

March 2, 1954

L. FRANCIS  
METALIZED ART CANVAS

2,670,554

Filed May 9, 1952

Fig. 1

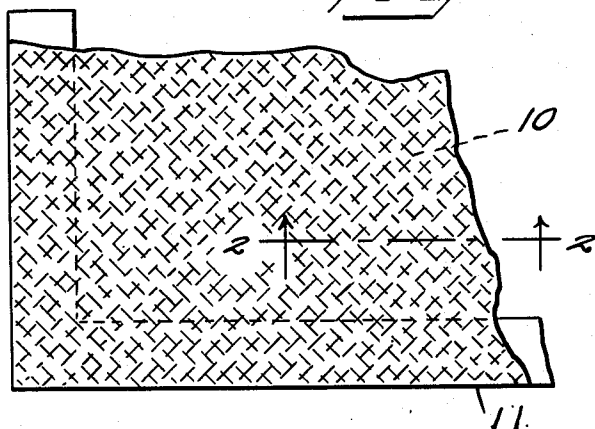


Fig. 2

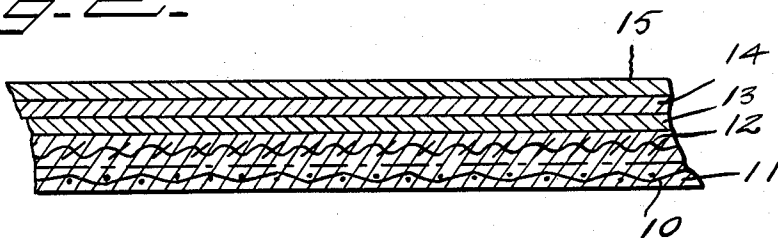
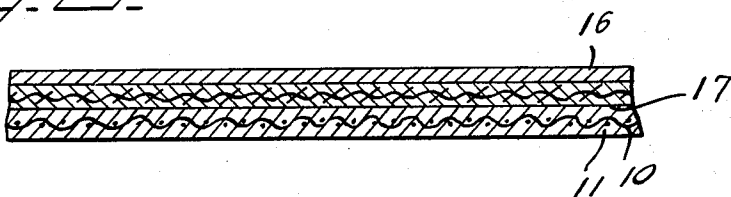


Fig. 3



INVENTOR.

Louis Francis

BY

Kimmel & Crowell

ATTORNEYS

## UNITED STATES PATENT OFFICE

2,670,554

## METALIZED ART CANVAS

Louis Francis, Miami, Fla.

Application May 9, 1952, Serial No. 287,022

4 Claims. (Cl. 41-32)

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This invention relates to art canvas and a method and means of restoring the same and is a continuation in part of my co-pending application Serial No. 182,602, for Metalized Art Canvas, filed August 31, 1950, now abandoned.

An object of this invention is to provide surface for art painting which will resist deterioration with time, and which will retain its flexible characteristics indefinitely.

Another object of this invention is to provide a flexible sheet which may be amalgamated with an old art canvas so as to sustain the old and deteriorated canvas and permit the normal hanging of the old painting.

A further object of this invention is to provide an improved basic compound or preparation which may be mixed with various ingredients to provide the desired paint receiving base having a flexible characteristic so that it will not become brittle and crack with age.

In the carrying out of this invention a copper wire mesh is used as a base and the mesh is rolled or otherwise flattened so as to eliminate the bumps normally caused by the crossed and woven wires and to obtain a smooth surface without the use of mineral fabric. The interstices of the mesh are entirely closed or left in a porous condition depending on the use by an artist or an art restorer.

Another object of this invention is to provide a painting surface which will not be subject to the expansion and contraction characteristics of a conventional fibrous canvas, so that the paint forming the art subject will not crack, shell, flake or chip.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawing:

Figure 1 is a fragmentary plan view of a metalized art canvas constructed according to an embodiment of this invention.

Figure 2 is a fragmentary sectional view taken on the line 2-2 of Figure 1.

Figure 3 is a fragmentary sectional view of a modified form of this invention.

In the formation of a metalized art canvas according to this invention a copper screen 10 of suitable mesh is stretched over a frame, and preferably the screen 10 is passed through rollers so as to flatten the mesh as much as possible. The screen 10 is then given an initial coating 11 of a filler composition which also serves as a fabric

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bonding means. The filler composition is formed of the following:

|                  | Parts |
|------------------|-------|
| 5 Graphite ..... | 5     |
| Vehicle .....    | 1     |

Graphite is defined as plumbago or a mineral carbon.

The vehicle used with graphite is produced from the following, in substantially the proportions indicated:

37½ lbs. of inner tube rubber (natural rubber).  
37½ lbs. of inner tube rubber (synthetic rubber).  
75 lbs. rosin.

One example of synthetic rubber is that having a Buna S base and which comprises a butadiene-styrene copolymer type synthetic rubber. Synthetic rubber having other bases may also be used.

1 gal. gastar liquid.  
1 gal. water.  
1 gal. mineral spirits.

The gastar liquid is a residue obtained from the manufacture of illuminating gas from bituminous coal. The base of gastar is creosote. One example of mineral spirits is kerosene, or a low grade of gasoline.

The vehicle is formed by cutting up the natural and synthetic rubber into relatively small pieces and then placing the above rubber ingredients including rosin into a container where the mixture is subject to heat at a temperature of from 220° to 240° F. for a period of two hours. After being subjected to heat of from 220° to 240° F. for two hours, the temperature is raised to 350° to 400° F. for a period of one half hour. During the initial cooking of the mass, the gastar is left out, but is poured into the hot mass in the final high temperature period and serves to break up the synthetic rubber before the latter carbonizes. The heated liquid mass which now equals about 13 gallons is placed into a 55 gallon barrel, and the latter is then filled with mineral spirits and left to settle for 30 days. The free carbon will settle out, and the liquid, which is herein termed "vehicle," will be drawn off of the carbon.

Before the filler coating has completely dried on the screen a mineral fabric 12, such as glass fabric, is laid over the screen so as to effectively adhere to the screen. After the mineral fabric 12, such as glass fabric 10, is secured by tacking over the copper screen, and the fillers are applied through the screens with a gun or brush, addi-

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tional coatings of filler are applied through the screen and mineral fabric until the openings are closed for painting by an artist, or the size of the openings reduced for use in restoring old paintings.

The filler material which has as a base the natural and synthetic rubbers will form a relatively flexible base coating which will not crack upon flexing or bending of the canvas.

The filler material formed of graphite, carbon and the vehicle mentioned, may be made liquid to the desired degree as follows:

1 part lacquer.  
1 part lacquer thinner.  
1 part raw linseed oil.  
1 part vehicle as described supra.

The lacquer used in the filler is one having a cellulose base, and the thinner is one having an acetone base.

When the filler has substantially dried, a white coating 13 is spread over the filled mineral fabric 12. This white coating is formed as follows:

|                      | Per cent |
|----------------------|----------|
| White lead.....      | 60       |
| Zinc oxide.....      | 30       |
| Vehicle (supra)..... | 10       |

A brush coating 14 is then placed over the white coating and is formed as follows:

|                              |           |
|------------------------------|-----------|
| Cement (white Portland)..... | lbs.. 4   |
| Vehicle (supra).....         | pints.. 7 |

Art paint 15 may then be applied to the surface of the brush coating.

Where an old and damaged painting 16 is to be restored, the back 17 of the painting 16 is laid against the restorer canvas and a coating 11 of the filler in soft and substantially fluid state is applied to the porous canvas. The filler 10 is applied to the screen 11 from the back of the latter so that the filler will flow through and close the interstices of the screen 11 and at the same time amalgamate with the canvas of the painting 16. Drying of the filler will effect an adherence or amalgamation of the painting to the metalized canvas. In this manner the canvas

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of the old painting will be reinforced by the metalized backing which will prevent cracking or tearing of the old canvas.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What is claimed is:

1. A metalized canvas comprising a wire screen, a glass fabric, a combined filler and adhesive means impregnating said fabric and said screen, said filler being formed of graphite, a vehicle, and a surface coating on said fabric.

2. A metalized canvas comprising a wire screen, a glass fabric, a combined filler and adhesive means impregnating said fabric and said screen, said filler being formed of five parts graphite, one part vehicle, and a surface coating on said fabric.

3. A metalized canvas comprising a wire screen, a glass fabric, a combined filler and adhesive means impregnating said fabric and said screen, and a surface coating on said fabric, said surface coating being formed of white lead, zinc oxide and a vehicle.

4. A metalized canvas comprising a wire screen, a glass fabric, a combined filler and adhesive means impregnating said fabric and said screen, and a surface coating on said fabric, said surface coating being formed of six parts white lead, four parts zinc oxide, and one part vehicle.

LOUIS FRANCIS.

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