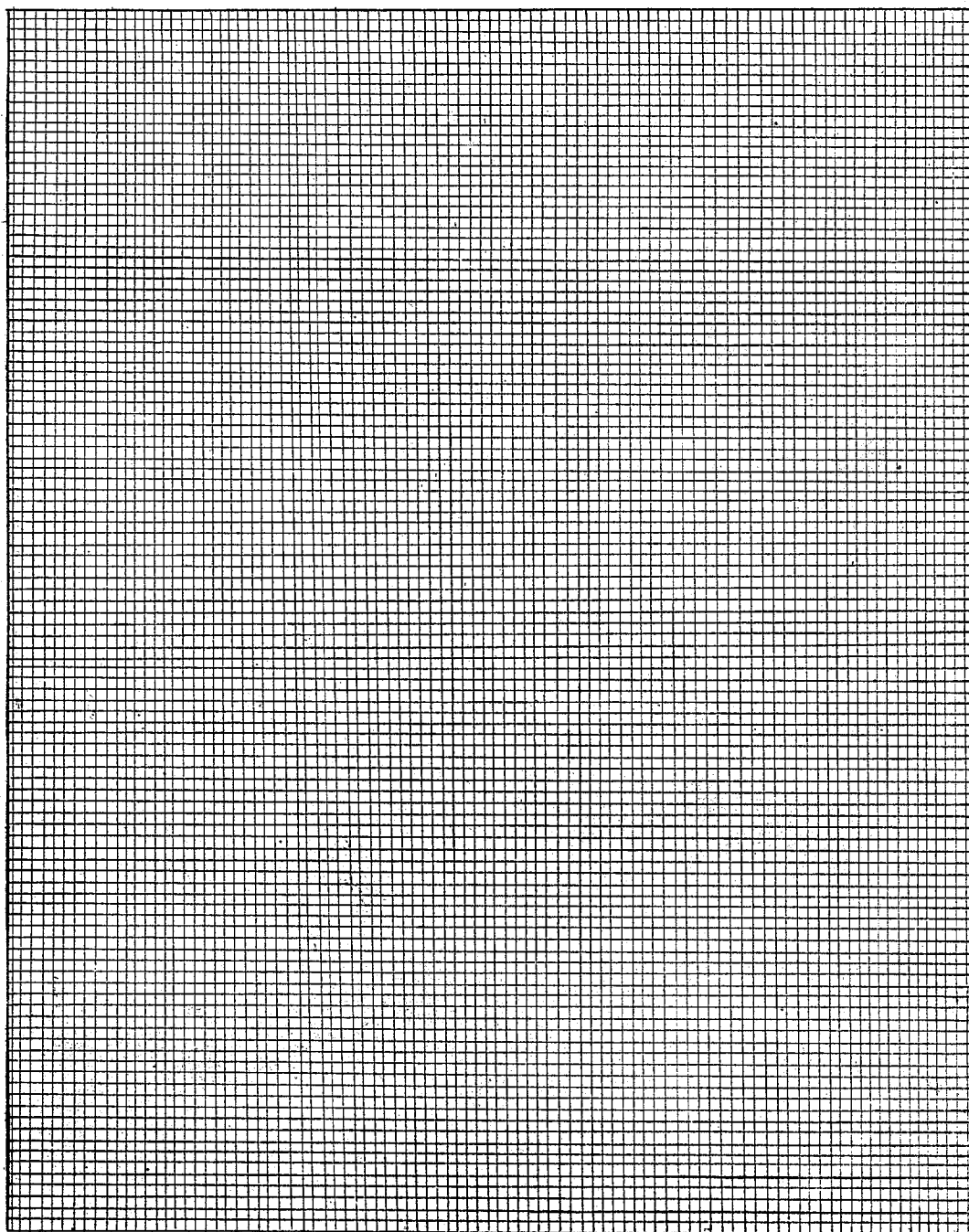


No 121,128.

Sheet-A.

*Isaac Rehn's Mode of Producing  
Designs for Woven and other Fabrics.*

*Patented Nov. 21. 1871.*



*Witnesses*

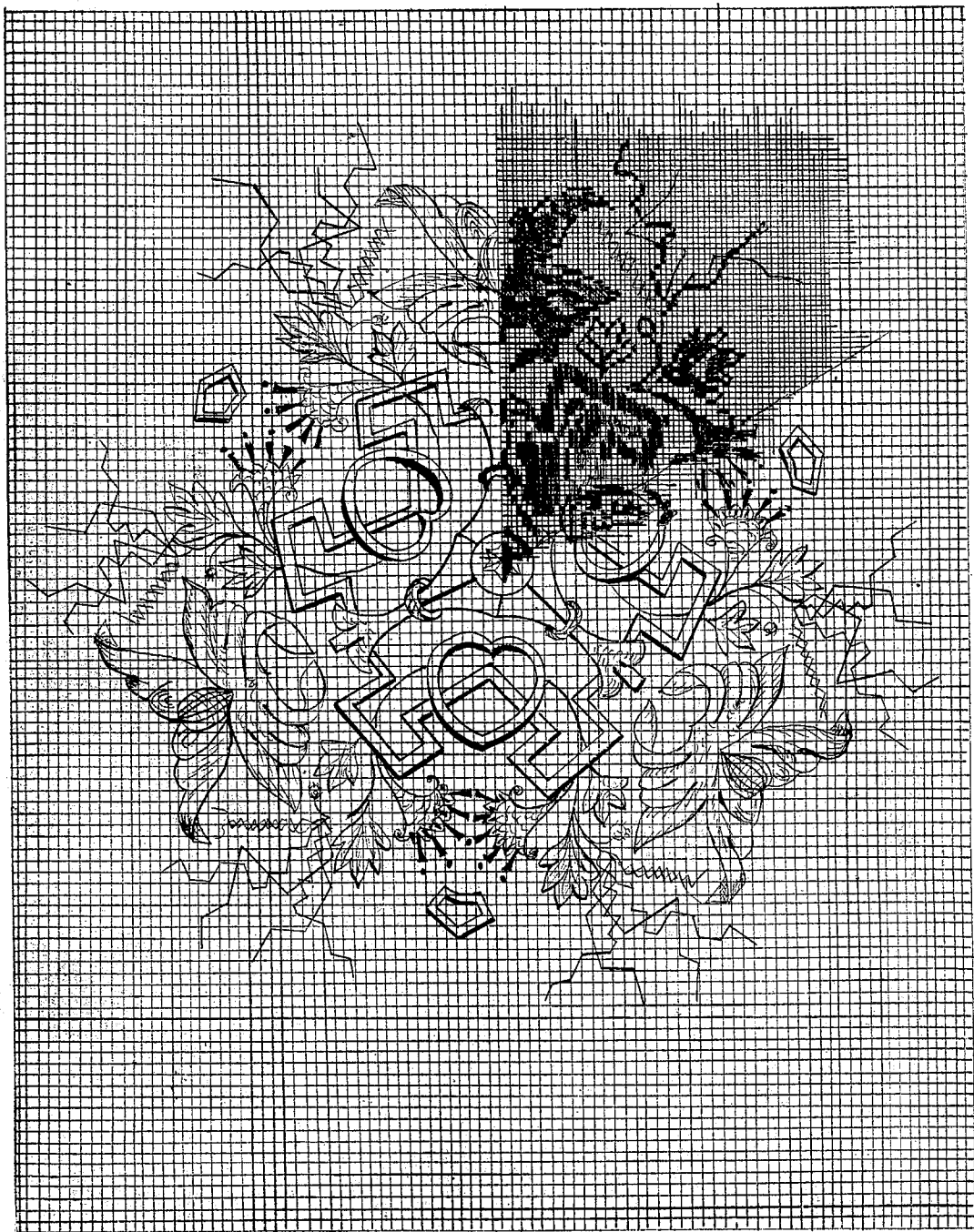
*W. E. Quinn  
W. B. French*

*Inventor*

*Isaac Rehn*

*Isaac Rehn's Mode of Producing  
Designs for Woven and other Fabrics.*

*Patented Nov. 21, 1871.*



*Witnesses.*

*H. E. Drimmer  
W. B. French*

*Inventor:*

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# UNITED STATES PATENT OFFICE.

ISAAC REHN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN THE MODES OF PRODUCING DESIGNS FOR KNIT AND WOVEN FABRICS.

Specification forming part of Letters Patent No. 121,128, dated November 21, 1871.

### *To all whom it may concern:*

Be it known that I, ISAAC REHN, of the city of Washington and District of Columbia, having invented a new Mode for Producing Designs for Woven and Knit Fabrics, set forth the same in the following specification.

The purpose of my invention is to take advantage of photographic delineations, combined with a determined scale, in the elaboration of designs or patterns for woven or knit fabrics, by a means both cheap and simple, and at the same time limitless in the multiplicity of forms and combinations of forms for the aforesaid purpose.

The usual manner of originating designs for this use is by the skill and invention of the draughtsman; but in order that such designs may be available for the purpose of the manufacturer, it is necessary for them to be laid upon a scale made by lines drawn at right angles to each other, each square of which scale representing a stitch.

In fabrics in which the ornamental design is woven it is indispensable to know the exact number of threads of each and every color necessary to be brought to the surface as the weaving proceeds. By counting these squares, therefore, of this scale, and observing the colors, this is readily known.

The above mode of producing designs is attended with delay and much expense, as highly-cultivated skill is indispensable on the part of the artist to accomplish the work in a satisfactory manner; besides this the designs so furnished are very liable to a sameness, arising from what is known as the style of the artist.

Photography has been resorted to as a means of aiding in the production of designs, and the object of my invention is not only to extend this means, but so to apply it that a practically-unlimited resource may be had by its use of both original and beautiful forms adapted to the almost immediate use of the manufacturer, or which may be modified easily and cheaply at his pleasure. My plan of doing this is to apply photographic delineations to a determined scale, as I shall now proceed to describe.

My manner of proceeding is to take photographic paper of large size—say forty inches, or even larger where the designs are for carpets—and

print thereon from zinc or stone a scale ruled with lines drawn at right angles to each other, forming squares about eight to the inch linear, or as may be necessary for special use. This scale I print with fatty carbon ink, such as is used in ordinary lithographic printing. This paper may be kept in stock for use when required.

My object in printing this paper with carbon fatty ink is that when the scale is printed first, which is the best practical mode of proceeding, the lines are not affected by any of the chemicals employed in photography. Sheet A, accompanying this specification, is a sample of this scale, paper thus printed.

I next make a photographic negative of the forms of the kaleidoscope or of any object or objects that may be desired. If the design is to be of moderate size—say not exceeding twenty inches, or thereabout—I make the negative of this size and print from this upon the scale-paper direct in the usual manner of photographic printing; but if the design is to be very large I make a small negative of about five inches square, suitable for the solar camera. With this negative I am prepared to print the image on the scale-paper of any size up to eight or ten feet square, as the case may require.

The sheet marked B, accompanying this specification, is a sheet of this scale-paper, on which is a photographic print from a negative of the forms of a kaleidoscope; for the purpose of exhibiting the manner of applying the photographic delineations to the scale-paper, a very little labor being now required to fit the design for immediate use. The photographic delineation may be first printed upon the paper and upon the scale subsequently; or the negative may itself be ruled and the scale and image printed together, but I prefer the practice of printing the scale first. Either or all of these modes I claim as my invention, being the combining of the photographic delineations with the scale-paper for the production of designs for fabrics.

In addition to the use of my invention for woven and knit fabrics it is also applicable to the production of designs for oil-cloths, or wherever the design is required to be made up of squares, angles, or dots.

The advantages of my process will be obvious,

inasmuch as it affords not only an easy and practicable mode of adapting photographic images to the production of ornamental designs, but also to take the inexhaustible resources of the kaleidoscope and apply these forms also to the same purpose.

Having described my invention, I claim—

1. The combination of photographic delineations and a determined scale in the origination

of designs from which to manufacture ornamented fabrics, as set forth.

2. The process described for producing designs from which to manufacture ornamented fabrics.

ISAAC REHN.

Witnesses:

H. E. QUINN,

W. B. FRENCH.

(54)