

CORRESPONDENCE

(To the Editors of the Journal of the Institute of Actuaries)

SIRS,

Soon after becoming a Student of the Institute I became acquainted for the first time with the wonderful Baconian motto which the Institute has caught unto itself and displays in such a prominent place on the front page of its *Journal*. I am quite sure that most Fellows, Associates and Students have found and will continue to find inspiration from that noble passage.

From time to time I have been curious to know who first suggested the adoption of the motto but I have made no direct enquiry, and a somewhat casual search through the Journals revealed nothing beyond the fact that in 1869 the motto appeared for the first time. I was also curious to know from what work of Bacon the quotation came. Some slight knowledge of the *Essays* enabled me to disregard them and I turned to his great work *Of the Advancement of Learning*. Whilst in that work Bacon touches on professional duty, the quarry still eluded me. But before resuming the main subject of this letter, may I remark that G. W. Kitchen, who writes an introduction to the Everyman edition of the book and who gives it the highest praise, surprisingly says: "He (i.e. Bacon) does not discern the value of mathematics, that branch of learning which was then making great advance and was destined to work wonders." But, against this, Bacon in his second book of the work wrote as follows:

The Mathematics are either *pure* or *mixed*. To the Pure Mathematics are those sciences belonging which handle *quantity determinate*, merely severed from any axioms of natural philosophy; and these are two, Geometry and Arithmetic; the one handling quantity continued, and the other dissevered.

Mixed hath for subject some axioms or parts of natural philosophy, and considereth *quantity determined*, as it is auxiliary and incident unto them. For many parts of nature can neither be invented with sufficient subtilty, nor demonstrated with sufficient perspicuity, nor accommodated unto use with sufficient dexterity, without the aid and intervening of the mathematics; of which sort are *perspective, music, astronomy, cosmography, architecture, enginery*, and divers others.

In the Mathematics I can report no deficiency, except it be that men do not sufficiently understand the excellent use of the Pure Mathematics, in that they do remedy and cure many defects in the wit and faculties intellectual. For if the wit be too dull, they sharpen it; if too wandering, they fix it; if too inherent in the sense, they abstract it. So that as tennis is a game of no use in itself, but of great

use in respect it maketh a quick eye and a body ready to put itself into all postures; so in the Mathematics, that use which is collateral and intervenient is no less worthy than that which is principal and intended. And as for the Mixed Mathematics, I may only make this prediction, that there cannot fail to be more kinds of them as nature grows further disclosed. . . .

What a weighty and prophetic passage! It is, however, but one indication of the extraordinary ability which Bacon displayed whenever he applied his mind to any subject. Whilst it is true that he fell from high office owing to abuse of his position, it would be folly not to study with interest anything coming from his pen.

But I must return to my subject—where did the motto of the Institute have its source? It was a book of reference which gave the clue and some little time ago I asked a friend to be good enough to call at the Advocates' Library in Edinburgh (now the Scottish National Library) and refer to the preface of a work by Bacon on *The Elements of the Common Laws of England*. This it is stated is branched into a double tract: *One containing a collection of some principal Rules and Maxims of the Common Law—the other the use of the Common Law for preservation of our persons, goods and good names.*

The Epistle Dedicatory is:

To Her Sacred Majestie.

I doe here most humbly present and dedicate to your Sacred Majesty a sheafe and cluster of fruit of the good and favourable season. . . .

The Preface runs:

I hold every man a debtor to his profession, from the which as men of course do seeke to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends, to be a helpe and ornament thereunto; this is performed in some degree by the honest and liberall practice of a profession, when men shall carry a respect not to descend into any course that is corrupt and unworthy thereof, and preserve themselves free from the abuses wherewith the same profession is noted to bee infected: but much more is this performed if a man bee able to visite and strengthen the roots and foundation of the science it selfe; thereby not onely gracing it in reputation and dignity, but also amplifying it in perfection & substance. . . .

Such is the passage containing our Motto. Part of my quest was to discover the context of the motto and in my view the additional words which appear above have a message of their own which is not without value. It is not given to many to fill the high offices of a profession or to

have the ability to become ornaments of outstanding merit, nevertheless those of ordinary intelligence can sustain the honour and common weal by honest endeavour and rectitude of conduct. Of course in Bacon's day the legal, medical and other professions had a fair number of knaves and charlatans and the additional words mentioned therefore had a more particular significance years ago. But even to-day it is necessary to say a few words on professional conduct!

I am, Sirs, etc.

ALBERT E. KING

Tor-na-Dee, Murtle, Aberdeenshire

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