

simple method of measuring the beds collected from is to cut a light pole 10 or 15 feet in length and mark it with bands of peeled bark at intervals of 5 feet, one of the 5-foot subdivisions being marked off into 1-foot spaces. The section can then be measured by holding the pole at right angles to the bedding and using it yard-stick fashion. In the case of horizontal beds exposed along the slope of a hill or mountain-side, the aneroid barometer or a Locke's hand level is generally used. When the beds are inclined, neither of these instruments will suffice. The method used by Blackwelder for measuring sections of inclined strata is a modification of the Walcott method, and includes the use of a clinometer compass attached to a rod 5 feet 1 inch in length. Walcott describes this method as follows:—

"The strata, in section to be measured, were inclined to the east 40° . Placing the lower end of the rod at the base of the section, I inclined the rod towards the edges of, and at a right angle to, the line of the dip of the strata, which was indicated by the needle of the clinometer standing at 40° . Then, looking through the compass sights the point where the line of sight touched the ground was marked as the next station for the rod, and on this station the base of the rod was placed for the second sight, which was made exactly as in the first instance, and so on to the end of the section. Frequent trials were made, at the exposed outcrops, to determine the angle of dip of the strata, so that the rod might be held at a right angle to it."

The application of this method is clearly shown by Blackwelder's figure which is given below.

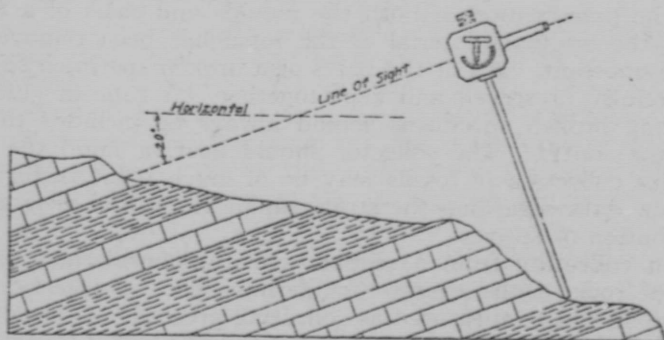


Fig. 1. Diagram illustrating the measurement of strata by means of a spirit level clinometer and sighting arm attached to a five-foot rod. (After Blackwelder.)

In case the collector is not provided with a clinometer compass, fairly accurate measurement of a section of inclined beds may be made with the aid of a roughly improvised T-