STATION.	POINT.	BEARING.	VERNIER.	CURVE DATA.
52+40.5	P. T. C.[1]		3° 00′=⅓ I	
+80.5			3° 43′	
51+20.5			4° 41′	
+60.5			5° 53′	
50+00.5			7° 19′	
● +40.5	P. C.[1] ⊙		4° 44′	
49			3° 31′	
48			0° 31′	Vertex=48+67
* +82.7	P. C[1] ⊙	6° Left.	3° 00′=⅓ I	△=27° 28′
47+22.7			1° 55′.2	D= 6°
+62.7			1° 04′.5	I= 9°
46+02.7			0° 28′.8	T=234.44
45+42.7			0° 07′.2	S″=300
44+82.7	Offset 3.92 P. T. C. ⊙	N. 20 W.		F=0° 03′.92

Here we have taken S″=300. ∴ F=3.92, and s or x = 149.9. T[1]=234.44. We divide 300 by 5, which is 60 ft. for chord length, which is reasonable length. Then as central angles are as square of distance:

$(\frac{1}{5})^2 \times 9° = 21°\ 06'$ ∴ 07′.2 =deflection.
$(\frac{2}{5})^2 \times 9° = 1°\ 26.4'$ ∴ 0° 28′.8= "
$(\frac{3}{5})^2 \times 9° = 3°\ 14.4'$ ∴ 1° 04′.8= "
$(\frac{4}{5})^2 \times 9° = 5°\ 45.6$ ∴ 1° 55′.2= "
$(\frac{5}{5})^2 \times 9° = 9°\ 00'$ ∴ 3° 00′ = " =⅓ I.

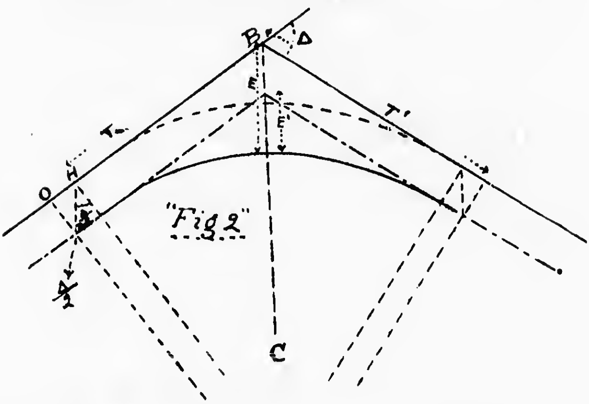
Since △=27° 28′ and 18° is used up for T. curve ∴ 9° 28′ remains for simple curve, which is (9° 28÷6°) long=1+57.8. (The deflections from P. C.[1] to P. T. C.[1] are taken from Table No. 2, a description of which has been omitted for want of space. It is constructed from the tangent, in series and an equation, $d=\frac{1}{3}\cdot\frac{1}{S'^4}(s^2+s'^2+ss)$— . . . . This table should be very valuable to the engineer. Without it we begin from the P. T. C.[1] and run to the P. C.[1] with the deflections first found.

If we wish to simply put in the offsets and run the curve later, we place the stakes as follows:

P. I. (point of intersection)	=48+67
	T[1]= 2+34.4
∴ P. C.	=46+32.6
	+ 4+57.8
P. T.	50+90.4

Then at Sts. 46+32.6 and 50+90.4 offsets are placed. $(4+57.8)=\frac{\triangle}{D}=\frac{27°\ 28'}{6°}$.

As will be seen, it is better to work forward instead of from the P. T. C. and P. T. C.[1] to the circular curve.



* Set up transit and set to 6° for backsight.
● " " " 4° 44′ + I = 18° 44′ for backsight, etc.