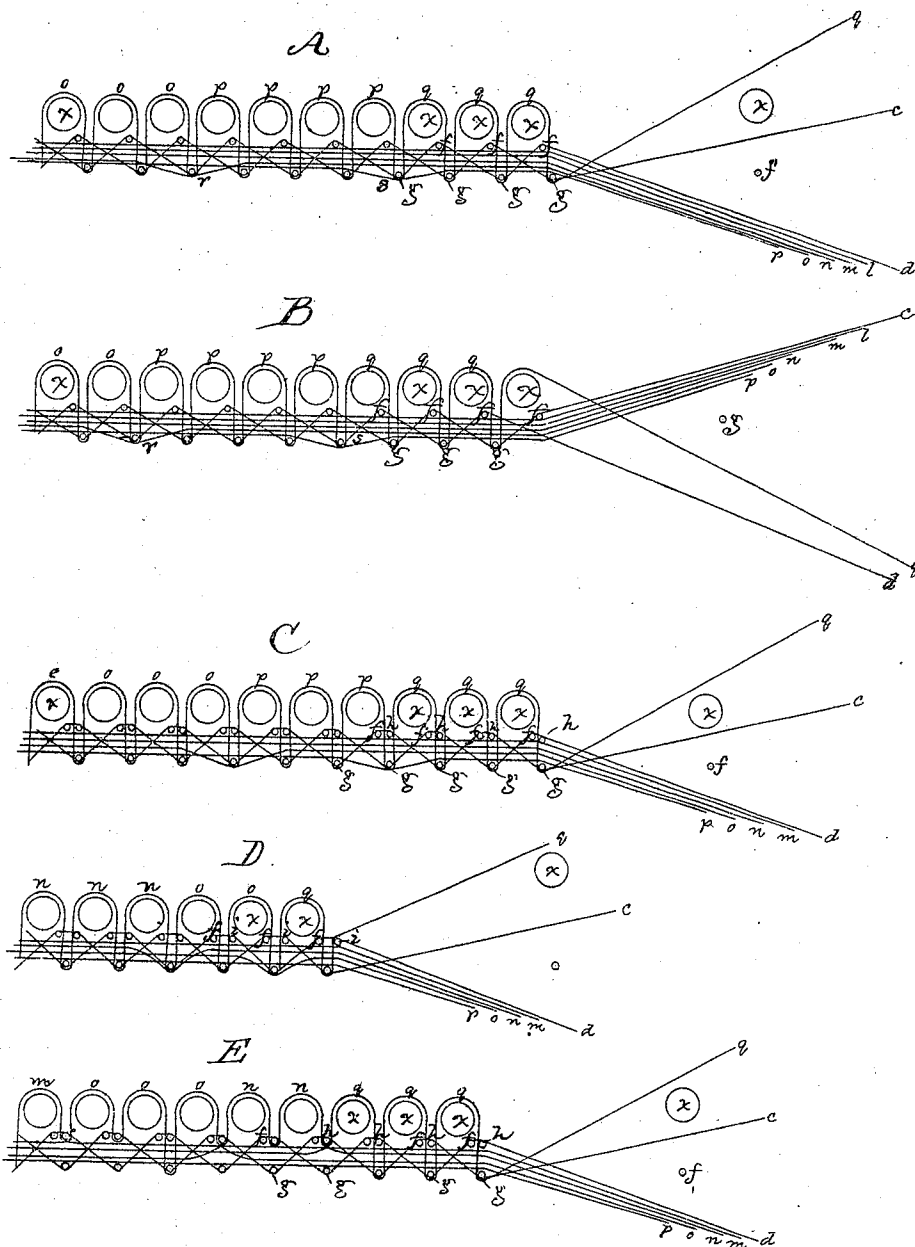


GEORGE CROMPTON. Improvement in Carpets.

No. 128,023.

Patented June 18, 1872.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE CROMPTON, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN CARPETS.

Specification forming part of Letters Patent No. 128,023, dated June 18, 1872.

To all whom it may concern:

Be it known that I, GEORGE CROMPTON, of Worcester, in the county of Worcester and State of Massachusetts, have invented an Improvement in Pile Fabrics; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In body-Brussels carpets, as is well known, the fabric is formed of a linen or cotton warp and weft of linen or cotton, and a ground or color warp, set up in frames, as well understood, and loops of color-warp drawn up or selected, by Jacquard or other harness-motion, from said ground-warp, and formed into loops by pile-wires. Although the loops are thus selected from the various color-warps for the successive pile-loops, it is always necessary to form more or less successive loops of the same color, and consequently from the same color-warp; and as each loop of such successive loops is only held to the body of the fabric by the shoot or pick of weft that binds it to the top of the body, it follows that, with many successive and contiguous loops of one color, the pile-yarn can be raveled or drawn down to the body by accidental strain or pull upon any one loop, this defect often leading to the serious defacement and injury of such carpets by the action of carpet-stretchers, the contact of protruding boot-heel nails, &c. The object of my invention is to remedy this defective structure, and at the same time to strengthen the whole fabric. To accomplish this, I not only carry a shoot or pick of weft above the ground-warp, and another shoot below the ground-warp for each pile-loop, but I secure or bind the pile-loop by passing it to the back of the ground-warp and carrying the under pick of weft above it, and by using, in addition to the upper shoot and under shoots of weft, one or more auxiliary upper shoots or picks of weft for each pile-loop.

My invention consists in a body-Brussels carpet having the pile-loops thus bound and secured and strengthened, or in a pile-fabric in which the ground-warp is composed of the various figure-yarns to form the pile, all or a portion of the pile-warp is passed to the

back of the ground-warp, and fastened there by the back-picks.

United States Letters Patent No. 125,026 have been granted to me for an improved pile fabric, in which fabric the base of each pile-warp loop is so secured by the picks of weft that the adjacent loops cannot be drawn down to the stuffing; and my present invention may be considered as the application of my said patented invention to the manufacture of Brussels carpets, or carpets in which the pile-loops are formed from selections from the ground or color-warps.

The drawing represents, at A and B, one method of forming a body-Brussels carpet in accordance with my invention, or the relative disposition of the threads or yarns of such a fabric embodying my invention.

A and B show the arrangement of the yarns for two successive sheds. At C, D, and E, I show modifications in the arrangements of the picks. In all of these views, *c d* denote the linen warp; *x*, the pile-wires; *l m n o p q*, the color or ground warp-yarns; *f g h i*, picks of weft. At A and B the sheds repeat themselves after four picks. At A the linen-warp *c* is at the middle, and one of the pile-warps *q* is up, and the linen-warp *d* and ground-warps *l m n o p* are down, thus forming a double shed for insertion of a pile-wire, *x*, and a shoot of weft, *f*. At B the linen-warp *c*, and all the color-warps *l m n o p* are up, and the linen-warp *d* and color-warp *q* are down, and the shed is open for insertion of the bottom-shoot of weft *g*. The next two sheds are repetitions of the sheds above described, except that the positions of the linen-warps *c d* are reversed. By this formation a shoot of weft, *f*, is inserted under the wire over the ground-warp, and the shoot *g* is inserted below the ground-warp in the usual manner, and the pile or loop-warp extends to the back of the ground-warp, and is there fastened by the bottom pick *g*, the upper pick of weft being substituted for the ordinary top pick between the wires; or, in other words, the ordinary top pick between the wires is inserted under instead of between the wires. At *r* and at *s* it will be seen how the ground-warps change, the warp *o* returning to the body, and the warp *p* being taken up to form the pile, the warp *p* in turn being similarly

returned to the body, and the warp *g* taken up, and so on, in accordance with the exigencies of the pattern which is being woven, each warp, instead of passing from the top pick directly into the body, or vice versa, first passing under the bottom pick. At C I show substantially the same fabric or disposition of the yarns, but I use for each pile two picks of weft over the body, one pick between the wires and one under the wires. At D I use two top picks for each pile, both picks being under the pile, and none between the piles. At A, B, C, and D the back or base of each

pile-loop is shown as fastened by the back pick, but at E I show the extension of the pile-warp to the back only at intervals.

I claim a body-Brussels carpet, in which the pile-warp is fastened at the back of the body by the back pick of weft and by auxiliary picks of weft, or picks of weft arranged substantially as shown and described.

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Witnesses:

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