(No Model.)

J. G. LINDEMANN.

APPARATUS FOR STRETCHING FABRICS.

No. 263,792. Patented Sept. 5, 1882.

Fig: 1

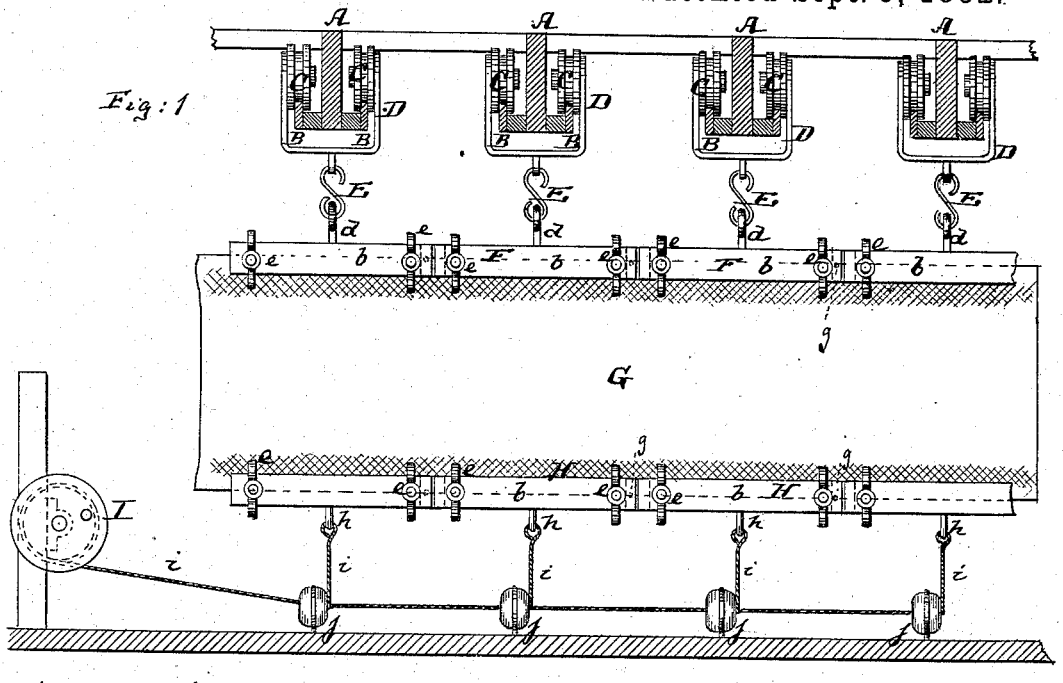
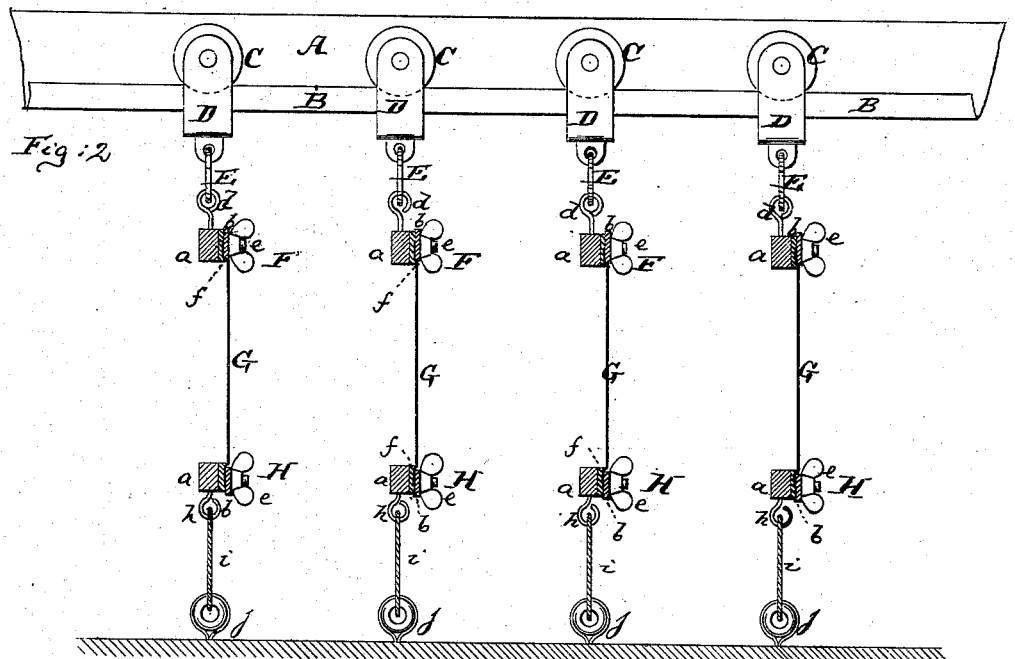


Fig: 2



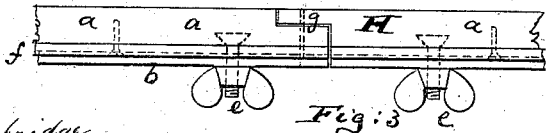


Fig: 3

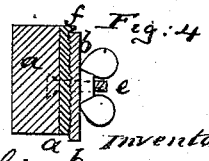


Fig: 4

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APPARATUS FOR STRETCHING FABRICS.

SPECIFICATION forming part of Letters Patent No. 263,792, dated September 5, 1882.

Application filed February 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. LINDEMANN, of New York, in the county and State of New York, have invented a new and Improved Apparatus for Stretching Fabrics, of which the following is a specification.

Figure 1 is a face view of my improved apparatus for stretching fabrics, showing part of the suspending frame-work in section. Fig. 2 is a cross-section of the stretching apparatus; Fig. 3, a detail top view, on an enlarged scale, of a portion of the clamping apparatus; and Fig. 4, a cross-section on an enlarged scale of said clamping apparatus.

This invention relates to improvements in apparatus for stretching fabrics that are to be painted or stained or otherwise ornamented or treated by sizing or otherwise in the stretched condition, it being particularly applicable to stretching woven fabrics that are to be made into window-shades and the like.

The invention consists in combining the movable carriages from which the stretching apparatus is suspended in form of the letter U with two sets of wheels running on two sets of rails, and with a new clamping apparatus, hereinafter more fully specified.

In the drawings, the letters A A represent beams fixed into a building to suspend the stretching apparatus. Each beam carries on each side, near its lower part, a rail, B, and the two rails B B of each beam serve as supports for rollers C C, that have their bearings in a U-shaped yoke or frame, D. The frame D, with its rollers C, constitutes a carriage that travels on the rails B of a beam, A, and by having this frame D U-shaped and provided with two sets of rollers instead of with a single set adapted to travel on but one rail, I am enabled to balance the stretching apparatus and to prevent the carriages from being laterally strained or tilted during the act of stretching, thereby preventing accidents.

From the several carriages D C, that are arranged as above stated, are suspended by links E E the upper clamping-sections, F. Each of these clamping-sections consists of a back piece, *a*, and of a face-piece *b*, the back piece being suspended from the links E by suitable eyebolts, *d*, or otherwise, and the face-piece fastened to the front of the back piece by thumb-nuts and screws *e*, or equivalent fastenings. The two faces of the clamping-section F that come together under the influence of the nuts *e* are somewhat roughened, as indicated in Fig. 4, so as the more readily to grip the cloth G to be clamped, and one of the faces, either that of the back piece, *a*, or that of the front piece, *b*, has a projecting lip, *f*, which partly reaches under the edge of the other of said pieces and prevents paint or sizing which may be applied to the fabric that is being stretched from entering between the two parts of the clamping apparatus.

The clamping-sections F F, that are suspended from the several carriages D C, are all united into one long continuous clamping device, and to this end they are made to overlap where they meet, and the overlapped portions are united by pins *g*. These pins keep the several sections together, and the overlapping of the ends prevents the sections from bending out of line. The pins *g* need not be pivot-pins, as there may, if necessary, be two or more such pins at every junction of sections F; but each section F has its own separate face-piece *b*.

The lower clamping apparatus, H, is also made in sections, as shown in Fig. 2, and is also composed of back pieces, *a*, and face-pieces *b*, that are joined by thumb-screws and nuts *e*, and the faces of which are also roughened, as shown in Fig. 4.

The upper edge of one of the lower clamping-plates projects to overlap in part the other clamping-plate, as shown at *f* in Fig. 4, to keep paint or sizing from entering between the clamping-plates. The lower clamping-sections are by eyebolts *h*, or otherwise, connected with ropes or chains *i*, that pass through eyes or over friction-rollers *j* to a winding-drum, I, so that by turning this drum the entire lower clamping-sections, H, will be pulled down equally and the fabric G stretched.

Instead of the drum I, any suitable ratchet apparatus for winding the ropes or chains *i* may be employed.

I claim—

In apparatus for stretching fabrics G, the suspending carriages, each formed of a U-shaped frame, D, having two grooved rollers, C, combined with double sets of rails B, and with continuous and overlapping clamping-sections F F, and similar sections, H H, substantially as and for the purpose described.

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