

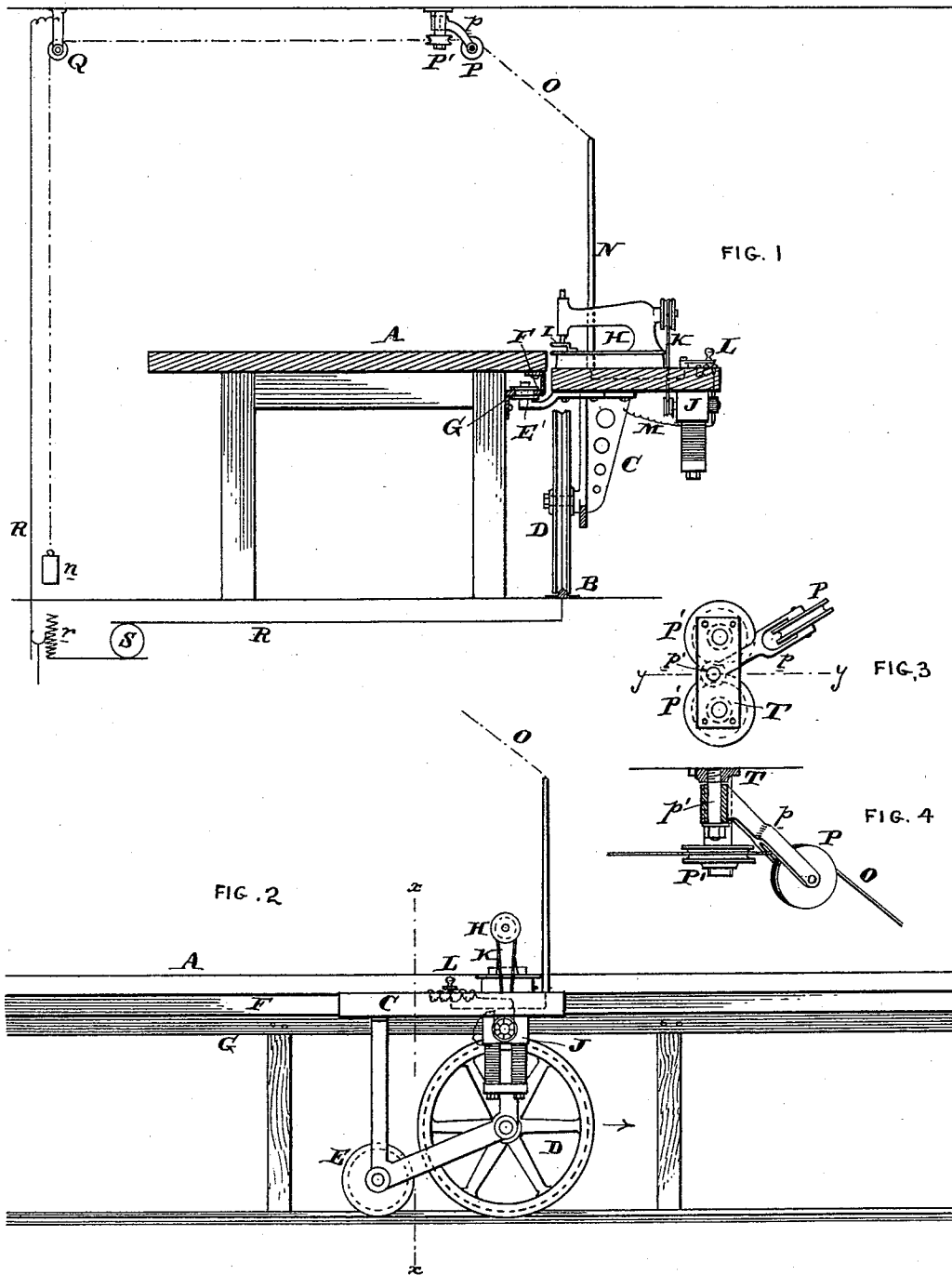
(No Model.)

R. M. HUNTER.

APPARATUS FOR HOLDING AND SEWING FABRICS.

No. 460,505.

Patented Sept. 29, 1891.



Attest
F. B. Meyer
S. T. Yerkes.

Inventor
R. M. Hunter

UNITED STATES PATENT OFFICE.

RUDOLPH M. HUNTER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THE UNION SPECIAL SEWING MACHINE COMPANY, OF ILLINOIS.

APPARATUS FOR HOLDING AND SEWING FABRICS.

SPECIFICATION forming part of Letters Patent No. 460,505, dated September 29, 1891.

Application filed September 22, 1890. Serial No. 365,843. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH M. HUNTER, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Apparatus for Holding and Sewing Fabrics, of which the following is a specification.

My invention has reference to apparatus for holding and sewing 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 construction of carpet-sewing machines wherein the carpet-strips are stretched upon a table or support, and an electrically-propelled sewing-machine is caused to travel along or adjacent to the edges of the carpet and parallel with the edge of the table and sew the two widths or strips of carpet together.

My invention has reference to improvements employed for supplying the electricity to the motor, which motor is employed to operate the sewing-machine and cause it to be moved lengthwise with respect to the carpet.

My invention also comprehends certain features of construction of support for the carpet or other fabric combined with a railway and traveling carriage supporting a sewing-machine. These various improvements are set out hereinafter, and particularly specified in the claims.

In the drawings, Figure 1 is a cross-section of an electric carpet-sewing machine on line *x x* of Fig. 2, and embodies my invention. Fig. 2 is a front elevation of same. Fig. 3 is a plan view of the guide-wheels for the extensible conductor, and Fig. 4 is a sectional elevation of same on line *y y*.

A is the table upon which the strips of carpet or other fabric are placed and adjusted for having their edges sewed together. This table may be of any length desired, and in practice is made very long. Arranged along the floor under one edge of the table is a V-shaped rail B, which may act as one of the conductors.

C is a carriage, which is supported upon a

large wheel D and a small wheel E, having V-shaped grooves to run upon the rail B, and carries immediately above the axis of the wheel D a sewing-machine H, which is operated by means of an electric motor J and the band K. The wheels D and E are in the same plane, and to prevent the carriage from falling over and away from the table a grooved guide-wheel E' is employed, journaled upon a vertical axis and running between guide-rails G and F secured to the table.

The sewing-machine H is provided with a fabric-guide I, adapted to receive the edges of the fabric and hold them in relative position while the needle passes through the fabric. This guide I and the needle are arranged above the wheel D and the rail B, so that the downward strain is directly received upon the rail B. The ordinary feed motion of the sewing-machine, acting upon the carpet, is the means employed for automatically causing the carriage C to travel upon the railway.

L is a resistance-changer for controlling the speed of the motor J, and is preferably arranged upon the carriage C.

S is a source of electric power of any kind, and R is an electric circuit including said source of power and resistance-changer *r* for controlling the supply of current to the motor. One terminal of the source of power connects with the rail B, and the current passes through the said rail and wheel D and its supporting-frame and by conductor M to one brush of the motor J. The other terminal of the source of power connects with the guide-pulley Q.

N is an upright rod secured to the carriage C and extends to an elevation sufficient to hold the conductor O out of reach of persons standing at the edge of the table A. An extensible or flexible conductor O is mechanically connected to the upper end of the arm N and extends to the base of the said arm, thence to the resistance-changer L, and from it to the other brush of the motor, and is thereby electrically connected with the electrically-actuated sewing-machine. The conductor O passes over a guide-pulley P and between guide-pulleys P', thence over a guide-pulley Q, and connects with a weight *n*. The

guide-pulleys P' are grooved wheels and arranged edge to edge and adapted to revolve in a horizontal plane, as shown in Figs. 3 and 4.

The guide-pulley P is adapted to rotate in a vertical plane and is journaled in a frame p, pivoted at p', which is a point between the two wheels P', and is suspended at such an elevation that the upper part of its groove is in line with the groove between the two horizontal pulleys P', as clearly shown. As the carriage moves along the railway the conductor O is pulled out or given in, permitting the travel of the carriage C and at all times maintaining an electrical connection with the conductor R.

In practice the guide-pulleys P P' are arranged in the middle portion of the table with reference to its length, so that in starting the carriage from one end of the railway and moving it to the other end the extensible conductor O is first given in, and after the carriage passes the guide-pulleys P P' the conductor is drawn out. In practice the conductor O is the positive conductor and the rail B the negative; but this may be varied, if desired.

While I have particularly described my invention with reference to sewing together strips of carpet, I wish it to be understood that my apparatus is equally well adapted for holding and sewing various other fabrics, such as sails, awnings, theater-curtains, &c.

It is immaterial to my invention what the nature of the extensible conductor may be, as my invention comprehends any means for maintaining a positive connection with one terminal of the source of power in which the conductor is positively connected with the carriage and is extensible with reference to the source of power.

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

1. In an apparatus for holding and sewing fabrics, the combination of a table for supporting the fabric, a railway arranged parallel to the table, a carriage moving upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electrical power, an extensible conductor leading from the source of power to the electrically-actuated sewing-machine, and a guide for the conductor arranged at one place with respect to the table and over which the extensible conductor is guided.

2. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, a flexible conductor connected at one end to the electrically-actuated sewing-machine and having its other end guided over a suitable contact device, a contact device, and an electric circuit leading from the source of supply to the contact device.

3. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, a guide-roller fixedly located with respect to the table and between its ends, an electric circuit connecting the guide-roller with the source of electric supply, and a flexible bare conductor having one end connected to the electrically-actuated sewing-machine and the other end loosely guided over the guide-pulley.

4. In an apparatus for holding and sewing fabrics, the combination of a table or support upon which the fabric is placed, a supporting-rail arranged close to the base of and parallel to the table, a movable carriage having a large supporting-wheel running upon said supporting-rail and overhanging said supporting-rail so as to project away from the table, a guide-rail arranged parallel to and secured at a level close to the upper portion of the table, a guide-roller secured to the carriage and running against said guide-rail to support said carriage in an upright position, and a sewing-machine secured to the carriage so as to move close to the edge of the table and having its cloth-plate substantially on a level with the upper surface of the table, so that the fabric may extend from the table over the cloth-plate.

5. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, guide-rollers fixedly located with respect to the table and electrically-connected with the source of electric supply, a flexible conductor rigidly connected at one end with the electrically-actuated sewing-machine and having its other end guided over the rollers, and a weight to cause said flexible conductor to remain under tension at all times during the travel of the sewing-machine.

6. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, an upright arm extending upwardly from the traveling carriage and supporting a flexible conductor one end of which is mechanically connected to the electrically-actuated sewing-machine and the other end of which extends loosely from the upper part of said arm, guide-wheels over which said conductor extends, fixedly located with respect to the table, and an electrical connection between said flexible conductor and the source of electric supply.

7. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the

table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, horizontal guide-rollers having fixed axes, a guide-roller supported upon a pivoted frame and having its groove in line with the groove of the horizontal guide-rollers, a flexible electric conductor connected at one end to the carriage and having its other end passing over the movable roller between the horizontal rollers, and an electrical connection between said flexible conductor and source of electric supply.

8. In an apparatus for holding and sewing fabrics, a table or support upon which the fabric is placed, a railway arranged parallel to the table, a carriage movable upon said railway, an electrically-actuated sewing-machine carried by said carriage, a source of electric supply, horizontal guide-rollers having fixed axes, a guide-roller supported upon a pivoted frame and having its groove in line with the grooves of the horizontal guide-rollers, a flexible electric conductor connected at one end to the electrically-actuated sewing-machine and having its other end guided over the movable roller between the horizontal rollers, an electrical connection between said flexible conductor and source of electric supply, and a weight attached to the free end of said conductor to keep it under tension for all positions of the electrically-actuated sewing-machine.

9. In an apparatus for holding and sewing fabrics, the combination of a table, a rail B, arranged parallel to the table and at a much lower elevation than its upper surface, a traveling carriage C, having a large supporting grooved guide-wheel D, adapted to run upon the rail B, a horizontal guide-roller E, arranged at the upper part of the carriage and close to the upper edge of the large guide-wheel D, a rail F, secured to the upper part of the table against which the roller E runs, and a sewing-machine supported on the carriage and having its needle-bar and feed-motion mechanism arranged above the large supporting grooved guide-wheel.

10. In an apparatus for holding and sewing fabrics, the combination of a table, a rail arranged parallel to the table and at a lower

elevation than its upper surface, a large vertical wheel running upon said rail, a carriage supported upon said wheel, a horizontal guide-roller arranged above the wheel, a guide-rail for said horizontal roller carried by the upper part of the table, and a sewing-machine provided with a guide for the edges of the carpet or fabric carried by the carriage and arranged immediately above the large supporting-wheel running upon the rail.

11. In an apparatus for holding and sewing fabrics, the combination of a table for supporting the fabric, a rail arranged at a lower level than the surface of the table, a vertical guide-wheel running upon said rail, a carriage supported upon said vertical guide-wheel and projecting laterally to one side thereof and away from the table, a horizontal guide-roller carried by said carriage substantially at a level with the upper part of the guide-wheel, a rail secured to the table for supporting said guide-roller, a sewing-machine carried upon the carriage and having a guide arranged over the supporting-wheel, and an electric motor for operating the sewing-machine arranged upon the outer part of the carriage.

12. In an apparatus for holding and sewing fabrics, the combination of a table, a railway arranged parallel to the table and consisting of two rails arranged at different levels, a traveling carriage having wheels for supporting and guiding said carriage on the rails, a sewing-machine supported by the carriage close to the edge of the table and with its cloth-plate substantially on a level with the surface of the table, an electric motor on the carriage for operating the sewing-machine, a source of electric energy, and an extensible conductor leading from a fixed plate electrically connected with the source of electric energy and connecting with the electric motor for supplying current to the motor during the travel of the motor and sewing-machine.

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

R. M. HUNTER.

Witnesses:

ERNEST HOWARD HUNTER,
A. J. DUNN.