

Let A, B, C, &c., be the indeterminate factors, then the values of the corrections (x) in terms of these factors are—

x_1	$=$	$+ D + E$	$+ 6\cdot718 H + 1\cdot725 I$	$- 845 K$
x_2	$=$	$+ C + D$	$- 1\cdot137 H + 1\cdot725 I + 2\cdot521 J + 2\cdot92 K$	
x_3	$=$	$+ C + D$	$+ F - 1\cdot137 H - 2\cdot792 I - 2\cdot792 J + 2\cdot92 K$	
x_4	$=$	$+ C + D$	$+ F + 301 H + 301 I + 301 J$	
x_5	$=$	$+ B + C$	$+ F + 301 H - 524 I + 301 J$	
x_6	$=$	$+ A + B$	$+ F - 524 H - 524 I - 524 J$	
x_7	$=$	$+ A + B$	$+ F + 729 H - 2\cdot173 I + 2\cdot173 J$	
x_8	$=$	$+ A + B$	$+ 729 H - 1\cdot196 I - 1\cdot790 J$	
x_9	$=$	$+ B$	$- 5\cdot291 H - 1\cdot196 I$	
x_{10}	$=$	$+ B$	$+ 751 H + 752 I$	
x_{11}	$=$	$+ B$	$- 651 H + 752 I$	
x_{12}	$=$	$+ D + E$	$- 651 H - 651 I$	$+ 651 K$
x_{13}	$=$	$+ E$	$+ G$	
x_{14}	$=$		$+ G$	
x_{15}	$=$	$+ A$	$+ G$	$+ 493 J$
x_{16}	$=$	$+ C$	$+ G$	$- 458 J - 458 K$

Substituting the values of (x) in the original equations we get the following normal equations between the factors:—

$4A + 3B$	$+ 2F + 1G +$	$9340H + 4530I + 3520J$	$= + 29200$
$7B + 1C$	$+ 1E + 3F$	$- 39560H + 2370I + 1600J$	$= + 11800$
$5C + 3D$	$+ 3F + 1G$	$- 16720H - 12900I - 1270J + 1260K$	$= - 21600$
$5D + 2E + 2F$	$+ 40940H + 3080I + 3000J + 3900K$		$= - 14200$
$4E$	$+ 1G + 54160H + 18260I$	$- 1940K$	$= - 28700$
	$5F$	$- 3300H - 13660I - 5410J + 2920K$	$= + 15700$
	$4G$	$+ 3050J - 4580K$	$= - 20400$
		$786419H + 205485I + 10431J - 67645K$	$= + 111672$
		$235238I + 192142J - 21930K$	$= + 91210$
		$229852J + 1305K$	$= + 67139$
		$15182K$	$= + 784$

The solution of these equations gives—

A = + 0.0307"; B = - 0.3277"; C = + 0.8776"; D = - 0.2713"; E = + 1.5942; F = - 0.6500;
 G = - 0.3522"; H = - 0.1634"; I = - 0.9817"; J = + 0.5397"; K = - 2.0248".

Whence follow—

$x_1 = + 0\cdot2427''$	$x_2 = - 0\cdot1320''$	$x_3 = + 0\cdot7849''$	$x_4 = - 0\cdot2259''$
$x_5 = + 0\cdot5276$	$x_6 = - 0\cdot6298$	$x_7 = - 2\cdot0266$	$x_8 = - 0\cdot2081$
$x_9 = + 1\cdot7110$	$x_{10} = - 1\cdot1887$	$x_{11} = + 0\cdot6346$	$x_{12} = + 0\cdot7502$
$x_{13} = + 1\cdot2420$	$x_{14} = - 0\cdot3522$	$x_{15} = - 0\cdot0554$	$x_{16} = + 1\cdot2056$

The seconds of the corrected spherical angles are therefore—

$1 = 59\cdot20''$	$2 = 11\cdot02''$	$3 = 21\cdot52''$	$4 = 14\cdot21''$
$5 = 01\cdot71$	$6 = 42\cdot08$	$7 = 40\cdot77$	$8 = 09\cdot03$
$9 = 11\cdot33$	$10 = 08\cdot81$	$11 = 06\cdot60$	$12 = 14\cdot50$
$13 = 39\cdot78$	$14 = 39\cdot93$	$15 = 28\cdot38$	$16 = 11\cdot91$

Lengths of sides in links—

	Links.		Links.
Woodside-Rimutaka	71066.92	Kaiwaewae-Rimutaka	74844.63
Woodside-Jury Hill	57322.06	Kaiwaewae-Jury Hill	56591.14
Bidwill-Rimutaka	81201.69	Rimutaka-Jury Hill	118977.76
Bidwill-Jury Hill	63506.70		