Jan. 23, 1962 N. F. VANDERVOORT 3,018,067

MAGAZINE FOR SEWING THREAD

Filed Dec. 16, 1960

3 Sheets-Sheet 1

FIG. 1

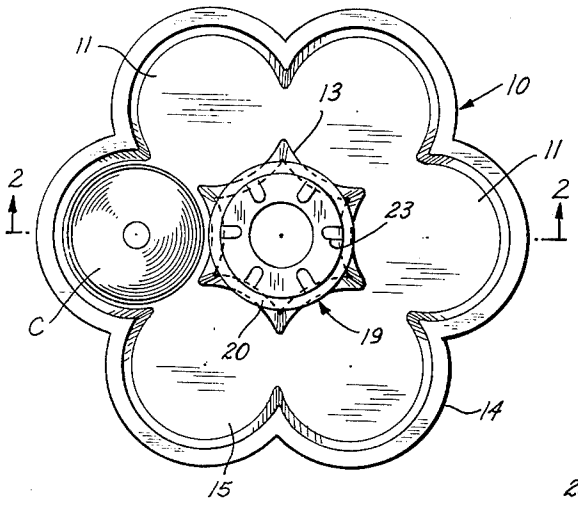


FIG. 3

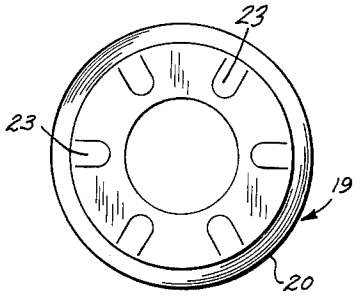
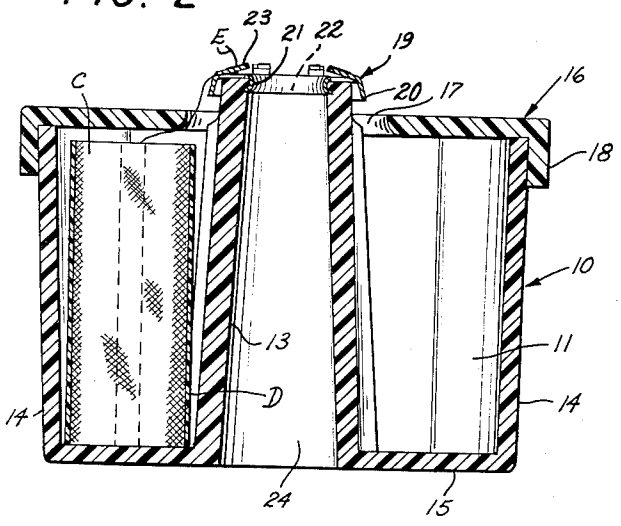


FIG. 2



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FIG. 4

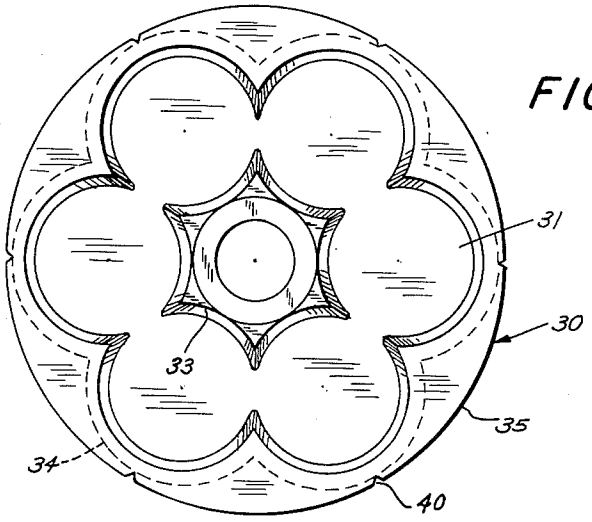


FIG. 5

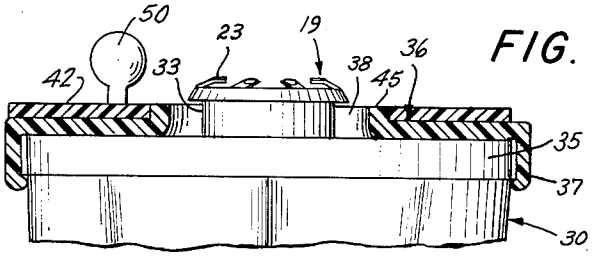
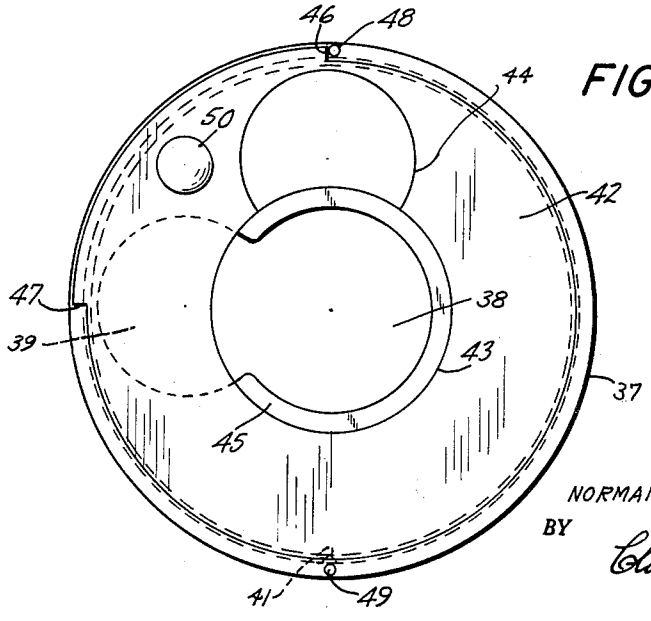


FIG. 6



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FIG. 7

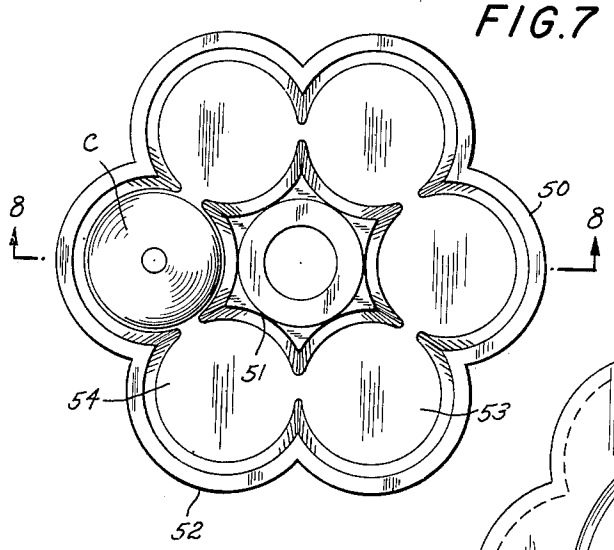
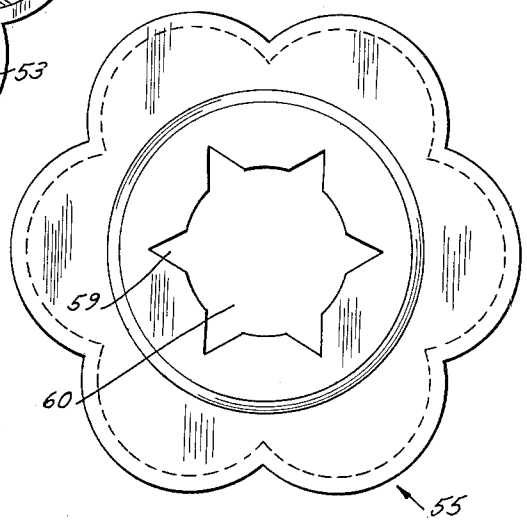


FIG. 9



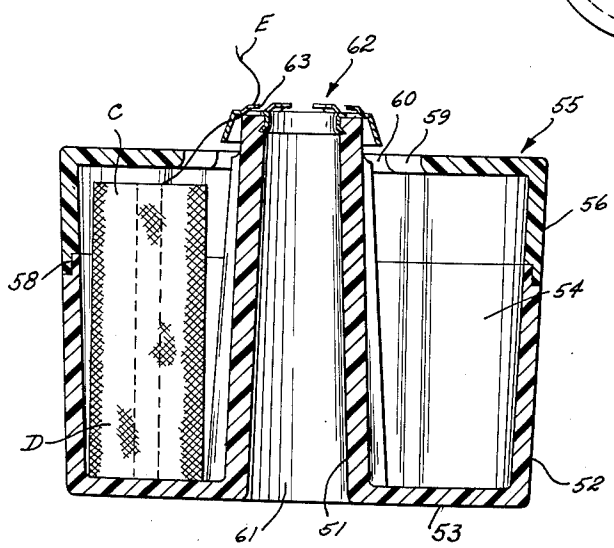


FIG. 8

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United States Patent Office 3,018,067
Patented Jan. 23, 1962

3,018,067

MAGAZINE FOR SEWING THREAD

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Filed Dec. 16, 1960, Ser. No. 76,335
4 Claims. (Cl. 242—137)

This invention relates to a magazine for sewing thread for use on sewing machines.

An object of the invention is to provide a magazine having a plurality of arcuately spaced cells adapted to contain cops of thread which is dispensed through an opening in the top of the container and which container is formed with a central opening adapted to receive the upstanding spindle of a sewing machine for rotatably mounting the magazine thereon to dispose any one of the cells between the spindle and the forward end of the head of the machine for use of the thread in the cell so disposed for sewing.

Another object of the invention is to provide a magazine for sewing thread in the form of cylindrical cops which are loosely mounted in individual cells for dispensing the thread from the inner periphery of the cops and through a central opening in the cover.

The invention also comprehends a magazine of said character for receiving a number of cops of thread which may vary in color whereby each color of thread may be used as desired.

Another object of the invention is to provide a cover for a magazine of said character having an opening adjacent one edge thereof and adapted to be rotated to dispose the opening in alignment with the cells respectively for charging the same with a cop and which cover is also formed with a central opening through which the thread from the several cops is dispensed.

Still another object of the invention is to provide the magazine with a central hub for mounting the magazine on the spindle of the sewing machine with the hub projecting through the cover and surrounded by an annular opening for dispensing the thread from any one of the cops therethrough.

Still another object of the invention is to provide means on the protruding end of the hub for securing the outer end of the thread in projected relation through the dispensing opening and in position to be readily released for threading the sewing machine.

With the foregoing and other objects in view reference is now made to the following specification and accompanying drawings in which the preferred embodiments of the invention are illustrated.

In the drawings:

FIG. 1 is a top plan view of the holder of a magazine for sewing thread constructed in accordance with the invention and with the cover removed.

FIG. 2 is a vertical sectional view taken approximately on line 2—2 of FIG. 1 with the cover in position thereon.

FIG. 3 is an enlarged top plan view of the thread retaining means.

FIG. 4 is a top plan view of a holder of a magazine for sewing thread constructed in accordance with the invention and illustrating a modified form thereof.

FIG. 5 is a fragmentary side view of the holder with the cover shown in section and in position thereon.

FIG. 6 is a top plan view of the cover.

FIG. 7 is a top plan view of a magazine for sewing thread embodying still another form of the invention.

FIG. 8 is a vertical sectional view taken approximately on line 8—8 of FIG. 7 with the cover in position thereon.

FIG. 9 is a top plan view of the cover.

Referring to the drawings and more particularly to the form of the invention illustrated in FIGS. 1–3 thereof, the

magazine includes a holder 10 which is open at the top and is provided with a plurality of cells 11 for receiving cylindrical cops C of sewing thread for use on sewing machines. As illustrated, the holder is formed with six cells 11 disposed in arcuately spaced relation between fluted inner and outer peripheral walls 13 and 14, the wall portions thereof forming each cell being of arcuate formation and converging toward a bottom wall 15 which extends continuously between the inner and outer peripheral walls 13 and 14 and forms the bottom walls of the several cells.

The inner peripheral wall 13 converges upwardly and protrudes above the outer peripheral wall 14 and constitutes a hub for mounting the magazine on the upstanding spindle of a sewing machine. The magazine also includes a cover 16 which is formed with a central opening 17 through which protrudes the upper end of the inner peripheral wall 13 and through which opening the sewing threads from the several cops are dispensed. The cover is also provided with a peripheral rim 18 which frictionally engages about the outer peripheral wall 14.

In order to retain one end of the thread of each of the several cops in position to be readily grasped for threading the sewing machine, a thread retaining means 19 is provided which is releasably affixed to the upper end of the hub 13. The retaining means 19 is formed with a downturn peripheral rim 20, and with a downwardly and outwardly curved inner peripheral rim 21 adapted to engage in an annular groove 22 in the inner face of the peripheral wall or hub 13 for retaining the same thereon. The retaining means is formed with spring tongues 23 which are cut and bent upwardly from the body thereof between the rims 20 and 21. The tongues 23 are 6 in number which are arcuately spaced apart, and are preferably located in diametrical alignment with the centers of the cells 11 respectively.

The cylindrical cops C are loosely positioned in upright relation in the cells 11, and have a hollow center from which the thread is unwound for dispensing the same through the opening 17 in the cover 16. This provides means by which the end E of the thread of each cop may be pinched beneath one of the spring tongues 23 and retained in position to be readily released as desired for threading the machine. It is to be understood that the cells may be charged with the same color of thread so that the cops may be successively used without re-charging the magazine. The magazine may also be charged with cops of different color of thread whereby the several different colors may be used without re-charging the magazine.

It is to be understood that the holder 10 is freely rotatable on the spindle of the sewing machine extending upwardly in the central opening 24 in the inner peripheral wall or hub 13.

In the form of the invention shown in FIGS. 4 to 6 inclusive of the drawings, the invention is shown in its application to a magazine which similarly includes a holder 30 having a plurality of cells 31 arranged in arcuately spaced relation between fluted inner and outer peripheral walls 33 and 34 thereof. In this form of the invention, however, the outer peripheral wall 34 is formed with an annular flange 35 at the upper end thereof and the cover 36 is formed with an annular peripheral flange 37 adapted to slidably engage over the flange 35 to permit of the rotation of the cover with reference to any one of the cells 31. The cover 36 is formed with a central opening 38 through which protrudes the inner peripheral wall or hub 33 as in the previous form of the invention, and continuous with the central opening 38 is an opening 39 which is of a size corresponding to the size of the upper end of a cell 31 and which is adapted to be disposed in vertical alignment with any one of the cells for charging the same with a cylindrical cop of thread without removing the cover. The peripheral flange 35

of the holder is formed with vertical notches 40 on diametrical axes through the holder and through the cells respectively, and the peripheral flange 37 of the cover 36 is formed with an inwardly directed rib 41 which when engaged in any one of the notches 40 positions the opening 39 of the cover out of alignment with the cells. In order to close the opening 39 when not in use for inserting a cop into one of the cells, a plate 42 is mounted for limited arcuate turning movement on the upper face of the cover 36. The plate 42 is formed with a central opening 43 and with an opening 44 continuous therewith. The opening 44 is approximately the size of the opening 39 in the cover, while the opening 43 is somewhat larger than the opening 38 and extends about an upstanding collar 45 disposed in surrounding relation with the periphery of the opening 38 about which collar the plate 42 has turning movement. The plate is formed with shoulders 46 and 47 at arcuately spaced portions which are adapted to engage with upstanding lugs 48 and 49 respectively forming stops for limiting the arcuate turning movement of the plate. Thus, when the plate is disposed with the shoulder 46 in engagement with the lug 48 the opening 44 will be out of registry with the opening 39, and when the shoulder 47 is disposed in engagement with the lug 49 the opening 44 will be in registry with the opening 39 for the insertion of a cop therethrough. The plate 42 is provided with a manipulating knob 50 for turning the plate 42 to dispose the opening 44 into and out of registry with the opening 39 and for turning the cover 36 to dispose the opening 39 in registry with any one of the cells 31.

Arranged on the protruding upper end of the peripheral wall or hub 33 is a thread retaining means 19 which is similar in all respects to the retaining means in the previous form of the invention for releasably retaining the ends of the thread under the spring tongues 23 thereof.

The magazine may embody the form shown in FIGS. 7 to 9 inclusive of the drawings. In this form the holder includes fluted inner and outer peripheral walls 51 and 52 and a bottom wall 53 providing a plurality of cells 54 for cylindrical cops of sewing thread similar to the previous forms of the invention. However, in this form the outer peripheral wall 52 is of reduced height whereby the cops project through the upper ends of the cells. In this form, also, the cover 55 is formed with a deep peripheral flange 56 which is of a length to cover the upper end of the cops when in position on the holder. The peripheral wall 52 of the holder and the flange 56 of the cover are recessed on the outer and inner peripheries thereof as at 58 for snug engagement of the cover on the holder. Also, the cover is formed with triangular shaped recesses 59 extending outwardly from the central opening 60, the recesses being on diametrical central lines through the cells respectively. This provides independent openings through which the threads E from the several cops are dispensed respectively.

The magazine is adapted to be mounted on the upstanding spindle of a sewing machine for rotation of the magazine to dispense any one of the cells in position for dispensing of the thread therefrom for sewing or winding the thread on a bobbin. As in the previous forms of the invention the inner periphery wall 51 constitutes a hub with a central opening 61 for receiving the spindle. A thread retaining means 62 is secured in position on the protruding upper end of the hub for releasably retaining the ends of the thread E in position under the tongues 63 and which are released therefrom when the thread is to be used.

The cops C are covered on the outer peripheral face thereof with a transparent cylindrical casing D of themoplastic or other material for retaining the cops in formation and preventing unwinding of thread thereof and on which casing the size and color of the thread and other indicia may be applied.

While the preferred forms of the invention are shown and described herein, it is to be understood that same is not so limited but shall cover and include any and all modifications thereof which fall within the purview of the invention.

What is claimed is:

1. In a magazine for sewing thread for domestic or other sewing machines, a holder having inner and outer peripheral walls and a bottom wall, the inner faces of said inner and outer peripheral walls being fluted to provide arcuately spaced cells, each cell being formed by confronting reversely curved arcuate portions of said inner and outer peripheral walls for receiving in said cells a plurality of cops of thread arranged in supported relation on the said bottom wall, said inner peripheral wall providing a central opening for receiving a spindle of a sewing machine for rotatably mounting the holder thereon, and a cover removably arranged in covering relation on said outer peripheral wall and having a central opening through which opening the threads from the several cops are dispensed.

2. In a magazine for sewing thread for domestic or other sewing machines, a holder having inner and outer peripheral walls and a bottom wall for receiving in arcuately spaced relation a plurality of cops of thread arranged in supported relation on the bottom wall, said inner peripheral wall providing a central opening for receiving a spindle of a sewing machine for rotatably mounting the holder thereon, a cover removably arranged in covering relation on said outer peripheral wall and having a central opening through which opening the threads from the several cops are dispensed, and said cover having an opening at one side of and communicating with said central opening and which is of a size for inserting a cop of thread therethrough into said holder, and said cover being rotatable for successively inserting cops of thread therethrough for filling said holder.

3. In a magazine for sewing thread for domestic or other sewing machines, a holder having inner and outer peripheral walls and a bottom wall, the inner faces of said inner and outer peripheral walls being fluted to provide arcuately spaced cells, each cell being formed by confronting reversely curved arcuate portions of said inner and outer peripheral walls for receiving in said cells a plurality of cops of thread arranged in supported relation on the bottom wall, said inner peripheral wall providing a central opening for receiving a spindle of a sewing machine for rotatably mounting the holder thereon, a cover removably arranged in covering relation on said outer peripheral wall and having a central opening through which opening the threads from the several cops are dispensed, and said cover having an opening at one side of and communicating with said central opening and which is of a size for inserting a cop of thread therethrough into said holder, and said cover being rotatable for disposing said opening at the side of said central opening in registry with said cells respectively for filling the same with cops of thread.

4. In a magazine for sewing thread for domestic or other sewing machines, a holder having inner and outer peripheral walls and a bottom wall, the inner faces of said inner and outer peripheral walls being fluted to provide arcuately spaced cells, each cell being formed by confronting reversely curved arcuated portions of said inner and outer peripheral walls for receiving in said cells a plurality of cops of thread arranged in supported relation on the bottom wall, said inner peripheral wall providing a central opening for receiving a spindle of a sewing machine for rotatably mounting the holder thereon, a cover removably arranged in covering relation on said outer peripheral wall and having a central open portion through which opening the threads from the several cops are dispensed, and said cover having an open portion at one side of and communicating with said central open portion and which is of a size for inserting a cop of

thread therethrough into said holder, said cover being rotatable for disposing said open portion at the side thereof in registry with said cells respectively for filling the same with cops of thread, and a plate mounted on the upper face of said cover for arcuate turning movement and having an open portion adjacent one side thereof adapted to be disposed in registry with the open portion at the side of said cover for inserting a cop therethrough and for disposing said open portion in the plate out of registry with said side open portion in the cover for closing the same.

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