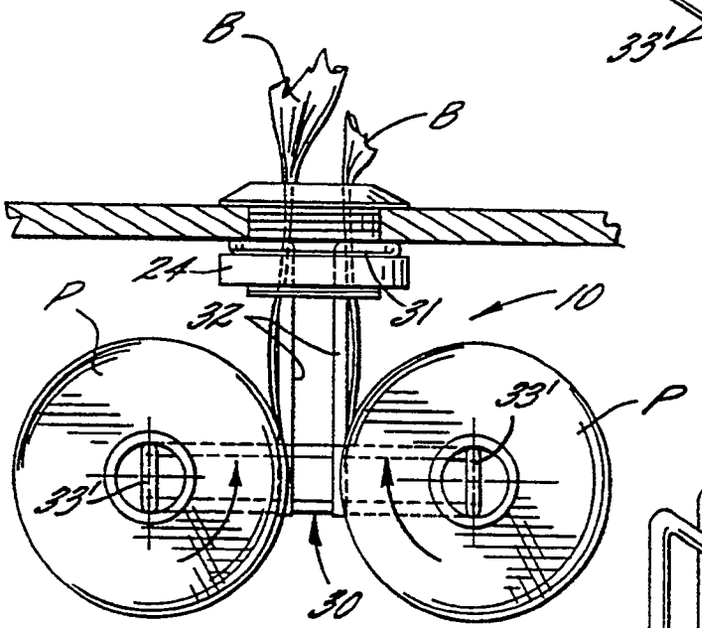


Fig. 17.

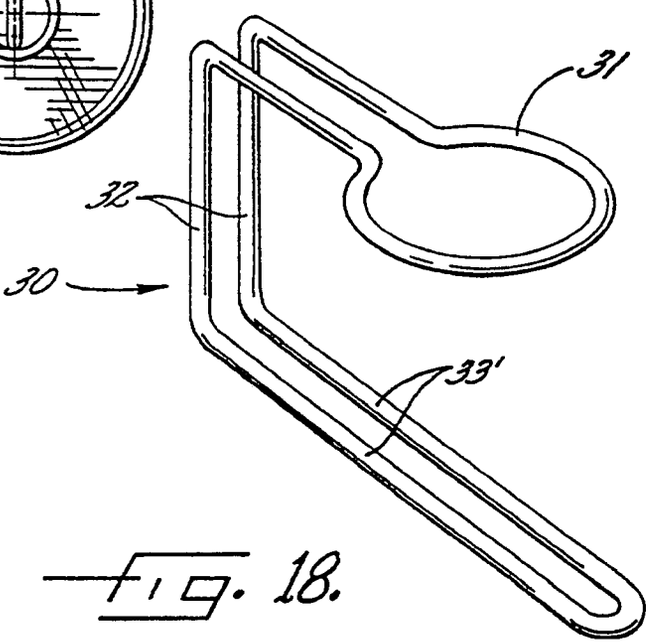


Fig. 18.

European Patent Office

EUROPEAN SEARCH REPORT

Application Number EP 91301136.7

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
D,P, A	US - A - 4 930 385 (WILFONG, JR. et al.) * Detailed description of the invention; claims 1-11; fig. 1-4 * --	1-8,10	A 47 K 10/36 B 26 F 3/02 B 65 H 16/02
D,A	US - A - 4 793 539 (HAENNI et al.) * Detailed description of the invention; fig. 1,3,4-7 * --	1-3,6	
A	AT - B - 348 714 (TURK & BOLTE) * Fig. 1,2 * --	1,12	
A	US - A - 3 841 576 (FARRER) * Fig. 1-4 * --	1,12	
A	GB - A - 2 054 518 (D. DECONINCK) * Fig. 1-6 * --	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	DE - C - 498 567 (V. MAGNUSSENS PAPIRINDUSTRII A/S) * Fig. 1 * ----	1	A 47 K B 26 F B 65 H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
VIENNA	14-05-1991	ROUSSARIAN

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P0401)