

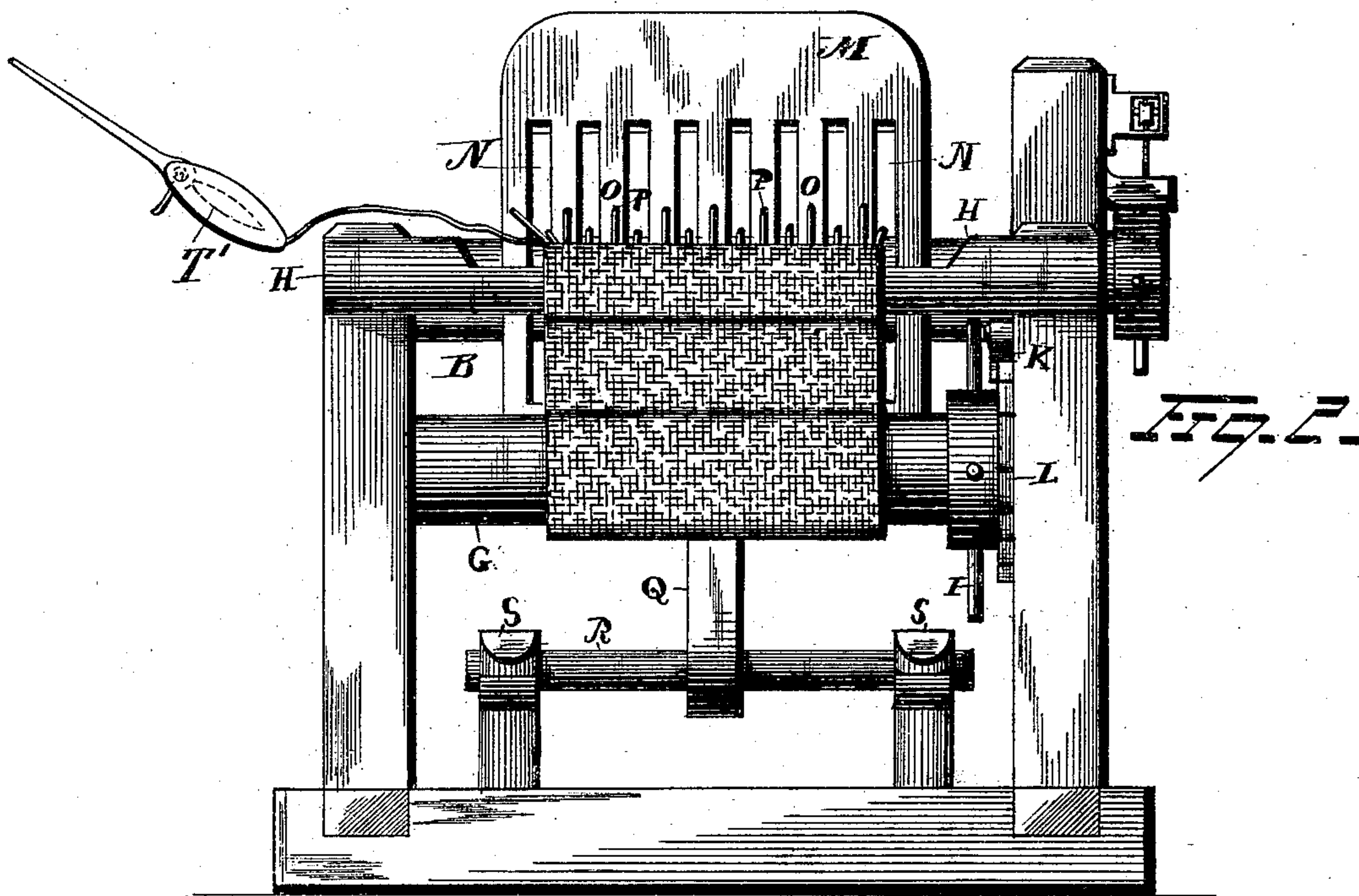
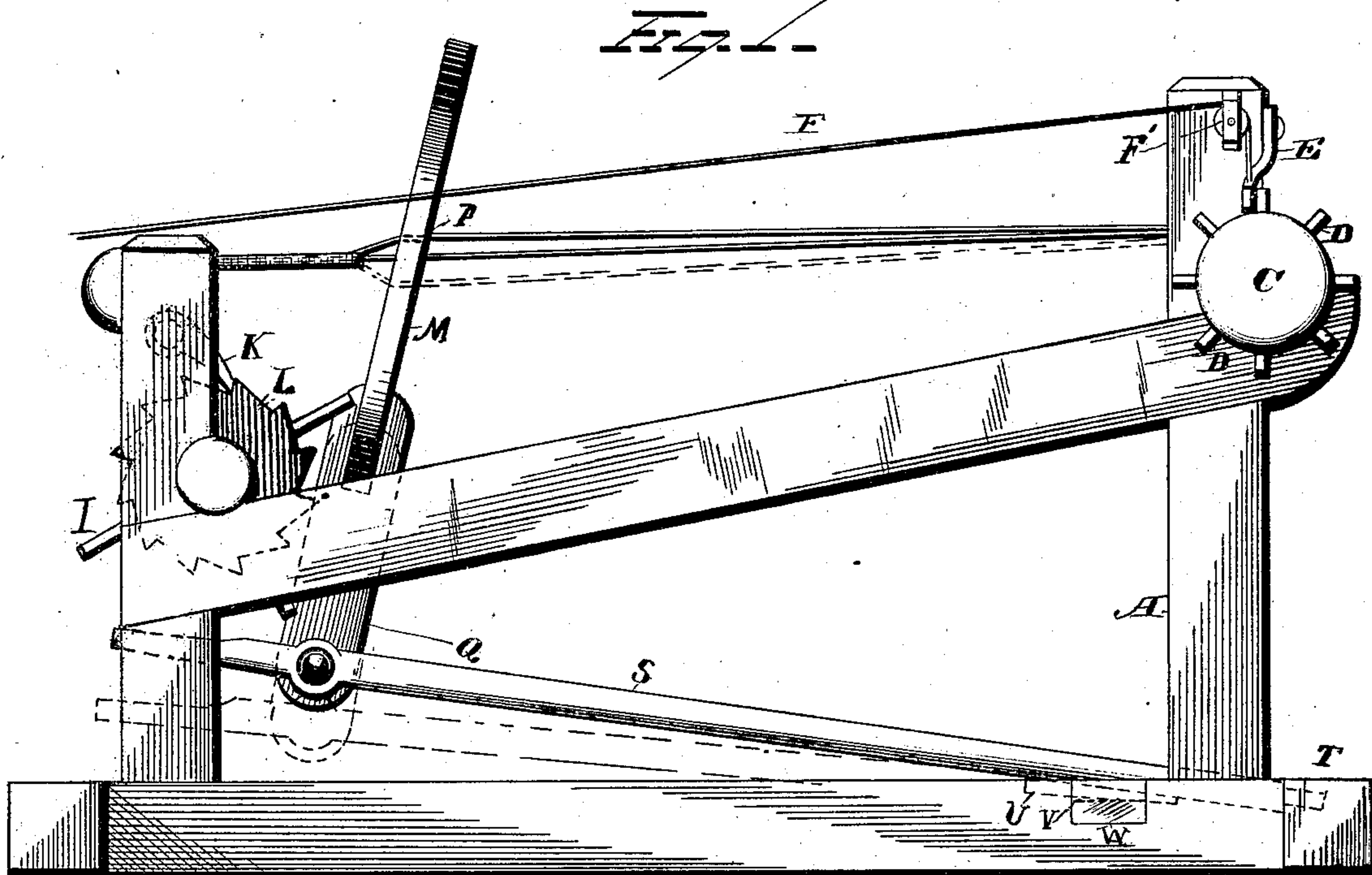
(No Model.)

A. WRIGHT.

HAND LOOM.

No. 273,333.

Patented Mar. 6, 1883.



WITNESSES

S. G. Nottingham  
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# UNITED STATES PATENT OFFICE.

ANDREW WRIGHT, OF ROHNERVILLE, CALIFORNIA.

## HAND-LOOM.

SPECIFICATION forming part of Letters Patent No. 273,333, dated March 6, 1883.

Application filed May 24, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW WRIGHT, of Rohnerville, in the county of Humboldt and State of California, have invented certain new and useful Improvements in Hand-Looms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to hand-loom, the object of the invention being to provide a loom of this character which shall combine simplicity and cheapness of construction with ease of operation and durability and efficiency in use.

With these objects in view my invention consists in a novel construction and combination of parts, which will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in side elevation of a loom constructed in accordance with my invention, and Fig. 2 is a view in front elevation thereof.

A represents a loom-frame, of any desired form and construction, the yarn-beam B, upon which the warp-threads are wound, being mounted in the rear end thereof.

The let-off mechanism for regulating the unwinding of the warp from the said yarn-beam consists of the drum C, peripherally encircled by a row of pins, D, which are engaged by a gravity-pawl, E, the said pawl being elevated to permit the yarn-beam to rotate by a cord, F, which passes over the guide-pulley F' and extends forward within reach of the operator.

The cloth-beam G, upon which the finished cloth is rolled after passing over the breast-beam H, is mounted in the forward end of the frame A. It is operated by hand by the pins I, radially secured to the drum J, the said beam being held in position by the engagement of a pawl, K, with the ratchet-wheel L, which is secured to the beam. This arrangement of warp-supplying and cloth-winding devices forms no part of my present invention, and is introduced into the drawings and description only for the purpose of clearly illustrating the operation of the heddle-frame and its connected devices.

The heddle-frame M consists of a thin piece of wood, of the desired shape, and provided

with a series of vertical slots, N, through which one set of the warp-strands are passed, the upright division-bars O, which separate said slots, being provided midway of their lengths with perforations P, which receive those strands of the warp which alternate with those passing through the vertical slots N. A foot, Q, rigidly secured to or made integral with the said heddle, is pivotally attached to the cross-beam R, joining the forward ends of the spring-beams S, the rear ends of which are rigidly secured to the frame-beam T. The said spring-beams S are adjusted so that in their normal positions they will elevate the strands of warp passing through the perforations P above the strands of warp passing through the vertical slots N, said latter strands lying always in the same plane.

It will thus be seen that in the normal condition of the loom the heddle-frame is elevated by the spring-beams S, and a shed is formed by the elevation of the strands passing through the perforations P above the remaining strands, such strands being decussated when it is desired to form the shed below the strands passing through the slots N by depressing the beams S by the feet. After the latter shed has been completed, the shuttle T thrown, and the foot-pressure relieved, the spring force of the beams will operate to at once elevate the heddle-frame and form another shed, similar to that first described, above the strands passing through the slots.

Wedges U, located in slots V in the beam E, W, are employed to regulate the adjustment of the beams S, which rest in said slots; but other devices may be substituted for the wedges, if desired. Aside from its function of maintaining the warp-strands in their relative positions and of decussating them, as described, the heddle-frame has an important function in view of its pivotal connection to the spring-beams, for it is thus adapted to be actuated by the hand in driving home the woof and filling.

I would have it understood that I do not limit myself to the exact construction shown and described, but that I hold myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

5 The combination, with a heddle-frame formed in one piece and provided with vertical slots to receive one set of warp-strands, the division-bars between the said slots being perforated to receive the alternating strands, of spring-beams, to which the heddle is pivotally se-

cured, and devices to vary the adjustment of the said beams, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ANDREW WRIGHT.

Witnesses:

F. B. SIMONDS,

W. WEBER.