

I. *Part of a Letter from the Reverend Mr. Wasse, Rector of Aynho in Northamptonshire, to Dr. Mead, concerning the difference in the Height of a Human Body, between Morning and Night.*

I Have observ'd several Soldiers discharged for being a little under the Standard, and having experienced the difference of a Man's Height in the Morning and at Night, I mentioned it to an Officer, and thereby kept some Persons from being turn'd out of the Service. Since that Time I have measured Sir *H. A*, Mr. *C*, and a great many sedentary People, and Day-Labourers, of all Ages and Shapes, and find that Difference to be near an Inch. I try'd my self, when sitting, and found it in like manner; particularly, *August 21. 1723.* Weather warm, no Wind, at Eleven in the Morning I sat down, and fixed an Iron Pin so as to touch it, and that but barely. After that, I fatigued my self for half an Hour with a Garden-Roller, and the Consequence was, that at 12 Ho. 30 Min. I could not reach the Nail sitting, by about 5 Tenths of an Inch, or the Breadth of one of the Rods of *Hunt's Sliding-Rule.* At 2 the same Day I wanted near six Tenths of an Inch. On the 21st, at 6 Ho. 30 Min. in the Morning, I touched the Nail fully; and after the above-mentioned Exercise for only a Quarter of an Hour, at 7 Ho. 14 Min. I fell short almost as much as before. On the 27th, having sat up late with some Friends, I was faint, and felt my self heavy upon the Ground, and without any Spring, and at 9 that Morning I did not reach the Nail, though I had us'd no

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Exercise.

Exercise. I rid out, but could not reach it that Day. On the 28th I rid about four Miles; and whereas at 6 that Morning I reached the Nail, I had lost 6 tenths of an Inch by 8. *September* 19th I came from *Oxford* a little tired, and next Morning at 8 I wanted half an Inch. If I Study closely, though I never stir from my Writing-Desk, yet in 5 or 6 Hours I lose near an Inch. All the Difference I find between Labourers and sedentary People is, that the former are longer in losing their Morning Height, and sink rather less in the whole than the latter. I cannot perceive, that when the Height is lost, it can be regained by any Rest that Day, or by the Use of the cold Bath.

I have not informed my self so well about Horses; my Mare comes Seven this Grass, is strong, short back'd, and well legg'd. I measured her before and after riding 20 Miles, *April* 30th, and could not perceive the least Difference in her Height.

The Alteration in the human Stature, I imagine, proceeds from the yielding of the Cartilages between the *Vertebrae*, to the Weight of the Body in an erect Posture.

A Y N H O, *May* 16, 1724.

This curious Observation has been confirmed by several Members of the Royal Society, and others, who have purposely tried the Experiment.