

E. J. WORCESTER.

Improvement in Rolls for Carding Machines.

No. 123,968.

Patented Feb. 20, 1872.

Fig. 1.

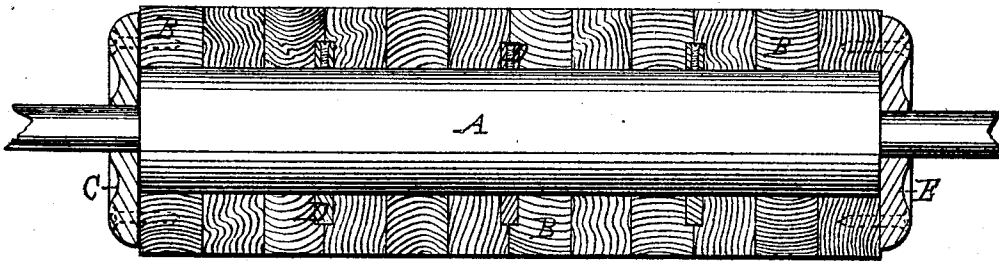
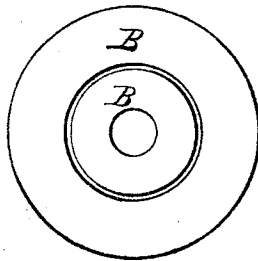


Fig. 2



Fig. 3



Witnesses
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EDWARD J. WORCESTER, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN ROLLS FOR CARDING-MACHINES.

Specification forming part of Letters Patent No. 123,968, dated February 20, 1872.

To all whom it may concern:

Be it known that I, EDWARD J. WORCESTER, of Worcester, in the county of Worcester and State of Massachusetts, have invented a new and valuable Improvement in Carding-Machine Rolls; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal central section of my invention. Fig. 2 is a side view of the roll. Fig. 3 is a face view of the rings.

This invention has relation to the construction of "workers" and "strippers" for wool-cards. The usual method of constructing workers and strippers is by applying "lags" to the outside of an iron shaft. The "lags" are strips of wood cut lengthwise of the grain, and fastened to the shaft by screws or equivalent means. The great objection to "lagging" is the liability of the wood to warp and spring.

The object of my invention is to produce a roll which will neither warp nor spring, and the parts of which may be readily fitted together with great accuracy, and securely fastened. My invention, therefore, consists in the application to the iron shaft of wooden rings, placed on the shaft side by side, the fibers of the wood of each ring running at right angles, or nearly so, with the direction of the fibers of the adjacent rings.

In the accompanying drawing illustrating this invention, A represents the iron shaft of a "worker" or "stripper" belonging to a wool-card. B represents the wooden rings which encircle said shaft, and with it compose the roll. These rings are cut out of boards of suitable thickness, and are arranged upon the shaft with their fibers alternately at right angles each with the next, thus serving to obvi-

ate, to a great extent, the unequal shrinking and warping of the roll. The rings for the smaller rolls are cut from the centers of the larger rings; consequently the shaft of the large roller must be equal or approximate equality to the diameter of the small rings, in order that it may exactly fit the interior of the larger rings; but after cutting out the small rings they may be diminished in diameter, as desired.

The rings of the "worker" may be fitted in place as follows: The shaft A is provided with a metallic head, C, and a sufficient number of rings glued together to constitute a section may be placed over the shaft and brought close to the head C. A metallic head, D, may then be secured to the shaft by means of a set-screw passed through it to the shaft, or otherwise, and forced down into the adjacent face of the upper ring. Another set or section may then be placed on the shaft, the lowest ring being forced down against the face of the adjacent section, causing the upper half of the head D to be embedded in the wood of said ring. Another head, the same as D, may be provided, and so on until the roll is completed, an end head, E, being then secured by staking, or otherwise.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the wooden rings B, shaft A, and heads C, substantially as and for the purpose set forth.

2. The wooden rings B, cut across the fiber of the wood, and arranged on the shaft A with the fibers of each running at right angles, or nearly so, with the fibers of the next ring, substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

EDWARD J. WORCESTER.

Witnesses:

JAMES H. BANCROFT,
FREDK. H. PIPER.