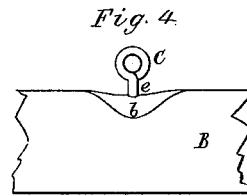
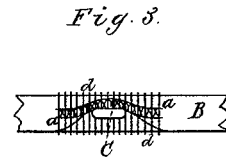
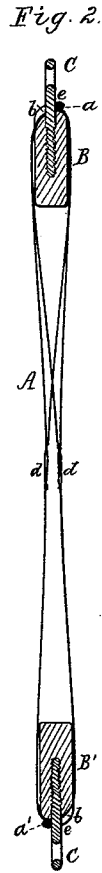
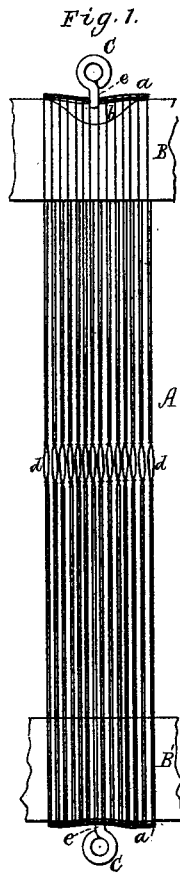


J. G. WEEKS.  
 LOOM-HARNESS.

No. 180,808.

Patented Aug. 8, 1876.



Witnesses  
*S. W. Piper*  
*L. W. Miller*

Joseph G. Weeks  
 by his attorney  
*R. H. Ledy*

# UNITED STATES PATENT OFFICE.

JOSEPH G. WEEKS, OF LAWRENCE, MASSACHUSETTS.

## IMPROVEMENT IN LOOM-HARNESS.

Specification forming part of Letters Patent No. **180,808**, dated August 8, 1876; application filed May 13, 1876.

*To all whom it may concern:*

Be it known that I, JOSEPH G. WEEKS, of Lawrence, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Loom-Harness; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side view, Fig. 2 a transverse section, and Fig. 3 an edge view, of a portion of a harness with my improvement. Fig. 4 is a side view, and Fig. 5 an edge view, of a part of one of the heddle-support bars as provided with the compensating notch or recess to be hereinafter explained.

In such drawings, A denotes a part of a loom-harness of ordinary construction, of which *a* and *a'* are the back-bands; *d d*, &c., the heddles, and B B' the support-bars. These latter are provided, as usual, with supporting-eyes C C, having their shanks *e* screwed into the middle of each of the said bars. Each back-band, in passing against and across the shank of any one of the eyes C, becomes, by draft on the harness, curved or deflected out of a straight line, in consequence of which the heddles connected with or extending directly from the part of the back-band so deflected will be drawn tighter than those adjacent to them, and will become thrown up in a ridge, whereby they or their warp-receiving eyes during the working of the harness in the loom are liable to and generally do become worn out much quicker than the other heddles, or the eye portions thereof. To avoid this difficulty—viz.,

the drawing of the heddles up into a ridge—is the object of my improvement, in the carrying out of which I make each of the support-bars B B' at its junction with each of its eyes or the shank thereof with a notch to receive the twines of the heddles in a manner to prevent them from being overstrained by the back-band when it is drawn against the eye-shank. This compensating-notch is shown at *b*. I usually arrange it on one side of one bar, and make the notch for the fellow eye of the other bar on the other side of the latter, as in such case ridging of the heddles on each side of the harness will be prevented. The notch compensates for the deflection of the back-band and the increased draft on the heddles near each eye when the harness is strained in the loom, as the heddles, by entering the notch, become slackened to or about a like tension with the others.

I claim, therefore, as my improvement—

In a loom-harness, each of its support-bars B B', as provided with a compensating-notch, *b*, as described, arranged at the junction of the bar and each eye C thereof, and being for reception, as set forth, of the heddles extending from that part of the back-band which, in passing by the shank of the eye, becomes curved or deflected thereby out of a straight line, all being essentially as specified.

JOSEPH G. WEEKS.

Witnesses:

R. H. EDDY,  
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