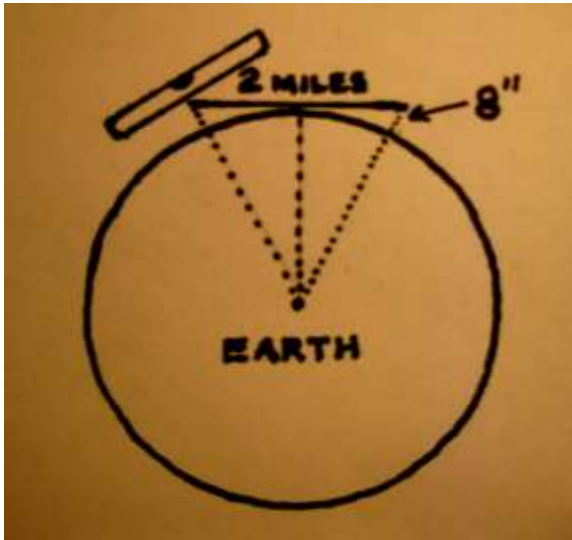


WHAT IS A LEVEL LINE



No such thing...may be one in heaven, but not here on earth. Plumb line, yes, level line, no.

If you haven't read "Gravity and Leveling" in the book "50 years as a Carpenter" this may be confusing. It confused me for years and it still confuses even some engineers.

Level, as a noun, is a tool, usually 1"x2¼"x4', with a vial built in it, mineral spirits in the vial with a bubble left in it and it will give you a perpendicular line or a plumb line to the center of the earth, equal gravitational pull at each end of the 4' level. Read G&L again.

Webster's dictionary, Thesaurus and I say there is no such thing as a level line.

Level, as an adjective of a line or plane, is nonexistent; you can't create it, not on this planet. You can create a perpendicular line to the earth's center as the picture above shows, and call it level, as all we carpenters do, but the bubble will only be **dead center** at the center of the 2 mile line. If you slide your level towards either end, even 100', and the 2 mile line is dead straight, the bubble is going to go off center towards the end of the 2 mile

line and you will have to lower the leading end of the level to get the bubble back in the center, the further you slide it towards the end of the 2 mile line the more off center the bubble will get.

Picture shows a level setting on the end of that 2 mile line and you tell me it's going to read level, you and I both know that there is no way it will read level.

I have a laser level that will read ¾ of a mile. I shot a line yesterday and we drove two steel stakes 44" apart at ¾ mile from the laser.

Most would call these stakes level and at the same elevation.

When I set my 4' level on these two steel stakes that were planed with the laser line the bubble was off center about a half a bubble. Proof. Do it.

Almost anyone would call these two stakes shot with a \$4000 laser the same elevation/level, they weren't. They were in a plane with the laser line but they were not level and not the same elevation from the center of the earth.

As the picture shows, the end of that line we shot was 8" further from the center of the earth than where the laser was setting.

"Elevations" in Procedures will tell you how to calculate the 8".

Confusing article, yes, but it's the truth. Don't stop calling your floors, foundation footings, houses, buildings level. They are, in a 100 or 300' it is not going to be a factor.

But remember this, technically there is no such thing as a level line.

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