(No Model.)

E. POOLE.

SPOOL RACK FOR SEWING MACHINES.

No. 444,766. Patented Jan. 13, 1891.

Fig. 1.

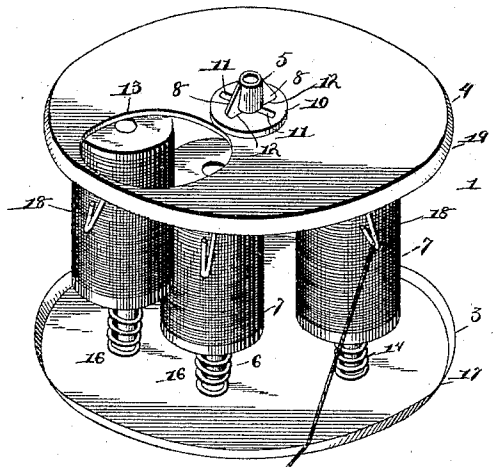


Fig. 4.

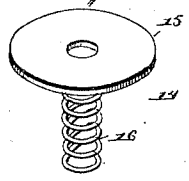


Fig. 2.

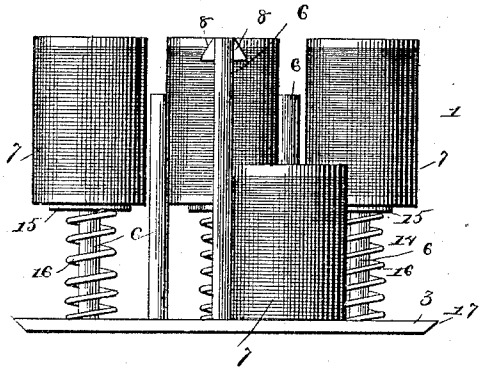
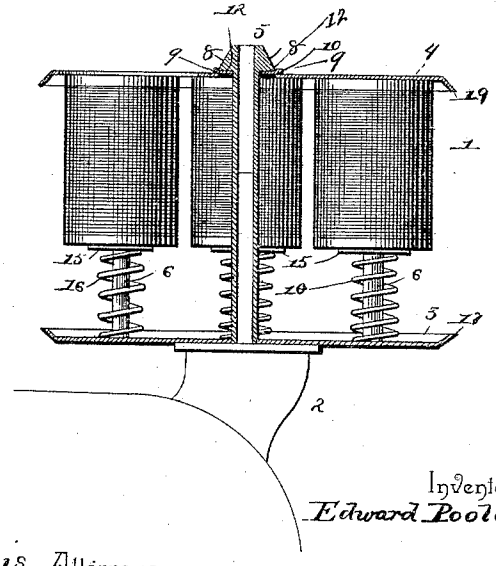


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE

EDWARD POOLE, OF FORDYCE, ARKANSAS.

SPOOL-RACK FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 444,766, dated January 13, 1891.

Application filed June 4, 1890. Serial No. 354,263. (No model.)

To all whom it may concern:

Be it known that I, EDWARD POOLE, a citizen of the United States, residing at Fordyce, in the county of Dallas and State of Arkansas, have invented a new and useful Machine Spool-Rack, of which the following is a specification.

The invention relates to improvements in machine spool-racks.

The object of the present invention is to provide a spool-rack for sewing-machines adapted to hold a number of spools and designed to be placed on the spindle of a sewing-machine after the manner of an ordinary spool and capable of enabling spools to be readily inserted and removed.

A further object of the invention is to provide a simple and convenient thread-cutter to facilitate the changing of spools for use on the machine.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a spool-rack constructed in accordance with this invention and illustrating the manner of cutting thread. Fig. 2 is a similar view, the upper disk being removed. Fig. 3 is a central vertical sectional view and illustrating the position of the rack on the spindle of a sewing-machine. Fig. 4 is a detail perspective view of the tension device.

Referring to the accompanying drawings, 1 designates a spool-rack for sewing-machines, adapted to be placed on the spindle 2 of a sewing-machine after the manner of an ordinary spool, and composed of a lower disk or plate 3 and upper disk or plate 4, a central vertical tube or stem 5, rigidly secured to the lower disk and having the upper disk removably secured to it, and a series of vertical spool-spindles 6, rigidly secured to the lower disk or plate 3 and arranged vertically, preferably concentric, with the central tube or stem 5, and adapted to fit in the ordinary opening of a spool 7. The upper end of the central tube or stem 5 is provided upon opposite sides with feathers or projections 8, and the upper disk or plate 4 is provided with oppositely-arranged slots 9, adapted to receive the feathers or projections 8 of the central tube or stem and permit the upper disk or plate 4 to pass the same, and after the upper disk or plate has passed the feathers or projections 8 it is turned to carry the slots away from the projections or feathers, and in order to prevent the disk becoming accidentally displaced from the stem a key-plate 10 is employed, and is provided with slots 11, similar to those of the upper disk or plate 4 to enable the key-plate to pass the feathers or projections, and when the key-plate is turned the feathers or projections 8 are brought into engagement with notches 12 and the lower edges of the projection are beveled, in order to more readily engage the notches 12 and prevent the key-plate slipping and bringing the slots opposite the projections or feathers.

The upper disk or plate 4 is provided with a circular opening 13, arranged near the edge or the periphery, and of sufficient size to permit a spool to readily pass through it, and the said plate or disk is adapted to be rotated to bring the opening 13 opposite any one of the spools to enable the latter to be readily removed from its spindle. The spools may rest loosely on the bottom plate or disk 3 and the feeding of the thread be entirely controlled by the sewing-machine; or tension devices 14 may be employed to retard the rotation of the spool. The tension device 14 is composed of a centrally-perforated disk 15 and a spiral spring 16, having its opening arranged opposite the perforation of the plate and being secured to the disk, and the said tension device is adapted to be arranged on the spool-spindle, with the perforated disk engaging the lower end of a spool to hold the latter in engagement with the top plate.

The lower disk or plate 3 has its edge or periphery 17 slightly upset and arranged at an angle to the rest of the plate and shortened to provide a knife-edge for severing the thread, and preparatory to cutting the thread is engaged in an opening of a hook 18, projecting downwardly and radially from the edge or periphery 19 of the upper disk or plate, and the said edge or periphery 19 is bent slightly downward to facilitate the attachment of the hook, and the end of the wire forming a hook is bent upon itself and arranged at a slight

angle to the stem of the hook to provide a gradually decreasing opening for the hook to engage the thread and prevent the spool rotating during cutting, and it will readily be seen that after cutting sufficient thread hangs from the hook to enable the same to be readily disengaged.

The advantages of the spool-rack and the conveniences afforded by it will readily suggest themselves, and it will readily be seen that various grades and kinds of cotton and thread can be contained in the rack, and one kind can readily be substituted for another on the machine without removing the spool in use, as has heretofore been necessary.

The use of spool-racks constructed in accordance with this invention is not limited to sewing-machines; but is equally applicable to looms, weaving-machines, and the like where spools of thread are employed; and I desire it to be understood that I do not limit myself to the precise details of construction herein shown and described, as I may without departing from the spirit of the invention make minor changes therein.

Having described my invention, what I claim is—

1. A spool-rack for machines, comprising the bottom plate, the tube or hollow stem secured to the bottom plate and forming a socket to receive the spindle of a machine and provided at its upper end with oppositely-disposed feathers or projections having their lower edges beveled, the spool-spindles, the upper plate having oppositely-disposed slots, and the key-plate provided with similar slots and having notches 12 adapted to be engaged by the projections, substantially as described.

2. A spool-rack having a socket to receive the spindle of a machine and provided with the disk having its periphery upset and arranged at an angle to the body of the disk and sharpened, substantially as described.

3. A spool-rack for machines, comprising the lower disk having its periphery upset and sharpened, the hollow stem secured to the lower disk and forming a socket to receive the spindle of a machine, the spool-spindle, and the upper disk provided with hooks 18, adapted to be engaged by a thread, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

EDWARD POOLE.

Witnesses:
J. H. SIGGERS,
R. J. MARSHALL.