

A HALF CORNER IS BETTER THAN NONE
or
WHAT A SURVEYOR WILL DO FOR A QUARTER

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BIOGRAPHICAL SKETCH

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ABSTRACT

A brief discussion of a variation in the subdivision of townships during the original public land surveys in parts of Florida and Alabama, and the rules to be followed by Land Surveyors today when encountering same during retracements requiring the subdivision of the sections into halves or quarters.

TEXT

On July 17, 1821, Andrew Jackson completed the formalities through which the territories of East and West Florida were turned over to the United States by the Spanish authorities. Four days later, acting in his capacity as Military Governor, he issued an ordinance dividing the newly acquired land into two counties with seats of government established in Pensacola and St. Augustine. The next year, following the establishment of a civil government in Florida with authority vested in a territorial governor and a legislative council made up of 13 citizens, the territory was divided into four counties, and a year later into five. By 1824, when the public land surveys were begun in Florida, the territory had been divided into eleven counties, evidencing its rapid development under the pressure of an avalanche of new settlers, all seeking a fresh start on land soon to be available for homesteads.

No doubt, there was a great deal of pressure also on the General Land Office to expedite the surveys of those parts of the public domain in Florida found suitable for farming so that the land could be patented into private ownership. By law, public lands of the United States could not be disposed of until surveyed, marked and approved by the Surveyor General. It was not too surprising, therefore, to find that some short cuts were introduced into the

routines employed during these early surveys.

The most significant variation officially introduced was the establishment of so called "half-mile posts" at the distance of 40 chains from beginning section corners on each line run. In actual practice, two distinctly different plans evolved, one being the running of all interior section lines in cardinal directions, or on bearings in harmony with the township boundaries, to intersections where the section corner post would be placed. If the distance from each beginning section corner to the intersection happened to be 80 chains, the "half-mile post" became a legitimate quarter corner as prescribed by law. If the distance varied, the total distance for that particular line was halved and the field notes would, in some manner, indicate that the quarter corner, or post, was located at that point midway between the section corners.

In the second plan, the interior section lines would first be run in one of the cardinal directions across the entire township with section corners set at each 80 chain interval and "half-mile posts" set at 40 chain intervals between the section corners. The lines run later at approximate right angles to the first run lines were run only as random lines, although "half-mile posts" were set, and bearing trees recorded, at 40 chains on that trial line. If the last run lines did not cross the first run lines at the established section corners, the "half-mile post" was not on the true section line bearing shown in the field notes. If the closing distance was not 80 chains, half the distance was noted in the field notes as the distance to the quarter corner on the true line, but the line was not run and no quarter section post was set.

The most significant difference in the two plans was the probability that the "half-mile post" in the second plan would not actually be on the section line, and could not be used as a reference monument to the true quarter corner. Too, there could be no marked closing section line to aid the eventual purchasers in the location of their boundary. To the contrary, the bogus monument could cause an erroneous occupation to the wrong line. In making retracements, however, the second method did simplify the establishment of a quarter corner by a surveyor having access to the field notes, and having successfully identified the appropriate section corners, as he had only to halve the true distance, without regard for the half-mile post, and set his corner at the intended point. However, if the field notes indicated that the closing line actually hit the section corner at 80 chains, then that "half-mile post" would be the true quarter corner.

When the first described plan was followed, all of the "half-mile posts" were presumably set on the true section lines, but such posts, whether set on the north - south lines, or the east - west lines, could be quarter corners only where the distance from the beginning corners to the intersection point was exactly 80 chains, or so entered in the notes. In all other cases, the "half-mile posts" became reference monuments from which the quarter section corners could be located.

Chapter 5, Paragraph 39, in the 1973 Manual of Surveying Instructions, cites the rules regulating the establishment, or re-establishment of quarter corners

created during original government surveys made in accordance with the two methods previously referred to:

(1) In case the "half-mile post" and quarter-section corner are recorded as being at a common point, the identified "half-mile post" will be restored as the quarter-section corner.

(2) If there is evidence of the position of the section corners in both directions, and if the record leaves doubt as to the establishment of the "half-mile post" on the true line, the quarter-section corner will be monumented at midpoint on the true line, disregarding the record of the "half-mile post".

(3) In the absence of evidence at one or both section corners and where the record leaves doubt regarding the running and marking of the true line, the "half-mile post" will be employed on a north and south line for the control of the latitude of the quarter-section corner, or on an east and west line for control of its position in departure, using the record correction for distance. The alinement of the section boundary and the position of the quarter-section corner on the true line will be adjusted to the location of the two section corners after the double proportionate measurements have been completed."

(4) Where the field notes show proper location for alinement and record correction for distance, the "half-mile post" will be employed for the full control of the position of the quarter-section corner, and for the restoration of the lost section corners. The position of the quarter-section corner in latitude on a north and south line, or in departure on an east and west line, will be ascertained by making use of the record correction for distance from the "half-mile post". The alinement from the position of the "half-mile post" to the point for the quarter-section corner will be determined by the position of the section corner to the south, if the record correction for distance is to be made to the north; the section corner to the north will be used if the record correction for distance is to be measured to the south; and similarly on east and west lines.

(5) The evidence of the "half-mile post" will not be destroyed."

Upon first encountering a situation during a retracement requiring the application of the referred to rules, there is a great temptation to throw out the evidence of the "half-mile post" recovered during the random traverse made along or in the vicinity of the original section line. This occasionally is made possible by the fact that only two bearing trees or other accessories were given at the "half" corners, and it is often possible to find several pairs of the objects or remains of the objects matching the field note calls in the obvious vicinity of the point where the original post was placed. If two points can be identified with equal authenticity, then neither point can be identified as the true corner. This convenient solution, however, is not always possible and in any case, is not the object of the retracement. The concealment of evidence would be an actionable misrepresentation, as well as a breach of our code of ethics.

In every instance, the rules formulated by the Bureau of Land Management and its predecessor, The General Land Office, were issued to preserve the scheme of the public land surveys, to validate the performance of the deputy surveyors, and to satisfy the dictates of the federal laws governing the identification and disposal of the public lands of the United States. In most instances they have been successful, and the occasional failure detected in the results of their performance is infinitesimal in view of the magnitude of their undertaking. Nevertheless, rule (4) as cited here seemingly has the uniqueness of being a deliberate attempt to frustrate the object of the intersection plan rather than strengthen it, and I cannot help but believe that had this method of closing sections been widely used in other areas, instead of isolated in a few districts of Florida and Alabama, there would have been so many attacks on the rule that it would not have remained on the books for long.

To illustrate my objections, the consequence of the Bureau's standing rule is shown in Figure 1. This drawing portrays the two segments of a closing section line run in an easterly direction as a true line to an intersection with a line run earlier in a southerly direction from the northeast corner of the section to be established. For the purpose of clarifying the results, an exaggerated turn has been made in the course between the "half-mile post" and the section corner set at the intersection. In this example, as the total distance from section corner to section corner is greater than 80 chains, the correction distance must be measured in an easterly direction with the section corner to the west used for alinement. It is at once apparent that the original intent to establish a straight section line between the two corners has been completely ignored and the quarter-section corner established at a point even farther from a straight line than the "half-mile post" was to begin with. The only improvement realized through this method depends on the possibility that the quarter-section corner may be equidistant from the two section corners. If you believe that is much of a possibility, then you will probably want to vote slot machines back in too.

Of course, any movement of the quarter-section corner would disturb the line actually run, but why select a procedure that puts a larger turn in the boundary and a monument that is even farther out of place than the one set by the deputy surveyor? By way of explanation, the Manual provides this enlightening statement;

"The applicable rules for the restoration of the true line midpoint position for the quarter-section corners in the above practices are derived from the Act of February 11, 1805 (R.S. 2396), which requires that "the corners of half and quarter sections, not marked on the surveys, shall be placed as nearly as possible equidistant from two corners which stand on the same line".

It is not conceivable that the law could be so broadly interpreted so as to permit the quarter-section corner to be set just anywhere as long as it satisfies the equidistant provision. There was also a mention of "the same line". Where is the same line? Is it a line that would fix the points all in a row _ a straight line _ with the midpoint equidistant from the other two? Not necessarily. We have all sorts of lines; crooked lines, zig-zag lines, curved lines, and yes, even straight lines. We also have section lines, and in this case we can assume that this is the line referred to -- the section line -- but, if this is true, where was the section line when the rule was applied? Was it not right where the deputy surveyor put it when he ran the closing true line

to its intersection with the first run line for the purpose of establishing a section corner? As a matter of fact, there was no other line, except the theoretical straight line, on which the quarter-section corner can only be placed when the closing line was run as a random line to a post already set at the next section corner. Then where is the logic behind the published rule?

It has been written that the law is not based on logic; it is based on experience, and brother, we have had the experiences with "half-mile posts" -- some good and some bad. Today, I would like to tell you about one of our good experiences, with the hope that you never find some of our bad ones.

In the summer of 1831, Henry Washington, a most capable and reliable deputy surveyor, with the assistance of another deputy surveyor, George Willis, was engaged in the survey and subdivision of Township-2-South, Range-24-East, in Duval County. Leaving his camp by the old Spanish Trail, near the small settlement called Thigpen, at sunup one hot August day, he returned to the section corner post set late the day before at the southwest corner of Section 8. Running East, he entered a cypress swamp at about 32 chains and just reached its easterly margin as the tally reached 40 chains. At this point, he had a cypress post set and recorded the bearings and distances to two pines located near enough to his cleared line to be located without having to clear the dense underbrush growing along the edge of the swamp.

Continuing East from the "half-mile post" through a fairly open pine flat, his chainmen reached a point 25 links south of a temporary post set earlier at a distance of 80 chains from the northeast corner of Section 8 on a line run S 0°-30'W. The total distance measured along the south line to that intersection point was 80 chains and 27 links. Washington noted that the quarter-section post was located at 40 chains and 13½ links on the south line and the quarter-section post was located at 40 chains and 12½ links on the east line of Section 8.

In the Fall of 1977, one hundred and forty-six years later, our survey crew, under the direct supervision of our chief of parties, J. R. O'Quinn, made a retracement of these lines as a part of a survey that took in four sections in this vicinity. Running in an easterly direction from the proven southwest corner of Section 8, he found a point which fit a visible lightered pine stump lying S 82°W, 75 links, and a second lightered pine stump found below the surface lying N 89°W, 95 links, as recorded in the original field notes to reference the "half-mile post". He found no trace of a post at that point, and as the bearing trees were so close together, he was not too certain that he could fix the exact place where the original post was set. Therefore, he merely set a large nail, tied it in, and proceeded to the east.

In the vicinity of the southeast corner of the section we nearly blew the entire survey. At a point a bit south of the line indicated by the possibly proven "half-mile post", we found an old wood corner post, and nearly forty feet north of it we found a concrete monument. The concrete monument seemed to be in better alignment, but when we searched for supporting evidence of the accessories given in the field notes we came up empty handed. We then checked the old post, and found large pieces of lightered pine stumps at each call. We were not too happy with our findings, as this seemed to completely destroy the evidence of the "half-mile post", but we thought the matter settled and continued our random line east along the south line of Section 9.

It was a good move when we decided to run East before returning to make a search for a more likely point for the "half-mile post". The next "half-mile post", established on the south line of the adjoining Section 9, had been set in a cypress pond, and, as Robert O'Quinn put it, "The old blind hog finally found an acorn." We found an original scribing beneath the layers of overgrowth on a living cypress tree. Using this reference mark, and the remains of the second cypress given in the field notes, we dug up the entire point of a lightwood post. The only disappointment was the fact that the notes called for a cypress post. Even the later examination of the post by some of our other men failed to change it from a lightwood post. Nevertheless, it was a proven point, and we replaced it with a concrete monument and proceeded to make ties to three additional references in compliance with the restoration of corners program. On two of the three trees selected to mark with an "X" we found blazes facing the corner, and as these marks were at least thirty years old, we came to the conclusion that someone had recovered this corner at about that time, and had, perhaps, replaced the original cypress post with a lightwood corner post.

With this new evidence, we soon located the correct position of the southeast corner of Section 8, but not before we made a very embarrassing discovery at the site of the old post that we had thought proven earlier. We had made what could only have been termed a fundamental error. We had found a fairly large piece of lightered pine at each point located from the post, but as we thought that the post was the true point, we had not dug deep enough to fix the tap root. We had only confirmed that there was a pine stump at each position called for in the notes, and there was. Unfortunately, though, stumps pushed in from somewhere else, and laying on their sides, or upside down, really do not count for brownie points. The sad fact is, the old post had been set in an old pile of pushed stumps, and we fell for it. Actually, we found that you would be on top of an old lightered pine stump no matter where you dug within a hundred feet of the post.

I am glad that I do not have to tell you that we found some more buried lightwood at the true corner. As a matter of fact we found four visible stumps — all much larger than any other stumps in that vicinity, indicating, we believe, that the bearing trees had been spared a lot longer than the other mature trees in their vicinity. It should also be realized that this was only a part of the evidence confirming the point where we reestablished the section corner. We also proved the northeast corner of Section 8, and found the entire buried portion of the original corner post at the point backed in from the four witnesses. After that we proved the "half-mile post" on the line run S 0°-30' W for the east line of Section 8.

The most interesting facts revealed by our retracement of Henry Washington's original survey was not the recovery of so many old corners. We have found too many of them to be excited by a few more. It was the quality of that survey that should be emphasized; especially the consistency of the chainmen, James B. Walls and Joseph Warren. For example: The distance from the southwest corner of Section 8 to the proven "half mile post" on the south line was 40.1839 chains when measured with EDM equipment. The distance from the northeast corner of Section 8 to the "half-mile post" established on the east line was 40.1814 chains. The distance from the southeast corner of this section to the "half-mile post" on the south line of Section 9 was 40.2456 chains. As

this particular corner was said to also be the quarter-section corner on a line recorded as being 80 chains in length, it is also interesting to note that it was 40.2089 chains on to the proven southeast corner of Section 9, or only 0.0179 chains from the precise midpoint.

Returning our attention to the reestablishment of the quarter-section corner on the south line of Section 8, which was done by applying the correction distance given in the field notes, $13\frac{1}{2}$ links, and the southwest corner for alignment, we set a concrete monument at a point that was only about four links short of the exact midpoint. The deflection at this point was only $0^{\circ}-01'-20''$ to the right, and inasmuch as I have already made my protest about this method, the difference in the closing line run and the line from the quarter-section corner was three whole tenths of a second. Now how can we live with that?

Our restoration of the quarter-section corner on the East line of Section 8 was just as satisfying, in that the concrete monument placed in the same manner as the one on the south line is only about one link from a true midpoint. In both instances, it is obvious that my concern over the placement of the quarter-section corner on a prolongation instead of directly on the line ahead was entirely unnecessary. By the same token, however, with so little effect contemplated, it is even more difficult to understand why such a unique rule was adopted, when it would have sufficed to say that the quarter-section corner should be placed between the "half-mile post" and the section corner in the same direction, which would have at least been technically on the line actually run.

I wish that I could assure you that all of your experiences with "half-mile posts" will be as satisfying as the examples used in this paper, but there is no likelihood of that. We have also found the predicaments caused by comparatively large discrepancies in the field note calls and the positions occupied by the controlling corners. In some such cases, the end result is anything but a satisfactory conclusion, but be that as it may, we must always bear in mind that we are merely investigators identifying the circumstances which happen to exist — not competitors in a game to see who can improve the original surveys the most.

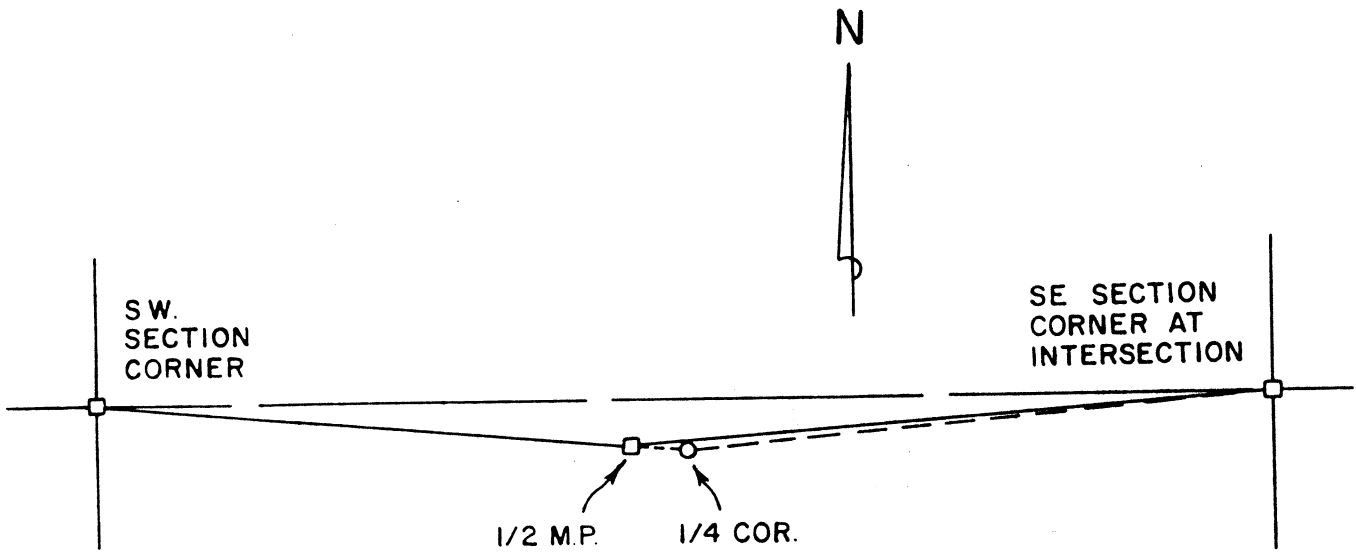


FIGURE 1