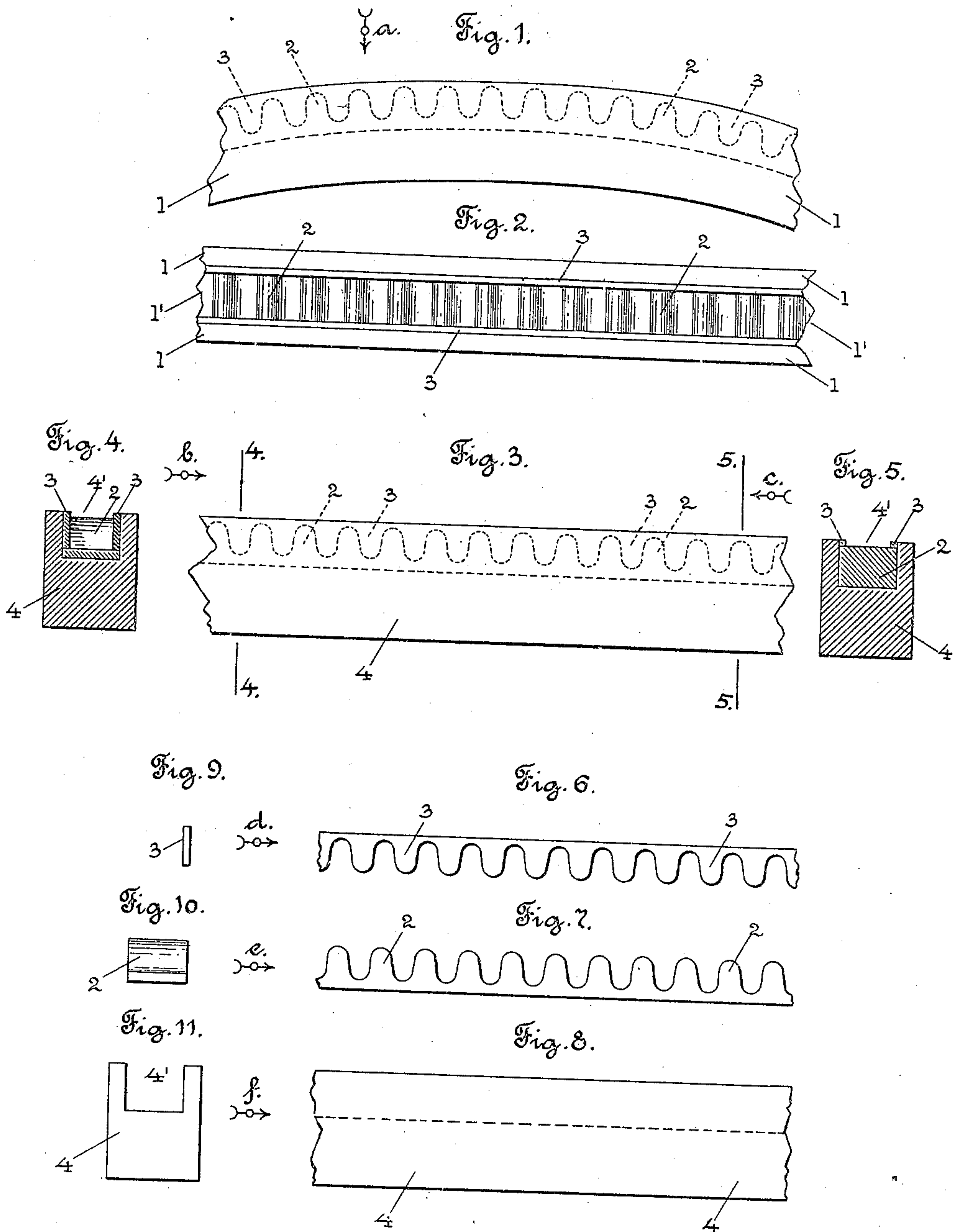


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NARROW WARE LOOM RACK.  
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952,159.

Patented Mar. 15, 1910.



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# UNITED STATES PATENT OFFICE.

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## NARROW-WARE-LOOM RACK.

952,159.

Specification of Letters Patent.

Patented Mar. 15, 1910.

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*To all whom it may concern:*

Be it known that I, WILLIAM WATTIE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Narrow-Ware-Loom Racks, of which the following is a specification.

My invention relates to narrow ware loom racks, or toothed wooden racks for narrow ware or ribbon looms, which form, either the toothed part of the shuttle, or the toothed rack for operating the shuttles.

The object of my invention is to improve upon the construction of the toothed part of the shuttles, and the toothed shuttle operating racks, referred to, as ordinarily made.

In the ordinary construction of the toothed parts referred to, there is a recessed portion in the shuttle, or in the shuttle operating rack or bar, to receive the toothed part or rack, which is ordinarily made of wood, in one or more pieces, and held in the recess by glue. In this construction of the toothed racks, the separate teeth of the rack are liable to break off.

In my improvements, in addition to the ordinary toothed rack, which fits into and is glued in the recess in the shuttle, or in the recess in the shuttle operating rack, I provide two supplemental toothed strips, corresponding in shape and contour to the toothed racks, one strip for each edge of the toothed rack. Said strips extend within the recess for the toothed rack, at each side thereof, and are glued therein, in a reverse position to the toothed rack, so that the toothed part on the strips will extend downwardly within the recessed portion, with the toothed part extending in the recessed spaces in the rack, and the recessed parts extending over the toothed parts of the rack, so as to cover the ends or edges of the teeth of the rack, and protect the same, and prevent them from breaking off.

I have only shown in the drawing a detached portion of the toothed part of a shuttle, and of a shuttle operating rack, of the class referred to, embodying my improvements, sufficient to enable those skilled in the art to understand the construction and operation of the same.

Referring to the drawings:—Figure 1 is a side view of a detached portion of the toothed part of a circular shuttle. Fig. 2

is a plan view of the toothed part shown in Fig. 1, looking in the direction of arrow *a*, same figure. Fig. 3 is a front view of a detached part of a shuttle operating rack and bar. Fig. 4 is a section, on line 4, 4, Fig. 3, looking in the direction of arrow *b*, same figure. Fig. 5 is a section, on line 5, 5, Fig. 3, looking in the direction of arrow *c*, same figure. Fig. 6 is a side view of a detached part of a supplemental toothed strip. Fig. 7 is a side view of a detached part of the toothed rack. Fig. 8 is a side view of a detached part of the rack or rail. Fig. 9 is a side view of the supplemental toothed strip shown in Fig. 6, looking in the direction of arrow *d*, same figure. Fig. 10 is an end view of the toothed rack shown in Fig. 7, looking in the direction of arrow *e*, same figure. Fig. 11 is an end view of the rack bar shown in Fig. 8, looking in the direction of arrow *f*, Fig. 8.

In the accompanying drawing, in Figs. 1, and 2, 1 is a detached part of the runner or base of a circular shuttle, which has a longitudinal recess 1' therein, in the usual way, see Fig. 2. Within the recess 1' extends a toothed rack 2, in the usual way, which is preferably glued therein. In addition to the toothed rack 2 there are two supplemental toothed strips 3, corresponding to the strip 3 shown in Fig. 6. The strips 3 have the toothed portion thereon corresponding to the toothed portions on the rack 2, but each strip 3 is placed within the recess 1' in the strip 1, at each side or edge thereof, in a reverse position to the toothed rack 2, so that the toothed portions on the strips 3 will extend within the spaces between the teeth on the rack 2, and the recessed portions of the strip 3 will extend over the teeth on the rack 2. The supplemental strips 3 are glued within the recessed portion 1' of the bar 1.

In Figs. 3 to 11 inclusive, I have shown my improvements in connection with the toothed rack or bar for operating the shuttles. In said figures, 4 is the rack bar, having a central longitudinal recess 4', see Fig. 11, to receive the toothed rack 2, which is glued within the said recess, and occupies the full width of said recess. 3, Fig. 6, is the supplemental strip. There are two strips 3, see Fig. 4, which extend within the central recess 4' in the bar 4, at each side or edge thereof, and on each edge of the toothed rack 2, in the same manner as above



described in connection with Figs. 1, and 2, and are glued within said recess to secure them in place. The supplemental strips 3 are preferably made by sawing strips of the  
 5 toothed rack 2 up into the narrower strips 3, so that the toothed portions and the recessed portions will correspond exactly, and the supplemental toothed strips 3 will exactly fit onto and over the edges of the  
 10 toothed rack 2.

The advantages of my improvements will be readily appreciated by those skilled in the art. They are of very simple construction, and may be readily applied to the ordinary  
 15 rack portion of a shuttle, or to the toothed rack for operating the shuttles. By means of my supplemental toothed strips, the teeth of the rack on the shuttle, or on the rack bar, will be protected, and much less liable  
 20 to breakage.

It will be understood that the details of construction of my improvements may be varied if desired.

Having thus described my invention, what  
 25 I claim as new and desire to secure by Letters Patent is:—

1. In racks for narrow ware loom shuttles,

and racks for operating the shuttles, the combination with the toothed portion, of two supplemental toothed strips, to fit onto 30 the rack and cover the side edges thereof.

2. In a narrow ware loom shuttle rack, the combination with the toothed portion, of two supplemental toothed strips, to fit onto the toothed portion, and cover the side edges 35 thereof.

3. In a narrow ware loom shuttle operating rack, the combination with the rack bar, and a rack extending within a recess in said bar, of two supplemental toothed strips extending within said recess and fitting onto the toothed portion of the rack, at the side edges thereof, to cover said edges. 40

4. An improved shuttle operating rack for narrow ware looms, comprising a bar having 45 a recess therein, a rack extending within said recess, and two supplemental toothed strips extending within said recess, and fitting onto the toothed portion of said rack, at the side edges thereof, to cover said edges.

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