

J. FRANK & F. BENZ, JR.
 BATTEN STRUCTURE FOR NARROW WARE LOOMS.
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1,032,396.

Patented July 16, 1912.

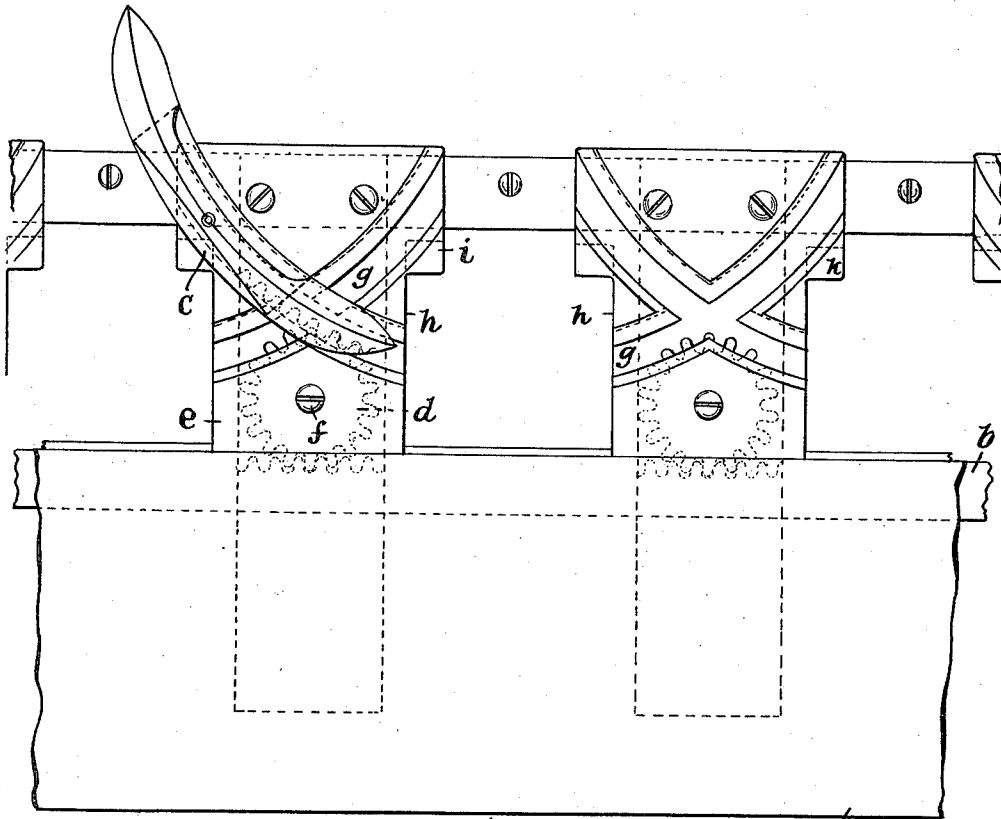


Fig. 1.

x y z

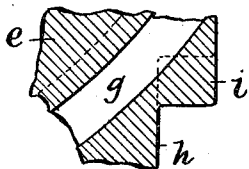


Fig. 3.

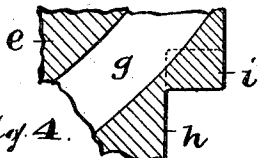


Fig. 4.

WITNESSES

Wm. Drell.
 Elsie Kaufmann.

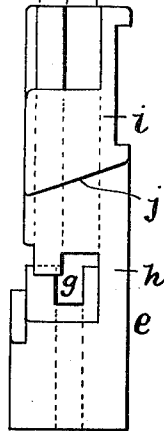


Fig. 2.

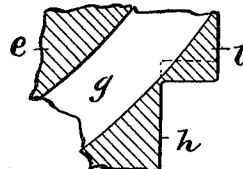


Fig. 5.

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UNITED STATES PATENT OFFICE.

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BATTEN STRUCTURE FOR NARROW-WARE LOOMS.

1,032,396.

Specification of Letters Patent.

Patented July 16, 1912.

Application filed November 7, 1911. Serial No. 658,948.

To all whom it may concern:

Be it known that we, JOSEPH FRANK and FREDERICK BENZ, Jr., citizens of the United States, residing at New York city, New York county, and State of New York, and Haledon, Passaic county, and State of New Jersey, respectively, have invented certain new and useful Improvements in Batten Structures for Narrow-Ware Looms, of which the following is a specification.

This invention relates to batten structures for narrow ware looms and particularly to batten structures of this class in which the shuttles move in curved races or guideways afforded by grooves.

My object is to increase the space available for weaving and the manipulation of the warp and at the same time preserve that part of the structure in which the grooves are cut strong and durable.

In the accompanying drawing, Figure 1 is a front elevation of a fragment of the improved batten structure; Fig. 2 is a side elevation of one of the shuttle blocks; and, Figs. 3, 4 and 5 fragmentary sectional views in the planes of the lines $x-x$, $y-y$ and $z-z$ in Fig. 2.

a is the batten proper, b the shuttle driving rack, c the shuttles and d the pinions whereby movement is transmitted from the rack to the shuttles. The rack runs as usual in a groove formed at the back of the batten proper. The pinions and shuttles are as usual arranged in shuttle blocks e , the former being journaled on the screws f and the latter running in the crossing downwardly curved grooves g in said shuttle blocks. These blocks are peculiarly constructed, as shown in the drawing, so that every part of the space in the batten which can be practically utilized is availed of for purposes appertaining directly to the weaving and the operations incident thereto. Thus, the lower part of each shuttle block is cut away at both sides thereof, forming the recess h , the consequent overhang i thus produced leaving material into which the extremities of the shuttle guiding grooves may extend to afford ample support for the

shuttles so that they will not only run true but longer preserve that condition on account of the increased bearing surface afforded. The cutting away to form the recess h is carried up into close proximity to the adjoining groove, the recess being rectangular in form as seen from front or rear. From the front face of the block rearwardly the upper surface j of said recess is inclined upwardly, as shown in Figs. 2 to 4. This allows the shed to be opened to the fullest extent, it being recollected that the upper part of the shed inclines upwardly and rearwardly when open. At the same time it leaves material, appearing as a triangle in the front elevation (at k), to reinforce the block adjoining the groove at a point where it would otherwise be weak and likely to break away.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent is:—

A batten structure for looms comprising a batten proper and spaced shuttle-guiding portions each having at one side a rectangular overhang and, extending across said guiding portion and its overhang, a shuttle-guiding groove running in an inclined direction close to the angle formed between the lower side of said overhang and the adjoining side of said guiding portion, the under face of said overhang being beveled upwardly from the front to the rear of the overhang, whereby to leave in said guiding portion a triangular body of material to reinforce the same at the relatively lower side of that part of the groove which is within the overhang and at the same time afford increased clearance for a warp-shed extending below the overhang, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH FRANK.
FREDERICK BENZ, Jr.

Witnesses:

JOHN W. STEWARD,
WM. D. BELL.