

(No Model.)

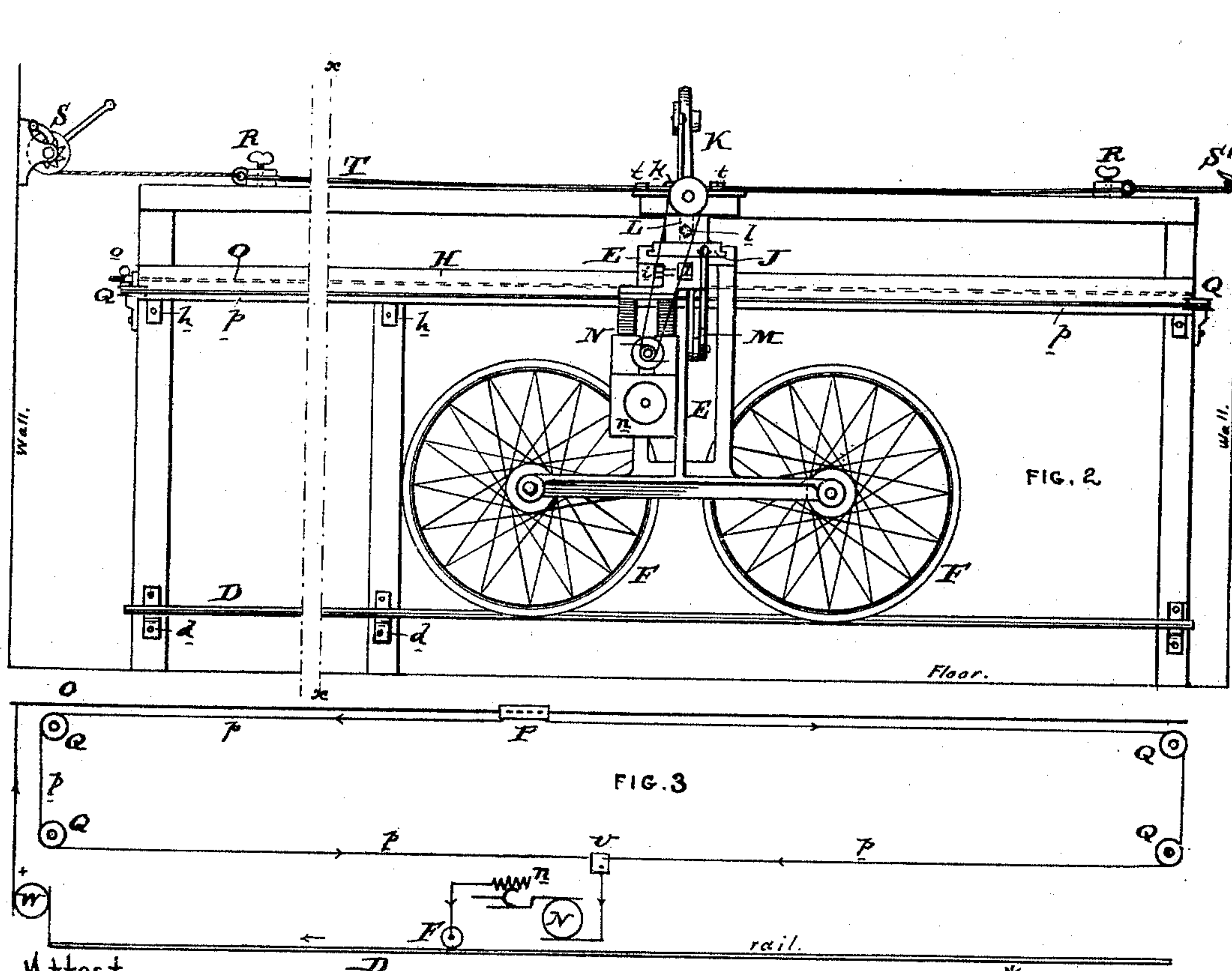
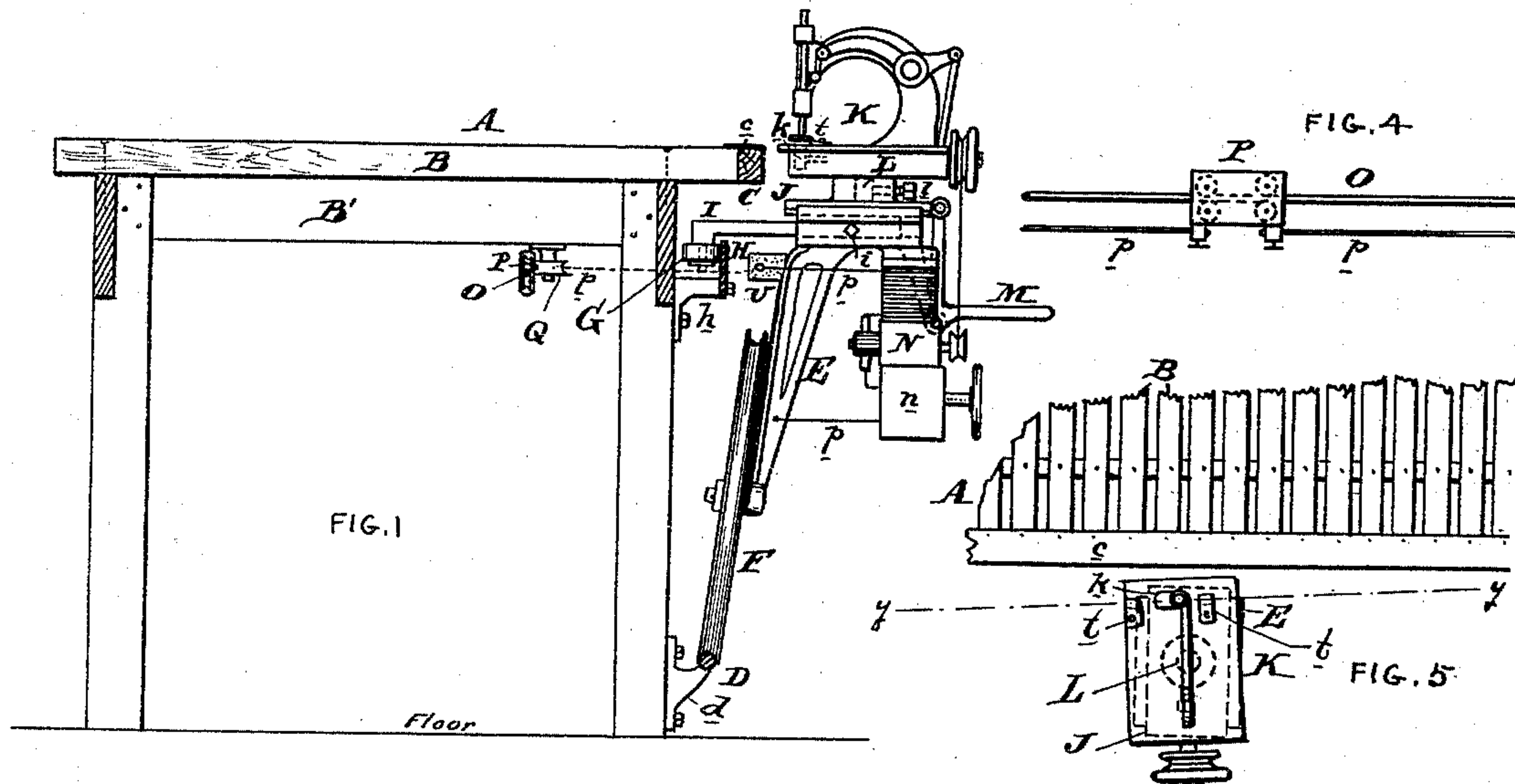
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R. M. HUNTER.

APPARATUS FOR HOLDING AND SEWING FABRICS.

No. 488,969.

Patented Dec. 27, 1892.



Attest  
Geo. Lauer,  
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Inventor

*R. M. Hunter*

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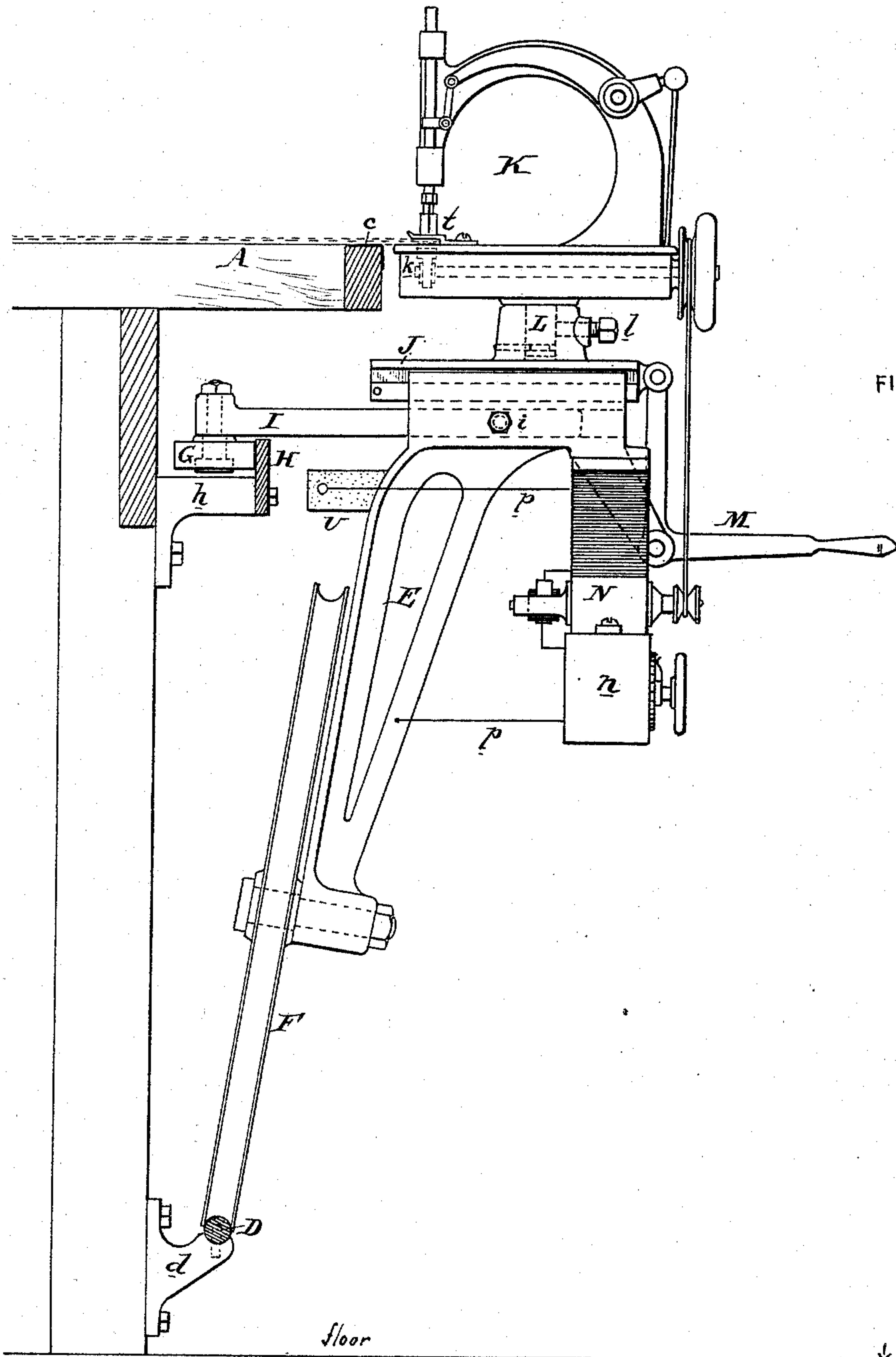


FIG. 6

Attest

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# UNITED STATES PATENT OFFICE.

RUDOLPH M. HUNTER, OF PHILADELPHIA, PENNSYLVANIA.

## APPARATUS FOR HOLDING AND SEWING FABRICS.

SPECIFICATION forming part of Letters Patent No. 488,969, dated December 27, 1892.

Application filed April 18, 1891. Serial No. 389,423. (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 Machines for Holding and Sewing Fabrics, of which the following is a specification.

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

This application, Case No. 195, relates to certain improvements in that class of machines designed for sewing long lengths of fabric, such as carpets, sails, awnings &c, and comprehends a long support upon which the fabric is placed, means to stretch the fabric, a railway, a carriage or support moving over the railway parallel to the support, and a sewing machine adjustably secured upon the carriage substantially on a level with the surface of the support. In addition to these features the invention comprehends certain specific constructions whereby the angle of the feed is so arranged with respect to the support that the action of the feed causes the fabric to be moved firmly toward the sewing machine in a positive manner so as to insure the line of stitches being placed upon the fabric in a definite relation with respect to the edge; and furthermore, specific means to supply electricity from a stationary source to an electric motor upon the carriage designed to operate the sewing machine.

Referring to the drawings:—Figure 1 is a cross section of my improved machine for holding the sewing fabric, taken on line  $xx$  of Fig. 2; Fig. 2 is a front elevation of same; Fig. 3 is a diagram illustrating the electric circuits; Fig. 4 is an enlarged plan view of the current collecting device; Fig. 5 is a plan view of a portion of the fabric support and the sewing machine indicating the angle of the feed of the sewing machine with respect to the edge of the fabric support, and Fig. 6 is an enlarged side elevation of the carriage and its connection with the sewing machine.

A is the table or support for the fabric, and consists of a frame work  $B'$  upon which is arranged a series of transverse slats  $B$  leav-

ing spaces between them as indicated in Fig. 5. This makes a light table and permits the dust and dirt to be readily removed. Along the front ends of the slats  $B$  is secured a stringer  $C$  and the upper and outer edge of this stringer is protected by a light metal angle iron  $c$  which preferably extends slightly back upon the slats  $B$ .

$D$  is a rail secured to the lower part of the table by means of brackets  $d$  so that it is arranged adjacent to the floor. This rail is arranged close to the table so as to be out of the way of persons moving in front of it.

$E$  is a carriage which is supported upon the rail  $D$  by means of the light grooved wheels  $F$ , which are made similar to bicycle wheels without the rubber tires. Arranged upon the table, and near its upper part, is a rail  $H$  having an exposed lateral face. This rail is secured to the table by means of brackets  $h$ .

$I$  is an arm carrying on its end a roller  $G$  having a vertical axis and presses against the inner face of the rail  $H$ . The arm  $I$  is adjustably secured at  $i$  to the carriage  $E$ . By adjusting the arm  $I$  upon the carriage, the latter may be supported nearer to or farther from the table.

$J$  is a frame carried in suitable guideways upon the upper part of the carriage and is adjustable laterally to or from the table by means of a lever device  $M$ . The particular means for adjusting this frame laterally is unimportant. Secured to the frame  $J$  upon a vertical pivot  $L$  is the sewing machine  $K$ . By this means the sewing machine may be adjusted on a vertical axis so that its feed bar  $k$  will reciprocate or move at an angle to the edge of the fabric support as indicated by the dotted line  $yy$  in Fig. 5. The sewing machine and its supporting carriage are moved bodily along the railway by the action of its feed mechanism upon the fabric held upon the table. By this means the fabric is drawn toward the sewing machine and caused to snugly hug the guides  $t$  of the sewing machine, and thereby insures the line of stitches being properly placed close to the edge of the fabric. The sewing machine may be held in adjustment upon the frame  $J$  by the clamping screw  $l$ . Any suitable means for this adjustment may be employed in place of that shown.



By means of the lateral frame J the sewing machine may be bodily moved upon the carriage for quick and large lateral adjustment, and the sewing machine itself may be adjusted upon the vertical axis to suit the requirements of the case with respect to the angle of the feed.

The fabric F is secured at each end in clamps R, and one of these clamps is secured to the wall or frame of the building or an independent frame at S', and the other of said clamps is connected by a tension cord or chain with a windlass S also secured to an independent frame or wall or frame of the building. By this means the fabric may be stretched without putting the least strain upon the table, thus permitting the latter to be formed of a very light construction.

N is an electric motor for operating the sewing machine and is secured to the carriage E.

n is a rheostat or regulator and is also secured to and moved with the carriage.

The positive conductor for supplying electricity to the motor is arranged under the table and is indicated by the letter O. This conductor may be put under tension by means of a hand nut and screw o (Fig. 2). Upon this wire or conductor O is supported a small trolley or collector P which is movable along the said conductor and receives current from it. This trolley or collector P is connected to the motor by means of flexible conductors p extending about guide wheels Q at each end of the fabric support. The ends of the conductors are connected to the carriage E by means of an insulated support U. By this means the electrical communication is maintained with the conductor O for all positions of the carriage F.

W is a stationary source of electric supply and is connected respectively with the conductor O and the rail D, which latter acts as the return circuit. The direction of current is indicated by the arrows in Fig. 3.

I do not limit myself to the mere details of construction as these may be modified in various ways without 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 a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged adjacent and parallel to said support, a sewing machine adapted to be moved along adjacent to the lateral edge of said support and being so constructed and arranged as to bring the line of feed to an angle with and across the edge of the fabric support in advance of the sewing machine so as to tend to draw the fabric toward the sewing machine while it travels adjacent to the edge of the fabric support, a carriage movable upon said railway and supporting the sewing machine, and a power device for operating the sewing machine.

2. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said railway, a sewing machine movably secured to the carriage, power devices to operate the sewing machine, and means to adjust the sewing machine at various angles to the edge of the fabric support to make the line of feed of the sewing machine cross the edge of the support in advance of the sewing machine so as to cause the feeding mechanism to tend to draw the fabric toward the sewing machine while it travels along the edge of the fabric support to greater or less extent.

3. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said railway, a sewing machine pivotally supported on the carriage, power devices for operating the sewing machine, and means to secure the sewing machine in its adjusted positions about the axis of the pivot whereby the direction of the line of feed may be at an angle to and cross the edge of the fabric in advance of the sewing machine.

4. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said railway, a sewing machine pivotally supported on the carriage by a laterally adjustable frame, power devices for operating the sewing machine, and means to secure the sewing machine in its adjusted positions on the laterally adjustable frame, whereby the line of direction of feed may be at an angle to and cross the edge of the fabric and its support in advance of the sewing machine and the sewing machine may be adjusted laterally to or from the fabric support.

5. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said railway, a sewing machine secured to the carriage and having its feed bar arranged so that the line of feed shall be at an angle to and cross the edge of the fabric support so as to tend to draw the fabric toward the sewing machine while it travels along the edge of the fabric support, an electric motor moving with the carriage for operating the sewing machine, a stationary source of electric energy, and maintained electrical connections between the stationary source of electric energy and movable motor.

6. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said railway, a sewing machine secured to the carriage and having its feed bar arranged so that the line of feed shall be at an angle to and cross the edge of the fabric support in advance of the sewing machine so as to tend to draw the



5 fabric toward the sewing machine while travels along the edge of the fabric support, power devices to operate the sewing machine, and means to adjust the carriage laterally to or from the support.

10 7. In a machine for holding and sewing fabrics, the combination of a long support for the fabric, a railway arranged parallel to the support, a traveling carriage for the railway, a sewing machine and an electric motor to run it mounted upon the carriage and movable with it, a fixed conductor arranged parallel with the support, a stationary source of electric energy, a contact device moving in  
15 contact with said conductor, guides at each end of the railway and support, and flexible conductors leading from the contact device around the guides at the respective ends of the railway and connected mechanically with  
20 the carriage and electrically connected with the motor, whereby the conductor may be moved by the carriage and electric current may be supplied to the motor during its travel.

25 8. In a machine for holding and sewing fabrics, the combination of a long table for the fabric, a railway arranged parallel to the table, a traveling carriage for the railway, a sewing machine and an electric motor to run it mounted upon the carriage and movable  
30 with it, a fixed conductor arranged parallel with the table and close to its under surface, a stationary source of electric energy, a contact device moving in contact with said conductor, guides at each end of the railway and  
35 table, and flexible conductors leading from the contact device around the guides at the respective ends of the railway and connected mechanically with the carriage and electrically with the motor, whereby the conductors

may be moved by the carriage and electric 40 current may be supplied to the motor during its travel.

9. In a machine for holding and sewing fabrics, the combination of a long table for holding the fabric, a rail secured to the lower part 45 of the table, a guide rail having a lateral face secured near the upper part of the table, a carriage supported upon the lower rail by large wheels and sustained against lateral movement by a wheel in contact with the lateral 50 face of the guide rail, a sewing machine supported in a plane corresponding to the top of the table, power devices for operating the sewing machine and a laterally adjustable support secured to the sewing machine and 55 laterally adjustable on the carriage.

10. In a machine for holding and sewing fabrics, the combination of a support upon which the fabric is held, a railway arranged along said support, a carriage movable on said rail- 60 way, a sewing machine secured to the carriage and having its feed bar arranged so that the line of feed shall be at an angle to and cross the edge of the fabric support so as to tend to draw the fabric toward the sewing machine 65 while it travels along the edge of the fabric support, power devices to operate the sewing machine and guides upon the sewing machine for receiving the edge of the fabric to guide it between the feed bar and presser foot 70 to limit its movement away from the edge of the fabric support.

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

R. M. HUNTER.

Witnesses:

S. T. YERKES,

ERNEST HOWARD HUNTER.