

(Specimens.)

W. C. GRAY & W. TANNAHILL.  
CARPET FABRIC.

No. 419,516.

Patented Jan. 14, 1890.

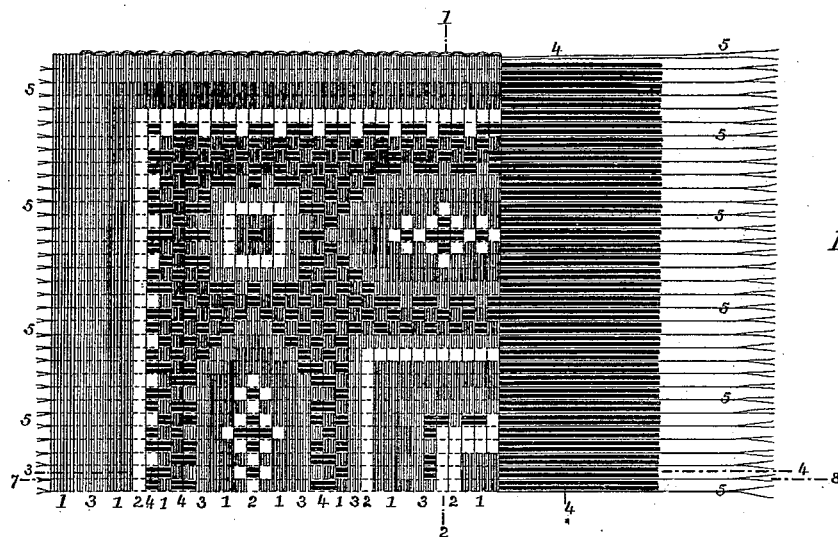


FIG. 1.

FIG. 3.

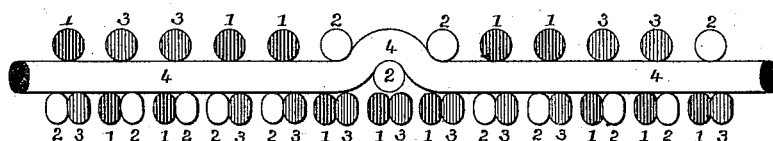


FIG. 4.

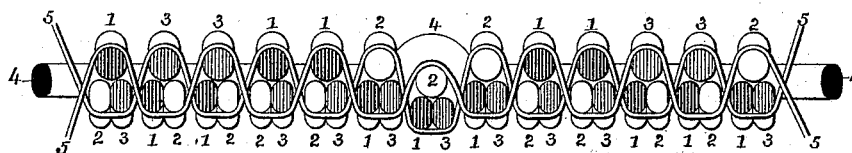
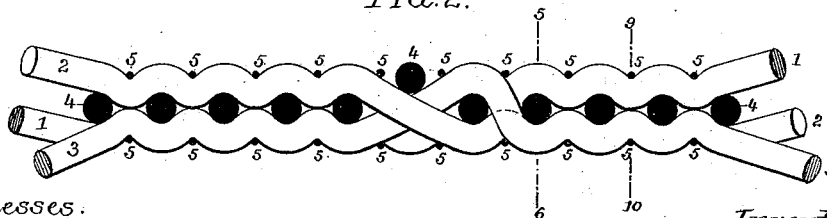


FIG. 2.



Witnesses.  
William D. Warner.  
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# UNITED STATES PATENT OFFICE.

WILLIAM C. GRAY, OF AYR, COUNTY OF AYR, AND WILLIAM TANNAHILL,  
OF ABERDEEN, COUNTY OF ABERDEEN, SCOTLAND; SAID TANNAHILL  
ASSIGNOR TO SAID GRAY.

## CARPET FABRIC.

SPECIFICATION forming part of Letters Patent No. 419,516, dated January 14, 1890.

Application filed September 11, 1888. Serial No. 285,146. (Specimens.) Patented in England January 20, 1888, No. 902.

*To all whom it may concern:*

Be it known that we, WILLIAM CRAWFORD GRAY, residing in the town and county of Ayr, and WILLIAM TANNAHILL, residing in the city and county of Aberdeen, both in Scotland, and subjects of the Queen of Great Britain and Ireland, have invented certain Improvements in Carpet Fabrics, (for which we have obtained British Letters Patent, No. 902, dated January 20, 1888,) of which the following is a specification.

The object of our invention is to weave a carpet fabric having colored pattern-forming weft-threads, but presenting corded lines, ribs, or ridges, so that the fabric, although differing, essentially, in structure from a Brussels carpet, constitutes an effective imitation of the same. This object we attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a face view of a piece of carpet fabric made in accordance with our invention. Fig. 2 is a transverse sectional view, on a larger scale, of part of the fabric shown in Fig. 1, the section being taken on the line 1 2 of said figure. Fig. 3 is a longitudinal section, also on an enlarged scale, of part of the fabric shown in Fig. 1, the section being on the line 3 4 of said figure or on the line 5 6 of Fig. 2; and Fig. 4 is an enlarged longitudinal section of part of the fabric shown in Fig. 1, taken on the line 7 8 of said figure or on the line 9 10 of Fig. 2.

The fabric comprises a series of weft-threads, thick warp or stuffing threads, and fine warp or binding threads. There are in the present instance three figure-wefts, (numbered, respectively, 1, 2, and 3,) although but two or more than three may be used, as desired, these wefts being inserted in any desired order of succession, and each weft where

it is to appear on the face being shot above the heavy warp 4, and going to the back of said warp where it is not to appear on the face, so that in the fabric shown there are two wefts on the back where the other is on the face. The fine binding-warps 5 form sheds, which cross between successive sets of the figuring-wefts, as shown in Fig. 4, and thus serve to bind the face and back wefts together and to the thick warps 4, and also to prevent the face wefts from lying closely together, so that each line of weft on the face of the fabric forms a well-defined cord or rib, closely resembling that of the transverse row of pile loops in an ordinary Brussels carpet.

The fine binding-warps are located between the thick warps, as shown in Figs. 1 and 2, so that in addition to their duty of binding and separating the face wefts they serve to draw down or depress each face weft between adjoining thick warps; hence the appearance of continuity in each of said face wefts is broken up, the weft being crossed by numerous fine lines or grooves parallel with each other, in order to effect a simulation of the independent warp-threads of an ordinary Brussels carpet.

In order to add another color to the pattern, the thick warp 4 may be carried to the face of the fabric for a short distance at intervals, so as to form spots, as shown, the spots formed by each warp being preferably of limited dimensions, in order to avoid an extended float of the warp on the face of the fabric.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. A carpet fabric in which are combined colored pattern-forming wefts arranged in sets or groups, thick warps embedded between the face and back wefts, and fine binding-warps

- in pairs, alternated with the thick warps and serving to bind the wefts between the same, so as to groove or indent each face weft between the thick warps, said binding-warps being shedded between successive sets or groups of patterning-wefts, and respectively passing to the opposite sides of said sets or groups, substantially as specified.
2. The combination, in a carpet fabric, of colored face and back wefts, thick warps, and fine binding-warps alternating therewith, said thick warps being mostly embedded in the fabric between the face and back wefts, but occasionally carried to the face of the fabric to aid in forming the pattern, substantially as specified.

In testimony whereof I, the said WILLIAM CRAWFORD GRAY, have signed my name to

this specification in the presence of two subscribing witnesses.

WILLIAM C. GRAY.

Witnesses:

W. R. M. THOMSON,

JOHN SIME,

*Both of 96 Buchanan Street, Glasgow, Scotland.*

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

WM. TANNAHILL.

Witnesses:

GEORGE SPENCE,

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