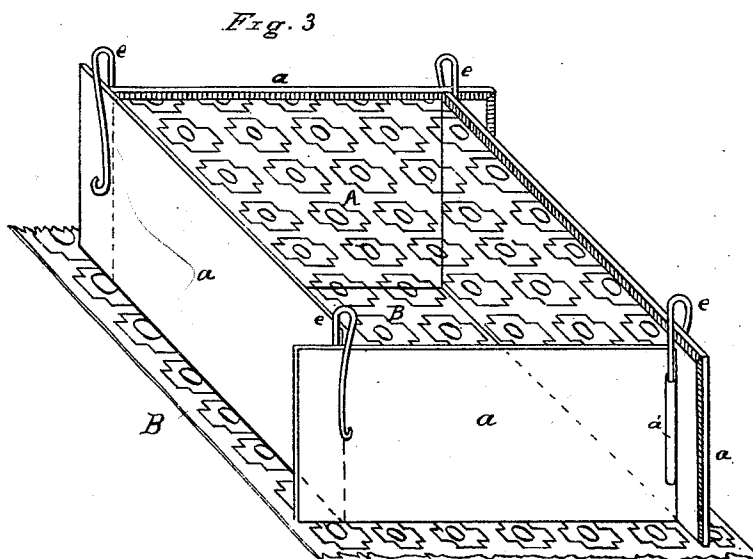
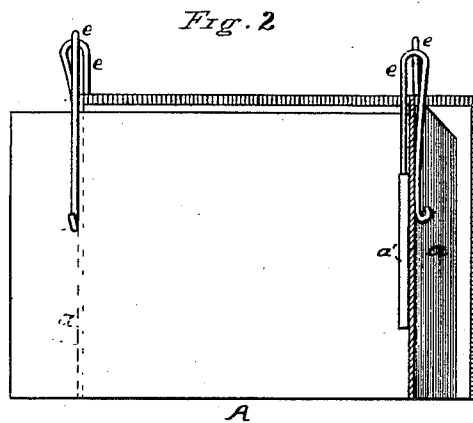
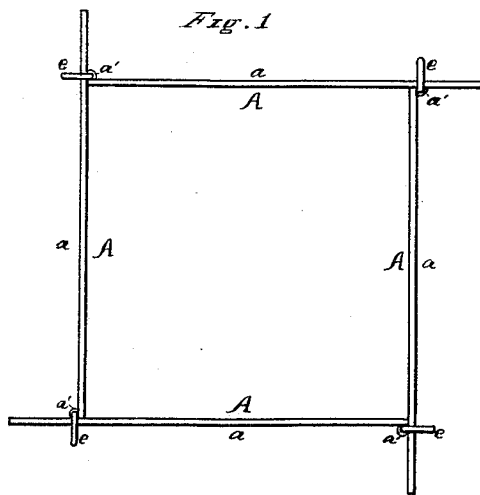


O. W. RICHARDSON.
Pattern Multiplier.

No. 168,343.

Patented Oct. 5, 1875.



WITNESSES

J. H. Lawlor
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ORLO W. RICHARDSON, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN PATTERN-MULTIPLIERS.

Specification forming part of Letters Patent No. **168,343**, dated October 5, 1875; application filed August 12, 1875.

To all whom it may concern:

Be it known that I, ORLO W. RICHARDSON, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Pattern-Multiplier, of which the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the said device, reference being had to the accompanying drawing forming a part hereof, and in which—

Figure 1 is a top or plan view of my pattern-multiplier, and Figs. 2 and 3 are perspective views thereof.

Like letters of reference indicate like parts.

Merchants dealing in carpets, oil-cloths, and similar goods have been obliged to carry stock sufficiently large to enable them to offer a variety from which their customers may make selection. Attempts have been made to relieve country merchants from the necessity of carrying such large stocks, and for that purpose the practice of selling this class of goods by samples has been tried. An objectionable feature in selling the goods in this manner is, that the purchaser is unable to judge satisfactorily how the goods will appear when made up or in use in larger pieces. My object is to obviate this objection; and to that end my invention consists of a set of mirrors, each adjustable with relation to the other, and rendered capable of being so arranged and connected that the same device may be used to inclose various patterns, and produce the proper effect, substantially as hereinafter described.

In the drawing, A represents my pattern-multiplier, consisting, in the example shown, of four mirrors, *a a a a*, vertically arranged, and set at right angles to each other, their reflecting-surfaces being so placed as to inclose and repeatedly reflect or multiply the pattern to be exhibited. In order to render these mirrors horizontally adjustable with relation to each other, and with convenience, I attach to one end of the outer face of each a small socket, *a'*, and into each of these sockets I insert a friction clamp or clasp, *e*, preferably removable, and as shown. In setting up the mirrors for use each clasp or clamp should engage the end of an adjacent mirror, as shown in the

drawing, so that all will be held in a vertical position, and each be capable of being adjusted, as occasion may require, according to the size and configuration of the pattern.

B represents a pattern to be exhibited. In order to exhibit this or other patterns the patterns should be arranged horizontally on some suitable support. The mirrors should then be set upon the pattern, and the clasps applied to retain them in place, care being had to so arrange each mirror that the pattern will be so multiplied as to correctly represent the whole or a large part of the fabric of which the figure will form a part. The observer should then view the representation thus produced from a point as near as may be to the top of the multiplier, and the effect will be the same, or nearly the same, as if the whole fabric were viewed. In exhibiting continuous patterns or figures the same effect will be approximated to. A good effect, but not the best, may also be produced by employing only three mirrors, arranged substantially as described. When the figures are numerous and small, as represented in Fig. 2, the mirrors should be so set as to rest in lines passing through the center of each outer line of figures, as shown. When only one figure is embraced in the pattern it should be arranged, if comparatively small, in the center of the space inclosed by the mirrors; and when the figure is comparatively large a sample which shows only a half, or even a quarter, of it may be multiplied with good effect. Where there are stripes of ground-filling, or small figures surrounding a leading figure, care should be taken to represent the different parts in their proper relation to each other.

With this description it is believed that others will be able to use my device properly for the purposes for which it is intended. It will also be perceived that the objects above set forth may be accomplished by using the multiplier in the manner described.

I am aware that mirrors have heretofore been arranged at various angles to each other for the purpose of exhibiting goods and displaying a small stock to advantage, and I do not here claim such broadly; but these mirrors, so far as I am aware, have not before been adjustably connected to each other so as

to render the same set capable of exhibiting various small patterns or samples in such a manner as to correctly represent the goods of which the samples are a part, substantially as herein described, and this constitutes the chief feature of my invention.

I do not here intend to limit myself precisely to the means herein shown for connecting the mirrors to each other and rendering them adjustable while connected; but

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

1. A pattern-multiplier, consisting of three or more mirrors adjustably connected to each other, and having their reflecting-surfaces arranged, substantially as described, to inclose, or partly inclose, the patterns, for the purposes set forth.

2. The combination of three or more mirrors, *a a*, with friction clamps or clasps, substantially as and for the purposes specified.

ORLO W. RICHARDSON.

Witnesses:

F. F. WARNER,

JOHN. M. GARTSIDE.