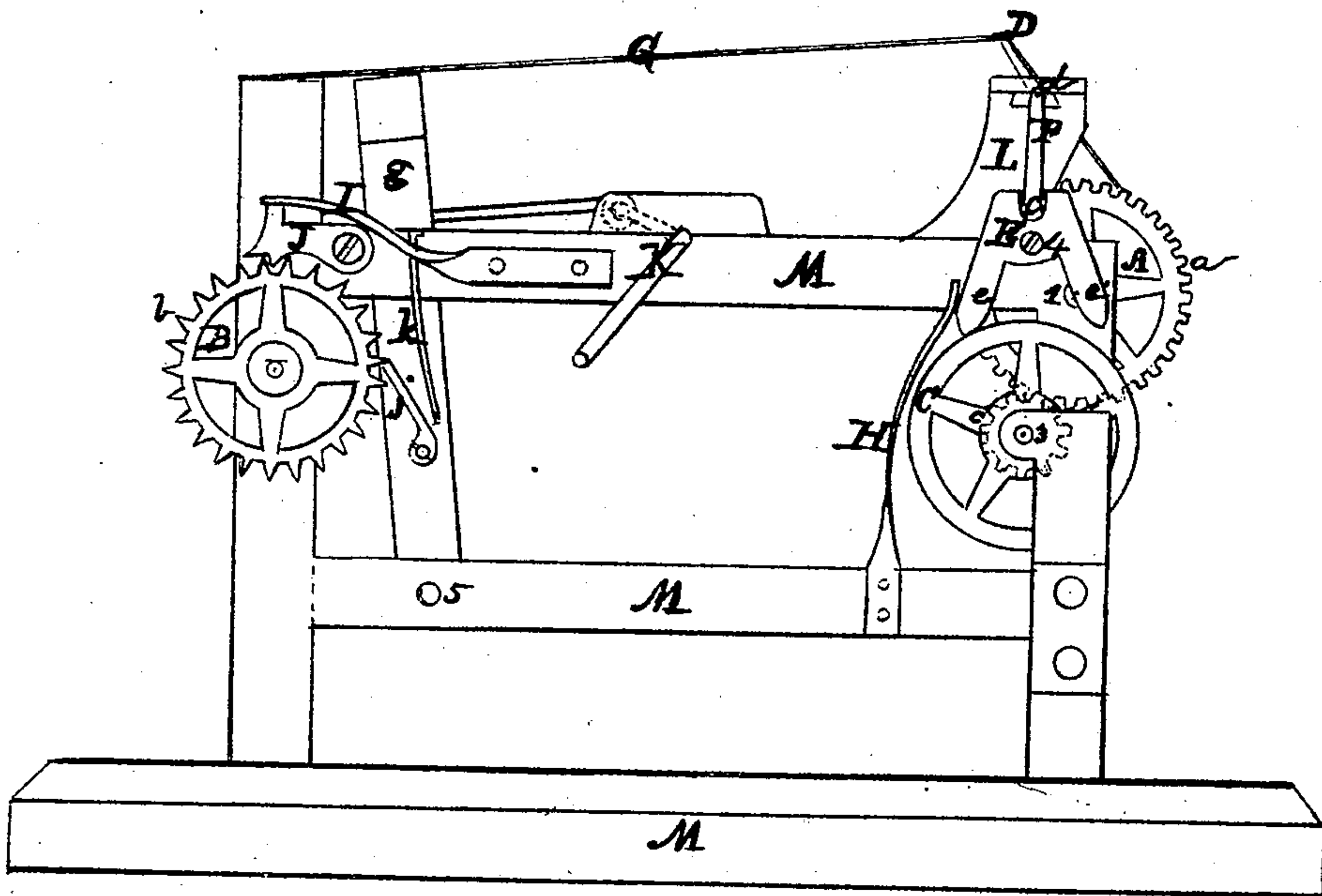


J. A. Marden assignor to W. N. Ely
Set off for Looms.
73353

PATENTED
JAN 14 1868



Witnesses
Mr. M. Parker
Sec. Mr. Manson

J. A. Marden
by W. N. Ely atty

United States Patent Office.

JEREMIAH A. MARDEN, OF CHELSEA, MASSACHUSETTS.

Assignor to William N. Ely, of Stratford Ct.
Letters Patent No. 73,353, dated January 14, 1868.

IMPROVEMENT IN LET-OFF FOR LOOMS.

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

TO WHOM IT MAY CONCERN:

Be it known that I, JEREMIAH A. MARDEN, of Chelsea, in the State of Massachusetts, have invented an Improvement in Let-Off Mechanism for Looms; and the following, with the accompanying drawings, is a full description of the same.

The invention may be considered an improvement upon a certain invention or inventions patented heretofore to Alfred B. Ely, having relation to the arrangement and form of the parts, and consists in the application of a lever, held by a spring or equivalent pressure, to the periphery of wheel attached or geared to the yarn-beam, and relieved by means of the pull of the yarn over the whip-roll.

The drawing is a side elevation.

M represents the frame of a loom; A, the yarn-beam, having a geared wheel, *a*, upon its end. B represents the cloth-beam, and *b* a ratchet-wheel upon its end. C is a wheel, having upon its shaft a geared pinion, *c*, which engages with the geared wheel *a*. 1 2 3 are the axes of the yarn and cloth-beams and wheel C. D is the whip-roll, vibrating upon *d*, and having an arm, F, projecting downwards from *d*, and taking into a slot, *f*, in a pawl representing an inverted V, or two-armed lever E, which is pivoted to the frame at 4, and has two arms, *e e'*, reaching downward below the upper point of the periphery of C. H is a spring, pressing the arm *e* of the lever, pawl, dog, or verge E against the wheel C. G is the yarn. *g* is the lay. *j* is a pawl, pivoted to the lay, and taking into the teeth of the ratchet-wheel *b*, and winding up the cloth-beam as the lay moves. J is a dog, pivoted to the frame, and also engaging with *b* to prevent its turning backward. I is a spring for the dog J, and *k* a spring for the dog *j*. K is a crank for imparting vibratory motion to the lay, which is pivoted to the frame at 5.

The operation is as follows: The yarn passing over D, and becoming sufficiently tight, will, by its pull, move D to the left, which will cause the arm F to move to the right. This movement of F will, by pressing upon the right shoulder of the slot *f* in the verge E, raise the arm *e* from the surface of the wheel C, to which it was pressed by the spring H. C being relieved from the action of *e*, the yarn-beam will be allowed to rotate and let off the yarn until the pull upon D is relieved, when the arm *e* is again brought down upon C by the spring H, and the yarn-beam ceases to rotate and the yarn to be let off. Lest the pull of the yarn may possibly let off too much, and to regulate the letting off, when C is relieved from the pressure or restraint of *e*, if the pull is strong enough, it will bring the arm *e'* upon C, and restrain its free rotation beyond what may be necessary. The spring H may be made adjustable, a spiral spring or any equivalent may be used, and the wheel C may be furnished with lugs, if desired.

What I claim, is—

1. The combination of parts D, F, and E with parts C and H, constructed, arranged, and operating substantially as described.
2. The double-friction brake *e e'*, operating upon the periphery of the wheel C, and actuated by means of spring H, and the whip-roll and lever D F, and yarn G, substantially as described.
3. The above in combination with a take-up mechanism, substantially as described.

Witness my hand.

Witnesses:

J. A. BRADSHAW,
J. R. MOFFITT.

JEREMIAH A. MARDEN.