Feb. 13, 1951 J. A. FLIGG 2,541,231

WOVEN FABRIC

Filed Oct. 26, 1948

FIG. 1.

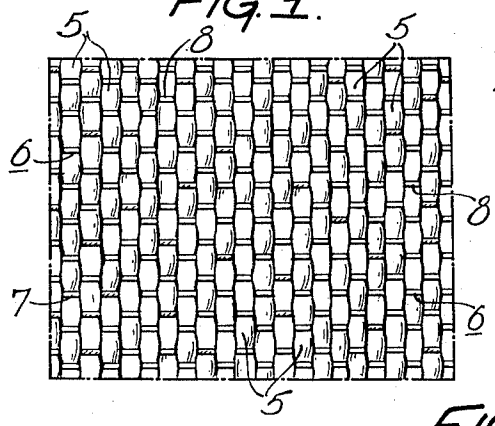


FIG. 2.

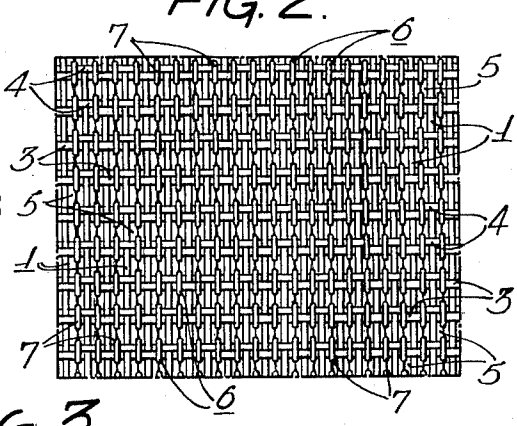


FIG. 3.

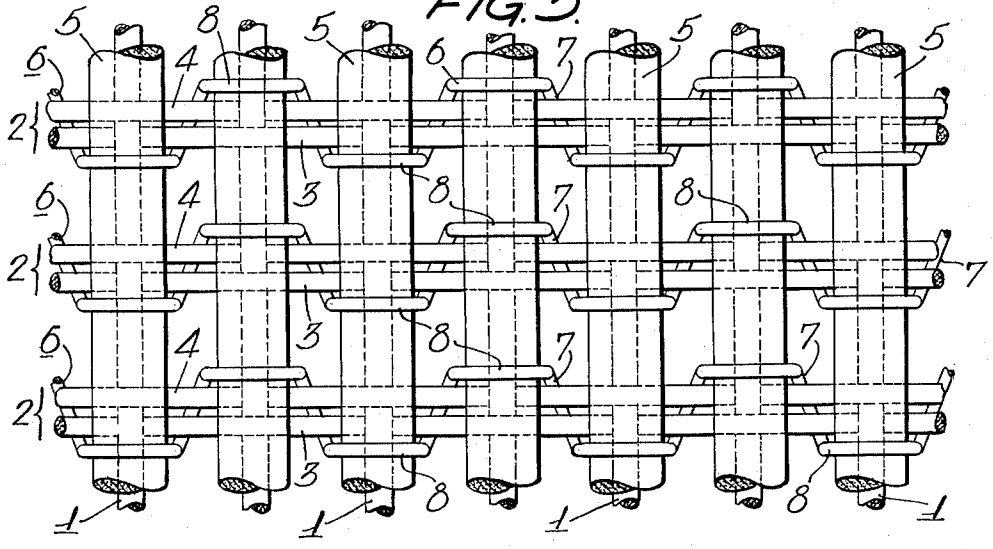
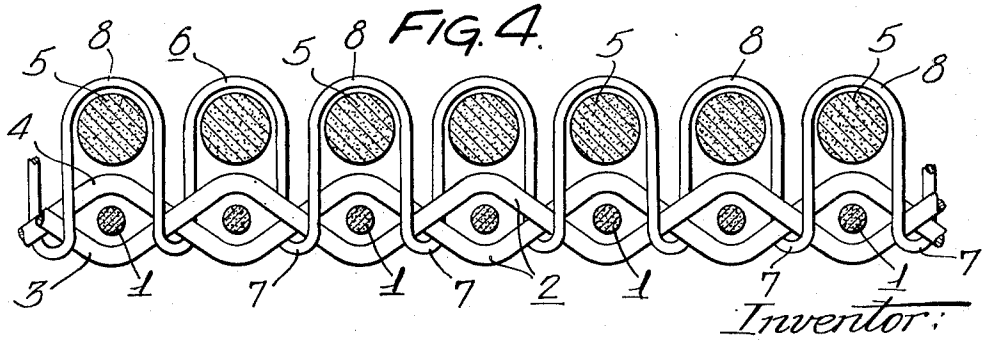


FIG. 4.



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Patented Feb. 13, 1951

2,541,231

# UNITED STATES PATENT OFFICE

2,541,231

## WOVEN FABRIC

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Application October 26, 1948, Serial No. 56,479

6 Claims. (Cl. 139—413)

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This invention relates to textile fabrics, and a principal object of the invention is to provide a novel woven fabric of a type suitable for upholstery, floor covering and other purposes and susceptible, without departure from the principle of the invention, of manufacture at relatively low cost in a wide variety of ornamental designs both with and without a pile face.

The invention may be more readily understood by reference to the attached drawings, wherein:

Fig. 1 is a face view of a swatch of fabric of pileless type made in accordance with the invention;

Fig. 2 is a view showing the reverse or back side of the fabric shown in Fig. 1;

Fig. 3 is an enlarged diagrammatic top plan view of the fabric, and

Fig. 4 is a diagrammatic warpwise sectional view of the fabric as illustrated in Fig. 3.

A fabric made in accordance with the invention will comprise a base fabric composed essentially of a series of ground yarns in the form of parallel wefts bound together in conventional manner by binder warps which are present in two complementary or opposite series. The fabric further includes a series of warpwise threads which are bound into the base fabric by douping under the warps at points intermediate adjoining ground wefts and which originally appear as loops at the face of said fabric, the said upward loops of the warpwise series belonging to each of said threads being disposed alternately at opposite sides of a plane defined by the warps under which the thread is douped.

These doup threads extend continuously through the fabric generally in the warpwise direction and constitute binders for ornamental surface yarns laid weftwise upon the base fabric, said surface yarns being tied down to the base fabric by the said upward loops of the doup threads.

With reference to Figs. 1 to 4 of the drawings the parallel series of ground wefts are indicated by the reference numeral 1. The weft-uniting warps may be considered in this instance to be arranged in pairs which are designated generally by the reference numeral 2, each of said pairs including a warp, 3 and 4 respectively, of each of the two complementary series aforesaid.

As previously stated, the fabric comprises in addition a series of parallel upper face or pattern wefts 5, which are superimposed upon the base web in positions overlying the respective ground wefts 1, and these pattern wefts are bound to the base web by warpwise doup strands 6. In the present instance one such strand is associated with each of the pairs 2 of warps 3 and 4, the strand 6 being douped back and forth under the warps 3 and 4 of the associated pair at the points where these warps pass each other intermediate the adjoining ground wefts 1, and being looped

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over the face wefts 5 as clearly illustrated, to thereby bind these wefts to the base web. The downward loops 7 of the strand 6 which passes under and embrace the associated warps 3 and 4 extend transversely of the warps generally in the weftwise direction, and the upward loops 8 of the strand which extend over and straddle the pattern wefts 5 are thereby disposed alternately at opposite sides of the normal plane defined by the associated pair 2 of the warps. The effect of this formation at the face of the fabric is well illustrated in Fig. 1 wherein the weftwise staggered relation of the weft-straddling loops 8 is apparent. In the fabric illustrated the warp-embracing loops 7 of the doup yarn will appear at the back of the fabric as illustrated in Fig. 2.

I claim:

1. In a textile fabric, a base web including parallel wefts and weft-uniting warps, interwoven strands each exhibiting a generally warpwise series of upward weft-straddling loops interspersed with downward warp embracing loops, and decorative weft threads bound down to the base web by said upward loops and forming the wearing face of the fabric.

2. A textile fabric according to claim 1 wherein each of the downward loops of each of said strands embraces a common warp.

3. A textile fabric according to claim 2 wherein successive upward loops of each of said strands lie at opposite sides respectively of said common warp.

4. In a textile fabric, a base web including parallel wefts and weft-uniting warps in complementary pairs, interwoven strands each exhibiting a generally warpwise series of upward weft-straddling loops interspersed with downward loops embracing said warp pairs, and decorative weft threads bound down to the base web by said upward loops and forming the wearing face of the fabric.

5. A textile fabric according to claim 4 wherein each of the downward loops of each of said strands embraces a common complementary pair of the warps.

6. A textile fabric according to claim 5 wherein successive upward loops of each of said strands lie at opposite sides respectively of said common pair of warps.

JAMES A. FLIGG.

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