

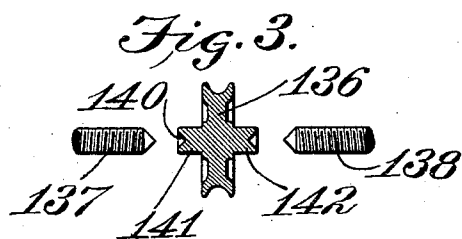
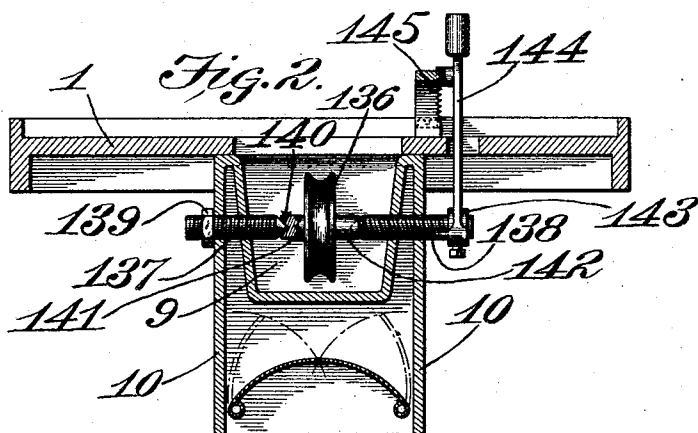
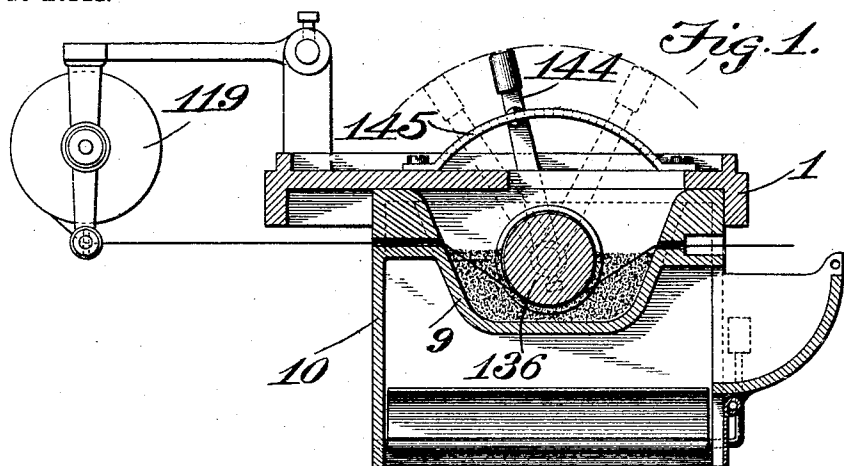
No. 765,855.

PATENTED JULY 26, 1904.

C. PEDERSEN.
TENSION FOR SEWING MACHINES.

APPLICATION FILED SEPT. 14, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHRISTIAN PEDERSEN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO LANDIS MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

TENSION FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 765,855, dated July 26, 1904.

Application filed September 14, 1903. Serial No. 173,137. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN PEDERSEN, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Tensions, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, partly in section, illustrating the wax-pot of a sewing-machine with the present tension mechanism applied. Fig. 2 is a transverse sectional elevation through the wax-pot, and Fig. 3 is a detail view illustrating a tension-pulley and its supports.

This invention relates to tensions, and more particularly to tension mechanisms for sewing-machines.

The object is to provide a tension mechanism of simple construction which can be easily regulated, and a further object is to so arrange the tension mechanism that space is economized.

To these ends and also to improve generally upon mechanisms of the character indicated, the invention consists in the various matters hereinafter described and claimed.

Referring now more particularly to the drawings, 1 indicates the supporting-standard of a sewing-machine, and 9 represents the wax-pot, the present mechanism being herein illustrated in connection with a wax-thread sewing-machine.

119 is any suitable source of thread-supply. Depending about the wax-pot are walls 10, which serve the purpose of confining the heat. Seated in one of said walls 10 and the adjacent wall of the wax-pot and extending through said walls is a threaded rod 137, which is received in threaded openings in said walls and is preferably locked in position by means of a lock-nut 139. A second threaded rod 138 is also seated in the threaded openings in the opposite wall 10 and its adjacent wall of the wax-pot. Held between the projecting inner ends of said rods, so that these rods form bearings

for it, is a tension wheel or pulley 136. Preferably the pulley and its supports have engagement with each other by means of a point upon one of them entering a socket upon the other. In the present instance the rod 137 is shown provided with a pointed or conical end, which enters a corresponding socket 140 in the end of a stub-shaft 141, projecting from one side of the pulley 136, while a stub-shaft 142 upon the other side of said pulley has a conical or pointed socket which receives the correspondingly-pointed inner end of the rod 138.

Secured upon the outer end of the rod 138 is a socket-plate 143, from which extends a spring-arm 144, adapted to cooperate with the teeth of a segmental rack 145, suitably supported upon the machine-frame. It will be manifest that as the said spring-arm is swung along the said rack the threaded rod is given rotary movement in its bearings and is therefore fed toward or away from the thread-pulley 136. Manifestly the more forcibly the rod 138 bears against said pulley the more tightly is the pulley clamped between its bearing-rods and the greater is the tension. The said tension-pulley being in the wax-pot, said pulley is protected and does not occupy space which could be otherwise utilized. Furthermore, the waxed thread tends to cling to the pulley.

I am aware that minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a sewing-machine, the combination with a wax-pot and heat-retaining walls about said wax-pot and spaced therefrom, of a support seated in one wall of said wax-pot and the adjacent heat-retaining wall and projecting into said wax-pot, a rotatable, threaded rod seated in threaded openings in the other wall of said wax-pot and the heat-retaining wall adjacent thereto, and a thread-pulley in said

wax-pot and engaged between the inner end of said support and said threaded rod; substantially as described.

2. In a sewing-machine, the combination
5 with a supporting-standard, of a wax-pot having side walls, heat-retaining walls depending about said wax-pot and spaced from the side walls of the latter, said heat-retaining walls
10 and said side walls of said wax-pot being provided with threaded openings, a threaded rod seated in the said threaded openings of one of said heat-retaining walls and the adjacent side
15 wall of said wax-pot, a lock-nut upon said rod and holding the same in position, a second threaded rod seated in said threaded openings

of the other of said heat-retaining walls and the adjacent said side wall of said wax-pot, a tension guide-pulley in said wax-pot and engaged between the inner ends of said threaded rods, a rack upon said standard, and a spring-
20 arm connected to the outer end of said second-mentioned threaded rod and coöperating with said rack; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses,
25 this 31st day of August, 1903.

CHRISTIAN PEDERSEN.

Witnesses:

GALES P. MOORE,
GEORGE BAKEWELL.