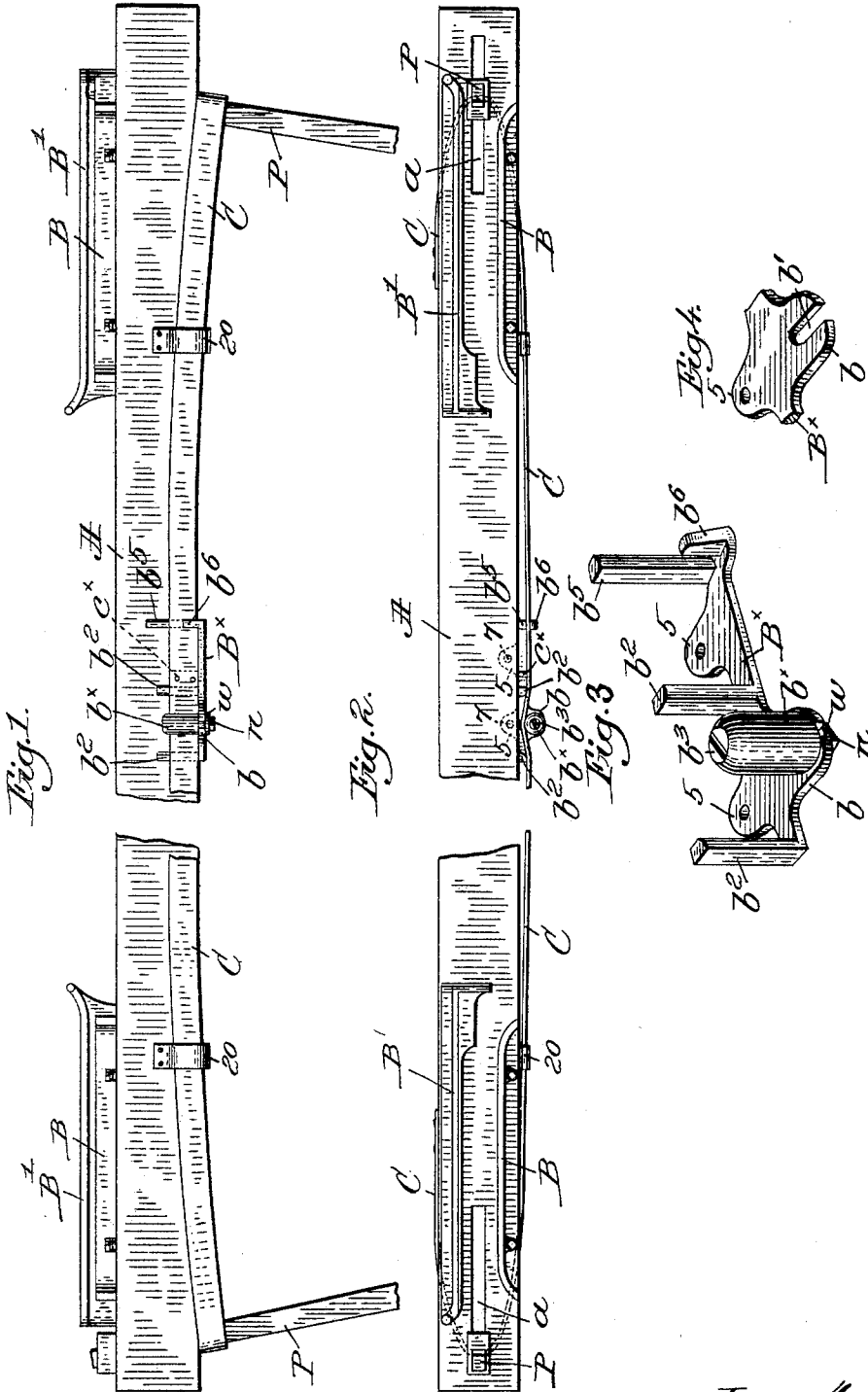


(No Model.)

T. MOONEY.
PICKER CHECK STRAP.

No. 586,796.

Patented July 20, 1897.



witnesses.
Fred S. Grunleaf.
Thomas J. Drummond

Inventor
Timothy Mooney.
by Lewis J. Gregory, attys.

UNITED STATES PATENT OFFICE.

TIMOTHY MOONEY, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR TO THE NORTHROP LOOM COMPANY, OF SACO, MAINE, AND HOPEDALE, MASSACHUSETTS.

PICKER CHECK-STRAP.

SPECIFICATION forming part of Letters Patent No. 586,796, dated July 20, 1897.

Application filed January 6, 1897. Serial No. 618,113. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY MOONEY, of Fall River, county of Bristol, State of Massachusetts, have invented an Improvement in Picker Check-Straps, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 In United States Patent No. 569,880, granted to me, I have shown means for checking the shuttle gradually and with elasticity as it enters the shuttle-box, said means consisting of a loop-like strap within which the
15 picker-stick swings, a lug on the strap engaging a stop on the lay to prevent further outward movement of the strap just before the picker-stick reaches the outer end of the slot in the lay.

20 In my present invention I make use of a single strap for both picker-sticks, and I have provided means for adjusting the tension of the check-strap in a simple and effective manner so that the picker-stick may be stopped
25 at just the proper point and prevent displacement of the shuttle.

By my invention the attendant is enabled to see at a glance whether the shuttle is running properly or not, and the adjustment and
30 correction are made with great ease.

Figure 1, in front elevation and centrally broken out, represents the lay of a loom with my invention applied thereto. Fig. 2 is a plan view thereof, also centrally broken out.
35 Fig. 3 is an enlarged perspective view of the tension-controller, and Fig. 4 is a perspective detail of a part of the controller-stand.

The lay A, slotted at *a* in usual manner for the picker-sticks P, their actuating devices,
40 (not shown,) and the shuttle-box binders B B' are and may be of usual construction in looms, and I have herein shown a check-strap C as secured at its ends to the lay back of the shuttle-boxes, passing around outside of the
45 picker-sticks and along the front of the lay through guide-loops 20.

At the under side of the lay and near its center, as herein shown, is secured a stand B^x, having ears 5, through which and into the
50 lay suitable screws 7 pass, a third outwardly-extended ear *b* projecting in front of the lay.

The ear *b* is notched or slotted at *U*, and the stand B^x is provided with upturned guides *b*², preferably rounded at their inner sides, as
55 best shown in Fig. 3, and adapted to rest against the front of the lay.

A headed stud *b*³, having a roll *b*^x thereon, of wood or other suitable material, is threaded at its lower end and extended through the slot or notch *b*¹ and held securely in place by
60 a check-nut *n*, a washer *w* being preferably interposed between the nut and under side of the ear *b*.

The roll *b*^x is held in parallelism with the guides *b*² of the stand B^x and with its inner
65 periphery set more or less within the plane of said ends, according to the adjustment of the stud in the ear *b*.

The check-strap passes over the guides *b*² and under the roll, and the tension on said
70 strap will be greater or less, according to the position of the roll nearer to or farther from the bottom of the notch or slot *b*¹, varying the bend in the strap as it passes the roll and thus regulating the friction.

As the picker-sticks are oscillated within the looped ends of the strap, the latter moves longitudinally back and forth, regulated by
75 the tension device.

A suitable lug or stop *c*^x, preferably a block
80 of leather, is fastened to the outer face of the strap C, between one of the guides *b*², which also forms a stop, and a second upturned stud or stop *b*⁵ on the stand B^x, the opposite reciprocations of the said strap bringing the
85 lug *c*^x into engagement with one or other of said stops, the further movement of the looped strap being stopped and the picker-stick arrested. A short upturned stud *b*⁶ (best shown
90 in Fig. 3) in front of the stop *b*⁵ serves to guide the strap between them.

I adjust the tension-roll *b*^x so that when the shuttle engages the picker-stick at the right hand, Figs. 1 and 2, the momentum will be checked gradually, and when the lug *c*^x engages the stop *b*⁵ further movement of strap
95 and stick is checked just before the stick engages the outer end of its slot *a*. The stop *b*³ will cooperate with the lug *c*^x on the opposite throw of the shuttle and the latter will
100 be brought to a stop gradually in the shuttle-box, eliminating the chance of rebound.

If the shuttle is not running properly, the lug c^x will not bring up against the stops b^2 b^5 , and the attendant by noting the movement of the lug can thus know whether the shuttle
5 is operating properly.

My invention is adapted to looms wherein the lay or the shuttle-stroke varies in length, it being obvious that the shorter the stroke of the shuttle the greater the force with which
10 it will enter the shuttle-box, the blow of the picker-stick being constant, and for a longer stroke the force of the shuttle at the end of its stroke will be diminished.

When the stroke is long, I decrease the tension on the strap by moving the roll b^x outward, but when the stroke is short I move the roll inward, thus increasing the friction on the check-strap and acting to take up the greater force of impact of the shuttle upon
20 the picker-sticks.

By the use of my invention the shuttle-box binders may be adjusted to permit the shuttle to enter freely, yet with sufficient friction to be retained in place, so that wear on the
25 shuttle and binders is decreased.

The length of the strap is such that neither picker-stick can strike the end of the slot a on its outward throw, the stick striking the inside of the strap and avoiding shock.

30 Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a loom, a picker check-strap, and a tension device therefor, including guides over which the strap moves, and adjustable means
35 intermediate said guides to bear upon and depress the strap thereat, substantially as described.

2. A tension device for picker check-straps, comprising guides over which the strap passes, a roll to bear upon the opposite side of the strap between the guides, and means to change the relative position of said guides and roll, to vary the bend in and the friction upon the strap effected thereby, substantially as de-
45 scribed.

3. In a loom, the lay, a check-strap attached at its ends thereto and forming loops, picker-sticks movable in the loops, and a lug on the strap, combined with a stand mounted on the
50 lay and provided with guides over which the strap moves, a roll to bear on the opposite side of the strap between the guides, means to adjust said roll toward and from the strap, and a stop to engage the lug when the strap
55 is moved in one direction, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

TIMOTHY MOONEY.

Witnesses:

JAMES N. BUFFINTON,
F. M. HUNTER.