

UNITED STATES PATENT OFFICE.

LUDWIG WILHELM SEESER, OF DELMENHORST, GERMANY.

PROCESS OF PRODUCING LINOLEUM HAVING PATTERNS RESEMBLING WOOD OR FABRIC.

SPECIFICATION forming part of Letters Patent No. 720,627, dated February 17, 1903.

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To all whom it may concern:

Be it known that I, LUDWIG WILHELM SEESER, a subject of the Grand Duke of Oldenburg, and a resident of Delmenhorst, in the
5 Grand Dukedom of Oldenburg, German Empire, have invented certain new and useful Improvements in Processes of Producing Linoleum or the Like Having Patterns Resembling Wood or Fabric, of which the following
10 is a full, clear, and exact description.

This invention relates to processes for making linoleum or the like having a pattern resembling wood or fabric passing completely through the material. In the pattern effects
15 hitherto produced in linoleum and the like where attempts to produce such a pattern succeeded costly templates or special mechanical distribution of the material and the like were usually necessary and also a considerable
20 expenditure of labor. All this is avoided in this improved process, in which the said effects are obtained in a more excellent manner than has ever been obtained with the most extensive appliances and by a more
25 rapid and simpler process of manufacture.

The process consists in variously-colored raw material for linoleum and the like substances made in various sizes of grain, to
30 which a varying heating is imparted and of which varying quantities are employed, being mixed simultaneously into a coherent mass, then cooled, then spread on the foundation fabric in a uniform thickness, and then gradually and uniformly again heated on its way
35 to the presses or rollers. In pressing or rolling there is produced from the variously colored and tempered constituents of the whole mass a pattern or division of the floor-covering, which resembles wood fabric. By changing
40 the color, size of grain, tempering, and quantities of the separately-prepared raw materials employed these patterns may be suitably varied. A more elaborate pattern resembling wood or fabric in linoleum may be
45 obtained by the following processes:

First. Before the final covering substance which is to be pressed or rolled reaches the pressing or rolling device separating devices
50 (plates forming partitions or the like) are inserted in the said substance, which check and press the mass in places in its course while the whole breadth of the mass is moving for-

ward, the action being approximately like that of a current of water which is forced past bridge-piles and is compressed by the
55 bridge-piles and ruffled and broken up, while at the places farther removed from the piles it flows quietly and clearly. In consequence of this checking and compression of the linoleum or like substance moving forward similarly to a current of water by means of the
60 separating-surfaces or the like a broken flow is produced in the mass, forming lines at both sides of the checks, like wood fibers, which gives to the finished article the desired wood-
65 fibrous effects. The separating devices may be fixed or adjustable. In the latter case the flow of the mass and therewith the pattern of the linoleum may be altered at will by suitable adjustment or displacement of these
70 separating devices.

Second. Excrescences or thickened pieces of suitable form, size, and relative position are applied to the foundation material (jute or the like) of the linoleum or the like. These may,
75 for instance, be made on the foundation material by stitching thick threads, cords, or other pieces of material thereon or may be formed directly thereon by means of knitting-machines, filigree-work, or the like. The
80 final covering substance is spread on the foundation material thus prepared and conveyed with the same to the rolling or pressing apparatus. In the rolling or pressing the excrescences formed on the foundation material then produces a warping or distortion of
85 the linoleum or the like, which must work over the excrescences, and therefore undergoes a squeezing and tearing over said excrescences, and thereby the various constituents of the material are formed into patterns
90 resembling wood or fabric or are torn into other devices. By a suitable arrangement of the excrescences on the foundation material definitely-designed patterns or streaks
95 or veins may be produced in the linoleum or floor-covering.

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

1. A process for making a linoleum product with a fiber or fabric-like pattern, the same consisting in simultaneously mixing into a coherent mass variously-colored raw material

of various sizes of grain, then subjecting the mixed mass to a varying heating, next cooling the same, then spreading the cooled mass on the foundation fabric and finally gradually and uniformly reheating the mass upon the fabric as it passes to the point for the application of pressure thereto.

2. A process for making a linoleum product with a fiber or fabric-like pattern, the same consisting in simultaneously mixing into a coherent mass variously-colored raw material of various sizes of grain, then subjecting the mixed mass to a varying heating, next cooling the same, then spreading the cooled mass on the foundation fabric and then reheating the mass during its travel toward the pressure appliance and at the same time causing it to move against and around checking obstructions.

3. A process for making a linoleum product with a fiber or fabric-like pattern, the same consisting in simultaneously mixing into a coherent mass variously-colored raw material of various sizes of grain, then subjecting the mixed mass to a varying heating, next cooling the same, then spreading the cooled mass on a foundation fabric provided with superficial excrescences, and finally gradually and uniformly reheating the mass upon the fabric as it passes to the point for the application of pressure thereto.

In witness whereof I have hereunto set my hand in presence of two witnesses.

LUDWIG WILHELM SEESER.

Witnesses:

F. A. BRYCE,
C. DIEDERICH.