

No. 730,743.

PATENTED JUNE 9, 1903.

R. G. CAMPBELL.
PICKER STICK LUG STRAP FOR LOOMS.
APPLICATION FILED FEB. 10, 1903.

NO MODEL.

Fig. 1.

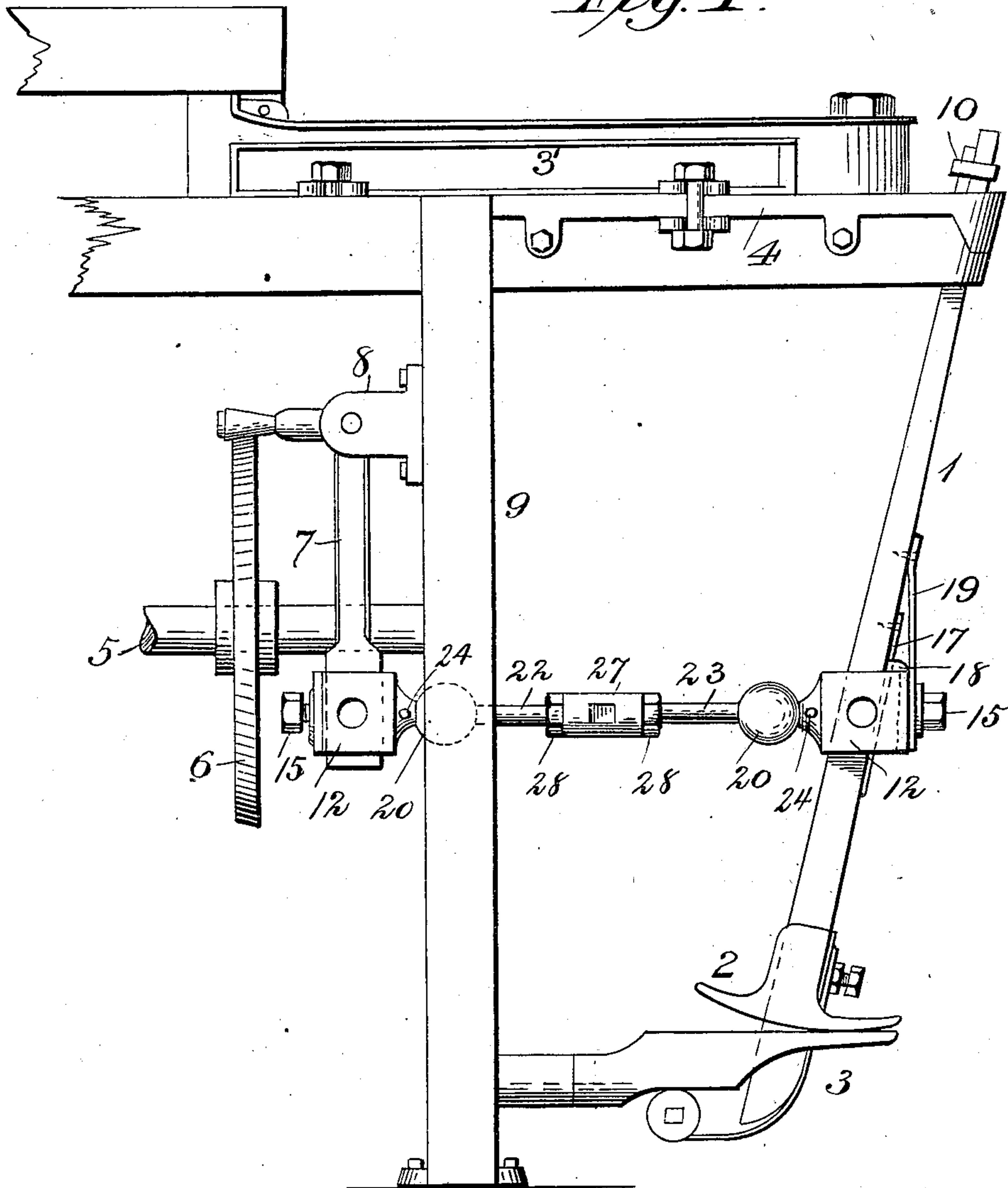
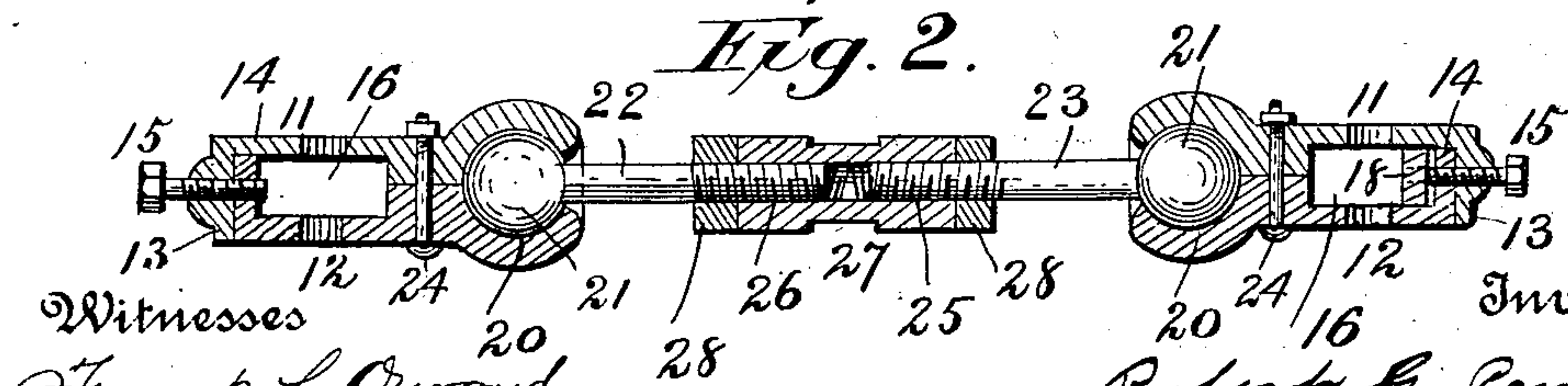


Fig. 2.



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PICKER-STICK LUG-STRAP FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 730,743, dated June 9, 1903.

Application filed February 10, 1903. Serial No. 142,691. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. CAMPBELL, a citizen of the United States, residing at Greensboro, in the county of Guilford and State of North Carolina, have invented certain new and useful Improvements in Picker-Stick Lug-Straps 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.

My invention relates to looms, has especial reference to the lug-strap which connects the picker-stick to its driving mechanism, has for its object economy in construction and durability and to provide for the vertical and lateral motion required in the operation of the picker-stick with the minimum of binding or friction, and consists in certain improvements in construction, which will be fully disclosed in the following specification and claims.

The lug-strap in general use on looms consists of a piece of wood with straps or loops of woven fabric secured thereto at each end by a bolt passing through the wood and the straps, and in the use of the lug-strap the fabric stretches and requires constant watching and frequent adjustment to take up lost motion until the fabric wears out and requires frequent renewing.

It is my purpose to displace this antiquated part of a loom by a device that will accommodate itself to all the motions required and which after having been once adjusted to the throw of the picker-stick requires no further adjustment or attention and whose durability is coextensive or equal to that of the picker-stick and is adapted for use on all looms in which picker-sticks are employed.

In the accompanying drawings, which form part of this specification, Figure 1 represents a side elevation of that part of a loom to which the picker-stick is applied and provided with my improved lug-strap, and Fig. 2 a transverse longitudinal section of the lug-strap detached and on an enlarged scale.

Reference being had to the drawings and the designating characters thereon, 1 indicates a picker-stick, 2 its shoe, 3 a step on which the picker-stick 1 rests, 3' a shuttle-

box, 4 the shuttle-box support, 5 the shaft which operates the picker-stick, 6 a cam on the shaft, and 7 a picker-stick lever fulcrumed in a bracket 8, attached to an upright 9 of a loom and whose upper and horizontal arm engages the cam 6, all of which parts may be of any approved form of construction.

To the vertical arm of the picker-stick lever 7 is connected one end of the lug-strap, and its opposite end is connected to the picker-stick for imparting oscillatory motion to the picker-stick and reciprocatory motion to the picker 10, secured to the upper end of the picker-stick. The lug-strap comprises two heads made in two separable parts 11 12, having overlapping flanges 13 14 at their outer ends, through which a screw 15 passes to clamp the head to the lever 7 at one end of the strap, while the opposite end is loose on the picker-stick. In the head is an opening 16, and on the picker-stick is a plate 17, against which the gib 18 presses to avoid abrasion of the picker-stick, and this head is connected to the picker-stick by a piece of flexible material 19, such as leather, which engages the screw 15 to support that end of the lug-strap. At the inner end of each head is a spherical chamber 20, which is engaged by a spherical member 21 on the rods 22 and 23, forming a ball-and-socket joint to allow for any motion required in the movement of the picker-stick, and the two parts of the heads are secured together by a bolt 24 and the screw 15, the latter passing through the flanges 13 14. The rods 22 and 23 are provided at their inner and adjacent ends with opposite or right and left hand screw-threads 25 and 26, which engage an elongated nut 27, provided with like right and left hand screw-threads for adjusting the length of the lug-strap to the throw or movement of the picker-stick required for the kind of work being done by the loom, and at each end of the nut 27 is a lock-nut 28 for securing the nut 27 to maintain the proper length of the lug-strap. The lug-strap having once been adjusted requires no further attention from the operator and as constructed is subject to the minimum of wear.

The heads are preferably made of malleable cast-iron and the rods, bolts, and nuts of

wrought metal, and, if desired, the two parts of the head may be provided with ordinary dowel-pins to hold the parts in position while the bolt and screw of each head are being inserted.

Having thus fully described my invention, what I claim is—

1. A picker-stick lug-strap head having an opening to receive a picker-stick, longitudinally separable, and provided with one member of a universal joint at its inner end.

2. A picker-stick lug-strap head having an opening to receive a picker-stick, longitudinally separable, and provided with overlapping outer ends, and having one member of a universal joint at the opposite end.

3. A picker-stick lug-strap head having an opening to receive a picker-stick, longitudinally separable, and provided with a spherical chamber at its inner end.

4. A picker-stick lug-strap head having an opening to receive a picker-stick, longitudinally separable, and provided with overlapping outer ends, and having a spherical chamber at its inner end.

5. A picker-stick lug-strap having a head separable vertically and longitudinally and provided with an opening at one end to receive a picker-stick, and a spherical chamber at its opposite end, in combination with a member provided with a spherical head engaging said chamber, and means for adjusting the length of the strap.

6. A picker-stick lug-strap having a head at each end separable vertically and longitudi-

inally and provided with a spherical chamber, in combination with members provided with spherical heads engaging said chambers, and an adjusting-nut engaging the adjacent ends of said members.

7. A picker-stick lug-strap head separable vertically and longitudinally, having overlapping outer ends, and provided with a spherical chamber at its inner end, in combination with a member provided with a spherical head engaging said chamber, and means for adjusting the length of said strap.

8. A picker-stick lug-strap having a head at each end separable vertically and longitudinally and provided with a spherical chamber, in combination with members having spherical heads at one end engaging said chambers, and opposite screw-threads at their inner ends, and a nut having opposite screw-threads engaging the adjacent ends of said members.

9. A picker-stick lug-strap having heads at each end separable vertically and longitudinally, and a universal joint in the strap, in combination with a picker-stick lever to which one of the heads is clamped, and a picker-stick to which the opposite head is loosely attached, and a flexible connection between said head and the picker-stick.

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

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Witnesses:

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