Dec. 16, 1958 J. J. STURE 2,864,510

SMOKER'S PIPE RACK

Filed May 25, 1953

Fig. 1

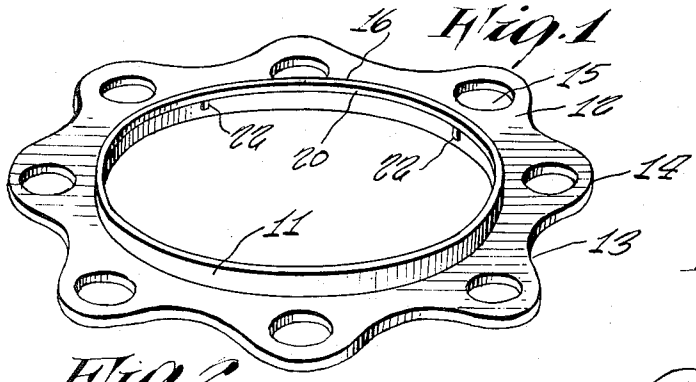


Fig. 3

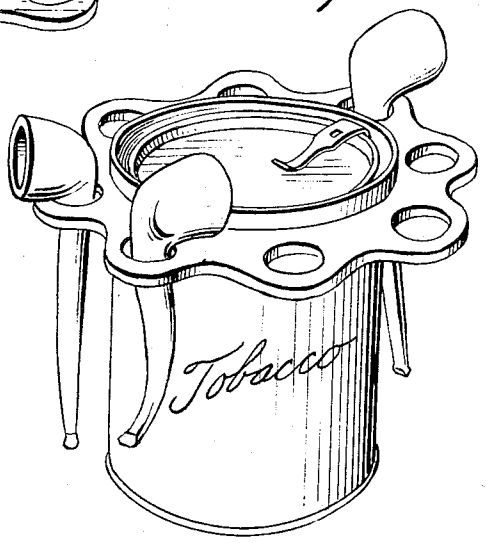


Fig. 2

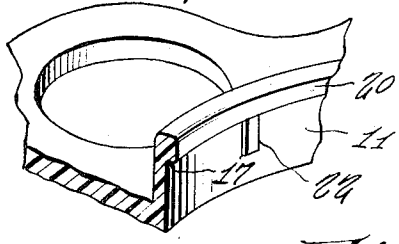


Fig. 4

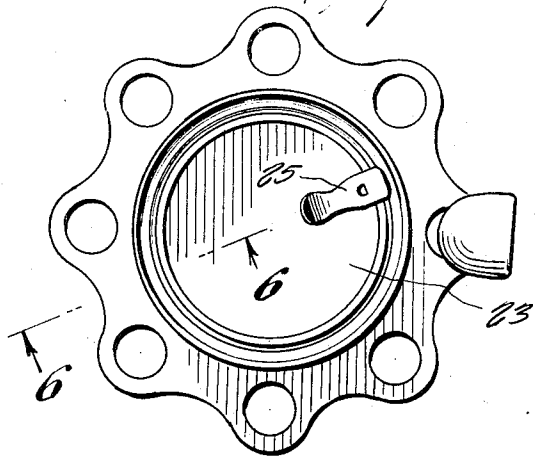


Fig. 6

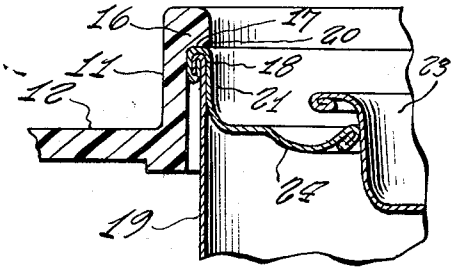


Fig. 5



INVENTOR.
JOHN J. STURE
BY
E. M. Squire
ATTORNEY

United States Patent Office 2,864,510 Patented Dec. 16, 1958

2,864,510

SMOKER'S PIPE RACK

John J. Sture, New York, N. Y.

Application May 25, 1953, Serial No. 357,260

5 Claims. (Cl. 211—60)

The present invention relates to an article supporting device adapted to be removably mounted on a container, and more particularly to a smoker's pipe rack arranged to be mounted on the top of a cylindrical tobacco can, the pipe rack being supported by the top rim portion of the tobacco can and providing a large central aperture which permits free removal and replacement of the lid of the tobacco can without disturbing the pipe rack.

Among the objects of the invention is the provision of a rack for tobacco pipes comprising an apertured circular flange member adapted to support tobacco pipes or other articles comprising an elongated portion of reduced transverse dimensions.

Another object of the invention is the provision of a detachable article supporting device arranged to be mounted on the top of a container or other cylindrical object having a removable lid and comprising a collar member for encircling the top peripheral portion of the container and an article supporting flange member extending outwardly from the collar member so arranged that there is no interference with removal or replacement of the lid.

Still another object of the invention is the provision of an inwardly extending bead at the upper edge of the collar member, the bead being adapted to prevent downward movement of the collar portion by engagement with the top peripheral edge of the cylindrical container.

A further object of the invention is to provide a beaded collar member for the article supporting device in which the inner edge of the bead is shaped for vertical alignment with the inner edge of the usual rolled bead at the upper end of a cylindrical sheet metal container. This alignment presents a pleasing appearance such that the pipe rack appears to be an integral part of the tobacco can. Additionally, it avoids the presence of an edge on which the lid might become caught during removal or replacement of the lid.

A further object of the invention is the provision of spaced inwardly extending projections disposed about the inner lateral surface of the collar member of the device, permitting the collar member to be deformed by a limited bending action thereof, whereby the collar member may adjust itself to accommodate commercial variations in the outside diameter of the top portion of the cylindrical container as well as commercial variations in the diameter of the collar member.

Other and further objects will become apparent upon reading the following specification together with the accompanying drawing forming a part hereof.

Referring to the drawing:

Figure 1 is a perspective view of an embodiment of the invention.

Figure 2 is an enlarged fragmentary perspective view, partly in section, illustrating one of the inwardly extending projections.

Figure 3 is a perspective view showing an article supporting device in accordance with the invention mounted

on top of a tobacco can with some tobacco pipes supported thereby.

Figure 4 is a plan view showing a pipe rack according to the invention mounted on a tobacco can.

Figure 5 is an elevational view partly broken away, of the pipe rack shown in Fig. 4.

Figure 6 is an enlarged fragmentary sectional view taken along the line 6—6 of Fig. 4 looking in the direction of the arrows.

Referring to Fig. 1, there is shown a pipe rack comprising a circular collar member **11** connected to an integrally formed outwardly extending horizontal flange member **12**. The flange member **12** is formed with an undulatory periphery **13** providing portions of increased radius or width **14**. At each of the portions of increased width **14**, a circular through aperture **15** is formed in the flange **12**.

At the upper edge of the collar member **11** there is provided an inwardly extending bead **16** whose lower edge **17** (Fig. 6) rests on the upper rolled edge **18** of a cylindrical sheet metal container **19**. The inner edge **20** of the bead **16** is in continuous vertical alignment with the inner lateral surface **21** of the top of container **19**. Disposed around the inner surface of collar member **11** are inwardly extending projections **22** (Fig. 2) which may be somewhat tapered, if desired, so that the amount of inward projection thereof is greater at the top of each projection **22** than at its bottom. The projections **22** are shown extending upwardly from about the center of the inner surface of the collar member **11**, but this distance may be made longer, if desired, so that the inward projections **22** extend completely from the lower surface **17** of the bead **16** to the bottom internal edge of the collar member **11**.

The cylindrical container **19**, illustratively shown as a tobacco can is provided with a downwardly dished removable lid **23** frictionally held in an annular rim **24**. In Fig. 6 it will be seen that the bead **16** of collar member **11** extends inwardly only far enough for continuous circumferential vertical alignment with the inner lateral cylindrical surface **21** of annular member **24** so that there is no interference with the removal or replacement of lid **23**. Moreover, with this aligned position of parts, if the collar member **11** of the device is of the same color as the tobacco can **19**, the pipe rack appears to be integral with the tobacco can **19**.

In Figs. 3 and 4, the lid **23** of the tobacco can **19** is shown provided with a conventional peripherally slidable lifting device **25**. As may be seen in Fig. 6 there is a sufficient space between the vertically aligned inner edge **20** of bead **16** and the lifting device **25** so that there is no interference with the normal operation of the lifting device **25**.

Because of the usual commercial variations in the outside diameter of the tobacco can **19** and the dimensions of collar member **11**, in certain instances, there will be a tendency for the device to fit either too loosely or too tightly on the top of the can **19**. In order to overcome this situation, the inwardly extending projections **22** are provided. These projections are dimensioned to provide a slight amount of frictional engagement with the smallest diameter of tobacco can and the largest diameter of the pipe rack. For the opposite condition, namely, the largest diameter of tobacco can and the smallest diameter pipe rack, the projections **22** bear against the edge of the can and allow the collar member **11** to bend inwardly to a limited extent between adjacent projections **22**. This resilient action, although limited in extent, is nevertheless sufficient to accommodate commercial dimensional variations, particularly since it is contemplated that the pipe rack is to be manufactured of moulded

plastic material and the tobacco can by modern automatic machinery. As a result of these conventional modern methods of manufacture, the dimensional variations will be relatively small so that they may be accommodated by a slight inward bending between the inwardly directed projections **22**.

It should be noted that undulatory shape of the periphery **13** of flange member **12** provides a reduced cross-sectional moment of inertia about a central vertical axis for transverse areas intermediate the wider portions **14**, thereby facilitating the inward bending action referred to above.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is the invention as defined in the appended claims.

I claim:

1. Article supporting means of the class described for use with a cylindrical container having a vertical axis and a removable top lid, the outer edge of said lid being spaced inwardly from the top peripheral portion of said container, said article supporting means comprising: a continuous annular collar portion which is adapted to encircle and surround the top portion of said container exteriorly thereof, said collar portion being vertically removable with respect to said container for removing said article supporting means from said container and replacing the same at will; a continuous annular bead portion extending radially inwardly from the inner side of said collar portion, said bead portion having a bottom edge disposed above the bottom of said collar portion and engageable with the top peripheral portion of said container for limiting downward movement of said collar portion with respect to said container, said bead portion being spaced outwardly from said outer edge of said lid to provide clearance for the free removal and replacement of said lid; and an article supporting flange portion extending outwardly from said collar portion, said flange portion being integrally formed with said collar portion and having circular apertures formed therein for receiving depending portions of articles to be supported by said article supporting means.

2. Article supporting means according to claim 1, in which said flange portion is disposed below said bottom edge of said bead portion to provide clearance for freedom of generally horizontal components of movement of said lid while removing and replacing the same.

3. Article supporting means of the class described for use with a cylindrical container having a vertical axis and a removable top lid fitted in a horizontally inwardly extending annular rim disposed below the top edge of said container, said rim being connected to the top edge of said container by a continuous rolled edge, said article supporting means comprising: a continuous annular cylindrical collar portion adapted to encircle and surround the top of said container concentrically therewith, said collar portion being vertically slidable with respect to said container for removing and replacing said article supporting means at will; an annular bead portion formed integrally with said collar portion and extending inwardly from the top thereof, said bead portion having a continuous bottom edge adapted for engagement with the top of said rolled edge for limiting downward movement of said article supporting means with respect to said container, said bead portion extending inwardly with its inner lateral surface in alignment with the inner lateral surface of said rolled edge when said article supporting means is positioned on said container; and an article supporting flange portion extending outwardly from said collar portion below said bottom edge of said bead portion, said flange portion having apertures formed therein for receiving depending portions of articles to be supported by said article supporting means.

4. Article supporting means of the class described, for use with a cylindrical container having a vertical axis and a removable top lid fitted in a horizontally inwardly extending annular rim disposed below the top edge of said container, said rim being connected to the top edge of said container by a continuous rolled edge, said article supporting means comprising: a continuous annular cylindrical collar portion adapted to encircle and surround the top of said container concentrically therewith, said collar portion being vertically slidable with respect to said container for removing and replacing said article supporting means at will; an annular bead portion formed integrally with said collar portion and extending inwardly from the top thereof, said bead portion having a continuous bottom edge adapted for engagement with the top of said rolled edge for limiting downward movement of said article supporting means with respect to said container, said bead portion extending inwardly to an extent sufficient for alignment of its inner lateral surface with the inner lateral surface of said rolled edge; downwardly tapering inwardly directed projections regularly spaced around the inner surface of said collar portion below said bottom edge of said bead portion for frictional engagement with the outer surface of said rolled edge; and an article supporting flange portion extending outwardly from said collar portion below said bottom edge of said bead portion, said flange portion having apertures formed therein for receiving depending portions of articles to be supported by said article supporting means.

5. Article supporting means according to claim 4, wherein said flange portion is annular and has an undulatory generally circular external periphery, said apertures being circular and being formed in those portions of said flange portion which are of increased width caused by said undulatory configuration, the portions of reduced width facilitating flexure of said flange portion accompanying said frictional engagement of said inwardly directed tapering projections with said rolled edge.

References Cited in the file of this patent

UNITED STATES PATENTS

700,653	Jobson	May 20, 1902
1,903,410	Cecil	Apr. 4, 1933
2,035,639	Davis	Mar. 31, 1936
2,056,943	Lehman	Oct. 13, 1936
2,533,354	Comfort	Dec. 12, 1950
2,544,095	Kower	Mar. 6, 1951
2,615,578	Mankki	Oct. 28, 1952
2,713,872	Juengling	July 26, 1955