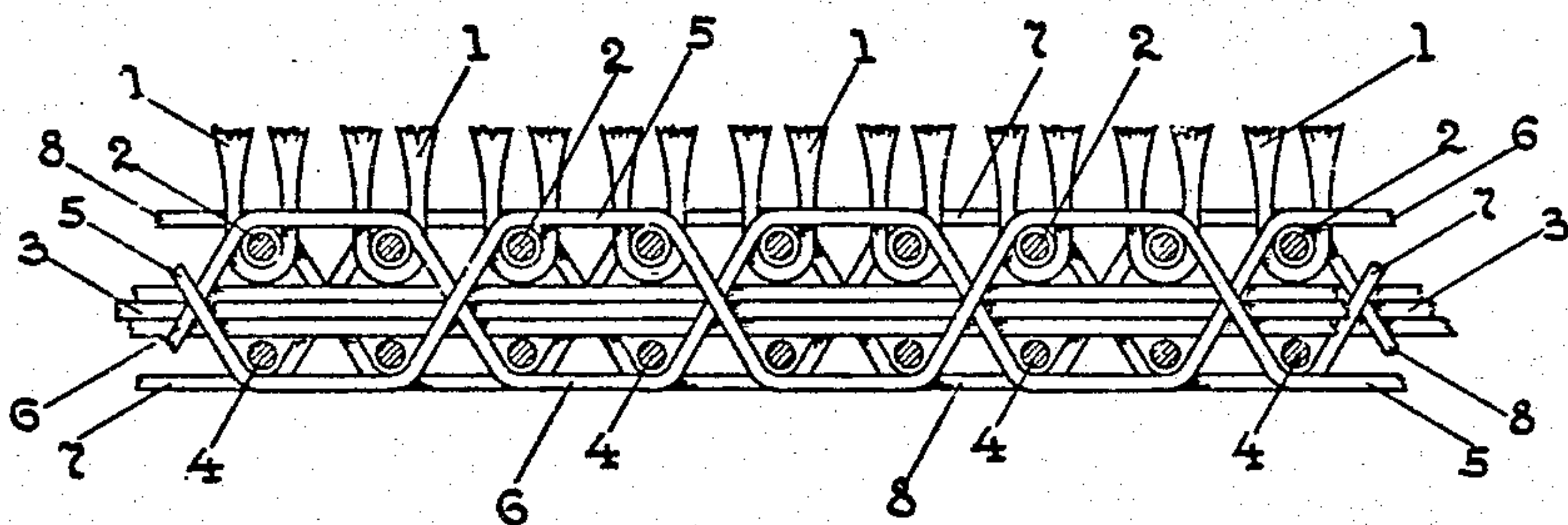


H. LE DOUX.
WOVEN PILE FABRIC.
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934,552.

Patented Sept. 21, 1909.



Witnesses
M. Bredt.
W. H. Case.

Inventor
Hector Le Doux.
By John C. Dewey.
Attorney.

UNITED STATES PATENT OFFICE.

HECTOR LE DOUX, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO CROMPTON & KNOWLES LOOM WORKS, A CORPORATION OF MASSACHUSETTS.

WOVEN PILE FABRIC.

934,552.

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To all whom it may concern:

Be it known that I, HECTOR LE DOUX, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Woven Pile Fabric, of which the following is a specification.

My invention relates to woven pile fabric, and particularly to the class of pile fabrics shown and described in U. S. Letters Patent, No. 747,588.

The object of my invention is to improve upon the weave of the fabric shown and described in said patent. In the fabric shown and described in said patent, there are two filling threads, one for each pile warp loop, above the stuffer warp or warps, and two filling threads below the stuffer warp or warps, and pile warps, making four filling threads, and two loops of pile warps in each shed, and said fabric is made with two harnesses for the binder warps which harnesses are raised and lowered every four picks.

In my improved pile fabric I use four harnesses for the binder warps, one pair of harnesses for example will change after the first, second, fifth, and sixth pick, while the other pair of harnesses will change after the third, fourth, seventh, and eighth pick, and so on; that is the pairs of harnesses are raised and lowered alternately.

In my improved pile fabric, I have an upper and a lower filling plane, comprising binder warp threads, and one or more stuffer warps, and one filling thread in the upper plane of the fabric, and one filling thread in the lower plane of the fabric, in each shed formation, and pile warps in the upper plane of the fabric passing about the filling threads in said upper plane.

I have shown in the drawing, on an enlarged scale, a longitudinal section of my pile fabric, as a cut pile fabric.

In the accompanying drawing, 1 are the pile warps, which form the loops of pile in the upper plane of the fabric, which may be uncut for Brussels carpet fabric, or cut, as shown in the drawings, for Axminster, or moquette carpet fabrics.

The pile warp 1 is bound into the upper plane of the fabric by a filling thread 2, which extends transversely through the fabric over the pile warp 1, as shown. The stuffer warps 3, in this instance three in

number, extend longitudinally through the fabric in the central portion thereof below the pile warps 1, and the upper filling threads 2. The filling threads 4 extend below the stuffer warps 3.

The binder warps 5 and 6 for one pair of harnesses, and the binder warps 7 and 8 for the other pair of harnesses, are raised and lowered alternately, to form the shed for the upper filling threads 2, and the lower filling threads 4, and the binder warps 5 and 6, and 7 and 8 act to bind the upper filling threads 2, and the lower filling threads 4, firmly on both sides, as shown.

In each shed formed by the harnesses, there is one upper filling thread 2 for one loop of pile warp 1 above the stuffer warps 3, and one lower filling thread 4 below the stuffer warps 3. There may be one or more stuffer warps 3.

It will be understood that the details of the weave of my improved fabric may be varied if desired, and my weave may be used for an uncut pile fabric, as Brussels carpet, or a cut pile fabric, as an Axminster, or moquette carpet.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A single pile fabric having an upper and a lower filling plane, and comprising binder warps, and one or more stuffer warps extending in a plane between the upper filling plane and the lower filling plane, and a single filling thread in the upper plane, and a single filling thread in the lower plane of the fabric in each shed formation, and pile warps in the upper plane of the fabric passing about each one of the filling threads in said upper plane, and one-half of the binder warp threads crossed after each insertion of an upper filling thread and a lower filling thread.

2. A single pile fabric having an upper and a lower filling plane, and comprising binder warp threads, one-half of said binder warps crossed, after each insertion of an upper filling thread, and a lower filling thread, and one filling thread in the upper plane, and one filling thread in the lower plane of the fabric in each shed formation, and pile warps in the upper plane of the fabric passing about each of the filling threads of the upper plane, and projecting from one face of the fabric between each of

the adjacent filling threads, and bound only by the filling threads in the upper plane of the fabric, and each filling thread in the fabric bound by the binder warps on both sides of the filling thread.

3. A single pile fabric having an upper and a lower filling plane, and comprising binder warp threads, one-half of said binder warp threads crossed, after each insertion of an upper filling thread and a lower filling thread, and one filling thread in the upper plane, and one filling thread in the lower plane of the fabric in each shed formed by the binder warps, and pile warps in the upper plane of the fabric passing about each of the filling threads of the upper plane, and bound only by the filling threads in the upper plane of the fabric, and each filling thread in the fabric bound by the binder warps on both sides of the filling threads.

4. A single pile fabric having an upper and a lower filling plane, and comprising binder warp threads, one-half of said binder warp threads crossed, after each insertion of an upper filling thread and a lower filling thread, and one or more stuffer warps extending in a plane between the upper filling plane and the lower filling plane, one filling thread in the upper plane of the fabric, and one filling thread in the lower plane of the fabric in each shed formation, and pile warps in the upper plane of the fabric passing about the filling threads in the upper plane.

5. A single pile fabric having an upper and a lower filling plane, and comprising binder warps, and one or more stuffer warps extending in a plane between the upper filling plane and the lower filling plane, and a single filling thread in the upper plane, and a single filling thread in the lower plane of the fabric in each shed formation, and pile warps in the upper plane of the fabric, passing about each one of the filling threads in said upper plane, and one-half of the binder warp threads crossed after each insertion of an upper filling thread and a lower filling thread.

6. A pile fabric having an upper and a lower filling plane, and comprising binder warps, and one or more stuffer warps extending in a plane between the upper filling plane and the lower filling plane, and a single filling thread in the upper plane, and a single filling thread in the lower plane of the fabric in each shed formation, and pile warps in the upper plane of the fabric passing about each one of the filling threads in said upper plane, and one-half of the binder warp threads crossed after each insertion of an upper filling thread and a lower filling thread, by a new shed formation every two picks.

HECTOR LE DOUX.

Witnesses:

JOHN C. DEWEY,
MINNA HAAS.