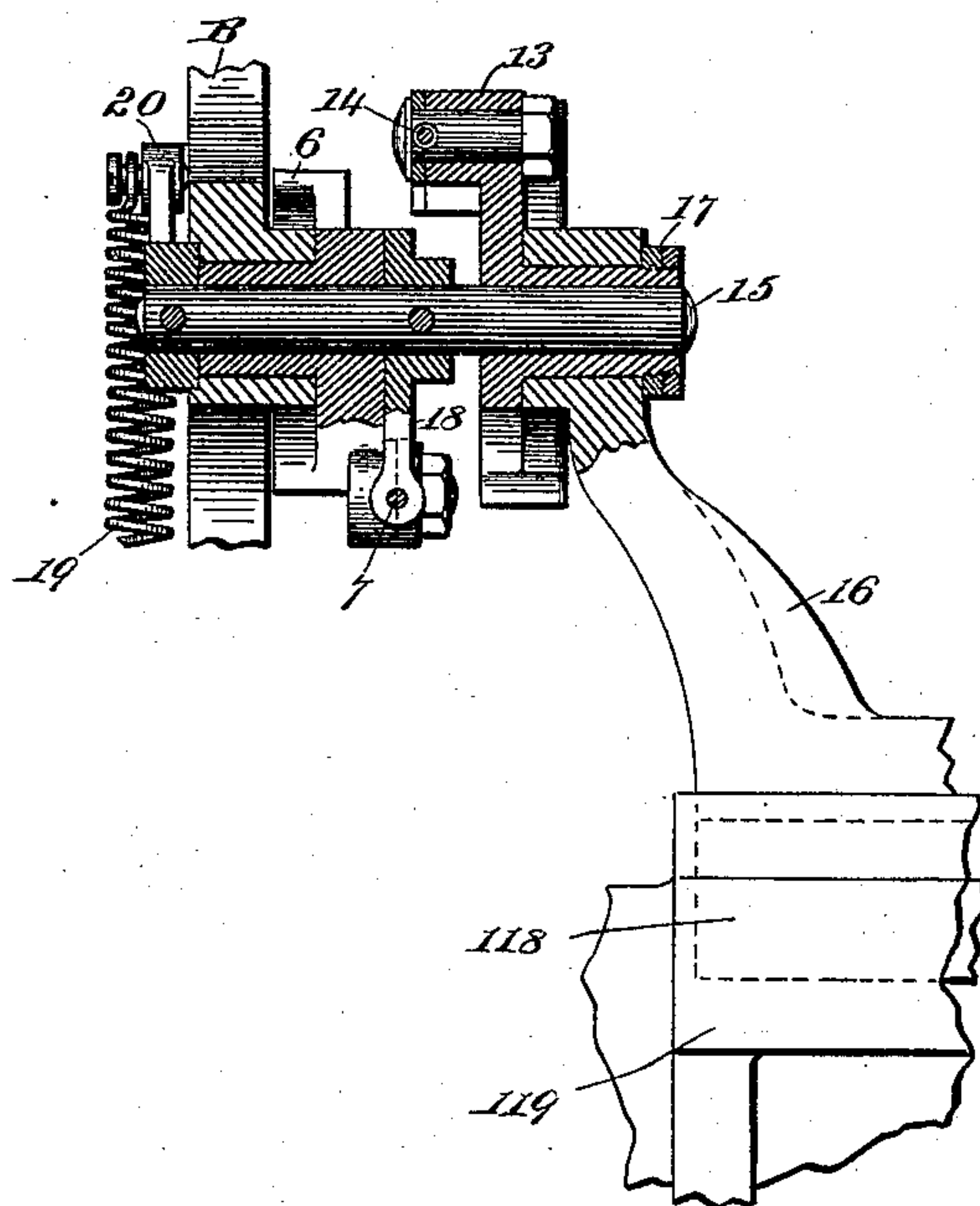


(No Model.)

W. D. RUNDLETT.  
SEWING MACHINE.

No. 570,961.

Patented Nov. 10, 1896.



Witnesses:

*S. J. Murphy.*  
*John A. Hancock.*

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# UNITED STATES PATENT OFFICE.

WILLIAM D. RUNDLETT, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO  
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## SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 570,961, dated November 10, 1896.

Original application filed June 24, 1892, Serial No. 437,876. Divided and this application filed February 20, 1893. Renewed August 6, 1896. Serial No. 601,925. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM D. RUNDLETT, of the city and county of Providence, in the State of Rhode Island, have invented certain  
5 new and useful Improvements in Sewing-Machines; and I do hereby declare the following specification, taken in connection with the accompanying drawing, forming a part of the same, to be a full, clear, and exact description thereof.

The present application is a division of pending application, Serial No. 437,876, filed June 24, 1892.

The invention hereinafter described relates  
15 to that class of sewing-machines in which an awl is employed to puncture a hole in the stock for the entrance of the needle, and in which the work is fed by means of such awl, and the invention is especially adapted for  
20 use in that class of machines in which a curved needle and a curved awl are arranged to be oscillated about a common center.

The object of the invention is to provide proper supports for the needle-head and the  
25 awl-head, respectively, whereby they will both be prevented from tilting or cramping, and whereby they will always be held in accurate alinement with each other. To that end the invention consists in the combinations of parts  
30 hereinafter described.

Referring to the drawings the figure is a view, partly in section, illustrating the invention.

B is a portion of the fixed frame of a sewing-machine.

6 is the needle-carrier, carrying the needle 7.

13 is the awl-carrier, carrying the awl 14.

The needle-carrier 6 and the awl-carrier 13 are each provided with elongated hubs  
40 and are both loosely mounted on a common shaft 15, as shown in the drawing, and so that both the needle and awl will move about a common center, but from opposite sides of the work. The shaft 15 is free to oscillate, as  
45 hereinafter more fully described. The hub of the needle-carrier 6 is loosely mounted in the frame B, so as to be capable of turning therein. The hub of the awl-carrier 13 is loosely mounted in the arm 16, projecting  
50 from the feed-slide 118, arranged to be moved

in its supporting-bracket 119 by suitable mechanism. The hub of the awl-carrier is held in position in said arm 16 by the check-nut 17, the arrangement being such that the awl-carrier can oscillate in its supporting-arm  
55 16 and about the shaft 15, and also be capable of a longitudinal movement upon said shaft 15 for the purpose of feeding the work. The needle-guide 18 is rigidly secured to the shaft 15, which said shaft is free to oscillate,  
60 but has no endwise movement. Said needle-guide is operated in one direction by a projection from the needle-carrier in a well-known manner, and is operated in the other direction by the spring 19 acting upon the  
65 crank 20, which is rigidly secured to the shaft 15, the opposite end of the spring 19 being secured to the frame of the machine.

As shown in the drawing, the hub of the needle-carrier is held between the hubs of  
70 the needle-guide 18 and the crank 20, which are rigidly secured to the shaft 15, and is thus held against longitudinal movement upon said shaft, the needle-carrier, however, being free to oscillate about said shaft.

It will be understood that the needle-carrier and the awl-carrier are each to be oscillated, and the awl-carrier moved to feed the work by proper mechanism in the usual manner.

By the construction and arrangement of  
80 parts above described both the needle-carrier and the awl-carrier are supported both exteriorly and interiorly, and being each provided with elongated hubs are entirely prevented from cramping or tilting, notwithstanding that they are both loose and free to oscillate upon their supporting-shaft. Moreover, said needle-carrier and awl-carrier, being mounted upon a shaft common to both,  
85 are always maintained in accurate alinement with each other.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a shaft, a needle-carrier loosely mounted on said shaft and capable of being oscillated thereon, but having  
95 no lengthwise movement in relation thereto, an awl-carrier likewise loosely mounted on said shaft and capable of oscillating thereon and also of being moved lengthwise with rela- 100



tion to said shaft, both said needle and awl carriers being provided with elongated hubs surrounding said shaft, and an exterior support for each of said hubs, the support for  
5 the needle-carrier hub being fixed and immovable, and the support for the awl-carrier hub being capable of lengthwise movement to move said awl-carrier and the awl held therein to feed the work, substantially as de-  
10 scribed.

2. The combination of a shaft free to oscillate, but incapable of lengthwise movement, a needle-guide secured to said shaft, a needle-carrier loosely mounted on said shaft and ca-  
15 pable of being oscillated thereon, but having no lengthwise movement in relation thereto, an awl-carrier likewise loosely mounted on

said shaft and capable of oscillating thereon and also of being moved lengthwise with relation to said shaft, both said needle and awl  
20 carriers being provided with elongated hubs surrounding said shaft, and an exterior support for each of said hubs, the support for the needle-carrier hub being fixed and im-  
25 movable, and the support for the awl-carrier hub being capable of lengthwise movement to move said awl-carrier and the awl held therein to feed the work, substantially as de-  
scribed.

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