starts out by saying: "A piece of land 100 ft., or 66 ft., or whatever is to be taken, in width across lot (the designation of which is given) being (half) of the width required on either side of the centre line."

In the west, the form most generally used is: "Lying between two lines parallel with and . . . feet perpendicularly distant from the centre line of railway which is described as follows:—

"Commencing on the northerly (or as may be) side of the said lot, distant (the measured distance) from the nearest corner of the lot (or some well defined point) measured on a bearing, (the actual bearing), and along that side of the lot from the post or point to the centre line."

Thence, give actual bearing of the centre line. If it is a tangent or straight line all across the lot, give actual measured distance to opposite side, stating which side, and it is always well to say "more or less." And then if it can be done, give actual bearing and distance along that side from nearest corner or well defined point on the side, preferably on the same side of the railway line as the starting point.

Description of Curve

If there is a curve in the line in the property being described, the description is started as before, and bearing and distance given to the beginning of the curve. Then if it is a simple curve, say, northerly or as the case may be, following a curve to the right or left, as may be, having a radius of (give length of radius), to which the last course is tangent.

This phrase is important, as it fixes the position of the curve the same as a bearing fixes the position of a line.

Give distance to edge of property being dealt with, if it is still on curve, and finish as before, but if edge of property is not reached on the curve, give distance to end of curve, and thence give bearing of next tangent, and being tangent to last described curve. (This is not absolutely necessary, but if it is inserted it gives a check on the curve) then distance to edge of property.

If spirals or transitions are used on the curves, as they are now in modern railway location practice on all curves sharper than one degree (and some roads use spirals on them), the description is a little more complicated.

The description is started as before and continued to the beginning of the spiral, thence following a spiral curve to the right or left, as may be.

Give number, chords of, length of chord used, feet in length (the number depending on the degree of curvature to be attained), increasing in curvature when going from tangent to curve (but not forgetting "to which the last course is tangent.")

Give total length of spiral, which is a multiple of the number of chords by the length of chord used. It is well to give either the total angle in the spiral or the bearing of the tangent to the curve at starting point of the simple curve. Then continue on the curve, as before stated, to edge of property; or if not reached on the curve, continue describing the spiral in opposite or decreasing-in-curvature direction.

There are so many forms of spirals in use that it is almost necessary to state the formulæ used, which further complicates the matter. If the description commences on a curve it is necessary to give the bearing of the tangent to the curve at the point of commencement.

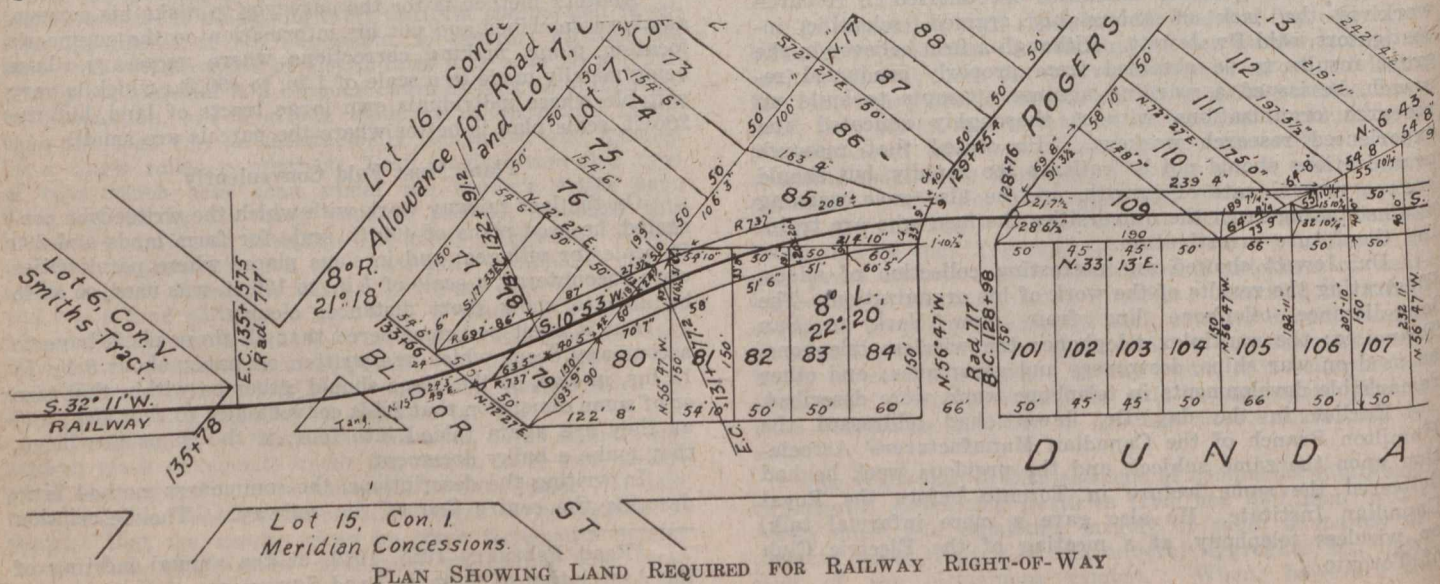
Many descriptions have been written by the centre line method, describing the curves as simple curves, when they have been actually built with spirals, the result being that if the right-of-way were to be accurately marked out according to the description, the railway would not be exactly in the centre. The distance off centre is not of vital importance on the easier curves, but on sharper curves, when long chords are used on the spirals, the distance may amount to several feet, in which case the simple curve method must be avoided. One reason for the simple curve method being used is that the right-of-way is usually purchased from descriptions prepared from the first location plans, when spirals are not always shown but are afterwards put in when construction commences.

A better method of writing descriptions is to go round the parcel by metes and bounds, just as describing any irregular piece of land. But where there are sharp curves, such a description becomes rather complicated and is especially so on spiral curves. So the simpler method of describing by the centre line is adopted, and as the railway usually fences the land it gets, any small inaccuracies are in a short time obliterated by the possession; but this must not be relied upon to cover errors in the descriptions.

A Line as a Right-of-Way!

The writer had one case come under his observation in which the right-of-way was described by the centre line method, where in transcribing the description to the deed, the width of the right-of-way and the width on either side of the centre line was omitted, and the omission was not discovered until after the deed was registered, when it was found that the deed only gave the railway the centre line. In the meantime the party who gave the deed to the railway had sold the remainder of his property and there was a lot of trouble getting it corrected.

So far as the writer knows, there is no provision in the Railway Act nor in the Ontario Statutes requiring railway rights-of-way to be posted in Ontario, and he has seldom seen it done. He understands that Manitoba, Saskatchewan, Alberta and British Columbia have such provisions, and that the British Columbia Act has given the railways a great deal of trouble, as sometimes one side of the right-of-way would be in a river and the other side on an almost inaccessible mountain point.



PLAN SHOWING LAND REQUIRED FOR RAILWAY RIGHT-OF-WAY