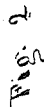


No. 99,534.

Patented Feb. 8, 1870.



E. H. Chapman Inventor
Jm. William Edwards Art

Witnesses }
Franklin Parker
C. A. Nickerson

United States Patent Office.

CHARLES H. CHAPMAN, OF SHIRLEY, MASSACHUSETTS.

Letters Patent No. 99,534, dated February 8, 1870

IMPROVEMENT IN STEPS AND BOLSTERS FOR COTTON-SPINDLES.

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

To all to whom it may concern :

Be it known that I, CHARLES H. CHAPMAN, of Shirley, county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Steps and Bolsters for Cotton-Spindles; and I do hereby declare that the following is a full and correct description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists—

First, in so arranging the step and bolster-bearings that they are perfectly adjustable, one part with another, and also in relation to the frame, so that the bearings of the spindle may be close-fitting, and that the spindle may be adjusted to the exact centre of the ring.

Second, in combining, with the above device, an improved oiler.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

Drawings.

Figure 1 is a perspective view, representing a part of a frame containing a single spindle and its adjuncts.

Figure 2 is a vertical section through the same.

Figure 3 is an elevation of the bolster, showing a part of the spindle.

Figure 4 is a plan of same.

A B C represent the frame, to which the other parts are attached.

L is a spindle, and

P, a ring.

D, figs. 1 and 2, represent a base, fastened to the frame-work A, to which the step-bearings are attached.

D' is a base, fastened to the frame B, to which the bolster-bearings are attached.

As the bolster and step-bearings are essentially alike, I will only describe in detail the bolster-bearings.

K is a box, formed as shown in figs. 3 and 4, and is provided with an oil-recess, M. This recess connects,

by a small passage, with the bearing-face of the box, so that the oil may be conducted to the spindle.

The passage M' is provided with wicking, which serves to conduct the oil to the bearing.

The box K is provided with slots, through which the screws S S pass.

H forms a counter-box for K, and is made as shown in figs. 3 and 4, and is provided with slots, as shown, through which the screws S S pass. When the screws S and S are screwed hard down, they exert sufficient pressure upon both H and K, to hold them securely in any desired position.

From the above, it will be seen, that by my invention, a perfect bearing may be had at all times, and that by a simple adjustment of the bolster-boxes H and K, and the step-boxes E and F, the spindle may be brought to a perpendicular position, and to that exact centre of the ring which causes an even draught on the yarn. The bearings being short, and always in perfect adjustment, it makes a great saving of power, and gives the number of twists desired in the yarn, especially when there are loose bands on the frame.

As both steps and bolsters are provided with perpetual oilers, the spindle will move so easy, that the loosest band will operate it. A great saving of oil and labor is also made.

Claims.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The combination of the boxes K and H with the base D and spindle L, operating as either bolster or step, substantially as described, and for the purpose set forth.

2. The combination of the oiler M with the box K, operating substantially as described, and for the purpose set forth.

C. H. CHAPMAN.

Witnesses:

WM. J. TURNBILL,
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