

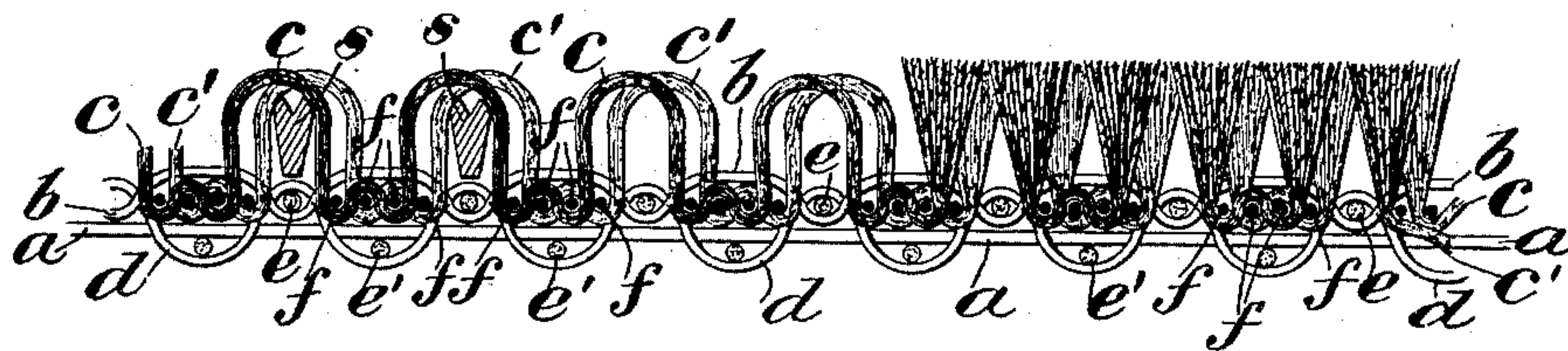
(No Model.)

A. BOLLENTIN.  
WOVEN TUFTED FABRIC.

No. 467,633.

Patented Jan. 26, 1892.

*Fig. 1.*



*Fig. 2.*



Witnesses:  
O. Sundgren  
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# UNITED STATES PATENT OFFICE.

ADAM BOLLENTIN, OF NEW YORK, N. Y.

## WOVEN TUFTED FABRIC.

SPECIFICATION forming part of Letters Patent No. 467,633, dated January 26, 1892.

Application filed June 8, 1891. Serial No. 396,464. (No model.)

*To all whom it may concern:*

Be it known that I, ADAM BOLLENTIN, of the city and county of New York, in the State of New York, have invented a new and useful  
5 Improvement in Woven Tufted Fabrics, of which the following is a specification, reference being had to the accompanying drawings.

A fabric embodying my invention resembles superficially the goods variously known  
10 as "Scotch Axminster" or "chenille Axminster;" but the pile or tuft in my fabric is composed of worsted warp instead of chenille weft, as in those goods, and consequently not only is the first labor of weaving the chenille  
15 weft dispensed with, but my fabric is more solid.

My said fabric consists of two worsted warps, a ground or stuffing warp, a catcher-warp, a binder-warp, and wefts, the worsted  
20 warps and certain shots of weft being woven into a face fabric independently of the ground or stuffing warp and the ground-warp and binder-warp and certain other shots of weft being woven into a body fabric independently of the face fabric, and the two fabrics  
25 being woven together by the catcher-warp and one of the last-mentioned shots of weft, as hereinafter explained.

I will now proceed to describe the manufacture of my fabric with reference to the  
30 accompanying drawings.

Figure 1 represents a section of the fabric parallel with the warp, the portion at the right of the figure representing the fabric finished with the pile cut to form tufts, the portion at the left representing the fabric as  
35 having the pile woven over a wire or needle which is shown remaining in the pile, and the central portion representing the fabric after the removal of the wire or needle, but before the cutting of the pile. Fig. 2 is a diagram illustrative of the arrangement of the  
40 harness for weaving the fabric.

In Fig. 1 *a* designates the ground or stuffing warp, which may be of jute and as heavy  
45 as desirable to give the fabric a firm body.

*b* designates the catcher-warp, *c c'* the worsted warps, and *d* the binder-warp. The catcher and binder warps may be made of  
50 cotton.

*e e' f* designate the weft, which is represented as of two kinds—viz., a lighter cotton

weft *f* for weaving the worsted warps *c c'* into a face fabric, and a heavier jute-weft *e e'*, by the shots *e e'* of which the ground-warp  
55 is woven into the body fabric, and by the shots *e e'* of which the face fabric is woven to the body fabric. In weaving this fabric five leaves of harness and five treadles are used, the treadles being designated in Fig. 2 by *g'*  
60 *g<sup>2</sup> g<sup>3</sup> g<sup>4</sup> g<sup>5</sup>*. In this figure the letters *o* indicate that the harness-leaves are up and the letters *x* that the harness-leaves are down. The worsted warp is in two separate chains *c* and *c'*, for each of which is provided a separate  
65 leaf of harness.

The operation of weaving is as follows: First. The treadle *g'* raises both worsted chains *c c'* and depresses all the other warps. A rod *s*  
70 is then inserted. Second. The treadle *g<sup>2</sup>* raises the worsted chain *c'* and the catcher-warp *b* and depresses all the other warps. A shot of fine weft *f* is then inserted. Third. The treadle *g<sup>3</sup>* raises the worsted chain *c* and the catcher-warp *b* and depresses all the other warps. A  
75 second shot of fine weft *f* is then put in. Fourth. The treadle *g<sup>2</sup>* raises the worsted chain *c'* and the catcher-warp *b* and depresses all the other warps. A third shot of fine weft *f* is then inserted. Fifth. The treadle *g<sup>3</sup>* raises  
80 the worsted chain *c* and the catcher-warp *b* and depresses all the other warps. A fourth shot of fine weft *f* is then inserted. Sixth. The treadle *g<sup>4</sup>* raises the catcher-warp *b*, the jute ground-warp *a*, and both worsted chains  
85 *c c'* and depresses the binder-warp *d*. A fifth shot *e'* of weft is then inserted. Seventh. The treadle *g<sup>5</sup>* raises the binder-warp *d* and both worsted chains *c c'* and depresses the other warps. A sixth shot *e* of weft is  
90 then inserted. These operations are repeated. The wires are pulled out from the pile-loops of the worsted warp, and the said loops are cut to form tufts. It is not absolutely  
95 necessary that there should be any difference in the weft of which the shots *e e'* and those *f* are composed; but I prefer to use a heavier weft for the shots *e e'*, by which the body fabric is woven and the face fabric woven to the  
100 body fabric.

I have hereinabove stated that my fabric can be manufactured at less expense of labor and more solid than the goods known as "Scotch Axminster" or "chenille Axmin-



ster." The reason for the greater solidity is that I am enabled to use a much heavier catcher-yarn and more threads of such yarn than is practicable in those goods woven with  
5 the chenille weft.

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

A pile woven or tufted fabric consisting of  
10 worsted warps, a ground or stuffing warp, a catcher-warp, a binder-warp, and shots of weft in series of six, the two worsted warps and four successive shots of said series being

woven into a face fabric independently of the ground or stuffing warp, and the ground or stuffing warp, the binder-warp and the other 15 two shots being woven into a body fabric independently of the face fabric, and the two fabrics being woven together by the catcher-warp and one of the two last-mentioned shots of weft, substantially as herein set forth.

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Witnesses:

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