HORATIO L.PEIRCE.

SPINNING RING.

117676

PATENTED AUG 1 1871

FIG.1.

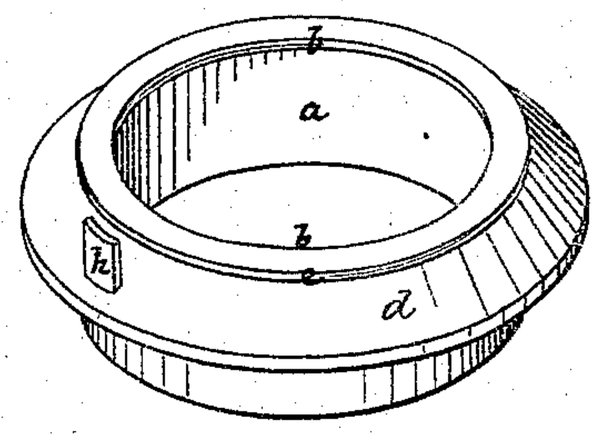
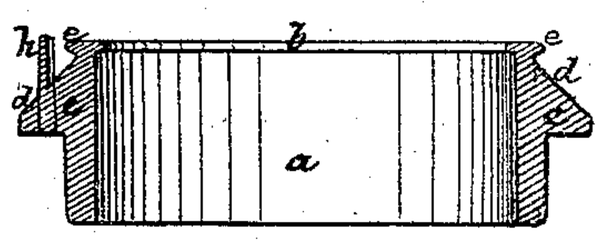


FIG.2.



Horatio L. Peirce
by his attorney
Pollok,

WITNESSES. C. B. Nottingham
W. G. Henderson

UNITED STATES PATENT OFFICE.

HORATIO L. PEIRCE, OF TAUNTON, MASSACHUSETTS.

IMPROVEMENT IN SPINNING-RINGS.

Specification forming part of Letters Patent No. 117,676, dated August 1, 1871.

To all whom it may concern:

Be it known that I, HORATIO L. PEIRCE, of Taunton, county of Bristol, State of Massachusetts, have invented certain new and useful Improvements in Spinning-Rings, of which the following is a specification:

My invention is an improvement upon that described in Letters Patent granted to me on the 8th of June, 1869, No. 90,956. The improvement described in said Letters Patent consisted in forming the inner flange of the traveler-rail of steel wire. I have since discovered that when the inner flange is thus made the ring may be made with greater economy and to operate with better effect by dispensing with the neck, shoulder, or recess usually formed upon the inside of spinning-rings below the traveler-rail, and by making the inside of the ring below the rail smooth and straight, without break or recess throughout its whole extent. To this end I first turn out the inside of the ring so that it shall be cylindrical and smooth from end to end, and then, after this operation is completed, I weld on the inner steel-wire flange of the rail, thus completing this portion of the ring with ease and dispatch, and with great economy, avoiding the formation of the shoulder above mentioned, which serves only to catch the waste and dirt, such as the shives and oily fibers of cotton, and gaining an increased space within the ring, which can be used advantageously in the winding operation.

Figure 1 of the accompanying drawing is a perspective view of a ring made in accordance with my invention. Fig. 2 represents a vertical central section of the same.

In making the ring I form the body of suitable metal, preferably of malleable iron, and then turn out the inside with suitable tools, so that it shall be cylindrical and smooth from end to end, with no cavity, shoulder, or projection formed on or in said inside surface. The exterior of the ring is formed in any ordinary or suitable manner, this not being material to the portion of my invention which I am now describing. After the operation above described is completed and the inside of the ring is finished, I weld to the top of the ring, on the inside of the same, a steel wire, which forms the inner portion of the rail or flange on which the traveler moves, in accordance with the method described in my said Letters Patent of June 8, 1869, above referred to. The ring thus formed is plainly represented in the drawing, *a* representing the smooth inside surface of the ring, and *b* the inner portion of the top flange or rail.

A spinning-ring thus formed—that is to say, having a smooth unbroken inside surface below the traveler-flange or rail—possesses many advantages: Dirt and waste will not lodge in it; the space between the ring and the bobbin is increased, causing a more uniform tension upon the yarn; giving more space for winding yarn upon the bobbin, and preventing liability of the bobbin coming in contact with the ring.

The next portion of my invention relates to the combination of the bolster-flange which supports the ring upon the ring-rail with the traveler-rail and furze-stripper. This flange, represented at *c* in the drawing, is made wide or thick, in order to give to the ring the necessary strength required for it in the operations of turning and hardening, and to compensate for the metal turned out and cut away from the inside. Moreover, its slanting upper surface *d* starts immediately from under or from the base of the outside portion *e* of the traveler-rail in such manner that the upper portion of the said bolster-flange forms a bearing upon which the traveler, when applied to the ring, will rest. By combining with the traveler-rail the bolster-flange in the manner described, the latter forms a bearing for the outer portion of the traveler to rest upon, and it thus brings the traveler into a more erect position and maintains it in such position, so as to throw the yarn into the center of the traveler, where the yarn should be in order to be twisted and wound upon the bobbin to the best advantage. The increase in the size of the bolster-flange causes it to project from the ring beyond the traveler-rail, and this enlargement of its diameter enables me to readily unite with it the furze-stripper or clearer *h*, for whipping out from the traveler, as it revolves on the ring, the fibers of cotton that collect in it or that project from the yarn. The stripper is curved concentrically with the traveler-rail, or nearly so, and is arranged at such distance therefrom that it will be just cleared by the traveler as the latter revolves. The lower end of the stripper is tenoned and inserted in a hole or mortise in the bolster-flange, where it is suitably secured.

I am aware that it is not new to attach a furze-

stripper to a spinning-ring, and my claim in this connection is limited to the construction and arrangement of the parts herein shown and described.

Having now described my invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. A spinning-ring, the interior of which is made substantially as herein shown and described —that is to say, by first forming it so that it shall present a smooth unbroken surface from end to end, and then welding on the inner flange of the traveler-rail, as set forth.

2. In combination with the traveler-rail and the bolster-flange, formed and combined with said rail, as specified, the furze-stripper, constructed and applied to the upper face of the said bolster-flange, as herein shown and set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

HORATIO L. PEIRCE.

Witnesses:
GEO. F. WILSON,
JAMES TILLINGHAST.