



FIG. 311. ABNEY LEVEL-BUBBLE ADJUSTMENT

Select two trees or other objects about 100 feet apart on nearly level ground, as X and Y in figure. Set a mark a at X; then move to Y. Set the index arm of the Abney until some point b is found which apparently is on a level line through a. Mark point b.

Now move to X and sight b. Move the Abney up and down at X until some point c is found which apparently is on a level line through b. Mark point c. Set a point d midway between a and c. Line db is level. Adjust the level bubble until (with the index arm reading zero) the bubble will show level when the instrument is sighted from d to b.

As a final test, read up and down between two definite objects on a steep slope (30 to 45 percent). If both readings are identical, the instrument is in good adjustment.