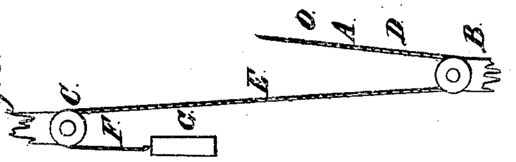
E. A. B. Judkins.

Shedding.

No. 1075

Patented Feb. 2, 1839.

Fig. 2



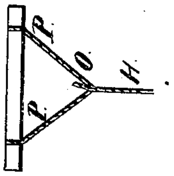
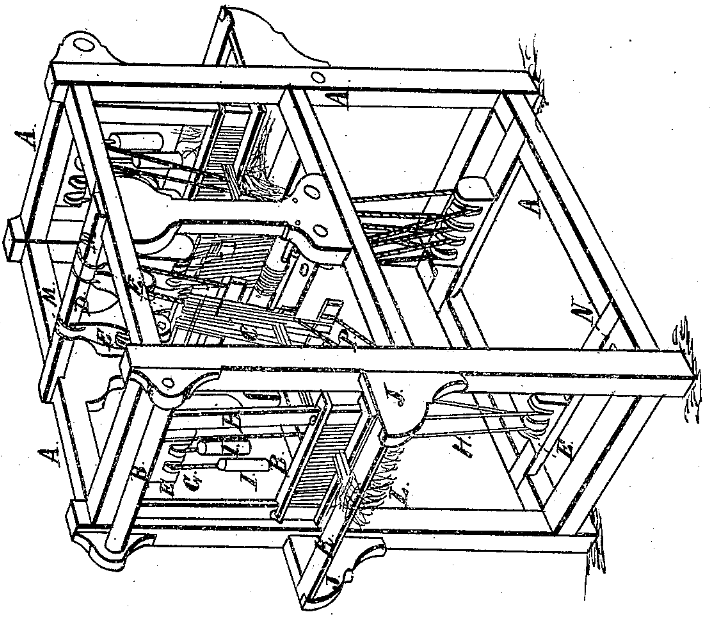


Fig. 1



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ELIZA ANN B. JUDKINS, OF PORTLAND, MAINE.

HAND-LOOM FOR WEAVING FRINGES.

Specification of Letters Patent No. 1,075, dated February 2, 1839.

To all whom it may concern:

Be it known that I, ELIZA ANN B. JUDKINS, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Improvement in the mode, manner, and art of weaving fringe and fancy trimmings—to wit, the manner of constructing, mounting, and operation of the loom and the manner of treading the harness for the purpose of weaving ornamental articles, called "fringe" and "fancy trimmings;" and I do hereby declare that the following specifications are a full and exact description thereof.

The frame of the loom is made after the general plan of the old fashioned high post loom for weaving cloth. Four feet high, three feet long and two feet wide are good proportions for a double loom. A single loom would be the same height and width as the double, and about two feet long. The operator, when weaving, sits on a stool, in front of the loom. The yarn beam, cloth beam, and breast beam are all located, as in the common ancient cloth loom, and operate in the same manner. The harnesses are situated relatively, as in the common cloth loom, and operate upon the web, in the same manner, in springing it. The warp is drawn in, in the same manner, through the harnesses and sleigh, as in the cloth boom. The warp is narrow, about half inch wide, more or less, according as is necessary and ornamental, making the heading, or binding to hold the fringe tight and to be ornamental. When double web is woven, which is the most convenient and profitable method, the two warps are four, or five inches, more or less, apart, according to the depth, or width of the fringe, when woven are cut in two, in the middle, after being woven.

The above proportions have the lathe about twenty inches long and twelve wide. The reed is placed in the lathe, as in other looms, and operates in like manner.

The harnesses are struck and made, for this loom, as for other looms, and operate in like manner, upon the warp, in weaving. They are hung by the upper bars, the connecting lines running over sheaves, in the same manner, as in the common cloth loom. This loom is necessarily so small, that the harness can not be worked by treads, as in other looms. To remedy this inconvenience, blocks with sheaves and lines are used in the following manner: A bar is laid across the two lower side girts, directly under the harness, and a set of blocks with sheaves placed thereon, in the center, for each set of harness. Another set of blocks, with sheaves, corresponding with those on the bar below, is attached to the under side of the front cross plate girt at the top of the loom, or to underside of a bar laid across the top side girts. These blocks are so placed, as to hang a little in front of the perpendicular line of the harnesses. Then the lines attached to the under bars of each half of the harness pass down and around the sheaves, in the blocks below, one line around each sheave, and up in front of the harness, and over the corresponding sheaves, in the blocks attached to the front top plate, or the bar laid across the top side plates, and down in front nearly to the lathe, that is, far enough down to be convenient to be taken hold of by the thumb and finger, when the lathe is hauled up to beat up the filling, in the warp. A small weight is attached to the end of each line, just heavy enough to overbalance the greater length and weight of the ascending part of the lines and prevent hauling back the ends of the lines hanging down in front, and these weights are of no other use. The weaver, when operating, takes hold of one weight and hauls it down, thereby springing the harness and setting the web to its proper position. Then the shuttle is passed through the warp, and the filling beaten up by the lathe. Then the other weight is hauled down, reversing the position of the harness and web, when the shuttle is again passed through the warp, and the lathe beaten up, and so on continually, in the operation of weaving, whatever figure may be woven. Whether one set, or more, of harness is required depends on the kind of figure to be woven, but this alters not the principle of the loom, nor the mounting. In this method of working a loom, it is evident that each hand, in operating does the same offices, as the hand and foot, in the common tread loom. For, when the thumb and finger have hauled the line and sprung the web, the other fingers take hold of the lathe and beat it up.

The model accompanying these specifications and drawings, in the Patent Office, is a double loom, that is a loom, at which two weavers can work. In weaving fringe, a double web is commonly woven, and is cut apart after it is taken out of the loom. If single width is woven, a line must be laid along parallel with the warp, around which the filling must be passed, in weaving, to keep it of an even width, which is taken out after the web is woven.

The parts of this loom which I claim as my own invention, and which I wish particularly to secure, in and by these specifications, and the patent to be issued thereon, are the following:

1. The cross bar and blocks and sheaves at the bottom.
2. The blocks and sheaves, at the top.
3. The lines, which run from the under edge of the harness, down and around the sheaves, in the blocks below, and up in front of the harness, and over the sheaves in the blocks above, and down in front nearly to the lathe, as above described and set forth, that is the particular manner of arranging, using and applying them, as they are above described and specified.

To the other parts of the loom I lay no claim, having set them forth and explained them, as above, merely in connection with and in illustration of the parts aforesaid, which I claim. And the parts aforesaid, which I claim, as my own invention, I claim specifically and distinctly, as improvements on the common cloth loom, they having neither connection with, nor affinity to the draw loom, nor draw boys, as they are sometimes called, neither in the mounting, nor operation, mine being mounted and operated exactly as the common cloth loom, with the exception of working the harness, by the blocks and lines, as above described, instead of the foot treads, as is used in the common cloth loom.

In testimony that the foregoing specifications are a full and exact description of my improvements upon the loom, as above set forth and for the purposes and operations, as above described, I have hereunto set my hand this seventh day of December, in the year of our Lord one thousand eight hundred and thirty eight.

ELIZA ANN B. JUDKINS.

Witnesses:
JONATHAN MORGAN,
MARY JANE DREW.