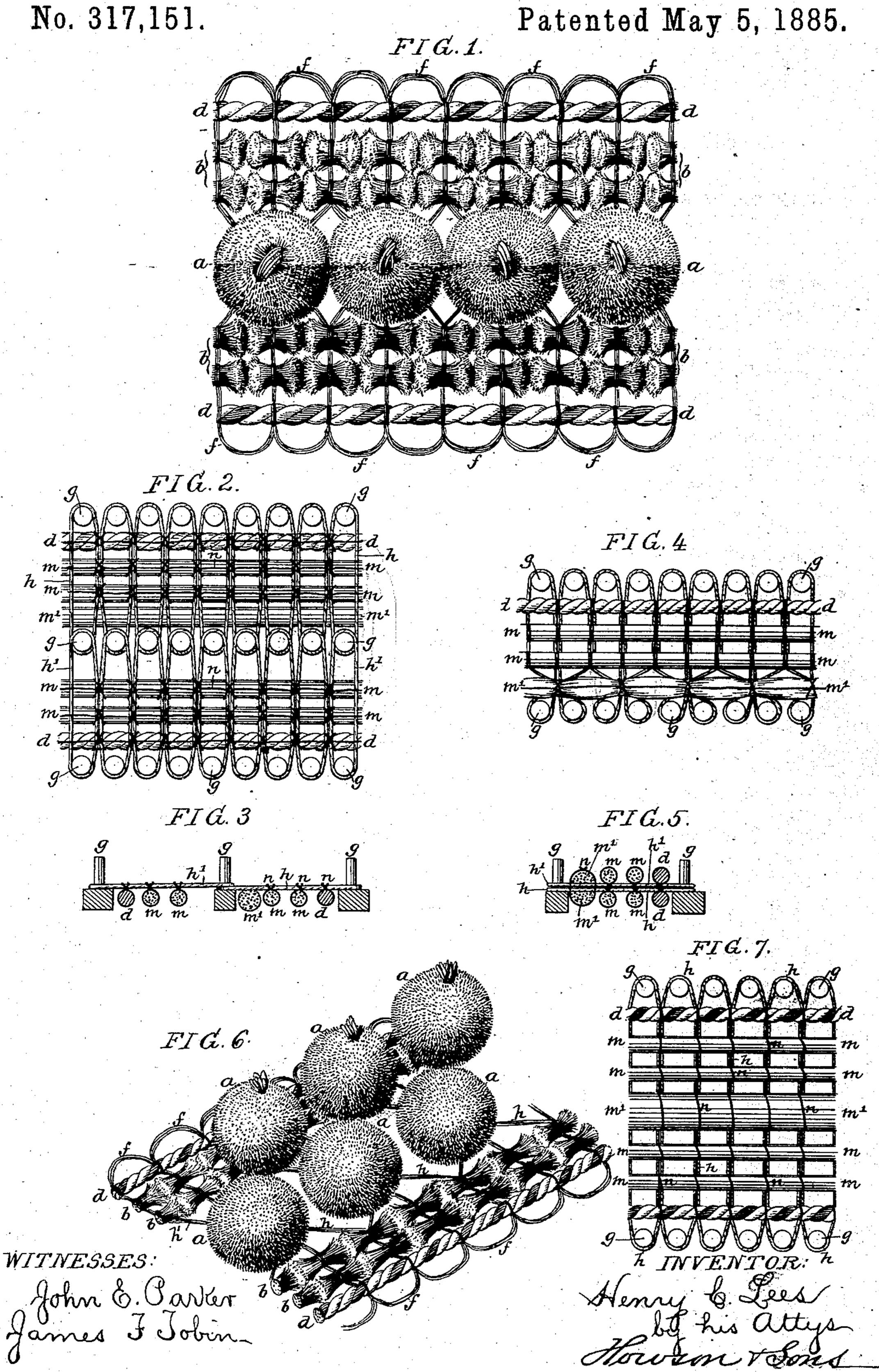
H. C. LEES.



## United States Patent Office.

HENRY C. LEES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO SAMUEL B. SCHRACK AND GEORGE H. SHERWOOD, BOTH OF SAME PLACE.

UPHOLSTERY-TRIMMING AND METHOD OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 317,151, dated May 5, 1885.

Application filed January 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, Henry C. Lees, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented 5 certain Improvements in Upholstery-Trimmings, and in the Method of Making the Same, of which the following is a specification.

My invention relates to the manufacture of that class of upholstery-trimmings in which 10 figuring cords or strands are tied to backing threads or warps stretched on a frame, some or all of these figuring-strands being afterward cut or partially cut between the points at which they are tied, and the trimming being sub-15 jected to a fulling operation, so as to produce raised tufts or balls.

My improvement has for one of its objects the production of a central row or rows of balls or tufts more perfectly formed and more 20 securely bound than usual, a further object being to produce a strip which can be folded and used as an edge-trimming for curtains, lambrequins, &c.

The improvement consists in the use of two 25 sets of warps or backing-threads, instead of but one set, as usual, each set of warps having se-\ cured to it strands or cords for forming the half-cuts, borders, or other like ornamentation of one side of the strip, and the threads or 30 strands for forming the central row or rows of balls being secured to both sets of warps, all as fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a view of a strip of trimming made in ac-35 cordance with my invention; Figs. 2, 3, 4, and 5, diagrams illustrating the method of making the same; Fig. 6, a perspective view of another strip of trimming, also made in accordance with my invention; and Fig. 7 a diagram illus-40 trating the ordinary method of making upholstery-trimmings of the class to which my invention relates.

The piece of trimming shown in Fig. 1 has a central row of balls, a, and on each side of the 45 same two rows of tufts, or, as they are termed, "half-cuts," b, an edging-cord, d, and outer looped threads, f. It should be understood, however, that the pattern or design of the strip forms no part of my invention, and may 50 be varied in any way which the taste of the

this character are usually-made on a frame having opposite rows of pegs, g, on which are stretched the transverse warps or backingthreads h, threads or strands m m' and cords d 55 being then carried longitudinally across the frame and backing-threads, as shown in Fig. 7, and secured to the latter at the crossings by means of tying-threads n, the strands being afterward cut or partially cut between the warps 60 h, so as to form balls and tufts, and the portions of the warps which pass around the pegs goutside of the cords d forming the edge-loops f.

In carrying out my invention I use a frame with a central bar and three rows of pins, g, 65  $\sim$ as shown in Fig. 2, and I employ two sets of warps, hh', each set extending from one of the outer rows of pins g to the central row. The cords d and the strands m for the half-cuts bare carried longitudinally across the frame vo back of the warps h h', and are tied thereto at the crossings, as shown in Figs. 2 and 3. Strands m' for the balls a are also carried across the frame back of one set of warps h, as shown, but are not secured to said warps. When the 75 cords d and strands m for the half-cuts havebeen tied, the warps h' are removed from their pins and turned over onto the opposite half of the frame, and are then applied to the same pins which carry the warps h, the two sets of 80 warps now overlying each other. Another row of strands, m', is now stretched across the frame, these strands being above the warps Kand over the lower row of strands m', and both of these sets of strands are then bound to the 85 doubled warps by a tying-cord, n, as shown in Figs. 4 and 5, the strands m and m' being then cut between the tying-points, as usual, to form the balls or tufts. (A number of adjacent warps, h h', are drawn together by the tying- 90 cord n, so as to converge, as shown in Figs. 1 and 4, and thus form a core for the central ball, which is thereby firmly secured to the backing. By doubling the warps and uniting the two sets of strands m' thereto I am enabled to form 95° a ball presenting a full rounded appearance, the strip of trimming produced being such that it can be used flat, as shown in Fig. 1, for a curtain-band or like purpose, or can be folded and used as an edge-trimming for cur- 100 tains, lambrequins, &c. In the latter case it manufacturer may suggest. Trimmings of I may be advisable to have two or more rows of

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balls, as shown in Fig. 6, two or more rows of strands, m', being used in this case, instead of one row only, as in making a single ball, and each row of strands being bound to the doubled 5 warps by tying-cords n.

I claim as my invention—

1. The mode herein-described of making upholstery-trimmings, said mode consisting in applying to rows of pins g two sets of warps or backing-threads, h h', tying to each set of warps the strands or cords m, doubling one set of warps over the other, uniting to the doubled warps the strands m', for the formation of balls, and then cutting said strands m m', 15 as set forth.

HARRY SMITH.

2. Upholstery trimming having opposite warps or backing-threads, h h', each carrying figuring - tufts, and both sets of warps being united in the center, a row or rows of balls, of which said united warps form the cores, and 20 cords n, whereby the said balls are bound to the united warps, as set forth.

Intestimony whereof I have signed my name to this specification in the presence of two sub-

scribing witnesses.

HENRY C. LEES.

Witnesses:

JOHN M. CLAYTON,