N. FISH & P. WARREN.

PITMAN FOR LOOMS.

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1,179,171.

Patented Apr. 11, 1916.

Fig. 1.

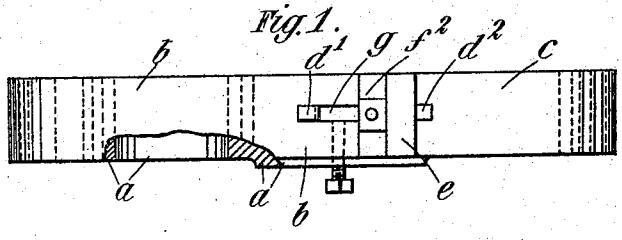
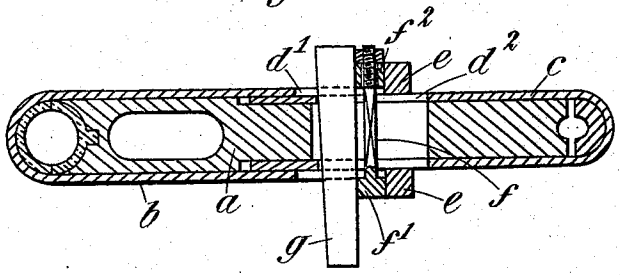


Fig. 2.



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PITMAN FOR LOOMS.

1,179,171. Specification of Letters Patent. Patented Apr. 11, 1916.

Application filed July 7, 1915. Serial No. 38,480.

To all whom it may concern:

Be it known that we, NATHANIEL FISH, of Hanover Street Mill, and PERCY WARREN, of 90 Cemetery road, both of Darwen, in the county of Lancashire, England, subjects of the King of Great Britain, have invented new and useful Improvements in and Relating to Pitmen for Looms; and we 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.

This invention relates to a pitman for looms of the type which effect adjustments to the brasses at both ends by means of a pair of oppositely disposed straps capable of being drawn together or telescoped one within the other to a varying degree by means of a cotter or its equivalent.

The object of this invention is to improve upon pitmen of the above type by the provision of means whereby the pressure exerted by the cotter or the like is transmitted to as large a surface as possible with a view to obtaining a direct and even thrust thus minimizing as far as practicable, the wear on the straps.

The improvements according to this invention consist in forming, upon the outer strap, heel pieces which extend the width thereof, and further in the provision of a preferably squared bolt having a head formed on one end and a nut and washer engageable on the other of a shape and size to correspond with the above said heel pieces against which latter both the head and the washer of the said bolt is forced by the usual cotter or its equivalent.

To enable the invention to be more readily understood we will now proceed to describe the same in detail by aid of the accompanying drawings in which:—

Figure 1 is a plan view of the complete device and Fig. 2 a central longitudinal section thereof.

The pitman *a* is shaped to receive two straps *b* and *c* which when in position thereon overlap each other at their inner ends. Within the arm *a* and the two straps *b* and *c* are slots *d'* and d^2 respectively which pass vertically and longitudinally therethrough and so arranged and positioned in each individual member as to correspond when such members are assembled; the point of correspondence, in the present example, being approximately central of the device, or the same may be otherwise positioned to suit individual requirements.

The strap *b* which is constructed preferably although not necessarily in one piece of metal, forged to shape, is provided at its extremities with heel pieces *e* which project outwardly from the body of the strap so as to leave a clean and continuous inner surface thereto, the end of which heel pieces extend the whole width of the strap. The purpose of these heel pieces will be described hereafter.

In the example under consideration and shown in the drawings the arm *a* is cast or forged, in one piece with semi-circular recesses formed at both ends to receive and act as a support for the usual split brasses.

When in the assembled positions with the slots *d'* and d^2 co-incident a preferably square bolt *f* is passed therethrough which bolt is formed with a rectangular head *f'* the longest side of which is equal to the width of the straps *b* and *c;* it is secured in position by a nut and a washer f^2 which washer is similarly shaped to the head *f'*. When this has been tightened up so as to press upon the surface of the strap *b* with a gentle but sufficient pressure, the complete bolt is forced up against the heel piece *e* either by hand or by aid of the cotter *g* which when in position presses over one side against the head and washer *f'* and f^2 respectively and on its other side against the forward edge of the slots d^2 in the strap *c*.

It will thus be seen that the forced entry of the cotter *g* through the coinciding slots has the effect of drawing both straps *b* and *c* inward or toward each other with the consequent adjustment of both the brasses at each end of the arm *a*.

By reason of the simplicity in adjustment the herein described device is particularly suitable for use in looms where a loose and non-rigid pitman is often instrumental in demoralizing the beat up with the consequential production of thick and thin places in the cloth. With the employment of the present invention this defect is overcome by the readiness with which the same may be adjusted even during its operation. Furthermore, by reason of the ample surfaces

of contact provided the wear and tear consequent upon the continual adjustment of the cotter is reduced to the minimum.

What we do claim as our invention and desire to secure by Letters Patent is:—

A pitman for looms comprising a pair of straps one of which has its inner end disposed within the inner end of the other strap and said inner ends being provided with openings, said last named strap having lateral heels on its inner end of a width equal to the width of the strap, a bolt extending through said openings and having a head bearing against and of a width equal to the adjacent heel, a washer on the bolt bearing against and of a width equal to the other heel, and a cotter engaged through said openings and operating to telescope the straps.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

NATHANIEL FISH.
PERCY WARREN.

Witnesses:
MALCOLM SMETHURST,
GEORGE WEAVER.

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