United States Patent [19]

Eberly

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[54] **HOLDER FOR PAPER ROLLS**

[75] Inventor: **Charles E. Eberly,** Pleasanton, Calif.

[73] Assignee: **Bemiss-Jason Corporation,** Palo Alto, Calif.

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[52] **U.S. Cl.** **225/35;** 225/84

[51] **Int. Cl.²** **B26F 3/02**

[58] **Field of Search** 225/35–38, 225/84; 83/649, 650; 242/55.3, 55.42, 55.54

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Primary Examiner—Robert L. Spruill
Assistant Examiner—Leon Gilden
Attorney, Agent, or Firm—Townsend and Townsend

[57] **ABSTRACT**

An improved holder for removably mounting a plurality of paper rolls in spaced positions in a magazine rotatable about a predetermined axis. A removable shaft in each roll spans the distance between a pair of end members forming parts of the magazine. Means is provided to present an elongated, shiftable edge along which the paper from any one of the rolls can be torn after the paper has been threaded through a slot adjacent to the edge. The edge is movable to a position adjacent to a flat surface, thereby closing the slot so that the edge clamps the paper against the flat surface to facilitate tearing the paper. Means is provided for releasably locking the edge in the paper-clamping position.

5 Claims, 4 Drawing Figures

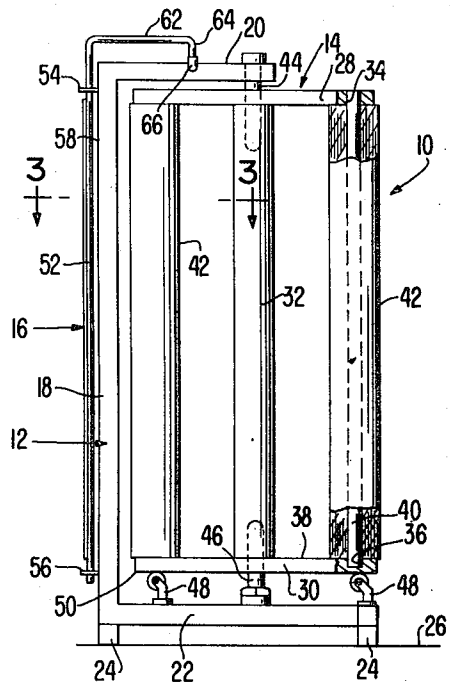


FIG. 1

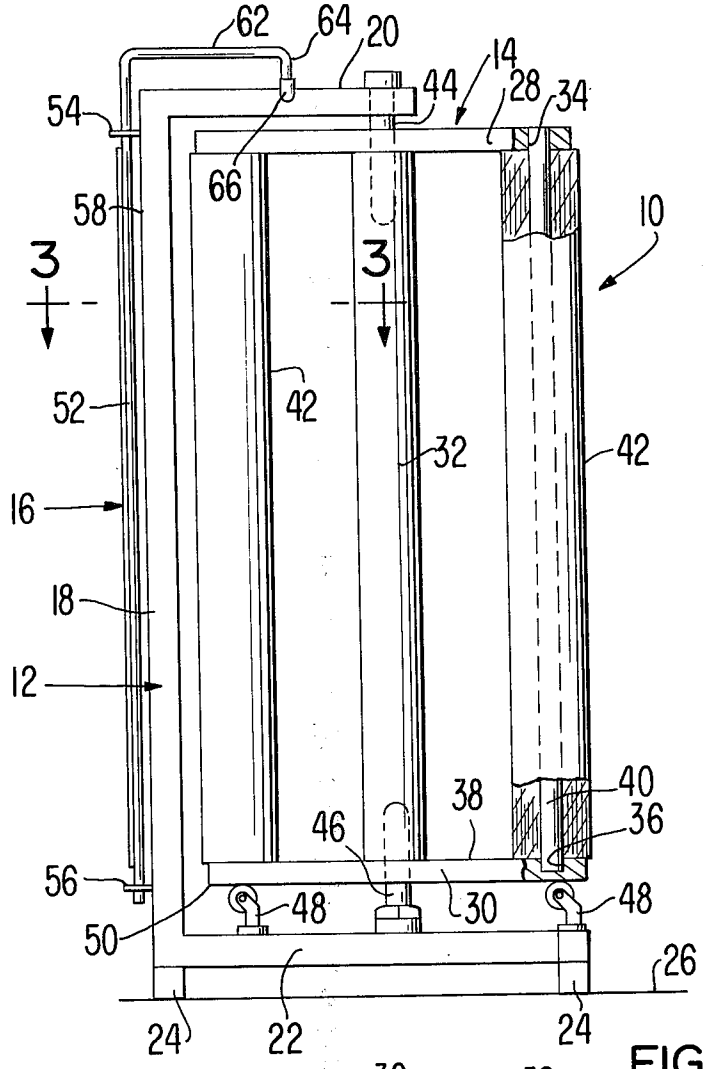


FIG. 2

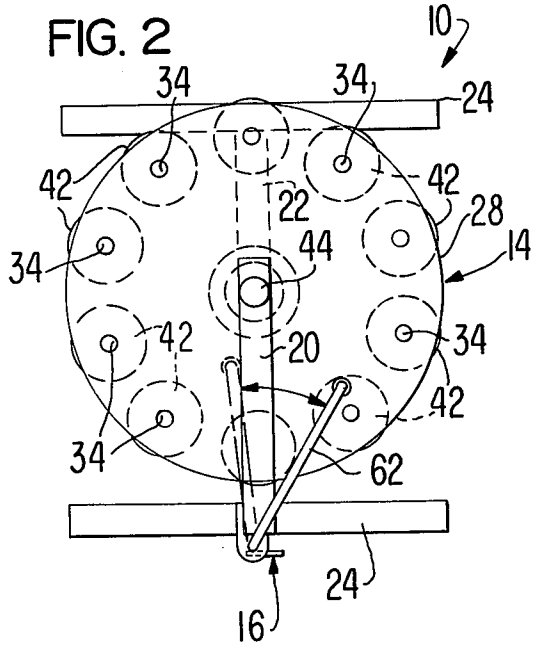


FIG. 3

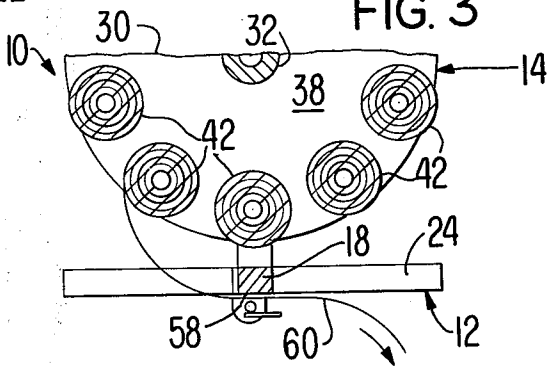
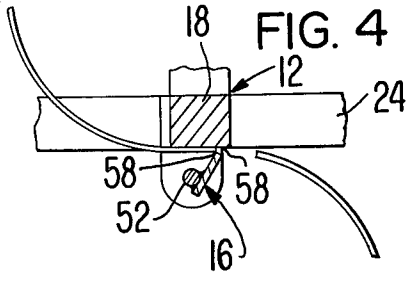


FIG. 4



HOLDER FOR PAPER ROLLS

This invention relates to improvements in the handling of paper rolls and, more particularly, to a holder for a plurality of such rolls to facilitate the selective removal of segments of paper from the various rolls.

BACKGROUND OF THE INVENTION

In classrooms of primary and secondary schools, it is oftentimes desirable for a teacher to have readily accessible paper segments of different colors. Typically, poster work and other art-related activities require multi-colored paper. Because some paper rolls are quite large, bulky and heavy, the storage and handling of such rolls in a classroom becomes a problem. Sometimes the rolls are 3 to 4 feet in length and straight-edge 10 to 20 pounds in weight. Moreover, the cutting of the paper into desired lengths from the roll requires either sissors or tearing by a straight-ecge which is laid on the paper when the latter has been partially unrolled from its roll and supported by a flat surface therebelow.

Because of the foregoing problems, it has become apparent that a need has arisen for a holder for paper rolls of the type described to simplify not only the storage of the rolls but also the handling of them as well. Also, a simplified way of cutting segments of paper from the rolls is required in view of the bulkiness, weight and size of the rolls.

SUMMARY OF THE INVENTION

The present invention is directed to a holder for a plurality of paper rolls of the type described wherein the holder is simple and rugged in construction yet it contains a large number of rolls in a minimum of space and in a neat, compact manner so that portions of paper from any one of the rolls can be readily removed therefrom without having to pick up a roll from a pile and move it to a location at which it can be supported on a flat surface for cutting. To this end, the holder includes a spool-like magazine having a pair of spaced end members interconnected by a central core-like member. The various paper rolls are removably coupled to the outer peripheries of the end members by shafts which removably extend through the paper rolls and are coupled in some suitable manner to the end members yet allow the rolls to rotate relative to the magazine.

The support for the magazine has an elongated, flat surface adjacent to which is a cutter bar having an edge adjacent to the flat surface. The bar is pivotally coupled to the support so that the edge of the bar can be moved into proximity with the flat surface to clamp a portion of paper from a roll against such surface. Thus, the paper can be manually torn along the edge of the bar and thereby separated from the roll. Means is also provided to releasably lock the bar in a position with such edge clamping the paper to the flat surface to facilitate the cutting of the paper.

Another feature of the invention is that the holder can be provided with casters on the base portion thereof so that it can be moved from place to place. Also, the paper rolls can be easily replaced and any roll from which paper is to be taken can be readily moved into a position adjacent to the bar by merely rotating the magazine relative to its support. The holder of the present invention requires no special skills and can be used on paper rolls of different sizes.

The primary object of this invention is to provide an improved holder for a number of paper rolls to permit selective removal of portions of paper from any one of the rolls without having to lift and thereby handle the paper roll yet a large number of rolls can be positioned on the holder in a minimum of space.

Another object of this invention is to provide a holder of the type described wherein the holder has a rotatable magazine for mounting the paper rolls and is provided with an improved cutter bar common to all of the rolls carried by the magazine so that the magazine itself need only be rotated into a position with a selected paper adjacent to the cutter bar to allow a portion of paper from the selected roll to be threaded into a slot adjacent to the bar and the bar locked in place so that the paper can then be manually torn from the roll quickly and easily without having to return the roll to a storage location.

A further object of this invention is to provide a holder of the aforesaid character wherein the holder is simple and rugged in construction, can hold a relatively large number of paper rolls, and requires only a minimum of space yet even the most unskilled person can utilize the holder without special instructions.

Other objects of this invention will become apparent as the following specification progresses, reference being had to the accompanying drawings for an illustration of an embodiment of the invention.

In the drawing:

FIG. 1 is a side elevational view of the holder for paper rolls forming the subject of the present invention, parts being broken away and in section to illustrate details of construction;

FIG. 2 is a top plan view of the holder;

FIG. 3 is a fragmentary, cross-sectional view taken along line 3—3 of FIG. 1; and

FIG. 4 is an enlarged view similar to FIG. 3 but showing the cutter bar of the holder in a closed position to permit a segment of paper from a paper roll to be torn from the roll itself.

The holder for paper rolls of this invention is broadly denoted by the numeral 10 and includes a support 12, a magazine 14 rotatably mounted on the support, and a cutter bar 16 pivotally mounted on the support and movable into a position to facilitate the tearing of portions of paper from any one of a number of paper rolls carried by the magazine. For purposes of illustration, the magazine is shown and hereinafter described as being rotatable about a vertical axis. However, one skilled in the art will understand that the teachings of the invention can be carried out even if the magazine is rotatable about a horizontal axis.

Support 12 includes an upright post 18 having a pair of arms 20 and 22 at the upper and lower ends thereof, respectively. Arms 20 and 22 are integral with post 18 and extend laterally therefrom. Arm 22 has a pair of legs 24 rigid thereto and extending transversely thereof, the legs being spaced apart and adapted to rest on a floor 26 (FIG. 1) so that the support with the magazine carried thereon will be stable. Legs 24 may be provided with castors (not shown) thereon to allow holder 10 to be easily moved over floor 26.

Magazine 14 includes a pair of end, disk-like members 28 and 30 interconnected by a central, spindle-like member 32 so that the magazine 14 has a spool-like configuration. End member 28 has a plurality of spaced holes 34 therethrough adjacent to the outer periphery

thereof as shown in FIGS. 1 and 2. End member 30 has a number of spaced recesses 36 therein in the upper surface 38 thereof near the outer periphery. A recess 36 is provided for each hole 34, respectively, and the recesses 36 are in vertical alignment with respective holes 34. Thus, a shaft or spindle 40 can enter hole 34 and extend downwardly and into recess 36 while spanning the distance between members 28 and 30. The length of shaft 40 is such that it extends into a corresponding hole 34 and is retained in a coupled relationship to magazine 14.

Each shaft 40 is adapted to rotatably mount a paper roll 42, the roll having a central tubular region for receiving the corresponding shaft 40. A typical paper roll may be 36 inches to 48 inches in length. It may or may not have a central core member independent of the paper which forms the roll.

Magazine 14 is mounted for rotation about a vertical axis through a pair of pins or stub shafts 44 and 46 at the upper and lower ends of support 12, respectively. Pin 44 is carried by arm 20 near the outer end thereof and extends into a recess in the upper end of central member 32. Member 32 may be tubular or, in the alternative, could be of solid material with an end recess formed in each end thereof.

A number of casters 48 are carried by arm 22 and engage the lower surface 50 of end member 30 as shown in FIG. 1. Typically, three casters 48 are provided for this purpose, the casters being spaced apart in any suitable configuration. Pin 46 is also carried by arm 22 and is vertically aligned with pin 44. Thus, magazine 14 can rotate about the vertical axis through pins 44 and 46.

Cutter bar 16 is of typically a metallic material and is secured, such as by welding, to a rod 52 rotatably carried by upper and lower ears 54 and 56 on the flat outer surface 58 of post 18. Rod 52 is secured to cutter bar 16 along one marginal edge thereof so that the opposite marginal edge 58 can be pivoted from a first position spaced from flat surface 58 of post 18 as shown in FIG. 3 to a second position adjacent to surface 58 as shown in FIG. 4. Thus, when the cutter bar is in the position of FIG. 3, a slot is formed between the cutter bar and surface 58 so that an end portion 60 of paper from a paper roll 42 can be threaded through the slot and outwardly thereof. When the desired length of paper has been determined, the cutter bar is rotated into the position shown in FIG. 4, clamping portion 60 against flat surface 58 so that the paper portion 60 can be manually torn along edge margin 58 of cutter bar 16.

Rod 52 has an L-shaped extension 62 thereon at the upper end thereof. Extension 62 is provided with a downward leg 64 provided with a resilient bumper member 66 thereon. Leg 64 is movable over the top of arm 20 from the full position of FIG. 2 to the dashed line postion thereof as the cutter bar 16 is moved from the position of FIG. 3 to the position of FIG. 4. Leg 64 must be lifted slightly upwardly so that bumper member 66 can slide over the flat upper surface of arm 20. The reason for this is that leg 64 is longer than the distance between the horizontal portion of extension 62 and the upper surface of arm 20. Extension 62 is yieldable to allow this to take place. Once leg 64 gets onto the left-hand side of arm 20 when viewing FIG. 2, cutter bar 16 is locked in place, clamping the paper portion 60 against surface 58. To unlock the cutter bar, extension 62 is manually lifted and moved to the full-line position of FIG. 2.

In use, a plurality of paper rolls is coupled with magazine 14 by the use of shafts 40 in the manner described above. When a segment of paper is to be removed from one of the paper rolls, the magazine is rotated until the selected paper roll 42 is in a position adjacent to post 18, such as in FIG. 3. With cutter bar 16 open, the paper is threaded through the slot formed by the cutter bar and surface 58. Then, the cutter bar is moved into its clamping position of FIG. 4 and the paper portion is torn from the paper roll.

I claim:

1. A holder for a plurality of paper rolls comprising: a magazine having a pair of opposed, spaced end members and means on the outer peripheries of the end members for rotatably mounting a plurality of paper rolls in respective operative positions thereon with the axes of the rolls extending between the end members; means coupled with the magazine for mounting the same for rotation about an axis extending longitudinally of the axes of the paper rolls when the same are in said operative positions, said mounting means having a fixed post extending longitudinally of said axes of the paper rolls; a bar having a paper-engaging edge; means shiftably mounting the bar on the post with the bar extending longitudinally thereof; and means coupled with the bar for releasably locking the same in a fixed position with said edge of the bar clamping a portion of the paper of one of the rolls to said post, whereby the paper can be pulled against said edge and torn as the bar remains in said fixed position.

2. A holder as set forth in claim 1, wherein the post has a pair of laterally extending ears at the upper and lower ends thereof, the bar being pivotally connected to said ears.

3. A holder as set forth in claim 1, wherein the magazine is rotatable about a vertical axis, one end member having a hole therethrough for each roll-receiving position of the magazine, the other end member having a recess aligned with a corresponding hole of the other end member, the roll mounting means for each roll including a shaft insertable in a respective hole and receivable in a respective recess.

4. A holder for a plurality of paper rolls comprising: a magazine having a pair of opposed, spaced end members and means on the outer peripheries of the end members for rotatably mounting a plurality of paper rolls in respective operative positions thereon with the axes of the rolls extending between the end members; an upright post having an outer surface and a pair of laterally extending ears at the upper and lower ends thereof; means coupled with the magazine for mounting the same for rotation about an axis extending longitudinally of the axes of the paper rolls when the same are in said operative positions; a bar pivotally coupled to said ears, whereby the bar is mounted on the post adjacent to said outer surface with the bar extending longitudinally of said axis and movable toward and away from said outer surface, said bar being adapted to clamp a portion of a paper sheet against said outer surface; and an extension rigid to the bar and extending laterally therefrom, said post having an arm extending laterally therefrom adjacent to said extension, the latter having a yieldable projecting portion movable in sliding engagement over the arm and onto one said thereof for releasably holding the bar in a position clamping a portion of the paper of one of the rolls to said outer surface.

5. A holder for a plurality of paper rolls comprising: a magazine having a pair of opposed, spaced end members and means on the outer peripheries of the end members for rotatably mounting a plurality of paper rolls in respective operative positions thereon with the axes of the rolls extending between the end members; means coupled with the magazine for mounting the same for rotation about an axis extending longitudinally of the axes of the paper rolls when the same are in said operative positions, there being a post extending longitudinally of said axes of said paper rolls, a bar having a paper-engaging edge and extending longitudinally of said post; means shiftably mounting the bar for movement into and out of a fixed position with said edge of the bar clamping a portion of the paper of one of the rolls to said post; and means coupled with the bar for releasably locking the same in said fixed position, whereby the paper from any one of said rolls can be pulled against said edge and torn as the bar remains fixed relative to the post.

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