(No Model.)

G. W. CARD.

MECHANISM FOR OPERATING THE GUIDE BARS OF SPINNING FRAMES.

No. 249,157. Patented Nov. 8, 1881.

Fig. 1.

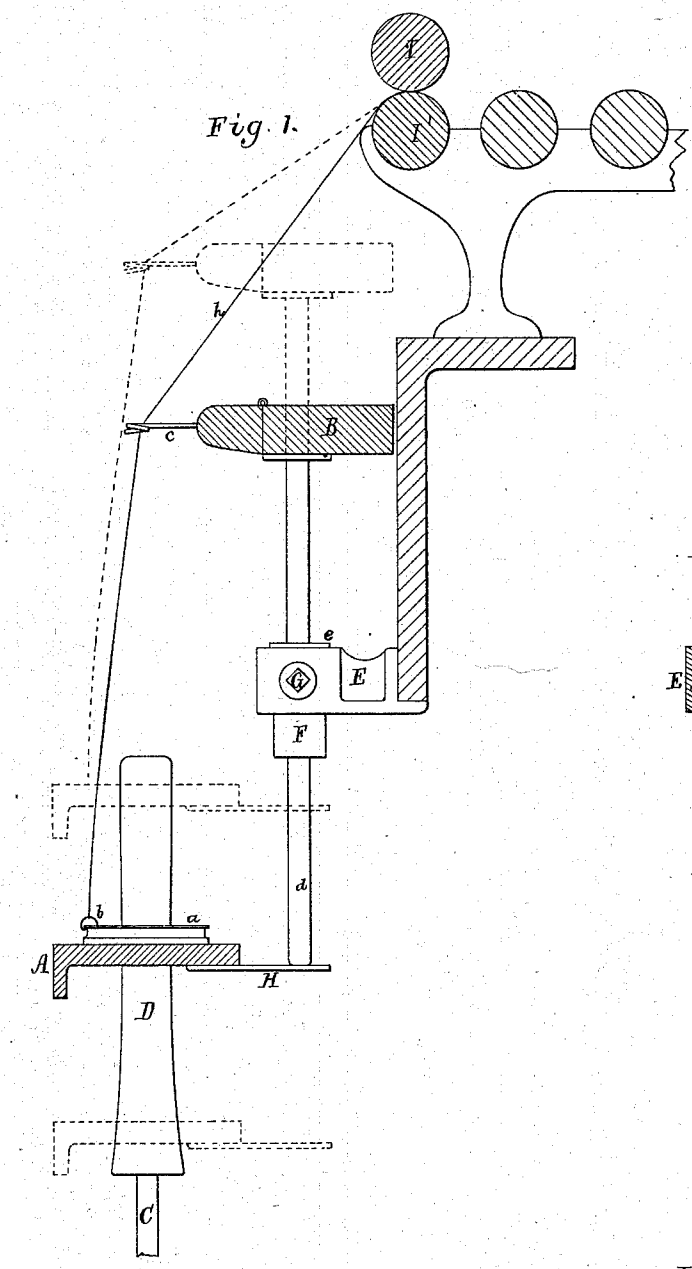
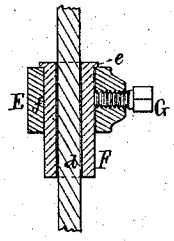


Fig. 2.



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MECHANISM FOR OPERATING THE GUIDE-BARS OF SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 249,157, dated November 8, 1881.

Application filed January 31, 1881. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CARD, of Berkeley, (Ashton P. O.,) in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Mechanisms for Operating the Guide-Bars of Spinning-Frames; and I do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a transverse sectional view of a spinning-frame ring-rail and its guide-bar provided with my invention, the nature of which is duly defined in the claims hereinafter set forth. Fig. 2 is a vertical section of the hereinafter-described bracket, sleeve, clamp-screw, and sleeve of the yarn-guide bar.

By means of my improvement the position of the movable guide-bar of a ring spinning frame relatively to its supporting-bracket and the spindle and bobbin may be varied, and its fall consequently limited, such being due to the adjustment in such bracket of the sleeve, to be hereinafter described, such sleeve being a supporter of the guide-bar sustaining-rod and a stop to limit the downward movement of the said rod and guide-bar. The guide-bar is movable with the ring-rail during a part of the traverse of the latter in either direction vertically, and while in movement the guide-bar is maintained at a uniform distance from the ring-rail.

With my improvement the tension of the yarn extending from the guide to the traveler of the ring can be varied by varying the altitude of the sleeve, and consequently that of the guide-bar.

In the drawings, A denotes the ring-rail; *a*, the ring; *b*, the traveler; B, the guide-bar; *c*, one of the yarn-guides of such bar; C, the spindle; D, the bobbin; *d*, one of the sustaining-stems or vertical guides of the guide-bar B; E, the stationary bracket; F, the adjustable sleeve, and G its clamp-screw, all being arranged as shown. The said sleeve is or may be provided with a flange, *e*, at its upper end to support it when at its lowest position in the bracket, or to prevent the sleeve from dropping out of place in the bracket on loosening the clamp-screw. The sleeve is a tube arranged in a cylindrical socket, *f*, extending vertically through the bracket. The clamp-screw screws into the bracket and against the sleeve.

There is extended from the ring-rail, and directly underneath the lower end of the stem *d*, an arm, H, which during rise of the rail is carried against the foot of the stem and forces it and the yarn-guide bar upward with the ring-rail, the weight of the guide-bar and its stems causing it to drop with the ring-rail.

The delivery-rolls are shown at I I′ in Fig. 1, and the yarn at *h*, as passing from them to and through one of the guides to the travelers. The said figure of the drawings also represents, in dotted lines, the positions of the ring-rail at the extremes of its traverse, the deflection of the yarn occasioned by the extreme rise of the guide-bar being also shown in dotted lines.

What I claim as my invention is as follows:

1. The combination, with the yarn-guide bar B, its supporting-stem *d*, and stationary bracket E, arranged as shown, of the adjustable sleeve F and the clamping-screw G, applied to the stem and bracket substantially as set forth.

2. The combination of the ring-rail A, yarn-guide bar B and its stem *d*, and supporting-bracket E with the arm H, extending from the ring-rail A, and with the adjustable sleeve F and its clamp-screw G, adapted to the said bracket and stem, all being substantially as set forth.

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