

The results for this station are:—

Variation	.....V=	28° 27' 24"
Dip	.....D=	53° 49' 46"
Horizontal force	....X=	4.3798
Magnetic moment	....m=	0.4271
Total force	.....F=	7.4210

The numerous observations for time at the different stations have not been given, as of no interest.

I arrived in Namaqualand on April 9, by the Union steamship 'Namaqua,' Captain Barker, reached Port Nolloth, on my return, on the evening of Wednesday, April 29, but did not sail until Wednesday, May 6, reaching the observatory on Saturday, May 9.

XVI. "On the Proportions of the several Lobes of the Cerebrum in Man and in certain of the higher Vertebrata, and on an attempt to explain some of the Asymmetry of the Cerebral Convolutions in Man." By JOHN MARSHALL, F.R.S., F.R.C.S.E., Professor of Surgery, University College, London, &c. Received June 17, 1875.

1. I desire to communicate to the Royal Society the fact that I have, by severing the cerebral hemispheres in certain definite directions in Man, and also in some of the higher Vertebrata, and by then weighing the separated portions, not only arrived at some interesting and important results as to the relative size of those portions in different animals and in Man, but I am enabled to state that this method, applied to the brains of individuals of different race, sex, age, education, and occupation, seems likely to furnish a means of investigating individual peculiarities in the human cerebrum.

I propose shortly to communicate my results to the Society.

2. I have likewise made numerous observations on the convolutions of the human brain with the view of explaining their symmetry in certain regions, and their asymmetry in others. In endeavouring to trace more particularly the causes of the asymmetry of the convolutions which prevails in Man, I have been led to believe that some, at least, of this is due to the right-handedness of Man.

I find, on studying a large number of human cerebra, that there are stronger evidences of *essential* asymmetry, as distinguished from what I would term *non-essential* asymmetry, in the immediate neighbourhood of the left fissure of Rolando, and next to this part in the right parietal lobule.

There are certain secondary essential asymmetrical conditions which may be pointed out, and besides this many non-essential and very variable ones.

Evidence can be given in support of these propositions from the examination of foetal brains and the brains of idiots, the former of which exhibit a remarkable, *early*, and special tendency to deviations in symmetry in the neighbourhood of the left fissure of Rolando.

I regard this as merely a preliminary notice of a future communication.

XVII. "On the Influence of Stature on the Weight of the Encephalon and its parts in Man." By JOHN MARSHALL, F.R.S., F.R.C.S.E., Professor of Surgery, University College, London, &c. Received June 17, 1875.

Being anxious, for a certain special purpose, to determine the influence of stature on the weight of the encephalon and its parts in Man, I have, with the consent and ready assistance of Dr. Robert Boyd, further analyzed the MS. records of the numerous data accumulated by him, from which he framed his tables published in the *Philosophical Transactions* for 1861.

1. I find, first, that, as might be expected, an increase of stature is accompanied by an increase in the absolute weight of the encephalon or entire brain in both sexes.

Taking both sexes together, the total increase, with a mean range of 11 inches between the highest and lowest group of individuals examined, is about $6\frac{3}{4}$ oz. av.; in the male series, with a mean range of 7 inches, it is $2\frac{3}{4}$ oz.; in the female series, with a mean range of 6 inches, it is $1\frac{1}{4}$ oz.

Of this increase in absolute weight, the cerebrum, in both sexes, necessarily takes a larger share than the cerebellum; but having regard to the relative weights of those two organs, viz. as about 8 to 1, their relative increase is as about 11 to 1; so that the cerebrum increases absolutely more than the cerebellum.

The pons with the medulla follows the rate of increase of the cerebellum.

2. But, secondly, I find that, notwithstanding this absolute increase in the weight of the encephalon and its parts in obedience to an increase of the stature, the increase itself is not *pari passu* with the stature; on the contrary, there is a gradual and progressive relative diminution in the proportion of encephalic substance to the stature as this latter itself increases.

This is equally true if we take the range of stature in both sexes together or in either sex separately.

Hence shorter persons of either sex have, proportionately to their height, a larger amount of brain than taller ones. Nevertheless the proportion is larger in the male than in the female, not only generally, but even at corresponding heights—as, for example, in short men as compared with tall women. This is interesting, as evidence that the well-known