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FRANS RICHARD ALEXANDER SUNDELL, OF STOCKHOLM, SWEDEN.

METHOD OF COVERING WALLS OR CEILINGS.

SPECIFICATION forming part of Letters Patent No. 748,542, dated December 29, 1903.

Application filed April 16, 1903. Serial No. 152,963. (No specimens.)

To all whom it may concern:

Be it known that I, FRANS RICHARD ALEXANDER SUNDELL, sculptor, a subject of the King of Sweden and Norway, and a resident of Tavastgatan 16, Stockholm, in the Kingdom of Sweden, have invented certain new and useful Improvements in Methods of Covering Walls or Ceilings, of which the following is a specification.

The present invention relates to a method for speedily and economically covering walls or ceilings.

When carrying out this invention for the covering of walls the process is as follows: The composition which is to form the surface layer of the covering (hereinafter called the "surface mass") is placed, mixed to the consistency of a thin paste or pap, on a suitable easily-movable support—for instance, a glass plate—which when the surface mass is placed thereon occupies a horizontal position. The surface mass is thereupon caused to assume a firmer consistency; which may be effected in some suitable manner—for instance, by evaporating the water or, still better, by the mass being sprinkled with a substance having a drying or binding effect on the same—*e. g.*, plaster-of-paris or cement-powder—as transforming the mass to a firmer consistency in such case is effected much more rapidly than by the evaporation of the water. When the mass has become so firm that it has assumed almost a jelly or dough like or other similar form, the glass plate, to which the surface mass now adheres sufficiently so that it remains undisturbed in the form of an even layer on the same, is raised against the wall which is to be covered. When placing the glass plate near the wall, it should be observed that a space of suitable thickness—*e. g.*, about one centimeter—is left between the face of the wall and the free surface of the surface mass. Supports preventing the glass plate from yielding outward are placed against the exterior of the same and at the edges of said plate, where required arrangements are made for limiting the space between the wall and the surface mass. In the said space a mass is then poured, (hereinafter called the "binding" mass,) which when it passes into a firm consistency securely unites or binds the surface mass to the wall. The pouring of the binding mass in the space between the surface mass and the wall takes place at intervals, allowing the binding mass time to set and thoroughly enter all the hollows in the wall. When the binding mass has become solid, the glass plate is removed from the surface mass. The covering of ceilings is carried out in a somewhat different manner, the binding mass being applied on the surface mass, (after the latter has solidified to some extent,) while the glass plate occupies the same position as when the surface mass is placed thereupon, after which the glass plate, with the layers of surface mass and binding mass resting thereon, is applied against the ceiling to the surface of which the binding mass while setting unites, thus binding the surface mass to the ceiling. The glass plate is held applied to the ceiling for some time by means of some suitable device and is removed when the binding mass has become solid. When a portion of a wall or ceiling surface has been covered in the manner described, a portion at the side thereof is covered in a similar manner, care being taken that the edges of the two covering-sections exactly correspond.

By suitably treating either the surface mass spread out on the glass plate or the surface of the said plate upon which the surface mass is to be placed the covering can be made to imitate marble, any other natural stone, or any kind of wood, as well as to present any desired pattern.

The surface mass may also consist of a color composition—for instance, a color composition giving a transparent surface layer. Said composition is placed on the glass plate, which then occupies a horizontal position. When the color composition has assumed a somewhat firmer consistency, the process is the same as that already described concerning the application of the surface mass to a wall or a ceiling. In this way a one-colored covering is obtained.

The aforesaid process of covering walls may be simplified thus—viz., that the glass plate is immediately—*i. e.*, without being first covered with surface mass—placed at the distance desired from the wall which is to be covered, whereupon a suitable composition or mass is poured between the plate and the wall. When

the composition or mass has set, the glass plate is removed. A one-colored covering has now been obtained, which may remain as it is, but which is also especially adapted for being coated with paint.

In experiments conducted in conformity with this invention wall parts having an area of as much as five square meters have been covered in one operation; but the experiments have shown that still larger wall parts can be covered.

Among the advantages which this method of covering walls or ceilings possesses above other methods for the same purpose the following may be mentioned: The entire making of the covering may be carried out in the room where the walls (or ceiling) are to be covered, so that it is not necessary to manufacture and keep covering-slabs at a special place, (a factory,) which slabs when they are to be put up must be packed, transported with the greatest care in order to prevent their being broken or otherwise damaged, (which, however, happens sometimes,) and afterward unpacked. The covering may be made very thin, in consequence of which a considerable saving of raw material is attained, and the layer of surface mass and binding mass applied to a wall or a ceiling dries very rapidly, so that a subsequent treatment (painting or the like) may be undertaken very soon after the composition has been applied to the wall or the ceiling. It is especially to be observed that the covering may readily be applied direct to a brick, wood, or other wall, so that dressing or other preparing becomes superfluous on surfaces which are to be covered in conformity with this process. The surfaces produced in this manner are perfectly even. They do not become distorted and do not crack. Bagging or the like, which is employed in a number of other wall-coverings consisting of artificial stone in order to increase their strength and elasticity, is in many cases unnecessary. The surfaces produced in accordance with this method adapt themselves especially well for painting, as they on account of their evenness do not require puttying and in consequence of their density absorb only a small quantity of oil. In consequence of the oiling the elasticity, hardness, and firmness of the covering are increased on the surface as well as throughout.

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

A method of covering walls consisting in placing the mass which is to form the surface layer in a wet condition on a movable support, moving the support near the wall so that there is a space between the wall and the surface mass on the support, then pouring a binding mass into said space and then removing the support when the binding mass has set.

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

FRANS RICHARD ALEXANDER SUNDELL.

Witnesses:

HANS B. OHLSSON,

CARL TH. SUNDHOLM.