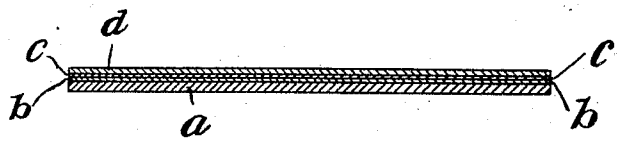
June 16, 1931. M. LINSE 1,810,281

METHOD OF MANUFACTURING VENEERED METAL SURFACES

Filed Jan. 11, 1929



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Patented June 16, 1931 1,810,281

UNITED STATES PATENT OFFICE

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METHOD OF MANUFACTURING VENEERED METAL SURFACES

Application filed January 11, 1929, Serial No. 331,956, and in Germany January 18, 1928.

Many articles of equipment for offices and the like, for instance wardrobes, card-index boxes, frames and various sorts of furniture, are made of cast or sheet-iron, the reasons being chiefly fire-proof condition, simplicity, cheapness, and great strength. Iron articles, however, require careful painting from time to time as a prevention from rust, and a drawback consists in the prosy or too severely plain appearance of iron furniture. The manufacture of fireproof furniture of a good appearance from a ply material of metal covered with a wood veneer is desirable, but making a ply material of metal and wood has heretofore met with difficulties, particularly with regard to obtaining a permanent cementing union between wood and iron.

The present invention relates to a method of producing a union of the required quality, the wood being employed in the form of veneers and the method consisting in covering the metal surface to which the veneer is to be applied with a sizing coating composed of casein, talc, and a small addition of slacked lime, allowing such coating to dry, or drying it artificially, and then affixing thereon the veneer by means of a good glue, preferably leather glue. The veneering procedure is practically the same as with the veneering of wood, and also the same presses can be used for carrying out the process. This process renders it possible to manufacture veneered iron furnitures, and the like and to afford the respective furniture and the other articles a neater appearance than they otherwise would have. It is, however, possible to produce merely veneered sheet-metal plates and to use them in many ways, for instance as door panels which cannot then be cut out of the door although they look like panels of wood.

It is desirable to clean carefully the metal surface to be veneered prior to applying the sizing composition, especially for the purpose of removing scale and the like, and it is also desirable to roughen the surface, for instance by passing the sheet-metal between suitable rollers acting to abrade the metal or impart thereto such unevenesses as can be produced by means of coarse emery or by rough grinding.

As the composition consists of equal parts of casein and talc, with a small addition of pulverulent slacked lime, it is not affected by the usually existing or occurring temperatures. When it has become dry, it presents a highly clinging or adhering foundation sizing layer for the wooden veneer which, by the use of a suitable glue, may be firmly secured to the metal in such manner as to form a facing which will not come loose or become deleteriously affected by climatic changes.

Although I have spoken of wooden veneers, still, I wish it to be understood that also other suitable natural or artificial materials to be had or produced in veneer-like thinness can be used as coverings for the sheet-iron articles whatever they may be. I mention artificial resins by way of example. It is in this way possible to produce very tasteful effects also as regards office furniture and the like with only a comparatively small consumption of only comparatively expensive materials, such as good veneers of wood or another natural or artificial material or composition.

In some cases it may be advisable to vary the portions of casein, talc and slacked lime in the adhesive. For example, 2 parts of casein, 1 part of talc, and 1 part of slacked lime will give a good sizing adhesive. It may be further advisable to add to the glue part talc or pulverized steatite, say 10% to increase the adhesive action of the glue to the metal surface. For thoroughly cleansing the metal surface before applying the adhesive, the surface may be rubbed with slacked lime dissolved in water, and then wiped off.

The accompanying drawing shows in cross section a ply sheet embodying my invention and comprising a metallic sheet *a* having a sizing coating composition *b* of casein, talc and slacked lime applied to its outer face, and a wood veneer sheet *d* provided on its inner face with a glue coat *c* whereby it is secured to the sizing coat *b*.

I claim:

1. The method of applying wood veneer to metal surfaces, consisting in covering the metal surface with a composition of casein,

talc, and slacked lime, letting said covering dry, and affixing the veneer thereon by means of glue.

2. The method of applying wood veneer to metal surfaces, consisting in removing any adhering scale from the surface of the metal, covering it with a composition of casein and talc with a small addition of slacked lime, letting said covering dry, and affixing the veneer thereon by means of glue.

3. The method of applying wood veneer to metal surfaces, consisting in cleaning and roughening the metal surface, covering it with a composition of casein, talc, and slacked lime, letting said covering dry, and affixing the veneer thereon by means of glue.

4. The method of applying wood veneer to metal surfaces, consisting in removing any adhering scale from the metal surface, roughening it, covering it with a composition of equal parts of casein and talc and a small amount of slacked lime, letting said covering dry, and affixing the veneer thereon by means of glue.

5. The method of applying wood veneer to metal surfaces, consisting of cleansing the metal surface, covering it with a composition of casein, talc and slacked lime, letting said covering dry, and affixing the veneer thereon by means of glue containing an addition of talc.

6. The method of applying wood veneer to a metal surface, which consists in coating the metal surface with a binder composition of casein and lime together with talc in quantity corresponding substantially to that of the casein, and then gluing the veneer to the binder coating.

7. A composite ply material comprising metal having a binder coating of casein, lime and talc, and wood veneer glued to said binder coating.

In testimony whereof I affix my signature.

MAX LINSE.