(No Model.)

R. W. ROBINSON & J. SHAW.

METHOD OF MANUFACTURING WOOLEN ROPING OR SLIVERS.

No. 255,195. Patented Mar. 21, 1882.

Fig. 1.

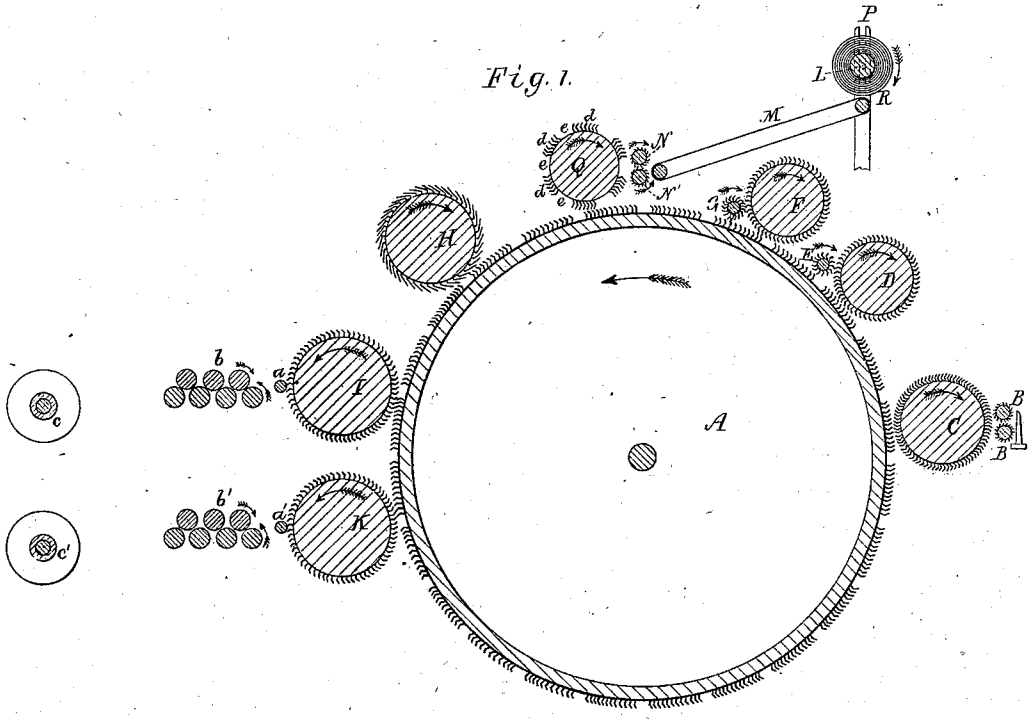
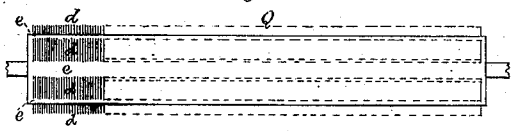


Fig. 2.



Witnesses.

S. N. Pipin

C. C. Pratt.

Inventors.

Richard W. Robinson.

John Shaw.

by R. H. Eddy atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

RICHARD W. ROBINSON, OF BOSTON, MASS., AND JOHN SHAW, OF DEXTER, ME., ASSIGNORS TO THE DEXTER WOOLEN MILLS, OF DEXTER, ME.

METHOD OF MANUFACTURING WOOLEN ROPING OR SLIVERS.

SPECIFICATION forming part of Letters Patent No. 255,195, dated March 21, 1882.

Application filed May 23, 1881. (No model.)

To all whom it may concern:

Be it known that we, RICHARD W. ROBINSON, of Boston, of the county of Suffolk and State of Massachusetts, and JOHN SHAW, of Dexter, of the county of Penobscot and State of Maine, have invented a new and useful Method of Manufacturing Woolen Roping or Slivers; and we do hereby declare the same to be described in the following specification, reference being had to the accompanying drawings, showing the mechanism used by us in the carrying out of our method or process for the production of the roping or sliver.

The said yarn-roping or combined sliver is composed of a ground sliver of wool of one color and a series of sections or fillets or sections of a lap or bat of wool of a different color, the masses of coloring-wool being generally equal, or practically so, in their lengths and at equal, or substantially equal, distances apart on the ground-sliver.

In carrying out our process we divide a lap, bat, or sheet of wool of one color crosswise or transversely into sections or fillets and lay them, with intervals between them, upon another lap or sheet of fibers of wool of different color, the sections extending transversely across the ground-lap and parallel to each other. After this we separate into strips or slivers of equal widths the ground-lap and the coloring-sections thereof lengthwise of such ground-lap and crosswise of the coloring-sections, thereby producing the colored sliver.

In the production of such roping or slivers we employ a machine, which we shall now proceed to describe, it being represented in longitudinal section in Figure 1 of the accompanying drawings, Fig. 2 being a top view of the card-cylinder Q, hereinafter explained.

In the said drawings the principal operative parts of a "finisher carding-engine" are shown with additions thereto necessary to the production of the roping or sliver.

In such Fig. 1, A denotes the main card cylinder; B B, the feed-rolls; C, the "licker-in;" D, E, F, and G, the workers and strippers; H, the fancy, and I and K the doffers of a finisher carding-machine, *a a'* and *b b'* being the sets of rolls for receiving the roping or slivers from the doffers and transmitting them to the spools *c c'*.

With the card we employ an endless apron, M, feed-rollers N N', and a card-cylinder, Q, all arranged as represented, the said cylinder Q having its card-clothing disposed on it lengthwise in parallel strips *d* with intervals *e* between them.

The coloring-wool formed in a bat is wound upon a roller, L, having each of its journals resting in a vertical guide, P, as shown at R. This roll of bat is unwound by the action of the feeding-apron and by it carried to the feed-rolls N N', by which it is transferred to the card-cylinder Q, from which it is removed in a series of masses, sections, or fillets equal or like in length, the said cylinder Q causing at regular or suitable distances apart the said fillets or sections to be transferred to the teeth of the main card-cylinder A, and upon its charge of wool of a different color, such charge having been received by it from the feed-rollers B B' and the licker-in C. The "fancy" H lifts the compound charge, or prepares it for removal by the doffers I K. Each sliver or roping removed by either of the doffers will be spotted at intervals with the coloring-wool, and when the sliver or roping is spun or twisted the resulting yarn will be of two colors, as described.

We are aware of the means described in the United States Patents Nos. 169,139 and 207,272 and the British Patent No. 1,491 for 1872 for spotting or tufting wool and reducing it to roping or slivers, and do not claim such, there being essential differences between them and our invention, which has no reference to the spotting of a lap with tufts or bunches obtained either from masses of wool thrown indiscriminately on a feeding-apron or from a series of colored or spotting slivers fed to a revolving licker-in and by such separated into tufts or bunches and deposited on a lap on the main card-cylinder of a carding-engine, for in the production of the compound slivers we operate on a lap or bat of the coloring-wool, and first divide it transversely into fillets or

strips, and lay such, at intervals apart, upon a ground-lap, and subsequently divide the latter lengthwise and the coloring-fillets thereof crosswise, all as explained, thereby producing slivers not simply tufted, but of a different character, as set forth.

We claim as our invention as follows, viz:

The mode, substantially as described, of making slivers composed of wool of one color and wool of a different color, such consisting in separating or dividing crosswise of it a lap or bat of wool of one color into sections or fillets, and laying them, with intervals between them, and crosswise, upon another or ground sheet or lap of wool of a different color, and subsequently separating the whole lengthwise of the said ground-lap into strips or slivers, all being substantially as explained.

RICHARD W. ROBINSON.
JOHN SHAW.

Witnesses:
A. F. BRADBURY,
JOSIAH CROSBY.