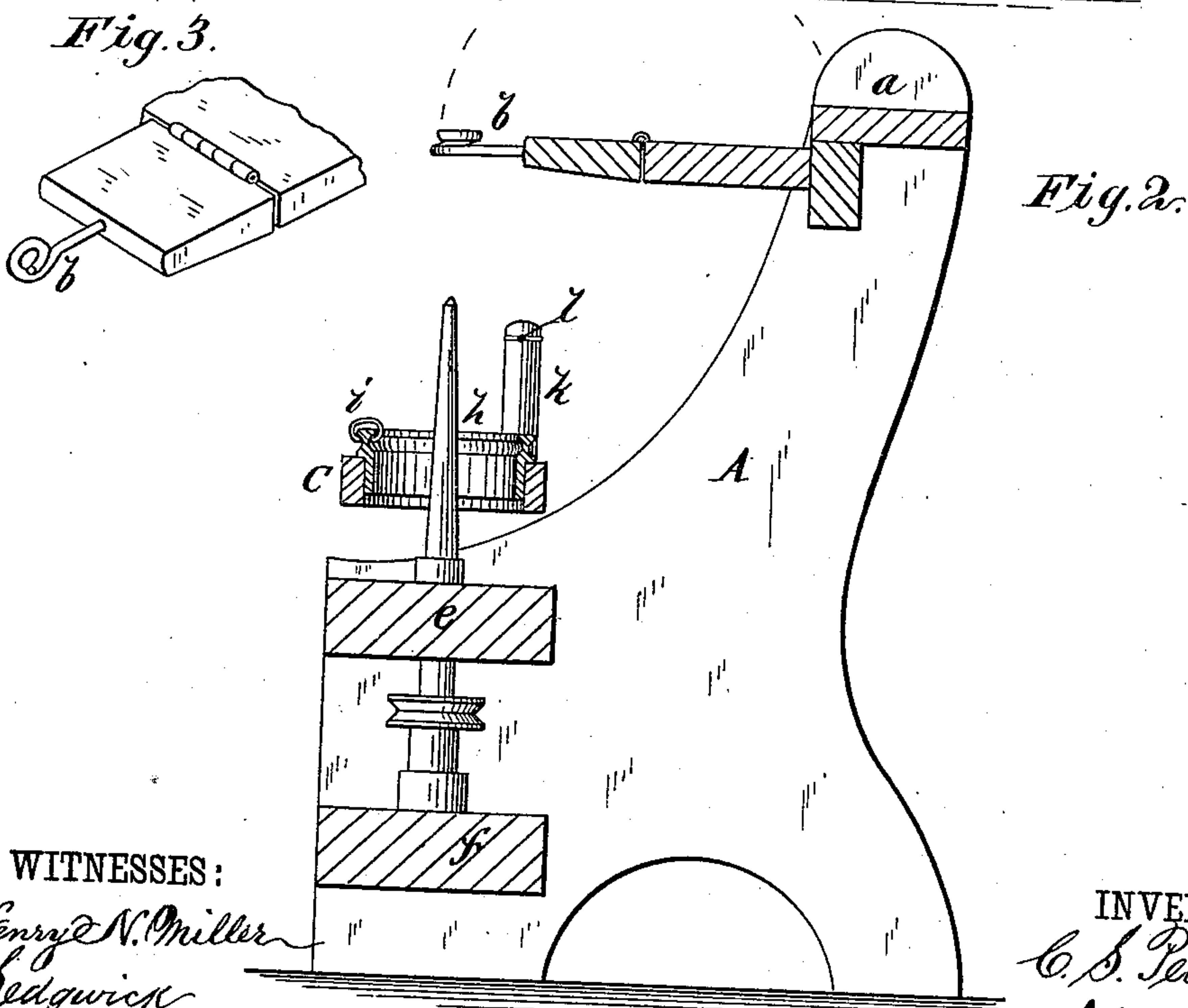
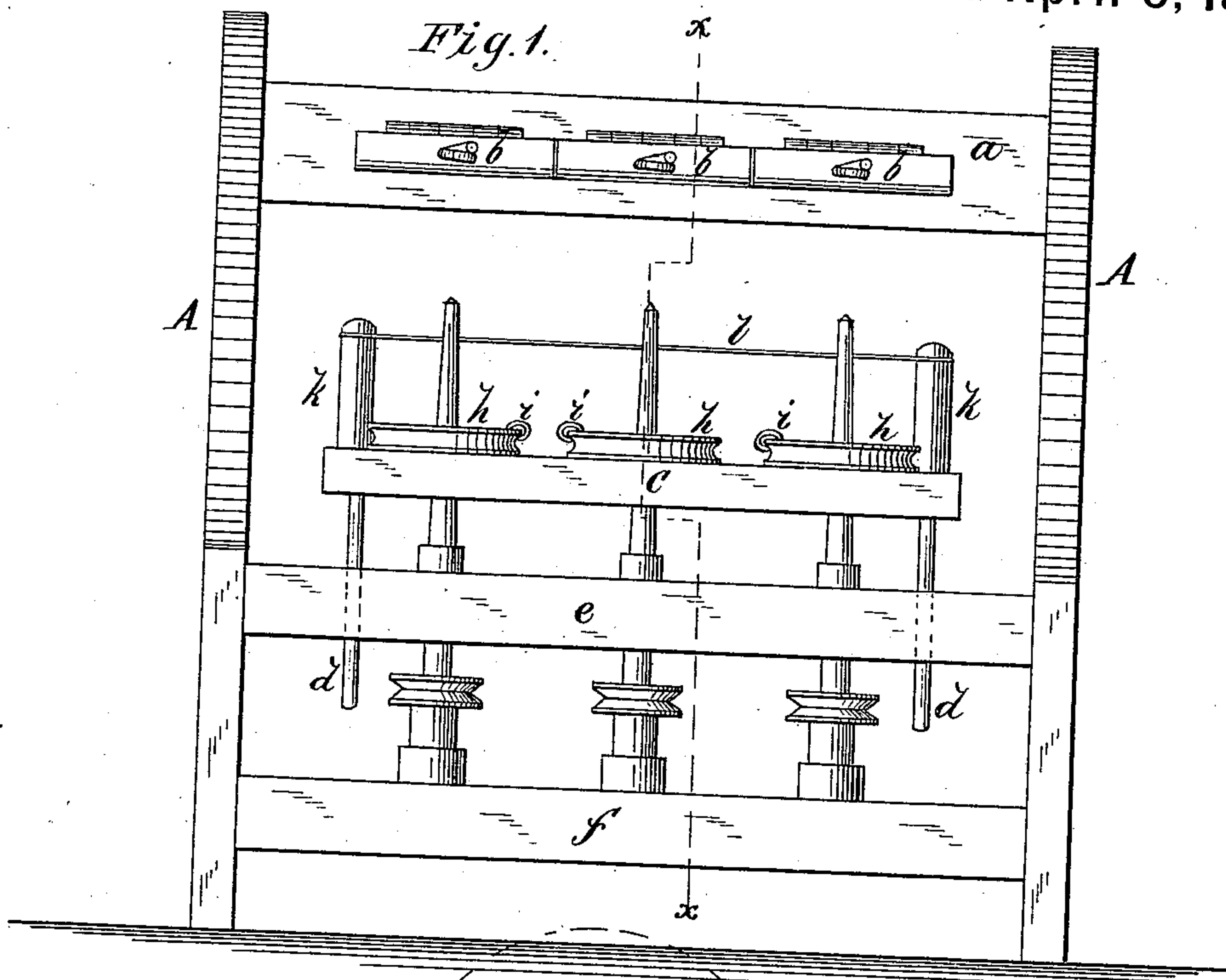


C. S. PEACH.
Ring Spinning-Frame.

No. 226,346.

Patented April 6, 1880.



WITNESSES:

Henry N. Miller
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INVENTOR:

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BY

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UNITED STATES PATENT OFFICE.

CHARLES S. PEACH, OF NORTH ADAMS, MASSACHUSETTS.

RING-SPINNING FRAME.

SPECIFICATION forming part of Letters Patent No. 226,346, dated April 6, 1880.

Application filed January 6, 1880.

To all whom it may concern:

Be it known that I, CHARLES S. PEACH, of North Adams, in the county of Berkshire and State of Massachusetts, have invented a new and useful Improvement in Spinning-Frames, of which the following is a specification.

My improvement relates to ring-spinning frames, and has for its object to prevent the threads from throwing out and interfering with each other, and to equalize the tension and draft on the thread, whereby the yarn will be wound on the bobbin equally hard and close at top and bottom.

The invention consists in combining with a spinning-ring and supporting-rail a tension-wire supported upon and carried by the said rail and arranged above and behind the ring, as hereinafter described.

In the accompanying drawings, Figure 1 is a front view of a spinning-frame with my improvement applied thereto. Fig. 2 is a vertical transverse section on line *x x* of Fig. 1. Fig. 3 is a detail perspective view of the guide-board and the guide-wire.

Similar letters of reference indicate corresponding parts.

A A are the side rails of the frame; *a*, the roll-beam; *b b*, the guide-wires; C, the ring-rail; *d*, the lifting-rods of the ring-rail; *e*, the bolster-rail, and *f* the step-rail on which the spindles are supported. *h* are the rings, and *i* the travelers. These parts are of usual character and construction.

Upon the back of the ring-rail C are rigid posts *k*, upon which is attached and tightly stretched a wire, *l*, the wire consequently extending horizontally behind the spindles and crossing the circular path of the travelers.

The height of the wire *l* above the rail will be fixed according to the extent of movement which the rail has, and in practice the wire will never touch the yarn on the bobbin—say within one-sixteenth of an inch of a full bobbin.

It will be seen that the wire *l* is carried up and down with the ring-rail, and always occupies the same relative position to the rings. The thread or yarn coming from the guide-wire *b* to any one of the travelers will there-

fore always be in front of the wire *l*, and if thrown out beyond the straight line will be checked and brought within the path of the traveler at every revolution.

When spindles are run at high speed there is always a tendency to throw out the yarn, so that the neighboring threads come in contact, causing kinks and breaks and the loose and unequal winding of the bobbin at the bottom, and it is impossible to wind the bobbin full. These difficulties are increased when the atmosphere becomes charged with electricity, and result in loss of time and labor. To overcome them, heavier travelers have been put on the rings; but that remedy is only partially successful, and causes increased friction and tension on the thread or yarn, and also causes fine or weak places in the yarn when winding on the top of the bobbin.

By the use of the tension-wire, fixed as described, the yarn is caused to wind with an even tension and equally hard on all parts of the bobbin, the tension on the yarn is lessened, and much lighter travelers may be used than heretofore, thereby lessening the risk of breakage of the yarn.

The invention may be applied to long or short traverse filling or warp frames, as the tension-wire moving with the rail operates in the same manner in any position of the length of traverse, and prevents the threads from throwing out beyond the perimeter of the rings.

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

In a spinning-machine, the combination, with a spinning-ring and its supporting-rail, of a tension-wire supported upon and carried by the said rail, and arranged above and behind the ring, in the manner described, and adapted to prevent the throwing out of the yarn beyond the diameter of the ring, substantially as set forth.

CHARLES SMITH PEACH.

Witnesses:

I. J. LINDSEY,
EMERY PECK.