Feb. 29, 1944. P. MERCER 2,342,954

SPOOL HOLDER

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Fig. 1.

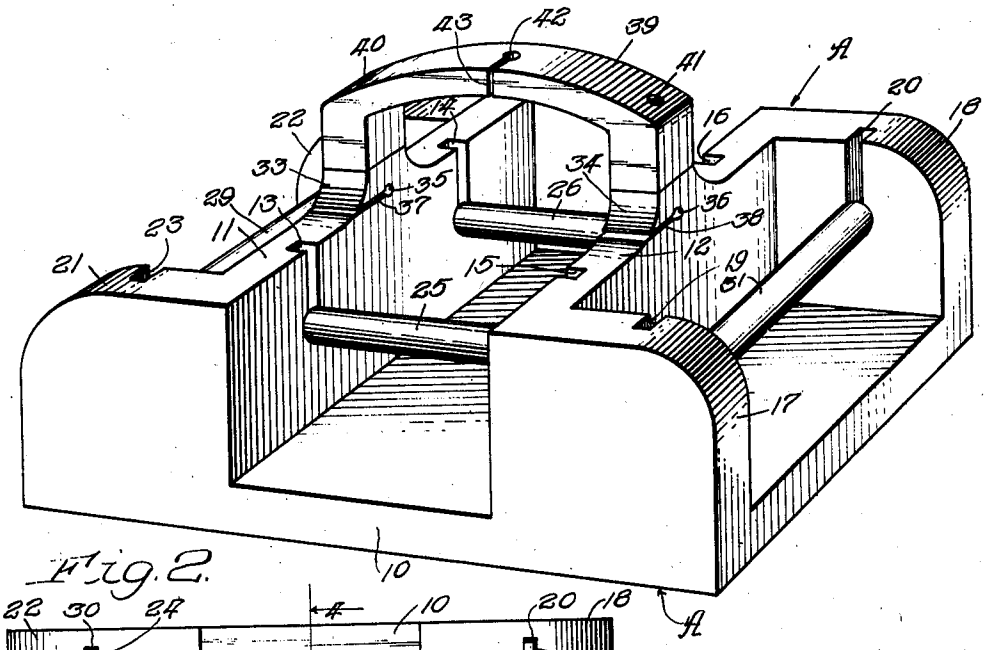


Fig. 2.

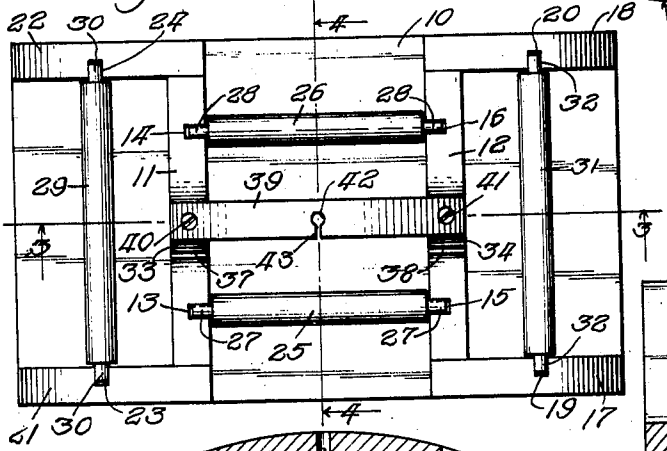
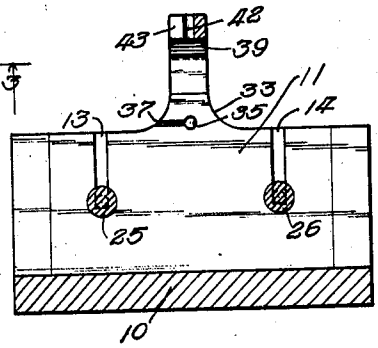


Fig. 4.



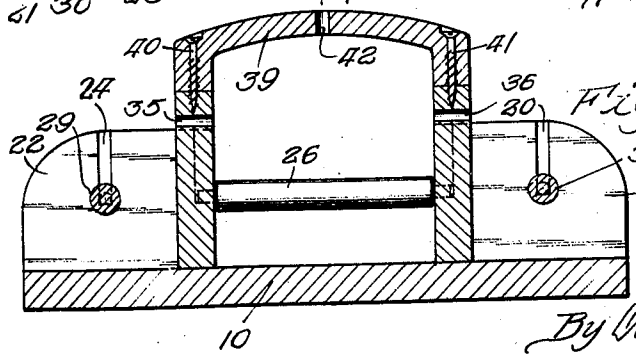


Fig. 3.

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Fig. 5.

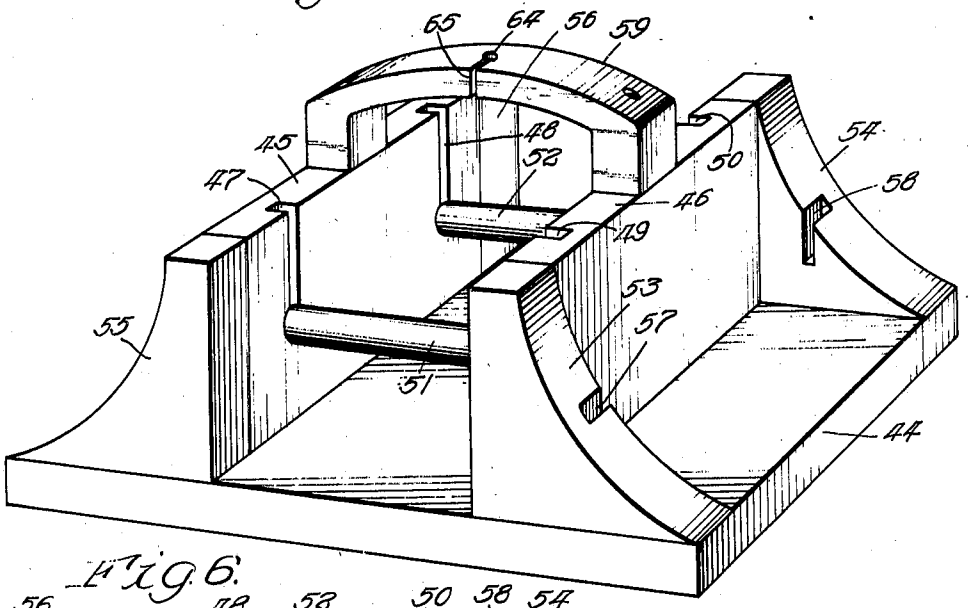


Fig. 6.

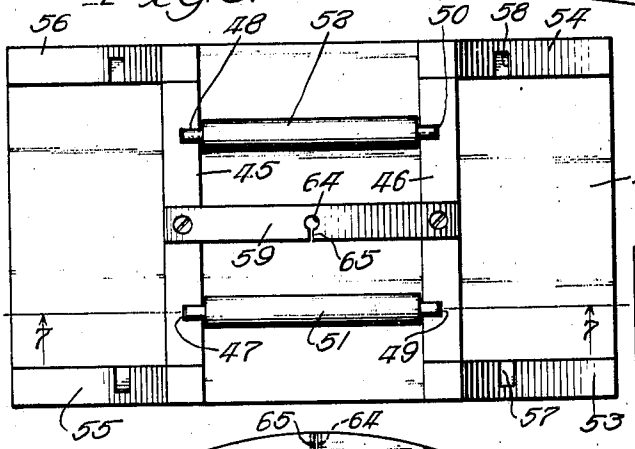
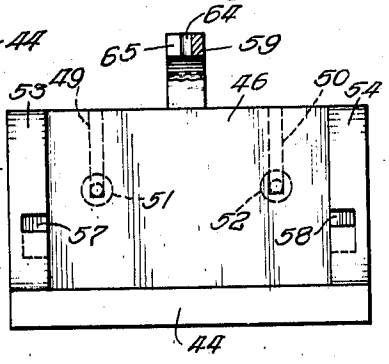


Fig. 8.



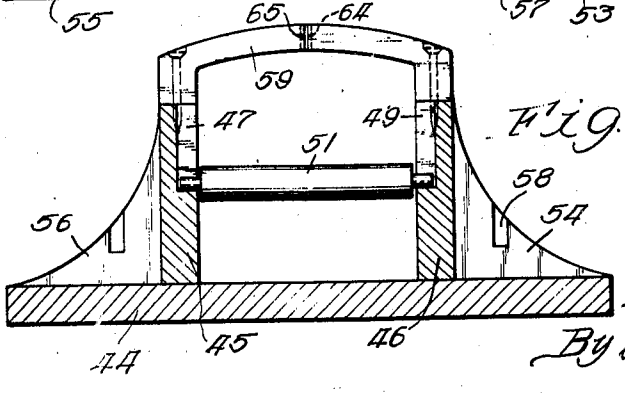


Fig. 7.

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UNITED STATES PATENT OFFICE

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SPOOL HOLDER

Paul Mercer, Chicago, Ill.

Application July 21, 1941, Serial No. 403,329

4 Claims. (Cl. 242—134)

This invention relates to a spool holder and more particularly to a holder for releasably and rotatably supporting a plurality of spindles carrying spools of yarn or the like.

An object of the invention is to provide a compact, simple and convenient structure for releasably and rotatably supporting spools of yarn and the like and for guiding the strands of yarn delivered from the spools. Another object is to provide in a spool holder, guide means for maintaining in proper alignment the threads and strands of yarn or the like which are removed from the spools carried by the holder. Still another object is to provide a portable spool holding structure equipped with a carrying handle and with guide means associated with the handle. Yet another object is to provide a structure for rotatably and releasably supporting spools of yarn and the like in spaced horizontal relationship, the structure being equipped with a guide passage through which the yarn passes in the course of its removal from the spools.

Another object of the invention is to provide a spool holder in which a plurality of spools are rotatably supported and each of the spools is freely and independently rotatable and removable from the structure. The spools are supported in spaced horizontal relation when the device is in use. This permits the material to be freely unwound from the various spools while at the same time maintaining the spools in position in the device. By arranging the carrying handle for the portable holder to act as a guide means, the material passes from the spools in proper alignment and tangling of the material is prevented. At the same time, the material is prevented from running off the ends of the spools.

In the art of crocheting and the like it is desirable to have a minimum of broken or cut strands of material. The spool holder of the present invention includes a guide passage which is equipped with a longitudinal opening or slot extending along the same, the slot permitting lateral removal of the yarn from the passage without cutting the same or detaching the ends from the fabric and spool to which they are secured. The device is particularly designed for use in the home and by reason of the arrangement of the various spools in spaced horizontal relation, a plurality of spools of carpet warp or crocheting yarn or the like may be supported in the holder and used independently and simultaneously.

Other features and advantages of the invention will appear in the specification and drawings, in which—

Figure 1 is a perspective view of a spool holder embodying the invention; Fig. 2 is a plan view of the device; Fig. 3 is a transverse sectional view taken along the line 3—3 of Fig. 2; Fig. 4 is a longitudinal sectional view taken along the line 4—4 of Fig. 2; Fig. 5 is a perspective view of a modification of the invention; Fig. 6 is a plan view of the modification; Fig. 7 is a transverse sectional view taken along the line 7—7 of Fig. 6; and Fig. 8 is a side elevational view partly in section of the modification.

In the embodiment of the invention described herein and referring particularly to Figs. 1 to 4, a frame A includes a base 10 and a pair of spaced parallel upwardly extending spindle braces or walls 11 and 12. The walls 11 and 12 are disposed in opposed relation with the inner side of each of the walls being equipped with a pair of recesses 13, 14, 15 and 16 which extend downwardly from the top of the wall for a distance equal to approximately one-third of the height of the wall. The recesses 13, 14, 15 and 16 are preferably rectangular in cross section and communicate with the top and inner side of each wall.

To the wall 12 are attached a pair of spaced parallel walls or spindle braces 17 and 18 which are arranged in transverse relation with the wall 12 and extend right angularly therefrom. The walls 17 and 18 are provided with recesses 19 and 20 similar in structure to the recesses 13, 14, 15 and 16. Another pair of spaced parallel walls 21 and 22 are attached to the outer side of the wall 11 and extend right-angularly therefrom. The walls 21 and 22 are also equipped with recesses 23 and 24.

A pair of spindles 25 and 26 equipped with spindle pins 27 and 28 respectively on the ends thereof are rotatably and releasably received within the recesses in the walls 11 and 12, the pins 27 being received in the recesses 13 and 15 and the pins 28 being received in the recesses 14 and 16. The bottom of each of the recesses serves as a bearing surface for rotatably supporting the pins of the spindles.

A spindle 29 provided with spindle pins 30 is releasably and rotatably received between the walls 21 and 22 with the pins 30 arranged in the recesses 23 and 24. Similarly, a spindle 31 is supported by the walls 17 and 18 with the spindle pins 32 of the spindle 31 being journalled in the recesses 19 and 20.

The walls 11 and 12 are equipped on the central upper surface thereof with bosses or raised portions 33 and 34 which extend upwardly from the surface of the wall. The bosses 33 and 34 are

provided with horizontal passages 35 and 36 which extend through the same. Along the passages are longitudinal slots 37 and 38 which extend along the entire length of the passage, the slots preferably being of lesser width than the passages.

On the bosses 33 and 34 is mounted a carrying handle 39 which extends across between the walls 11 and 12 and is arranged substantially above the same. The handle may be secured to the bosses 33 and 34 or to the walls 11 and 12 by any suitable means. For example, as shown, a pair of screws 40 and 41 may extend downwardly through the handle into the bosses 33 and 34 respectively. The handle 39 is provided with a vertical passage 42 in the central portion thereof and with a slot 43 extending longitudinally along the length of the passage, the slot preferably being of a lesser width than the passage.

The spindles are adapted to receive spools of yarn or carpet warp or the like and are placed in the frame with the spools mounted thereon. The spindles may be placed in the frame by merely inserting the spindle pins in the opposed recesses in the walls and lowering them until the pins engage the bottoms of the recesses. The bottom of each of the recesses then acts as a bearing surface for rotatably supporting the spindle pins. The spindles may be withdrawn from the holder by lifting them upwardly out of the recesses.

The yarn from the spools on the spindles 25 and 26 is passed through the opening or passage 42 which serves as a guide therefor. The strand or thread of yarn or warp may be inserted in the passage laterally through the slot 43 and may be similarly withdrawn. By reason of this guide passage construction, it is possible to introduce the yarn into the passage and to remove it therefrom without releasing the ends of the yarn or cutting the strands.

The yarn of the spools which are mounted on the spindles 29 and 31 is arranged in the guide passages 35 and 36 respectively. The yarn may be inserted in the passages and withdrawn therefrom by means of the slots 37 and 38. The sides of the bosses opposite the slots 37 and 38 are the front of the spool holder and the strands of yarn should be withdrawn in this direction. In this way any danger of the strands of yarn being accidentally removed from the guide passages 35 and 36 is avoided.

Similarly the side of the carrying handle 39 opposite the slot 43 extends towards the front of the holder and the strands of yarn which pass through the passage 42 in the handle should be withdrawn towards the front of the spool holder in order to prevent the accidental removal of the strands from the guide passage.

The strands of yarn from the spindle 29 and 31 thus move through the guide passages 35 and 36 respectively and then on towards the front of the spool holder. The strands of yarn from the spindles 25 and 26 move from the guide passage 42 in the carrying handle 39 and then on towards the front of the spool holder. All of the strands therefore pass through their respective passages and are delivered from the front of the spool holder.

With this guide passage construction the yarn is maintained in proper alignment at all times and is withdrawn through passages which are disposed adjacent the central portion of the spools. The guide passages serve to prevent the tangling of the yarn and also prevent the yarn from running off the ends of the spools. At the same time, the guide passages aid in providing a substantially uniform tension on the yarn which passes therethrough.

In the modification of the invention shown in Figs. 5 to 8, the holder is equipped with a base 44 which supports a pair of spaced parallel upwardly extending walls 45 and 46. The walls 45 and 46 are provided with recesses 47, 48, 49 and 50 which correspond to the recesses shown in the main embodiment of the invention. Similarly, spindles 51 and 52 are received within the recesses.

To the outer side of the wall 46 is secured a pair of spaced parallel ribs 53 and 54 which if desired, may as shown, be integral with the wall 46. The wall 45 is provided with similar supporting ribs 55 and 56. If desired, the walls 53 and 54 may be equipped with recesses 57 and 58 which provide compartments for receiving needles or the like. The carrying handle 59 may be similar in construction to the handle 39 of the preferred embodiment and may be mounted on the walls 45 and 46.

The upper central portion of the handle is provided with a vertical passage 64 and with an adjacent slot 65 extending longitudinally along the same.

The use of the modified holder shown in Figs. 5 to 8 corresponds to that of the preferred embodiment shown in Figs. 1 to 4. The spindles 51 and 52 may be inserted in the spools of yarn or the like and the spindles then inserted in the recesses 47, 48, 49 and 50 in the walls 45 and 46. The lower portion of each recess serves as a bearing surface for rotatably supporting the spindle. The yarn strands pass from the spools on the spindles 51 and 52 through the passage 54 in the carrying handle 59. The passage 54 serves to guide the strands of yarn and maintain them in proper alignment.

The side of the handle opposed to the slot 65 is the front of the holder and the yarn should always be drawn towards the front of the holder, thus preventing accidental removal of the yarn through the slot 65.

When it is desired to remove the spindles 51 and 52 and the spools of yarn carried thereby from the holder, the yarn strands are moved laterally from the passage 64 through the slot 65 to release them from the handle 59. The spindles 51 and 52 may then be lifted from the recesses 47, 48, 49 and 50.

The upwardly extending walls of the apparatus may, if desired, be mounted in slots (not shown) in the base which supports the same. The transverse or right-angularly extending walls may, as shown, be formed integrally with the spaced walls which support the handle.

By the horizontal disposition of the spools in spaced relation with respect to each other, a structure is provided in which the spools may be freely and independently wound or unwound with the yarn from each of the spools being guided by the guide passage in the handle of the holder. The structure may be arranged to support any suitable number of spools but, as shown, the preferred embodiment is adapted to support four spools of yarn while the modification is arranged to support two spools.

While there are shown and described certain embodiments of the invention, it is understood that it is capable of many modifications. Changes, therefore, in the construction and arrangement of the various parts and in the materials specified may be made without departing

from the spirit and scope of the invention as disclosed in the appended claims.

I claim:

1. A spool holder comprising a base, a pair of spaced upwardly extending parallel walls carried by the base, a pair of transversely arranged spaced parallel walls right angularly disposed with respect to and joined to the outer side of each of the first-mentioned pair of walls, each pair of parallel walls being adapted to rotatably receive therebetween at least one spindle for supporting a spool of yarn or the like and a carrying handle mounted upon and extending between first-mentioned pair of walls, said handle being equipped with guide means for receiving the yarn from the spools.

2. A spool holder comprising a base, a pair of spaced upwardly extending parallel walls carried by said base, a pair of transversely arranged spaced parallel walls right angularly disposed with respect to and integrally joined to the outer side of each of said first-mentioned walls, each of said first-mentioned walls being provided with a pair of recesses and each of the other walls being provided with a single recess, each of the recesses being disposed opposite the corresponding recess in the opposed parallel wall, a pair of spindles rotatably supported between said first-mentioned pair of walls with the ends of the spindles received within the opposed recesses in the walls, a spindle rotatably supported by each pair of transversely arranged walls with the ends of the spindle received within the opposed recesses therein, a boss on the central upper portion of each of said first-mentioned pair of walls, a passage extending through each boss, said passage being equipped with a longitudinal slot communicating therewith, and a carrying handle mounted on said bosses and extending therebetween, said handle being equipped with a guide passage for receiving the yarn from the spools and with a longitudinal opening communicating with said passage to permit the lateral removal of the yarn from the passage.

3. A spool holder comprising a base, a pair of spaced upwardly-extending parallel walls carried by said base, a pair of transversely-arranged spaced parallel walls right-angularly disposed with respect to and integrally-joined to the outer side of each of said first-mentioned walls, each pair of parallel walls being adapted to rotatably receive therebetween at least one spindle for supporting a spool of yarn or the like, a boss on the central upper portion of each of said first-mentioned pair of walls, each boss being provided with a passage extending therethrough and with a longitudinal slot communicating with the passage, and a carrying handle mounted on said bosses and extending therebetween, said handle being equipped with a guide passage for receiving the yarn from the spools and with a longitudinal opening communicating with said guide passage to permit the lateral removal of yarn from the passage.

4. A spool holder comprising a base, a pair of spaced upwardly-extending parallel walls carried by said base, each of said walls being provided with a pair of recesses spaced longitudinally along the wall and spaced from the lower portion thereof for receiving the ends of spindles, each of the recesses being disposed opposite to the corresponding recess in the opposed parallel wall, a pair of spindles rotatably supported in the recesses in said walls, each spindle extending transversely between opposed walls above said base and being received at its ends in corresponding opposed recesses and being adapted to support a spool of yarn or the like, and a carrying handle mounted at the upper central longitudinal portion of each of said walls between the pair of recesses therein and extending transversely between said walls, the transverse portion of said handle being spaced above the body of each of said walls and providing a hand grip surface by which the spool holder may be manually lifted, said handle being equipped with a guide passage in an intermediate portion thereof between said walls for receiving the yarn from the spools.

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