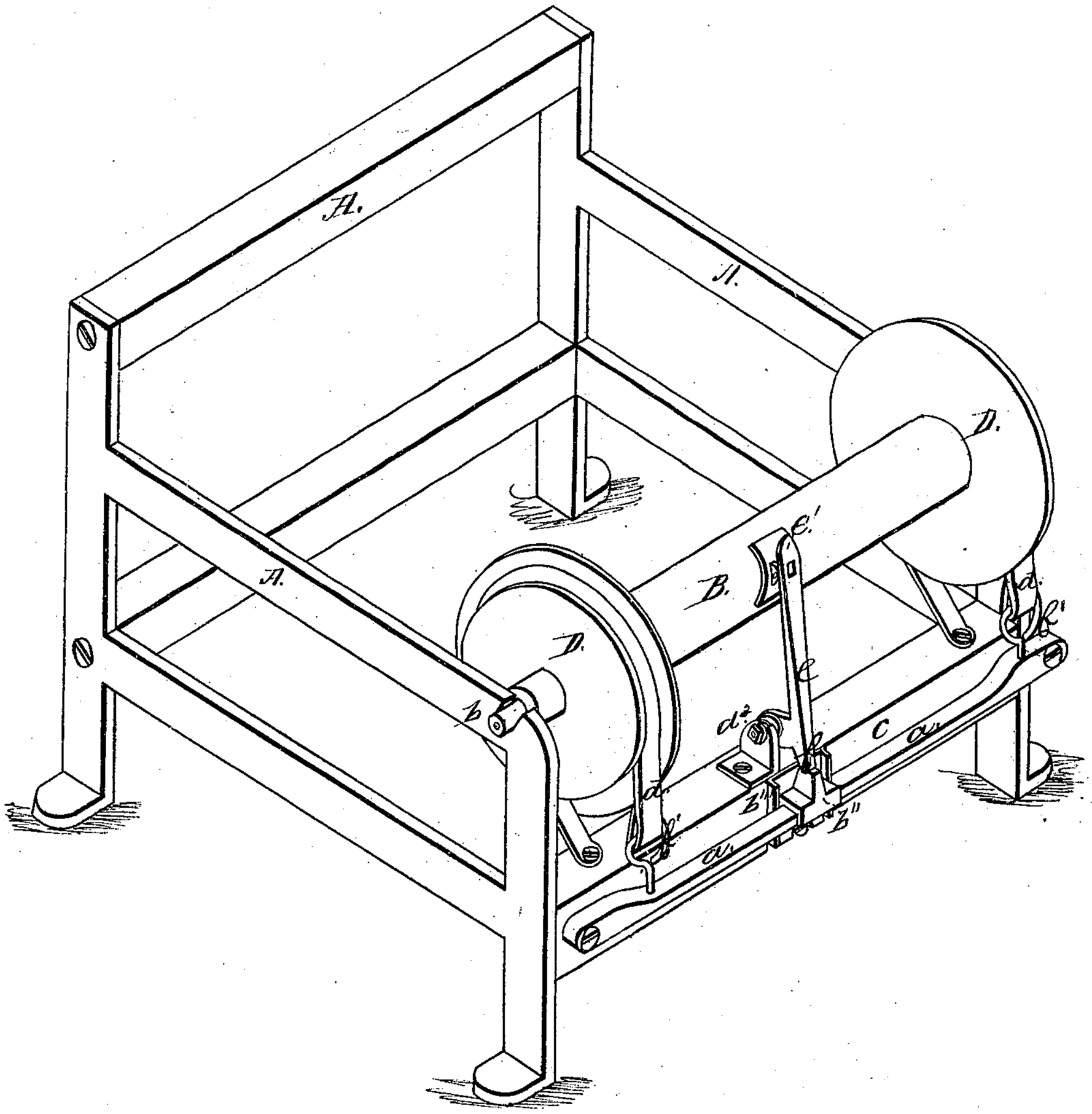
W. Hall.

Let-Off for Loom.

No. 92,305. Patented Jul. 6, 1869.



Witnesses.
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WILLIAM HALL, OF NORTH ADAMS, MASSACHUSETTS.

Letters Patent No. 92,305, *dated July* 6, 1869.

IMPROVEMENT IN LET-OFF MECHANISM FOR 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, WILLIAM HALL, of North Adams, in the county of Berkshire, and State of Massachusetts, have invented certain new and useful Improvements in Let-Off for Looms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, and in which is represented a perspective view of my "let-off for looms."

The nature of my invention consists in producing a graduated frictional let-off, by the employment of a pivoted lever having a self-adjusting press-plate at one end, the other end operating on a sliding plate so arranged as to gradually lessen the friction on the warp-beam.

To enable others skilled in the art to which my invention appertains to make and use the same, I will now describe its construction and operation.

In the accompanying drawing—

A represents the loom-frame, and

B, a warp-beam, with journals *b b* working in journal-boxes in the sides of the frame.

D D are metal wheels, made as seen in the drawing, and attached to each end of the beam B.

d d represent straps or bands, attached each at one end, to the cross-bar C of the frame A, and passed over the wheels D D, and secured to the eye-bolts *b' b'*, secured in the levers *a a*.

These levers are pivoted at their outer ends to the cross-bar C, and their inner ends resting against the under surface of the sliding plate *b''*, working in the guide-plate *b'''*, attached to the rear side of the cross-bar C.

d' represents a stud firmly attached to the cross-bar, to which is pivoted the upright lever *e*, made as seen in the drawing, and provided at its upper end with the pivoted press-plate *e'*, and at its lower end with the projection *f*, which presses against the sliding plate *b''*

The operation of my machine is as follows:

The warp is wound round the beam B, and as it is let off, the diameter is diminished; but by the lever *e* acting upon the sliding plate *b''* and the levers *a a*, the bands *d d* keep a uniform strain upon the warp until the whole is let off.

Having thus described my invention,

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

The pivoted lever *e*, provided with press-plate *e'* and projection *f*, in combination with sliding plate *b''*, guide *b'''*, levers *a a*, and bands *d d*, all arranged as and for the purpose described.

In testimony that I claim the foregoing as my own, I affix my signature, in presence of two witnesses.

WILLIAM HALL.

Witnesses:

W. B. MITCHELL,

L. W. WHITE.