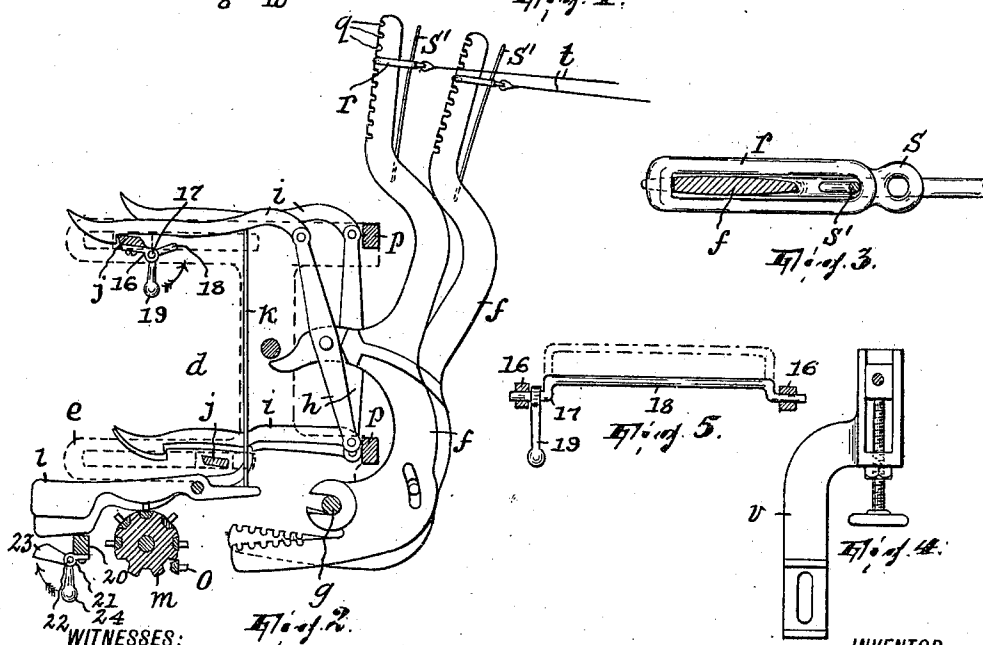


996,193.

Ex. 1.



WITNESSES:

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SECONDO ARIENTA, OF TOTOWA, NEW JERSEY.

SHEDDING-MOTION FOR LOOMS.

996,193.

Specification of Letters Patent. Patented June 27, 1911.

Application filed March 31, 1910. Serial No. 552,499.

To all whom it may concern:

Be it known that I, SECONDO ARIENTA, a citizen of the United States, residing in Totowa borough, county of Passaic, and State of New Jersey, have invented a certain new and useful Improvement in Shedding-Motions for Looms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to looms, and particularly shedding motions for looms.

One part of my invention consists in a shedding motion of the kind in which a dobby or the like is the actuating means having a novel means for connecting the cords or other flexible connections attached to the harness with the jacks of the dobby.

Another part of my invention consists in a novel means for controlling the hooks of the dobby to facilitate the operation of leveling the harness.

In the accompanying drawing, Figure 1 is a view partly in front elevation and partly in section of a loom showing the improved shedding motion; Fig. 2 shows the dobby of the loom as it appears in Fig. 1, except that it is slightly enlarged; Fig. 3 is a view showing how a harness cord is adjustably secured to the corresponding jack, the jack appearing in section and a clip carried thereby appearing in plan; Fig. 4 is a view of one of two brackets carrying sheaves or pulleys over which the harness cords run; and, Fig. 5 is a view partly in side elevation and partly in section of the means whereby the hooks of the dobby are controlled in the operation of leveling the harness.

a is the loom frame; *b* the batten and *c* the harness.

d is the dobby which is of usual construction and whose parts may be briefly pointed out as follows: *e* is the dobby frame; *f*, the jacks fulcrumed at *g*; *h*, levers or links each pivoted between its ends to a jack; *i*, the hooks pivoted to the opposite ends of the levers *h*; *j*, the knives which are reciprocated in the frame *e* in the usual manner; *k*, the lifting wires controlling said hooks; *l*, the levers controlling the lifting wires; *m*, the

suitably rotated pattern cylinder; and *o*, the pattern chain carried by the cylinder and controlling the levers *l*. It will be understood that the levers *h* may come to rest, in the usual manner, against the stops *p* under the pull of the springs *q*.

Each of the jacks *f* is provided with the usual series of notches *q*, any one of which may receive the clip *r* embracing the lever and having an eye *s* to which the harness cord *t* may be secured. It has been found in practice that in the movement of the jacks *f* the clips are sometimes shifted out of the notches with which they are intended to be engaged, and in order to prevent this I fix one end of an elongated spring *s'* in the jack, leaving its other end extending through the clip, that is on the side of the jack opposite to that which is notched. The spring thus holds the clip securely in its proper notch.

The harness cords *t* extend over the sheaves or pulleys *u* journaled in the brackets *v*, and are divided, as at *w*, their divided portions being attached directly to the harness.

Below the dobby is arranged a bracket *x* secured to the frame, and on a horizontal pin or shaft *y* in this bracket are fulcrumed at their free or inner ends, the horizontal arms *z* of inverted L-shaped levers *l* whose vertical arms *2* depend from the outer ends of the arms *z*. In the arms *z* are formed holes *3* to which may be attached the lower ends of wires or cords *4* which are connected at their upper ends to clips *5* adjustably arranged on the horizontal arms *6* of the jacks. The outer edges of the arms *2* of levers *l* are provided with notches *7* any one of which is adapted to receive a clip *8* received by the corresponding lever arm and adapted to be held securely in its notch by a spring *9* secured to the lever arm *2* and exactly similar to the spring *s'* in form and function. To the eye *10* of each slip is attached one end of the harness cord *11*, the other end of which is divided, its divided portions *12* being attached to the harness. The cords *11* extend around pulleys or sheaves *13* journaled in a bracket *14* attached to a suitable part *15* of the frame.

In view of the foregoing, it will be seen that there are only two points in the loom where the harness cords are passed around sheaves or the like; thus, the chafing and

wearing of the harness cords is reduced to the minimum and the shedding motion is simplified and rendered more responsive to the actuation of the dobby. By providing
 5 the levers *l* formed and arranged as set forth, these advantages are materially augmented, and besides the action of the shedding motion is rendered more regular and even in character.

10 In order to facilitate the leveling of the harness the following mechanism is provided: In Figs. 2 and 5, 16 designates brackets in which is pivotally arranged the rocker 17 whose eccentric portion 18, when the
 15 rocker is moved in its bearings by turning its handle 19, wipes against the under sides of the hooks *i* (the upper ones) and raises them above the plane of action of the corresponding knife; this is of course done when
 20 the upper knife is back, and when it moves forward it will leave all the jacks back and the harness leveled. The plane of the harness at this time will be the lower leveling plane. It may be leveled to the upper leveling
 25 plane as follows: On a part 20 of the dobby frame are secured brackets 21 in which is fulcrumed a rocker 22 having an eccentric portion 23 adapted to wipe against and raise the levers *l* when the rocker is
 30 turned in its bearings by means of its handle 24. When the rocker raises the levers *l* the lower hooks are all back, and since the rise of the levers means the depression of the hooks, when the knife moves forward all
 35 the hooks, and hence all the jacks, move for-

ward, bringing the harness to its upper leveled position.

The brackets *v* and 14 are substantially alike and they carry the adjusting screws *v'* and 14' whereby the sheaves *u* and 13 may
 40 be adjusted vertically to tighten the harness.

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

1. In combination, with a fulcrumed member having one edge thereof notched, a clip receiving the fulcrumed member and engaged in one of the notches thereof, and an elongated spring having one end fixed in the fulcrumed member and the other projecting
 50 through and engaging said clip between the same and said member and holding the same engaged with the notch, substantially as described.

2. The combination, in a dobby, of the
 55 frame, the jacks, levers pivoted to the jacks, hooks pivoted to the levers, a knife adapted to advance the hooks, and a rocker pivoted on the knife under and movable against the hooks, said rocker being adapted to raise the
 60 hooks out of the path of movement of the knife, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 20th day of March, 1910.

SECONDO ARIENTA.

Witnesses:

JOHN W. STEWARD,
 WM. D. BELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."