

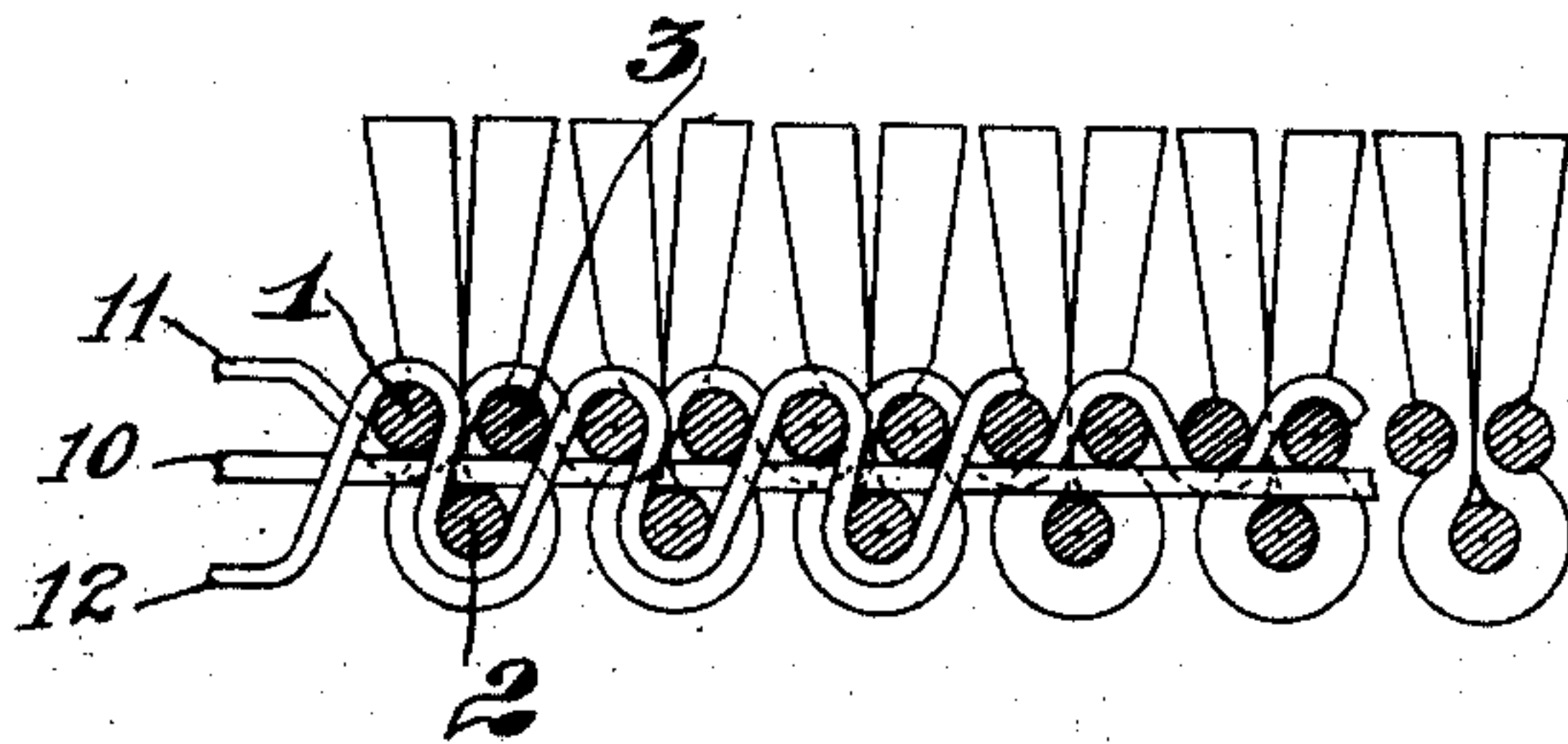
W. PEARSALL.

PILE FABRIC.

APPLICATION FILED SEPT. 15, 1903.

907,397.

Patented Dec. 22, 1908.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM PEARSALL, OF NEVIGES, GERMANY, ASSIGNOR TO CARL VORWERK, OF BARMEN, GERMANY.

PILE FABRIC.

No. 907,397.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed September 15, 1903. Serial No. 173,244.

To all whom it may concern:

Be it known that I, WILLIAM PEARSALL, a subject of the King of Great Britain, and resident of 24 Paulstrasse, Neviges, in Prussia, Germany, county Rheinprovinz, have invented certain new and useful Improvements in Pile Fabric, of which the following is a specification, accompanied by drawings.

This invention relates particularly to the manufacture of tufted or piled fabrics and has for its object a novel and improved order of weaving, whereby by merely altering the adjustment of the usual cams or tappets in relation to the tufting or piling apparatus, that is to say, without requiring new cams or tappets for operating the heddles or leaves, the pattern is made to show through perfectly on the back of the fabric; and, moreover, the tufts are more firmly bound-in than hitherto.

According to the usual orders of weaving fabrics where the pattern is made to show through on the back of the fabrics, specially shaped cams or tappets are necessary and in some cases still further alterations in the loom are required, causing much trouble and loss of time. In order to obviate said disadvantages I employ the ground, or foundation texture, of that usual three-warp three-shot weave in which the first shot (being the first upper weft) is inserted below the back-binding warp and above the other warp threads, the second shot reversely (being the back weft), while the third shot (being the second upper weft or the tuft-row-weft) is put-in below the upper binding warp and above the other warp threads, but instead of putting-in the tufts round the third weft (the second upper weft), I dispose the tufts round the second or back weft.

The figure is a diagram representing a longitudinal section of the new weave.

The order of weaving is as follows: The back-binding-warp 12 is raised while the upper binding warp 11 and the tight or dead warp 10 are lowered, and the first shot, being the first upper weft, is inserted. Then the shed is reversed, that is to say, the back-binding-warp 12 is lowered while the upper

binding warp 11 and the tight or dead warp 10 are raised, the tufts are put-in, and another weft is inserted, being the back weft 2 or tuft-row-weft, which crosses the middles of the tufts, then their ends are turned up. Then the tight or dead warp 10 is lowered while the other threads resume the same shed as for the back weft 2, and the third shot 3, being the second upper weft, is inserted, thereby completing the uplifting of the tufts or pile round the back weft. Then the binding warps 11 and 12 are crossed again, to complete the weave or stitch and in readiness for the next stitch.

It will be readily understood by examination of the figure, that the tufts are especially well bent and pinched between the back binding weft (2) and the corresponding upper weft (3), these two wefts being closely pressed together by the binding warps, and the upper weft 1 being well beaten-up above the back weft 2 through being immediately followed by the reversed crossing of the binding warps 11 and 12 for the next first shot. It will be evident also that without departing from the nature of this invention, that the sequence of the wefts 1 and 3 may be changed and other variations of the method may be used to produce substantially the same results herein-described.

What I claim as new and desire to obtain by Letters Patent is:—

A piled or tufted fabric having three warps and three series of wefts in which the first weft is inserted below the back binding warp and above the other warp threads, the second weft is inserted reversely to this, the third weft is inserted below the upper binding warp and above the other warp threads, the upper wefts being all in the same plane, and the tufts are disposed around the second weft, for the purpose specified.

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

WILLIAM PEARSALL.

Witnesses:

OTTO KÖNIG,
F. A. RITTERSHAUS.