

Section of Photography and Microscopy.

Stated Meeting, held Thursday, December 5, 1901.

A NOVEL STEREOGRAM.

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About sixteen years ago I was making that study of the dioptrics of half-tone screen photography which led me to devise and adopt the cross-line sealed screen and special diaphragm control now universally employed in the production of half-tone process plates. At the same time other applications of the line screen occurred to me, which I did not regard as of sufficient importance to justify me in devoting time to exploiting. One of these applications was to the production of a stereogram which should require no stereoscope or other optical aid to be seen in relief, like the ordinary double stereogram in a stereoscope.

It recently occurred to me that a very simple modification of my "Kromolinoskop" camera would enable me to produce such a stereogram, and that it might be of sufficient interest as a scientific novelty to be worthy of presentation at a meeting of this Section of the Institute.

The single example which I have found time to produce is in the form of a transparency on glass, which, when held 12 inches squarely in front of the eyes, instead of looking like a flat photograph, appears to be the front of a box within which, in full stereoscopic relief, and at different distances from the eye, are a statuette and two glass vases.

This result is obtained by placing a line screen in front of the sensitive plate in the camera, slightly separated from it, and forming the image with a $3\frac{1}{2}$ -inch diameter lens, behind which are two small apertures placed at the pupillary distance apart, and viewing the resulting photograph (a positive from the original negative) through a similar screen, from approximately the same distance as the focal length of the lens.

Each aperture of the lens forms an image made up of shaded lines, and, owing to difference of parallax, the lines constituting the two elements of the stereogram are separated and alternate with each other; and for the same reason, each eye picks up all of the lines belonging to the respective element of the stereogram, while the lines constituting the other element are hidden from that eye by the opaque lines of the covering screen.

In the small example exhibited, the lines of the screen are somewhat in evidence, but there is nothing to prevent the production of these pictures in such large sizes that at the proper viewing distance the lines cannot be separately perceived, and in such large sizes they would prove interesting, and might have some vogue as window transparencies, and in the production of popular illusions, such, for instance, as a magical gallery of sculpture, the statues appearing to be of life-size, and as if seen through and beyond a glass behind which there was in reality nothing but empty space.

In order to give this kind of picture a distinctive name, I propose to call them "parallax stereograms."

VENEERED DOORS.

The rapidly extending uses of hard woods have given rise to the manufacture of veneered doors. The base or core for these doors is some light wood, such as pine, etc., over which is laid a veneer of oak, birch, mahogany, or any hard wood, thus producing a door that is to all intents and purposes a hard-wood affair, combined with the lessened weight of the wood, while effectually preventing the warping and twisting that very often ruins a solid door. Such doors cost only about one-third more than a pine door.

The waste-products of sawmills are sold by the owners to a great factory in the Northwest, where they are treated and made into a "compo-board." This is in most respects superior to laths and plaster in the construction of inside walls.

The wood-pulp industry particularly commends itself to the manufacturer of furniture. He can safely say, when he turns out a lot, that he has something that will not "split" or warp. The enormous pressure to which the article is submitted effectually prevents this, and, in addition, the furniture is lighter. Thus, from one base, may be made all kinds of furniture. If you want mahogany (?) you can have it, or oak, or rosewood, walnut, ebony, and in fact any kind or style, at the same price, all due to the new industry that seems to be of unlimited applicability and value to those who cannot afford to buy furniture in the original wood.—*The Manufacturer.*