(No Model.)

G. C. MOORE.

LOOM SHUTTLE RACEWAY.

No. 456,675. Patented July 28, 1891.

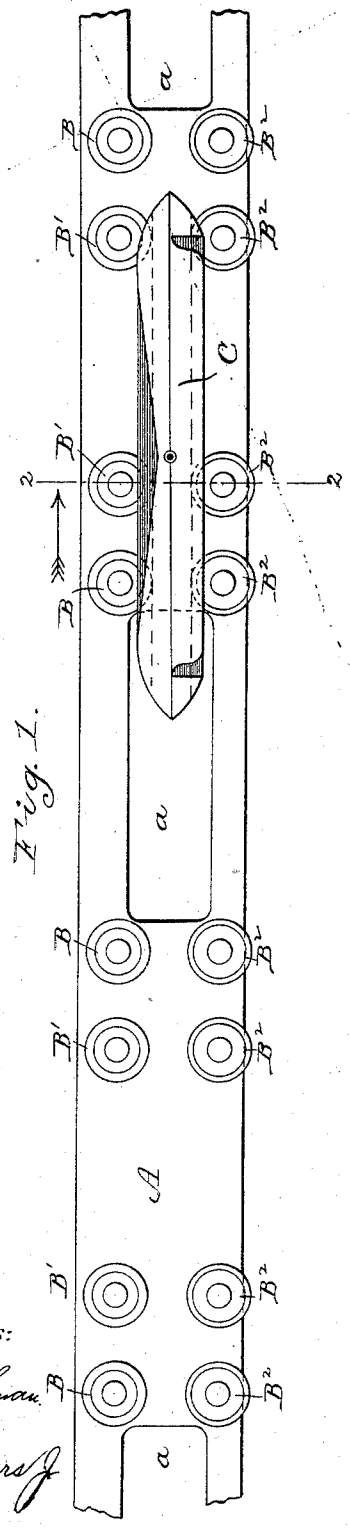

Fig. 1.

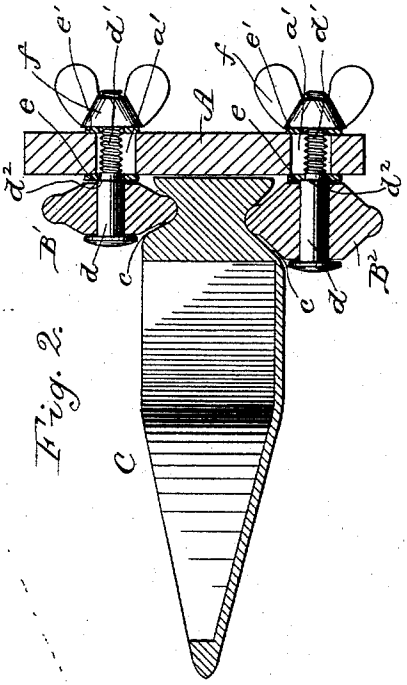

Fig. 2.

Witnesses:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE C. MOORE, OF EAST HAMPTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO JOSEPH W. GREEN, JR., OF SAME PLACE.

LOOM-SHUTTLE RACEWAY.

SPECIFICATION forming part of Letters Patent No. 456,675, dated July 28, 1891.

Application filed August 2, 1890. Serial No. 360,790. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. MOORE, a citizen of the United States, residing at East Hampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Loom-Shuttle Raceways, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide an improved shuttle-raceway for looms of such construction that the shuttles will at all times run smoothly and easily, with but little friction, and which provides for adjustment to compensate for wear, so that danger of breakage of the shuttles or the parts forming the shuttle-race, owing to the points of the shuttles falling too low as wear occurs, may be avoided. My improved race also permits of the use of shorter shuttles than in the old construction of shuttle-races, owing to the fact that they may have less play, so that a larger number of narrow-ware webs may be woven at one time on a loom of equal length, thus economizing space.

In the accompanying drawings, Figure 1 is an elevation of a portion of a shuttle-raceway constructed in accordance with my invention, one of the shuttles being shown in position. Fig. 2 is a section on line 2 2, Fig. 1, but on a somewhat larger scale.

A denotes a portion of a loom-lay having, at proper intervals, openings *a* for the passage of the warps. Attached to said lay between said openings are rollers B B′ B^2, having rounded edges or peripheries, as shown, said rollers being arranged in pairs vertically and properly separated to receive between them shuttles C, having grooves *c* on their opposite sides to be entered by the rollers, the latter thus supporting and guiding the shuttles. The rollers are supported by headed bolts or pins *d*, having screw-threaded shanks *d′*, passing through slots *a′* in the lay A, said slots permitting of vertical adjustment of the said bolts or pins to compensate for the wear of the shuttles and rollers. The rollers are also preferably so disposed that there will be two pairs thereof on each side of each opening *a* in the lay, so that by proper adjustment of the rollers the shuttles can be carried across said openings without danger of striking the point of a shuttle against the rollers on the opposite sides of an opening. Thus by slightly lowering one of the rollers B′ and its companion roller B^2 the point of a shuttle as it passes an opening may be raised somewhat, so that it will properly enter between the pairs of rollers on the opposite side of the opening.

To properly hold the roller-carrying pins or bolts in place and to provide for the free running of the rollers thereon, said pins are provided at d^2 with shoulders, between which and the front face of the lay are preferably placed washers *e*, and on the opposite or rear face of the lay beneath the nuts *f* are also placed washers *e′*.

The peripheries of the lower rollers B^2 are preferably at a greater distance from the face of the lay than the peripheries of the upper rollers, as I find by this arrangement of the rollers the shuttles are better balanced.

The shuttles may be driven in any suitable manner, as by rack and pinion, peg-shot, or fly-shot, as will be readily understood.

I claim—

1. A shuttle-race for looms, consisting of a lay having openings for the warps, combined with a series of rollers attached to said lay and having rounded peripheries to enter grooves in the shuttle, two pairs of said rollers being arranged on each side of each of said openings.

2. A shuttle-race for looms, consisting of a lay having openings for the warps, combined with a series of rollers attached to said lay and having rounded peripheries to enter grooves in the shuttles, and means for adjusting said rollers, the peripheries of the lower rollers being farther from the face of the lay than the peripheries of the upper rollers.

3. The combination, with the lay A, having warp-openings *a* and slots *a′*, of the shouldered pins or bolts *d*, adjustably secured in said slots, the rollers turning on said pins or bolts, the securing-nuts *f*, and the washers interposed between the said lay and the said nuts and also between the lay and the shoulders of the said pins or bolts.

In testimony whereof I affix my signature in presence of two witnesses.

GEO. C. MOORE.

Witnesses:

JOS. W. GREEN, Jr.,

C. H. JOHNSON.