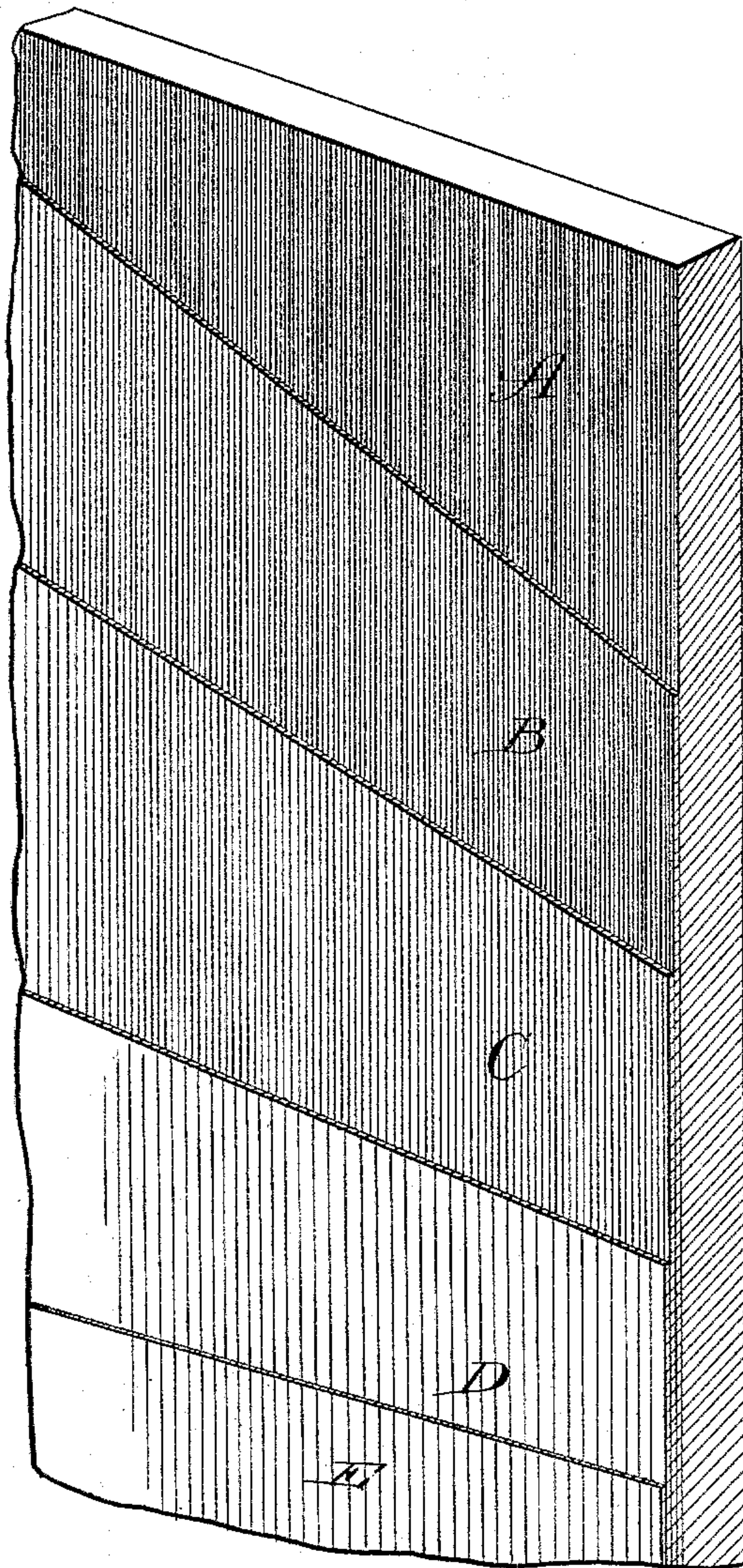


(No Model.)

J. & L. SCHRAM.
GILT BOARD.

No. 533,674.

Patented Feb. 5, 1895.



Witnesses:
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UNITED STATES PATENT OFFICE.

JACOB SCHRAM AND LOUIS SCHRAM, OF CHICAGO, ILLINOIS.

GILT BOARD.

SPECIFICATION forming part of Letters Patent No. 533,674, dated February 5, 1895.

Application filed September 5, 1894. Serial No. 522,178. (No specimens.)

To all whom it may concern:

Be it known that we, JACOB SCHRAM and LOUIS SCHRAM, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Gilt Board for Picture-Mats and the Process of Making the Same, of which the following is a specification.

Our invention relates to a process of producing gilt card-board in large sheets which are designed to be cut to suitable sizes and shapes by the picture framers to form picture-mats; and our invention relates to the process which we employ for producing the gilded surface and also in the resulting product which, owing to certain properties and characteristics hereinafter defined, is readily distinguishable from previous products of the same general class.

We use the terms "gilt" and "gilding" in the liberal sense in which they are used in the art to signify not only a gold colored surface but also a silvered surface or any other color produced by means of metal leaf; and the term "metal-leaf" as used in the art has a definite signification, implying that it is an imitation. Thus, for example, gold metal-leaf is leaf made from base metal, but resembling in appearance the genuine gold-leaf. The latter is used only for the highest class of work owing to its costliness, and the sheets in which it is put upon the market are small, being only about three and one-fourth inches square. Metal leaf is put upon the market in much larger sheets than genuine gold-leaf, the size being about five inches square, which is as large a size as can be conveniently handled in the gilding of surfaces.

Heretofore two methods have been employed for the purpose of producing gilt picture-mats, one being to lay the metal leaf in sheets directly upon the surface of the card-board after previously coating the latter with an oil sizing in the usual way, and the other being to apply to the sized surface a bronze powder in the usual way. The former process is defective for various reasons among which are that as metal-leaf is seldom or never of uniform color throughout, being subject to veins and streaks of a modified tint and being liable at and about the center to present a deepened color, owing probably to an excess

of heat generated at that portion in the process of manufacture and perhaps to other causes also, a surface of uniform color in the finished mat-board is impossible, besides which the joining of the edges of the metal-leaf is always discernible whether done by overlapping or meeting. A perfect meeting of the edges is practically impossible and attempts are commonly made, though unsuccessfully, to hide the resulting defects by touching up with a brush, while in the case of overlapping edges, ridges are produced which are discernible on close inspection from the outset, and become more and more conspicuous with time.

The second method, that of bronzing in the desired color, has all the well-known disadvantages of that process. At best it is but an inferior substitute for metal leaf, readily distinguishable from it in the first instance and rapidly deteriorating with time. Thus while it has the advantage of obviating the structural defects, before mentioned, of the metal-leaf when laid in sheets, it is far inferior to the latter for giving permanency of color.

Our process obviates all the above-mentioned defects and admits of the production of mat-boards larger than a sheet of metal-leaf, and, in fact, of any desired size absolutely uniform throughout and possessing the highest degree of permanency and finish; and it consists in reducing the metal-leaf to small particles and applying it directly upon an adhesive oil sizing covering the surface of the card-board, as hereinafter more fully set forth.

The accompanying drawing, which forms a part of this specification, represents in perspective a fragment of our improved mat-board with the series of superimposed coatings, which we employ, considerably exaggerated for the sake of clearness.

A represents the sheet of card-board, which may have either a smooth or rough surface, and B a coating of glue or shellac sizing, which is applied in the usual way and allowed to become hard.

C is the coating of oil sizing which is applied to the coating B after the latter has hardened, and which is allowed to dry to such an extent that, while it will not run, it will still have sufficient viscosity to cause the metal leaf to adhere to it. D is the final

coating, consisting of metal leaf disintegrated into small leaf-particles applied to the viscous coating last mentioned. For this final covering remnants of metal-leaf, called "skewings," give as good results as the fresh leaf, so either may be used, though the skewings have an advantage in point of cheapness. In practice we usually pass the disintegrated leaf through a sieve, preferably of about seventy-five meshes to the inch, and apply it to the prepared surface C by means of a brush. It is then finished with lacquer or mat-sizing E to produce the desired shade and permanency, all as is usual with metal-leaf.

Produced in this way the gilt surface of the mat-board is as much a metal-leaf surface as if produced by the ordinary process first mentioned, because it is in fact composed of metal-leaf though reduced to small particles. It is, moreover, absolutely uniform and homogeneous throughout, first because the defects resulting from joining the edges of metal-leaf are avoided, and secondly, because the disintegration, stirring and shifting of the metal-leaf cause the structural defects to become lost by distribution throughout the general mass.

The initial coating B of a shellac or glue sizing is not absolutely necessary, but we prefer to employ it since with it the oil sizing is not applied directly to the absorbent surface of the card-board.

By means of our process sheets of card-board with genuine metal leaf surfaces of any desired size may be produced absolutely free from irregularity or blemish, a thing which has never heretofore been accomplished in the art; and, owing to the absence of the junction lines and the characteristic veins and streaks above-mentioned, our pro-

duct is readily distinguishable by persons skilled in the art from all former products of a like general character. It is our common practice to make these sheets with an area of thirty by forty inches, and to put them upon the market in that size or cut to smaller sizes; but they may be made with many times the area named if desired.

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

1. The process of gilding surfaces by means of metal-leaf, which consists in reducing the metal-leaf to small leaf particles, coating the surface with an adhesive substance, applying the disintegrated metal-leaf thereto, and finally coating with a suitable lacquer, substantially as described.

2. The process of producing gilt card-board of any desired area suitable for being cut into picture-mats, which consists in reducing metal-leaf to small leaf particles, coating the surface of the card-board with a suitable sizing and allowing the same to harden, then coating the surface with a sizing of a viscid character, applying the fine particles of metal leaf to the sticky surface, and finally coating with a suitable lacquer substantially as described.

3. As a new article of manufacture, gilt card-board larger in area than a sheet of metal-leaf and having the properties and characteristics hereinbefore set forth, that is to say, having a uniform and homogeneous surface of metal leaf, devoid of junction lines and discolorations, substantially as described.

JACOB SCHRAM.
LOUIS SCHRAM.

In presence of—

J. N. HANSON,
J. W. DYRENFORTH.