

(b) With the second alt. the corresponding declination and *less* lat.

(c) With the first alt. the corresponding declination and *greater* lat.

(d) With the second alt. the corresponding declination and *greater* lat.

Rule 6th.—Obtain the elapsed time corresponding to each assumed lat. thus—If one observation be A. M. and the other P. M. take the sum of the apparent times found by (a) and (b), if both be A. M. or P. M. take the difference of the results of (a) and (b), call this sum or difference the elapsed time (e) for the *less* lat. Proceed in the same manner, using the results of (c) and (d) to find the elapsed time (f) for the greater lat.

Rule 7th.—Take the difference of elapsed time (e) for the less lat. and the *true* apparent elapsed time, calling the remainder *too little*, if the former is less than the latter but *too much* if the reverse is the case. Find also the difference of the elapsed time (f), for the greater lat. and the true apparent time, naming the remainder on the same principle as before.

Rule 8th.—When one elapsed time is *too much* and the other *too little*, take their sum, but if both are too much or both *too little*, take their *difference* for the error of elapsed time, caused by an error of one degree of lat.

Rule 9th.—Make this proportion, which can be computed by proportional logarithms: thus

As the error of elapsed time on 1° of lat.

Is to 1°

So is the error of elapsed for the less or greater assumed lat.

To a correction to be applied to that assumed lat.

It will be seen that when the elapsed time of one assumed lat. is *too little* and that of the other *too much*, the *true* lat. is between the two assumed ones, consequently the correction must be added to the *less* or subtracted from the greater lat. according to which is used for the determining of the correction. But both