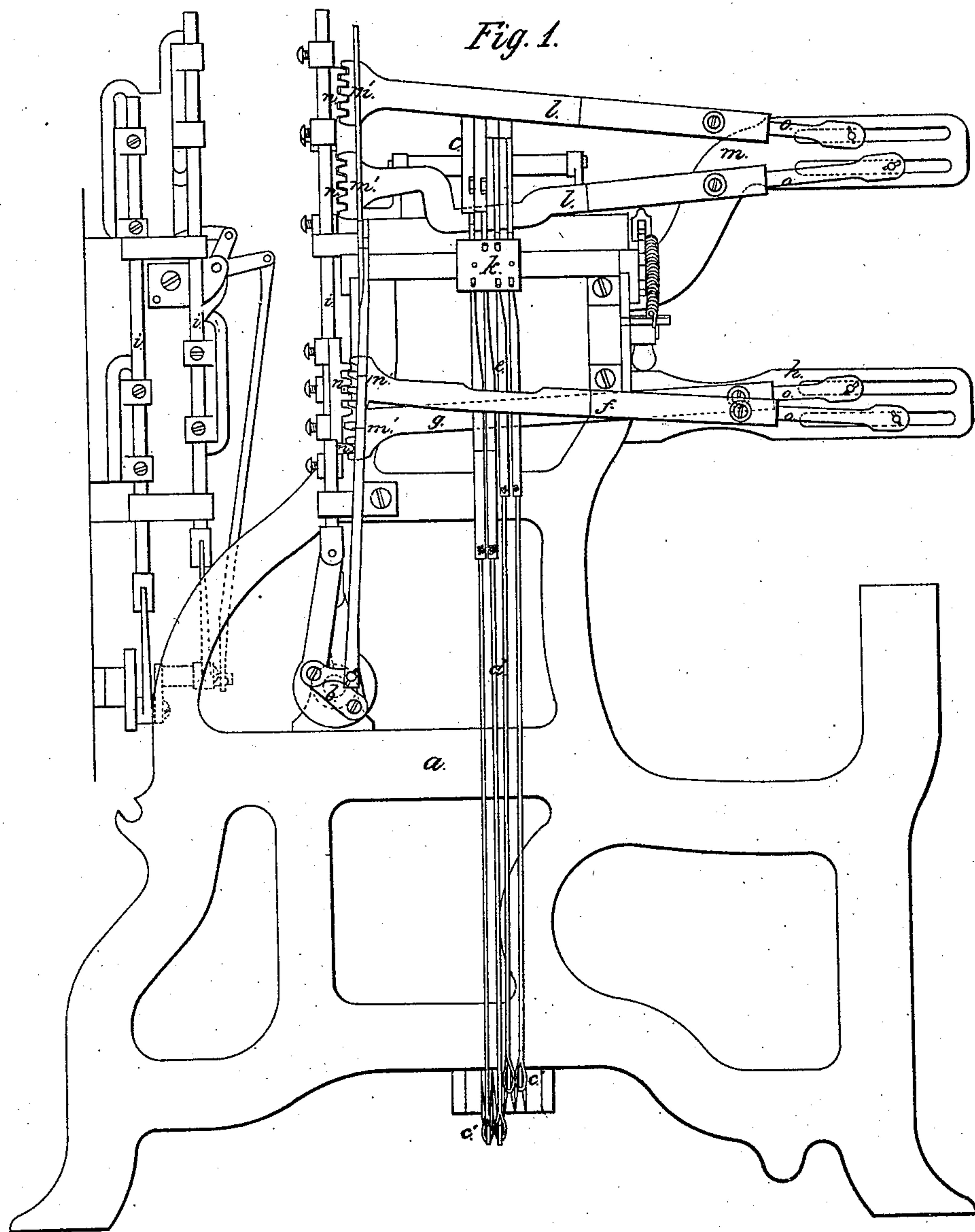


G. CROMPTON.
LOOM.

No. 81,347.

Patented Aug. 25, 1868.



Witnesses,
J. B. Hilder
M. W. Frothingham

Inventor,
Geo Crompton
by his Attys
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United States Patent Office.

GEORGE CROMPTON, OF WORCESTER, MASSACHUSETTS.

Letters Patent No. 81,347, dated August 25, 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, in the 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 construction and arrangement of the jack-mechanism of that class of fancy-loom employing angular lifter, depresser, and evener-levers operating upon upright jacks to form the shed, and upon horizontal harness-levers (to which such jacks are jointed,) to return the jacks to their normal position for redistribution by the pattern-chain or cylinder.

My invention consists primarily in forming the connection between each angular lever, and the slide-rod which actuates it, by means of a gear-rack fixed to the slide-rod, and a segment-gear on the adjacent end of the angular lever. Also, in forming the fulcrumed end of each angular lever with a slide-piece so arranged that the lever may be lengthened or shortened for purpose of adjustment.

The drawing represents a loom-frame having the mechanism embodying my improvement mounted thereupon. a denotes the frame; b , the lathe-shaft. $c c'$ denote respectively the upper and lower horizontal levers, between and to the inner ends of which the harness-frames are strung or suspended, these levers being connected at their front ends by the cording d , and the jack-plate e , each jack being jointed at its upper end directly to the outer end of its harness-lever, and strung from its lower end to the outer end of the corresponding lower harness-lever, as seen at A.

Each jack-plate has a hook on its outer edge, for engaging with an angular lifter-lever, f , and a similar hook on its opposite edge, for engaging with an angular depresser-lever, g , these levers being fulcrumed to brackets or plates h , and actuated from slide-rods i , and the jacks being thrown into connection with the lifter by the cords, or with the depresser by the pattern-cylinder k , as will be readily understood.

After each distribution of the jacks, and formation of the shed thereby, the jack-hooks are evened or brought into line to free themselves from the lifter and depresser by angular evener-levers, l , placed one above and one below the harness-levers c , and hung from a fulcrum-plate, m , these levers bringing the harness-levers into horizontal line, and clamping them together, the motion of the levers being coincident with the motion of the respective lifter or depresser-lever to which each is connected by the slide-rod i , each angular lever, $f g l$, being connected to and actuated from the slide-rod by means of a segment-gear, m' , on the end of the lever, meshing into and actuated by a gear-rack, n , fixed to the slide-rod, as seen at A, the opposite end of the lever being formed of a sliding and adjustable piece, o , to enable the lever to be adjusted in length.

I claim, in combination with the upright hooked jacks, the angular lifter, depresser, or evener-lever or levers, connected to the actuating slide-rod by means of the gear-rack fixed to the slide-rod, and the segment-gear on the lever, substantially as described.

I also claim, in combination with jacks and slide-rods, a lever or levers adjustable in length by means of a sliding piece or pieces, substantially as shown and described.

GEORGE CROMPTON.

Witnesses:

HORACE WYMAN,
J. A. WARE.