

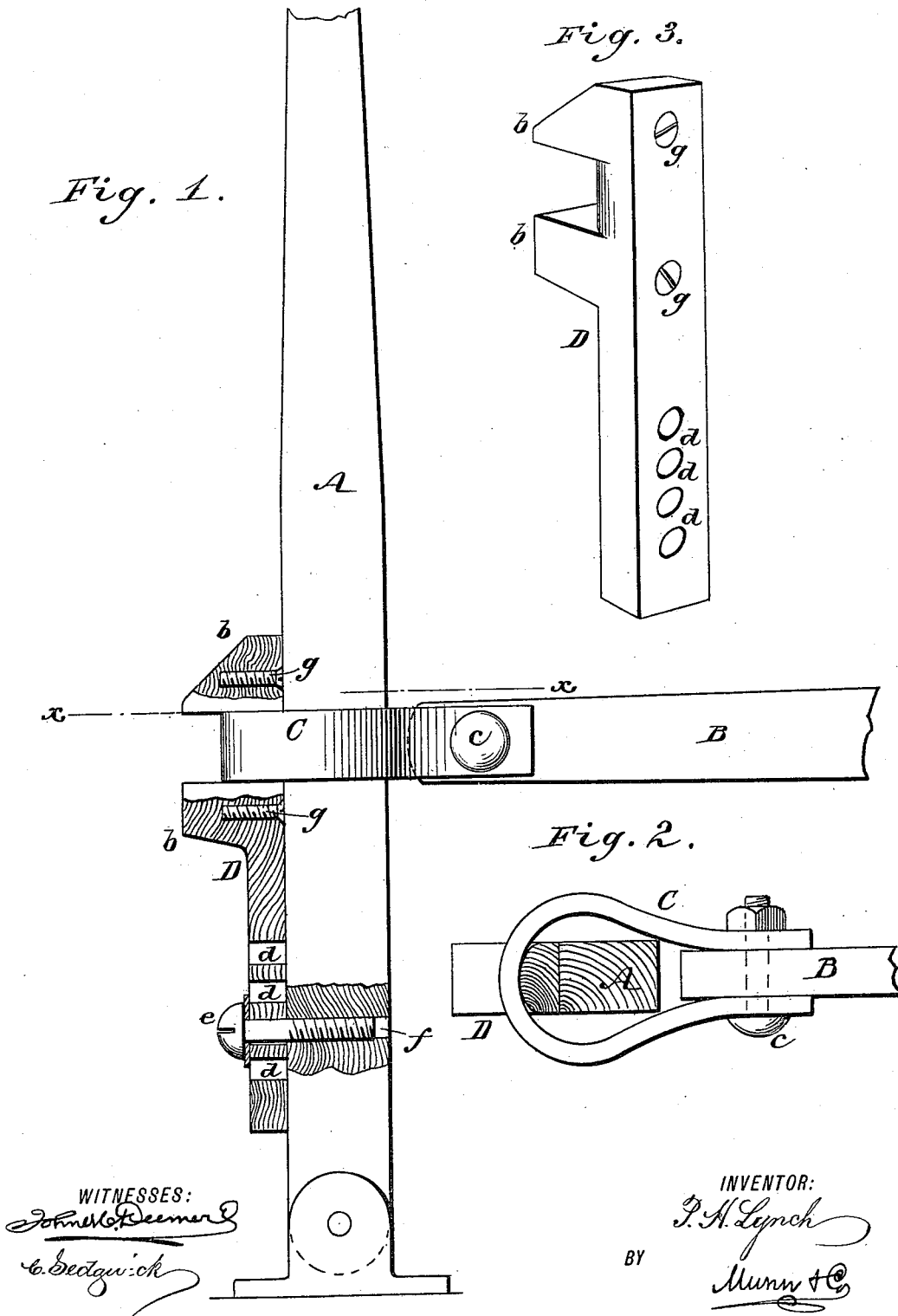
(No Model.)

P. H. LYNCH.

ADJUSTABLE TUG STRAP HOLDER FOR POWER LOOMS.

No. 419,336.

Patented Jan. 14, 1890.



UNITED STATES PATENT OFFICE.

PATRICK H. LYNCH, OF KENYON, RHODE ISLAND.

ADJUSTABLE TUG-STRAP HOLDER FOR POWER-LOOMS.

SPECIFICATION forming part of Letters Patent No. 419,336, dated January 14, 1890.

Application filed July 23, 1889. Serial No. 318,355. (No model.)

To all whom it may concern:

Be it known that I, PATRICK HENRY LYNCH, of Kenyon, in the county of Washington and State of Rhode Island, have invented a new and useful Improvement in Adjustable Tug-Strap Holders for Power-Looms, of which the following is a full, clear, and exact description.

Ordinarily the tug-strap which serves to connect the picker-staff with the sweep-stick is carried by a leather loop fastened by screws to the back of the picker-staff, and made adjustable by changing the position of the holding-screws up or down the staff to give a stronger or lighter pick, as required. This leather loop is very apt to break and permit the tug-strap to slip up or down and break the picker staff or shelves of the shuttle-boxes. If the power strap or loop should slide up on the picker-staff at the time it should return back to its place, it is manifest that it could not return, and therefore the picker could not clear the shelves in the shuttle-box when said box is rising, and consequently the picker, the picker-staff, the sweep-strap, or the shelves must break. As a substitute for this, the picker-strap has been fitted with a metal tug-strap slide having a slot in it to receive the tug-strap, and provided with a vertical slot to receive a bolt which passes through said slot and through the picker-staff, said slide being adjustable up or down by means of its slot to regulate the pick. Where the picker-strap passes through the slot in the metal slide the inner side of the strap has frictional contact with one wall of the slot when the staff moves in one direction, and when the staff is thrown in the opposite direction the outer side of the strap at its bend strikes the opposite wall of the slot. The wear on the strap is thus double what it would be if the outer wall of the slot were removed and a recess only formed.

My invention comprises a rigid and adjustable holder for the tug-strap on the picker-staff, but made of wood, so as not to cut the tug-strap, also of a different construction and applied to the back of the picker-staff and thereby strengthening the latter, substantially as hereinafter described, and pointed out in the claim.

Reference is to be had to the accompanying

drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a side view of a picker-staff, partly broken away, with my improved adjustable tug-strap holder or power-regulator (shown mainly in section) applied thereto, and with the tug-strap and sweep-stick connected therewith. Fig. 2 is a sectional view upon the irregular line *xx* in Fig. 1, and Fig. 3 is a view in perspective of the adjustable tug-strap holder detached.

A indicates the picker-staff, B the sweep-stick or actuating-bar, and C the tug-strap.

D is the adjustable tug-strap holder, which is made of a stout piece of wood, and may be cheaply made out of or from a broken picker-staff. This holder is applied to the back of the picker-staff, thereby strengthening the latter much more effectually than if applied to its side. Said holder is constructed at its upper portion with two stout lugs *bb*, arranged one above the other, and serving to receive the tug-strap C between them, the ends of said strap being suitably secured by a bolt *c* to the sweep-stick B. Being made of wood such holder will not cut the tug-strap, as metal is apt to do, which is important, inasmuch as the tug-strap is usually made of cemented layers of canvas, and costs more than the picker-staff if broken. The lower portion of this holder D has a series of holes *d* made through it, usually six, arranged at about one-eighth of an inch apart, one above the other, though only four of such holes are here shown. These holes are for the purpose of passing a screw *e* through either one of them and into or through a hole *f* in the picker-staff to secure the holder to the picker-staff at different points in the length of the latter, according to the power or variation in strength of the pick required. Thus secured the holder D cannot slip up or down, and so lose or gain power, as it is apt to do if secured through a single vertical slot.

To prevent breakage of the lugs *bb*—as, for instance, the upper lug—by hammering the holder down to its place on the picker-staff or the lower one, by the picker-staff breaking and the picker catching up, said lugs are strengthened or re-enforced by inserting stiffening metal screws *g g* within them.

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

5 The combination, with the adjustable wooden tug-strap holder D, having a series of adjusting-apertures *d*, and lugs *b b*, adapted to receive the tug-strap between them, of the reinforcing metal screws *g*, applied to said lugs,

the picker-staff A, the screw *e*, the sweep-stick B, and the tug-strap C, essentially as shown 10 and described.

PATRICK H. LYNCH.

Witnesses:

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