

UNITED STATES PATENT OFFICE.

FRANK TUCHFARBER, OF CINCINNATI, OHIO.

IMPROVEMENT IN TRANSPARENT SIGNS.

Specification forming part of Letters Patent No. **220,099**, dated September 30, 1879; application filed October 29, 1878.

To all whom it may concern:

Be it known that I, FRANK TUCHFARBER, of the city of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Transparent Flexible Water-Proof Signs, Transparencies, Window-Screens, &c., of which the following is a specification.

The object of my invention is to provide a durable transparent flexible water-proof sign or ornamented transparency, &c., of which wire-gauze or wire-webbing is the foundation, which will permit the light to pass through, showing all the colors of the sign or picture thereon either from front or rear.

In ordinary wire-gauze signs the painting obstructs the light, which only passes through the interstices which are not painted over. This is not the case in my invention, in which the interstices are all filled with a preparation, and the sign or picture put on, as hereinafter described, the light passing through the interstices covered by the sign or picture as well and thoroughly as through those over which the sign or picture does not extend.

The mode of manufacture is as follows, viz: The fine wire-gauze to be used is first thoroughly coated with a flexible oil-size, filling all the interstices in the gauze. The ornamentation, lettering, &c., intended to be placed on the gauze are printed either from lithographic stone, type, or wood-cut in flexible colors on transfer-paper prepared for the purpose. When the ornament is finished on the transfer-paper and thoroughly dry it is covered with a coating of flexible oil-size and placed on the wire-gauze (prepared as before described) and passed under pressure either by hand or power. When the ornament on the paper adheres firmly to the wire-gauze the whole is plunged into water and allowed to remain until the paper, by becoming thoroughly soaked, falls off, leaving the ornament on the gauze. The gauze, with the sign or ornament now on it, is placed in a kiln and baked, when it is again covered with a coating of flexible oil-

size. It is now, when thoroughly dry, ready to be stretched upon a frame of any desired shape, making, when complete, a sign or ornament, of which the lettering and ornamentation are fully visible and legible at the front of the gauze, or as a transparency when the spectator stands behind the gauze and looks through it.

At night a light placed behind the gauze renders the design, &c., visible as a transparency to those in front thereof. If the light be moved from the rear to the front of the gauze, the lettering, design, &c., can be seen at the front, and as a transparency from the rear.

From whichever point the gauze is viewed, and whether by day or night, not only are the lights and shadows of the design, &c., visible, but also all the colors thereof, thus enabling any beautiful and artistic work to be fully seen and appreciated. The use of oil-size renders it water-proof, permitting it to be washed or employed out of doors as well as indoors.

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

1. A transparent flexible water-proof sign or ornamental transparency, composed of a wire-webbing covered with and containing a coating of flexible oil-size marked with the desired ornamental device or letters, and an exterior coating of flexible oil-size, substantially as and for the purposes specified.

2. The herein-described mode of producing a transparent flexible water-proof sign, consisting in, first, thoroughly coating wire gauze or webbing with a flexible oil-size; secondly, lettering or otherwise ornamenting the same by means of transfer-paper; thirdly, baking the same; and, finally, covering it with a coating of flexible oil-size, substantially as specified.

FRANK TUCHFARBER.

Attest:

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