No. 697,745. Patented Apr. 15, 1902.

J. E. PAINTER.

LOOM.

(Application filed Nov. 25, 1901.)

(No Model.)

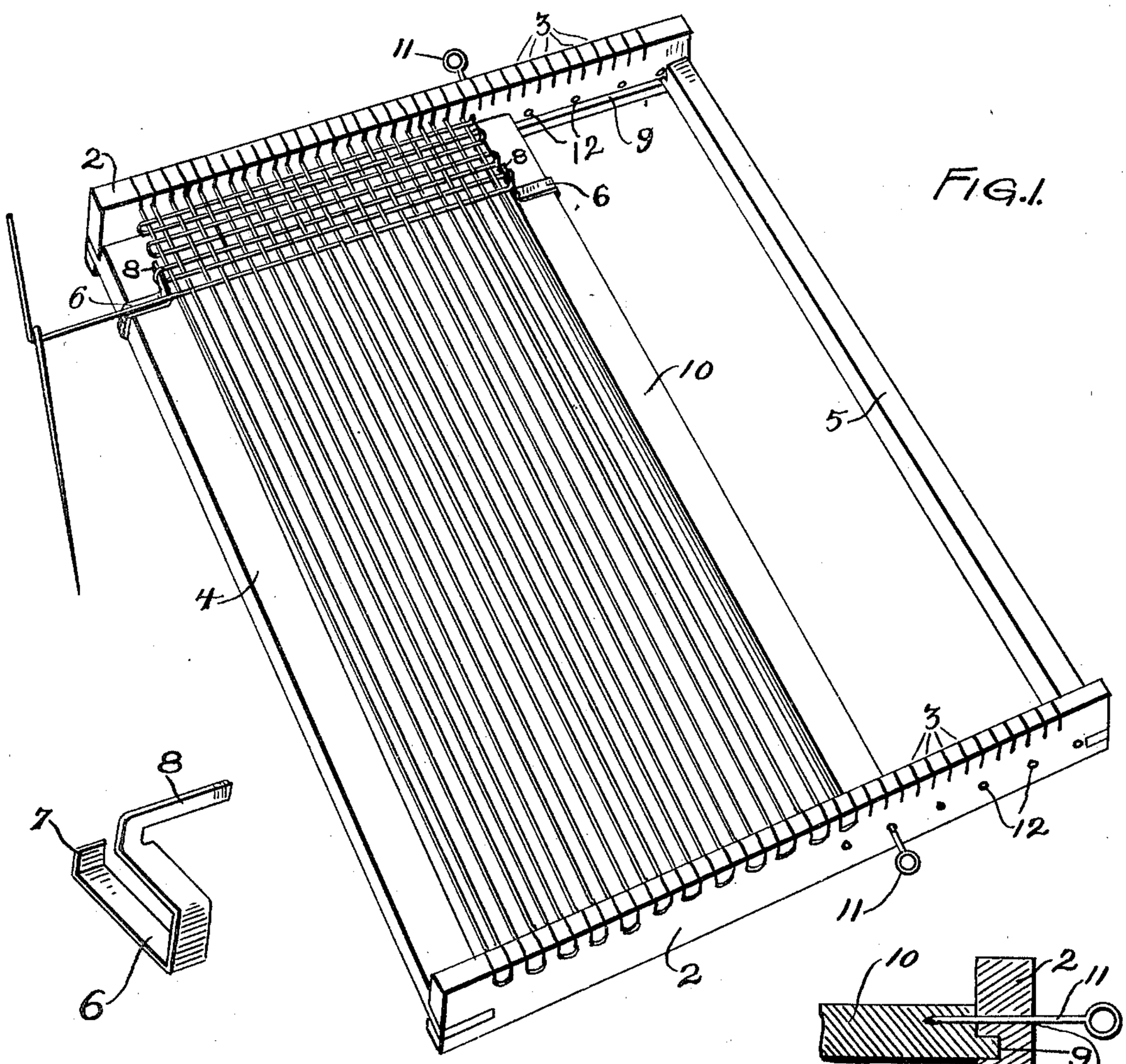

FIG. 1.

FIG. 2.

FIG. 3.

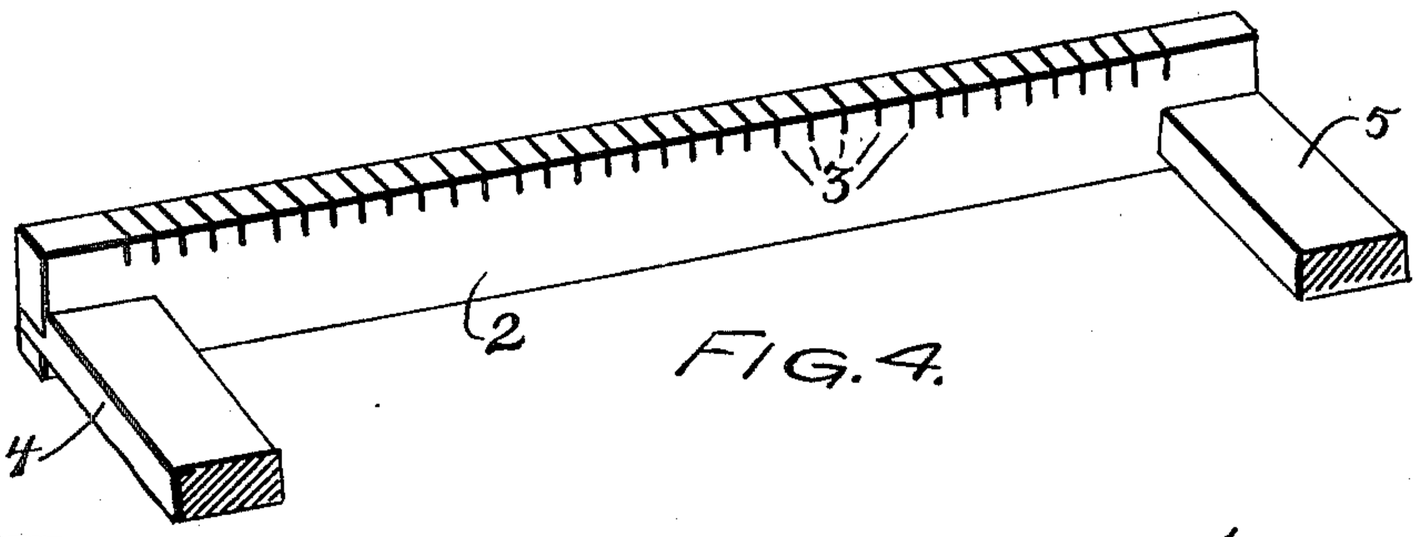

FIG. 4.

WITNESSES
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JONATHAN E. PAINTER, OF MINNEAPOLIS, MINNESOTA.

LOOM.

SPECIFICATION forming part of Letters Patent No. 697,745, dated April 15, 1902.

Application filed November 25, 1901. Serial No. 83,560. (No model.)

To all whom it may concern:

Be it known that I, JONATHAN E. PAINTER, of Minneapolis, Hennepin county, Minnesota, have invented certain new and useful Improvements in Looms, of which the following is a specification.

My invention relates to weaving-looms, and particularly to the small hand-type employed in kindergarden-work and the primary grades of the public schools.

The object of my invention is to provide a loom that is very simple in construction and can be manufactured at a small expense.

A further object is to provide a loom having no loose parts or attachments to become accidentally separated from the frame and lost.

Other objects of the invention will appear from the following detailed description.

The invention consists generally in providing a loom-frame with an adjustable-clip device around which the woof-threads are passed.

Further, the invention consists in providing the frame with an adjustable side bar to permit the width of the work to be regulated at will.

Further, the invention consists in various constructions and combination, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective of a hand-loom embodying my invention. Fig. 2 is an enlarged perspective view of one of the adjustable clips. Fig. 3 is a detailed sectional view showing the manner of securing the adjustable bar in the frame. Fig. 4 is a perspective view of one end of a non-adjustable frame.

In the drawings, 2 represents the end piece of the frame, provided with a series of saw-slits 3, that are adapted to receive the warp-threads.

4 and 5 are the side bars, connecting the ends 2 in any suitable way, as by mortising the end pieces and gluing the side bars therein. The warp-threads having been stretched between the end pieces of the frame in passing the woof-threads transversely with respect to the same, it is necessary to provide some means for holding the cross-threads to permit their being drawn up to form a close firm fabric without contracting the work and making the edges of the same irregular and uneven. For this purpose I provide clips 6, preferably of bar or sheet metal, bent to conform to the shape of the bar 4 in the cross-section, having at one end a turned-up lip 7 to prevent accidental disengagement of the clip from the bar, and at the other end a finger 8, which preferably projects at right angles to the clip and substantially parallel with the warp-threads. As the woof-threads are passed through the work back and forth they are carried around the finger 8, and as the work progresses along the frame the clips are adjusted to keep pace therewith, a stitch of the finished work being dropped each time the clip is moved and a new thread taken on. In this way the clip is moved the length of the bar 4 or the distance that it is desired to weave the fabric. A clip is also provided on the opposite side of the work and is of the same general form as the one described, except that its finger is oppositely turned, one clip being right and the other left. In order that the width of the work may be varied, I provide the ends 2 with inside longitudinal grooves 9, that are adapted to receive the rabbeted ends of a sliding bar 10, that is held in place inside said groove by pins 11, passing through the holes 12 in the ends of the frame and into the ends of said bar. One of the adjustable clips is provided on this adjustable bar, and when said bar is arranged close to the side bar 5 the adjustment is such that the full width of the frame can be utilized, and by moving the adjustable bar toward the bar 4 and securing the same the width of the work can be changed at will. The clips are preferably placed on the bars before the frame is put together, and although the clips are adjustable the full length of the frame they cannot accidentally be detached and lost. The clips will grip the bars sufficiently close to prevent premature movement of the clips.

In Fig. 4 I have shown a modified form for a frame in which the adjustable bar is omitted, the clips being placed on the fixed side bars of the frame, there being no provision for varying the width of the work.

I prefer the form of clip shown and described

herein, but do not wish to be confined thereto, as the same is capable of many modifications, the essential feature being the adjustable finger-like device supported on the frame substantially in line with the warp-threads.

I claim as my invention—

1. In a loom, a clip provided upon each side of the warp-threads and adjustable lengthwise thereof and over which the woof-threads are passed.

2. In a loom, a clip provided upon each side of the warp-threads and adjustable lengthwise thereof and over which the woof-threads are passed, one of said devices at least being adjustable toward the other.

3. In a loom, a clip adjustable lengthwise of the warp-threads and having a finger substantially parallel with said threads and over which the woof-threads are passed.

4. In a loom, clips provided upon each side of the warp-threads and adjustable lengthwise thereof and having fingers substantially parallel with said threads and around which the cross or woof threads are passed.

5. A loom, comprising end pieces between which the warp-threads are stretched and side bars running parallel with said threads, and clips adjustably arranged on said bars and having fingers around which the woof-threads are passed and dropped as the clips are moved.

6. A hand-loom, comprising end pieces between which the warp-threads are stretched, parallel bars connecting said end pieces, clips adjustably arranged on said bars and having fingers around which the woof-threads are passed and one of said bars being laterally adjustable.

7. A hand-loom, comprising end pieces between which the warp-threads are stretched, side bars connecting said end pieces, means provided on said bars to engage and hold the woof stitches or threads and one of said bars being laterally adjustable to adapt the frame for work of different width.

8. A hand-loom, comprising end pieces between which the warp-threads are stretched, fixed bars connecting said end pieces, a bar slidable in grooves in said end pieces toward or from either of said fixed bars, means for securing said slidable bar and woof-thread-engaging devices provided on one of said fixed bars and said slidable bar.

9. A hand-loom, comprising end pieces between which the warp-threads are stretched, fixed bars connecting said end pieces, a movable bar arranged between said fixed bars, means for securing said movable bar, and clips provided on said movable bar and one of said fixed bars and adjustable lengthwise thereof and provided with fingers extending substantially parallel with the warp-threads and around which the woof-threads are passed.

In witness whereof I have hereunto set my hand this 14th day of November, 1901.

JONATHAN E. PAINTER.

Witnesses:
RICHARD PAUL,
M. C. NOONAN.