

(No Model.)

F. KOSKUL.

Metal Foil and other Analogous Flexible Metal
Veneering.

No. 240,733.

Patented April 26, 1881.

Fig 1.

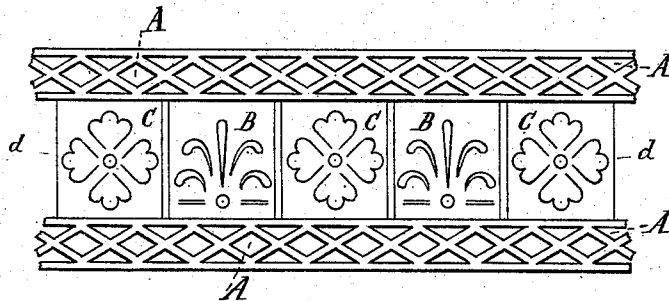


Fig 2.

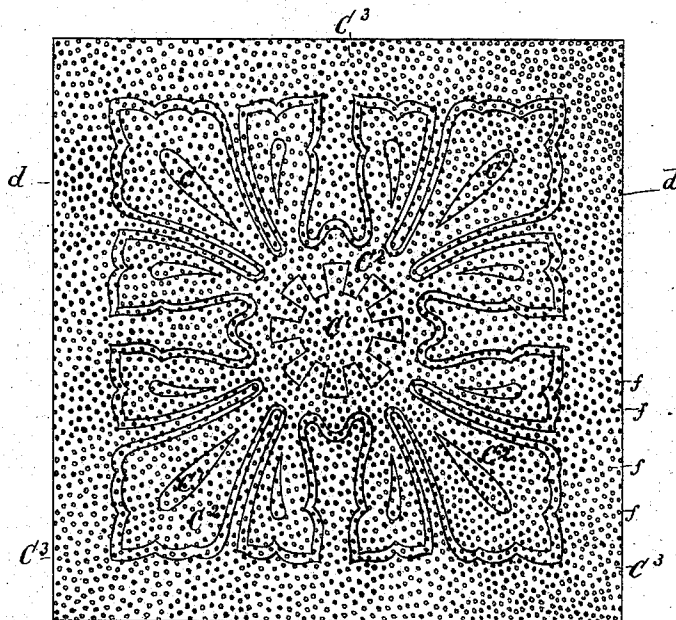


Fig 3.

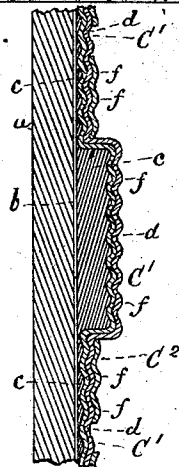
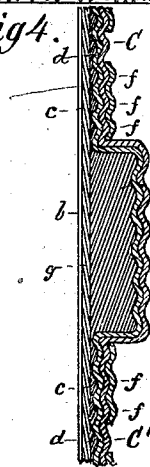


Fig 4.



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FREDERICK KOSKUL, OF GRAND RAPIDS, MICHIGAN.

METAL FOIL AND OTHER ANALOGOUS FLEXIBLE METAL VENEERING.

SPECIFICATION forming part of Letters Patent No. 240,733, dated April 26, 1881.

Application filed February 15, 1881. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK KOSKUL, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Metal Foil and other Analogous Flexible Metal Veneering, of which the following is a specification.

My present invention is an improvement on the metal veneering patented to me on October 26, 1880; and the objects of the same are, first, to produce veneering made of metal foil or other analogous flexible metal having a brilliant exposed front surface, which is either plain or ornamented in any appropriate manner, and which has a back surface provided with cement; second, to produce veneering made of metal foil or other analogous flexible metal the brilliant front surface portion of which is partly exposed to the eye, while the remaining portion is concealed by appropriate ground colors, paints, or other coverings; third, to produce veneering made of metal foil or other analogous flexible metal having a brilliant front surface, and with raised ornamentation on its front side, such ornamentation being either on the brilliant exposed portion of the veneer or on both the brilliant exposed portion and the painted portion of the veneer, and the style of the ornamentation may be either lines, dots, or figures, or any of the known designs employed in ornamenting wood and other materials or foundations which are veneered, and the same produced in any suitable manner; fourth, to prevent the raised ornamentation of the veneering from being destroyed in the operation of applying the veneering to its foundation-wood or other material, or after it is applied.

In the accompanying drawings, Figure 1 is a front elevation of a piece of wood or other material with my ornamental metal-foil veneering applied to the same. Fig. 2 is also a front elevation of a piece of wood or other foundation material with my metal-foil veneer applied to it, the veneering in this instance having its front surface decorated with brilliant ornaments, and such ornaments being the only exposed brilliant portion of the ve-

neer, and the whole surface of the piece of veneer being made with small projections like grains of sand, or having the appearance of embossed work. Fig. 3 is a vertical section through Fig. 2, showing filling composition between the wood foundation and the veneering for keeping the ornamentation of the veneering in form while being applied on the wood or other foundation. Fig. 4 is a section of a metal-foil veneer made with a backing, and with filling composition between the two sheets for keeping the ornamentation of the veneer in form while on sale, and while being applied to the foundation-wood or other material.

In carrying out my invention I take suitable sheets of metal foil having either a gold, silver, gilded, or bronzed surface, and place the same in molds upon an ornamented bed-piece, or between rollers, dies, or any other machinery, for the purpose of producing an impression upon the metal foil—for instance, indenting upon its surfaces any desired design of ornamentation which is to appear on its front surface, and thereby producing on its front brilliant surface raised or projecting ornaments, or both projecting and depressed ornamentations, corresponding to the ornamental indentations or impressions formed by rollers, dies, hammers, molds, or other machinery or means. The sheets thus ornamented are coated on their back surface with a composition which fills the ornamental impressions or indentations, and upon this composition and the uncovered back surface of the veneering a cement is applied, for the purpose of cementing the veneer to the wood or other foundation upon which it is applied. The front surface of the sheets is next varnished with a transparent varnish in such instances as where the brilliant metal is not of a nature to retain its luster without the aid of such preserving agent; but where the metal foil is provided with what is known as pure gold, silver, or gilt, the varnish coat is not employed except as a means for brightening up the veneer-surface which may have become dulled after years of use.

In Fig. 3, *a* represents the wood foundation;

b, the cement; *c*, the composition filling; *d*, the metal-foil veneer, and *C'* the projecting ornamentation.

In Fig. 1, *d* represents metal foil applied on a frieze, so as to form a brilliant ground for open sawed work or ornamentation, as illustrated at A; B, gold-surfaced metal-foil veneer with engraved lines, and C silver-surfaced metal-foil veneer with stamped or rolled ornaments, having a background of any color in paint. In this illustration of the use of metal-foil veneer a very beautiful combination and effect is secured.

In all of the styles of metal-foil veneer represented in Fig. 1 a part of my invention will be used—viz., the cement *b* on the back of the foil as a means for cementing it to the foundation, and with the design shown at C the cement *b* on the back of the foil, as well as brilliant ornamentation *C'*, having a painted background, *C*² or *C*³, will be employed, while with the designs shown at A and B both the feature of the cemented surface *b* and the brilliant ornamentation having a painted background may be employed—that is, the designs as at B may be placed between the designs as at C, thus showing alternately the cut-out ornamentations and the solid brilliant ornamentations, the cut-out ornaments at B having a surrounding surface of gold, and the solid silvered surfaced ornaments C having a surrounding surface of paint, while the veneering-surface at A may be silver-covered by open sawed work, as shown.

In Fig. 2 a veneer having an ornamentation, *C'*, which is similar to the ornamentation C in Fig. 1 is shown; but the veneer has its entire surface formed, as at *f*, with an embossed-like finish. This embossed finish *f*, as well as the ornamentation *C'*, may be produced by placing the metal-foil veneer between rollers or dies, or by other means or mechanical appliances well known in the arts.

I contemplate backing the metal foil with a sustaining material, *g*, either of paper, cloth, or metal foil, when it is too light or delicate to sustain itself, and in some instances will double the foil and place the composition or filling *c* (shown in Fig. 3) between the two pieces of foil, and apply the cement *b* to the back surface of the supporting-layer of foil *g*.

I also contemplate making the veneering with any design of ornamentation, and in the impressions or indentations to apply the filling *c* between the foundation and the veneering at the time the veneering is applied to the wood or other foundation material being veneered.

I also contemplate providing a roughened or sanded surface upon the wood foundation, and thereby produce the embossed appearance upon the brilliant and painted surface of the veneering.

In the drawings, Fig. 2, the ornamentation *C'* appears as gold, the interior portion, *C*², is steel color in paint, and the exterior por-

tion, *C*³, is a blue color in paint, and the whole surface (indicated by letter *f*) appears as embossed. This design and the coloring thereof may be changed almost indefinitely, as fancy may dictate, and still very pleasing effects be produced.

The best metal for making the veneering is tin-foil; but I do not confine myself thereto, but shall use any metal which partakes of the nature of such foil, whether its surface be silvered, gilded, bronzed, or made golden.

The advantages of using tin-foil for veneering over other substances are these: It is exceedingly flexible, and therefore not liable to crack and fracture in using it upon concave, convex, or other irregular surfaces. It also is water and oil proof, and therefore it is not affected by moisture while in use, and is not impaired in appearance by the coating substances used in its manufacture, and it, being brilliant, presents to the eye a very pleasing effect, as well as giving a highly-ornamental and rich appearance to the articles veneered.

The brilliant veneer, as herein described, may be treated with baking-varnish, if desired; also, it may be treated in the same or a similar way to that described in my aforesaid Letters Patent to any extent deemed proper, and in such instances where so treating it will not destroy the brilliancy of the metal or affect the ornamental design wrought upon it.

The brilliant veneer may be used thus: The wood foundation may have some impression, appearing as embossed or otherwise, and the veneer applied to the same and painted afterward. For instance, the raised parts may be left brilliant and the groundwork may be painted, or the whole tin-foil or metal-foil veneering may be applied to the wood, and the whole then may be embossed or stamped or impressed; and this done, the raised portions may be painted and the groundwork left brilliant. Such veneering would, in this regard, be an equivalent of my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Veneering made of metal foil or flexible metal having a back surface provided with an adhesive cement, substantially as and for the purpose described.

2. Veneering made of metal foil or other analogous flexible metal having a brilliant front surface which is ornamented, substantially as and for the purpose described.

3. Veneering made of metal foil or other analogous flexible metal having a brilliant exposed surface which is ornamented, and a back surface provided with an adhesive cement, substantially as and for the purpose described.

4. Veneering made of metal foil or other analogous flexible metal, the brilliant front surface of which is partly exposed to the eye, while the remaining portion of said brilliant surface is concealed by colors, paints, or other

coverings, substantially as and for the purpose described.

5 5. Veneering made of metal foil or other analogous flexible metal having a brilliant surface, with raised, or apparently raised, ornaments, substantially as and for the purpose described.

6. Veneering made of metal foil or other analogous flexible metal having the indenta-

tions or impressions which produce the ornamental surface filled with a substance which prevents the depression of the ornamentation, substantially as and for the purpose described.

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Witnesses:

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