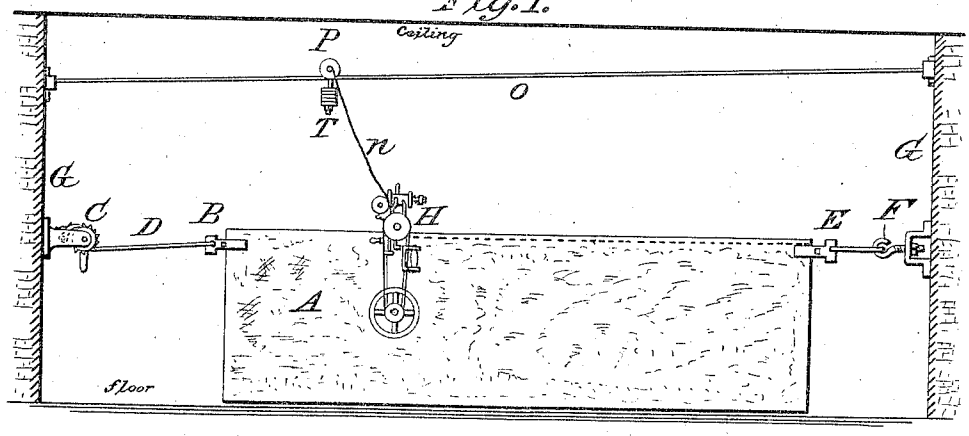
(No Model.)

C. McNEIL.

MACHINE FOR SEWING LONG LENGTHS OF FABRICS.

No. 468,457. Patented Feb. 9, 1892.

Fig. 1.



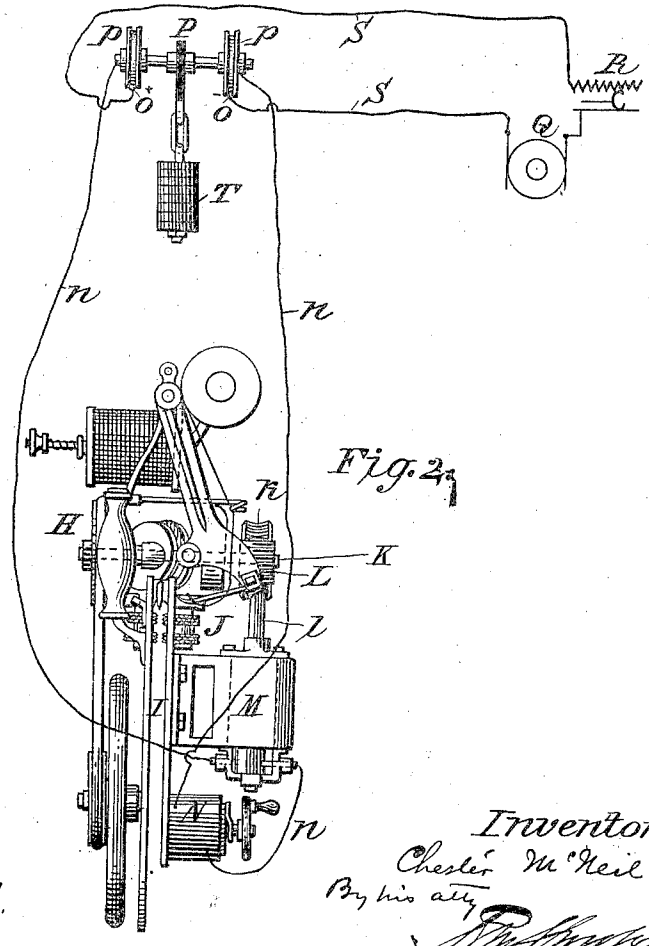


Fig. 2.

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UNITED STATES PATENT OFFICE.

CHESTER MCNEIL, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF ILLINOIS.

MACHINE FOR SEWING LONG LENGTHS OF FABRICS.

SPECIFICATION forming part of Letters Patent No. 468,457, dated February 9, 1892.

Application filed May 28, 1891. Serial No. 394,389. (No model.)

To all whom it may concern:

Be it known that I, CHESTER MCNEIL, of the city of Chicago, county of Cook, and State of Illinois, have invented an Improvement in Machines for Holding and Sewing Long Lengths of Fabric, of which the following is a specification.

My invention has reference to machines for holding and sewing long lengths of fabrics; and it consists of certain improvements, which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a suitable means of propulsion to a sewing-machine carried upon the edge of long lengths of carpet or other fabrics and employed for uniting two such lengths by a line of stitches, which may be either the well-known straight or zigzag stitches.

Machines have been designed heretofore to run upon the edge of fabrics stretched and held in a vertical plane; but in all cases they have been hand-operated, and the use of them is not only laborious, but slow.

In carrying out my invention I employ any of the well-known sewing-machines constructed to ride upon the edge of the fabric, and provide this machine with an electric motor for operating it and feeding it along the edge of the carpet, the current being supplied from a stationary source by means of conductors arranged along or parallel to the stretched fabric, and the motor being carried by and moving with the sewing-machine.

Referring to the accompanying drawings, Figure 1 is a side elevation of the machine for holding and sewing carpet embodying my invention, and Fig. 2 is an end elevation of same removed from the carpet and with the suspended conductors in section.

A is a long length of carpet, which is suspended so as to lie in a vertical plane, and is stretched by means of a windlass. One end of the carpet near its top is secured in a clamp E, which is attached by a link and hook F to one of the walls G of the room. The other end of the carpet is secured to a second clamp B, and this is attached to a windlass C by means of a cord or chain D. The windlass C is secured to the opposite wall. By operating the windlass the carpet A is stretched and the adjacent edges of two strips are caused to lie close together.

H is the sewing-machine, adapted to ride upon and travel along the upper edges of the carpet. This sewing-machine may be of any well-known construction—such, for instance, as is clearly set out in Letters Patent to H. S. Flint, No. 405,834, dated June 25, 1889—and is provided with vertical guides I, which inclose the upper edge of the carpet, and feeding-rolls J for feeding the machine along the carpet. The power-shaft K of the sewing-machine is provided with a worm-wheel *k*, with which a worm L meshes, said worm being secured to a motor-shaft *l* of the electric motor M, which is secured to the guides I.

N is a rheostat or speed-regulator for the electric motor, and is also secured to the guides I, so as to be carried or moved with the sewing-machine.

Arranged above the carpet, near the ceiling, are two stretched conductors O O, which connect by means of wires S with a source of electrical energy Q, the current from which may be regulated by a regulator R. Running upon these conductors O O is a carriage P, having collector-wheels *p p*, which are electrically connected by means of motor-circuits *n* with the rheostat N and motor M, as shown. In practice these conductors *n* would be insulated, and may be, if desired, mechanically connected to form a single cord or cable such as is commonly found in the market—for instance, in telephone-receiver cords. The carriage P is provided, if desired, with a weight T to hold the wheels firmly upon the conductors. The conductors O O may also be inclined, as shown in Fig. 1, so that there is a tendency of the carriage P to run forward of the sewing-machine and thereby not only overcome any tendency to retard the travel of said sewing-machine, but, on the other hand, assist the sewing-machine in its travel. From this construction it is evident that the sewing-machine, the electric motor, and the rheostat or regulator are caused to travel along the carpet or other fabric and be suspended thereby without the

employment of a railway, and during its travel electric energy is supplied to the motor by means of a traveling contact with longitudinal conductors of suitable construction.

It is immaterial to my invention what particular means are employed for stretching the carpet or what particular means may be employed for supplying current from a stationary source to the traveling motor, as these, as well as the sewing-machine proper, may be modified without in the least departing from the principles of my invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In apparatus for holding and sewing fabrics, the combination of means for supporting long lengths of fabric in a stretched condition, a sewing-machine supported by and traveling along the edge of the carpet, an electric motor secured to and traveling with the sewing-machine, a line conductor arranged longitudinally with respect to the fabric, a traveling contact moving along the said conductor, and an electric conductor between the traveling contact and the electric motor.

2. In apparatus for holding and sewing fabrics, the combination of means for supporting long lengths of fabric in a stretched condition, a sewing-machine supported by and traveling along the edge of the carpet, an electric motor secured to and traveling with the sewing-machine, a line conductor arranged longitudinally with respect to the fabric, a traveling contact moving along the said conductor, an electric conductor between the traveling contact and the electric motor, and a regulator for controlling the motor secured to and moving with the sewing-machine and including the electric conductor leading to the motor.

3. In apparatus for holding and sewing long lengths of fabrics, the combination of means for stretching the fabric, a sewing-machine supported by and traveling along the edge of the fabric, an electric motor for operating the sewing-machine secured to and carried by it, two suspended conductors arranged at an elevation above the sewing-machine and longitudinally with respect to the stretched fabric, a traveling carriage moving upon the conductors and making electrical connection therewith by separate contacts, and an electric circuit leading from the two contacts of the carriage and including the electric motor.

4. In apparatus for holding and sewing long lengths of fabrics, the combination of means for stretching the fabric, a sewing-machine supported by and traveling along the edge of the fabric, an electric motor for operating the sewing-machine secured to and carried by it, two suspended conductors arranged at an elevation above the sewing-machine and longitudinally with respect to the stretched fabric, a traveling carriage moving upon the conductors and making electrical connection therewith by separate contacts, an electric circuit leading from the two contacts of the carriage and including the electric motor, and a rheostat or regulator carried by the sewing-machine for controlling the current delivered to the motor.

In testimony of which invention I have hereunto set my hand.

CHESTER MCNEIL.

Witnesses:

LANSING ONDERDONK,

W. S. NORTH.