No. 621,277. Patented Mar. 14, 1899.

J. M. PECKHAM.

LET-OFF FOR LOOMS.

(Application filed Apr. 22, 1898.)

(No Model.)

Fig. 1.

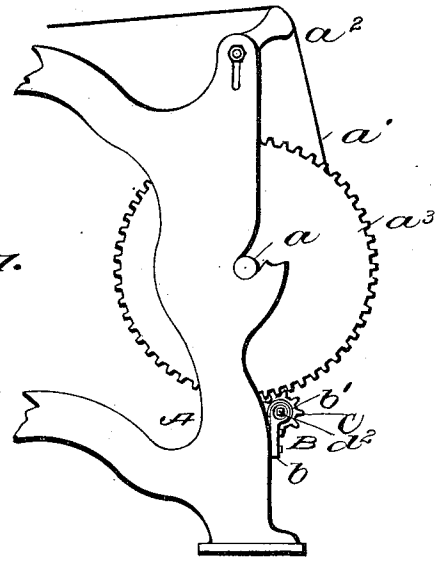


Fig. 2.

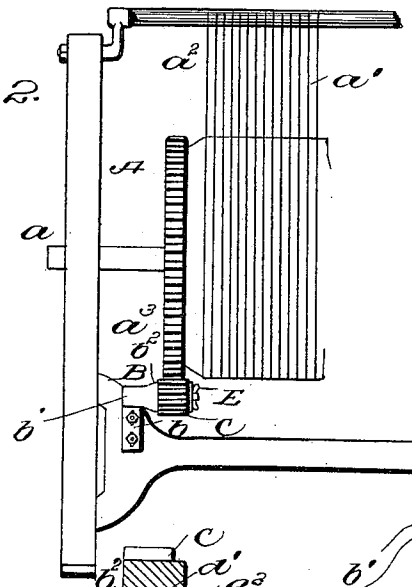


Fig. 3.

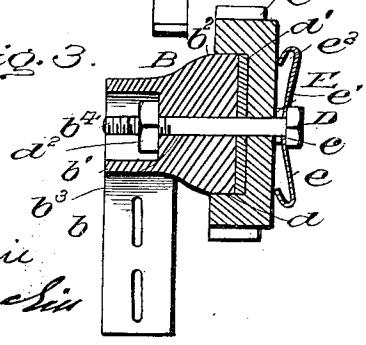
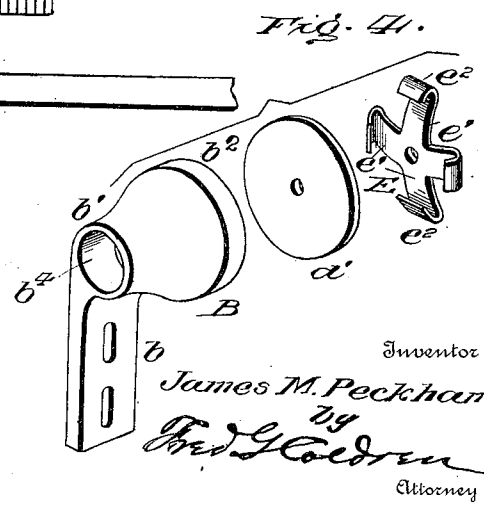


Fig. 4.



Witnesses

Jno. Minnie

F. L. Ricker

Inventor

James M. Peckham,

by Fred. G. Coburn

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES M. PECKHAM, OF FALL RIVER, MASSACHUSETTS.

LET-OFF FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 621,277, dated March 14, 1899.

Application filed April 22, 1898. Serial No. 678,500. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. PECKHAM, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Let-Offs for 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 appertains to make and use the same.

This invention relates to let-offs for looms.

The objects of the invention are, first, to provide an improved let-off by means of which cloth will be evenly woven; secondly, to construct such let-off of but few parts; thirdly, to provide means for preventing the operators from tampering with the let-off, so as to thin the cloth, and, fourthly, to reduce the number of parts and the cost of manufacture.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view, in elevation, showing a portion of a loom and the application of my improvement. Fig. 2 is an end view. Fig. 3 is a vertical longitudinal sectional view of the let-off device shown on an enlarged scale. Fig. 4 shows several details.

Referring to the drawings, A designates a part of the frame of a loom; a, the warp-beam; a', the warp-threads; a^2, the whip-roll, and a^3 a large gear-wheel mounted on and carried by the warp-beam a.

B designates a stand or bracket, comprising a plate b, which is bolted to the frame A, and a stud or rounded body b', preferably formed with said plate, at the upper end thereof. This stud is of increased diameter at its outer end b^2 and is formed with a central bore b^3, which terminates at one end in a socket b^4 in the end of the stud.

C is a gear-wheel which is in mesh with the gear-wheel a^3 of the warp-beam. It is formed in one side with a circular socket d, which accommodates the end b^2 of the stud, said end forming the bearing on which said wheel rotates. In this socket is located a friction-disk d' of any suitable material. This disk is interposed between the end of the stud and the body of the wheel.

D is a bolt or screw which is passed through a central opening in wheel C and also through the bore b^3, its extreme threaded end being extended into the socket b^4. Upon this end is a nut d^2, which is screwed up to the inner end of the socket.

E is a spring bearing-plate interposed between the head e of screw D and the outer face of the wheel C. This plate is preferably formed with four radiating arms e', which are bent slightly outward, and their extreme ends e^2 are bent inward, so as to bear against the face of the wheel. In this way the amount of friction it is desired to place against the wheel C can be controlled by the turning of the screw D. As the latter is tightened the wheel is brought more tightly against the friction-pad located within its socket.

I have found in actual practice that a loom equipped with my improvement will weave cloth evenly, and by locating the screw-nut within the socket of the stud operators are prevented from tampering therewith and thereby precluded from so interfering with the attachment as to make the cloth run thin.

It will be noticed that there are practically only four pieces in the entire attachment, and hence the danger of the latter getting out of order is reduced to a minimum. In consequence there is less work for loom-fixers.

I have also found that in a loom provided with my improvement a less number of smashes will occur, for if the shuttle stops between the reed and the cloth the friction will let off quick enough to loosen the warp, and thereby prevent a smash.

It will also be noted that my let-off attachment being extremely simple in construction may be cheaply manufactured.

I claim as my invention—

1. The herein-described let-off for looms comprising a stand having a stud formed with a rounded end, a gear-wheel in mesh with the gear-wheel of the warp-beam having a socket accommodating said rounded end, a friction-disk in said socket, a holding screw or bolt extending through said wheel and stud, and a spring-plate interposed between the head of said screw and said wheel, as set forth.

2. The herein-described let-off for looms, comprising a stand having a stud formed with a rounded end, a gear-wheel in mesh with the

gear-wheel of the warp-beam having a socket accommodating said rounded end, a friction-disk in said socket, a holding screw or bolt extending through said wheel and stud, and a plate between the head of said screw and said wheel having a series of lateral arms formed with inwardly-bent ends, as set forth.

3. The herein-described let-off for looms, comprising the stand having a stud formed with a rounded end, a central bore and a socket at one end of said stud, a gear-wheel in mesh with the gear-wheel of the warp-beam having a socket accommodating said rounded end, a friction-disk in said latter socket, and a holding screw or bolt extended through said wheel and stud and having a nut thereon located within said socket of the stud, as set forth.

4. The herein-described let-off for looms, comprising the stand having a stud formed with a rounded end, a central bore and a socket at one end of said stud, a gear-wheel in mesh with the gear-wheel of the warp-beam having a socket accommodating said rounded end, a friction-disk in said latter socket, a holding screw or bolt extending through said wheel and stud and having a nut thereon located in the stud-socket, and a spring-plate interposed between the head of said screw and said wheel, said spring-plate having a series of lateral arms with inwardly-bent ends, substantially as set forth.

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

JAMES M. PECKHAM.

Witnesses:
THOMAS R. WHIPP,
DAVID H. PECKHAM.