

(No Model.)

F. A. SHAW.  
TRANSLUCENT SCULPTURE.

No. 478,765.

Patented July 12, 1892.



Fig. 2.

Fig. 1.

Witnesses,

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# UNITED STATES PATENT OFFICE.

FREDERICK A. SHAW, OF BOSTON, MASSACHUSETTS.

## TRANSLUCENT SCULPTURE.

SPECIFICATION forming part of Letters Patent No. 478,765, dated July 12, 1892.

Application filed February 4, 1892. Serial No. 420,301. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK A. SHAW, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Translucent Sculpture, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Artists have for centuries striven for beautiful effects of light and shade in ecclesiastical and architectural decoration, and for this work glass and vitreous compounds have been largely used, the glass being of different colors, and in figure-work paint has supplemented the glass for light and shade effects and facial expression.

In my researches to produce new and beautiful art decoration and secure effects not heretofore obtainable by the use of substances such as heretofore used I have discovered that the natural limestone—such, for instance, as white marble, alabaster, and gypsum—may be utilized most effectually for the production of translucent figures and designs.

In accordance with my invention I take a slab of natural stone having the quality of translucency and I work or chisel the figure or design in the stone, varying the depth of cutting, and hence the thickness of the stone, at predetermined points in order to obtain varying degrees of translucency, whereby light and shade effects are produced, the thinner portions showing high lights and the thicker portions producing the dark or shadow effects.

Figure 1 in elevation represents part of a figure for a cathedral-window, and Fig. 2 a section thereof.

In the drawings, *a* represents a slab of marble, it being the substance which I have so far found to be the best material for the most desirable and beautiful effects, durability of work being considered. This natural rock substance—marble of substantially uniform texture—is worked or subjected where the figure or design is to show to the action of a chisel or other rock-cutting tool, and pre-

erably the surface is worked *in intaglio* from one toward its other side until parts of the marble or stated equivalent material are thinned to translucency, the extent of the surface of the slab thus made translucent varying in thickness, and consequently in degree of translucency, according as it is desired to produce high light or shadow or dark effects.

I distinctly disclaim the employment of any plaster or vitreous material or any plastic moldable compound, and base my invention solely on the employment of natural rock substances having the quality of translucency within certain thicknesses and capable of exhibiting greater or less translucency, according to gradation of thickness.

In the drawings, and especially in Fig. 2, the varying thicknesses of the marble is designated, the thinner places being more translucent.

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

1. As an improved article of manufacture, a natural translucent stone having a design sculptured thereon, the variations or gradations of light and shade being secured by differing thicknesses of the stone at predetermined points and the whole design adapted to be developed by transmitted light, substantially as described.

2. The herein-described method of sculpturing translucent natural stone, which consists in cutting the design in the stone in varying degrees of depth, whereby the variations or gradations of light and shade are secured and developed by transmitted light, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK A. SHAW.

Witnesses:

FREDERICK L. EMERY,  
EMMA J. BENNETT.