July 18, 1939. H. FREDD 2,166,349

DEVICE FOR DISPENSING WEB MATERIAL

Filed March 29, 1938

Fig. 1.

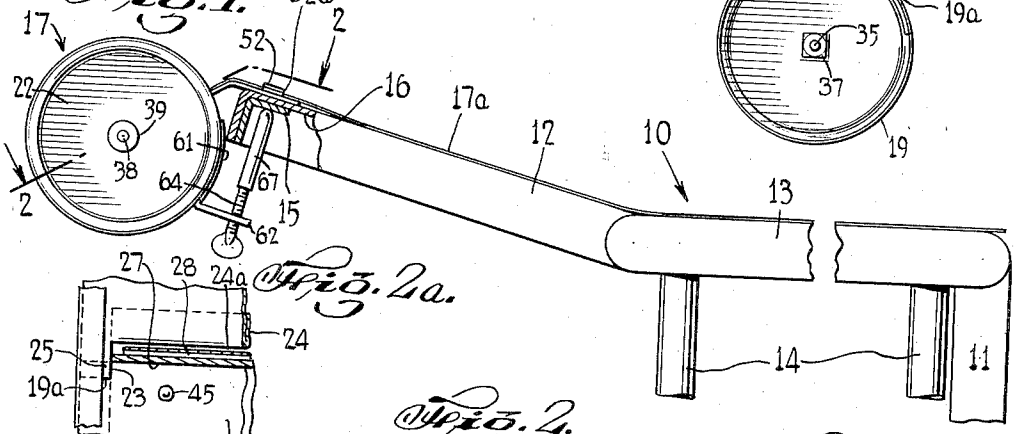


Fig. 4.

Fig. 2a.

Fig. 2.

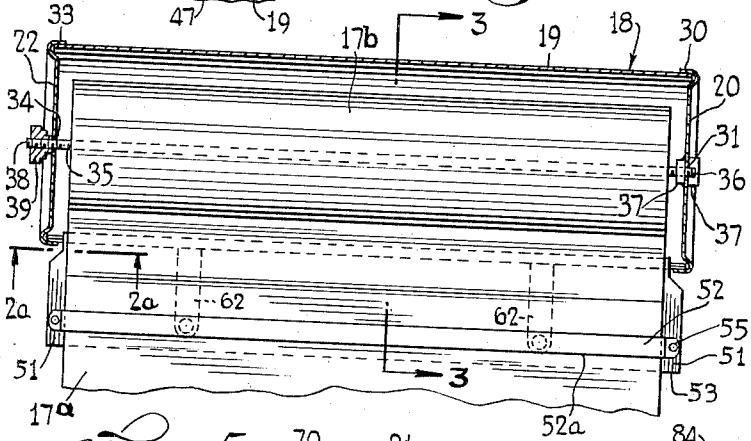


Fig. 3.

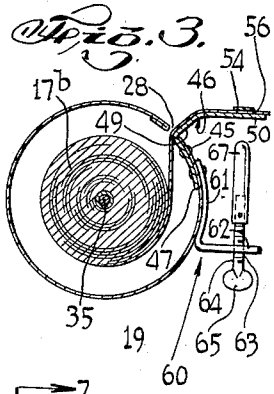


Fig. 5.

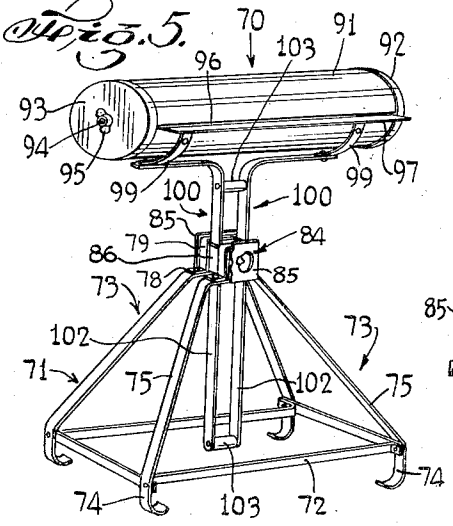


Fig. 6.

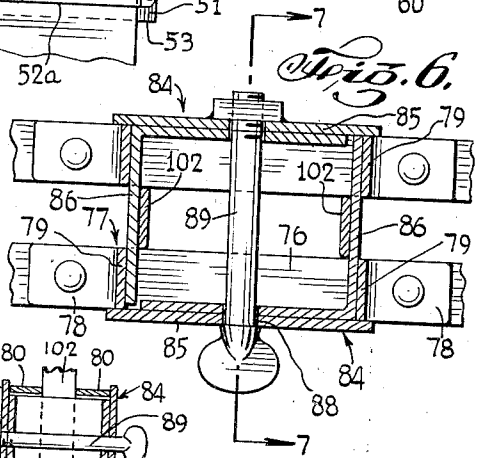
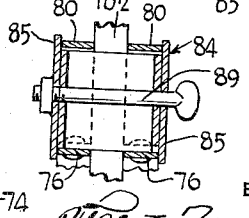


Fig. 7.



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DEVICE FOR DISPENSING WEB MATERIAL

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Application March 29, 1938, Serial No. 198,710

5 Claims. (Cl. 242—55.5)

This invention relates to devices for dispensing web material from rolls of such material. It is particularly directed to a device from which paper or the like sheet material may be pulled from a roll in said device to cover a doctor's examining table, or for the like purposes.

An object of this invention is to provide an improved device of the character described, which may be clamped to one end of the examining table and containing a roll of paper adapted to be readily pulled in position for covering the table, and which may be readily cut off after use to permit a new length of paper to be pulled into place on the table.

Another object of this invention is to provide a device of the character described, which may be readily refilled, which shall be easy to handle, inexpensive to manufacture, neat in appearance, hygienic in use, and yet practical and efficient to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a side, elevational view of an examining table with a cover dispensing device embodying the invention clamped thereto;

Fig. 2 is a cross-sectional view taken on line 2—2 of Fig. 1;

Fig. 2*a* is a cross-sectional view taken on line 2*a*—2*a* of Fig. 2;

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 2;

Fig. 4 is an end view of the container for the roll of paper, with the cover removed;

Fig. 5 is a perspective view of a paper dispensing device embodying the invention, and illustrating a modified form of the invention;

Fig. 6 is an enlarged, cross-sectional, horizontal view taken through the clamping device of the stand shown in Fig. 5; and

Fig. 7 is a cross-sectional view taken on line 7—7 of Fig. 6.

Referring now in detail to the drawing, 10 designates an examining table of any usual construction, having a leg rest 11, and back rest 12 adjustably connected to opposite ends of a central portion 13, supported on legs 14. As shown in the drawing, the back rest portion 12 may have an angular frame 15 and a top covering 16. Clamped to the outer end of the back rest 12, in the manner hereinafter described, is a dispensing device 17, embodying the invention for dispensing paper 17*a* or other flexible web or sheet material from a roll 17*b*, for covering the examining table 10.

The device 17 comprises a cylindrical container 18, having a cylindrical wall 19, an end wall 20 at one end, and a removable end cover 22 at the other end. The cylindrical wall 19 may be made from a rectangular piece of sheet metal, one side edge 19*a* of which, is cut inwardly, parallel to and adjacent the end edges, as at 23, and the portion 24 between the cuts 23, folded back, leaving tabs 25, at the ends of said edge 19*a*. The sheet is then rolled into cylindrical shape with the tabs 25 overlapping the other edge 27 of said sheet, and soldered, welded, riveted or otherwise fixed thereto in any suitable manner to form a cylindrical wall with a longitudinal slot 28 for the purpose hereinafter appearing.

The end wall 20 has an annular flange 30 to receive one end of the cylindrical wall 19, and is fixed to said wall by soldering, welding or in any other suitable manner. Said end wall is formed with a central opening 31 for the purpose hereinafter appearing. The cover 22 has an annular flange 33, frictionally receiving the other end of said cylindrical wall 19, and is likewise formed with a central opening 34.

Extending through the container 18, is an axial shaft 35, having one end 36 passing through the opening 31 in the end wall 20, and fixed to said end wall by a pair of lock nuts 37, screwed to said shaft and disposed on opposite sides of said end wall, and fixed against movement in any suitable manner. The other end 38, of said shaft 35, passes through the opening 34 in the cover 22. The cover is held on the shaft by means of a nut 39, which may be unscrewed to permit removal of the cover.

The roll 17*b* of paper or other flexible web material is mounted on said shaft, the paper from said roll being adapted to pass through the slot 28 for covering the examining table 10, in the manner hereinafter explained in greater detail.

It will be noted that the upper edge 24*a* of the slot is rounded due to the folded back portion 24, whereby to prevent cutting or tearing of the paper at said edge.

Means is provided to guide the paper coming out of the container, to cut off the paper after use, and to clamp the container to the examining

table in position for use. To this end, there is riveted or otherwise fixed to the inner surface of the cylindrical wall 19, as by rivets 45, a member 46 preferably made of sheet metal, and having a curved portion 47 contacting the inner surface of said cylindrical wall below the slot 28; a flat radial portion 49 passing through said slot and adjacent the edge 27 of said cylindrical wall; and a flat portion 50 extending from said radial portion and disposed parallel to the shaft 35. The portion 50 of member 46, may be wider than the portion 49 at both ends, as at 51, for the purpose hereinafter appearing.

Fixed to said portion 50 of member 46, is a cut-off member 52, disposed parallel to but spaced inwardly from the outer edge 53 of said portion 50, and comprising a strip 54 having depressed legs 55 at the outer ends thereof, riveted to said portion 50. The main portion of the strip 54 is spaced from and parallel to said portion 50, to form a passage or slot 56 for paper from the roll 41. The forward edge 52a of the member 52, serves as a cut-off for the paper, as will appear hereinafter. The portion 50 of the member 46, furthermore, serves as the top part of a clamp for mounting the device 17 on the angle shaped portion 15 of the back rest 12.

The other part of the clamp comprises a pair of spaced, similar, parallel brackets 60, fixed to the cylindrical member 19, and disposed below portions 49, 50 of the member 46. Each bracket 60 comprises a curved portion 61 contacting the cylindrical wall 19, and riveted or otherwise attached thereto in any suitable manner. Extending from each portion 61, is a leg 62, parallel to portion 50 of member 46, and formed with a screw threaded opening 63. Screwed within each opening 63 is a screw 64, having a wing head 65. Screws 64 are disposed parallel to one another, and perpendicular to the leg 62 and portion 50 of member 46. Carried by the screws 64 are tubular covers 67 adapted to engage the angle shaped portion 15 of the back rest 12.

It will now be understood that the device 17 may be readily clamped to the rear end of the back rest 12, the portion 15 of said back rest being clamped between the tubular covers 67 and the portion 50 of member 46.

The paper from the roll 17b is passed through the slot 56 and pulled the length of the examining table to cover the same. After use, the paper may readily be torn off by pulling upwardly against the forward edge 52a of member 52. The paper may then be pulled downwardly until a new length of paper is pulled out exactly in position to cover the table. When the roll 17b is used up, the end cover 22 is removed by unscrewing the nut 39, and a new roll readily placed on said shaft. The cover may then be replaced and the nut 39 screwed tight.

It will be noted that as the back rest 12 is adjusted to various angular positions, the device 17 moves with the back rest, and the paper is always in position to be drawn out for covering the table.

In Figs. 5, 6 and 7, there is shown a modified form of the invention. In said figures, there is illustrated a paper dispensing device 70, mounted on a stand 71 instead of being attached to the examining table.

The stand 71 comprises a horizontal oblong frame 72 made of strip metal and a pair of similar, symmetrically disposed leg members 73 fixed to said frame. Each leg member 73 has a pair of feet 74 extending below the frame 72; a pair of upwardly and inwardly inclined portions 75 extending toward a vertical medial plane disposed between the horizontal portions of said members 73; and horizontal portions 76 interconnecting said portions 75. The portions 76 of the member 73 are disposed in the same horizontal plane and are parallel to and spaced from one another.

Attached to each member 76, is a strap member 77, having legs 78 riveted to the ends of portions 76, vertical portions 79 extending upwardly from the legs 78, and a horizontal connecting portion 80.

Mounted on portion 76 of the members 73, and within said strap members 77, are a pair of similar, symmetrically disposed clamping members 84, each comprising a vertical plate 85 contacting the outer edge of one of the strap members, and a plate 86 contacting the inner surface of a pair of adjacent vertical walls of said strap members. The plates 85 are formed with aligned openings 86 to receive a through bolt 89 for clamping the members 84 for the purpose hereinafter appearing.

The dispensing device 70 comprises a cylindrical member 91, having a fixed end wall 92 at one end, and a removable end cover 93 at the other end. Extending through the cylindrical member 91 is an axial shaft 94, fixed to the end wall 92, and extending through the cover 93. A wing nut 95 on the free end of the shaft 94, serves to hold the cover 93 on the cylindrical wall 91. Said cylindrical wall 91 may be similar to the cylindrical wall 19, shown in Figs. 1 to 4. The device 70 may be provided with a longitudinal slot 96 and paper guide 97, similar to the slot 28 and paper guide 46 of Figs. 1 to 4.

Fixed to the outer surface of cylindrical wall 91 are a pair of parallel, curved straps 99. Attached to said straps 99, are a pair of symmetrical, L-shaped members 100, having vertical parallel portions 102, interconnected at the top and bottom by transverse pins 103. The portions 102 pass between the portions 76 and strap 77 on the leg members 73, and contact the inner surfaces of the plates or walls 86 of members 84.

The member 70 may be raised or lowered to any desired vertical position, and clamped in place by tightening the bolt 89 which forces the leg members 73 against the opposite edges of portions 102 of the dispensing device.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved, and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A device for dispensing web material from a roll, comprising a cylindrical container formed with a longitudinal slot, an axial shaft within said container adapted to support a roll of web material adapted to pass through said slot, a member having a curved portion fixed to the inner surface of said cylindrical member, a portion extending from said curved portion radially outwardly through said slot, and a flat portion extending from said radially extending portion and disposed in a plane parallel to and spaced from the axis of said container, a bracket fixed

to said cylindrical container and extending therefrom, and screw threaded means on said bracket and disposed perpendicular to said flat portion, to clamp said device to an article received between said flat portion and said means.

2. A device for dispensing web material from a roll, comprising a cylindrical container formed with a longitudinal slot, an axial shaft within said container adapted to support a roll of web material adapted to pass through said slot, a member having a curved portion fixed to the inner surface of said cylindrical member, a flat portion extending from said curved portion radially outwardly through said slot, and a flat portion extending from said radially extending portion and disposed in a plane parallel to and spaced from the axis of said container, a bracket fixed to said cylindrical container and extending therefrom, screw threaded means on said bracket and disposed perpendicular to said flat portion, to clamp said device to an article received between said flat portion and said means, and a member fixed to said flat portion and disposed parallel thereto and forming a passage therewith to receive the web coming from the slot.

3. In a device for dispensing a web material from a roll, comprising a container having a tubular wall made from a single rectangular piece of sheet metal bent into tubular shape, one side edge of said sheet having cuts parallel and adjacent the end edges, and the portion between the cuts being folded back to form a smooth edge, and leaving end tabs overlapping the ends of the opposite side edge of said sheet, means for fixing said end tabs to said opposite side edge of said sheet, said folded back portion forming a longitudinal slot between said folded back portion and said opposite edge, an end wall at one end of said tubular wall closing the same, a cover on the other end of said tubular wall, an axial shaft adapted to support a roll of web material, fixed at one end to said end wall, said cover being formed with a central opening to receive the other end of said shaft, means on said other end of said shaft to retain said cover on said tubular wall, a member fixed to the inside of said tubular wall, having a portion passing through said slot and contacting said opposite edge of said sheet, and a portion extending away from said tubular wall, the web from said roll being adapted to pass through said slot between said folded back portion and the first portion of said member, and said last mentioned portion of said member being adapted to guide the web from the roll passing through the slot.

4. In a device for dispensing a web material from a roll, comprising a container having a tubular wall made from a single rectangular piece of sheet metal bent into tubular shape, one side edge of said sheet having cuts parallel and adjacent the end edges, and the portion between the cuts being folded back to form a smooth edge, and leaving end tabs overlapping the ends of the opposite side edge of said sheet, means for fixing said end tabs to said opposite side edge of said sheet, said folded back portion forming a longitudinal slot between said folded back portion and said opposite edge, an end wall at one end of said tubular wall closing the same, a cover on the other end of said tubular wall, an axial shaft adapted to support a roll of web material, fixed at one end to said end wall, said cover being formed with a central opening to receive the other end of said shaft, means on said other end of said shaft to retain said cover on said tubular wall, a member fixed to the inside of said tubular wall, having a portion passing through said slot and contacting said opposite edge of said sheet, a portion extending away from said tubular wall, the web from said roll being adapted to pass through said slot between said folded back portion and the first portion of said member, said last mentioned portion of said member being adapted to guide the web from the roll passing through said slot, bracket means attached to said tubular wall, and screw threaded means on said bracket means adapted to be screwed toward and away from said last mentioned portion of said member, for clamping said device to an examining table.

5. In a device for dispensing a web material from a roll, comprising a container having a tubular wall made from a single rectangular piece of sheet metal bent into tubular shape, one side edge of said sheet having cuts parallel and adjacent the end edges, and the portion between the cuts being folded back to form a smooth edge, and leaving end tabs overlapping the ends of the opposite side edge of said sheet, means for fixing said end tabs to said opposite side edge of said sheet, said folded back portion forming a longituinal slot between said folded back portion and said opposite edge, an end wall at one end of said tubular wall closing the same, a cover on the other end of said tubular wall, an axial shaft adapted to support a roll of web material, fixed at one end to said end wall, said cover being formed with a central opening to receive the other end of said shaft, means on said other end of said shaft to retain said cover on said tubular wall, a member fixed to the inside of said tubular wall, having a portion passing through said slot and contacting said opposite edge of said sheet, a portion extending away from said tubular wall, the web from said roll being adapted to pass through said slot between said folded back portion and the first portion of said member, and said last mentioned portion of said member being adapted to guide the web from the roll passing through said slot, a member fixed to said tubular wall and having a vertical portion, a stand, and means for fixing said vertical portion to said stand in various adjusted vertical positions.

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