

(No Model.)

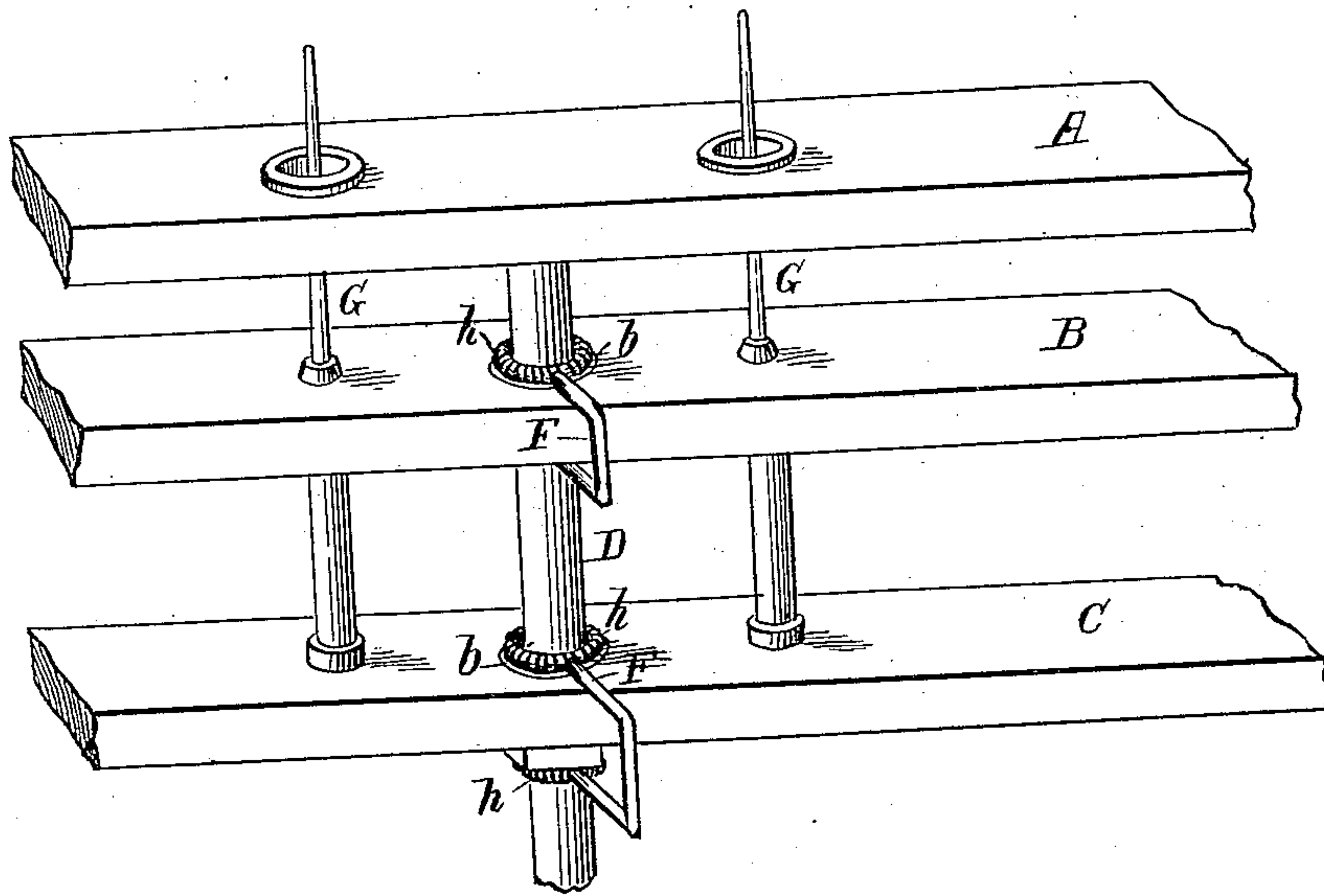
E. C. SHAW & G. H. FLINN.

CLEARER FOR LIFTING RODS OF SPINNING FRAMES.

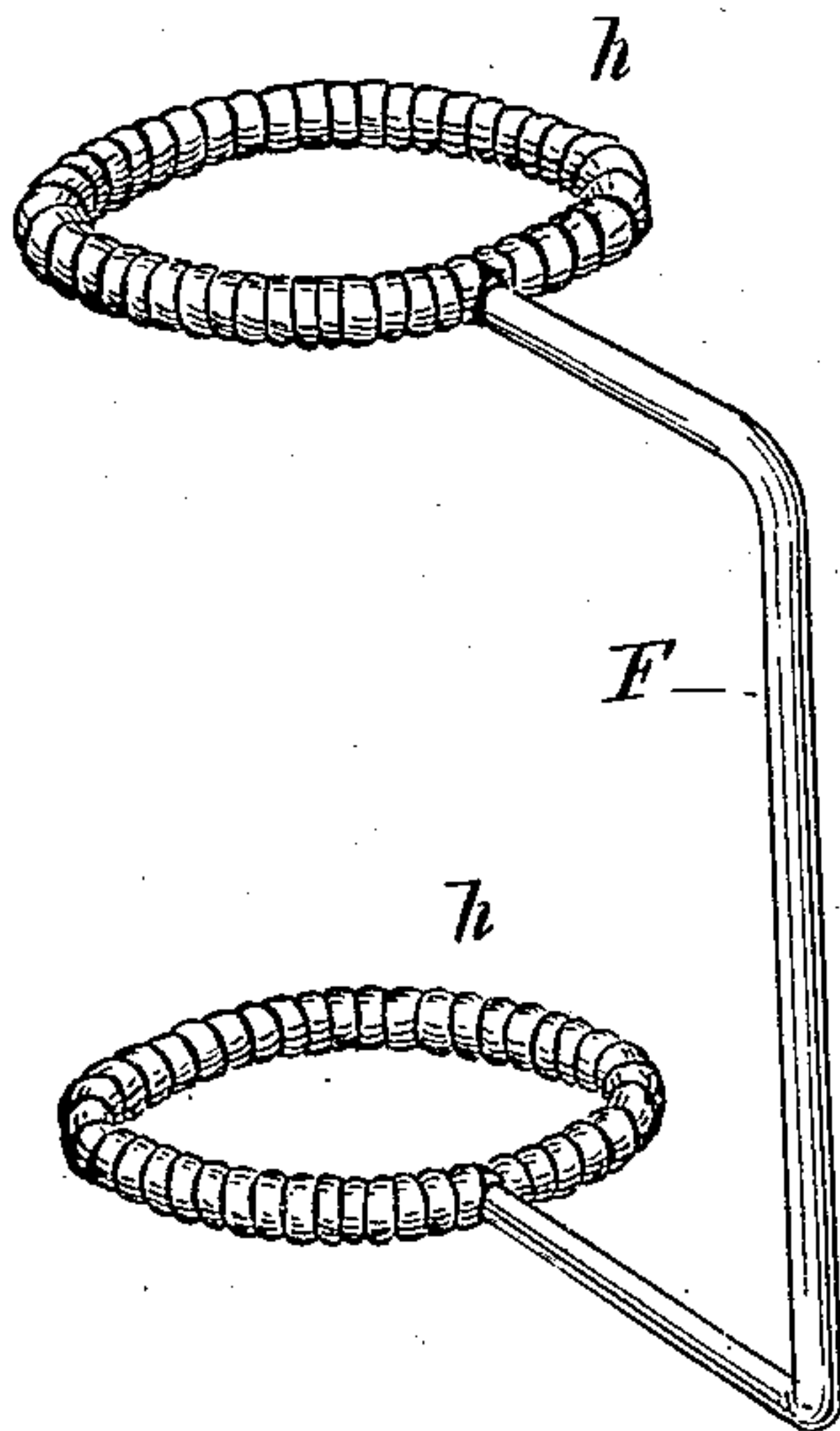
No. 267,603.

Patented Nov. 14, 1882.

*fig 1*



*fig 2*



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# UNITED STATES PATENT OFFICE.

EDWARD C. SHAW AND GEORGE H. FLINN, OF LEWISTON, MAINE.

## CLEARER FOR LIFTING-RODS OF SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 267,603, dated November 14, 1882.

Application filed May 24, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, EDWARD C. SHAW and GEORGE H. FLINN, both of Lewiston, in the county of Androscoggin and State of Maine, have invented a new and useful Improvement in Clearers for Lifting-Rods of Spinning-Frames, of which the following is a full, clear, and exact description.

In spinning cotton the floating fibers, termed the "flyings," collect upon the lifting-rods, and as these rods move up and down in their bushings the flyings are carried into the bearings and frequently become wedged so tightly as to bind and stop the rods, thus preventing the movement of the ring-rail and the proper winding of the yarn upon the bobbin.

The object of our invention is to obviate this difficulty, for which purpose we provide lifting-rods with clearers that prevent the flyings from passing into the bearings of the rods, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a front elevation showing a portion of a spinning-frame with our devices applied to the lifting-rod. Fig. 2 is a perspective view of the clearing device separately and in larger size.

A is the ring-rail. B is the bolster-rail. C is the step-rail; and D is the lifting-rod, to which the ring-rail A is connected. G G are the spindles, these parts being as usual. The rails B C are provided with bushing *b* for the lifting-rod D, as usual.

F F are the clearers, applied in connection with both the bolster and the step-rails. The clearing device F consists of a rod or wire having its ends bent at right angles and formed with the rings *h h*, which rings are of a size for passing loosely upon the lifting-rods. The distance between the two ends of the clearer is equal to the thickness of the rail, so that the clearing device may be slipped upon the rail, as shown. The clearers are preferably applied at the back of the rail, and when in position, as shown, one of the eyes, *h*, is above the rail and the other below, the lifting-rod

passing through them. The eyes *h* are wound with fibrous material, which forms a packing around the lifting-rod and prevents the flyings from being carried into the bearings, and the fibrous material also serves to retain the oil, so that in practice it is not necessary to oil the bearings as frequently as usually required.

To apply the clearers to a spinning-frame, the ring-rail A is raised from the lifting-rods D, which may then be removed, and the clearers *h*, either connected by bent rod F or made separately, may be attached to the bearings or bushings at each side of rails B C for the rods D, which rods may then be replaced through the clearers *h* and rails B C, and the ring-rail readjusted on the upper ends of the lifting-rods. This detachment of rail A from rods D, and both A and D from the rails B C, is at present required to remove the accumulated flyings from the bearings of the rods, which is often done. Our improved clearers can be applied in less time than is required to clean the bushings, and will guard them from the flyings so effectually that such oft-repeated dismemberment of the spinning-frame to clear the rods is rendered unnecessary, with the result of saving time and increasing production.

This clearing device is inexpensive, can be readily applied, and effectually prevents the flyings from entering into the bushings, thus avoiding the difficulties that have been heretofore experienced in that direction.

We do not limit ourselves to the construction and arrangement exactly as shown, as it is evident that the two rings used in connection with each rail may be separate and held in place by any devices, instead of being formed from a single wire bent and clasped on the rail as shown.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination, with the lifting-rods and rails of spinning-frames, of ring-form clearing devices placed on the rod, above and below the rails, and attached to the rails, substantially as shown and described.

2. The combination, with the lifting-rod

and rails of a spinning-frame, of the clearing-rings *h h*, provided with packing material, and held upon the rails, substantially as shown and described.

- 5 3. The clearing devices for lifting-rods, consisting of a wire or rod having its ends bent at right angles, and formed with rings adapt-

ed for receiving the lifting-rods and clasping the rail, as shown and described.

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