

(Specimens.)

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CARPET FABRIC.

No. 363,366.

Patented May 24, 1887.

Fig: 1.

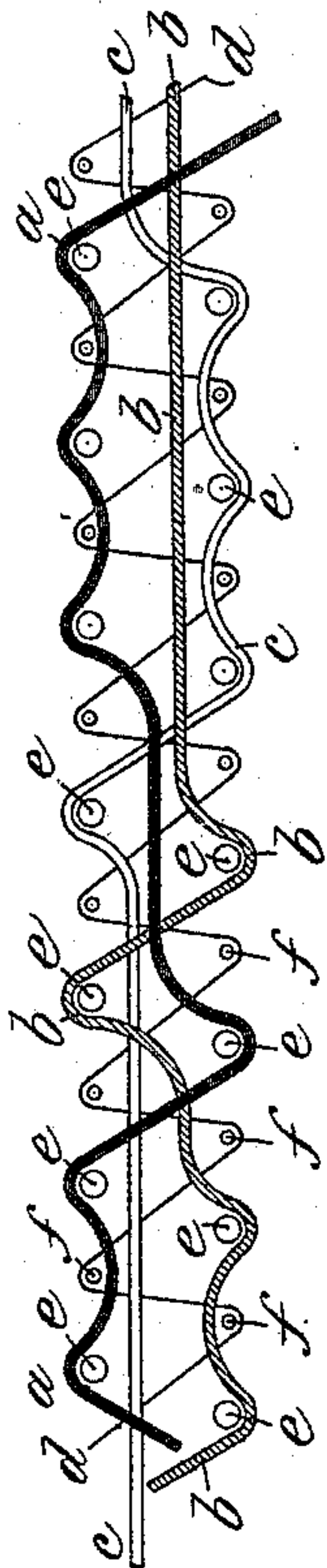
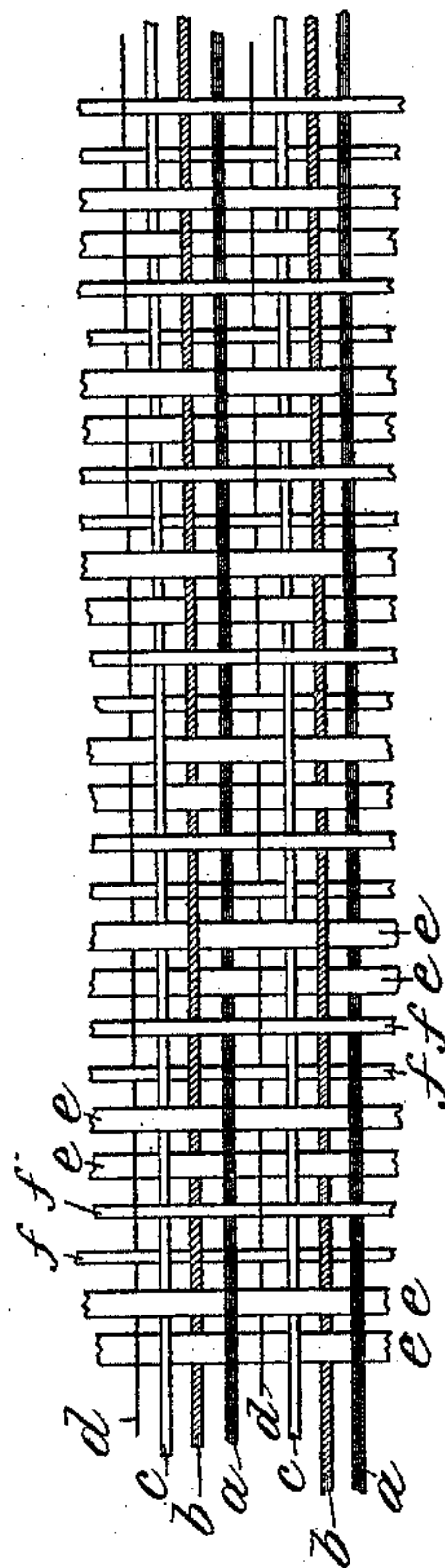


Fig: 2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

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ADMINISTRATRIX OF SAID GEORGE CROMPTON, DECEASED.

## CARPET FABRIC.

SPECIFICATION forming part of Letters Patent No. 363,366, dated May 24, 1887.

Application filed February 19, 1886. Serial No. 192,533. (Specimens.)

*To all whom it may concern:*

Be it known that I, GEORGE CROMPTON, of Worcester, county of Worcester, and State of Massachusetts, have invented an Improvement  
5 in Carpet Fabrics, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a double-faced ribbed carpet fabric,  
10 either side of which may be used uppermost, both faces exhibiting a pattern showing warp-threads of three or more colors.

My improved carpet fabric is composed of  
15 figuring-warps, binder-warps, and stuffer and binder wefts, the stuffer-weft larger than the binder-weft, and co-operating with the figuring-warps, serving to give the fabric a ribbed appearance, like a pile fabric.

My invention consists in a carpet fabric composed of three or more sets of figuring-warps,  
20 a set of binder-warps, and stuffer and binder weft, two sets of the figuring-warps appearing on the two faces of the fabric to form each of the ribs, such sets being formed from portions  
25 of three or more sets of warp-threads, the threads of that set of warps which do not appear at one or the other face of the fabric when the stuffer-warp is being inserted being retained at the center of the fabric between the  
30 stuffer-weft of the opposite sides, so as to constitute a body for the fabric.

Figure 1 is a longitudinal section, on an enlarged scale, of a carpet fabric embodying my  
35 invention, and Fig. 2 a plan view of a part of the carpet with the warp and weft spread out to show their crossing.

My improved carpet fabric consists, essentially, of three or more sets of figuring-warps,  
40 *a b c*, a binder-warp, *d*, a stuffer-weft, *e*, and a binder-weft, *f*. Each set of warps *a b c* may be of a separate color, or be party-colored, or be striped in the chain.

To produce my improved fabric I may make  
45 use of any ordinary two-shuttle Jacquard loom, well known in the art to which my invention relates, it having usual harness or cords to receive the figuring-warps, and usual means—such as a comber-board or griffs—to raise and  
50 lower the harness or cords in proper order or

sequence, in accordance with the demands of the pattern-cards carried by the usual pattern-cylinder.

One jacquard which may be employed to advantage in the manipulation of the figuring-warps in the production of my improved carpet fabric is described in United States Patent No. 230,591, dated July 27, 1880.

To move the binder-warp I prefer to employ a harness-frame having usual heddles,  
60 the said harness-frame being operated through any of the well-known instrumentalities deriving their movement from, say, a cam on the picker-shaft.

By means of the jacquard either of the said  
65 figuring-warps may be made to appear at either face or side of the carpet, as desired, preparatory to inserting the stuffer-weft. The binder-warp will preferably be controlled by one harness-frame.

The binder-warp will pass from one to the other face or side of the fabric, and be there  
70 locked by a shot of binder-weft, *f*. Herein I have shown two picks of stuffer-weft as followed by two picks of binder-weft.

Referring to the left-hand end of Fig. 1, the  
75 figuring-warp *a* is shown as exposed at the upper side of the fabric for two picks of the stuffer-weft. Then the said warp is thrown to the under side of the fabric for one pick of the  
80 stuffer-weft, and thereafter for two picks of the stuffer-weft, taking into consideration but one side of the fabric, the said warp remaining concealed in the fabric, appearing again, however, at the upper side of the fabric for, as  
85 herein shown, three picks.

The figuring-warp *b*, commencing at the left  
of Fig. 1, is down at the under side of the fabric for two picks of the stuffer-weft at that side, then remains in the fabric for one pick  
90 of stuffer-weft at each side of the fabric, and then passes to the upper side of the fabric, where it remains for one pick of stuffer-weft, and then passes to the under side of the fabric for another pick of stuffer-weft, and thereafter,  
95 as herein shown, the warp *b* remains concealed in the fabric and does not appear at either side thereof.

The figuring-warp *c*, commencing at the left  
of Fig. 1, is concealed while three picks of 100



stuffer-west are introduced at the upper side of the fabric, and then the said warp is brought to the upper side of the fabric for one pick of stuffer-west at that side, and then the said  
 5 warp is carried to the under side of the said fabric for three picks of the stuffer-west at that side, when the said warp is again carried into the center of the fabric and concealed.

The binder-warp is made to appear uniformly first at the under and then at the upper side of the fabric, and the said warp is caught and held by the binder-west, the said binder warp and west completing the integrity of the fabric, and being the only threads  
 15 that are interlocked uniformly.

By inspecting the drawings it will be seen that either one of the three sets of figuring-warps may be made to appear at either side of the fabric for one or more picks of stuffer-west, or be concealed in the center of the fabric, and with three sets of figuring-warps, each controlled by usual Jacquard harness, it is possible to make a fabric in which three colors  
 20 may be made to appear in pattern at every pick of stuffer-west at both the upper and under side of the fabric, it being assumed that all the warps of each set are of the same color.

If each set of figuring-warps were held by one harness-frame of any ordinary fancy loom, and all the warps of one color be moved together, then all the threads raised or lowered for any one pick of stuffer-west would be of the same color, provided all the warp-threads of each set were of the same color; but I wish  
 30 to have it understood that the warp-threads constituting any one set of warps may be of different colors or of party-color.

The warp-threads herein shown may be manipulated in accordance with my invention  
 40 by a Jacquard mechanism substantially such as represented in the patent referred to.

To practice my invention most successfully it is only necessary to pass each warp-thread

through the eye of a Jacquard harness, which will be raised or lowered, as may be required, 45 by the pattern-cylinder, the latter carrying pattern-cards to produce a fabric showing the different colors in the proper sequence, two shuttles being employed for the west.

I do not, it will be understood, limit my invention to leaving any particular warp-thread up or down for any particular number of picks, as that will depend upon the pattern being woven or produced by the warps of different color. 55

The essential feature of my invention is that some of the threads of any set may be made to appear and to figure the upper and the lower side of the fabric at any pick.

It is obvious that I may employ more than 60 three sets of warps in proper Jacquard harness, and gain in the number of colors that may be made to appear in the carpet to produce the pattern.

I claim—

The herein-described carpet fabric, composed of three or more sets of figuring-warps, one single set of binder-warp, and a stuffer and a binder west, two of said sets of figuring-warps being made to appear at intervals at 70 both the upper and under sides of the said fabric, the set or sets of figuring-warps not appearing at either surface of the fabric for one or more picks being buried in the body of the fabric, both surfaces of the fabric presenting 75 ribs formed by the loops of warp-thread filled by the stuffer west, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two 80 subscribing witnesses.

GEO. CROMPTON.

Witnesses:

JUSTIN A. WARE,  
 CHARLES M. EDWARDS.