

I am much gratified to be able to state that after all my computations were completed and the details of routes transferred for the first time on to a correct graticule, my position of the west end of Victoria Lake (the extreme east point visited by Wood in his travels) was latitude $37^{\circ} 27'$ north and longitude* $73^{\circ} 40' 38''$, which is practically identical with the independent determination of the same point by Lieutenant Wood which is given at page 232, new edition of Wood's *Oxus*, with essay by Colonel Yule, London, 1872.

I will now indicate how the positions of points on the road between Leh (Ladakh) and Yarkand have been determined. The position of Ak-tagh (2nd camp) was fixed by myself in lat. $36^{\circ} 0' 11''$ and long. $78^{\circ} 6' 20''$. It was the converging point of three different route surveys (by Pandits) starting from fixed points on the south, and is in the neighbourhood of a hill above Chibra whose position was satisfactorily fixed by intersection (on the plane-table) of several rays from trigonometrically fixed peaks of the Karakorum. The position of Ak-tagh in longitude with regard to these peaks may be looked on as correct within a mile, and its position in latitude is undoubtedly correct within a few hundred feet.

From this point three traverse lines have been carried by different Surveyors to Karghalik, which, when corrected and adjusted on the proper parallel ($37^{\circ} 53' 15''$), had a maximum divergence of $3\frac{3}{4}$ miles, the mean of the three values gives a position in (true)† longitude of $77^{\circ} 25' 30''$.

Between Karghalik and Yarkand I had also two independent traverses, *i.e.*, on both outward and return journey, which differed from each other in the resulting longitude of Karghalik by less than a mile. The mean of these two when referred to the value of Yarkand as determined from Káshghar places Karghalik in longitude $77^{\circ} 28' 30''$. A mean between

Travelling rates obtained by Captain Trotter for Brock's lever watch, &c., &c.—(Concluded).

STAGE.	DATES.	No. of days from which rate was determined.	Rate per diem gaining in seconds of time.	REMARKS.
Yangi-Hissar to Wakhan and back to Ighiz-yar.	18th March to 18th May.	61	+ 6. 1	During these 61 days almost an entire circuit was made. The difference of longitude between Yangi Hissar and Ighiz-yar, <i>viz.</i> , $1' 45''$ only, was determined by Pandit's pacing.
Kogachak to Ak-tash...	3rd April to 5th May	32	+ 5. 7	During these 31 days a smaller circuit was made; the difference of longitude between Kogachak and Ak-tash is $1' 35''$. In both these circuits allowance has been made for the stationary rate (+ $7''8$) obtained during our halt in Wakhan.
Kashghar to Ighiz-yar	15th to 18th May ...	3	+ 5. 5	Rate obtained in same manner as (1) & (2).

It should be noted that my watches and chronometers were always carried in a small box that I had specially made for them, carefully packed in cotton wool, and inserted in the middle of a large leather mule trunk, packed with clothes. They were thus kept at a tolerably uniform temperature and escaped in great measure the jerks and shakes they would otherwise have been exposed to. Of my pocket *chronometers*, having a regular chronometric escapement, one by Peter Birchall, London, No. 1096, was well suited for astronomical observations, keeping excellent time when stationary and beating half seconds very audibly. It was always used by me in my astronomical observations, but it required very careful handling, as a violent jerk was apt to make it gain several seconds suddenly. A third watch, a pocket chronometer, by Dent, unfortunately got out of order before the Pamír trip, but I had found that while travelling, neither its rate nor that of Birchall compared favorably with that obtained from Brock's watch. It is perhaps needless to add that my watches were daily carefully compared together, and also both before and after observations of stars. An omission to do this on a single occasion prevented my getting a chronometric value for the differences of longitude between Yangi-Hissar and Kashghar.

* The position in longitude in the "Preliminary map" differs slightly from this, as the latter had to be prepared prior to the completion of the computations.

† True, *i.e.*, depending on the most recent determination of the longitude of Madras. All the Indian Survey maps are based on the astronomically determined position of the Madras Observatory. Recent observations have shown that the old value, that is the one adopted by the Survey Department, is about 3 miles too much to the east. In my map I have been compelled to make allowance for this, and have shifted three miles to the west, the whole of the positions in Northern India taken from the existing maps.