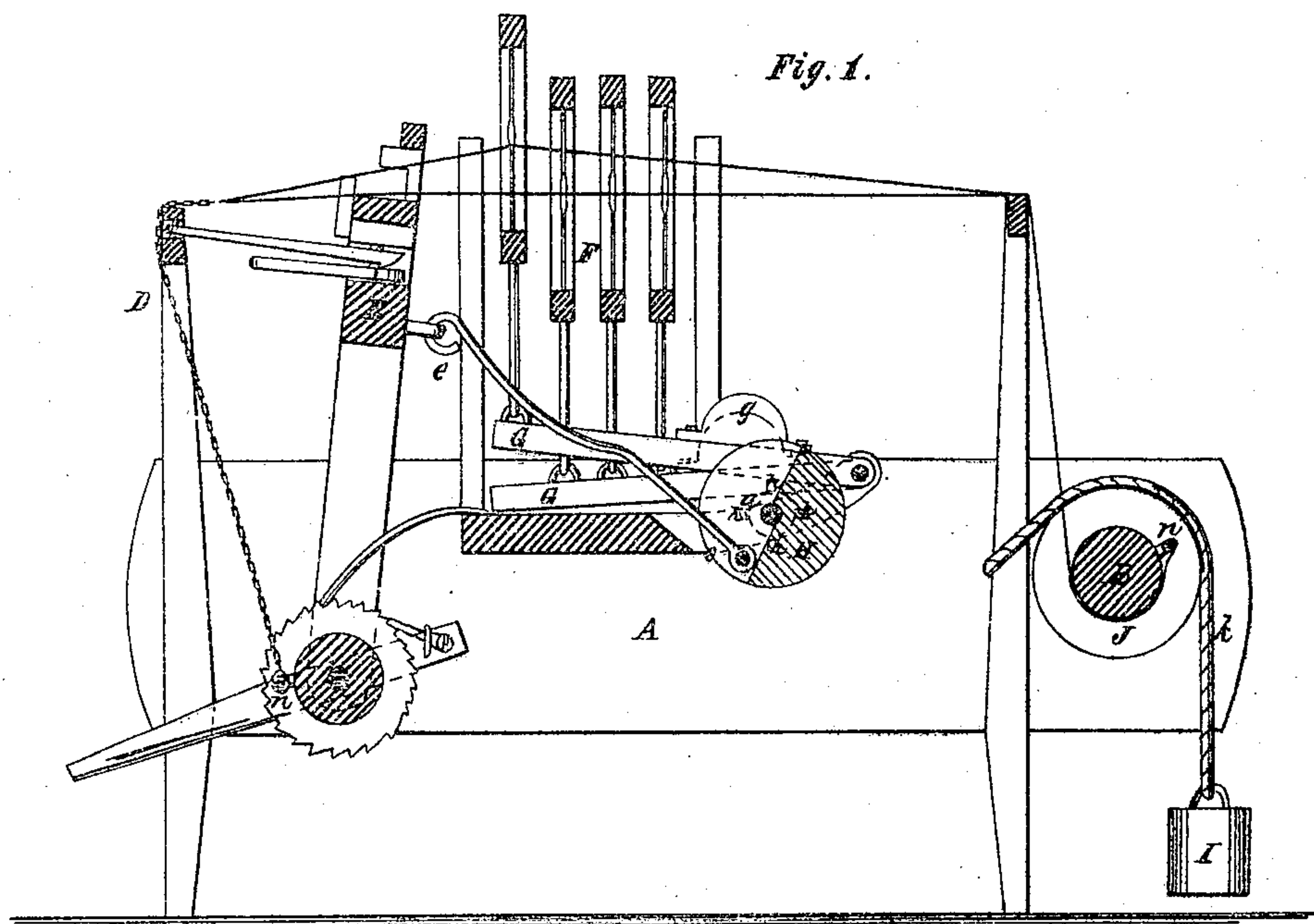


H. H. Mitchell.  
Hand-Loom.

N<sup>o</sup> 72879

Patented Dec. 31, 1867.



Witnesses.  
Thos. Encke.  
Wm. Brown

Inventor.  
H. H. Mitchell.  
Per *Wm. A. O.*  
Attorneys

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Fig. 2.

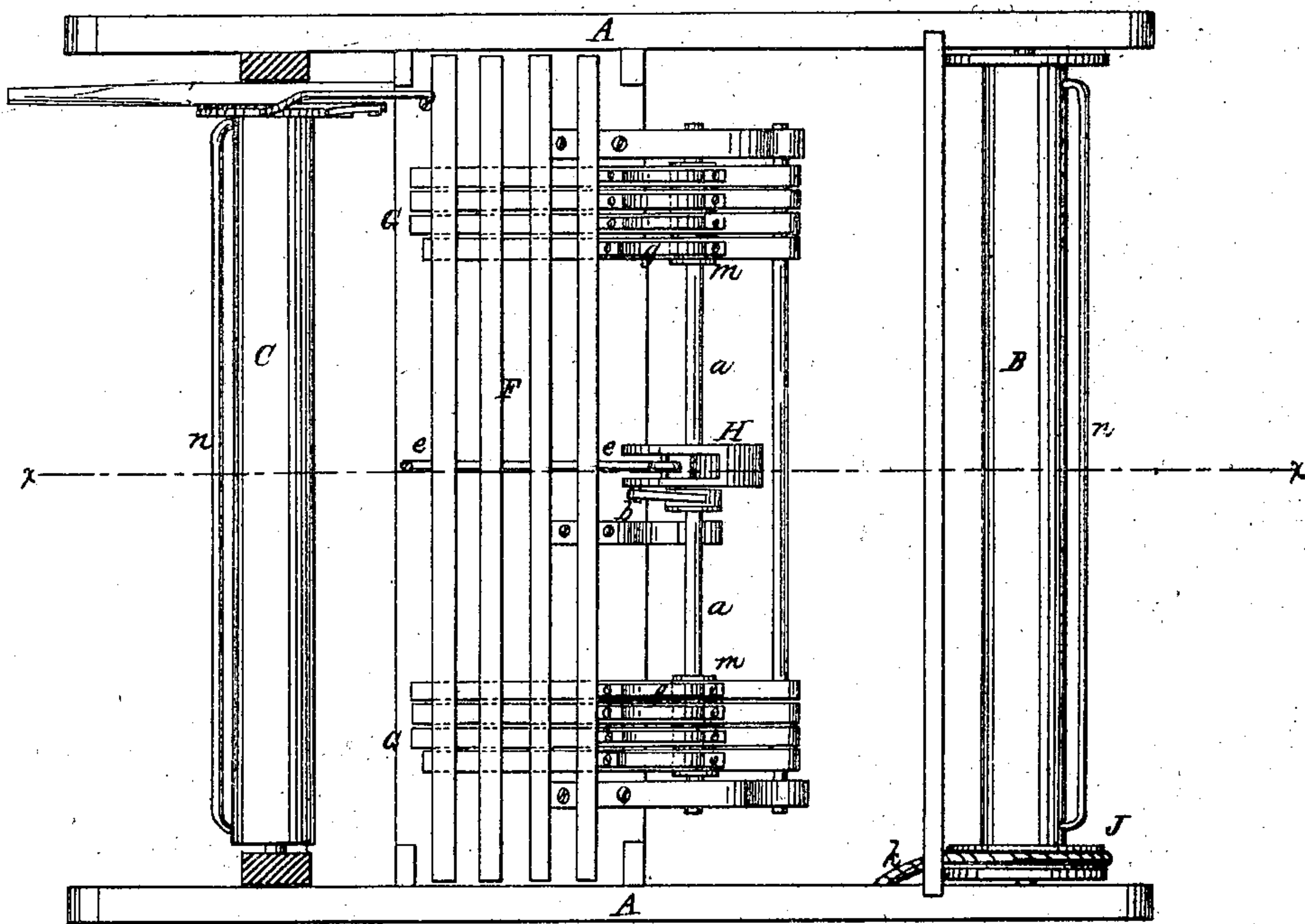
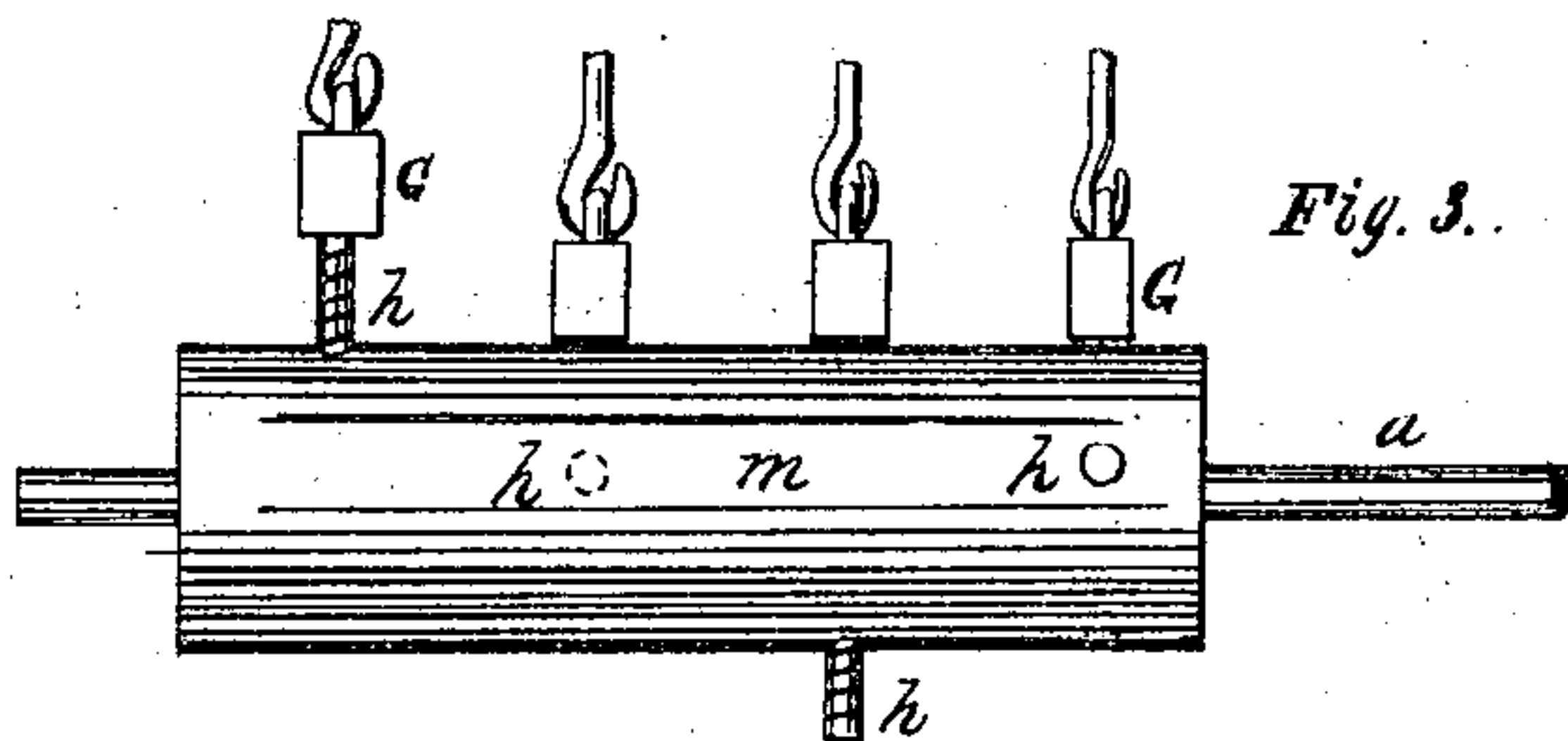


Fig. 3.



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# United States Patent Office.

H. H. MITCHELL, OF MINERAL POINT, WISCONSIN.

*Letters Patent No. 72,879, dated December 31, 1867.*

## IMPROVEMENT IN HAND-LOOM.

*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, H. H. MITCHELL, of Mineral Point, in the county of Iowa, and State of Wisconsin, have invented a new and useful Improvement in Hand-Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of a loom taken in the line *x x*, fig. 2, showing my improvements.

Figure 2, a top view.

Figure 3, an enlarged detached view of my improved cam-roller for lifting the treadles.

Similar letters of reference indicate like parts.

This invention relates to improvements in a hand-loom, and consists in attaching a cord and weight for regulating the movement of the yarn-beam, in the place of the lever-arrangement in the improved hand-loom for which Letters Patent have been granted to J. W. Hayse; and also in placing weights on the treadles, together with iron screw-pins or tappets in the rollers for operating the treadles, as hereinafter described.

A represents the frame of an ordinary hand-loom; B, the yarn-beam or roll; C, the cloth-beam; D, the breast-beam; E, the lay; F, the heddles; G, the treadles; and H, a reciprocating disk, hung loosely on the shaft *a*, which, through a pawl attached thereto, engaging with a ratchet on the shaft, moves the cam-rollers *m* for the purpose of working the treadles. The disk receives its motion from the lay by means of a connecting-rod, *e e*. On the opposite side of each of the treadles G is placed a weight, *g*, and below the treadles, in the rollers *m*, for lifting them, are placed movable iron screws *h*, to serve as tappets, the object of which arrangement of iron screws is to allow them to be changed easily and quickly. The weight I, attached to one end of the cord *k*, fastened at the other end to the framing, and passing over the pulley J on the yarn-beam, regulates its movement and lets the yarn unwind evenly, while it is much more easily managed than by the lever commonly employed for the purpose.

What I claim as new, and desire to secure by Letters Patent, is—

The combination and arrangement of the lay E, supporting the take-up beam C, with the link *e*, loose-ratchet pulley H, shaft *a*, screw-pins *h*, and weights *g*, all operating as described, for the purpose specified.

H. H. MITCHELL.

Witnesses:

G. L. MATTHEWS,  
BEDFORD MATTHEWS.