

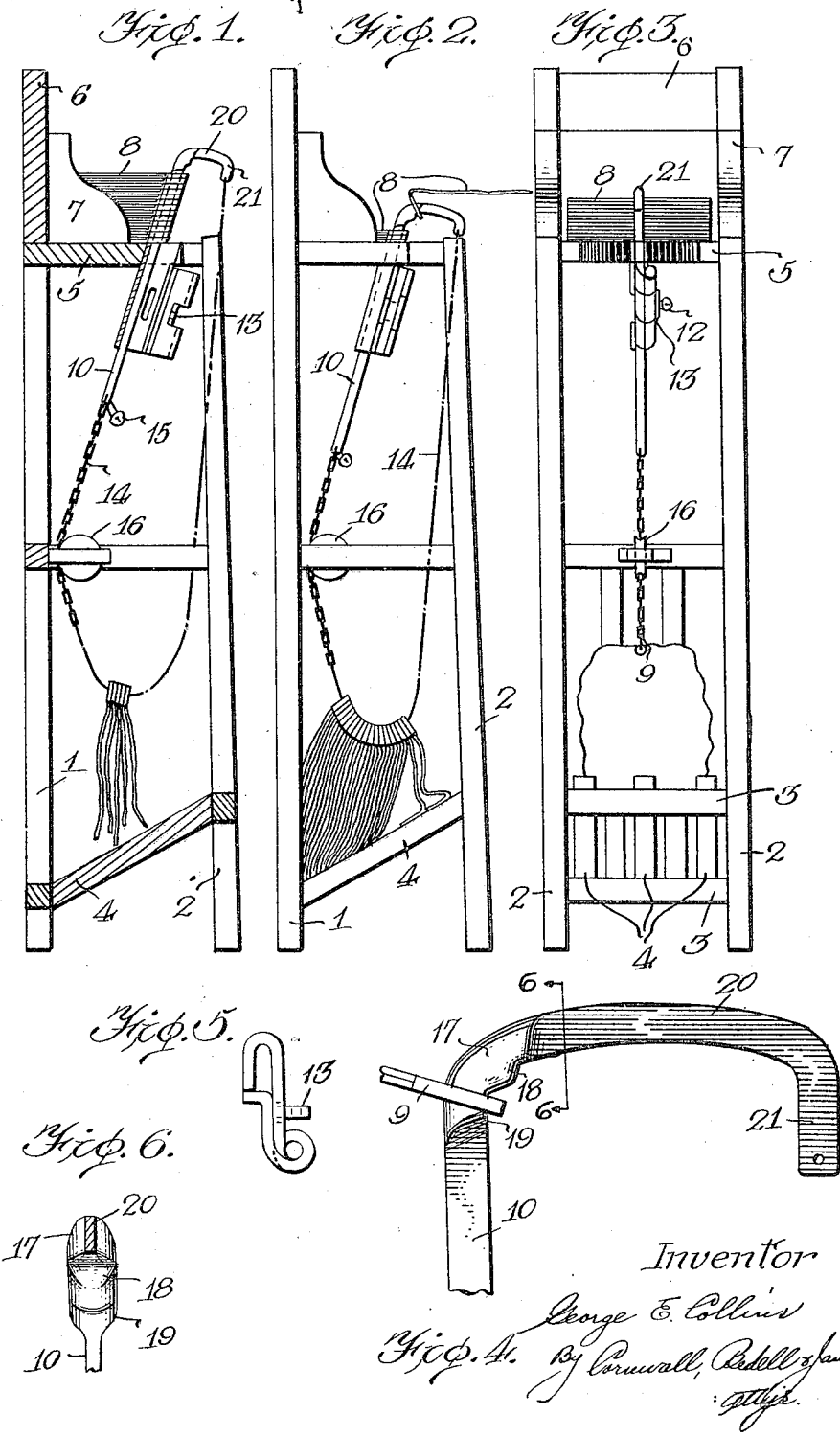
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TOWEL RACK

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UNITED STATES PATENT OFFICE.

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TOWEL RACK.

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My invention relates to towel racks such as are generally used in public lavatories, schools, offices, and similar places.

One object of my invention is to provide a structure in which a magazine of soiled towels may be easily removed and a magazine of fresh clean towels be as easily applied and quickly and securely locked to the remainder of the rack.

Another object of my invention is to facilitate the removal of each successive towel from its folded position in the stack of clean towels by a simple forward pull by the user whose eyes are likely to be shut to prevent admission of water and soap.

These and other detailed objects of my invention are attained by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section from front to back through my towel rack with a stack of a substantial number of clean towels assembled therewith and a few used towels in their dropped position.

Figure 2 is a side elevation showing the same elements with a lesser number of clean towels available and illustrating the disposal of a substantially greater number of used towels.

Figure 3 is a front elevation of my rack.

Figure 4 is an enlarged detail of the upper end of the towel holding bar.

Figure 5 is a detail top view of the bar holding hinge.

Figure 6 is a section taken on line 6—6 of Figure 4.

The frame of the towel rack comprises upright members 1 and 2, the front members 2 being inclined forwardly from top to bottom to add stability to the structure. At the bottom of the rack, cross-pieces 3 and slats 4 form an inclined shelf for receiving a portion of the weight of used towels. At the top a horizontal shelf 5 is provided on which a stack of clean towels is mounted. A back 6 and sides 7 help to position the stack of clean towels. The clean towels are indicated at 8 and it will be understood that each towel is provided with a circular grommet 9 inserted near one end and the towel is doubled once with its upper end spaced at short distance from the edge provided with a grommet.

A towel holding bar 10 passes through all the grommets of the stack of towels 8 and is held in the inclined position shown by means of the hinge structure 11 which is shown open

in Figure 1 and closed in Figures 2 and 3. This hinge may be provided with a lock 12 passing through an ear 13 of the shorter member of the hinge and when lock 12 is in place the bar 10 cannot be removed and of course the towels are secured to the rack. A chain or other flexible element 14 has its ends connected to the opposite end of bar 10 and, with the bar, forms an endless "magazine" on which the towels are located. One end of the chain is secured to the bar with a lock 15, the key to which will be kept at the office or laundry of the towel supply company while the key to lock 12 will be carried by the delivery-man. The latter will be supplied with a number of magazines and will remove the magazine of used towels from the rack and replace it with a magazine of clean towels. To do this merely requires the unlocking of lock 12 and the opening of hinge 11 whereupon the towel bar may be moved forwardly through the forwardly opening slot S in shelf 5. This is done from the front of the cabinet and it is unnecessary to turn the latter around or to make any time-consuming adjustments, etc.

The portion of element 14 depending from the lower end of bar 10 passes over a sheave 16 which holds that part of the element near the back of the rack. Below sheaves 16 the element forms a downward depending loop, the other upper end of which is spaced a substantial distance in front of sheave 16. With this loop arrangement a few soiled towels, such as is shown in Figure 1, will hang from the lower portion of the loop and be entirely supported thereby. With the weight of additional used towels, the loop will lengthen as shown in Figure 2, and a portion of the weight of the towels will be sustained by the shelf formed of members 3 and 4. This lowering of the body of used towels is increased by the downward movement of bar 10 which is referred to later. This tends to equalize the weight on bar 10 which is desirable in view of the manner in which the bar is supported by the grommet of the upper towels of stack 8.

A particular feature of my invention is the mounting of the bar 10 and the shaping of its curved portion which rests on the grommet of the top towels. The body of the bar is shown as being formed of a flat section approximately one-eighth by three-eighths of an inch and the curved portion 17 is shaped to more nearly fill the circular grommet 9 and is provided with a curved lower edge 18

which connects with the straight edge 19 so as to form a shoulder which will rest on the upper edge of the grommet to support the bar. The opposite edge of the bar is curved about this shoulder portion to permit the grommet to be slid along the bar by pivoting on the curved or shoulder portion.

The shoulder engagement of the grommet, while providing a substantial support for the bar when the grommet is in the horizontal position indicated by the conventional showing of the towels in Figures 1 and 2 is easily destroyed by the tilting of the inner edge of the grommet about the outer edge. It will be noted that the grasping of the plain end of the towel by the user and pulling the same straight forward over the upper end of bar 10 as indicated in Figure 2, will result in such tilting of the grommet and will permit the grommet to move along the horizontal portion 20 of the bar so as to permit the towel to extend forwardly from the end 21 of the bar and to be there used conveniently by a person standing in front of the rack. When a person has finished using the towel, he drops the same and it immediately slides down the front portion of the flexible element 14 to a storage position in the bottom of the rack in which it is out of the way and at the same time is so held that it has some air circulation about it to remove surplus moisture.

When the top towel is removed, the bar 10 automatically drops on to the next towel, and hence the top towel of the stack always is the same distance from the top of bar 10 and it is never necessary to lift a towel a substantial distance and then move it forwardly to use, such as would be the case if the bar were held in its original position in which the top would be elevated about a foot above shelf 5.

The weight of bar 10 and element 14 is enough to cause the bar to slide through the towel grommets when the top towel is drawn forward, but is not so great as to create sufficient friction to interfere materially with the release of the top grommet as described. The lowering of the bar and the partial support of the used towels by the inclined lower shelf prevents an undesirable increase in the weight on the grommet shoulder.

The rearward inclination of the lower shelf tends to move the used towels away from the front of the track and the used towels are therefore less noticeable. The angle of shelf 4 and the inclination of bar 10 and other features of my preferred construction may be changed and some may even be omitted without departing from the spirit of my invention, and I contemplate the exclusive use of all such modifications as fall within the scope of my appended claims.

I claim:

1. A towel retaining member for a rack of

the class described comprising a bar adapted to pass freely through a towel grommet and having a main portion and a portion extending transversely thereof, there being a downwardly facing shoulder on one edge of said main portion spaced slightly from said transverse portion, the edge opposite said shoulder being curved about said shoulder lengthwise of the bar whereby the width of said bar is kept below a maximum dimension so that a towel grommet may be tilted about said shoulder as a pivot and moved therefrom along the transversely extending portion of the bar.

2. In a towel rack, a towel supporting shelf having a slot open at one end, an endless towel holding member applicable, in a direction transversely of its length, to said slot through the open end of the latter and slidable longitudinally through said slot and towels, and a device for locking said member against removal through the open end of said slot.

3. In a towel rack, a shelf for supporting a stack of clean towels, a towel retaining rigid bar slidably extending through said shelf and towels resting thereon, and adapted to be supported by the uppermost towel on said shelf, an element of flexible material connected to the ends of said member and forming a loop below the same from which towels are partially suspended, and means whereby said loop is released of a substantial portion of the weight of used towels so suspended as the number of used towels so suspended is increased.

4. In a towel rack, a shelf for supporting a stack of clean towels, an upwardly extending bar inclined from the vertical and adapted to pass through the grommets of towels resting on said shelf and to rest upon said towels and to slide freely through said towels and said shelf, a flexible element connecting the upper and lower ends of said bar and forming a downwardly extending loop between said ends over which used towels may slide, and a shelf below said loop and spaced therefrom, when said loop is empty, a distance corresponding to the length of a towel, so that a few towels suspended from said loop will be practically suspended by said loop but a larger number of towels suspended from and lengthening said loop will be partially supported on said shelf, whereby the successive loads on said loop will be substantially equalized.

5. In a towel rack, an elevated shelf, a sheave secured to the back of said rack below said shelf, a rearwardly and downwardly inclined lower shelf below said sheave, a rearwardly and downwardly inclined bar slidably mounted on said elevated shelf, a flexible element secured to the lower end of said bar and extending therefrom downwardly over said sheave and looping upwardly and secured to the upper end of said bar, said bar and element being adapted to pass through

eyelets in a stack of towels to be carried on said elevated shelf.

6. In a towel rack, a towel supporting shelf and a towel retaining bar, said bar including
5 a body portion extending lengthwise upwardly from below said shelf to above the same and being slidable lengthwise, a downwardly facing shoulder on said body portion for engaging the grommet of a towel, carried on

said shelf, for supporting said bar, and an 10 extension of said bar projecting transversely of said body portion, said bar being adapted to have a grommet pass thereover from end to end.

In testimony whereof I hereunto affix my 15 signature this 4th day of December, 1925.

GEORGE E. COLLINS.