

No. 824,448.

PATENTED JUNE 26, 1906.

W. T. SMITH.
WOVEN FABRIC.
APPLICATION FILED MAR. 17, 1905.

Fig. 1.

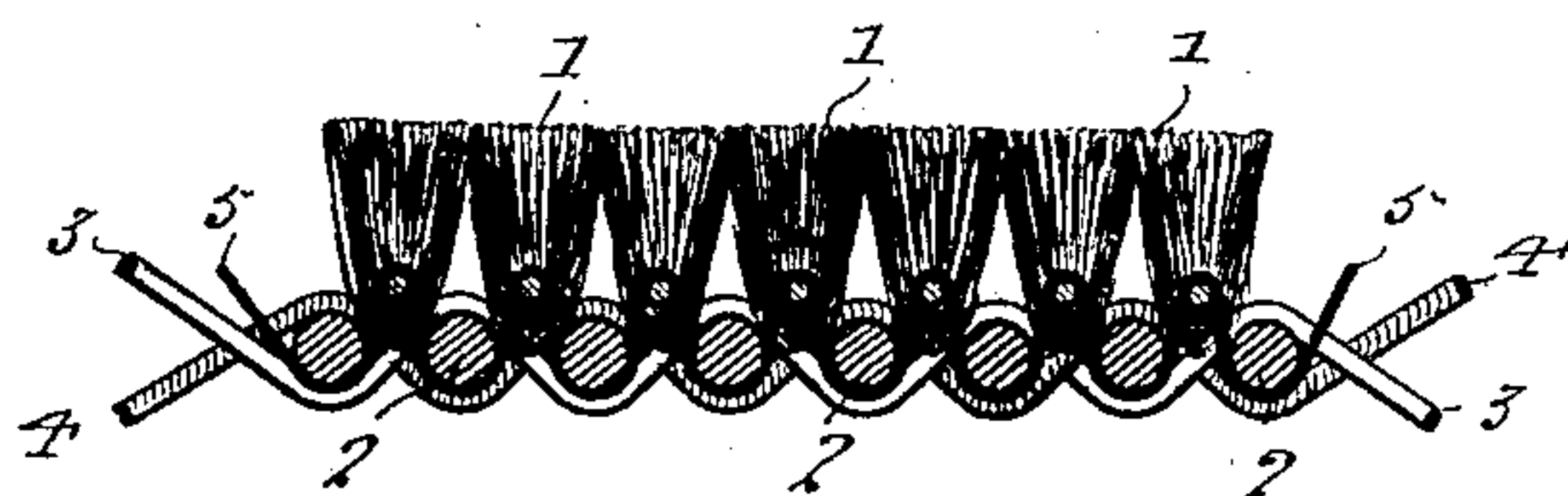
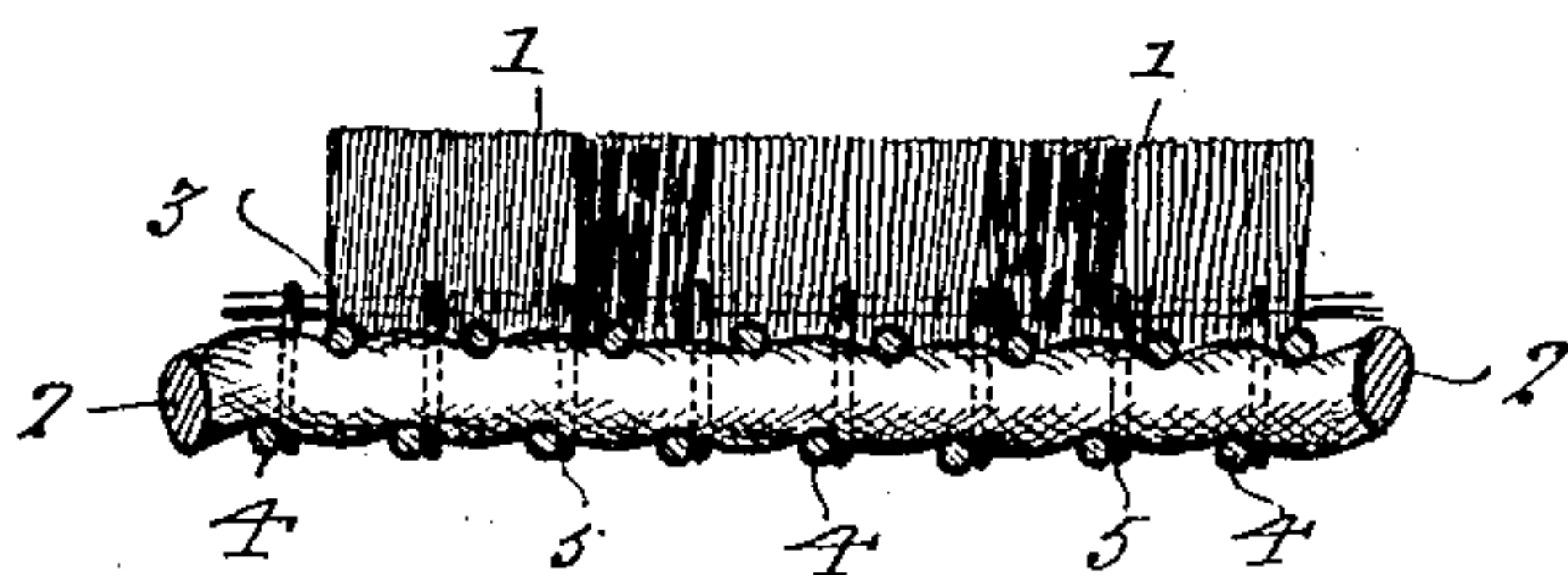


Fig. 2.



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WOVEN FABRIC.

No. 824,448.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM T. SMITH, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Woven Fabrics, of which the following is a specification.

The object of my invention is to produce at a small fraction of the cost of an oriental rug or carpet a fabric closely resembling the same and constituting a cheap and acceptable substitute therefor. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 represents an exaggerated section of a piece of fabric made in accordance with my invention, this section being taken in the direction of the warp; and Fig. 2 is a transverse section of the same—that is to say, a section taken in the direction of the weft.

An ordinary oriental rug or carpet consists of separate knots or tufts independently secured in position upon a supporting-warp, so that the face of the rug presents a projecting pile, while the back of the rug shows a pattern corresponding to that of the face, but less pronounced than the same, owing to the exposure or partial exposure of the loops or bights of the knots or tufts whose projecting ends constitute the pile-surface. My improved fabric has a pile-surface composed of "one-sided" chenille, a backing composed of interwoven warp and weft threads, and tying warp-threads, whereby the chenille is confined to said backing, and said fabric can be woven in a power-loom, and hence can be produced much more cheaply and expeditiously than the ordinary oriental carpet or rug fabric. By "one-sided chenille" I mean a chenille in which the tufting or pile-threads all project in one direction from a core or other support as distinguished from a round chenille, from which the pile-threads or tufts project in all directions. Such chenille is employed in the form of a party-colored strip, the character of the coloring and the disposition of the colors in the strip depending upon the desired pattern to be produced in the finished fabric, such party-colored chenille strip being introduced as a weft-thread by means of a shuttle in the same manner as in weaving an ordinary yarn.

In the drawings, 1 represents the one-sided chenille-surface weft-threads, 2 the heavy backing weft-threads, which may be composed of cotton, jute, or other cheap material. 3 and 4 represent the warp-threads,

which are interwoven with said weft-threads 2 to form the backing fabric, and 5 represents the tying warp-threads, which are so shedded as to pass over the cores of the chenille weft-threads 1 down between successively-introduced backing weft-threads 2 and beneath said backing weft-threads, as shown in Fig. 1. As a consequence of this method of weaving the loops or bights of the chenille weft-threads are drawn down to a greater or less extent into the spaces between the backing weft-threads 2, so as to be visible from the back of the fabric in somewhat the same way as the loops or bights of the pile knots or tufts of an ordinary oriental carpet or rug fabric.

One of the principal advantages of the ordinary oriental rug is durability, and this same advantage is possessed in a large measure by my improved fabric, for the backing fabric can be made as strong and durable as may be desired, and the chenille weft-threads are closely bound down to said backing fabric by the binding warp-threads 5, which are preferably finer than the warp-threads 3 and 4, composing part of the backing fabric, so that said fine binding-threads will be protected from wear by the coarser or heavier warp-threads, and the release of the chenille weft-threads by reason of the wearing away of the fine binding warp-threads from the back of the fabric is thereby prevented.

Each set of warp-threads may comprise a pair of backing warp-threads 3 and 4, and either a single binding warp-thread 5 or a plurality of such binding warp-threads and the backing warp-threads and binding warp thread or threads of each set may pass through the same space of the reed, or the binding warp thread or threads may pass through a different space of the reed from that which receives the backing warp-threads.

Preferably the binding warp-thread is disposed closely alongside one of the backing warp-threads, as shown in Fig. 2 of the drawings, or where a plurality of binding warp-threads are employed there may be one at each side of said backing warp-threads or one at each side and one between the same.

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

1. A woven fabric in which are combined a backing fabric composed of interwoven warp

and weft threads, a pile-face consisting of weft-threads of one-sided chenille and binding warp-threads passing over said chenille weft-threads and under and between successive backing weft-threads, whereby the bights or loops at the back of the chenille-face weft-threads are drawn down between successive weft-threads of the backing so as to be visible on the back of the fabric substantially as specified.

2. A woven fabric in which are combined a backing fabric composed of interwoven warp and weft threads, a pile-face consisting of weft-threads of one-sided chenille and binding warp-threads passing over said chenille weft-threads and under and between successive backing weft-threads, whereby the

bights or loops at the back of the chenille-face weft-threads are drawn down between successive weft-threads of the backing so as to be visible on the back of the fabric, the binding warp-threads being finer than the backing warp-threads, and each binding warp-thread being disposed closely alongside of a backing warp-thread so as to be protected from wear thereby, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM T. SMITH.

Witnesses:

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