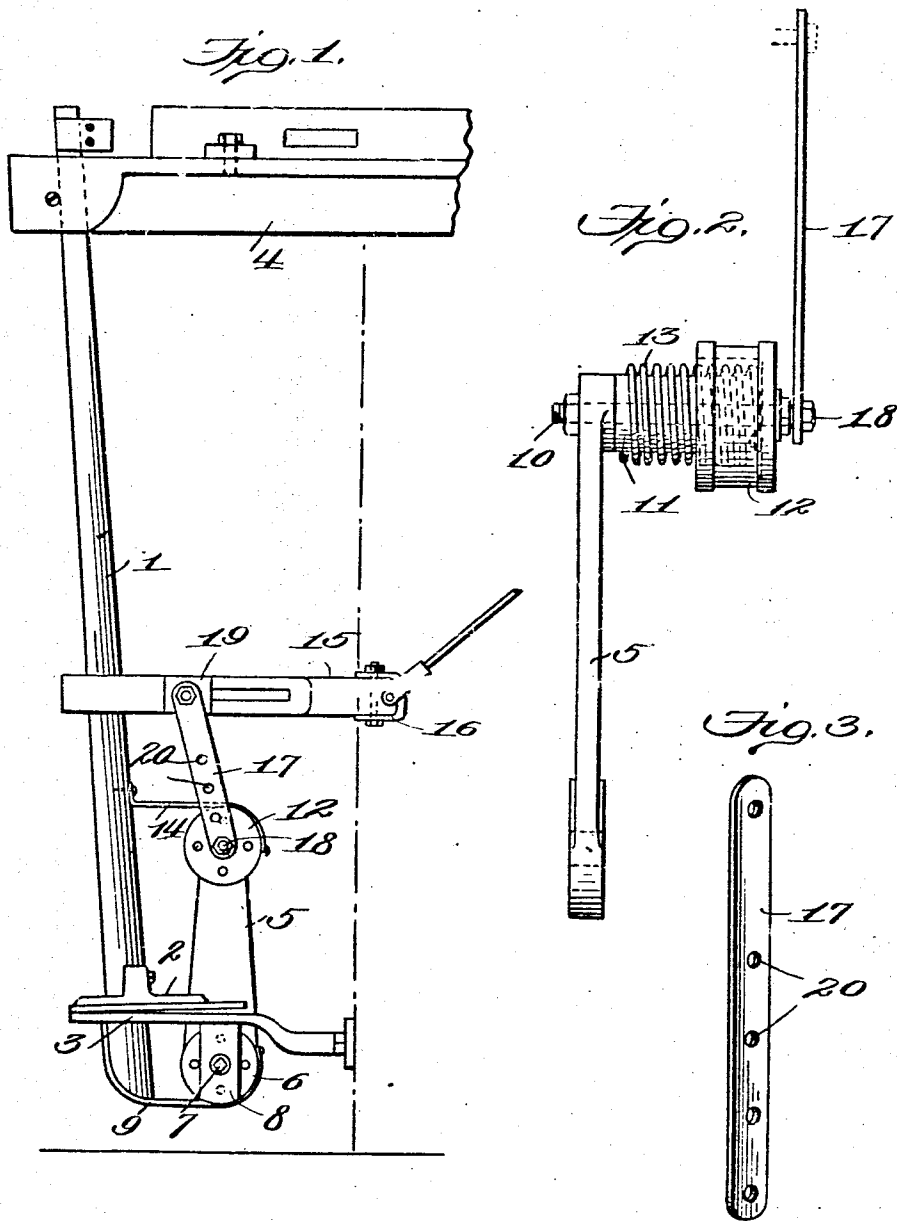


S. D. EUBANKS.
 PICKER STICK CHECK FOR LOOMS.
 APPLICATION FILED AUG. 11, 1909.

957,047.

Patented May 3, 1910.



Witnesses.
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UNITED STATES PATENT OFFICE.

SAYERS DRAY EUBANKS, OF DURHAM, NORTH CAROLINA.

PICKER-STICK CHECK FOR LOOMS.

957,047.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed August 11, 1909. Serial No. 512,316.

To all whom it may concern:

Be it known that I, SAYERS D. EUBANKS, a citizen of the United States, residing at Durham, in the county of Durham and State of North Carolina, have invented new and useful Improvements in Picker-Stick Checks for Looms, of which the following is a specification.

This invention relates to new and useful improvements in picker-stick checks for looms, of that general type wherein the outward movement of the picker stick, incident to the impact of the shuttle, is cushioned through the agency of a spring tension device in order that the impact of the shuttle may be rendered as easy as possible to prevent breaking of the filling, breaking of the picker stick or rebounding of the shuttle.

One object of the invention is to provide a check for the purpose stated which involves a novel organization of parts providing for the elimination of a number of heavy castings embodied in the machines now in use, for lessening the load on the engine, for an easier and lighter running of the loom with less power and for a device which will last as long as any part of the machine, involves no parts that are liable to break and withal is inexpensive, simple in construction and readily assembled and disassembled.

A further object of the invention is the provision of novel means for regulating the stroke of the picker stick and the combination of such means in a novel manner, with the picker stick check.

In the accompanying drawings, I have illustrated, by way of example, a preferred and advantageous embodiment of the invention.

In the said drawings: Figure 1 is a side elevation showing the relation of the check, the picker stick, the stroke regulating means, and the lay beam. Fig. 2 is a side elevation of the check and the stroke regulating means, and Fig. 3 is a detail perspective view of the adjustable arm which constitutes the stroke regulating means and is associated with the lug strap.

Similar characters of reference designate corresponding parts throughout the several views.

The picker stick 1, rocker 2, rocker bed 3, and lay beam 4, are all of well known construction and need no special description.

The picker check consists of a stationary

vertical arm, as 5, having at its lower end a pulley 6, which is joined by a bolt 7 to a bracket 8 that depends from the rocker bed. The pulley 6 is connected to the lower end of the picker stick by the usual strap, as 9.

The arm 5 carries at its upper end a laterally projecting bolt, as 10, the shank of which is for the most part of square form. A non-rotatable sleeve, as 11, surrounds the square shank of the bolt 10 and a cup-shaped pulley, as 12, rotatably surrounds the sleeve 11. Within the pulley 12 a coil tension spring, as 13, is confined, one end of which is connected to the sleeve 11 and the other end of which is connected to the pulley 12. A strap, as 14, has one end connected to the circumferential face of the pulley 12 and its other end connected to the picker stick 1, near the lower end thereof.

The operative movements of the picker stick are produced by any suitable mechanism, through the agency of a lug strap, as 15, one end of which slidably surrounds the picker stick. The connection, as 16, between the lug strap and the pick arm, is of the gimbal joint type. The stroke of the picker stick is regulated by relatively positioning the lug strap. To accomplish this, an adjustable link, as 17, is employed, the lower end of which pivotally surrounds a screw or pin 18, that is fitted in the end of the bolt 10, and the upper end of which is pivotally connected to a block, as 19, that is slidably mounted on the lug strap through the agency of a bolt and slot connection by which the block is held at desired positions. The link 17 is formed with a series of openings, as 20, and the screw or pin 18 may be passed through any desired opening 20 in accordance with the determined position of the lug strap relative to the picker stick.

In operation, the spring 13 yields when the picker stick moves inwardly so as not to interfere with its operation and absorbs the impact incident to the engagement of the picker stick and the shuttle when the latter has reached the limit of its movement and strikes against the slowly yielding picker stick. By properly positioning the bolt 10, the tension of the spring 13 may be regulated as desired without interfering with the operation of the loom, to accord with the stroke of the picker stick and with the time at which the shuttle enters the shuttle box.

Having fully described my invention, I claim:

1. The combination with a rocker bed and a picker stick, of a stationary vertical up-
standing arm mounted adjacent the rocker
bed, a square-shanked bolt projecting later-
ally from the upper end of the arm, a sleeve
conformably fitted over the bolt, a pulley
surrounding the sleeve, a coil spring having
an end connected to the pulley and a strap
connecting the pulley and the picker stick.
2. The combination with a picker stick
and a lug strap, of a spring wound pulley
spaced from the picker stick and arranged
at some distance above the lower end there-
of, and below the lug strap, a strap connect-
ing the pulley and the picker stick and an
arm connected to the lug strap and con-
structed for adjustable connection at the cen-
ter of the pulley.
3. The combination with a picker stick, a
lug strap, and an arm, of a bolt projecting
laterally from the arm, a spring wound pul-
ley mounted on the bolt, a strap connecting
the bolt and the picker stick, a link secured

to the lug strap and a screw securing the
end of the link adjustably to the bolt.

4. The combination with a rocker bed
having a bracket, a picker stick and a lug
strap, of a stationary vertical arm secured
to the bracket and upstanding from the
rocker bed, a picker stick tensioning device
provided at the upper end of the arm, and
a link pivoted to the arm and to the lug
strap, the link supporting the latter.

5. The combination with a rocker bed
having a bracket, a picker stick, and a lug
strap, of a spring-wound pulley supported
between the rocker bed and the lug strap,
a strap connecting the pulley and the picker
stick, and a link pivoted co-axially with the
pulley and also pivoted to the lug strap and
strap, the link supporting the latter.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

SAYERS DRAY EUBANKS.

Witnesses:

J. E. DOUGLASS,
J. P. DUFFY.