(No Model.)

L. W. NEWTON.

WIRE CLOTH STRETCHER.

No. 301,259. Patented July 1, 1884.

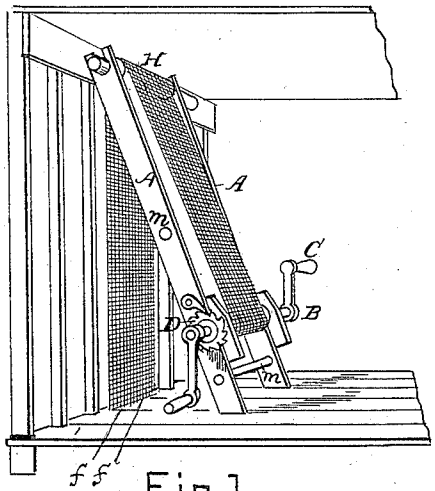


Fig. 1.

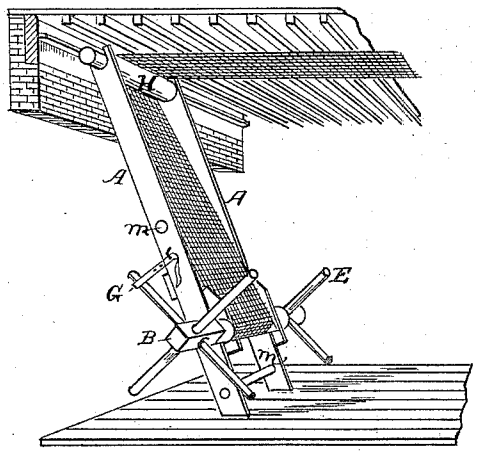


Fig. 2.

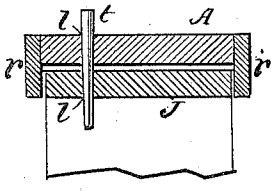


Fig. 4.

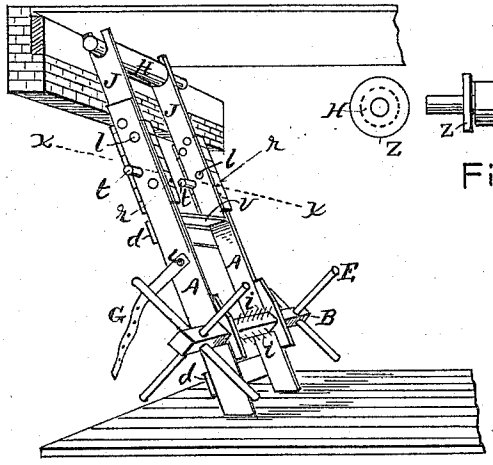


Fig. 3.

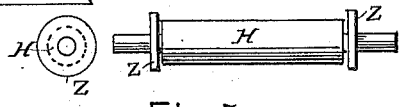


Fig. 5.

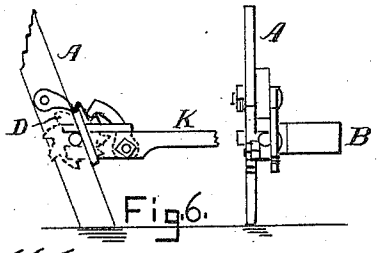


Fig. 6.

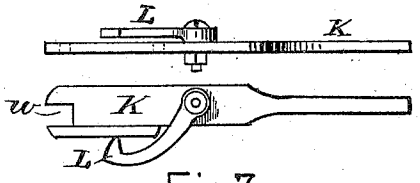


Fig. 7.

Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS W. NEWTON, OF CLINTON, MASSACHUSETTS, ASSIGNOR TO THE CLINTON WIRE CLOTH COMPANY, OF SAME PLACE.

WIRE-CLOTH STRETCHER.

SPECIFICATION forming part of Letters Patent No. 301,259, dated July 1, 1884.

Application filed March 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, LEWIS W. NEWTON, of Clinton, in the county of Worcester, State of Massachusetts, have invented a certain new and useful Improvement in Wire-Cloth Stretchers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figures 1 and 2 are isometrical perspective views representing my improved stretcher as used in applying wire lathing to the walls and ceiling of a room, respectively; Fig. 3, a like view representing a modification of the invention; Fig. 4, a transverse section of one of the standards or side rails, taken on the dotted line *x x* in Fig. 3; Fig. 5, a side elevation of the roller detached; Fig. 6, sectional views showing the method of using the pawl-levers, and Fig. 7 views of the pawl-levers detached.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of wire-cloth stretchers which are employed in applying wire lathing to the walls and ceilings of rooms; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective and desirable device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In Figs. 1 and 2 of the drawings, A A represent the standards or supports of the stretcher, which are centrally connected by the cross-rails *m* and form the frame-work or body of the machine. Journaled horizontally in the lower portion of the standards there is a windlass, B, provided with means for revolving or turning the same, and with suitable locking or retaining mechanism, as hereinafter described. The body of the windlass is provided with a series of short pins or spurs, *i*, which pass through the meshes of the cloth and prevent it from slipping as the web is wound onto the windlass; but these may be omitted if desired. The means for turning or revolving the windlass may consist of a hand-wheel, pawl-levers, crank, or capstan lever, and the retaining mechanism of an ordinary ratchet-wheel and pawl, a belaying-strap or any other suitable device, as preferred.

In Fig. 1 the windlass is represented as provided with cranks C and a ratchet-wheel and pawl, D, and in Figs. 2 and 3 with capstan-levers E and an adjustable belaying-strap, G.

A guide-roller, H, is journaled in the upper portion of the standards, and provided at either end with an annular flange or narrow boss, *z*, having a diameter slightly greater than that of the roller, the object of the flanges being to keep the body of the roller from pressing against the wall or ceiling of the room when the stretcher is in use, and to permit the cloth to pass freely over the roller.

To adapt the stretcher for use in rooms differing in height, I construct it as shown in Fig. 3, in which A A represent the main standards, and *d d* cross-bars connecting the same.

Fitted to slide longitudinally in suitable ways, *r*, formed on the upper portion of the standards A A, there are two auxiliary standards, J J, connected by the cross-bar *v* at their lower ends, and carrying the guide-roller H at their upper ends, as shown in Fig. 3.

A series of holes, *l*, are formed in the upper portion of the standards A A, and a corresponding series, *l*, in the lower portion of the standards J J, the holes being adapted to register as the auxiliary standards are moved up or down. Pins *t*, adapted to enter the holes *l*, are provided for securing the standards at any desired point, thereby rendering the body of the stretcher extensible.

Instead of the crank C or capstan-lever E, a pawl-lever, K, may be used for turning the windlass, if desired, the windlass being provided with the ratchet-wheel and retaining-pawl D. The lever K is bifurcated, as shown at *w*, and provided with an ordinary pivoted clutch-pawl, L, adapted to engage the ratchet-wheel, the bifurcated end of the lever being passed over the journal of the windlass, as shown in Fig. 6.

In the use of my improvement for applying

the lathing to the walls of a room, the wire-cloth is wound onto the windlass and the stretcher placed in an inclined position, with its upper end leaning against the top of the wall in juxtaposition to the ceiling, the free end of the cloth being passed over the guide-roller H and hanging vertically against the furring, as shown in Fig. 1. The lower end of the cloth is then secured at *f* by means of staples, nails, hangers, or in any other suitable manner, after which the windlass is turned to produce a strain on the cloth or to stretch it smoothly over the furring and locked by the ratchet and pawl or strap, as the case may be, after which the cloth is secured at proper intervals from the top of the wall downward to the floor, and cut off from the web or roll preparatory to applying another strip.

In applying the lathing to the ceiling of the room, the free end of the cloth is passed under the guide-roller H, thence over it and back along the ceiling to the opposite side of the room, as shown in Fig. 2, and after being secured at its extreme end is stretched by the windlass and additionally secured and cut off from the strip in substantially the same manner as described for applying the lathing to the walls.

It will be seen that my improvement obviates the necessity of constructing a stage on which to place the stretcher, as required when ordinary stretchers are used; also, that it is unnecessary to cut the cloth into strips until after it is applied, or partially applied, to the walls or ceiling, thereby preventing waste from raveling at the ends of the strip; and, furthermore, that a uniform strain will be exerted on all of the warp-wires, and the meshes of the cloth thereby prevented from being distorted.

The flanges *z* may be omitted if desired, the standards A or J, as the case may be, being extended sufficiently above the guide-roller H to keep it out of contact with the ceiling and wall; or a bar may be placed across the top of the standards above the guide-roller, if preferred, and subserve the same purpose.

The body of the windlass may be round, square, hexagonal, or of any other suitable form. The cross-bars connecting the standards may also be omitted, and instead of the journaled guide-roller H, a stationary roller or bar may be inserted, if desired.

I do not confine myself to the use of the pins *t* and holes *l*, for securing the standards A J, as any suitable means for the same purpose may be employed. Neither do I confine myself to any special means for revolving or turning the windlass, or for locking or securing it, as these features may be varied as desired, so long as devices which perform substantially the same functions as those shown are employed.

Having thus explained my invention, what I claim is—

1. In a stretcher for applying wire lathing to the wall or ceiling of a room, the following instrumentalities, to wit: a windlass on which the wire-cloth is wound, standards or supports in which the windlass is journaled or mounted, means for revolving the windlass, means for retaining or securing the windlass in any desired position, and a roller or bar over which the cloth passes in stretching it, all combined and arranged to operate substantially as set forth.

2. In a stretcher for applying wire lathing to the walls or ceiling of a room, the standards A A, carrying the windlass B, and provided with the holes *l*, the standards J J, carrying the roller H, and provided with the holes *l*, and the strap G, and pins *t*, combined and arranged to operate substantially as specified.

3. In a stretcher for applying wire lathing to the walls or ceiling of a room, the combination of the following instrumentalities, to wit: a windlass on which the wire-cloth is wound, standards in which the windlass is mounted, means for revolving the windlass, means for locking or securing the windlass in any desired position, means for rendering the standards extensible, and a roller or bar over which the cloth passes in stretching it, substantially as set forth.

4. In a stretcher for applying wire lathing to the walls or ceiling of a room, the roller H, provided with the annular flanges *z*, substantially as and for the purpose set forth.

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Witnesses:
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