Oct. 17, 1950 H. TOOMBS 2,526,440

HOLDER FOR SPOOLS OF RIBBON AND THE LIKE

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Fig. 1.

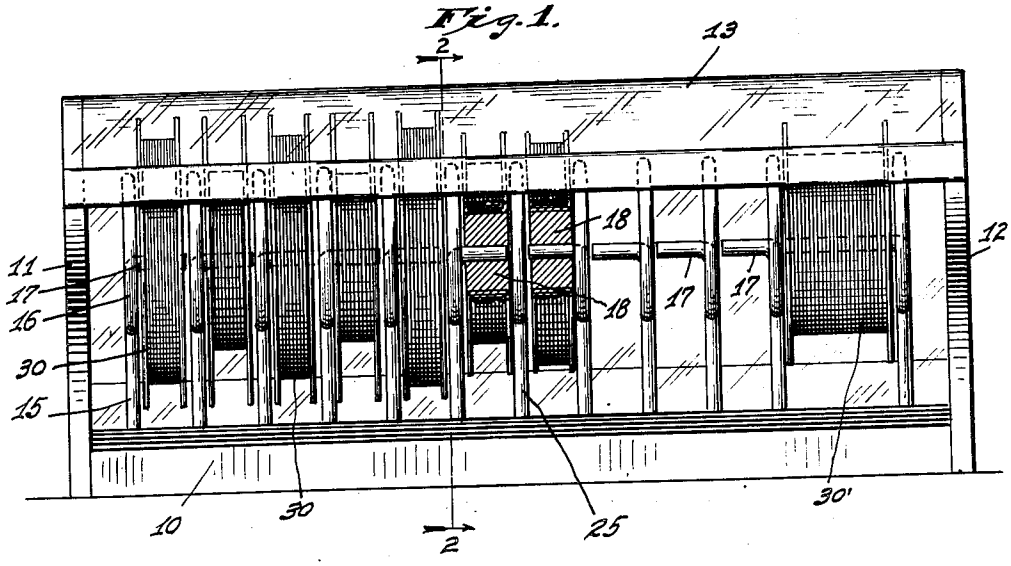
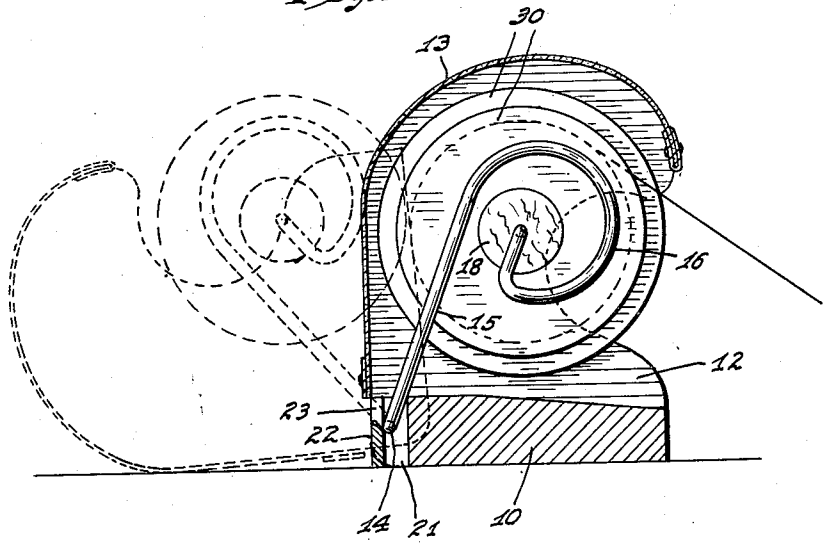


Fig. 2.



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Fig. 3.

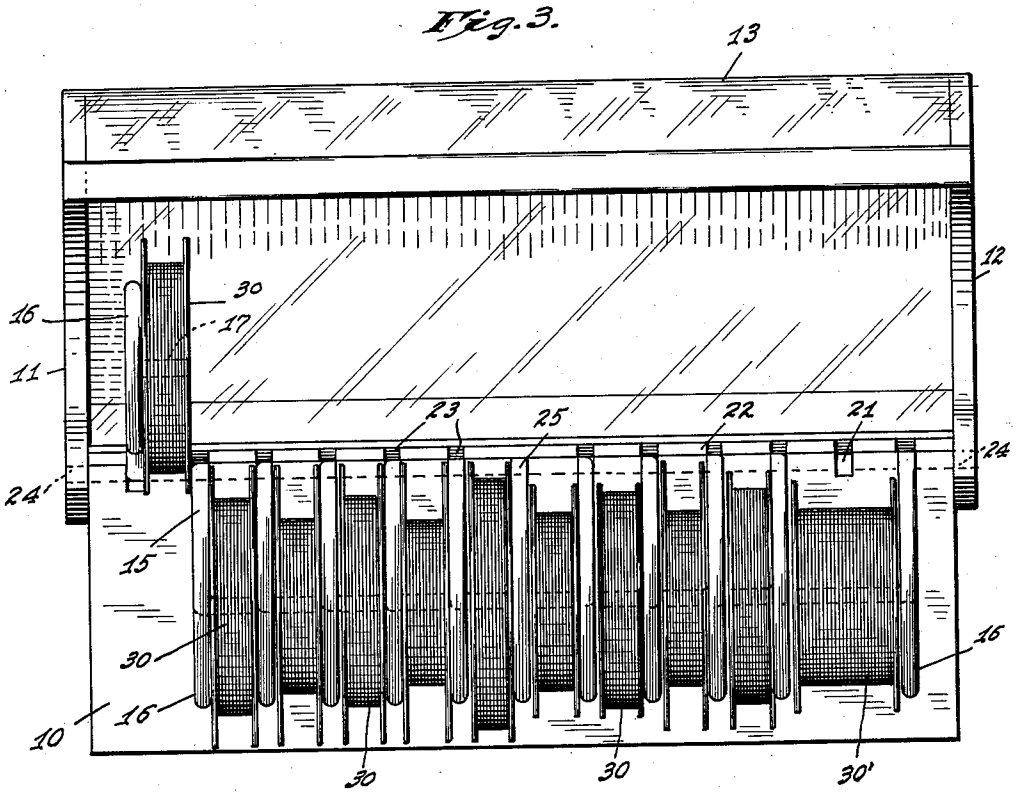


Fig. 4.

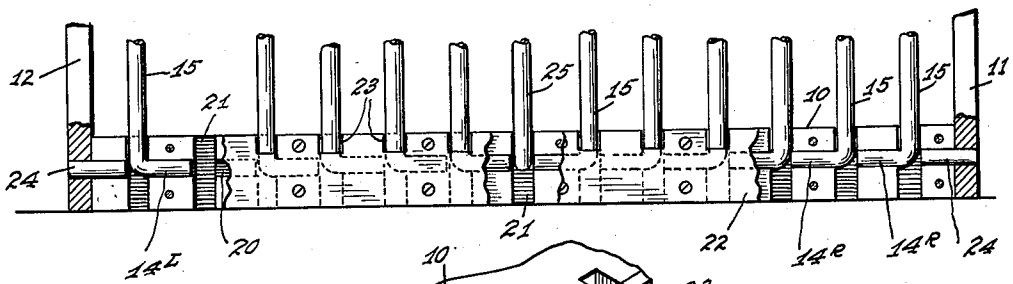
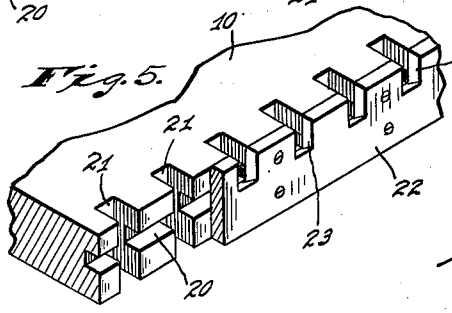


Fig. 5.



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Fig. 6.

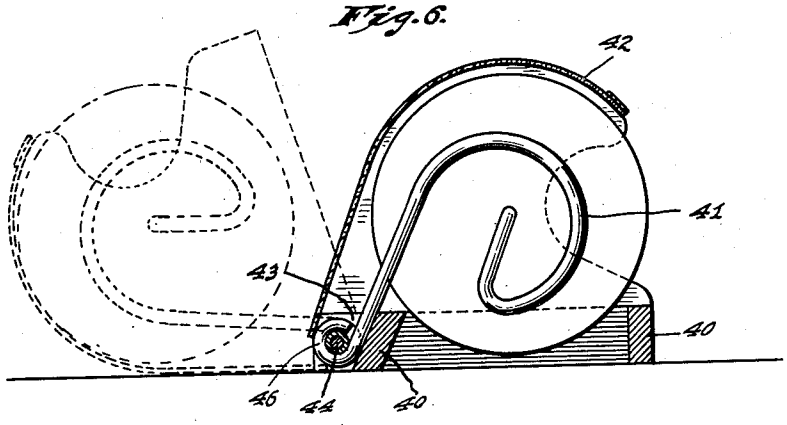


Fig. 7.

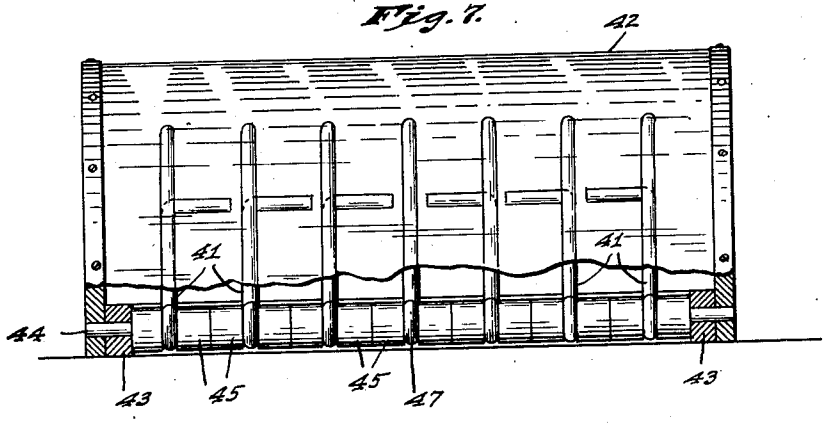
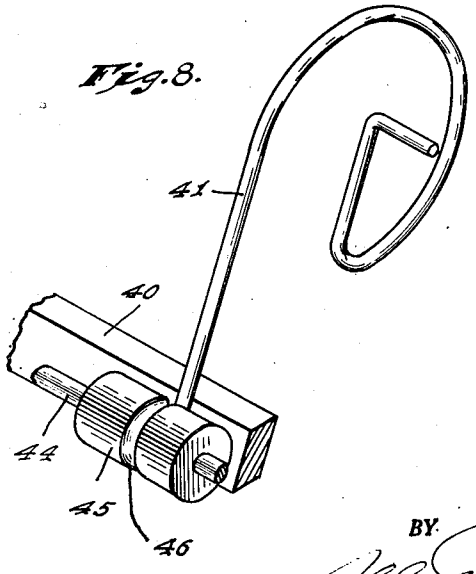


Fig. 8.



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Patented Oct. 17, 1950 2,526,440

UNITED STATES PATENT OFFICE

2,526,440

HOLDER FOR SPOOLS OF RIBBON AND THE LIKE

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Application August 27, 1947, Serial No. 770,871

7 Claims. (Cl. 242—55.3)

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This invention relates to a holder and dispenser for ribbon or tape, especially adapted for use, as by florists, where a variety of ribbons and taping material must be kept available for use in decorating or tying packages, flowers, and the like.

Ribbons and taping material for such uses are ordinarily supplied by the manufacturer on disposable spools provided with an axial opening. It is for ribbons which are so packaged on spools that the holder of this invention is intended.

It is the object of this invention to provide a holder for a plurality of spools, which will hold the spools in good order and arranged for ready and convenient selection and use of their ribbons as the need may arise, which will protect the spools and the ribbon or tape on them from being soiled, and which will permit the ready replacement of individual spools in the holder.

In carrying out my invention, I provide a suitable elongated base, and pivot along an edge thereof a series of spool supports, each providing a spool supporting spindle and a retainer for one side of a spool, and I space the spool supports so that the retainer of one support lies adjacent the end of the spindle of an adjacent support, to cooperate with that adjacent spool support to hold its spool on its spindle.

Stops position the several spool supports in an inclined position at one side of the vertical plane containing their pivots, and each spool support may be individually swung to a position on the other side of that plane, and against another stop, where it lies sufficiently far out of alignment with the normal position of the series of spool supports to permit a spool to be mounted thereon and to be removed therefrom by axial movement on or off the spindle of that support. This pivotal movement of an individual spool support out of alignment with the series of such supports not only brings its spindle and retainer to a position which permits replacement of the spool on that pivoted support, but also by the removal of the retainer of that pivoted support permits replacement of the spool on the next adjacent support.

The ribbon holder is also provided with end walls which carry a cover which is desirably transparent over at least a portion of its area to expose the spools for selection, which cover desirably is pivotally mounted on a common or parallel axis with the individual spool supports so that it may be swung out of normal position to permit swinging the individual spool supports sufficiently out of alignment with the series of

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such supports to permit the replacement of spools as described above.

The accompanying drawings illustrate my invention. In such drawings Fig. 1 is an elevation taken from the dispensing side of one form of my holder; Fig. 2 is a section taken on the line 2—2 of Fig. 1, and showing in dotted lines the cover and a spool support in spool-replacing position; Fig. 3 is a plan view of the holder shown in Fig. 1, with the cover and one spool support in the position shown in dotted lines in Fig. 2; Fig. 4 is a rear elevation, partly in section; Fig. 5 is an isometric view showing the conformation of the rear edge of the base; Fig. 6 is a view similar to Fig. 2 illustrating a modified form of holder; Fig. 7 is a rear elevation, in partial section, of the modified holder; and Fig. 8 is a fragmental isometric view illustrating details of a spool-support mounting.

The spool holder shown in Figs. 1 to 5 comprises a base 10, and a cover comprising two end walls 11 and 12 and a transparent shield 13 extending from the lower rear edge of the end walls upwardly and in a curve over the top of the spools mounted on the holder and thence downwardly to overhang the fronts of such spools. The individual spool supports are conveniently formed of heavy wire, bent to form a stub pivot 14 and having a shank 15 extending upwardly and forwardly from the pivot into a curved portion 16 of a diameter larger than the normal opening in a spool but smaller than the circumference of a spool, to form a retainer, and thence inwardly and laterally to form a spindle 17 for a spool. Where necessary or desirable, the spindle or the spool may be provided with a bushing 18 to fit the opening in the spool and having an axial opening received on the spindle 17; in which case the retainers will hold in place both the bushings and the spools.

As is shown in Figs. 4 and 5, the pivot bearings for the pivots 14 of the several spool supports are desirably formed in the rear edge of the base 10. For this purpose, the rear edge of the base 10 is provided with a longitudinal groove 20 to receive the several stub pivots 14, and with vertical solts 21 to clear the shanks 15 of the several spool supports. The bottoms of the slots 21 are arranged to act as the stops to position the several spool supports in normal position in an aligned series. A retainer plate 22 is secured against the rear face of the base 10 to overlie the groove 20 and retain the pivots 14 therein. Such plate 22 is desirably provided with slots 23 in alignment with the several slots 21, and the

bottoms of the slots 23 are formed to provide the stops to position the several spool supports in spool-removing position, as shown in dotted lines in Fig. 2.

The cover, comprising the end walls 11 and 12 and the transparent shield 13 are desirably pivoted to the base co-axially with the pivots 14, as by pins 24 having a press fit in the end walls 11 and 12 and extending into the ends of the groove 20.

As may be seen in Fig. 4, the pivots 14 of the several spool supports are turned inwardly, toward the center of the base. Thus, the pivots 14L at the left of Fig. 4 are extended to the right from their adjoining shanks 15, so that such pivots extend inwardly along the groove 20 from their respectively associated slots 21. Similarly, the pivots 14R at the right of Fig. 4 extend to the left from their adjoining shanks 15 and inwardly along the groove 20 from their associated slots 21. This arrangement frees the end portions of the groove 20 for reception of the pins 24 which form the pivotal mounting for the cover. At the center of the base, there is a fixed retainer 25 which is mounted in the center slot 21 by means of a shank bent forwardly and received in a bore in the base 10. All of the spool support pivots 14, the retainer 25, and the cover pivots 24 are retained in their proper positions by the retaining plate 22.

As shown in the drawings, the pivot bearings and slots 21 for the several spool holders are equally spaced, with a spacing to fit the widest of the most commonly used spools. The presence of a retainer joining or close to each end of each spindle, and the form of the retainer, permits the use of spools which are much narrower than the length of the spindles or of the bushings thereon. Still wider spacing, as for a wide spool 30', is secured by leaving vacant one of the pivot bearings and slots 21; but the spacing need not be equal and may be varied in any desired arrangement to provide for spools of ribbon of different widths. Where the spacing is wider, the spindle 17 in the wider space is desirably made longer, although where the spindle-receiving hole in the spool or its mounting bushing 18 is continuous and not merely a pair of punched holes in the side walls of the spool, the spools will operate satisfactorily without full spindle support.

In use, the spools 30 are mounted on the several spindles 17, with or without bushings 18 as may be necessary, and in any desired arrangement with respect to ribbon color or spool thickness and diameter, by pivoting the individual spool supports rearwardly to the position shown in dotted lines in Fig. 2 and slipping the spools onto the spindles 17. The several spool supports of each end group may all be pivoted to the mounting position, and loaded consecutively beginning at the center of the holder.

With the several spool supports loaded with spools, the ends of the ribbons on such spools hang down at the front of the holder in position for convenient use as desired. The several spools will all be visible through the transparent cover 13, which will protect the spools and the ribbon thereon from soil.

The holder may be mounted on a horizontal surface, as shown in Fig. 2, or may be mounted on an inclined or vertical surface with the open side of the cover downward, and the holder will provide equal accessibility and protection for the ribbons in any such case.

When one or more spools has been emptied of its ribbon, the cover 13 may be pivoted rearwardly, the support containing the empty spool moved to loading position, as shown in dotted lines in Fig. 2, and the empty spool removed and replaced by a full spool.

The modified holder illustrated in Figs. 6, 7, and 8 comprises a base 40, a series of spool-supports 41, and a cover 42, all of which are substantially the same as the corresponding elements of the construction shown in Figs. 1 to 5 except in respect to the manner in which the supports and cover are pivotally mounted on the base 40.

At its ends, the base 40 is provided with a pair of rearwardly projecting ears 43 through and outwardly beyond which there extends a continuous pivot pin 44. Each of the spool-supports 41 is secured to a sleeve 45 rotatably mounted on the pin 44, the several sleeves 45 substantially filling the space between the ears 43 in order that the spool-supports will be located in definite axial positions along the pin 44. Conveniently, where the supports 41 are formed of circular wire, each of the bearing sleeves 45 is provided with a central annular groove, and the wire of the support is bent to form an eye 46 tightly received in such groove. The device may embody a central retainer 47, corresponding in function to the retainer 25 in the construction of Figs. 1 to 5 and mounted on one of the sleeves 45.

The cover 42 is conveniently mounted on the base 40 by arranging the pivot pin 44 to project outwardly beyond the ears 43 and into pin-receiving openings in the end walls of the cover.

The holder of Figs. 6 to 8 possesses the same advantages in operation as does the holder of Figs. 1 to 5 and operates in the same way. It lacks any stop for limiting rearward movement of the individual supports 41, and hence any of such supports can be swung rearwardly until the spool thereon engages the open cover, as indicated in dotted lines in Fig. 6. However, a spool can be removed from or applied to any support whenever the support is swung rearwardly far enough to permit its spool to clear spools on other supports.

I claim as my invention:

1. A holder for spools of ribbon and the like, comprising a base, a longitudinal series of co-axial pivot bearings on said base, a series of spool supports pivotally mounted in said pivot bearings, means to position said supports in spool holding position and to permit pivotal movement of said supports individually to a position sufficiently misaligned from the spool holding positions of adjacent supports to permit replacement of the spool on the misaligned support, each of said spool supports comprising a spool-receiving spindle and a spool-side retainer, said spool supports being spaced so that the retainer of one support prevents displacement of the spool on the spindle of an adjacent support, a cover comprising end members and a transparent shield in position to overlie the spools on the spindles of said supports, said cover being mounted for removal from its spool-covering position to permit said spool supports to be moved to their misaligned replacement positions.

2. A holder as defined in claim 1 in which the cover is pivoted coaxially with the spool supports.

3. A holder as defined in claim 1 in which the spool supports are pivoted on coaxial pivots and in which the pivots of the several spool supports extend inwardly, in combination with a spool retainer mounted between the free ends of a pair of pivots.

4. A holder for spools of ribbon and the like,

comprising a series of spool holders each having a spool supporting spindle and a pivot parallel therewith, an axially aligned series of pivot bearings for the pivots of said spool supports, one or more of the pivots of the supports at one end of said series extending toward the pivots of the supports at the other end of said series, and a cover for the spools mounted on said supports, said cover being mounted on pivot pins coaxial with the pivots of said supports.

5. A holder for spools of ribbon and the like, comprising a base, a series of spool supports pivotally mounted on said base for movement to a position misaligned with said series, each of said supports comprising a rod bent to form a shank at its pivot-end and a spindle at its free end, and therebetween to form a generally spiral spool-side retainer spaced radially from said spindle and extending in excess of 180° thereabout, said supports being spaced so that the retainer of one support lies adjacent the end of the spindle of an adjacent support to prevent displacement of a spool from the spindle of such adjacent support.

6. A holder for spools of ribbon and the like, comprising a base, a series of spool supports pivotally mounted on said base for movement to a position misaligned with said series, each of said supports including a spindle and a spool-side retainer, said supports being spaced so that the

retainer of one support lies adjacent the end of the spindle of an adjacent support to prevent displacement of a spool from the spindle of such adjacent support, said base being provided with a horizontally extending pivot pin, such spool supports being independently supported on said pivot pin and a spool-cover also pivoted on said pivot pin.

7. A holder as defined in claim 5 with the addition that said base is provided with a horizontally extending pivot pin, said spool-supports being individually pivoted on said pivot pin, and a spool-cover also pivoted on said pivot pin.

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