

SESSIONAL PAPER No. 13

In closing my report I append an example of a rise and fall reading respectively, taken in the course of the season's field work with the gradient-telemeter level.

Sight.	Pairs.	Readings.	Dist. feet.	H. I.	Rise or fall.	Check gradient	Result.
- Foresight ...	11 $\frac{1}{2}$ and 10	15·55, 1·40	1415	4·88	-138·02	10·3	10) 1415 = 141·5 Add rod r'd'g at 10. = 1·4 <hr/> 142·9 Deduct H. I. = 4·88 <hr/> Result = 138·02 Check gradient $\frac{1415}{138·02}$ = 10·25
+ Backsight ...	20 and 16 $\frac{3}{4}$	3·37, 17·00	1363	4·95	-69·73	19·6	20) 1363 = 68·15 Add H. I. = 4·95 <hr/> 73·10 Subtract rod r'd'g. at 20 = 3·37 <hr/> Result = 69·73 Check gradient $\frac{1363}{69·73}$ = 20·1

The season's contour work has all been plotted on township sheets (40 chains to an inch scale), and is now being transferred to a large map on the scale of one mile to an inch.

The contour lines have checked and fitted in most satisfactorily, as regards the map work.

I have the honour to be, Sir,
 Your obedient servant,

R. W. MACINTYRE.
 In charge of party No. 2, 1898.