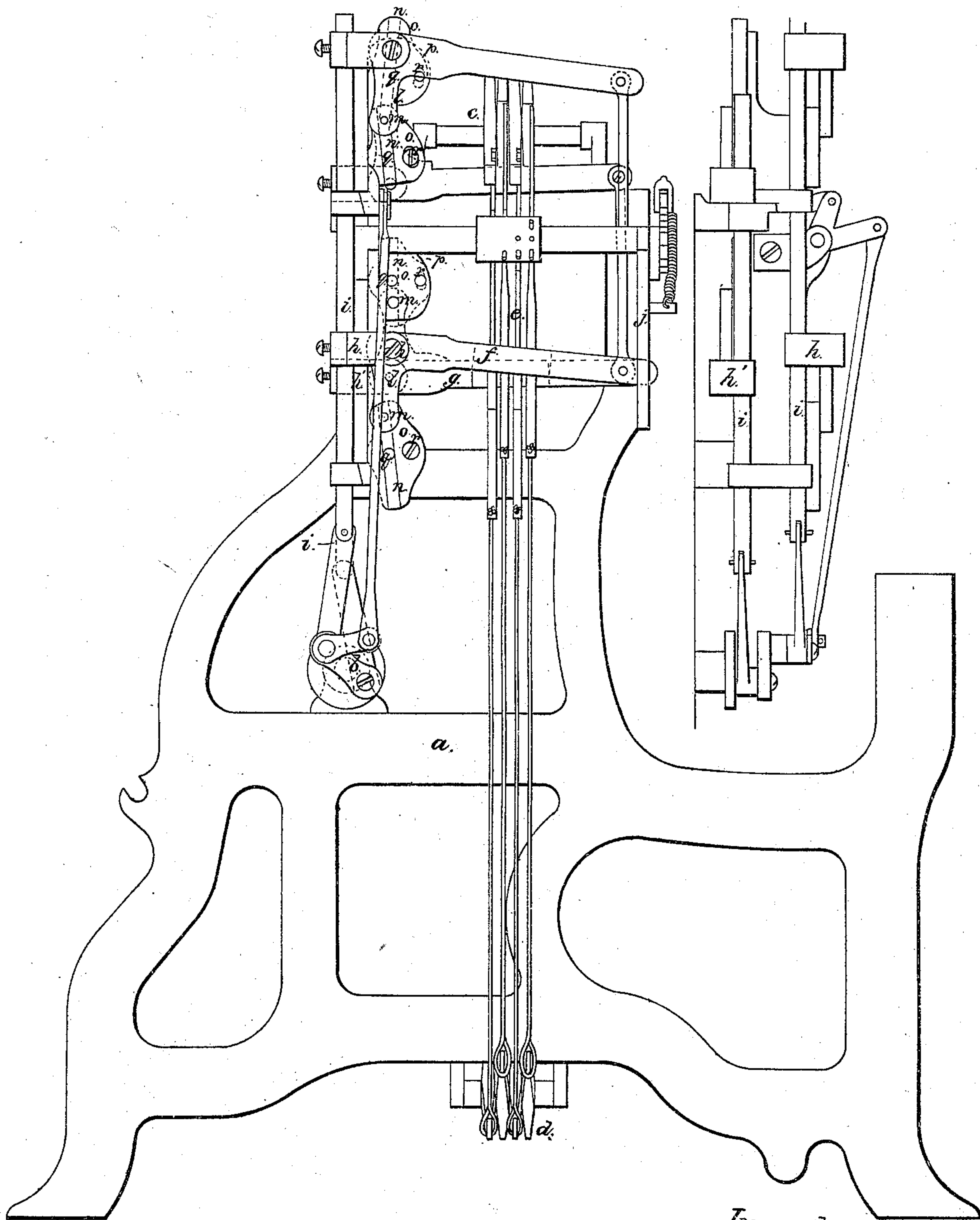


G. Crompton.
Loom Shedding.

N^o 80,810.

Patented Aug. 11, 1868.



Witnesses,
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GEORGE CROMPTON, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 80,810, dated August 11, 1868.

IMPROVEMENT IN LOOMS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE CROMPTON, of the city and county of Worcester, and State of Massachusetts, have invented an Improvement in Looms; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

My invention relates particularly to the lifter, depresser, and evener-mechanism of that class of looms employing upright hooked jacks for changing the harness-frames to produce the successive shed, and to that class of lifter and depresser-levers which are inclined (when the shed is formed) to bring the jacks and through them the harness-frames into position to form an even shed in the path of the shuttle.

My improvement consists in making each lifter, depresser, and evener-bar as a bent lever, or with a vertical arm projecting from the lever proper, the vertical arm carrying a pin which slides in or against a groove or incline as the levers rise or fall, the inclination of the groove imparting a lateral movement of the arm, which produces a corresponding movement of the horizontal lever or bar, and thereby effects the required inclination of the lifter, depresser, or evener.

The drawing represents an end elevation of a loom-frame, upon which my invention is shown as embodied.

The detail view shows an end elevation of the jack-mechanism.

a denotes the loom-frame, *b* the lathe-shaft, *c* the upper and *d* the lower harness-levers, between and to the inner ends of which the harness-frames are strung.

e denotes the upright jacks, shown as jointed at top directly to the outer ends of the upper harness-levers, and as strung, at their lower ends, to the outer ends of the levers *d*.

On the front and rear sides of each jack-plate, *e*, is a hook, which engages either with a lifter-bar, *f*, or a depresser-bar, *g*, accordingly as it is thrown into connection with either bar by the pattern-cylinder or chain, or out of normal engagement with the lifter-bar and into connection with the depresser, when the jacks are strung by inclined cording, which holds the jack-hooks normally upon the lifter.

One end of each lifter and depresser-bar is free, (excepting that it is connected to the corresponding evener-bar,) and traverses in a slot in a bracket, *j*, while the opposite end thereof is hung by a fulcrum-pin, *k*, to an arm, *h* or *h'*, fixed to the slide-rod *i* or *i'*, the slide-rods being actuated to raise and depress the levers from cranks on the lathe-shaft *b*.

From this end of each evener, lifter, and depresser-bar, a vertical arm, *l*, projects, such arm carrying a pin, *m*, which extends into or against a groove or incline, *n*, in a plate, *o*, fixed to a stationary bracket, *p*.

Each groove, *n*, is inclined, as seen in the drawing, and this inclination causes each lever to be swung from its horizontal position into an inclined position, as it is elevated or depressed, thereby producing the inclination in the series of harness-hooks necessary for the proper disposition of the shed.

Each incline plate, *o*, is mounted on a centre-pin, *q*, and has an adjusting-slot and screw, *r*, through which the inclination of the slot may be adjusted in accordance with the arrangement of the harness-frames.

I claim, in combination with the harness-levers operated by hooked jacks, angular lifter and depresser-levers, the inclination in which is effected by pins or projections from arms, *l*, working in or against inclines, *n*, substantially as described.

I also claim the eveners, in combination with the inclines, constructed substantially as described, for producing the inclination of the evener-levers.

I also claim the adjustable inclines for varying the extent of inclination of the levers, substantially as described.

Witnesses:

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