(No Model.)

J. CASHMAN.

SHEDDING MECHANISM FOR LOOMS.

No. 454,252. Patented June 16, 1891.

Fig. 1.

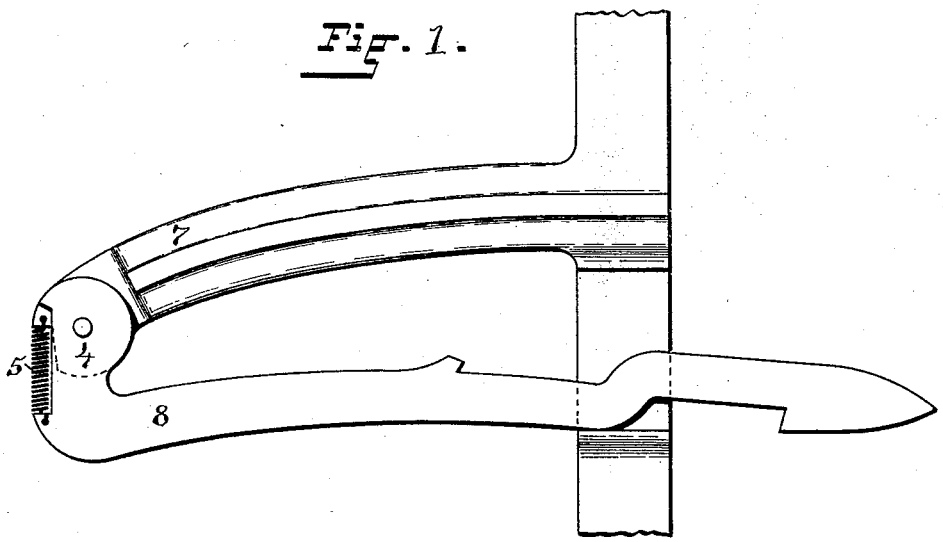
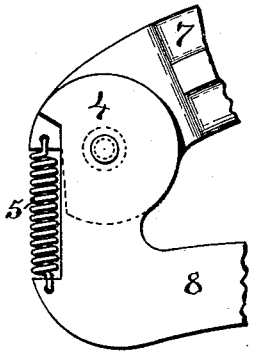


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN CASHMAN, OF PROVIDENCE, RHODE ISLAND.

SHEDDING MECHANISM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 454,252, dated June 16, 1891.

Application filed October 8, 1890. Serial No. 367,380. (No model.)

To all whom it may concern:

Be it known that I, JOHN CASHMAN, of the city of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Shedding Mechanisms for Looms; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The invention has reference to harness-jacks used for raising and lowering the harness-frames on looms.

The object of the invention is to so improve harness-jacks as to prevent them chattering and causing harness-skips. This object is attained by the use of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view of the improvement shown in connection with the harness-jack and jack-frame arm. Fig. 2 is an enlarged view of the hinge of the jack, showing the spring attached to frame-arm and jack, portions of which are cut away to receive the spring.

In the operation of a loom the harness-jacks are raised or lowered by the pattern-chain to engage with the proper knives for elevating or depressing the corresponding harness-frames. The distance to be traversed by the jacks is so short and the operation is so quickly accomplished that it is necessary for the jacks to act with great accuracy; but the almost constant motion of the jack-frames is apt to cause the jacks to vibrate in such a manner as to re-engage a knife which has just been relinquished, or the vibration is such that they do not grasp the knives at the proper time, causing harness-skips and consequent imperfections in the weave. Various means have been employed in attempts to obviate this vibration or chattering. I am well aware that springs have been placed between the arm of the jack and the frame-arm and that the jack-finger has been weighted; but none of these methods have proved satisfactory.

I have found in practice that if a spring be attached to the rear of the hinge on which the jack moves in such a manner as to exert a constant upward pull on the rear end of the jack all chattering will be overcome and the jack will operate most accurately. I therefore cut away a sufficient portion of the metal forming the hinge 4 to allow of the insertion of the coiled spring 5, as is shown in the drawings, the upper end of the spring being passed through a small hole in and secured to that portion of the hinge formed by the end of the jack-frame arm 7, and the lower end of the spring being in like manner fastened to the portion of the hinge formed by the end of the jack-arm 8.

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

The combination, with the frame-arm 7 and the jack-arm 8, pivotally connected thereto to form a hinge and having their rear portions cut away to form a recess, of the coiled spring 5, contained within said recess and having its upper end connected with the frame-arm and its lower end connected with the jack-arm to exert a tension thereon, as and for the purpose described.

JOHN CASHMAN.

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