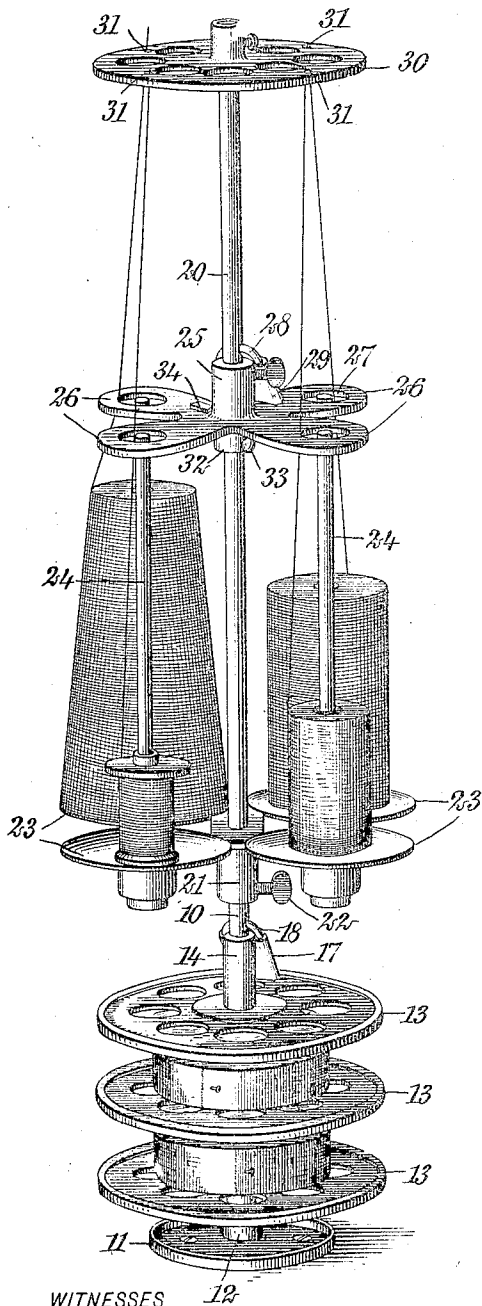


G. W. WEISS.
 THREAD AND TAPE HOLDER.
 APPLICATION FILED DEC. 5, 1908.

934,251.

Patented Sept. 14, 1909.



WITNESSES
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Fig. 1

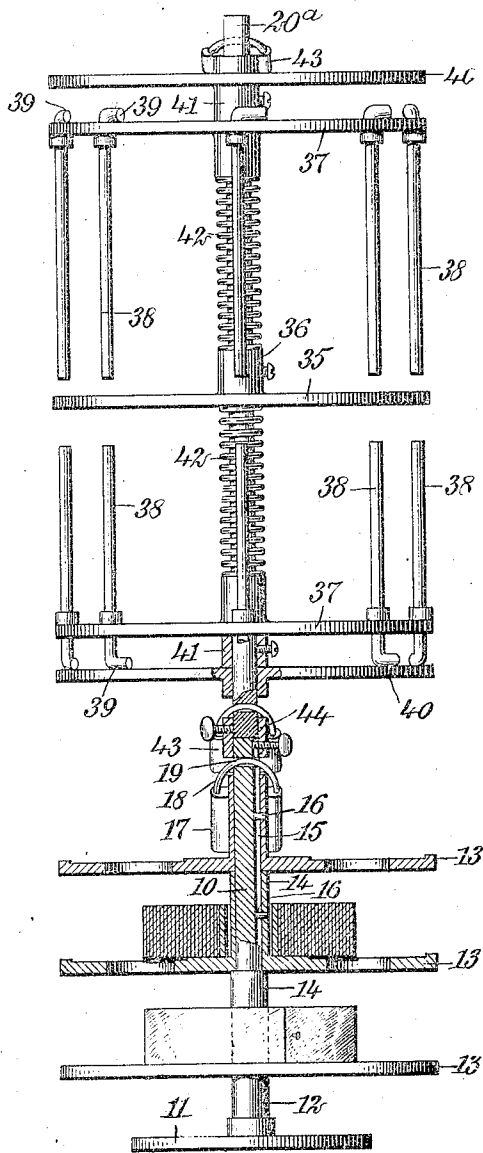


Fig. 2

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THREAD AND TAPE HOLDER.

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Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed December 5, 1908. Serial No. 466,109.

To all whom it may concern:

Be it known that I, GEORGE W. WEISS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Thread and Tape Holder, of which the following is a full, clear, and exact description.

In the ordinary form of sewing machines, the table or top is made no larger than is considered necessary for the supporting of the articles or garments to be sewed, and this is particularly true of those sewing machines employed in large factories where a great many machines are mounted upon a single table or top and operated by power. It is therefore highly desirable that the machine top or table be encumbered to the minimum amount by attachments, fixtures or devices, which although serving to aid the operator in some respects, yet prevent and restrict the proper movement of the material. In factories there is also a great deal of time wasted in removing one spool from the sewing machine spindle and inserting another when it is desired to sew with a different kind or color of thread, and there are also a great many partly used spools of thread lost, misplaced or stolen by the operators. The object of my invention is to overcome these objections and difficulties by providing an attachment which may be secured to the sewing machine table or top, or any other table or factory table space, and which will serve for the support not only of a plurality of spools of thread but also for a plurality of rolls of tape, ribbon, seam-binding, or other similar or analogous material, which it is desired to sew to the article or garment being manufactured, and these spools and rolls are locked against displacement, so that an employee cannot accidentally misplace or intentionally carry away a partly-used spool or roll. The invention involves various features of the attachment, which will be described more fully hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures, and in which—

Figure 1 is a perspective view of one form of device constructed in accordance with my invention; and Fig. 2 is a side elevation of a

device showing a modified form of thread holder.

In the drawings there are illustrated two separate forms which my invention may assume, but in both of these forms the lower portion of the standard and the support for the rolls of tape, are substantially the same. The lower portion of the standard is formed of a rod 10 having its lower end rigidly secured to a base plate 11 and held upright in respect to the same by a collar or boss 12. Longitudinally movable upon the rod or non-rotatable in respect thereto, I provide supports for a plurality of rolls or spools of material which it is desired to sew onto the garment being manufactured. This material may be of any character whatsoever dependent upon the nature of the garment and the use to which it is to be put. The material may be tape, ribbon, seam binding, skirt binding, lace, or any other material commonly sold or used from a roll or spool. By the term "tape" as used hereinafter in the specification, I wish to cover any of these materials.

Each support is in the form of a plate or disk 13 having an upwardly-extending centrally-disposed collar 14 through which the rod 10 forming the lower section of the standard extends. The lower plate rests directly upon the boss or collar 12 and each plate above the bottom one rests upon the collar 14 of the plate holder. The plates are held against rotation in respect to the standard in any suitable manner, as, for instance, the standard may have a groove or kerf 15 extending longitudinally thereof, and each collar 14 may have a radially-disposed pin or stud 16 extending into said groove or kerf. The collar of each plate is of slightly greater height than the width of the material forming the roll and is of slightly smaller diameter than the aperture through the spool or tube about which the roll of material is formed. A separate roll of material may rest upon each of the plates, so that the operator may use from any one desired and the use from one roll cannot be interfered with by the presence of other rolls on the device, as the supports do not rotate, and, therefore, the rotating of one roll will not rotate any other. The rod 10 forming the lower section of the standard extends to a slightly greater elevation than the upper end of the upper collar 14 and

suitable mechanism is provided for positively locking the supporting plates against removal save by a foreman or other authorized person. A simple form of locking mechanism is illustrated and involves merely a padlock 17, having the curved bar 18 thereof extending through an opening 19 in the standard. The upper plate 13 cannot be removed from the standard without first removing the padlock.

In the construction of thread holder shown in Fig. 1, the upper portion of the standard is in the form of a rod 20 having its lower end extending into and rigidly secured to a collar 21. The upper end of the rod 10 also extends into this collar so that the ends of the two rods meet and the collar is detachably secured to the lower rod by means of a set screw 22. The collar carries means for supporting a plurality of spools of thread, said means being in the form of a plate subdivided into a plurality of plate sections 23, each of which carries a spindle 24 extending upwardly therefrom and substantially parallel to the standard. All of the plate sections 23 may be formed integral with the collar 21, and each may, if desired, be slightly dished or concave toward the center. The spindles 24 are secured to the supporting plate sections, so as to be rigid therewith and to avoid the necessity for any support or brace for the spindles at their upper ends except in case the upper ends of the spindles are bent laterally out of their normal positions.

Above the collar 21 and its spool supports, I provide a second collar 25 having a plate subdivided into a plurality of outwardly-extending arms or branches 26 corresponding in number and radial distribution to the plate sections 23. Each arm or branch 26 has an opening 27 therein concentric with the corresponding spindle and of a diameter somewhat greater than said spindle. The collar 25 and its arms or branches are so disposed that the spindles extend up to or beyond the openings, so as to leave an annular space between the outer surface of each spindle and the surrounding wall of the corresponding opening. The arms or branches serve not only as guides for the thread which passes from the several spools on the spindles up through the openings 27, but they also serve to prevent the removal of the spools by the lateral bending of the upper ends of the spindles. Above the collar 25, the rod 20 is provided with a suitable locking device, as the shackle 28 of a padlock 29, so that the collar cannot be raised to remove any spool from its spindle. The rod extends a considerable distance above the collar 25 and at its upper end has a thread-guiding plate 30 rigidly secured thereto. The plate 30 is provided with small apertures 31 disposed directly above

the corresponding spindle. The thread from each spool extends up through the corresponding opening in a branch 26 and thence up through the corresponding opening 31, so that by pulling on the end of the thread, it is caused to unroll without binding and without rotating the spool. By dishing the supporting plate sections 23, the thread is prevented from binding beneath the spool should a few of the lower coils slip off the lower end.

When it is desired to replace empty spools by full ones, the operator may unloosen the set screw 22 and take the entire upper portion of the standard, together with the spindles, to the stock-room where the employee in charge of the supplies may unlock the padlock 29 and raise the collar 25. This permits any one of the spools to be removed from its spindle and replaced by a new one and the operator has no opportunity for stealing a spool of thread unless he takes the entire upper portion of the standard, in which event he will be immediately detected. The thread-guiding plate 30 is rigid with the rod 20 and serves to limit the upward movement of the collar 25, so that the latter cannot be removed and misplaced even while the padlock is detached.

For insuring the proper alinement of the openings 27 with the spindles 24, the collar 25 may be keyed to the rod, or I may make the collar freely rotatable on the rod and provide a second or supporting collar 32. This collar may be rigidly secured to the standard by a set screw 33 and may have an outwardly and upwardly extending lug 34, adapted for entry through an opening in one of the arms or branches 26. The collar 32 will thus serve to limit the downward movement of the collar 25, support the same, and prevent its rotation when said last-mentioned collar is in its lowered or operative position.

In place of the specific form of thread holder illustrated in Fig. 1, I may employ the thread holder shown in Fig. 2. This holder involves an upper standard section in the form of a rod 20^a similar to the rod 20 and adapted to rest with its lower end in engagement with the upper end of the lower rod 10. The thread holder shown in Fig. 2 is reversible and adapted to support sixteen separate spools. The rod has secured thereto intermediate its ends, a spool-supporting plate 35 by means of a collar 36, and adjacent each end of the rod 20^a are two plates 37, each of which supports a plurality of standards 38 substantially parallel to said rod. Each of these standards terminates at a short distance from the plate 35 but they are out of engagement therewith. The opposite end of each standard is formed with a laterally-extending portion 39 which serves to limit the movement of the standard

toward the plate 35. The standards are all longitudinally movable through their corresponding plates 37 and are normally prevented from more than a very limited movement by means of plates 40 secured to the rod 20^a adjacent the outer sides of the two plate 37. The central or spool-supporting plate 35 is rigid with the rod, and the plates 37 although rotatable in respect to the rod, are held in a predetermined position by means of collars 41, rigidly secured to the rod 20^a by suitable set screws or other means. The plates 37 are held outwardly away from the plate 35 and toward these collars 41 by suitable springs 42 encircling the standard. The rod 20^a is provided with any suitable form of locking device, as, for instance, a padlock 43 similar to the padlocks previously referred to. The upper standard section 20 may be secured to the lower rod 10 in any suitable manner, as, for instance, by a sleeve or collar 44 having set screws for engaging with each standard section.

When the spools on the standard are empty and it is desired to insert new spools, the entire spool-holder may be removed from the tape-holder by separating the two standard sections at the collar 44 and the foreman or the employee in charge of the stock, may remove either one of the plates 40 by removing the corresponding padlock. With the plates 40 removed, the standards 38 may be moved through the spindle-carrying plates 37, the old spools removed and new ones inserted. The spindles are then shifted back into place and locked by the plate 40 and the padlock. Both ends of the device may be filled at the same time, and when the spools at one end are emptied the spool-holder may be reversed and secured to the tape-holder with the opposite end uppermost. The thread is used only from the upper row of spindles, and the space between the lower ends of these spindles and the spool-supporting plate 35 is provided, so that should a few coils of the thread slip off the lower end of the spool, it may be readily used without clogging or binding the machine.

In either form of my device, the standard is formed of two sections and the upper section may be removed and taken to the stock room when it is desired to insert new spools of thread. The employee cannot remove either a spool of thread or a roll of tape unless he possess the key, and, therefore, theft of the material is prevented.

The same base supports not only the tape or other material to be sewed to the garment, but it also supports the thread for sewing said tape and for general use. The device occupies a very small portion of the available space on the sewing machine top or other table, and the parts are so designed that any kind of tape or any kind of thread

may be employed. The tape is supported below the thread as the tape goes directly to the garment, whereas the thread goes to the upper portion of the machine.

In the above description and hereinafter in the claims I refer to "spools of thread", but by this term I wish to cover any form of ball or spool whether or not a center core be employed and whether or not this core be a wooden block, a paper tube, or other device.

Various modifications and changes may be made in the specific form above described without departing from the spirit of my invention, as it is evident that many such changes may be readily suggested by one skilled in the art.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A device of the class described, comprising a standard, including a base and two vertical rods in alignment rigidly secured together, a plurality of plates supported by the lower rod and concentric therewith, means for spacing said plates apart, means for preventing a rotation of said plates in respect to said rod, an outwardly-extending plate carried by the upper rod, and a plurality of spindles carried by said last-mentioned plate and substantially parallel to said rod.

2. A device of the class described, comprising a vertical standard, a plate carried thereby, a plurality of spindles extending upwardly from said plate, a second plate carried by said standard and having apertures therethrough concentric with said spindles and receiving the upper ends thereof to leave annular spaces about said spindles for the passage of thread from spools mounted on said spindles between said plates and limit the lateral bending of the upper ends of the spindles, and a thread-guiding plate carried by said standard above said second-mentioned plate and having apertures there-through in alignment with said spindles.

3. A device of the class described, comprising a standard, a plurality of substantially parallel plates carried thereby and serving to receive rolls of transient material, means for preventing the rotation of said plates in respect to said standard, means for spacing said plates apart, locking means for preventing the removal of said plates from said standard, and means carried by said standard above said plates for supporting spools of thread by means of which said transient material may be secured to a garment.

4. A device of the class described, comprising a standard, including a base and an upright, said upright including two vertical rods in alignment with each other and detachably secured together, a plurality of plates supported by the lower rod and con-

centric therewith and spaced apart to receive a plurality of rolls of transient material, and a plurality of spindles carried by the second-mentioned rod and substantially parallel thereto for supporting a plurality of spools of thread.

5. A device of the class described, comprising a standard, including a base and an upright, said upright including two vertical rods in alinement with each other and detachably secured together, a plurality of plates supported by the lower rod and concentric therewith and spaced apart to receive a plurality of rolls of transient material, a plurality of spindles carried by the second-mentioned rod and substantially parallel thereto for supporting a plurality of spools of thread, locking means carried by the lower rod for preventing the removal

of said rolls, and means carried by the upper rod for preventing the removal of the spools from said spindles.

6. A device of the class described, comprising a base, a standard supported by the base, plates removably supported on the standard, between which a binding or tape is held, means for supporting thread spools upon said standard, and means substantially as shown and described for locking the binding and thread against removal.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. WEISS.

Witnesses:

CLAIR W. FAIRBANK,
JOHN P. DAVIS.