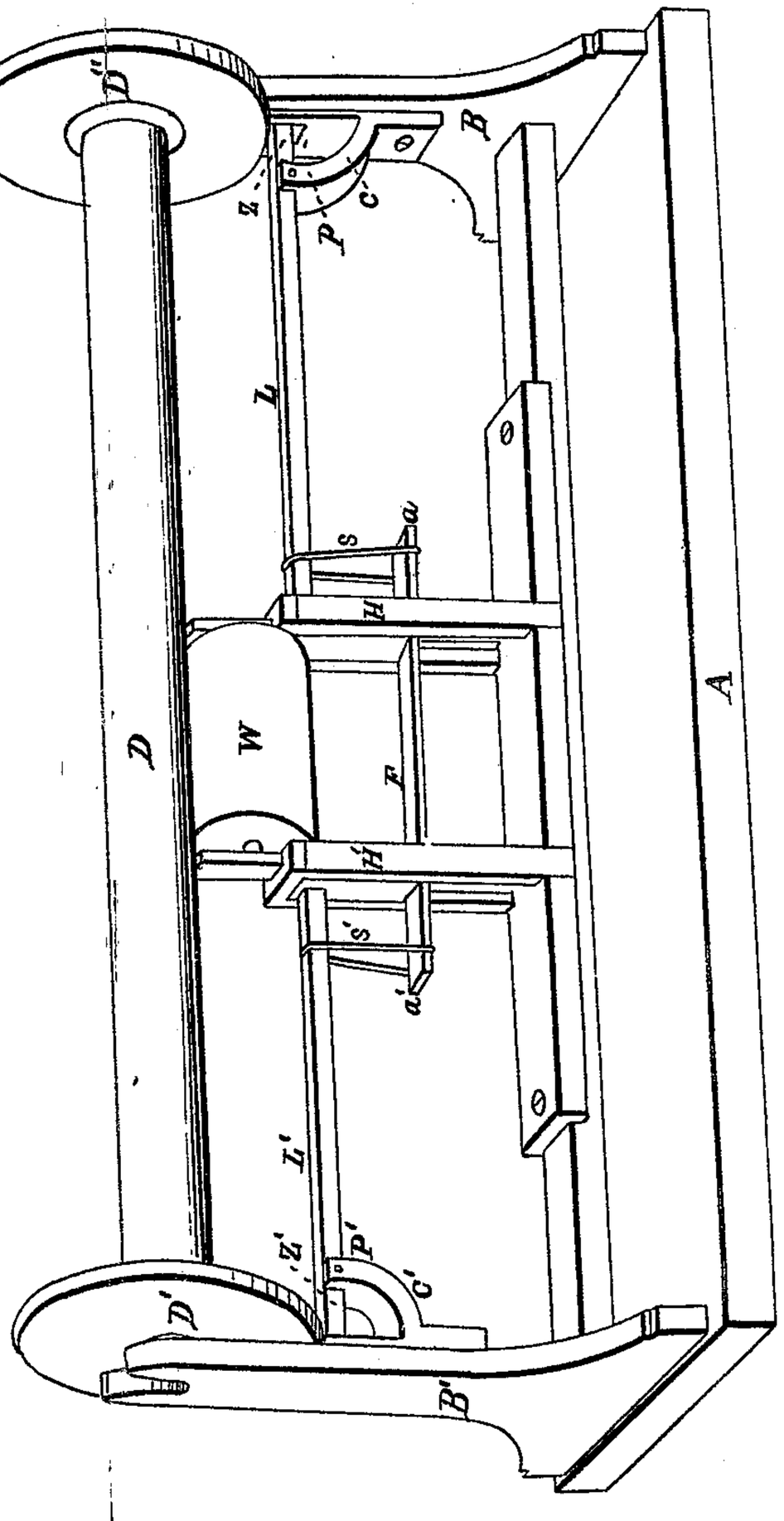
Briggs & Howard.

Let-Off for Loom.

No. 91,207. Patented Jun. 15, 1869.



Witnesses:

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LEONARD C. BRIGGS AND ALBERT HOWARD, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 91,207, *dated June* 15, 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 we, LEONARD C. BRIGGS and ALBERT HOWARD, both of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Let-Offs for Looms; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and use.

Drawings.

The drawing represents, in perspective, our invention.

As our invention relates to let-off for looms, we have only shown the beam, with our improvement attached.

D represents the beam, upon which the warp is wound.

B and B′ are two standards, connected with the other parts of the loom.

F *f f′* is a frame, which slides up and down in the standards H and H′, and carries the friction-wheel W.

The ends *a a′* of the lower bar F of the frame, that carries the friction-wheel W, extend outward, as shown.

L and L′ are two levers, hung upon brackets, C and C′, and pivoted at *p* and *p′*.

The ends Z and Z′, of the levers L and L′, act as brakes upon the ends or heads D′ and D″ of the beam D, said brakes being operated by the frame F *f f′* acting through the springs S and S′.

The action of our device is this:

The friction-roll W, and its carrying-frame F *f f′*, being governed by the amount of warp on the beam, that is, if the beam is full, the frame F *f f′* will be pressed down, and, acting through the springs S and S′, will cause the brakes L and Z, and L′ and Z′, to operate against D′ and D″, and thus offer resistance to the movement of the warp.

As the warp unwinds, the frame F *f f′* is raised up, and, exerting less force upon the brakes, allows the beam to turn more freely. In other words, the friction caused by the brakes is exactly in proportion to the amount of warp upon the beam, and is regulated by the warp itself.

The springs S S′ may be made of any suitable material, and are arranged so that they may be moved along on *a′* and L, by which action the leverage on the brakes is changed, that is, the pressure may be adjusted to suit different kinds of warp.

Having thus described our invention, we will proceed to set forth our claim.

Claim.

The combination and arrangement of the beam D, wheel W, frame *f f′* F, levers L L′, and springs S S′, as described, and for the purpose set forth.

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