

Increasing Efficiency of Parallax Bar with Zeiss Mirror Stereoscope

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THE parallax bar is normally used with a Zeiss mirror stereoscope for determining parallax differences between the same points on stereoscopic photographs. In some cases these photographs have to be changed rather frequently; at each change the parallax bar must be entirely withdrawn from operating range. It must then be reinserted and reoriented with care to prevent damage to the glass plates. To avoid this rather time-consuming procedure, and to increase efficiency in handling the parallax bar and photographs, several simple changes were made in the mounting of the stereoscope and an inexpensive drafting machine was added.

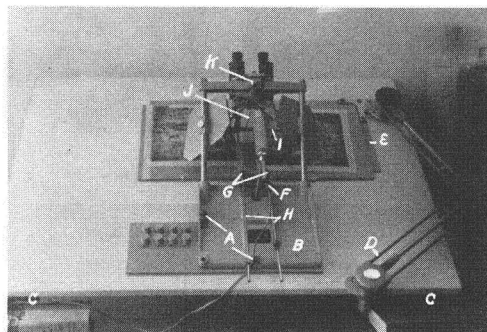


FIG. 1. Top view.

The mirror stereoscope was bolted (A) to a 42-inch by 31-inch drawing board so that the base (B) was 2 inches from the top of the board and the left side of the base was 12 inches from the left side of the board. This eliminates the "V" leg used for stabilizing the mirror stereoscope and allows more room in front of the scope for photograph manipulation. Small legs (C) were fastened to the board so that a slight tilt and proper height made a convenient and more comfortable working surface.

A "Vemco 33" drafting machine (D) was mounted on the upper side of the board about 7 inches from the left-hand corner. A 12-inch by 24-inch by $\frac{1}{8}$ -inch pressed hardboard was

bolted (E) to the drafting machine. Small $\frac{1}{4}$ -inch pieces of transparent overlay material were fastened about $1\frac{1}{2}$ -inches apart to the bottom of the hardboard. This lowers the friction between the smooth surfaces of the hardboard and drawing board. The metal plate used with the small magnets to hold the photographs in place was lightly glued to the hardboard. These adjustments allow the observer to move a pair of stereo photographs in any direction without losing stereoscopic alignment, or to withdraw the photos from under the parallax bar when changing photographs.

To guide movement of the parallax bar,

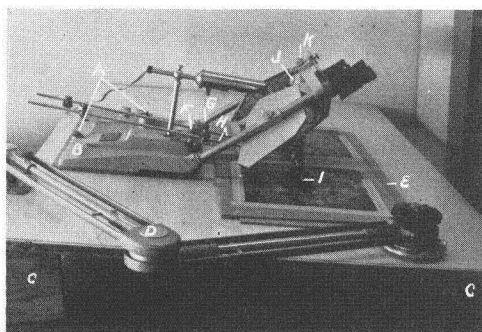


FIG. 2. Side view.

a hinge (F) was fastened to the stereoscope base. Two small clamps (G) fastened to the hinge held rods (H) which extended to the parallax bar (I) and were clamped to it. Clamps were used so that adjustments in the parallax bar alignment could be made easily. A small wire hook (J) was extended down from the monocular frame nut (K) to serve as a spring catch. This arrangement allows the bar to be lifted vertically an inch or more above the photographs where the spring catch holds it in this position until it is released for use with the next set of photographs. When lowered onto the photos, the parallax bar positions the floating dot in the center of the monocular field of vision.

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