

R. Ferguson.
Bushing for Wain-Beams.
N^o 110,450. Patented Dec. 27, 1870.

Fig. 1.

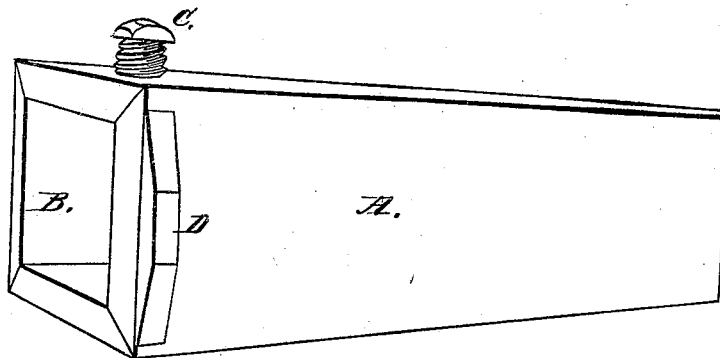
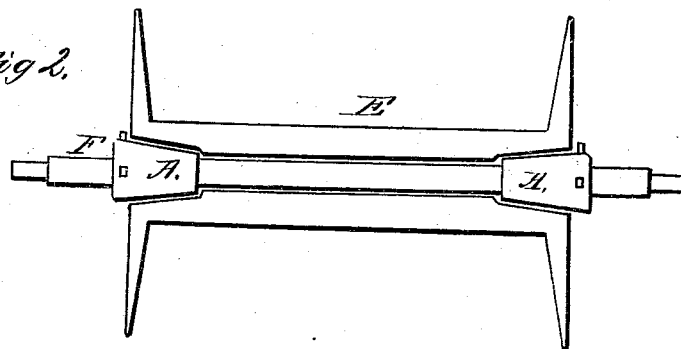


Fig. 2.



Witnesses,

E. F. Hryck
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RICHARD FERGUSON, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 110,450, dated December 27, 1870.

IMPROVEMENT IN BUSHINGS FOR WARP-BEAMS.

The Schedule referred to in these Letters Patent and making part of the same.

I, RICHARD FERGUSON, of the city of Louisville, county of Jefferson, and State of Kentucky, have invented a certain new and useful Improvement in the Sleeve of the Warp-Beam of Cotton-Looms, described in the following specification.

The nature of my invention consists in a square metal sleeve made tapering on the outside, with a set-screw at the large end, and a hole through the center to correspond with the size and shape of the beam-shaft, on which it is made to fit neatly, but so as to be easily slipped off.

At each end of the beam a socket exactly fitting such a sleeve is made, its longitudinal center in line with the axis of the beam.

In placing the beam in position, one sleeve is slipped onto the beam-shaft, and secured in its proper place by the set-screw. The beam is next slipped onto the shaft, and pressed snug upon the sleeve, which thereby becomes imbedded in the socket of the beam at that end. The other sleeve is then slipped onto the shaft, and pressed tight into the other socket, in which position it also is secured by its set-screw.

When necessary to change the beam or spool, all that is required is to slip off one sleeve, and the beam will drop off easily. By this means the beam is held securely in its place, and properly centered without further trouble, which I claim as a great advantage over the manner of fastening now in common use, where wooden keys are used, which greatly tend to

injure the end of the beam, and require much time and trouble to get it properly centered on the shaft.

Having thus fully described the nature of my invention, a more perfect understanding of it may be had by reference to the drawing, in which—

Figure 1 is a perspective view of the sleeve detached, and

Figure 2 is a view showing the sleeves applied, the spool or warp-beam being in section.

A is the sleeve.

B is the hole in the center.

C is the set-screw, by means of which it is secured to the shaft.

D is a lug on the side, in order to prevent the wooden beam from turning on it.

E represents the spool or warp-beam, and

F the shaft.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The adjustable tapering metal sleeve A, having a longitudinal opening, B, with parallel sides, and an adjusting set-screw, C, in combination with a removable warp-beam and its shaft, constructed and arranged as described, and for the purpose set forth.

RICHARD FERGUSON.

Witnesses:

E. F. HUYCK,

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