May 21, 1963 E. F. HOHWART 3,090,522

NAPKIN DISPENSER

Filed July 3, 1961

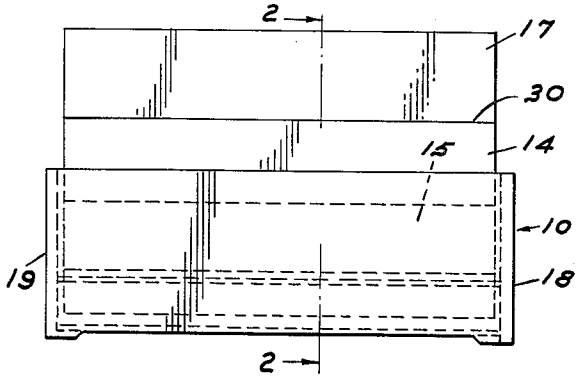


FIG. 1

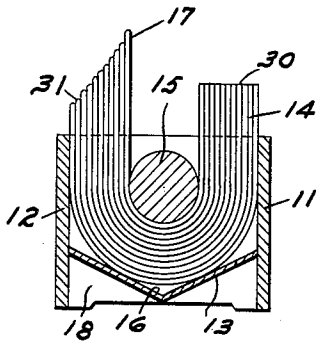


FIG. 2

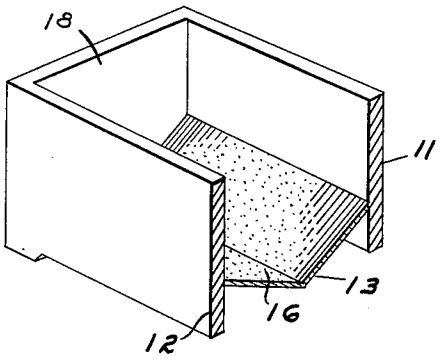


FIG. 3

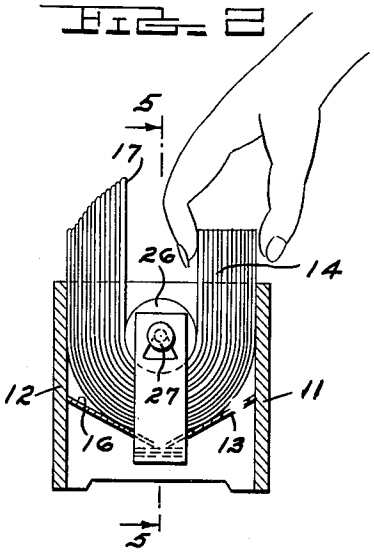


FIG. 4

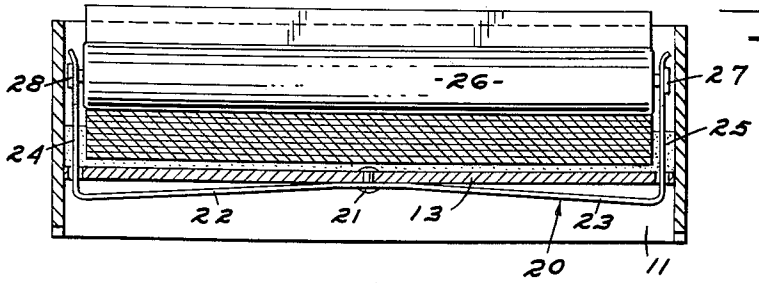


FIG. 5

INVENTOR.
ERNEST F. HOHWART
BY William R. Ewald
ATTORNEY

United States Patent Office 3,090,522 Patented May 21, 1963

3,090,522
NAPKIN DISPENSER

Ernest F. Hohwart, 19381 Sussex, Detroit, Mich.

Filed July 3, 1961, Ser. No. 121,393
1 Claim. (Cl. 221—33)

This invention relates to a holder and dispenser particularly suitable for folded paper napkins.

Napkin holders and dispensers have been employed heretofore to facilitate one at a time dispensation, however, the several devices of the prior art have not proven entirely satisfactory inasmuch as they are complicated in design and construction, expensive to manufacture, difficult to use, and usually require a specially folded or adapted napkin for use with the dispenser.

With the foregoing in view, the primary object of the invention is to provide a napkin dispenser which is simple in design and construction, inexpensive to manufacture, easy to use, and easy to dispense and refill, and which does not require a specially folded or integrated napkin for use therewith.

An object of the invention is to provide a napkin dispenser which can be manufactured inexpensively as the component parts are easily made and the assembly of the parts readily accomplished.

An object of the invention is to provide a napkin dispenser which can be used and operated with perfect ease by any user with any type napkin.

An object of the invention is to provide a napkin dispenser which will dispense the innermost napkin one at a time or any number of innermost napkins at one time leaving the remaining napkins undisturbed and in proper position in the napkin holder box.

These and other objects of the invention will become apparent by reference to the following description of a sheet or napkin dispenser embodying the invention taken in connection with the accompanying drawing in which:

FIG. 1 is a side-elevational view of the dispenser showing the internal construction in dotted lines.

FIG. 2 is a cross-sectional view of FIG. 1 taken on the line 2—2 thereof.

FIG. 3 is a perspective view, partly in cross-section, of the dispenser box seen in FIGS. 1 and 2 showing the construction in more detail.

FIG. 4 is a view similar to FIG. 2 showing a spring pressed roller modification; and

FIG. 5 is a longitudinal cross-sectional view taken on the line 5—5 of FIG. 4.

Referring now to the drawing wherein like numerals refer to like and corresponding parts throughout the several views, the dispenser disclosed therein to illustrate the invention comprises a box or container **10** having spaced opposed side walls **11** and **12** and a V-shaped bottom wall **13** forming a trough area between the side walls **11** and **12**; the reversely turned or U-shaped napkins **14** are bent around the roller **15** which holds the napkins down in position so that the abrasive or friction means **16** on the bottom wall **13** engages the outer napkin and the roller **15** engages the inner napkin so that when the user grasps the innermost napkin **17** and lifts upwardly thereon he lifts the roller **15** rolling it relative to the innermost napkin **17** with the friction means **16** holding the other napkins from sliding or rolling so that the roller **15** releases the innermost napkin **17** individually and then immediately engages the next napkin for similar dispensing action.

More particularly box **10** comprises the walls described together with the paired spaced end walls **18** and **19** which act as end stops for the napkins **14** and roller **15** as well as cross supports for the box **10**. Sand paper has been found a suitable abrasive coating for the V-shaped bottom wall **13**, however, apertures, studs, and/or any other friction means may be employed in this regard with suitable operational results.

Referring to the device of FIGS. 4 and 5 it will be noted that the leaf spring **20** is riveted to the bottom **13** as at **21** and comprises two outwardly paired arms **22** and **23** terminating upwardly in fingers **24** and **25** respectively at either end of the box and the roller **26** is equipped with axial pins **28** and **29** co-operating with the fingers **24** and **25** which are equipped with slots **27** for mounting and dismounting the pins relative to the spring **20**. In the operation of this device, the spring arms **22** and **23** pull downwardly on the roller **26** urging it against the napkins **14** so as to hold the napkins in position and supply forced frictional connection between the napkins **14** and the bottom **13** and the spring **20** has sufficient flexibility to permit the user pulling upwardly on the innermost napkin **17** to elevate the roller **26** to permit sliding engagement between the sheet **17** and the next sheet and rolling engagement with the roller **26**.

It is to be noted in the device of FIGS. 1 through 3 that no spring is necessary and that the roller **15** is a relatively heavy roller compared to the roller **26** and acts with sufficient pressure against the napkins **14** and the bottom wall **13** through gravitational force. Metal or ceramic bars or tubes have been found suitable.

In filling, referring to the device of FIGS. 1 through 3, the user grasps the cut ends **30** of the group of napkins and holds these ends in parallel alignment and wraps the napkins around the roller **15** whereupon the folded ends **31** take on a staggered relationship due to the difference in relative circumference around the axis of the roller **15** thereby presenting the innermost napkin **17** as the uppermost readily graspable napkin in the group. The user then merely places the napkins with the roller inside them in the box or carton **10** and the device is ready to operate.

In use, the user grasps the innermost napkin **17** and lifts upwardly so as to elevate the roller **15** from pressure against the remainder of the pack whereupon the innermost napkin **17** is free to slide relative to the rest of the napkins and free to roll relative to the roller **15** whereupon the innermost napkin **17** is easily extracted leaving the remaining napkins undisturbed and immediately upon the innermost napkin being extracted roller **15** re-engages the next innermost napkin for the next operation which is identical and this continues down to the very last napkin in the box in accurate repetition.

Referring to the device of FIGS. 4 and 5 it will be noted that the roller **26** may be manually uplifted on the spring **20** to insert the napkins **14** below as illustrated in FIG. 4 or the user may slip the pins **28** and **29** through the spring arm notches **27** and remove the roller so that the roller and napkins may be inserted together whereupon the pins **28** and **29** are slipped into the notches **27** of the arms **24** and **25** so that the spring **20** then drags downwardly on the roller **26** forcing the napkins **14** into frictional engagement with the friction developing means on the V-shaped bottom wall **13**. The operation of this device is the same as previously described inasmuch as the user lifts on the innermost napkin **17** thereby elevating the roller **26** so that the innermost napkin **17** is free to slide relative to the next napkin and free to roll relative to the elevated roller **26** and immediately upon this napkin being extracted the roller **26** immediately engages the next napkin via the pressure exerted on the roller in a downward direction by the spring **20**.

The inventive device with the features described constitutes a compact, durable, protective, attractive, and neat appearing mechanism which is easily operated to hold the napkins for immediate dispensation in a one at a time repetitive order.

Although but a single embodiment of the invention has been shown and described in detail together with one modification, it is obvious that many changes may be made in the size, shape, detail, and arrangement of the various elements of the invention within the scope of the appended claim.

I claim:

A sheet dispenser for dispensing sheets at least one at a time from a pack of sheets comprising

a box having substantially vertical side walls and oppositely angled angular bottom members leading downwardly and inwardly from said side walls toward one another and joining one another in a V-shaped bottom wall forming a trough having a bottom apex; said bottom members having an upwardly facing friction surface;

a roller having a cylindrical periphery in said box lying in said trough bearing toward said bottom members friction surface; said roller exerting force against each said bottom member in a narrow radial portion substantially normal to said bottom members friction surface at points spaced from said trough apex; said roller as so bearing concentrating force in a small area to develop maximum friction points between said roller and said bottom members friction surface;

a pack of sheets of U-shaped configuration being positionable in said box under said roller; said pack having straight ends upstanding abutting said box side walls and an intermediate curved portion engaging said V-shaped bottom wall friction surface at relatively small area high friction tangential locations; said roller lying in the intermediate curved portion

of a pack of sheets exerting force radially through the sheets engaging the sheets with the friction surface of said V-shaped bottom wall preventing the pack of sheets from moving relative to said box;

manual lifting pull on one end of at least the innermost sheet, tensioning the pulled end of the sheet on a tangent relative to said roller below the bearing radii of said roller thereby lifting said roller out of bearing engagement and causing said roller to roll thereby transferring the tension of the manual pull to the other unpulled end of the sheet on a tangent of said roller; the tensioning pull on the sheet causing it to move away from the pack on a tangent of said roller eliminating frictional engagement between the pulled sheet and the pack and relieving roller radial bearing force on the pulled sheet relative to said roller, said box, and the pack;

said roller exerting force though the pack against said V-shaped bottom wall friction surface on radii of said roller as the pack diminishes as sheets are manually pulled therefrom with the force radially exerted by said roller being directed normal to said angular bottom members forming said V-shaped bottom wall so that the relationship and action is preserved from a full pack of sheets to the last sheet.

References Cited in the file of this patent

UNITED STATES PATENTS

427,918	Shafer	May 13, 1890
648,603	Whitehead	May 1, 1900
663,726	Carlen	Dec. 11, 1900
2,150,998	Warshaw	Mar. 21, 1939