

J. F. FOSS.

Loom-Harness Actuating Mechanism.

No. 128,480.

Patented July 2, 1872.

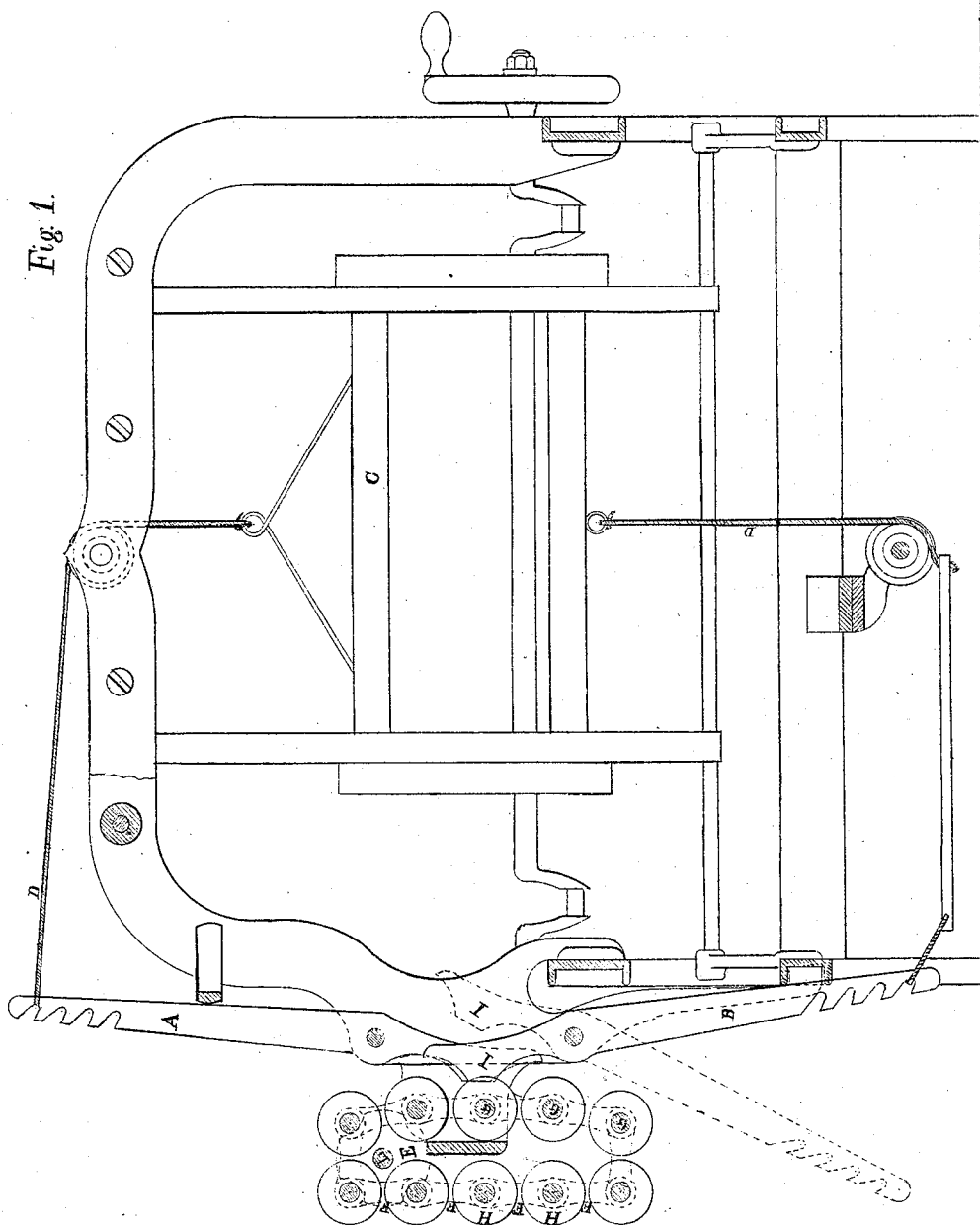


Fig. 1.

Witnesses.  
C. W. L. Eastman  
W. A. Eastman

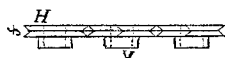


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN LOOM-HARNESS-ACTUATING MECHANISMS.

Specification forming part of Letters Patent No. 128,480, dated July 2, 1872.

Be it known that I, JOHN F. FOSS, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in the Mechanism for Raising and Depressing the Harnesses on Looms, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a front view of the harness and mechanism operating the same. Fig. 2 is the roll showing "hub" and flange.

My improvement consists of an arrangement of upright levers A B, with the short arms I I overlapping each other, and operated by a pattern-chain for governing the position of the harness-frames. The two levers A and B are connected to one harness, C, by means of cords D D. The top lever A is to raise the harness C, and the lower lever B is to depress the same. The means employed to operate the levers A and B, and communicate motion to the harness C, is the roll H with its flange *f*, Fig. 2, of the same thickness as one of the lapped ends I I. One side of the roll has a hub, K, so constructed that the "hub" K and flange *f* cover the lapped ends I I of the levers A and B, operating one harness. When it is desired to raise the harness C the roll H is

placed upon the chain-spindle G, so that its flange will come in contact with the lapped end I of the lever A, when the cylinder E upon which the chain H F G is mounted, revolves upon its axis L. This brings the "hub" K of the roll H in front of the lapped end I of the lever B, and allows it to pass in the opposite direction from the lever A that raises the harness C. When it is desired to depress the harness C, the roll H is reversed, so that the "hub" K is in front of the lapped end I of the lever A. The rolls that operate the harnesses are secured to the spindles G G G G, corresponding with the number of harnesses to be operated. The spindles G G G G are attached to each other by the links F F F F, corresponding in number with the figures to be woven. The chain so constructed, is mounted upon the revolving cylinder E, and located so as to bring the rollers in contact with the lapped ends I I.

I claim—

The upright levers A and B with lapped ends I I, in combination with the pattern-chain, when all are constructed and arranged to operate as herein described.

JOHN F. FOSS.

Witnesses:

C. W. L. EASTMAN,  
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