No. 752,712. PATENTED FEB. 23, 1904.

H. SARAFIAN.

WOVEN PILE FABRIC.

APPLICATION FILED DEC. 13, 1901.

NO MODEL.

Fig. 1

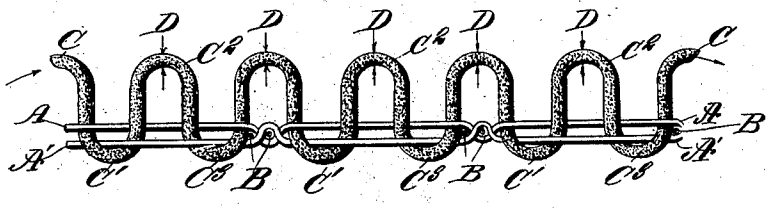


Fig. 2

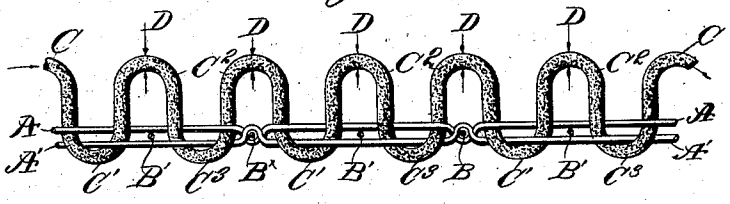
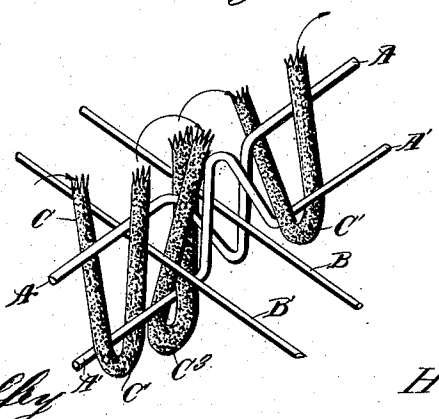


Fig. 3



WITNESSES:

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No. 752,712. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

HOVCEP SARAFIAN, OF YONKERS, NEW YORK.

WOVEN PILE FABRIC.

SPECIFICATION forming part of Letters Patent No. 752,712, dated February 23, 1904.

Application filed December 13, 1901. Serial No. 85,829. (No specimens.)

To all whom it may concern:

Be it known that I, HOVCEP SARAFIAN, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented a new and Improved Woven Pile Fabric, of which the following is a full, clear, and exact description.

The invention relates to textile fabrics commonly known as "oriental rugs;" and its object is to provide a new and improved woven pile fabric in which the pile is exceedingly close, to give a fine appearance to the finished product, to produce an exceedingly strong and durable weave in which the piles are not liable to become loose or pull out when using the fabric as a rug, for instance, the fabric practically not showing weft or ground warp on either face, but only the pile on the face and the pile-loops on the back.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is an enlarged longitudinal sectional elevation of the weave. Fig. 2 is a like view of a modified form of the same, and Fig. 3 is a perspective view of the finished fabric.

The body of the woven pile fabric is formed of sets of ground warp-threads, each set containing at least two continuous ground warp-threads A A′, of which I prefer to call the ground warp-thread A the "upper" ground warp-thread and the other ground warp-thread, A′, the "lower" ground warp-thread, and the sets of ground warp-threads are suitably interwoven with binding weft-threads B, and each set of ground warp-threads A A′ is also interwoven with a continuous pile warp-thread C, having bottom loops C′ C^3, looped around the lower ground warp-thread A′ and passing between the ground warp-threads to form upper loops C^2, extending a distance above the upper warp-thread A and adapted to be cut at D to produce a pile surface.

In weaving the fabric each pile warp-thread C preferably starts from the left to the right on a pair of ground warp-threads A A′. In starting from the left to the right the pile warp-thread C passes down on one side of the upper ground warp-thread A, then between the warp-threads A A′ of a pair of warp-threads to then loop around the lower ground warp-thread A′ to form the bottom loop C′ and to again pass between the warp-threads A′ A and then rise on the opposite side of the upper ground warp-thread A. The pile warp-thread C now makes the loop C^2 a distance above the upper ground warp-thread A and over a wire or knife, which cuts the loop C^2 at D, and then the pile warp-thread C passes down on the same side of the upper ground warp-thread A and between the ground warp-threads A A′ to form another bottom loop C^3. The pile warp-thread then passes between the ground warp-threads A′ A to rise on the other side of the upper ground warp-thread A and form another loop C^2 over the next wire or knife and a distance above the upper ground warp-thread. This second loop C^2 extends over the crossing and binding-in portion of the ground warp-threads A A′, and then the pile warp-thread C again engages the ground warp-threads A A′ in the same order as above described.

By reference to Fig. 3 it will be seen that each individual pile has its bottom loop C′ or C^3 looped around the bottom ground warp-thread A′, and the side members of the pile cross each other by passing from opposite sides between the lower and upper ground-warps to extend with their terminals on opposite sides of the upper ground-warp and a distance above the same. By this arrangement each pile is interlocked with the ground-warps to prevent the piles from becoming detached when the fabric is used.

By the arrangement described it will be seen that successive loops C′ C^3 are looped in opposite directions around the ground warp-thread A′, thus producing an exceedingly strong weave in which the piles are not liable to become loose or pull out—when using the fabric as a rug, for instance.

As shown in Fig. 1 I employ two binding weft-threads B at each crossing of the upper

and lower ground warp-threads A A′; but I do not limit myself to this arrangement, as it may be varied and less or more binding weft-threads employed. For instance, as shown in Fig. 2 a single binding weft-thread is used at each crossing of the upper and lower ground warp-threads, and another binding weft-thread B′ passes between the upper and lower ground weft-threads about midway between their crossing to pass through the crossing of the pair of ground warp-threads.

The ground warp-threads A A′ and the binding weft-threads B B′ are comparatively thin relative to the pile warp-threads.

By the arrangement described and shown in Fig. 1 a large number of piles can be had to the square inch of the weave produced, so as to give an exceedingly fine appearance to the finished product, it being understood that the body formed by the ground-warps A A′ and the binding weft-threads B is practically not visible from the face or from the back, as the pile ends are very close together, and consequently hide the body at the upper face of the fabric, and the loops C′ C³ around the lower ground warp-threads A′ hide the under face of the said body.

In order to produce a desired design, I color the pile warp-threads accordingly. The pile warp-threads are preferably of silk, worsted, or the like, and the body may be formed of cotton or wool or other suitable material.

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

1. A pile fabric, comprising upper and lower ground warp-threads, weft-threads for binding the said ground warp-threads, and pile warp-threads, each looped around a lower ground warp-thread and crossing between the lower ground warp-thread and the upper ground warp-thread, the pile ends extending on opposite sides of the upper ground warp-thread, the adjacent pile warp-threads having their adjacent pile ends on the same side of the upper ground warp-thread, as set forth.

2. A pile fabric, comprising ground warp-threads, binding weft-threads, and pile warp-threads, each looped around a lower ground warp-thread, and crossing between this ground warp-thread and an upper ground warp-thread, then extending with its pile ends on opposite sides of the upper ground warp-thread, successive loops being looped in opposite directions around the lower ground warp-thread, as set forth.

3. A pile fabric, comprising upper and lower ground warp-threads, pile warp-threads, each looped around a lower ground warp-thread and crossing between the lower ground warp-thread and the upper ground warp-thread, the pile ends extending on opposite sides of the upper ground warp-thread, the adjacent pile warp-threads having their adjacent pile ends on the same side of the upper ground warp-thread, and weft-threads for binding the said ground warp-threads, one weft-thread being between the warp-threads at the crossing of the same and the adjacent one between the warp-threads about midway between their crossing and between adjacent pile ends of the warp-threads, as set forth.

4. A woven pile fabric which consists of sets of warp-threads and of weft-threads for binding said sets together, each set of warp-threads comprising at least two continuous ground warp-threads, arranged one above the other and one continuous pile warp-thread, the pile warp-thread being looped around the lower ground warp-thread, extended between the ground warp-threads and having upper loops above the upper ground warp-thread, as set forth.

5. A woven pile fabric which consists of sets of warp-threads and of weft-threads for binding said sets together, each set of warp-threads comprising at least two continuous ground warp-threads, arranged one above the other and one continuous pile warp-thread, the pile warp-thread being looped around the lower ground warp-thread, extended between the ground warp-threads and having upper loops about the upper ground warp-thread, the said upper loops being cut to produce a pile surface.

6. A woven pile fabric which consists of sets of warp-threads and of weft-threads for binding said sets together, each set of warp-threads comprising at least two continuous ground warp-threads, arranged one above the other and one continuous pile warp-thread, the pile warp-thread being looped around the lower ground warp-thread, extended between the ground warp-threads and having upper loops above the upper ground warp-thread, the said upper loops being cut to produce a pile surface, the cut ends of an upper loop being on the same side of the upper ground warp-thread.

7. A woven pile fabric which consists of sets of warp-threads and of weft-threads for binding said sets together, each set of warp-threads comprising at least two continuous ground warp-threads, arranged one above the other and one continuous pile warp-thread, the pile warp-thread being looped around the lower ground warp-thread successively in opposite directions, and the pile warp-thread being extended between the ground warp-threads and having upper loops above the upper ground warp-thread, as set forth.

8. A woven pile fabric which consists of sets of warp-threads and of weft-threads for binding said sets together, each set of warp-threads comprising at least two continuous ground warp-threads, arranged one above the other and one continuous pile warp-thread, the pile warp-thread being looped around the lower ground warp-thread successively in opposite directions, and the pile warp-thread being extended between the ground warp-threads

and having upper loops above the upper ground warp-thread, the said upper loops being cut to produce a pile surface, the cut ends of an upper loop being on the same side of the upper ground warp-thread.

9. A pile fabric comprising sets of upper and lower ground warp-threads, weft-threads for binding the said ground warp-threads, and a continuous pile warp-thread for each set of upper and lower ground warp-threads, the pile warp-thread being looped around the lower ground warp-thread and crossing between the lower ground warp-thread and the upper ground warp-thread, to form upper loops above the upper ground warp-thread.

10. A pile fabric comprising sets of upper and lower ground warp-threads, weft-threads for binding the said ground warp-threads, and a continuous pile warp-thread for each set of upper and lower ground warp-threads, the pile warp-thread being looped around the lower ground warp-thread and crossing between the lower ground warp-thread and the upper ground warp-thread, to form upper loops above the upper ground warp-thread, alternately on opposite sides thereof.

11. A pile fabric comprising sets of upper and lower ground warp-threads, weft-threads for binding the said ground warp-threads, and a continuous pile warp-thread for each set of upper and lower ground warp-threads, the pile warp-thread being looped around the lower ground warp-thread and crossing between the lower ground warp-thread and the upper ground warp-thread, to form upper loops above the upper ground warp-thread, alternately on opposite sides thereof, the said upper loops being cut, to produce a pile surface.

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

HOVCEP SARAFIAN.

Witnesses:

THEO. G. HOSTER,

EVERARD BOLTON MARSHALL.