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A. MUSK.
HOLDER FOR SPOOLS.
APPLICATION FILED FEB. 24, 1910.

Patented Sept. 27, 1910.

2 SHEETS-SHEET 1.

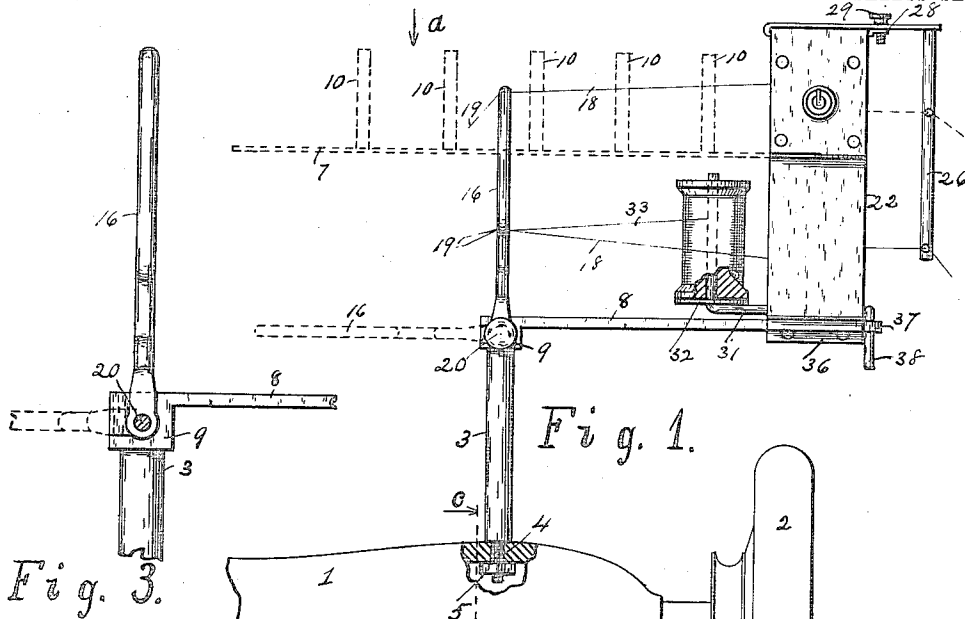


Fig. 3.

Fig. 1.

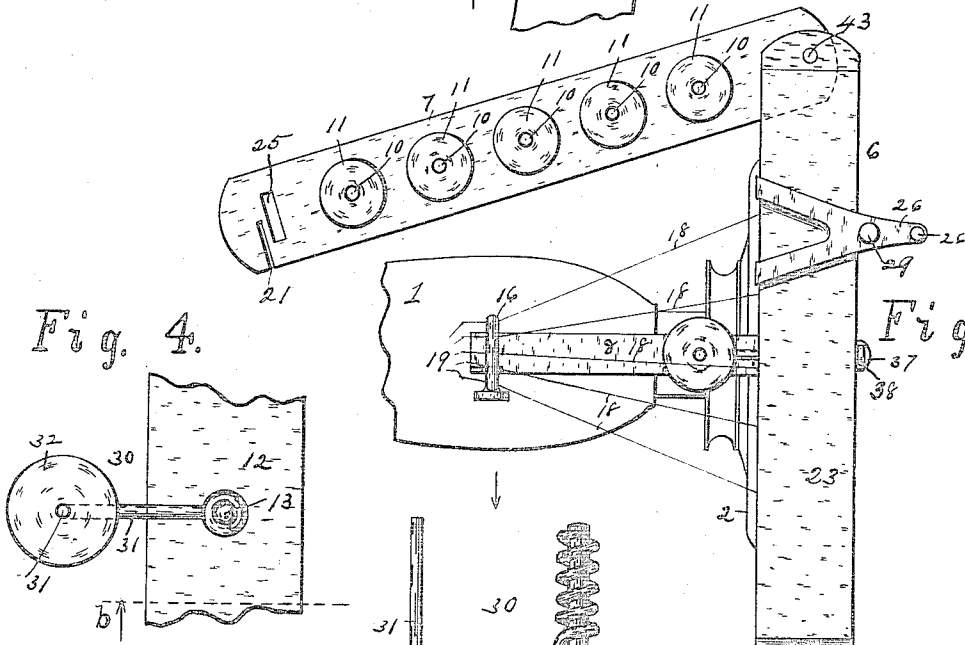


Fig. 4.

Fig. 2.

Fig. 5.

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Inventor:
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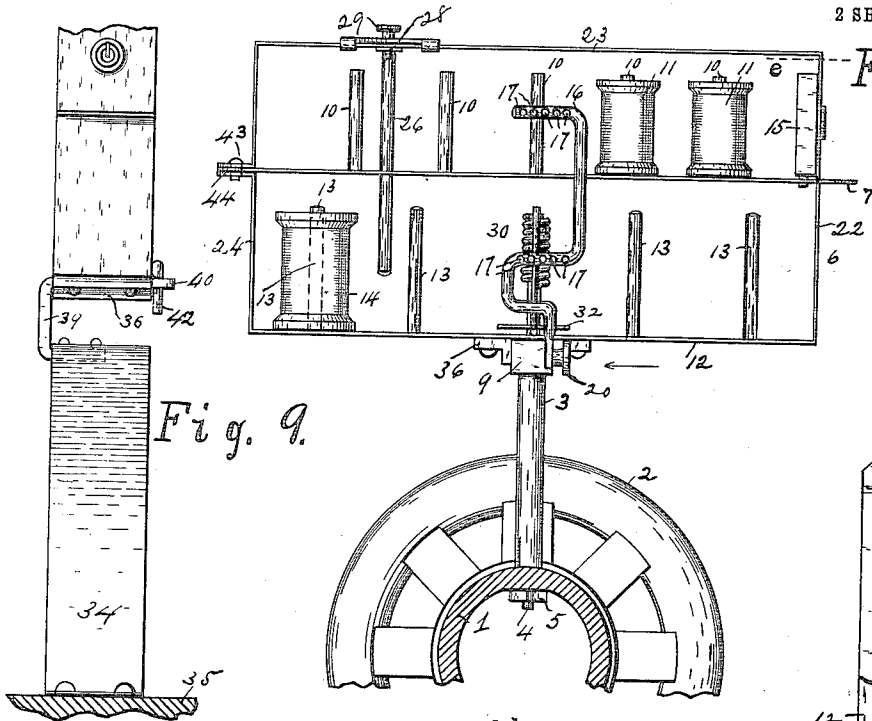


Fig. 6.

Fig. 9.

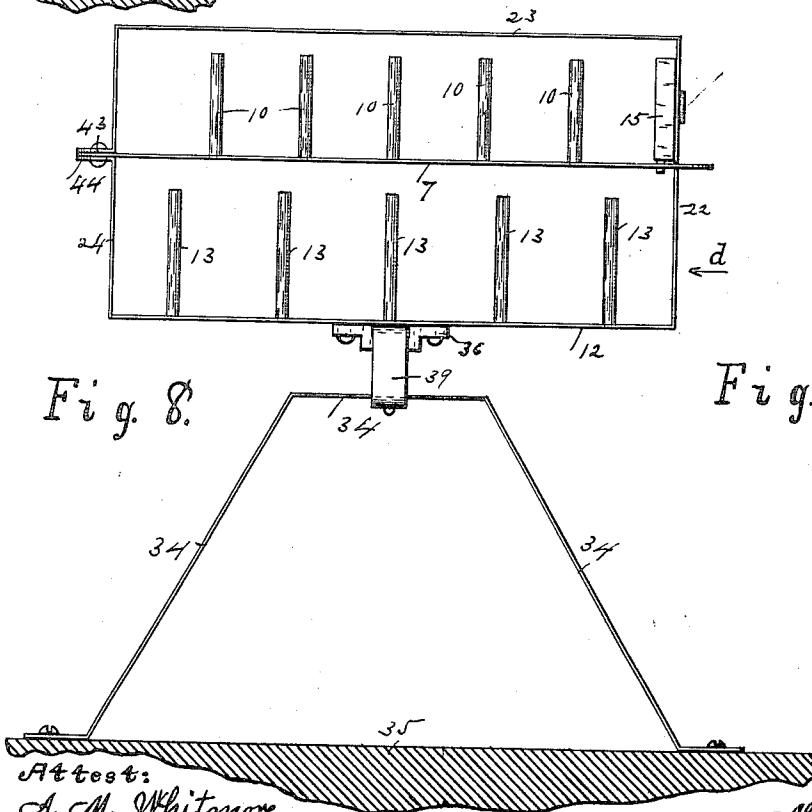


Fig. 8.

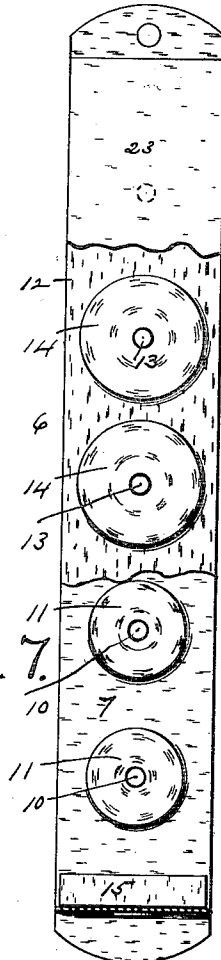


Fig. 7.

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UNITED STATES PATENT OFFICE.

ALBERT MUSK, OF ROCHESTER, NEW YORK.

HOLDER FOR SPOOLS.

971,209.

Specification of Letters Patent. Patented Sept. 27, 1910.

Application filed February 24, 1910. Serial No. 545,658.

To all whom it may concern:

Be it known that I, ALBERT MUSK, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Holders for Spools, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

This invention relates to certain new and useful improvements in devices for holding spools of thread or cotton, having for its primary object to provide a simple economical, yet efficient, practical device whereby a spool or a plurality of spools of thread or cotton may be locked so as to prevent the same from being stealthily taken away.

The device forming the subject-matter of the present application is designed primarily for use in manufacturing establishments where coats or other garments are made in large quantities, although, of course, applicable for use in connection with any other manner of sewing, whether applied to a sewing machine or to a table or stand or other support, the main object being to prevent loss to the proprietor or the one employing the help or operators.

The invention has for a further object to provide a device of this general character having provision for leading the various threads to a position convenient for reach by the operator and also for permitting ready access to the spool holders, whereby they may be replenished when necessary.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a front elevation showing the device attached to the arm of a sewing machine as in use, parts being shown in two positions by full and by dotted lines and parts broken away. Fig. 2 is a plan of the device seen as indicated by arrow *a* in Fig. 1, the upper floor or shelf for spools being swung out from the frame. Fig. 3 is a front elevation of the thread guide and holder, seen as in Fig. 1, drawn to a larger scale to better show the construction and operation of the parts. Fig. 4 is a plan of a portion of the lower spool floor and the detach-

able spool holder in place, seen as indicated by arrow in Fig. 5. Fig. 5 is a front elevation of the detachable spool holder, with adjacent portions of the frame, the lower floor of the latter being in transverse section on the dotted line *b* in Fig. 4. Fig. 6 is an elevation of the spool holder seen as indicated by arrow *c* in Fig. 1, the adjacent portion of the sewing machine being in vertical transverse section on the dotted line at the point of said arrow. Fig. 7 is a plan of the frame detached, seen as in Fig. 2, parts being broken away to uncover parts beneath, one end of the frame being horizontally sectioned on the dotted line *e* in Fig. 6. Fig. 8 is a front elevation of the device mounted upon a stand when used independent of the sewing machine. Fig. 9 is a view at right angles to Fig. 8.

Like numerals of reference indicate like parts throughout the several views.

It is to be understood that the device as now to be described is applicable for attachment to any convenient support, whether it be the arm of a sewing machine, the table of such machine, or a table or other support independent of a sewing machine, whereby the device is adapted for hand sewing. In the present instance, I have chosen to show the invention as applied in two different ways, but it is to be understood that it is not to be restricted to such uses.

Referring to the drawings, first to Figs. 1, 2 and 6, 1 designates the hollow arm of a sewing machine and 2 the usual wheel thereof. When applying the device to a machine, it is generally applied to the arm, the support or standard 3 being disposed at a point upon said arm so as to bring the spool holding device above and out of the way of said wheel, as will be evident from Figs. 1 and 6. In the present instance, the standard or support 3 is shown as having a threaded extension 4 engaged in a threaded aperture in the arm 1 and held by a nut 5. This method of attachment of the standard or support to the arm of the sewing machine, however, is no part of the present invention, it being sufficient that the arm is secured rigidly in position in some suitable manner and preferably in position at a point somewhat distant from the wheel 2, so as to bring the spool-holding device over or approximately over said wheel, the stand-

ard being of such height as to elevate the spool holder the proper distance above said wheel.

The present improvement comprises a
 5 frame 6 of general rectangular outline, as seen in Fig. 8, arranged to hold an upper and a lower row of spools, as will be evident from Fig. 6. The upper spools are generally smaller than the lower spools and
 10 they are designed to rest upon a horizontal swinging shelf 7 which is shown in Fig. 2 as swung out from the frame, also being shown by dotted lines in Fig. 1 as swung out. This frame is supported at the outer
 15 end of a horizontal arm 8, the other end of which is supported upon the standard or support 3. This end of the arm is formed with a head 9 secured to the upper end of the standard or support 3, in any suitable
 20 manner. The shelf 7 is provided with vertical spindles or rods 10, upon which are designed to be removably supported the spools 11. These spindles or rods constitute spool holding means as will be readily
 25 understood. The bottom or floor 12 of the frame 6 is provided with similar spindles or rods 13, upon which are designed to be removably supported the spools 14. In the present instance, the device is shown as designed to support ten spools; but, as is evident, this number may be varied without departing from the spirit of the invention or sacrificing any of its advantages. The
 30 spools contain different kinds of thread as to color and material, as may be required in doing the particular work in connection with which the device is employed.

The swing shelf 7 is held to its normal closed position by a lock 15, shown on Sheet
 40 2, and when locked to place, all of the ten spools, more or less, are held so that they cannot be removed. These frames are filled or supplied with the necessary thread by the foreman or boss of the establishment
 45 who alone has the key for the lock. The spools contain threads of different colors and sizes, of cotton, linen, or silk, as may be required, the spools all being locked in the frame or holder as stated.

50 16 is a device pierced with an upper and a lower horizontal row of five holes 17, through which the ends of the threads leading from the spools pass in readiness to be seized by the operator as the work requires.
 55 These threads are shown by lines 18 in Figs. 1 and 2, the pendent ends 19 being handy to be seized by the operator as she may want this thread or that, as the case may be in her work. This member 16 is held pivotally by
 60 a thumb screw 20, Sheet 1 and Fig. 6, so as to swing down to a horizontal position, as shown in Figs. 1 and 3, out of the way of the swing shelf 7, when it is wished to turn that outward from the frame to supply it
 65 with spools or remove the exhausted spools.

The thumb screw 20 clamps the part 16 rigidly in its position of use. It normally stands vertical, as shown, but at times it is convenient to have it stand in an inclined position, more or less inclined, preferably
 70 toward the left. The screw 20 holds it in any position.

As shown in Fig. 2, the extreme end of the shelf 7 is formed with a kerf 21 extending half way across it to catch onto the vertical
 75 side 22 of the frame, the latter being correspondingly horizontally kerfed to receive the end of the shelf. This shelf is the same width as the top member 23 of the frame 6, said top member, the shelf and the bottom
 80 floor 12 being uniform in width and of the same width as the two vertical end portions 22 and 24, which will be clearly seen in Fig. 7.

By having as many holes 17 in the member 85 16 as there are spools, the ends of the threads are at all times convenient for the operator. Some holder 16 for the thread is necessary for the convenience of the operator, for it would not be practical to have
 90 the ends of the ten threads dangling down over the hand wheel 2. And, by having as many holes 17 as there are threads, each thread is independent of all the rest, so that one thread does not need to be pulled out at
 95 16 and another one inserted every time it is needed to use a different thread in the work. The coats, for example, in these establishments are made in lots of one hundred, more or less, and many operators are employed
 100 doing special work on each coat, so that a coat in process of construction is passed from one operator to another. Each one running a machine has one of these devices attached and when the thread is exhausted,
 105 the foreman brings spools and supplies the deficiency, or else detaches the frame or case 6 and takes it to his desk to re-supply, he alone having the key. In Fig. 2, the opening 25 in the shelf receives the bolt or
 110 the lock when the device is locked.

When the operator needs to fill or wind a bobbin with his machine with any particular thread from any of the spools, he withdraws the thread from 16 and passes it through a
 115 hole in a member 26, Figs. 1, 2 and 6, this having an upper hole and a lower hole, as shown, through which to pass a thread from one of the upper row of spools or one of the lower row, as may be. The bobbin being
 120 filled in the usual manner by the thread thus guided, the end of said thread is again passed through the member 16 as before. This member 26 has a forked part to rest
 125 upon the frame or case 6, as shown in the figures, its forked ends being turned under the upper member 23 of the frame or case in a manner that is usual, so as to hold to place thereon. It is also provided with a simple catch 28, Figs. 1 and 6, reaching
 130

under the opposite side of the top member 23 of the frame, a small set screw 29 serving to clamp the part 28 to the member 26. This member 26 is slidable along the part 23, holding to place by friction, so as to conveniently receive the thread at any one of the ten spools.

A device 30, Figs. 4 and 5, is provided for holding a single spool unlocked and at any time removable from the device. This is formed of a single wire 31 bent and coiled around the middle pin or standard 13 of the lower series, as shown, holding to place by elastic action and friction on the part 13. It is formed with a circular disk 32 for receiving the spool, as shown in Figs. 1 and 2. This is for convenience where in making a lot of coats, for example, there is a single coat of some odd color that requires some particular color of thread not used on the other coats. This spool being removable is handed from one operator to another, as the various operators are working on that particular coat and require that particular thread temporarily. When the spool is used on this carrier 30, as shown in Figs. 1 and 2, the end 33 of its thread is carried through the member 16, as shown. This case or frame 6 for holding the spools is also used independent of the sewing machine by hand girls working at tables, it being mounted upon a stand 34, shown in Figs. 8 and 9, the stand being secured to the table 35. The frame 6 has secured beneath its lower floor 12 a loop or rest 36, Figs. 1, 5, 6, 8 and 9, in which to receive the reduced end 37, Figs. 1 and 2, of the arm 8, a pin 38 being provided to hold the parts together. The stand 34 is formed with a member 39 having its end 40, Fig. 9, formed to enter the loop or rest 36 by means of which the frame 6 is held by the stand 34, a holding pin 42 being employed as in the other case. The swing shelf 7 turns on a pivot pin 43, Fig. 6, passing vertically through said shelf and out-turned ends 44 of the end portion 24 of the frame 6.

From the above it will be seen that I have devised a simple, easily applied, yet efficient and durable and serviceable device for holding spools of thread, silk or the like and locking the same so that they cannot be surreptitiously removed, and at the same time a device in which the various threads are conveniently arranged for use as may be desired, it being understood that when the shelf 7 is in its closed position, it not only is locked so as to prevent removal of the spools carried thereby, but in its locked position, it is over the upper ends of the spindles or rods 13 on the lower portion of the frame and prevents vertical displacement of the spools on said lower rods or spindles.

Various modifications in details, design, proportion of parts etc. may be resorted to

without departing from the spirit of the invention or sacrificing any of its advantages. I, therefore, do not wish to be restricted to the structural details hereinbefore disclosed, but reserve the right to make such changes, variations and modifications as come properly within the scope of the protection prayed.

What is claimed as new is:—

1. In a device of the character stated, a frame, spool holding rods thereon, a horizontally swinging member having spool holding rods, the rods of said frame and member being disposed one above the other a pivotally mounted member with a plurality of series of thread guiding openings, one series for each set of spool holding rods, and means for locking said movably mounted member within the frame above the first-mentioned rods.

2. In a device of the character stated, a frame, a shelf movably mounted to be closed therein, a pivotally mounted member with a plurality of thread guiding openings means for locking the shelf in closed position, a plurality of spool-holding rods upon the bottom of the frame, and a plurality of spool-holding rods upon said shelf.

3. In a device of the character stated, a frame, a plurality of spool holding rods carried thereby, a shelf pivotally mounted above said spool holding rods and carrying a plurality of spool-holding devices, said shelf having at one end a transverse kerf to engage the side of the frame means for locking the shelf in closed position to prevent removal of the spools, and a thread-guiding device, said thread-guiding device being pivotally mounted.

4. In a device of the character stated, a frame, a member pivotally mounted thereon, spool-holding devices, means for locking said member in closed position a pivotally mounted thread guide having a plurality of openings and a thread-guiding member adjustable along said frame.

5. In a device of the character stated, a frame, a member pivotally mounted thereon, spool-holding devices, a pivotally mounted thread guide having a plurality of openings means for locking said member in closed position, and a thread-guiding member adjustable along said frame and having upper and lower thread-guiding means.

6. In a device of the character stated, a frame having a plurality of spool-holding rods, a shelf pivotally mounted in the frame and having a plurality of spool-holding rods, means for locking said shelf in its closed position, a thread-guiding member longitudinally adjustable on the frame, and a thread-guiding member having thread-guiding openings, and a support for said frame and thread-guiding member.

7. In a device of the character stated, a

frame having a plurality of spool-holding rods, a shelf pivotally mounted in the frame and having a plurality of spool-holding rods, means for locking said shelf in its closed position, a thread-guiding member longitudinally adjustable on the frame, a thread-guiding member having thread-guiding openings, a support for said frame and thread-guiding member, and a detachable connection between said support and the frame.

8. In a device of the character stated, a rectangular frame having a plurality of

spool-holding rods, a shelf pivotally mounted therein and having a kerf coincident with one of the vertical ends of said frame, and an opening adjacent thereto, and a lock within the frame for coöperation with said opening. 15

In witness whereof, I have hereunto set my hand this 21st day of February, 1910, in the presence of two subscribing witnesses. 20

ALBERT MUSK.

Witnesses:

E. B. WHITMORE,

A. M. WHITMORE.