(No Model.)

J. E. PREST.

THREAD GUARD FOR RING SPINNING FRAMES.

No. 279,798. Patented June 19, 1883.

Fig. 1.

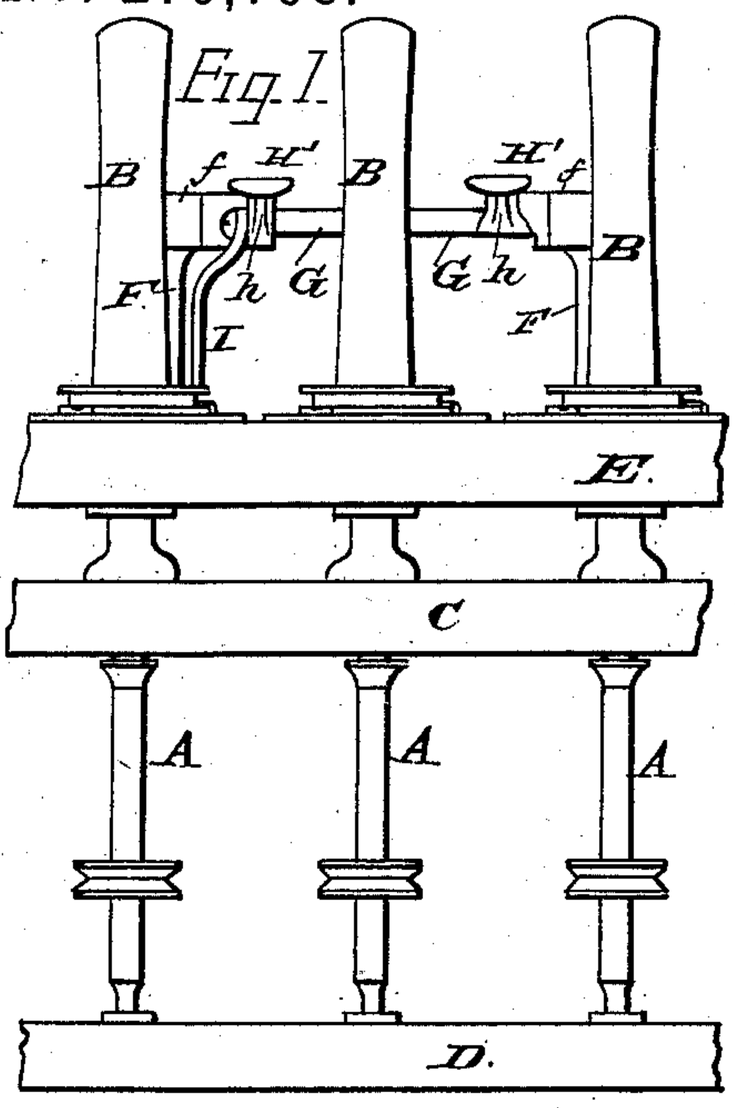

Fig 2

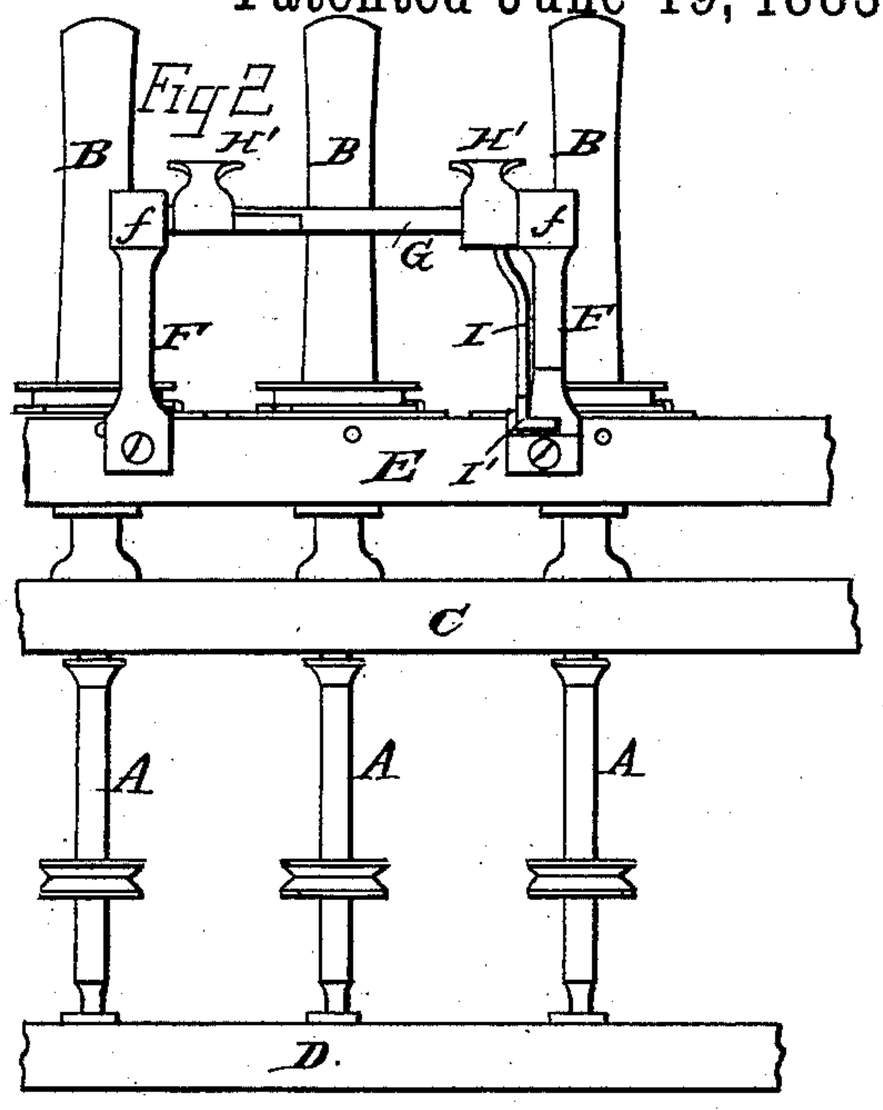

Fig 3

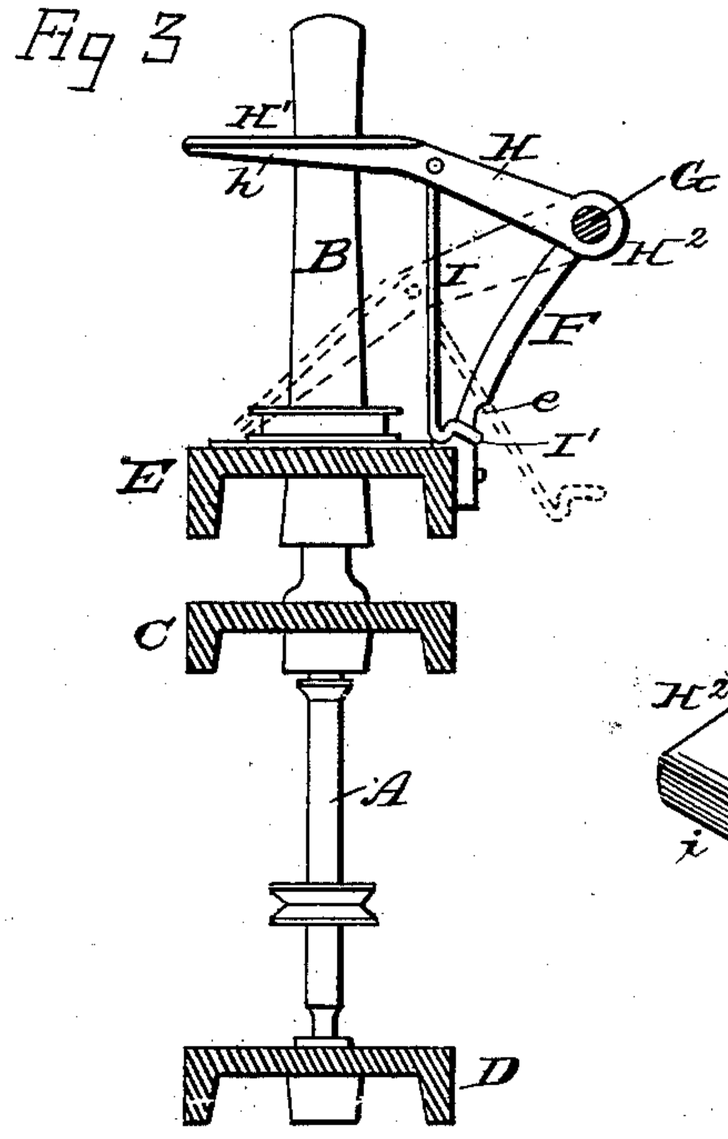

Fig. 4.

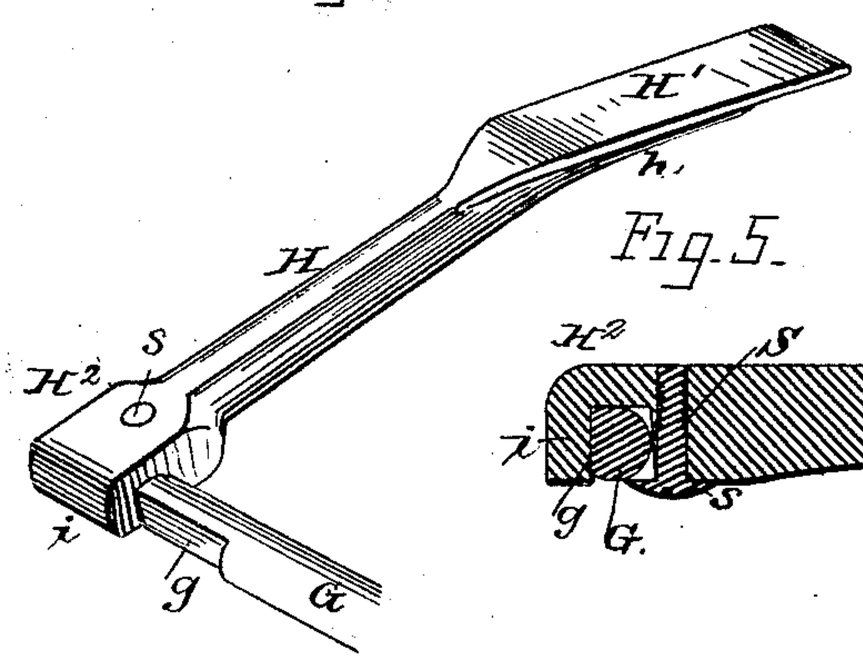

Fig. 5.

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THREAD-GUARD FOR RING-SPINNING FRAMES.

SPECIFICATION forming part of Letters Patent No. 279,798, dated June 19, 1883.

Application filed January 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. PREST, of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Thread-Guards for Ring-Spinning Frames; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a front elevation of so much of a ring-spinning frame as is requisite to illustrate my invention. Fig. 2 is a rear view of the same. Fig. 3 is a transverse vertical section thereof, taken between two next adjacent rings of the ring-rail, showing in side elevation one of my improved thread-guards with its latch. Fig. 4 is a perspective detail view of the thread-guard detached; and Fig. 5 is a sectional detail view, showing the manner or means of fastening the guard to its shaft.

Like letters of reference indicate corresponding parts in all the figures.

My invention has relation to thread-guards for ring-spinning frames; and it consists in certain improvements upon the thread-guard for which Letters Patent No. 269,231 were granted to me on December 19, 1882, which said improvements will be hereinafter more fully described and claimed.

In the accompanying drawings, A A A denote the spindles, B B B their bobbins, C and D the spindle-supporting rails, and E the ring-rail, all of which may be constructed and applied in any well-known manner. Above the ring-rail, journaled in boxes *f*, carried by uprights or brackets F, secured to the rear of the ring-rail, is a shaft, G, which is parallel to the rail, and runs its entire length from end to end. Fastened upon this shaft G are the thread-guards, the outer ends of which form flattened heads H′, which project, when the guards are in use, in a horizontal plane between each adjacent pair of bobbins, and at right angles thereto, as clearly shown in the drawings. This flat part or head is re-enforced by a rib or feather, *h*, on the under side, which forms an extension of the shank H, the inner end of which shank forms a box, H^2, for attaching the guard to the shaft in the following manner: Shaft G is flattened lengthwise on one side, as shown at *g*, and box H^2 of the guard has a lip, *i*, adapted to fit said flattened part of the shaft, thus preventing the guard from turning on the shaft. It is fastened thereon by a screw, S, the head *s* of which bears against the shaft, operating to clamp box H^2 upon the shaft, so as to hold the thread-guard firmly in its place upon the shaft when the screw is tightened down. At the same time the guard can readily be removed by simply loosening the screw, so that the shaft itself need not to be interfered with when it is desired to remove one or more of the guards. The guards are kept in their proper working position by means of a latch or hinged support, I, the upper end of which is hinged upon the side of any one of the thread-guards in the series, while its free lower end is bent to form a catch, I′, adapted to engage a lip, *e*, on the corresponding bracket or shaft-support, F. By disengaging the free end of the latch the guards will of their own weight drop with their free ends upon the ring-rail between two next adjacent bobbins, as indicated on Fig. 3 of the drawings by dotted lines, so as to be out of the way of the attendant while he may be doffing the bobbins.

By this construction and arrangement of the thread-guards there is less danger of their getting broken than when the guards are swung back from the ring-rail to get them out of the way, as described in my Letters Patent No. 269,231, of December 19, 1882, because when the guards are turned back while the machine is running there is danger of their striking against the roller-beams or other parts of the machine. Another important advantage of this construction is that by dropping the free end of the thread-guard upon the ring-rail, instead of back of the same, it will keep the weight of the dropped guard on about the middle of the rail instead of to one side of it, so that by my improved construction and arrangement the rail will be evenly balanced. By constructing the thread-guards with flat heads H′, set at right angles to the spindles, they can be set nearer to the rings than if made with wedge-shaped heads, as in my Patent No. 269,231.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the spindles and ring-rail of a ring-spinning frame, of the brackets F, fixed to the rear of the rail, and having boxes *f* at their upper ends, shaft G, journaled in said boxes, thread-guards H H′ H², fastened movably upon said shaft, and pivoted latch I I′, adapted to support the free ends of the thread-guards in a horizontal position, substantially as and for the purpose shown and set forth.

2. The thread-guards consisting of the flattened head H′, shank H, having central rib, *h*, and box H², having lip *i*, flattened on the inside, all in one piece, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN E. PREST.

Witnesses:
GEORGE E. BAMFORD,
HENRY H. EARL.