(No Model.)

L. ONDERDONK.

MACHINE FOR HOLDING AND SEWING FABRICS.

No. 462,729. Patented Nov. 10, 1891.

FIG. 1

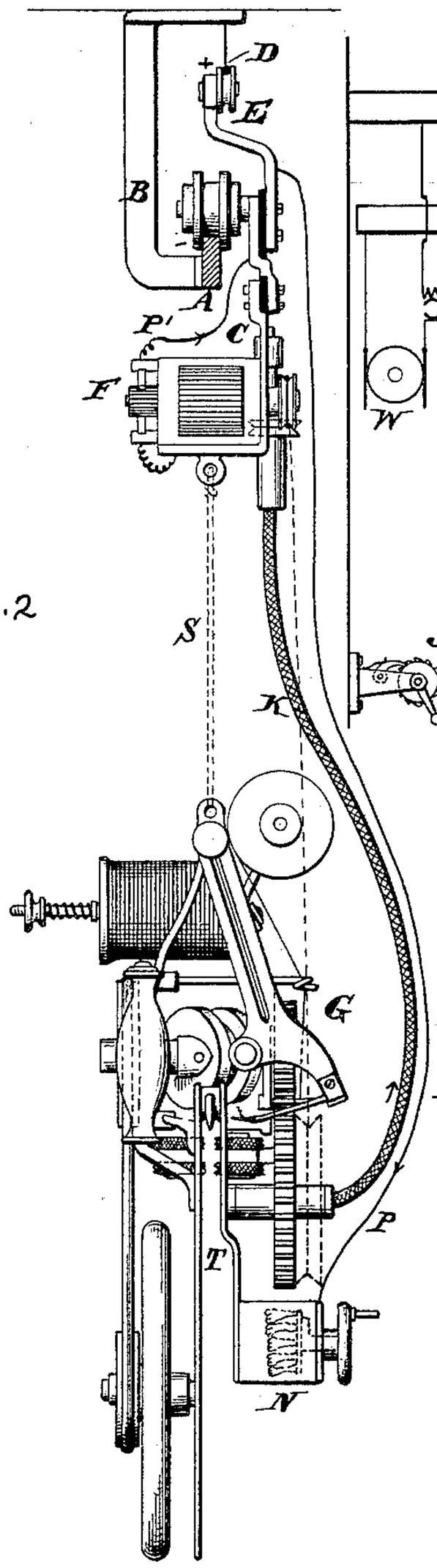

FIG. 2

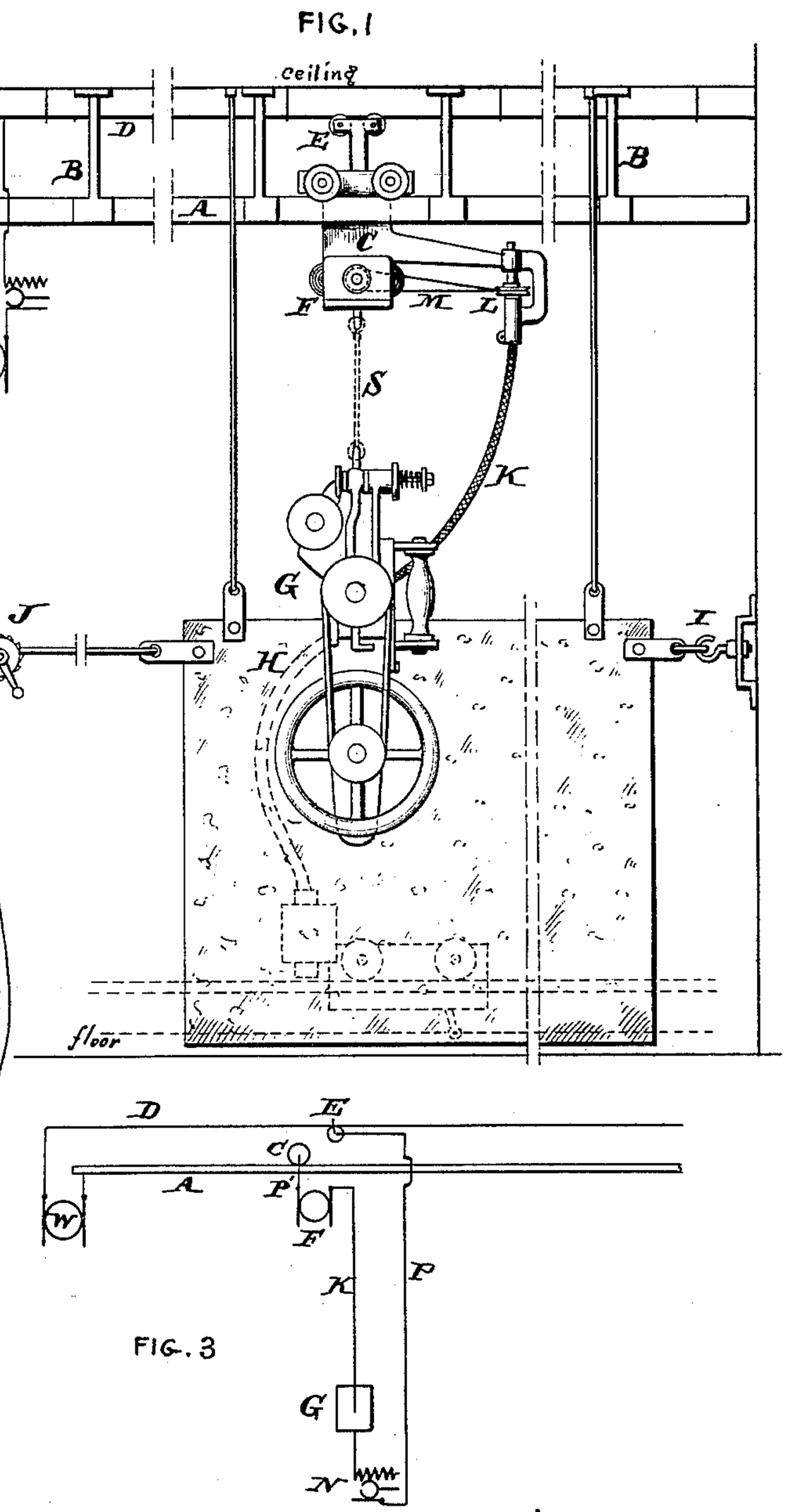

FIG. 3

Witnesses:
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By his atty
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UNITED STATES PATENT OFFICE.

LANSING ONDERDONK, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF ILLINOIS.

MACHINE FOR HOLDING AND SEWING FABRICS.

SPECIFICATION forming part of Letters Patent No. 462,729, dated November 10, 1891.

Application filed May 5, 1891. Serial No. 391,676. (No model.)

To all whom it may concern:

Be it known that I, LANSING ONDERDONK, of the city of Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Machines for Holding and Sewing Fabrics, of which the following is a specification.

My invention has reference to machines for holding and sewing carpets and other fabrics in long lengths; 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 adapt mechanical means for operating the sewing-machine during its travel along the carpet or fabric.

In carrying out my invention I provide suitable means for supporting the fabric in a vertical position, and along which fabric the sewing-machine travels in the well-known manner, the weight of the sewing-machine being sustained by the fabric. Arranged parallel to the stretched fabric is a railway, preferably suspended from the ceiling or other suitable support, and upon this railway a vehicle runs which sustains an electric motor and one end of a power-transmitting device, the other end of which transmitting device extends to the sewing-machine and operates it. Arranged along the railway is an electrical conductor, and a current-collecting device makes contact with the said conductor and is moved by the traveling carriage. While I prefer to employ a flexible shaft from the motor to the sewing-machine, I do not confine myself thereto, as suitable belting or transmitting-cables may be employed between the sewing-machine traveling along the carpet and the electric motor sustained upon the railway. If desired, a supporting connection may be arranged between the traveling carriage when suspended and the sewing-machine, so that considerable of the weight thereof may be sustained by the railway independently of the fabric. Electrical conductors are employed leading from the conductor to a rheostat or a current-controlling device carried with the sewing-machine and in reach of the operator. By the operation of this regulator the speed of the motor may be controlled. As the sewing-machine travels along the carpet in the well-known manner the carriage is moved over the railway by the connection between the said sewing-machine and carriage.

Referring to the drawings, Figure 1 is a front elevation of a machine for holding and sewing fabrics embodying my invention. Fig. 2 is a side elevation of the same, with the railway and conductor in section; and Fig. 3 is a diagram illustrating the electrical circuits.

A is a suspended rail or track, preferably hung by brackets B from the ceiling. Upon this railway a movable carriage C runs. Preferably above this rail is suspended a bared conducting-wire D, with which an underrunning collector E makes contact, the said collector being secured to, but insulated from, the carriage. The conductor D is connected with the positive pole of the source of power W, and the rail A is connected with the negative pole of the source of power.

F is an electric motor which is secured to the carriage C and is movable with it.

L is a revolving spindle journaled in the carriage C and adapted to be rotated by a transmitting-band or other power connection M. Secured to this spindle L is a flexible shaft K, leading to the sewing-machine.

G is the sewing-machine, and may be made similar to any of the well-known constructions adapted to sew carpets or other long lengths of fabrics. The particular sewing-machine illustrated in this application is that clearly set out in Letters Patent to Flint, No. 405,834, dated June 25, 1889; but I do not confine myself to any special form of sewing-machine. In place of the flexible shaft K, a grooved wheel may be secured to the rotated part of the sewing-machine, and a connecting-band therefrom to a pulley of the electric motor may be provided, as indicated by dotted lines in Fig. 2, so that there is a direct transmission.

N is a rheostat or regulator and is secured to the frame of the sewing-machine and adapted to be operated by the operator to control the speed of the operation of the sewing-machine. From the current-collector E an insulated conductor P extends down to the

rheostat. The other terminal of the rheostat is electrically connected through the conducting material of the sewing-machine, flexible shaft K, and carriage C with one terminal of the motor F, and the other terminal of the motor F is connected by a conductor P′ with that portion of the carriage which runs upon the rail A, which acts as the return circuit. The circuits are clearly shown in Fig. 3. The conductor P and flexible conductor and power-shaft K act as a flexible electrical conductor between the collector E and motor F, and includes the regulator N, so that the latter may move independently of the motor.

The sewing-machine is provided with the usual opening T for receiving the edges of the fabric, whereby the sewing-machine is guided upon the said fabric during its travel. If desired, the sewing-machine G may be connected by a link S with the carriage C, so that a great deal of the weight of the sewing-machine may be directly sustained from the railway A, though this is not essential to my invention. The carpet or fabric H is connected at one end by a holder I, and is stretched by a windlass device J at the other end, and while in the said stretched condition it hangs vertically, exposing at the top the edges to be sewed, and upon these top edges the sewing-machine is caused to travel during its operation.

While it is preferable to arrange the railway and the traveling carriage at an elevation, so as to have it out of the way, I do not limit myself to such an arrangement, as the railway might be arranged close to the floor and below the level of the sewing-machine, so that the power-transmitting device would extend from the motor on the carriage upward to the sewing-machine. This construction is indicated in dotted lines in Fig. 1. The conductor is shown below the railway in this modification and the collector may be formed of any suitable construction.

While the constructions shown are excellently adapted to the purposes of my invention, I do not limit myself to the details thereof, as they may be modified in various ways without departing from the principles of my invention.

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

1. In a machine for holding and sewing fabrics, the combination of means for supporting and stretching the fabric, a sewing-machine adapted to move upon and sew the edges of the fabric, a railway arranged parallel to the fabric, a movable carriage traveling thereon independent of the sewing-machine, an electric motor carried by the carriage, and power-transmitting connection between the electric motor and the sewing-machine.

2. In a machine for holding and sewing fabrics, the combination of means for supporting and stretching the fabric, a sewing-machine adapted to move upon and sew the edges of the fabric, an elevated railway arranged above and parallel to the fabric, a movable carriage traveling thereon, an electric motor carried by the carriage, power-transmitting connection between the electric motor and the sewing-machine, a suspended conductor, a collector making contact with said conductor secured to the carriage and movable therewith, a flexible electrical conductor having its terminals in electric connection, respectively, with the collector and motor, and a regulator to control the speed of the motor.

3. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric and holding it in a vertical position, a sewing-machine adapted to straddle the edges of the fabric and travel thereon, an elevated railway, a carriage supported wholly by the railway, an electric motor carried by the carriage, and a flexible power-transmitting connection between the electric motor and the sewing-machine.

4. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric and holding it in a vertical position, a sewing-machine adapted to straddle the edges of the fabric and travel thereon, an elevated railway, a carriage supported wholly by the railway, an electric motor carried by the carriage, and a flexible power-transmitting connection between the electric motor and the sewing-machine and in which the weight of the power-transmitting connection is sustained by the carriage.

5. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric and holding it in a vertical position, a sewing-machine adapted to straddle the edges of the fabric and travel thereon, an elevated railway, a carriage supported wholly by the railway, an electric motor carried by the carriage, a flexible power-transmitting connection between the electric motor and the sewing-machine, a conductor arranged parallel to the railway, a source of electric power having its poles connected, respectively, with the conductor and railway, a current-collecting device movable with the carriage and connecting with the conductor, and electric circuits between the conductor and railway and including the electric motor.

6. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric and holding it in a vertical position, a sewing-machine adapted to straddle the edges of the fabric and travel thereon, an elevated railway, a carriage supported wholly by the railway, an electric motor carried by the carriage, a flexible power-transmitting connection between the electric motor and the sewing-machine, a conductor arranged parallel to the railway, a source of power having its poles connected, respectively, with the conductor and railway, a current-collecting device movable with the carriage and connecting with the conductor, electric circuits between the conductor and railway and including the electric motor, and a rheostat or regu-

lator for controlling the speed of the motor arranged close to the sewing-machine and movable therewith.

7. In a machine for holding and sewing fabrics, the combination of means to stretch the fabric and hold it in a vertical position, a sewing-machine riding upon the edges of the fabric and having its weight supported thereby, an elevated railway arranged parallel to the stretched fabric, a traveling carriage supported by the railway, a motor movable with the carriage and having its weight sustained thereby, and a flexible power-transmitting connection between the motor and the sewing-machine.

8. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric, a sewing-machine adapted to travel parallel to the edges of the fabric and sew the same, a railway parallel to the fabric, a carriage supported wholly by the railway and independent of the sewing-machine, and an electric motor carried by the carriage, and power-transmitting connections between the electric motor and the sewing-machine.

9. In a machine for holding and sewing fabrics, the combination of means for stretching the fabric, a sewing-machine adapted to travel upon and parallel to the edges of the fabric and sew the same, a railway parallel to the fabric, a carriage supported wholly by the railway and independent of the sewing-machine, and an electric motor carried by the carriage, and flexible power-transmitting connections between the electric motor and sewing-machine.

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

LANSING ONDERDONK.

Witnesses:

L. MUTHER,

CHESTER MCNEIL.