(No Model.)

S. WOOD & G. H. HEPPLESTON.

REVERSIBLE INGRAIN OR IMITATION BRUSSELS CARPET.

No. 421,219. Patented Feb. 11, 1890.

FIG. 1.

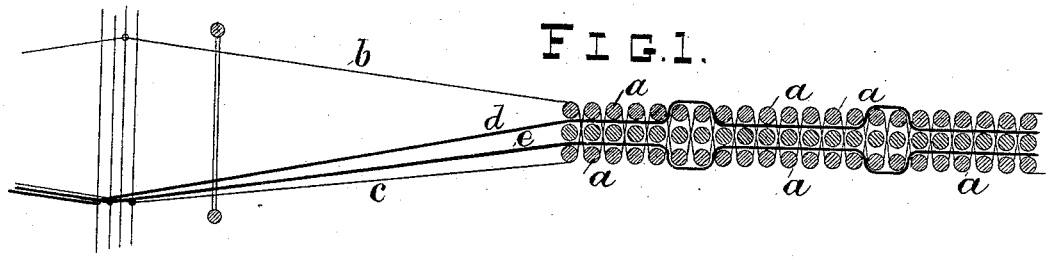
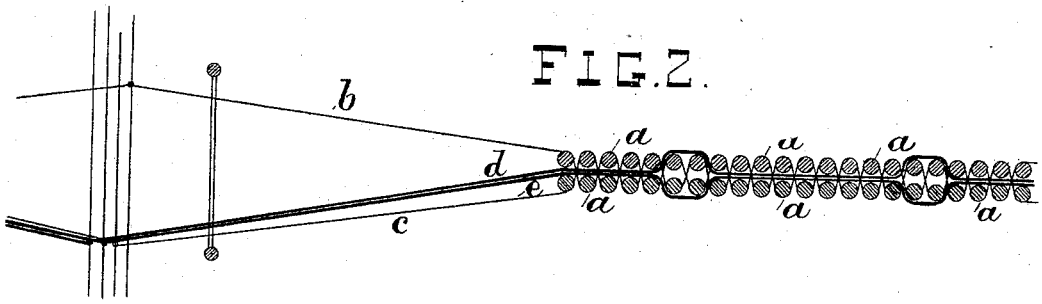


FIG. 2.



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REVERSIBLE INGRAIN OR IMITATION BRUSSELS CARPET.

SPECIFICATION forming part of Letters Patent No. 421,219, dated February 11, 1890.

Application filed July 9, 1889. Serial No. 316,946. (No specimens.)

To all whom it may concern:

Be it known that we, SAMUEL WOOD and GEORGE HENRY HEPPLESTON, subjects of the Queen of Great Britain, residing in Heckmondwike, Yorkshire, England, have invented certain new and useful Improvements in Reversible Ingrain or Imitation Brussels Carpets, of which the following is a specification.

The object of our invention is to produce in a cheap fabric a close imitation of Brussels carpet. As is well known, a Brussels carpet has a pattern on one of its sides only, and it is our intention in the manufacture of ingrain or imitation Brussels carpet to produce a pattern on both of its sides, or both sides may be plain—that is, with only one color appearing. In either case the carpet is reversible and alike on each side.

In making a reversible ingrain or imitation Brussels carpet according to our invention we form the pattern by means of the warp instead of the weft, as hitherto, and to do this we employ ingrain woolen warp, manipulated or operated by the harness or jacquard. We also employ a fine catch or binding warp, manipulated or operated by the gear or Jacquard harness, such fine catch-warp being employed to bind the weft into the fabric. If, therefore, the fabric woven be two-ply, we throw a similar ingrain woolen or cotton warp-thread on the under and on the upper face of the fabric, according to the pattern being woven, by which means three colors are shown on the fabric—two by the weft and one by the ingrain warp—and if the fabric be a three-ply carpet, with the addition of the similar ingrain warp thrown on each face of the fabric, then four colors will be imparted to the carpet, and so on—that is to say, by throwing the ingrain warp on each side of the fabric one more color is given than the number of weft-threads employed, each weft-thread being of different color and appearing, together with the warp, upon each surface, and the warp-threads being alike in color. Thus the ingrain warp-thread, employed as above set forth, produces a similar and substantial pattern on each side, whereby the carpet becomes reversible, and this can be done whether the carpet be two, three, or other number of ply. The pattern formed by the warp is alike both in figure and color upon each side of the carpet; but the pattern formed by the weft-threads when of different color is not alike in color upon the corresponding portions of the opposite sides of the carpet. The integrity of the figure or outline is maintained, however, and the same pattern is produced in a different combination of the same colors, the main feature of the pattern being preserved by the similar warp-threads, which are alike in color.

In order that our invention may be better understood we will make reference to the accompanying sheet of drawings, wherein—

Figure 1 is an enlarged cross-section of our improved carpet, which is a three-ply—that is to say, it is a carpet wherein three shuttles are employed. *a* represents the weft-threads, which may be composed of any suitable fiber. *b* and *c* are cotton or other fine warp-threads, which are employed for binding the weft together, while *d* and *e* represent the ingrain or woolen warp. It will be seen that the said ingrain warp is similarly thrown on correspondingly-opposite sides of the fabric for the purpose of forming figures thereon. It will therefore be seen that a carpet made like that shown in Fig. 1 may have four colors—three colors produced by the weft and one color by the ingrain warp.

Fig. 2 shows a carpet made two-ply, in which case only three colors could be produced—two by the weft and one by the warp. It is therefore obvious that a carpet made in the manner above described will have a corresponding pattern or figure on both sides thereof, allowing such carpet to be reversed or to be used on both of its sides.

It has been hereinbefore stated that both sides of the carpet may be plain or with only one color appearing. It is not proposed to make carpets like this, but the same would be quite possible. All the threads, both warp and weft, would of course be of the same color, and only a very slight pattern could be formed. This would be accomplished by making the weft and warp of different material or tex-

ture, so that they would have a different appearance. A very slight difference in the shade or strength of the dye used upon the different materials used for the weft and warp would make the pattern much more marked, even if the weft and warp were practically of the same color before being woven.

We claim as our invention—

A reversible carpet consisting of the thick weft-threads *a*, the thick warp-threads *d* and *e*, lying between the weft-threads and appearing in corresponding portions of the opposite sides of the carpet, thereby producing the same pattern upon each side, and the thin warp-threads for binding the weft-threads together, substantially as set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

SAMUEL WOOD.
GEORGE H. HEPPLESTON.

Witnesses:
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