A Roving Commission: My Early Life

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Chapter III: Examinations

It took me three tries to pass into Sandhurst. There were five subjects, of which Mathematics, Latin and English were obligatory, and I chose in addition French and Chemistry. In this hand I held a pair of Kings–English and Chemistry. Nothing less than three would open the jackpot. I had to find another useful card. Latin I could not learn. I had a rooted prejudice which seemed to close my mind against it. Two thousand marks were given for Latin. I might perhaps get 400! French was interesting but rather tricky, and difficult to learn in England. So there remained only Mathematics. After the first examination was over, when one surveyed the battlefield, it was evident that the war could not be won without another army being brought into the line. Mathematics was the only resource available. I turned to them–I turned on them–in desperation. All my life from time to time I have had to get up disagreeable subjects at short notice, but I consider my triumph, moral and technical, was in learning Mathematics in six months. At the first of these three ordeals I got no more than 500 marks out of 2,500 for Mathematics. At the second I got nearly 2,000. I owe this achievement not only to my own "back-to-the-wall" resolution-for which no credit is too great; but to the very kindly interest taken in my case by a much respected Harrow master, Mr. C.H.P. Mayo. He convinced me that Mathematics was not a hopeless bog of nonsense, and that there were meanings and rhythms behind the comical hieroglyphics; and that I was not incapable of catching glimpses of some of these.

Of course what I call Mathematics is only what the Civil Service Commissioners expected you to know to pass a very rudimentary examination. I suppose that to those who enjoy this peculiar gift, Senior Wranglers and the like, the waters in which I swam must seem only a duck-puddle compared to the Atlantic Ocean. Nevertheless, when I plunged in, I was soon out of my depth. When I look back upon those care-laden months, their prominent features rise from the abyss of memory. Of course I had progressed far beyond Vulgar Fractions and the Decimal System. We were arrived in an "Alice-in-Wonderland" world, at the portals of which stood "A Quadratic Equation." This with a strange grimace pointed the way to the Theory of Indices, which again handed the intruder to the full rigors of the Binomial Theorem. Further dim chambers lighted by sullen, sulphurous fires were reputed to contain a dragon called the "Differential Calculus." But this monster was beyond the bounds appointed by the Civil Service Commissioners who regulated this stage of Pilgrim's heavy journey. We turned aside, not indeed to the uplands of the Delectable Mountains, but into a strange corridor of things like anagrams and acrostics called Sines. Cosines and Tangents. Apparently they were very important, especially when multiplied by each other, or by themselves! They had also this merit-you could learn many of their evolutions off by heart. There was a question in my third and last Examination about these Cosines and Tangents in a highly square-rooted condition which must have been decisive upon the whole of my after life. It was a problem. But luckily I had seen its ugly face only a few days before and recognised it at first sight.

I have never met any of these creatures since. With my third and successful examination they passed way like the phantasmagoria of a fevered dream. I am assured that they are most helpful in engineering, astronomy and things like that. It is very important to build bridges and canals and to comprehend all the stresses and potentialities of matter, to say nothing of counting the stars and even universes and measuring how far off they are, and foretelling eclipses, the arrival of comets and such like. I am very glad there are quite a number of people born with a gift and a liking for all of this; like great chess-players who play sixteen games at once blindfolded and die quite soon of epilepsy. Serve them right! I hope the Mathematicians, however, are well rewarded. I promise never to blackleg their profession nor to take the bread out of their mouths.

I had a feeling once about Mathematics, that I saw it all–Depth beyond depth was revealed to me–the Byss and the Abyss. I saw, as one might see the transit of Venus–or even the Lord Mayor's Show, a quantity passing through infinity and changing its sign from plus to minus. I saw exactly how it happened and why the tergiversation was inevitable: and how the one step involved all the others. It was like politics. But it was after dinner and I let it go!