

(No Model.)

E. HERZIG.
LOOM.

No. 301,890.

Patented July 15, 1884.

Fig. 1.

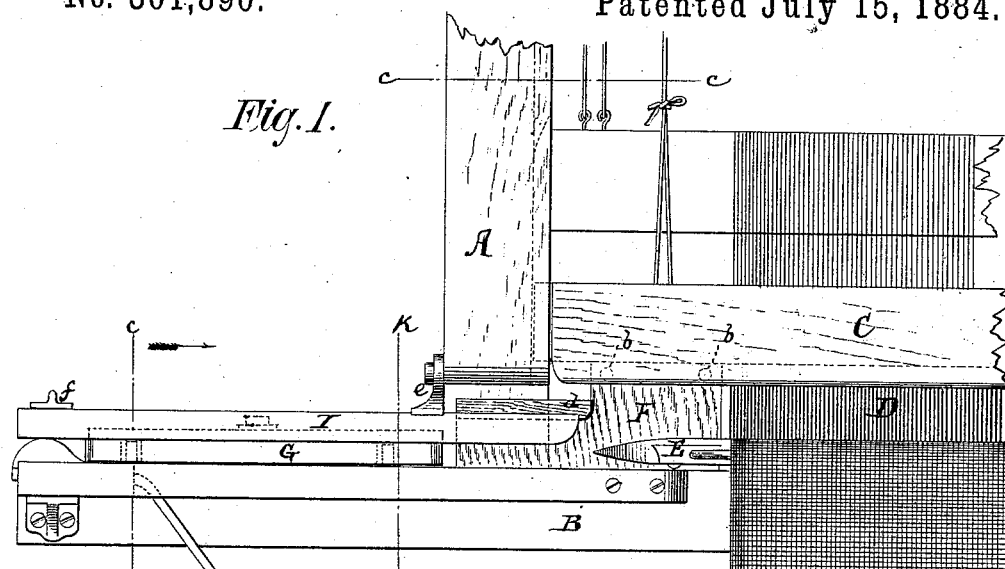


Fig. 2.

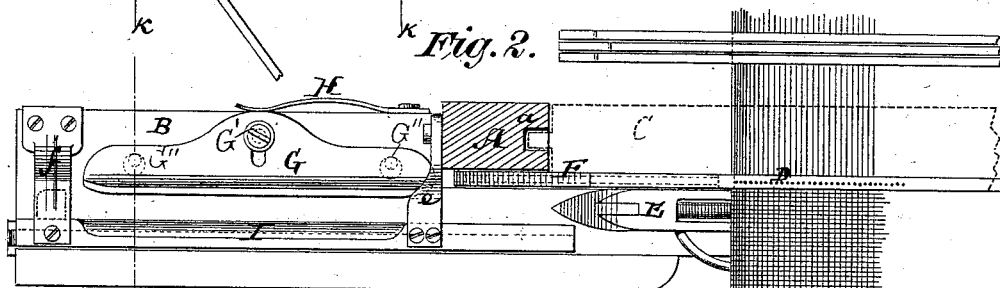


Fig. 3.

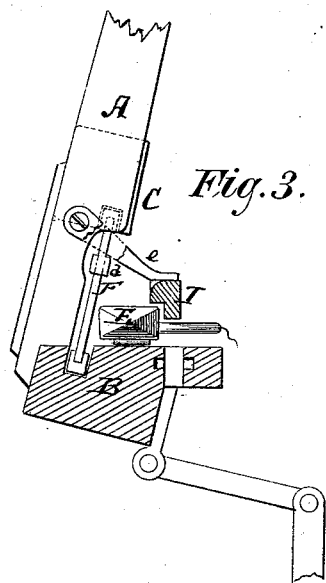
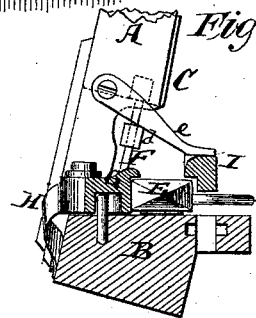


Fig. 4.



WITNESSES:

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EDUARD HERZIG, OF WEST HOBOKEN, ASSIGNOR TO ROBERT SIMON AND HERMAN SIMON, OF UNION, NEW JERSEY.

LOOM.

SPECIFICATION forming part of Letters Patent No. 301,890, dated July 15, 1884.

Application filed June 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, EDUARD HERZIG, of West Hoboken, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Looms, of which the following is a specification.

In the drawings, Figure 1 is a face view of part of one end of the lay of a loom, showing my improvement. Fig. 2 is a top view of the same, partly in section, the line *c c*, Fig. 1, indicating the plane of section. Fig. 3 is a cross-section on the plane of the line *k k*, Fig. 1, partly broken away; and Fig. 4, a cross-section on the plane of the line *c k*, Fig. 1.

The object of this invention is to so construct the lay of a loom that the shuttle will not be liable to strike the uprights of the lay-frame as it issues from the shed, and so, also, that at the end of its movement the shuttle will be restrained from advancing with too great a speed in the shuttle-box.

The invention consists in the combination, with the reed and with the frame of the lay, the same having grooved top and bottom bars and grooved upright, of a guard-plate of peculiar construction, hereinafter specified, a spring, a plate against which said spring bears, and the outer bar of the shuttle-box, with its brackets, all as hereinafter more fully described.

In the accompanying drawings, the letter A represents one of the uprights or swords of the lay, the same being at its lower end rigidly united to the bottom bar, B, the top bar, C, being at its ends let into vertical grooves of the uprights A.

Fig. 2 shows the upright groove *a*, and shows the top bar, C, in dotted lines. The reed D is formed of parallel slips of metal, cane, or other substance, that are fastened in the usual manner to the bars B and C.

As looms have heretofore been constructed, particularly looms for weaving silk, a space frequently existed between the end of the reed D and the upright A, and it frequently happened that the shuttle E would, during its motion, strike against the corner of the upright A, thereby throwing the parts of the loom in confusion and delaying its operation.

In order to avoid this, I attach to the lay-frame of such a loom, between each end of the reed and each of the uprights A, a vertical guard-plate, F, of which the upper end enters a horizontal groove, which is formed in

the lower side of the bar C, and is held there by suitable pins, *b*. The lower end of the plate F is let into a groove that is formed in the upper side of the bar B, and the outer end of the guard-plate F comes in front of the upright A, as indicated in Fig. 2. The plate F thus serves as a continuation of the reed D, and guides the shuttle past the face of the upright A into the shuttle-box, preventing the shuttle from striking the upright A.

Whenever the lay-frame is to be taken apart, it is only necessary to take out the pins *b b*, whereupon the top bar, C, can be raised in the grooves of the uprights A, and the guard-plate F then taken out. Where this guard-plate F arrives beneath the projecting side of the upright A, it may have at its upper portion a rib or enlargement, *d*, under which the shuttle will move, and by which any upward movement of the shuttle against the upright A will be prevented. As the shuttle enters the shuttle-box and moves past the upright A, it comes in contact on its rear with a plate, G, which is placed upon the top of the bar B, as indicated in Figs. 2 and 4, and which, by the connecting-pin *G'*, that holds it to the bar B, and by guide-pins *G''*, projecting into enlarged apertures in said plate G, is capable of lateral movement. A spring, H, crowds this plate G forward, and as the shuttle advances it comes in contact with this spring-plate G and crowds it backward against the spring H, and is itself retarded in its movement by such contact, so that it will not be apt to injure the parts that are at the end of its race. Any outward lateral movement of the shuttle is prevented by the usual front bar, I, which constitutes the front of the shuttle-box, and which is connected by suitable brackets with the upright A and bar B. These brackets are indicated at *e* and *f* in the drawings.

I claim—

The combination of the bottom bar, B, grooved in its upper side, with the top bar, C, grooved in its lower side, upright A, grooved along its inner side, guard-plate F, reed D, bar I, spring H, plate G, and brackets *e f*, all arranged substantially as and for the purpose herein shown and described.

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Witnesses:

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