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HAND LOOMS

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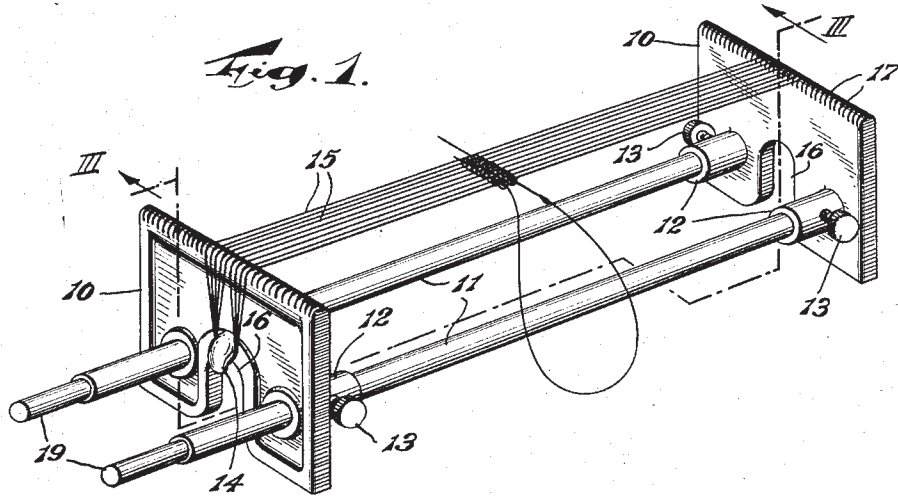


Fig. 2.

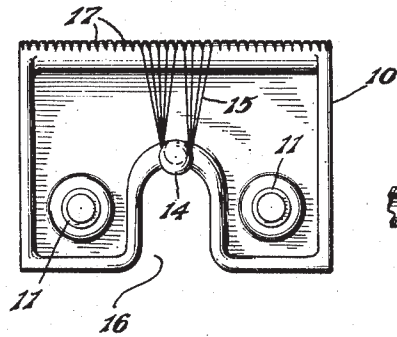


Fig. 3.

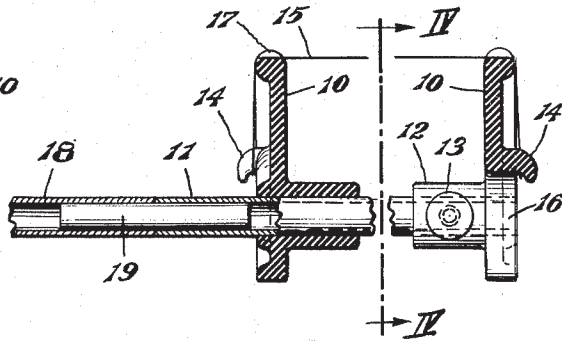


Fig. 4.

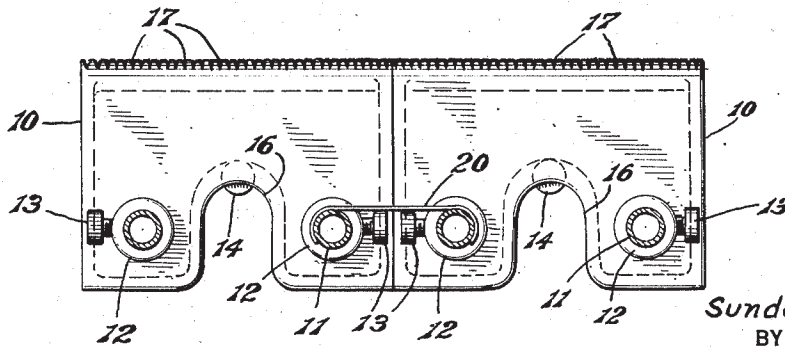


Fig. 5.



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HAND LOOMS

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2 Claims. (Cl. 28—15)

This invention relates to looms, and more particularly to hand looms for weaving threads on the weft threads of which beads are applied during the weaving operation for production of beaded belts and other ornamental beaded articles.

Heretofore in homecraft hand looms for bead work have been of a character restricting the convenient production of articles within the bounds of comparatively small dimensions. In production, for instance, of long articles, such as belts, it is desirable to retain the entire woven portion in view of the operator so as to be able to repeat portions of the design previously woven. In some designs, the motif has a reversal midway of the length of the article, and in such instances it is essential that the entire woven length must be visible up to the midpoint while reversely weaving the motif in the second half of the article. Also in the weaving of such articles as beaded bags, a very much greater depth is required than when weaving a belt, but in weaving a belt greater length than depth is essential.

An object of the present invention, therefore, is to provide a loom for bead work which is adaptable to various sizes and proportions of work without making the loom cumbersome for small work.

Another object of the invention is to provide a loom which may be extended either in direction of the warp threads or the weft threads or both.

A further object of the invention is to provide a loom that will be sturdy, and at the same time, one that is light in weight and one in which the warp threads will be held taut and properly spaced for any selected length or depth of loom assembly.

Yet another object of the invention is to provide a loom of such simple character that it can be rearranged, adjusted and set-up by children and inexperienced persons.

Still further objects of the invention will appear to persons skilled in the art to which it appertains as the description proceeds, both by direct recitation thereof and by implication from the context.

Referring to the accompanying drawing in which like numerals of reference indicate similar parts throughout the several views;

Figure 1 is a perspective view of a loom constructed in accordance with the present invention;

Figure 2 is an end view of the loom;

Figure 3 is a longitudinal vertical sectional view substantially on line III—III of Fig. 1, and showing in addition an extension bar applied by which greater adjusted length of loom may be obtained;

Figure 4 is a cross-sectional view as upon line IV—IV of Fig. 3, and showing in addition another unit added to the first unit for increasing the effective width of the loom; and

Figure 5 is a detail enlarged view of a portion of the meeting edges of juxtaposed headers of the pair of units of Fig. 4, and showing the even spacing provided for

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the warp threads in said headers and at the junction therebetween.

In the specific embodiment of the invention illustrated in said drawing, the loom is shown as essentially constituted in the form of a frame having end-pieces or headers 10 which in use stand in vertical planes and are parallel to each other. Said headers are held in the position and relation stated by a pair of spaced parallel bars 11 perpendicular to both headers and extending from one to the other.

The headers 10 are preferably both alike but in assembly one is faced in a direction opposite from the other, and accordingly specific description of one will suffice for both. Each said header is made from suitable material, of which hard rubber, hardened plastic and the like are appropriate examples, but it is of course understood that metal, wood or other materials of rigid character may be employed if desired. A pair of hollow bosses or sleeves 12 project from what will be here termed the inner face of the header, said sleeves being located near the lower edge and respective side edges of the header and axially perpendicular to said face. The hollow of said bosses or sleeves is dimensioned to have a sliding fit upon afore-mentioned bars 11 so that when the headers are mounted on said bars the headers will be held perpendicular to the bars and parallel to each other. A set screw 13 or other retaining means is provided in at least one boss of each header.

A hook 14 or other means for attachment of the warp threads 15 is provided on the outer face of each header and is preferably medially between the side edges of the header and with the hook bending outwardly downward. The header wall is shown with an arched cut-out 16 below the hook to afford finger room for the user in applying the warp threads.

The upper edge of the header is provided with a row of notches 17, each notch extending transversely through the wall thickness of the header and the row of notches extending from side to side of the header. The last notch at each end of the row has a spacing from the end edge of the header equal to one half of the distance from center to center of the several notches. By virtue of this arrangement, there will be a continuous row of evenly spaced notches throughout the entire upper edge of an assembly of two headers placed edge to edge as shown in Figs. 4 and 5.

The basic loom unit of my invention comprises the end headers mounted on the pair of bars 11, and is suitable for work the dimensions of which do not exceed the width of the headers or length available between the headers at any adjusted position of the headers on said bars. However, all work sought to be done does not necessarily come within the range of those dimensions of loom. In order to accommodate longer work, I provide extension bars 18, singly or in multiple, which may be added by the user to the ends of bars 11. It may now be called to attention that said bars 11 are tubular, and said extension bars 18 are likewise made tubular with inside and outside diameters corresponding to said bars 11. Dowels 19 are provided to extend partly in bars 11 and partly in bars 18 making a rigid assembly of these bars so that one header may be moved onto the extension bar and thereby obtain any desired spacing between the headers and consequently enable warp threads the full length of the work to be applied from one header to the other and thus enable the full length of work completed to be always in view of the operator. But for shorter work, bulkiness of the loom is kept at a minimum by not having the extension bars 18 thus applied.

For work that has a depth or width exceeding the number of warp threads applicable to the full row of notches 17 of the header, the invention provides for extension of

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the loom in that direction also. This feature is accomplished by juxtaposing another unit at the side of the first unit, as shown in Fig. 4, with the end edges of the headers of the two units engaging each other. From this showing, it will now be readily understood that a plurality of units may be juxtaposed for any desired width or depth of work. The units may be conveniently retained in the described juxtaposed relation by suitable couplings 20. One form of coupling comprises a strip of spring steel the ends of which are hooked and adapted to be sprung onto the nearest pair of bars to the juxtaposed edges of the headers of the adjacent units. Inasmuch as these units are readily separable, the bulk of loom for work requiring less width is kept at a minimum, and units added only as required for a particular piece of work.

I claim:

1. A loom of the character described, comprising a unit having end headers and bars for mounting said headers in spaced relation to each other, said headers having rows of notches across the same, said rows extending from end to end of the headers with the notches evenly spaced from each other and the last notches of the row spaced

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from the end edges of the header less than the spacing of successive notches from each other.

2. A loom of the character described, comprising a first unit providing a normal weaving area across the entire width thereof, said unit having headers and bars extending therebetween, said headers being duplicates one of the other and each having parallel sleeves for mounting the same on said bars, means for adjusting the space between said headers, a second unit in duplicate of the first said unit and engageable at the side thereof for increasing the weaving area transversely of the first unit to exceed said normal weaving area provided by said first unit, and couplings for securing the second said unit to the first said unit.

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