

No. 812,596.

PATENTED FEB. 13, 1906.

A. G. ROBERTSON.
WOVEN PILE FABRIC.
APPLICATION FILED APR. 29, 1905.

FIG. 1.

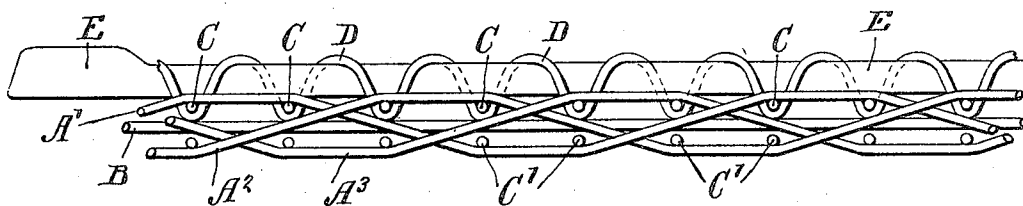
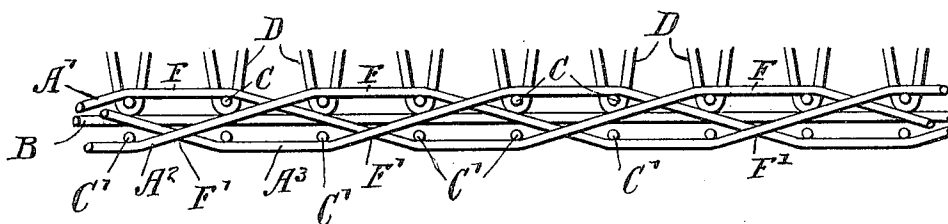


FIG. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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WOVEN PILE FABRIC.

No. 812,596.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed April 29, 1905. Serial No. 253,020.

To all whom it may concern:

Be it known that I, ANDREW G. ROBERTSON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Woven Pile Fabrics, of which the following is a specification.

My invention relates to improvements in woven pile fabric, and is particularly adapted for the manufacture of carpet.

The object of my invention is to so form the fabric that its texture will be greatly strengthened and the quality of the carpet improved.

A further object of my invention is to so arrange the binder warp-threads that the pile-threads will be securely locked in the body of the fabric by the said binder warp-threads.

A still further object of my invention is to so arrange the binder warp-threads that separate sheds will be provided for every two successive upper filling-threads and for every two successive lower filling-threads, so that in case a stuffer-thread is not used the upper and lower pairs of filling-threads will not be drawn in contact with each other.

Referring to the drawings, Figure 1 is a longitudinal section of the fabric, drawn on an enlarged scale, showing the pile-threads uncut; and Fig. 2 is a similar view showing the pile-threads cut.

In the drawings, A', A², and A³ represent the binder warp-threads; B, the stuffing warp-thread; C, the upper filling-threads or weft-threads; C', the lower filling-threads or weft-threads, and D the pile-thread.

In Fig. 1 the pile-thread D is shown uncut and looped over the pile-wire E, the loops being formed on either side of the pile-wire alternately in the usual manner. Fig. 2 shows the pile-wire withdrawn and the pile-threads cut.

The binder warp-threads A' pass over one pair of the upper filling-threads C. The binder warp-threads A² pass over the next succeeding pair of filling-threads C, and the binder warp-threads A³ pass over the next succeeding pair of filling-threads. The binder-threads then pass under the lower pairs of filling-threads C', each thread A', A², and A³

engaging successive pairs of the lower filling-threads C' in the same manner as they engage the upper filling-threads C.

Throughout the fabric one of the binder warp-threads forms a plane F on one face of the fabric, and the two remaining binder warp-threads cross at the point F' directly opposite the said plane F, which formation is reversed between the next pair of filling-threads, the binder warp-threads crossing at the top and the plane F being formed on the opposite face of the fabric, and so on alternately throughout the fabric. By crossing the binder warp-threads in this manner a separate shed is formed for every two upper filling-threads and for every two lower filling-threads successively throughout the fabric, thus keeping the upper filling-threads separate from the lower filling-threads.

The stuffer-threads may or may not be used, as desired. They are used to give the fabric more body and are not necessary in my improved construction for holding the filling-threads in their proper places.

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

1. In a woven pile fabric the combination of upper and lower filling-threads, pile-threads, a binder warp-thread passing over a pair of said upper filling-threads, a second binder warp-thread passing over the next succeeding pair of upper filling-threads and a third binder warp-thread passing over the next succeeding pair of filling-threads and said binder warp-threads then passing under successive pairs of said lower filling-threads, substantially as described.

2. In a woven pile fabric the combination of upper and lower filling-threads, pile-threads, binder warp-threads, one of said binder warp-threads adapted to pass over a pair of said upper filling-threads, two others of said binder warp-threads adapted to cross below the said pair of upper filling-threads and engage the lower filling-threads and said binder warp-threads alternately engaging successive upper and lower pairs of filling-threads in like manner throughout the fabric, substantially as described.

3. In a woven pile fabric the combination of upper and lower filling-threads, pile-

threads, binder warp-threads passing over successive pairs of upper filling-threads and undersuccessive pairs of lower filling-threads, said binder warp-threads so arranged as to
5 form a flat surface over a pair of upper filling-threads and to cross directly opposite said flat surface on the other side of said fabric, said binder warp-threads then engaging successive pairs of upper and lower filling-

threads in like manner throughout the fabric, 10 substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW G. ROBERTSON.

Witnesses:

JOSEPH T. TAYLOR,
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