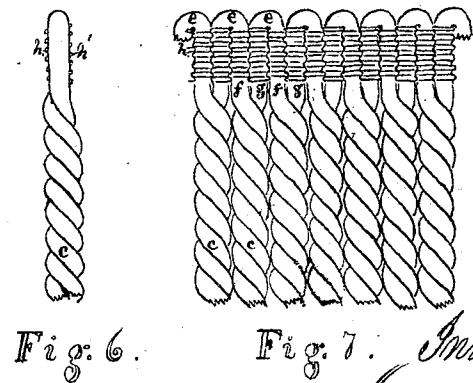
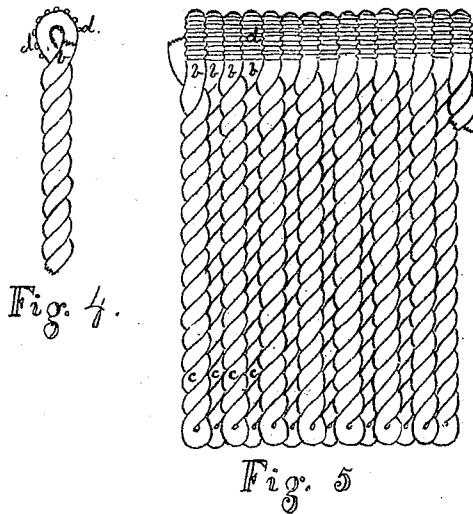
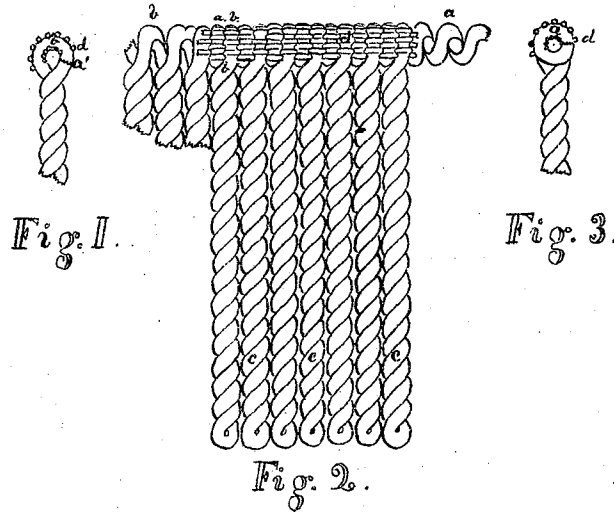


J. E. GILLESPIE.  
Improvement in Fringes.

No. 124,051.

Patented Feb. 27, 1872.



Witnesses,  
C. M. Combs  
Webster Park

Fig. 7. Inventor,  
James E. Gillespie

## UNITED STATES PATENT OFFICE.

JAMES E. GILLESPIE, OF NORWICH, CONNECTICUT.

## IMPROVEMENT IN FRINGES.

Specification forming part of Letters Patent No. 124,051, dated February 27, 1872; antedated February 10, 1872.

I, JAMES E. GILLESPIE, of Norwich, in the county of New London and State of Connecticut, have invented certain Improvements in Fringes, of which the following is a specification:

The first part of my invention relates to the heading or fabric that the loops are suspended from and into which they are woven, and consists in making the said heading in the form of a tube or pipe, the loop-cord forming the filling or weft, my object being to make these goods so that a wire or cord can be passed through the hollow heading, and the fringe hung up as a curtain; and also to make a more ornamental while more firm and secure fabric. The second part of my invention relates to a separating-cord that is woven into the fabric of the heading between the loop cords for the purpose of separating the loops from each other a greater or less distance without having the fabric of the heading woven so as to vary in firmness.

In the accompanying drawing, Fig. 1 is an end view, showing the loop and its form in the warp. Fig. 2 shows a series of loops and a portion of the heading, with the separating-cord running through the fabric between the loops. Fig. 3 is an end view, showing the separating-cord and its position in the warp. Figs. 4 and 5 show both cords extended into loops so as to make a double quantity of loops. Figs. 6 and 7 show the old way of making this kind of goods.

To make this kind of fringe, the loop-cord is twisted very hard, so that when allowed to come together in the loop it will of itself run up into twist or balance. I arrange the warp *d* so as to have a change of shed between each cord of weft-thread in the usual form. Instead of passing the loop-cord to and fro through the warp, as in Figs. 6 and 7, I pass it always into the warp at the same side or edge, and through in the same direction, always passing it out at the same side of the warp. The cord is extended into a loop, and again returns to the former edge of the warp, thus continuing to pass around in a spiral form, as clearly shown in Figs. 1, 2, 3, 4, and 5, where *b b* and *c c c* are the loop-cords, and *d* the warp. Figs.

1 and 4 clearly show that the twist of the loop *b* tends to draw the edges or sides of the warp or fabric of the heading toward each other in the form of a circle or a tube. There can be enough warp-threads used to extend or spread nearly around or only over a portion of the tube, as in Fig. 1. If all of the cords used as weft to form the heading are extended into loops *c c*, as in Fig. 5, an exceedingly thick fringe is produced, because only one thickness of cord passes through the heading for each loop, while the loops are two such cords doubled and twisted together, and therefore occupy twice the space filled in the heading, and entirely unlike the loops and heading in Figs. 6 and 7. When about the usual number of loops to the yard is desired, I extend only every second cord or weft-thread into a loop, and let the other or first one, *a*, Figs. 2 and 3, be drawn up close to the warp, as in Figs. 2 and 3, thereby setting or separating the loops apart from each other a greater or less distance according to the size of the cord *a*, while the fabric of the heading can be beat up just as tightly and the loops *c c c* held just as firmly as if they were closely woven together. By means of this arrangement I am enabled to have a firm head to the fringe that can be nailed or sewed to an object, or passed over a wire and hung up. Another very great advantage is that a nail-head can be hid from view by getting it through the fabric so as to come within the tube or pipe-head. I also am enabled to avoid the projections or lumps *c c c*, Fig. 7, and get a smooth and more handsome appearance.

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

1. A fringe, made with a tube or pipe-heading, the weft of which forms the loops, substantially as specified, and for the purpose as set forth.

2. A fringe, with the separating or dividing cord *a* woven in between the loops, substantially as shown, and for the purpose as set forth.

Witnesses: JAMES E. GILLESPIE.

C. W. CONVERSE.

WEBSTER PARK.