

# UNITED STATES PATENT OFFICE.

THOMAS D. FITZSIMMONS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR  
OF ONE-HALF TO ROBERT W. WITHAM, OF SAME PLACE.

## PROCESS OF PREPARING CANVAS FOR PHOTOGRAPHING.

SPECIFICATION forming part of Letters Patent No. 301,706, dated July 8, 1884.

Application filed February 20, 1884. (No specimens.)

*To all whom it may concern:*

Be it known that I, THOMAS D. FITZSIMMONS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in the Process of Preparing Canvas for Photographing and for Photographing upon Canvas and other Materials; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a method or process of photographing directly upon canvas, and thus enabling an artist of ordinary ability, at a moderate cost, and with ease and certainty, to produce an oil portrait or painting that will be a correct likeness of the original, and equal, if not superior, to one produced wholly by hand, as has heretofore been considered necessary in this class of work. With my improved process the picture can first be photographed upon the canvas, thus insuring a correct likeness or copy to begin with, after which the artist has only to fill in the colors and work out the necessary details.

To photograph the picture upon canvas, it is necessary, first, to make a negative in the usual way. To prepare the canvas, after it has been mounted on the proper-sized frame, it is first given a thin coat of white paint mixed with magilp. This is allowed to dry thoroughly, when a second coat of the same material is added, care being taken to paint the edges of the canvas well up on the sides or edges of the frame. The magilp, being mixed with the white paint, produces a smooth even surface that is not liable to crack. It also serves to protect the fiber of the canvas from injury, when at a later stage in the process it is subjected to a bath of nitrate-of-silver solution. After the canvas has been thus painted and become thoroughly dry, the surface of the paint is coated with collodion in the same manner as the glass plates are coated for a negative when photographing in the usual way. After applying the collodion, the canvas is placed face downward into a bath of nitrate-of-silver solution prepared in the ordinary manner, but considerably weaker than commonly

used by photographers. It is allowed to remain in this bath until the prepared surface assumes a milky appearance, and free from any grease or greasy look. It can then be taken out, and the canvas is ready to receive the impression. An ordinary glass negative of the picture to be transferred is then placed in the back part of the camera, said camera being placed in front of a window, and the room darkened, so that the lens of the camera will receive no light except as it is admitted through said window and passes through the negative in the back part of the camera. The canvas, prepared as hereinbefore described, is now placed in front of the camera in the proper position and allowed to remain from one to five minutes, according to the light. The size of the picture is regulated, in the usual way, by being placed nearer or removed farther from the camera. After the canvas has been exposed a sufficient time to receive the proper impression, it is removed and developed in the same manner as an ordinary glass negative for a photograph. This method may be applied to paintings other than portraits, and they may be transferred upon any material that can be coated in the manner described.

Clear varnish may be used in place of the magilp for mixing with the white paint, but the surface made with the paint and varnish is liable to crack, and the result is not so satisfactory as when magilp is used.

I am aware that a paste has been known for covering canvas preparatory to photographing thereon, consisting of virgin wax or spermaceti and resin dissolved in essence of lavender and mixed with carbonate of lead, but this paste is not of a character to receive the photograph, and has to be covered with a layer of wax, mixed with a small proportion of the above-described paste, which waxy layer is sensitized to receive the picture. This process of preparing the canvas is, however, open to the objection that it does not afford a durable surface, as after the picture is placed upon it it must be subjected to heat in order to commingle the materials and fix the said picture. This necessarily, to a great extent, blurs and destroys the proof or picture, and the coating for the canvas being of such a character as to be affected by heat would render the picture

placed upon it very unstable and liable to become destroyed. In my process the paint being of the ordinary character, and mixed with magilp or varnish, forms a smooth even surface, very hard and tenacious, thereby rendering it capable of resisting the action of any ordinary temperature, and entirely free from cracks and blisters.

Having thus described my invention, what I claim as new is—

1. The herein-described process of preparing canvas and similar material, so that a photograph may be taken thereon, consisting of coating the surface of the canvas with ordinary paint mixed with magilp, varnish, or a similar material, and afterward covering the painted surface with collodion, and submitting the prepared surface to a bath of nitrate-of-silver solution, substantially as shown and described.

2. The herein-described process of photo-

graphing upon canvas and similar materials, consisting of painting the surface of the canvas with a mixture of ordinary paint and magilp, or varnish, coating with collodion, then submitting it to a bath of nitrate-of-silver solution, afterward placing the prepared canvas in position in front of a camera having a negative of the picture to be taken placed in the back part thereof, said camera being placed in front of a window in a room from which the light has been excluded, except as it strikes the lens of the camera after passing through the aforesaid negative, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS D. FITZSIMMONS.

Witnesses:

THOMAS D. MOWLDS,  
G. STROBEL SULLIVAN.