(No Model.) 3 Sheets—Sheet 1.

J. J. SCHOLFIELD.

CLOTH GUIDING MACHINE.

No. 463,552. Patented Nov. 17, 1891.

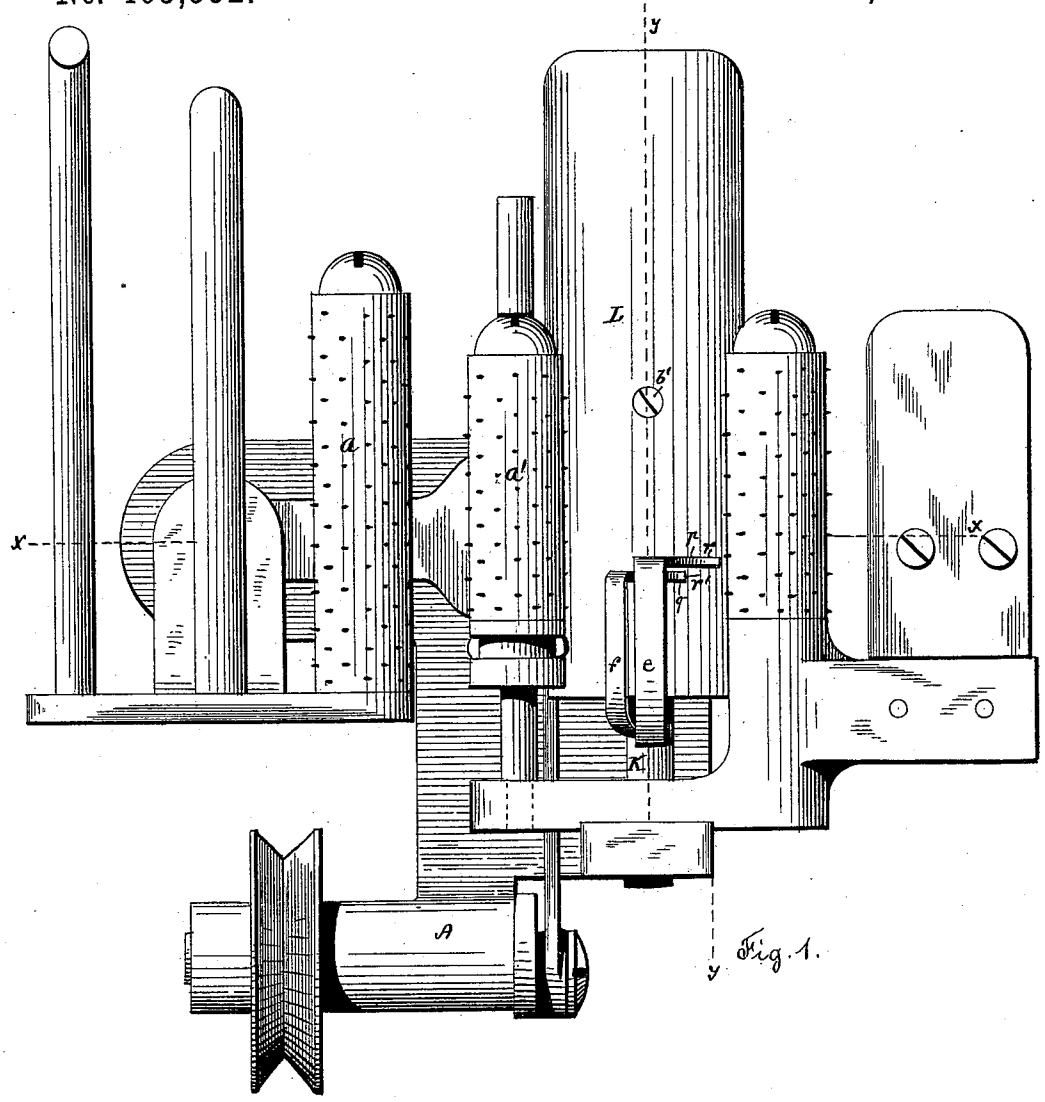

Fig. 1.

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(No Model.) 3 Sheets—Sheet 2.

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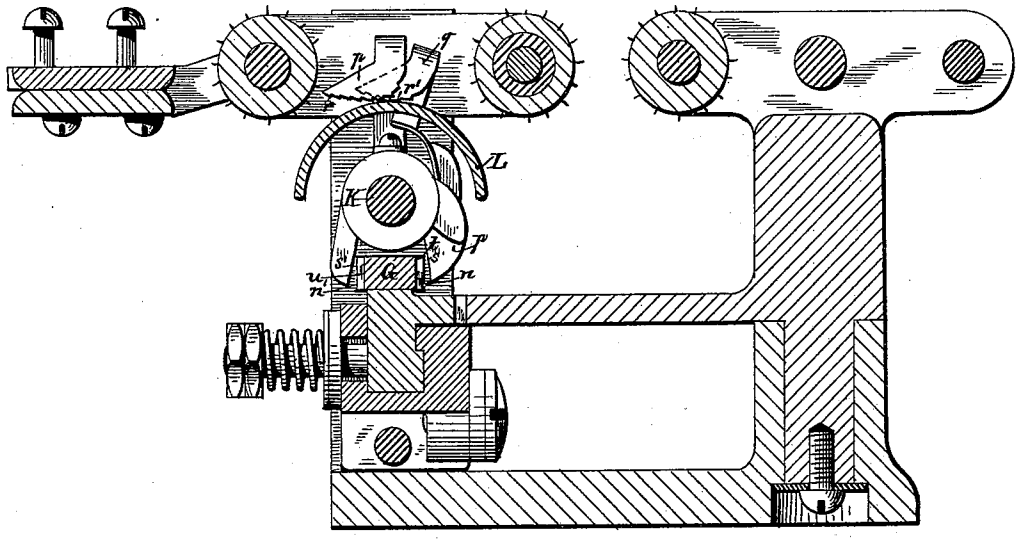
Fig. 2.



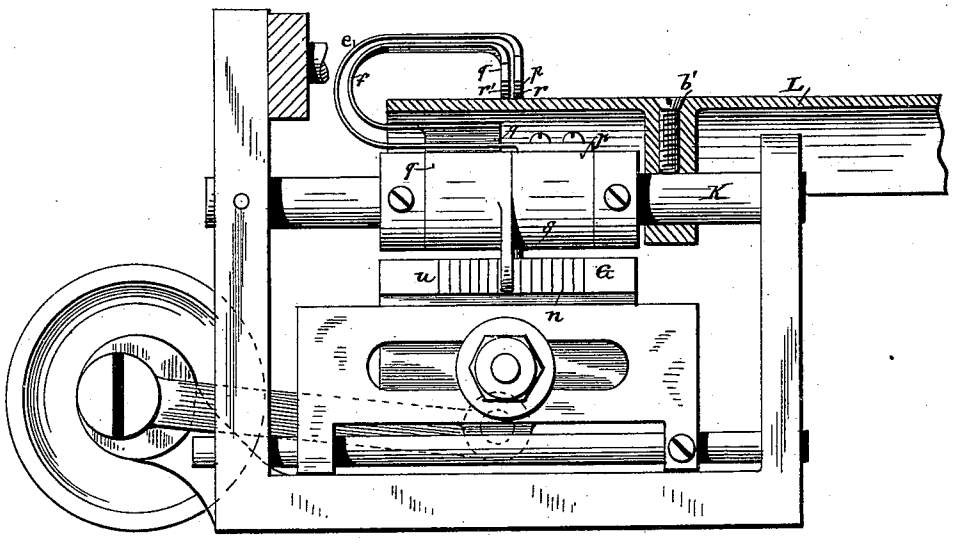


Fig. 3.

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(No Model.) 3 Sheets—Sheet 3.

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CLOTH GUIDING MACHINE.

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Fig. 5.

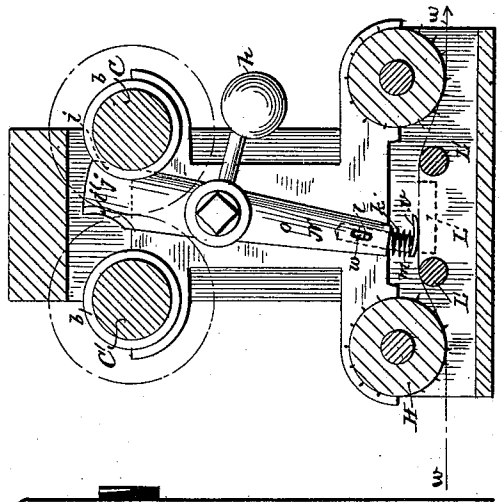
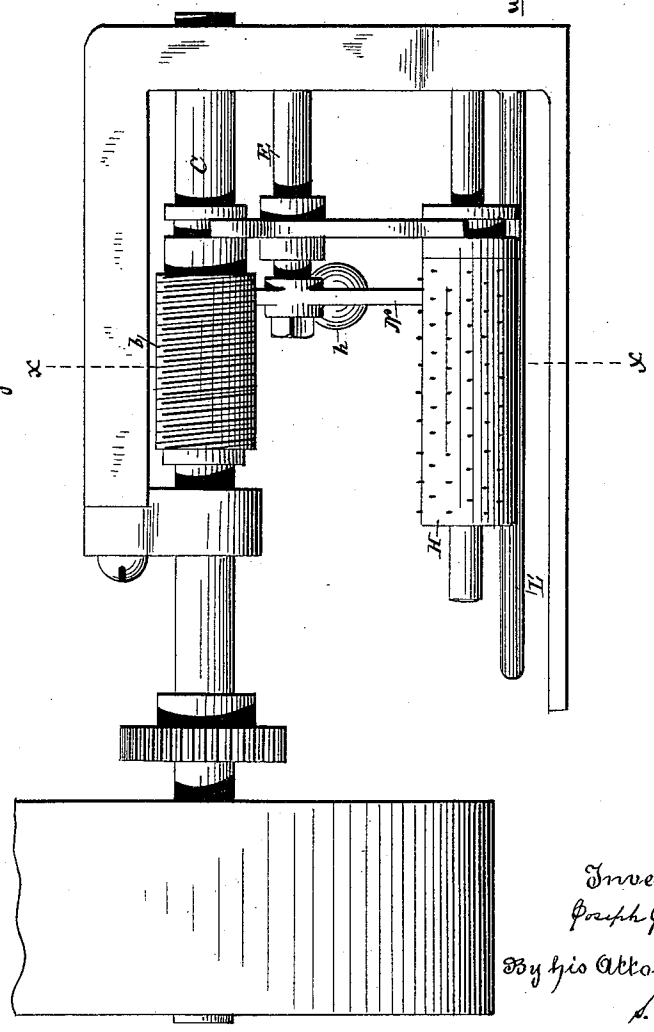


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH J. SCHOLFIELD, OF PROVIDENCE, RHODE ISLAND.

CLOTH-GUIDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 463,552, dated November 17, 1891.

Application filed May 31, 1890. Serial No. 353,846. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. SCHOLFIELD, a citizen of the United States, residing at Providence, in the State of Rhode Island, have invented a new and useful Improvement in Cloth-Guiding Machines, of which the following is a specification.

In machines for guiding the edges of textile webs to cloth-finishing machines it is very desirable to so construct and arrange the detector which engages with the running edge of the web that the proper action of the same will not be obstructed by the collection of gum, starch, or lint upon the detector or the detector-guide; and to this end my invention consists in so constructing and arranging the detector-guide and the detector that the engaging end or shoe of the detector will be presented to the upper surface of the web which rests upon the said guide instead of projecting upward to engage with the under side of the web at the outer end of the guide or through a slot, as heretofore.

It also consists in the employment of a yielding detector, as hereinafter fully set forth.

Figure 1 represents a top view of a cloth-guiding machine provided with my improved detector and the detector-plate. Fig. 2 represents a section taken in the line $x\,x$ of Fig. 1. Fig. 3 represents a section taken in the line $y\,y$ of Fig. 1. Fig. 4 represents a side elevation showing a modification. Fig. 5 represents a vertical section taken in the line $x\,x$ of Fig. 4.

In the accompanying drawings, Figs. 1, 2, and 3, A represents the frame of the machine, a the pivoted guide-roller, and a' the endwise-moving guide-roller, as described in my Letters Patent of the United States No. 402,483, to which reference is made for a complete description of the machine. The guide L, which operates to support and guide the edge of the web to proper engagement with the detectors p and q, is secured to the rod K by means of the screw b'. The detector p is overweighted at one side, so that the edge s will fall by gravity into the notches n upon the edge t of the reciprocated bar G, and the detector q is overweighted at its upper end, so that the force of gravity will cause the edge s' of the same to be thrown away from the notches n' of the edge u of the said reciprocated bar G. The detector p is provided with a notched end or engaging-shoe r, which is located at the end of the spring e, and the detector q is provided with a notched engaging end or shoe r', which is located at the end of the spring f, the said engaging-shoes being preferably held at a slight distance above the surface of the guide L, so as not to interfere with the proper movement of the detector by frictional contact with the said guide. Heretofore the detector has been made to extend upward through a slot in the guide L or in close proximity to the end of the same to engage with the under surface of the fabric, thus allowing the gum, starch, or lint to accumulate in the said slot or between the detector and the end of the guide, so as to interfere with the proper action of the detector, causing the machine to operate imperfectly; but when the engaging-shoe of the detector is carried above the guide L, so as to operate upon the upper surface of the fabric, the liability of the detector to become clogged by the accumulated deposit will be avoided.

A modification is shown in Figs. 4 and 5, in which the single detector N is employed, the said detector being pivoted to the stud E and provided with the counterbalancing-weight h, so that when not in engagement with the edge of the fabric the upper end j of the detector will be in engagement with the screw-thread b of the sliding shaft C, the said detector being provided with an inclined feather i, which is adapted to enter the space between the screw-threads of the shaft to cause the endwise movement of the sliding shafts C C′, as fully set forth and described in my pending application, Serial No. 353,231, until the edge of the fabric has been brought by the action of the guide-roller H into engagement with the lower end of the detector, and then the forward movement of the web will cause the feather i', at the upper end j of the detector, to be carried into engagement with the screw-thread b of the shaft C′, which will cause the sliding movement of the shafts C C′ in the opposite direction and a corresponding opposite movement of the guide-roller to check the variation in the running edge of the web and to carry the same back to the true line.

The lower end of the bar *o* of the detector is bored out to receive a sliding bolt *k*, held within the said bore by means of the pin *l*, which projects from the bolt outwardly into the limiting-slot *w*. The lower end of the bolt *k* is provided with a shoe *v*, which is adapted to engage with the upper surface of the web, the horizontal course of the web under the shoe being represented by the line *w w* in Fig. 5; and upon the bolt *k*, between the shoe *v* and the end of the bar *o*, is placed the spiral spring *m*, by means of which the shoe is to be held against the web, and by the employment of the spring or an equivalent weight provision can be made for the passage of different thicknesses of cloth between the shoe *v* and a flat guide L, (represented by dotted lines in Fig. 5;) but instead of the guide L, the guide-pins L′ L′ may be employed at the under side of the web to hold the same in proper position for the action of the detector, and in this case the yielding shoe may be dispensed with, the fabric itself being adapted to yield to the detector in the open space which intervenes between the guide-pins L′ L′.

I make no claim in this application to a detector in combination with an endwise-moving screw for imparting a regulating movement to a guide-roller, neither do I claim the combination of the same with a frictional driving-roller which engages with the web, as the same has been claimed by me in my pending application, No. 353,231.

I claim as my invention—

1. In a machine for guiding the edges of textile webs, the combination, with a guide for supporting the edge portion of the web, of the detector having its engaging end or shoe presented to the upper surface of the fabric, substantially as described.

2. In a machine for guiding the edges of textile webs, the combination, with means for supporting the edge portion of the web, of a yielding detector adapted to engage with the upper surface of the fabric, substantially as described.

JOSEPH J. SCHOLFIELD.

Witnesses:
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