G. R. ARMSTRONG.

SPOOL MAGAZINE FOR SEWING MACHINES.

APPLICATION FILED FEB. 20, 1917.

1,283,024. Patented Oct. 29, 1918.

Fig. 1.

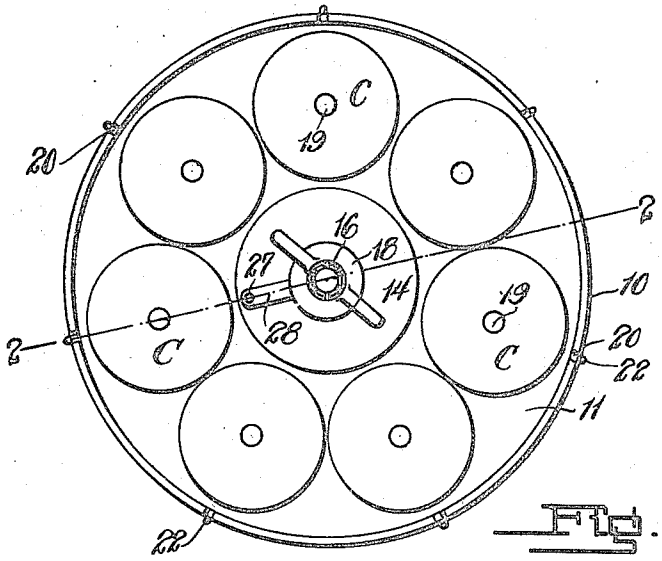
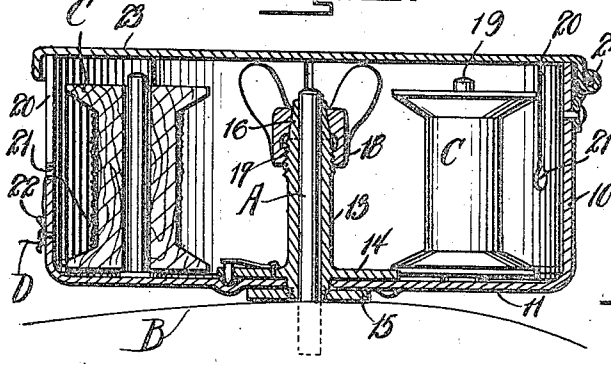


Fig. 2.



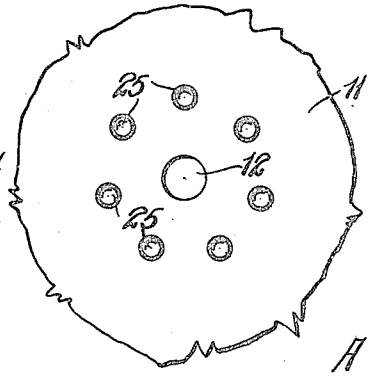


Fig. 3.

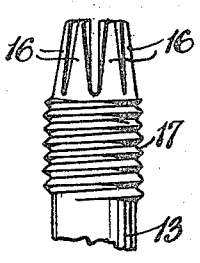
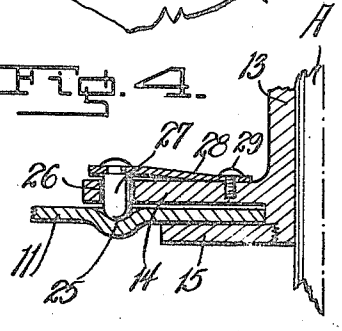


Fig. 4.



Inventor

George R. Armstrong

By Lancaster & Allwine

his Attorneys

UNITED STATES PATENT OFFICE.

GEORGE R. ARMSTRONG, OF McKEESPORT, PENNSYLVANIA.

SPOOL-MAGAZINE FOR SEWING-MACHINES.

1,283,024. Specification of Letters Patent. Patented Oct. 29, 1918.

Application filed February 20, 1917. Serial No. 149,814.

To all whom it may concern:

Be it known that I, GEORGE R. ARMSTRONG, a citizen of the United States, and a resident of McKeesport, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Spool-Magazines for Sewing-Machines, of which the following is a specification.

The present invention relates to a sewing machine attachment, and more particularly to a device for holding a number of spools upon the arm of a sewing machine so that the spools may be easily moved into operative position.

An object of the present invention is to provide a spool carrier of this nature which is adapted to hold a relatively large number of spools, to inclose and protect the spools, and to retain the spools in adjusted position so that the spools may be brought one at a time into operative position and held therein while the thread is being withdrawn from the spool.

Another object of the present invention is to provide a holder or magazine of this nature which may be placed over the usual spindle or pin which projects upwardly from the arm of the sewing machine, so that the spindle or arm may be employed for supporting the magazine of this invention.

The invention still further aims at the provision of an adjustable magazine or holder for a number of spools of cotton or the like, which is provided with guides for the thread leading from the spools, and exterior means for holding the thread to prevent the tangling of the same, and to admit of the inspection of the thread for selecting the desired spool to be brought into operative position.

A further object of the invention is to provide a novel means for securing the magazine or carrier upon the pin or spindle carried upon the arm of a sewing machine to hold the magazine against accidental displacement, and to admit of the uninterrupted and free adjustment of the same.

The above, and various other objects and advantages of this invention will be in part understood, and in part described, from the following detailed description of the present preferred embodiment, the same being disclosed in the accompanying drawing wherein:

Figure 1 is a top plan view of a spool magazine constructed according to the present invention, the cap or cover being removed.

Fig. 2 is a vertical section through the same taken on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary enlarged plan view of the inner side of the bottom of the magazine, disclosing the retaining means for holding the magazine in adjusted position.

Fig. 4 is a fragmentary enlarged sectional view taken through the intermediate portion of the magazine, showing the locking pawl for holding the magazine in adjusted position.

Fig. 5 is a detail enlarged side elevation of the upper end of the supporting sleeve or tube of the magazine of this invention.

Referring to this drawing, wherein like parts are designated by similar characters of reference throughout the several views, 10 designates the body or casing of the magazine which is of cylindrical or drum form, is open at its upper end, and is provided with an inturned bottom 11. The bottom 11 is provided, as shown particularly in Figs. 2 and 3, with a central aperture 12 through which projects the lower end of a sleeve or tube 13 arranged centrally and axially in the body or casing 10.

The bottom 11 is adapted to turn about the tube 13, and is held upon the lower end thereof by a pair of spaced-apart flanges or disks 14 and 15 the former of which may be integrally formed with the tube 13. The flanges 14 and 15 lie against the inner and lower faces of the bottom 11, respectively, the lower washer or flange 15 is preferably detachably mounted upon the lower end of the tube 13, as by means of threads as shown, or the like.

The tube or sleeve 13 is adapted to fit over the stem or pin A which projects upwardly from the arm B of a sewing machine. The tube 13 is adapted to be clamped rigidly upon the stem or pin A, and for this purpose has its upper end tapered and split to provide a plurality of spring fingers 16 upon the upper end of the tube. Immediately beneath the tapered upper end of the tube 13, the latter is provided with an externally screw-threaded portion 17 over which a winged nut 18 is adapted to be threaded. The upper end of the nut 18 is provided

with an upwardly tapering axial opening adapted to engage the inclined faces of spring fingers 16 and urge the latter inwardly against the stem A.

The body or casing 10 is provided, upon its bottom 11, with a plurality of upstanding spindles or pins 19 upon which are adapted to be placed spools C of thread or the like to be used upon the sewing machine. These spindles 19 are disclosed in the present instance as being arranged in a circular row within the casing about the tube 13. The peripheral wall of the casing is provided, opposite each spindle 19, with a vertical slot 20 extending downwardly from the upper edge of the casing 10 to a point midway between the top and bottom edges thereof. The slots 20 terminate at their lower ends in enlargements or eyes 21 through which the strands D of thread are adapted to freely pass as the thread is drawn from the spool by the sewing machine.

The casing 10 is provided, exteriorly, and beneath each eye 21 with a spring clip or cleat 22 adapted to yieldingly hold the outer end of the thread D when the latter is not being used. Thus, opposite each spool C in the casing there is an exposed length of thread extending from the adjacent eye 21 to the adjacent clip 22 for inspection of the thread on each spool. The desired spool may thus be quickly selected when the spools are provided with different kinds of thread.

For the purpose of retaining the spools in their proper positions, and for the purpose of protecting the spools from dust and the like, the casing or body 10 is provided with a removable cover or cap 23 engaging over the open upper end of the casing and having a skirt or flange at its marginal edge which laps down about the peripheral wall of the casing. The cap 23 may be supported upon the casing 10, as by a hinge 24, to prevent the accidental separation of the casing and the cap, and to hold the latter in ready position for closing the casing after the latter has been filled.

The casing or body 10 is adapted to be turned about the sleeve or tube 13 to bring the spools C one at a time into operative position for feeding the thread thereof through the sewing machine. For the purpose of holding the casing 10 in such adjusted positions, the bottom 11 thereof is provided with a circular row of depressions or notches 25 which preferably lie beneath the inner flange 14 and are thus covered and protected thereby.

The inner flange 14 is provided near its marginal edge, and at one side, with an aperture 26 extending therethrough and providing a bearing for a pawl 27 which is carried upon the free end of a leaf spring 28 secured by means of a screw 29, or the like, to the upper face of the flange 14 at the base of the tube 13. The pawl 27 is in the form of a cylindrical stud or rivet which is rounded upon its lower end and adapted to seat in said depressions 25, one at a time. As the lower end of the pawl is rounded, the latter is adapted to be raised against the tension of the spring 28 by forcing the casing 10 around, thus yieldingly holding the casing in any adjusted position. The device may thus be adjusted by one hand upon the application of sufficient pressure to overcome the tension of the spring 28 and to lift the pawl 27 out of its adjacent depression 25.

In use, the device is placed over the pin or spindle A which is found on the ordinary sewing machine, and is clamped thereon by tightening the hinged nut 18, the nuts binding the spring fingers 16 against the spindle A and thus rigidly holding the magazine or attachment to the sewing machine.

The casing or body 10 may be filled prior to positioning the same on the sewing machine, or after the latter has been secured in place. In filling the casing 10, the spools C are placed upon the spindles 19 and the strands of thread D extending from the spools are passed downwardly through the vertical slots 20 adjacent to the respective spools. The strands of thread are then carried through the eyes 21 and snapped beneath the clips 22 and retained in such position ready for use. The cover or cap 23 is now swung down to close the casing 10.

When it is desired to select a certain thread, it is only necessary to rotate the casing 10 about the tube 13 by grasping the casing and forcing the latter around against the tension of the spring 28 and its pawl. The thread may be inspected by the short length thereof which is projected through each eye 21 and held by the adjacent clip 22. When the desired thread has been found, the casing 10 is rotated to bring the spool carrying the thread into operative position, and thread C is then disengaged from the clip 22 and threaded through the parts of the machine in the usual manner.

This improved magazine not only holds a relatively large number of spools in position for quick adjustment for use, but it also provides a magazine or holder for a large number of spools when it is desired to carry the same and to have the spools in such position that they may be readily selected and examined.

It is of course understood that various changes and modifications may be made in the details of construction of the above specifically described embodiment of this invention without departing from the spirit

thereof, such changes and modifications being restricted only by the scope of the following claims.

I claim:—

1. In a spool magazine attachment for sewing machines, the combination of a casing, a support adapted to be placed over the usual spindle of a sewing machine for supporting the casing, means for holding the casing in predetermined stepped adjustment about the support, and means for securing the support upon the spindle in adjusted position relatively to said holding means.

2. In a spool magazine for sewing machines, the combination of a support adapted to be placed over the usual spindle of a sewing machine, a casing mounted to turn on the support and adapted to carry a circular row of spools, yieldable locking means on the support for holding the casing in position with the desired spool adjusted for use, and securing means for adjustably securing the support upon the spindle for maintaining the yieldable locking means in a definite position.

3. In a spool magazine, the combination of a casing adapted to contain a plurality of spools, said casing having an eye through the wall thereof opposite each spool and adapted to receive the strand of thread from each adjacent spool, thread-holding means carried exteriorly upon the casing adjacent each of said eyes to hold the outer end of the thread against the exterior of the casing for examination, a compressible tube carried by the casing and adapted to engage over the usual spindle of a sewing machine, said casing being adapted to be turned with the tube on the spindle to present the desired spool for use, means for compressing the tube on the spindle for holding the casing in adjusted position, and means for holding the casing in various positions of rotative adjustments.

4. In a spool magazine for sewing machines, the combination of a tube adapted to be fitted over the spindle of a sewing machine and provided with tapering spring fingers upon its upper end, a nut threaded upon the upper end of the tube and adapted to engage the fingers for compressing the same against said spindle to secure the tube thereto, a pair of flanges carried upon the lower end of the tube, a casing surrounding the tube and having a central opening in its bottom to engage about said tube between said flanges, a plurality of upstanding spindles arranged in the casing adapted to support spools of thread, a cap closing the upper end of the casing, thread guides carried by the casing for separately feeding the threads of the spools to the exterior of the casing, and means for holding the outer ends of the threads separated.

5. In a spool magazine for sewing machines, the combination of a tube adapted to engage over the spindle of a sewing machine and having a split upper end, binding means carried upon the upper end of the tube for engagement with the split end to bind the latter upon the spindle, a casing surrounding the spindle, supporting means on the lower end of the tube for engagement with the bottom of the casing to rotatably support the latter, the bottom of said casing being provided with a circular row of depressions therein, a spring pawl carried upon the lower end of said tube and adapted for engagement in said depressions one at a time to yieldingly hold the casing in various positions of adjustment about the tube, and means for supporting a plurality of spools in the casing.

GEORGE R. ARMSTRONG.