

J. O. MCGORMAN.  
INGRAIN CARPET FABRIC.  
(Application filed Oct. 11, 1901.)

(No Model.)

Fig. 1.

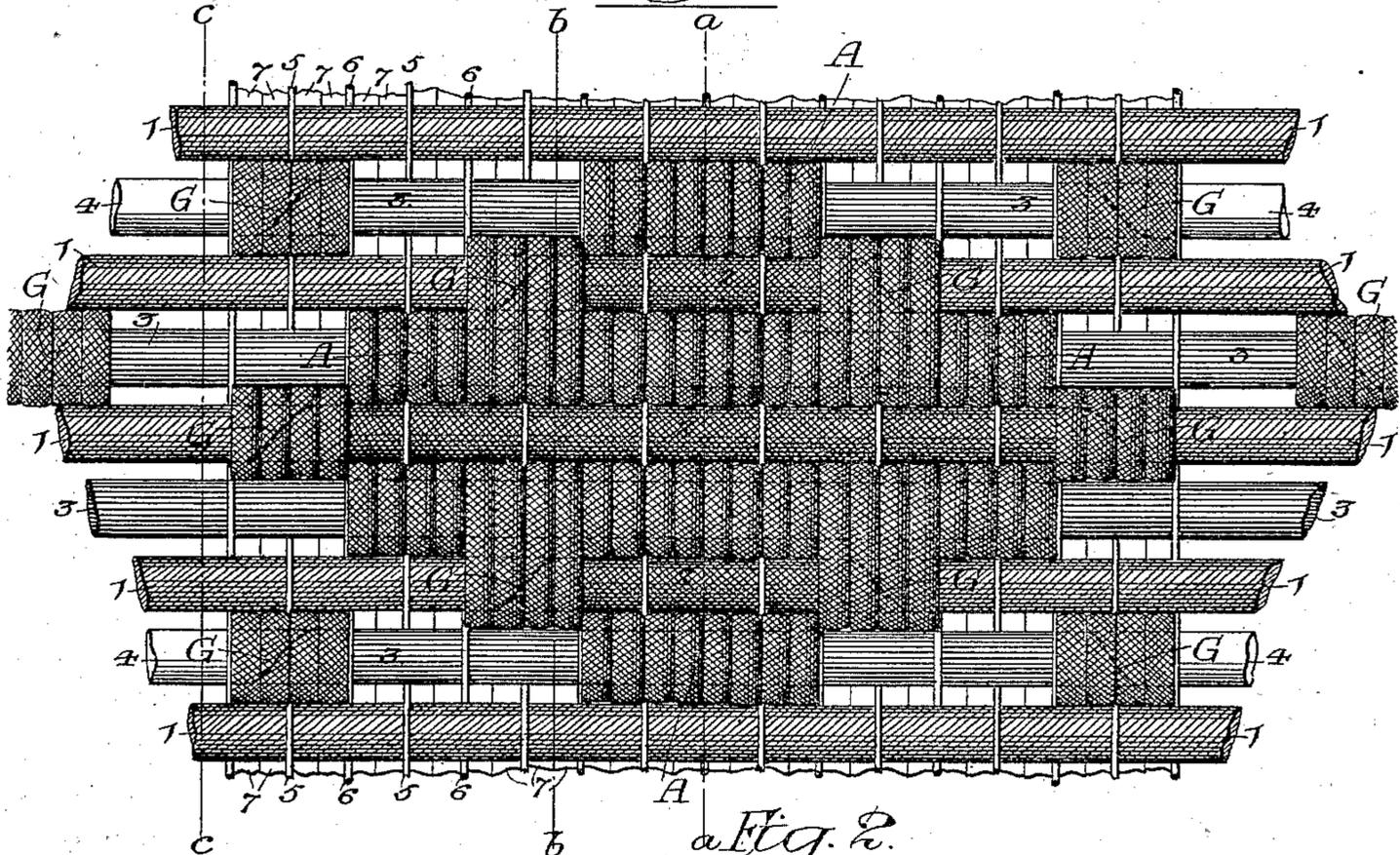


Fig. 2.

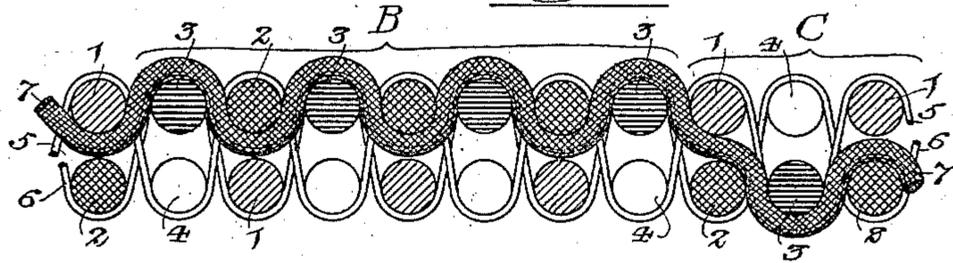


Fig. 3.

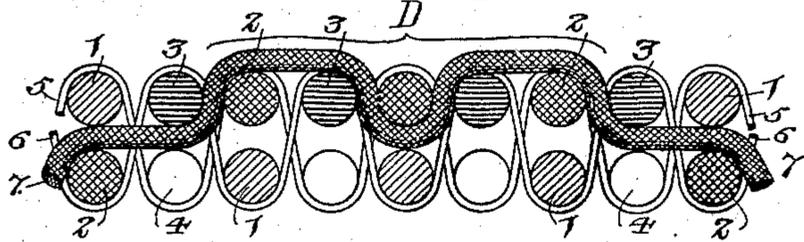
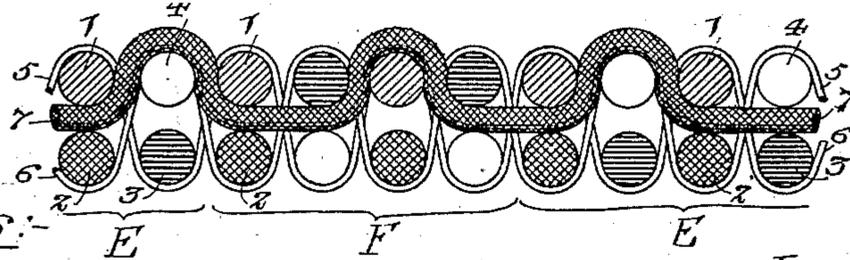


Fig. 4.



Witnesses:-

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by his Attorneys:-  
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# UNITED STATES PATENT OFFICE.

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## INGRAIN CARPET FABRIC.

SPECIFICATION forming part of Letters Patent No. 702,323, dated June 10, 1902.

Application filed October 11, 1901. Serial No. 78,336. (No specimens.)

*To all whom it may concern:*

Be it known that I, JAMES O. MCGORMAN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Ingrain Carpet Fabrics, of which the following is a specification.

My invention relates to a two-ply ingrain carpet fabric having two acceptable faces; and it consists of a fabric of this character in which each face is composed of a series of different-colored weft-threads, which threads may be disposed upon either face of the fabric at will, being tied in with the ordinary binding-warps, combined with a stuffer-thread whereby the fabric may be given extra body, such stuffer-thread also serving as a figuring-warp, whereby I am enabled by employing a weft-thread of the same color as the stuffer-thread to produce solid-color portions of the design. The stuffer-thread may be disposed on either face of the fabric, or it may be laid between the pairs of weft-threads forming the different faces of the same.

My invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a portion of fabric made in accordance with my invention. Fig. 2 is a sectional view of the same, taken on the line *a a*, Fig. 1. Fig. 3 is a similar sectional view taken on the line *b b* Fig. 1; and Fig. 4 is a similar sectional view taken on the line *c c*, Fig. 1.

The fabric forming the subject of my invention belongs to that class familiarly known as "two-ply" ingrain carpets, having a number of figuring weft-threads bound in by the ordinary fine warps. With such a fabric I combine a stuffer-thread capable also of use as a figuring-warp, which stuffer is so combined with the said weft-threads as to improve the fabric by adding body to the same, and at the same time it enhances the diversity of the design. The stuffer-thread is of the same color as one of the weft-threads, and when it is to appear upon either face of the fabric as a figuring-warp it is passed between the alternate weft-threads forming such face, or if it is floated over two of the threads it is either passed between the next succeeding weft-threads to the other face of

the fabric or under the succeeding weft-thread if it is to be brought back to the original face. In all instances it forms a part of the fabric at one point or another of the same, and hence increases the body of the fabric and its wearing qualities.

In the drawings herewith the weft-threads are four in number arranged in sets of the same number, which sets are duplicated throughout the fabric and have a certain relative position to each other. The colors used are preferably red, olive, black, and white, 1 representing the red, 2 representing the olive, 3 representing the black, and 4 representing the white. These weft-threads are bound together by the light binder warp-threads 5 and 6 to constitute a homogeneous two-ply ingrain carpet fabric having two acceptable faces. The strength and body of the fabric is improved and the designs appearing upon each face of the same are greatly diversified and enhanced by the use of the stuffer-thread 7, which may also be used as a figuring-warp disposed on either face of the fabric at will.

The stuffer 7 consists really of two ends or threads for each heddle, which lie perfectly flat, side by side, over the weft-threads and insure the complete covering of the same at the points where it is desired to form solid-color figures in the design.

By having the stuffer-thread of a color similar to one of the weft-threads—for instance, olive—certain figures of the design may be shown in solid color when such stuffer is used as a figuring-warp, the weft of such color representing one portion of the same and the stuffer-thread of the same color acting as a figuring-warp and entirely covering the adjoining weft-threads of the other colors.

Fig. 1 shows a plan view of a piece of fabric made in accordance with my invention, illustrating clearly the manner of forming the solid-color figures A of the design, which figures are made up of the weft-threads 2 and the stuffer 7 crossing the alternate weft-threads between the weft-threads 2.

In Fig. 2, B illustrates a section of the fabric, taken on the line *a a*, Fig. 1, and represents a series of one set of the weft-threads,

in which 1 and 3 appear on the upper face of the fabric, and C represents a series of the same set of weft-threads shedded, so as to bring the threads 2 and 4 upon the upper face. Between alternate threads in each set the stuffer-thread 7 is disposed on the faces of the fabric.

Fig. 3 illustrates a sectional view of the fabric on the line *b b*, Fig. 1, at a point D where the stuffer is floated over two weft-threads of the face of the fabric for the purpose of shaping the figure of the design in certain parts of the same. Such arrangement may also be employed to make smaller figures of the design, in which the stuffer will float over two weft-threads and have at either side other weft-threads of the same color. To do this, it is necessary, of course, to change the relative position of said weft-threads.

In Fig. 4, E illustrates a section of the fabric, taken on the line *c c*, Fig. 1, and represents a series of one set of the weft-threads, in which 1 and 4 are on the upper face of the fabric, and F represents a series of the same set, in which the threads 3 and 4 are shedded, so as to bring the threads 2 and 3 upon the upper face. In this instance the stuffer-thread 7 is floated between two threads and then brought out over an adjoining thread on the upper face, after which it may be disposed in any suitable portion of the fabric, depending upon the character of the design being produced.

The stuffer-thread employed with the fabric forming the subject of my invention when acting as a figuring-warp has an additional function aside from the patterning feature which enables the formation of solid-color figures, and that is to cover the crossing-points of the weft-threads 1, 2, 3, and 4 when the relative positions of the same are changed. This feature is shown at G in Fig. 1, the dotted lines representing the change of position. By this means definite border-lines may always be given to the several figures of the design.

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

1. A two-ply carpet fabric having the weft-threads homogeneously bound together by binder warp-threads which are disposed singly throughout the fabric, and a stuffer-thread for giving additional body to the fabric and also serving as a figuring-warp which may be disposed on either face of the fabric at will whereby solid-color portions of the fabric may be produced in connection with one or more of the weft-threads, said stuffer-thread consisting of two ends which are disposed on the face of the fabric in pairs and which are spread by one of the binding-warps

during the shedding action while weaving, substantially as described.

2. A two-ply carpet fabric having the weft-threads homogeneously bound together by binder warp-threads which are disposed singly throughout the fabric, said fabric having two acceptable faces, and a stuffer-thread for giving additional body to the fabric and also serving as a figuring-warp which may be disposed on either face of the fabric at will whereby solid-color portions of the design may be produced in connection with one or more of the weft-threads, said stuffer-thread consisting of two ends which are spread by one of the binder-warps when brought to the face of the fabric during the shedding operation in weaving and thereby caused to exert their greatest covering effect and hiding said binding-warp, substantially as described.

3. A two-ply carpet fabric having the weft-threads arranged in sets of four homogeneously bound together by two binder warp-threads arranged singly throughout the fabric, said fabric having two acceptable faces, and a stuffer-thread for giving additional body to the fabric and serving also as a figuring-warp which may be disposed on either face of the fabric and floated between the two surfaces of the weft-threads of the fabric at will whereby portions of the design may be produced in solid colors in connection with one or more of the weft-threads, said stuffer-thread being spread by one of the binding-warps during the shedding operation whereby it is caused to exert its greatest covering effect, substantially as described.

4. A two-ply carpet fabric having the weft-threads homogeneously bound together by two binder warp-threads arranged singly, said fabric having two acceptable faces, upon either of which said weft-threads may appear at will, and a stuffer-thread giving additional body to the fabric and also serving as a figuring-warp which may be disposed on either surface of the fabric at will, said stuffer-thread adapted to cover the crossing-points of the weft-threads, whereby each figure of the design may be given a definite and clearly-defined outline and the production of solid-colored figures in connection with one or more of the weft-threads assured, said stuffer-thread being spread by one of the binding-warps during the shedding operation so as to exert its greatest covering effect, substantially as and for the purpose set forth.

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

JAMES O. MCGORMAN.

Witnesses:

MURRAY C. BOYER,  
JOS. H. KLEIN.