

Hensel & Valetton
Narrow Mare.

N^o 38,929.

Patented Jun. 16, 1863.

Fig. 3

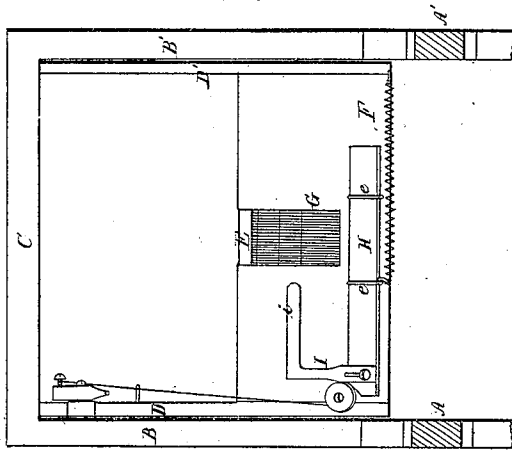


Fig. 4

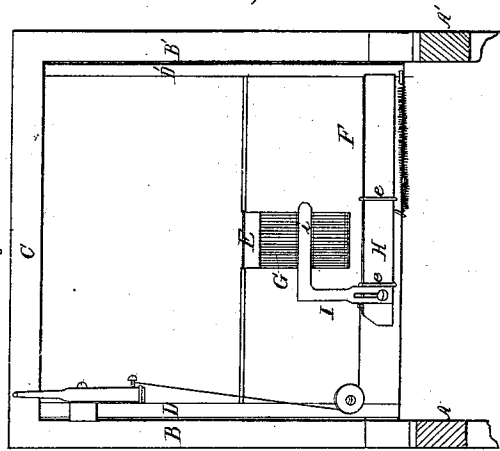


Fig. 1

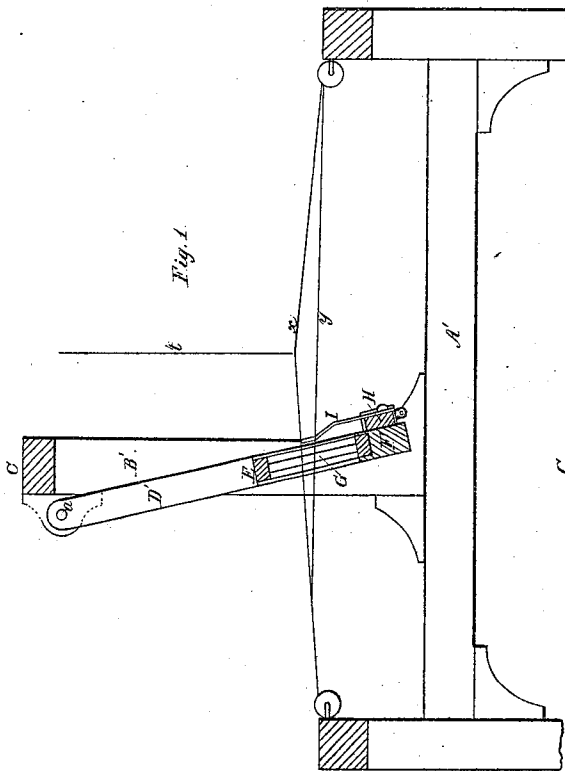
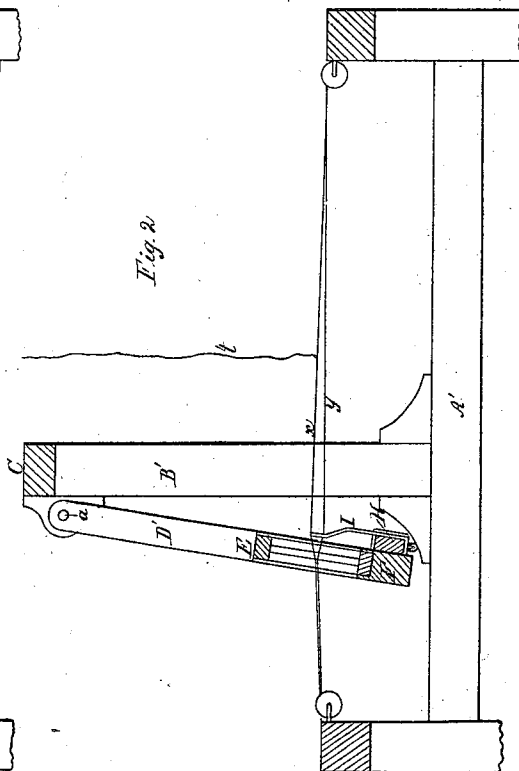


Fig. 2



Witnesses
Charles C. Foster
Charles H. Housen

Inventor
Henry Housen
Atty. Gen. Hensel & Valetton

UNITED STATES PATENT OFFICE.

H. W. HENSEL AND L. D. VALETTON, OF PHILADELPHIA, PENNSYLVANIA,
ASSIGNOR TO H. W. HENSEL.

IMPROVEMENT IN JACQUARD LOOMS.

Specification forming part of Letters Patent No. **38,929**, dated June 16, 1863; antedated
May 23, 1862.

To all whom it may concern:

Be it known that we, H. W. HENSEL and L. D. VALETTON, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Looms; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention relates to an improvement in Jacquard and other looms for weaving coach-laces, braids, and other narrow fabrics; and our improvement consists in a sliding bar having a horizontal projection, and arranged on the lathe of the loom, and operating substantially as described hereinafter, so as to keep the warp-threads open while the reed is beating the weft-thread up into the fabric, and thereby insuring an even and uniform selvage.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a vertical section of a sufficient portion of a loom to illustrate our improvement; Fig. 2, the same with the lathe in a position differing from that shown in Fig. 2, and Figs. 3 and 4 are transverse vertical sections.

Similar letters refer to similar parts throughout the several views.

A and A' represent portions of the opposite side frames of a loom for weaving coach lace, braiding, or other narrow fabrics; and B and B' are standards secured to the said frames and connected together at the top by the cross-bar C. The lathe of the loom is composed of the side pieces, D and D', and the cross-pieces E and F, between which is the usual reed, G, the lathe being hung at *a a* to the opposite standards B, and B', of the frame. The warp-threads which pass through the reeds are represented by the lines *x* and *y*, these threads being connected to the usual Jacquard apparatus by cords *t*. The shuttle, by means of which the weft-thread is passed between the open warp-threads, is similar to those usually employed in coach-lace looms, the construction and operation of such shuttles being too well

known to those familiar with the art of weaving to need illustration or description.

At the back of the transverse beam F is a bar, H, arranged to slide horizontally in and to be guided by staples *e e*, secured to the said beam, and to this sliding bar is secured what I term the "retainer" I, part of which consists of a horizontal projection, *i*, having a rounded end. A horizontal reciprocating motion is imparted to this sliding bar from any moving part of the loom by any appliances which will readily suggest themselves to an expert machinist, the motion being such that when the lathe has reached the limit of its backward movement, and the warp-threads have been opened by the Jacquard apparatus, the projecting portion *i* of the retainer will occupy a position between the open warp-threads, and at the back of the reed, as seen in Fig. 4, the projection retaining this position until the reed has reached the limit of its forward movement, has beaten up the weft or shuttle thread, and added the latter to the fabric. When the lathe commences its backward movement, however, the sliding bar H is moved back, and the projection *i* of the retainer withdrawn from between the warp-threads to the position shown in Fig. 3, so that it may present no obstruction to the crossing and reopening of the warp-thread by the Jacquard apparatus. The moment the warp-threads are opened to their full extent, however, and by the time the line the lathe again reaches the limit of its backward movement, the sliding bar H is moved forward and the projection *i* again takes its place between the opened warp-threads, and, as before, retains this position until another weft-thread is added to the fabric by the beating up of the lathe.

It is well known that in Jacquard and other looms the opened warp-threads begin to close before the lathe has reached the limit of its forward movement, the weft-thread having previously taken its place between the warp-threads. Owing to this the weft-thread, if it be of woollen or other comparatively rough fibers, is so confined between the warp-threads that it is not always drawn to its proper position by the shuttle, the friction of the weft against the closing warp-threads being such as to prevent the former from occupying the

exact position required, a ragged looking and uneven selvage is consequently the result.

It will be readily seen that by the use of our above-described improvement the warp-threads remain open until the weft-thread is beaten up into the fabric, and consequently the latter thread remains loose between and is not pressed upon and unduly controlled by the warp-threads, the weft-thread retaining its proper position as it is being beaten up into the fabric.

The device is especially applicable to Jacquard and other looms for weaving worsted braids, the freedom of the weft-thread to occupy its proper position insuring a perfect and uniform selvage.

We claim as our invention and desire to secure by Letters Patent—

The sliding bar H and the horizontal projection i, arranged on the lathe of a Jacquard loom in respect to the warp-threads, substantially as set forth, for operating on the said warp-threads in the manner and for the purpose specified.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

H. W. HENSEL.

L. D. VALETTON.

Witnesses:

HENRY HOWSON,
JOHN WHITE.