J. N. PROVENZANO & S. DeGAETANO.

Material for Chair-Seats.

No. 195,951. Patented Oct. 9, 1877.

Figure 1.

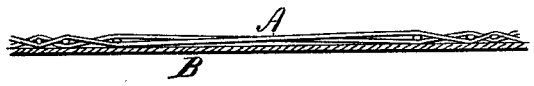


Figure 2.

Figure 3.

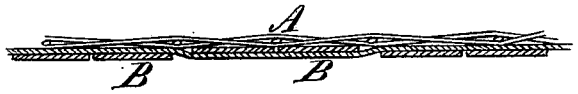
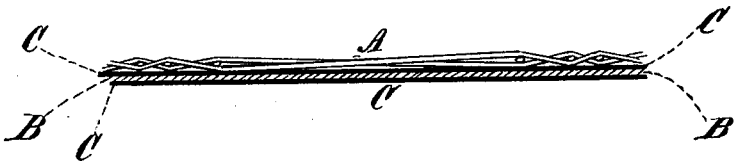


Figure 4.



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UNITED STATES PATENT OFFICE.

JOSEPH N. PROVENZANO AND STEPHEN DE GAETANO, OF NEW YORK, N. Y.

IMPROVEMENT IN MATERIAL FOR CHAIR-SEATS.

Specification forming part of Letters Patent No. **195,951**, dated October 9, 1877; application filed April 16, 1877.

To all whom it may concern:

Be it known that we, JOSEPH N. PROVENZANO and STEPHEN DE GAETANO, both of New York, N. Y., have invented certain Improvements in Material for Chair-Seats and for similar purposes, of which the following is a specification:

The object of this invention is the production of a combined material in which the finer grades of plaited goods, made from rushes, palm-leaves, various grasses, &c., and known under the general name of "matting," may be adapted to and employed for the seats and backs of chairs and for similar purposes.

Owing to the peculiarities of the designs or styles of plaiting, and to the delicacy of the material employed in its manufacture, this class of matting cannot advantageously be employed alone for the purposes designated.

On the 26th of January, 1877, we filed an application for a patent, in which we claim the combination of the matting with a backing of canvas, or other textile material.

We have since discovered, by experiment, that a backing for the matting composed of paper or other fibrous material, either alone or in combination with textile material, affords advantages which are not attained by the use of the textile material alone.

Our present invention consists in a combined material, in which the matting is backed by one or more sheets or layers of paper or other fibrous material, either alone or in combination with one or more thicknesses of textile material.

In the accompanying drawings, Figure 1 is a cross-section of a portion of our improved material, in which the backing consists of a sheet or layer of heavy paper. Fig. 2 is a similar sectional view of our material, in which the backing consists of a thin layer of wood. Fig. 3 is a similar view of our material, in which the backing is composed of thin, flat strips of reed or wood plaited or interlaced; and Fig. 4, a similar sectional view of our material, in which the backing is composed of, first, a thickness of canvas, or other textile material; next, a layer of paper or other fibrous material; and, lastly, another layer of textile material.

In the drawings, A represents the facing of matting; B B, the layers or sheets of fibrous material; and C C, the thicknesses of textile material.

The advantage in the employment of a layer of stiff paper, or other suitable fibrous material of the requisite thickness, as a backing for the matting, is that it acts as a stiffener to maintain or restore the original form of the chair seat or back, while at the same time it is sufficiently elastic to allow the seat or back to conform to the pressure to which it is subjected during use.

When the backing consists of textile material alone, the latter, through the pressure of continuous use, is liable to "sag," or be strained out of its original shape, causing permanent depressions in the chair seat or back, which are objectionable.

This difficulty is obviated by the employment of our backing of fibrous material, (either alone or in combination with textile material,) since, although the fibrous material has the requisite elasticity to enable it to adapt itself to the ordinary pressure to which it is subjected during use, it is not permanently bent out of its original shape, unless sufficient pressure is applied to rupture it.

For ordinary chair seats or backs one or more thicknesses of stiff paper, such as Manila, or other fibrous material, may be employed as a backing for the matting; but in cases in which extra strength and durability are required we design to use as a backing for the matting one or more sheets or layers of fibrous material, in combination with one or more thicknesses of textile material. The layers or sheets of the fibrous material might be increased in number or thickness with nearly the same result; but by so doing the thickness of the combined matting and fibrous material would be increased to an objectionable degree, and we have found, by experiment, that the combination of both the fibrous and textile materials with the matting attains the maximum degree of strength and elacticity with the minimum degree of thickness.

In cases in which the fibrous material and textile material are combined to form the backing the fibrous material acts as a stiffener to maintain the original form of the seat or back, while the textile material, by its greater tensile strength, sustains and preserves the fibrous material against rupture.

The several layers or thicknesses which are employed in the combined material may be secured together by cement, or by sewing, or in any other suitable or convenient manner. We prefer to glue or cement the several thicknesses together, and to then subject the combined material to pressure, so as to render it as homogeneous in structure, and as thin as possible. The fibrous material may also be treated so as to render it moisture-proof before being incorporated into the structure.

In all cases in which a backing of fibrous material may be used alone its use is cheaper than the use of a textile material alone, and in cases in which a chair seat or back of special strength or durability is required it is cheaper to use combined fibrous and textile materials as a backing for the matting than it would be to use a quantity of fibrous material alone, sufficient to secure the same degree of strength.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combined material for chair seats or backs, and for similar purposes, herein described, consisting of an outer facing of woven rushes or matting of a character herein designated, and a backing of paper or other fibrous material, arranged and combined substantially in the manner and for the purposes set forth.

2. The combined material for chair seats or backs, and for similar purposes, herein described, consisting of an outer facing of woven rushes or matting of a character herein designated, and a backing composed of one or more layers or thicknesses of fibrous material, in combination with one or more thicknesses of textile material, arranged and combined substantially in the manner and for the purposes set forth.

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