

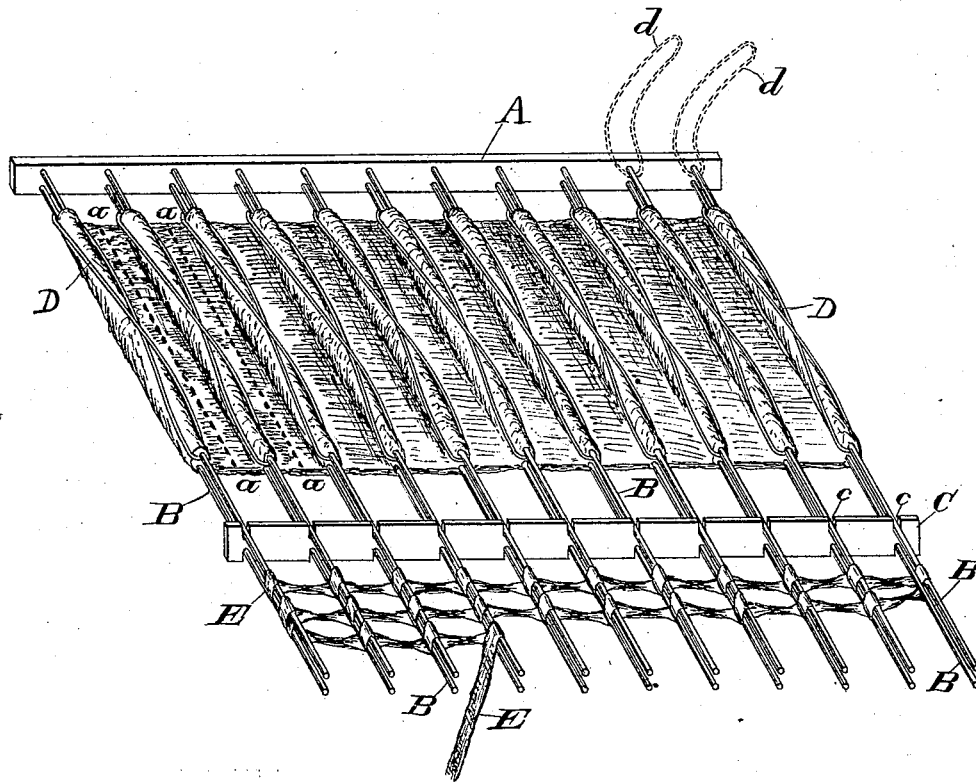
(No Model.)

E. J. COLE.

FRAME FOR MAKING RUGS.

No. 345,029.

Patented July 6, 1886.



Witnesses:

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UNITED STATES PATENT OFFICE.

ELIZABETH J. COLE, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO HAROLD G. UNDERWOOD, OF SAME PLACE.

FRAME FOR MAKING RUGS.

SPECIFICATION forming part of Letters Patent No. 345,029, dated July 6, 1886.

Application filed April 17, 1885. Serial No. 102,534. (No model.)

To all whom it may concern:

Be it known that I, ELIZABETH J. COLE, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Frames for Making Rugs; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to devices especially adapted for the manufacture of tufted rugs; and it consists in certain peculiarities of construction, as will be fully set forth hereinafter.

The drawing is a perspective view of my device, showing, also, the strips of fabric wound upon it, illustrating its operation in different stages.

A is the rear bar of my frame, within which are secured the ends of the rods B B, arranged in pairs, one rod over the other in each pair, as shown.

C is a brace-plate to be used when winding the strips of fabric, yarn, &c., on the frame, and its function is to keep the rods B B rigid and to keep every pair in place, as otherwise their free ends might be pulled about or twisted out of place in winding upon them; and this brace consists of a strip of metal or other material, of the same length as the rear bar, A, provided with the notches *c c* at regular intervals in each longitudinal edge, exactly corresponding to the rods B B, which fit within said notches, as shown.

The operation of my device is as follows: Before commencing to wind, rubber bands D D are preferably slipped between each pair of the rods B B, (as shown at *d d* at the right of the bar A in dotted lines,) and after this the brace-plate C is slipped to place and turned so that its notches will receive the rods B B, as shown, and then the strip of fabric E is wound around each pair of rods, near the free ends thereof, and brought down from the under side of the lower rod in one pair to the under side of the lower rod in the next pair, and thence up and around this pair and down under it, and to the under side of the lower rod of the third pair, and so on, and back again, from side to side, in the same way, (the fabric being first fastened, of course, to the first pair of rods,)

so that the connecting strips of fabric (or yarn, if that is employed) will be always beneath the under sides of the lower rods of the frame. When the space between the brace-plate C and the outer or free ends of the rods B B is wound full, the said brace-plate is turned at a right angle to its present position, which frees its notches from the rods B B and enables the plate C to be withdrawn, and the wound fabric is pushed down toward or against the rear bar, A, the several rows of wound strips being compressed closely together, and then the plate C is reinserted in its former position and another strip is wound, as before, and similarly pushed back to place, until the frame is full, and then (the plate C being out of the frame) the rubber bands are brought forward and twisted over, and their free ends slipped between the open ends of each pair of rods B B, when the elasticity of the rubber bands will cause them to hold the completed wound sections all closely together, as shown in the drawing, and then the frame, with its contents, may be laid upon whatever backing is desired for the rug, and the wound section stitched thereto by means of a sewing-machine, the line of stitching passing between the rods B B, midway between each pair and parallel thereto, as shown by the dotted lines *a a*, and then the rubber bands are released and thrown back again, as at *d d*, and by means of a knife or pair of scissors the wound loops of the fabric are cut along their top surfaces, above and in line with the upper rods B of each pair, and the frame removed, ready for use in the preparation of another wound section for the rug, which is to be stitched to the backing and cut, as before, and so on until the rug is completed.

Although I have shown my device as being used with rags or strips of fabric, it is to be understood that it is equally well adapted for winding yarn, carpet-waste, &c.; and, in fact, in using the strips of rags, the rubber bands D are seldom necessary, but are particularly useful with yarn and carpet-waste, though of convenience under any circumstances.

If desired, the rear plate, A, and the rods B B may all be cast rigidly together in one piece,

and if the rods are made thereby sufficiently rigid the brace-plate C may be dispensed with; but ordinarily it will be found best to use it. In any event the rods B of each pair are located one above the other, with a space intervening between them. This arrangement not only insures the proper action of the brace-plate C and elastic bands D, but also renders the device effectively operative without the use of the brace-plate or elastics. The peculiar arrangement of the rods B renders it possible to form freely open loops in placing the strips or strands upon the rods, and thus avoids the necessity of straining and distorting the material by the use of a stretcher for opening the loops.

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

1. A frame for winding strips of fabric, yarn, &c., in the manufacture of rugs, consist-

ing of the rigid rear bar, A, and the rods B B, secured thereto in pairs, one rod directly above the other in each pair, substantially as set forth.

2. The combination of the rear bar, A, and the rods B B, secured in pairs thereto, with the brace-plate C, having the notches *c c*, substantially as set forth.

3. The combination of the rigid rear bar, A, the rods B B, secured in pairs thereto, the brace-plate C, having the notches *c c*, and the rubber bands D D, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ELIZABETH J. COLE.

Witnesses:

H. G. UNDERWOOD,
H. J. FORSYTH.