

maintaining that nothing could be more pleasant than the sense of honestly earning money. He (Wedgwood) had become, after a long and severe struggle, a very rich man, and generous as he was rich; yet he found the retrospect of his early days, when he was poor, and when every shilling he was able to save was an appreciable gain, more agreeable than the affluence to which he had attained, when shillings, and even pounds, were reckoned as very small sums in the larger business transactions of the wealthy firm, of which he had become the founder. Petty, on the other hand, considered his experience as a wholesome discipline, and also as a safe-guard against the allurements of vice, at a period of life when such allurements are potent. When a young man is compelled to earn his own livelihood, he said, and when he finds that he can not only do so, but, by economical living, lay up something for future need, it helps very powerfully to keep him out of mischief—a remark which is not in the least original, and to the truth of which every young man is prepared to assent, but which very few young men ever attempt to put to a rigorous test.

Petty left Caen in his nineteenth year, with some money in his purse, and more knowledge in his head. He had thoroughly mastered the French language. He had also a competent acquaintance with astronomy, mathematics and navigation. Other acquirements he had also made, and he possessed certain aptitudes which were native to him. Like Benjamin Franklin, whom, in other respects, he resembles, he had from his earliest childhood a talent for mechanics. He delighted in watching artisans at work, and before he was twelve years of age could handle the most delicate tools with the greatest ease. This was a faculty which was of considerable profit to him in after life. Meanwhile, on leaving the French college he returned to England, and entered the marine service; but whether it was the royal or merchant marine is uncertain. Here he soon made the discovery that he was not adapted to a "life on the ocean wave." He was near-sighted; and having on one occasion in consequence of this defect failed to report a certain land-mark, for which he was told to be on the watch, and having thus incurred a rebuke from his superiors, he resolved that as such a mistake might have had serious consequences, and as it might recur, he would abandon an occupation for which he justly conceived himself to be disqualified. He had £60 in his pocket, and with that sum, equal in purchasing power to £300, or \$1,500 of our money, having made choice of medicine as a profession, he set forth, first, to Leyden, in Holland, thence to Utrecht, thence to Amsterdam, and lastly to Paris, these cities being celebrated as seats of learning, and especially as schools of medicine. At Paris, which was then, as it still is, famous in the department of anatomy, he had for a class-fellow one who has since become known to us as Thomas Hobbes, of Malmesbury, mathematical tutor to Charles II. when Prince of Wales, and the author of *Leviathan*. At Paris, too, Petty and his brother Anthony, who had accompanied him in all these continental wanderings, and for whose maintenance he had become responsible, were reduced to such straits that, as we read, they subsisted for two whole weeks on two pennyworth of walnuts. It is here to be observed, in reference to the £60 which he saved in Caen, that two pence would, at that period, represent more value than ten pence of our money, and that the walnuts were, in all probability, supplemented by a loaf of bread now and then. Such were his address, ingenuity and industry, however, that he did not long remain involved in these troubles. For we are informed in that singular document, his last will and testament, that at the end of three years, which was the limit of his absence from England on this occasion, he returned with £70 in his pocket, having thus ultimately not only defrayed his own and his brother's expenses out of his little capital of £60, but also, as we see, increased it by the amount of £10. The saving of money helps to keep a man out of mischief, he said, and he was right. But the difficulty is to be saving without being sordid; and men who acquire the habit in youth are very apt to degenerate into mere misers and money-grubs before they become old. At the end of four years he was admitted to the University of Oxford to the degree of Doctor of Medicine. At this period he was very poor, his capital of £70 having, as he informs us, dwindled down to £28; but having been appointed to the Chair of Anatomy in the University, and also to the Readership of Gresham College, then he was in two more years worth £400. Meanwhile his reputation for industry and ability had become so great, that not only the Dons at Oxford, but such men as Cromwell and Ireton, approved of him; and when it became necessary in 1652 to organize a medical department for the army of occupation stationed in Ireland, he was, with the cordial assent of all concerned, nominated to the post of Superintendent, with an outfit of £100, and pay to the amount of £1 a day.

By the assiduous cultivation of his great abilities, Petty had prepared himself to take advantage of the good fortune which now accrued to him. We say of some men that they were lucky, by which we mean that they

have succeeded in obtaining some good thing, quick preferment, or a great fortune, for which they have not wrought, and which, therefore, they have not deserved. In this sense Petty was not lucky, for he got only his deserts. He was known to be an able man, and a hard and conscientious worker; and it was this knowledge of him which led to his selection for this appointment. He led a very busy life in Ireland. The supervision and superintendence of the medical department of the army did not fill his hands. He found time for other interests and pursuits. He saw that the allotment and distribution of the confiscated estates among the soldiery and others was not conducted either in an equitable or regular manner. Some men got more, some less than their due. Often two or three grantees got the same grant. Many complained of intrusion and trespass on the part of their neighbours, while others maintained that, having got nothing, they had either been dropped out accidentally or intentionally overlooked. In order to remedy this state of matters, Petty contracted with the Government to provide maps of the confiscated districts, which comprised the greater portion of the island. He was an accomplished geodesist and engineer, and his maps are models of accuracy and good drawing. There were none equal to them in that day, and even now they are occasionally referred to in courts of law as eminently trustworthy. In addition to this arduous undertaking, an undertaking which might well have engrossed his leisure hours for many a year, he found time for the exercise of his inventive faculty, which, as we know, was very great. His remembrance of his youthful passion for the sea and seamanship led him to attempt improvements in naval architecture. He constructed a double-bottomed ship, thus anticipating by more than two centuries the modern invention of water-tight compartments. He patented a new kind of locomotive carriage, a new kind of ordnance, a new kind of water-pump. He wrote books: a treatise entitled "Political Anatomy of Ireland," which affords valuable information of the state of that unfortunate country towards the close of the seventeenth century; another work, which he calls "Taxes and Contributions;" and still another, which bears the Latin name of "Quantulumcunque," and which is a dissertation on money. In "Taxes and Contributions" he propounds the now universally-recognized doctrine that commodities are valuable only in proportion to the labour expended in their production; while in "Quantulumcunque," he proves that it is wrong to attempt to regulate the rate of interest, just as it would be wrong to attempt to regulate the rate of exchange. He also, in the latter work, endeavours to expose the then prevalent fallacy, that it was possible for a community to become impoverished in consequence of an unfavourable balance in its trade. In short, if Adam Smith was, as he is sometimes called, the father of the science of Political Economy, Sir William Petty was assuredly its grandfather. He was the inventor of the system of tabulation of figures bearing on the resources, or population, or other elements of national life and development, which we generally call *statistics*, sometimes *political arithmetic*. He was the first statistician, as well as the best and most reliable financier, of his day; and all his work, of whatever kind, in whatever department of science, is so good that it may almost be considered perfect, the reason being that it was conscientious work; that he desired, first of all, to uphold in and express by it what he believed to be the truth, the whole truth, and nothing but the truth. He lived in an atmosphere of fire; an atmosphere made, as it were, red-hot, by fierce civil contentions and still fiercer religious controversies, by strife of tongues and furious intolerance of parties; and yet there is not to be found in him a single trace of that bias and prejudice which are always begotten of pronounced partisanship, and which have disfigured nearly all the writings of all his contemporaries. The fact is that, constitutionally prudent, he was incapable of becoming a very hot man on any side, no matter how deeply he may have been committed. He may have worn the sombre garments, also, but only at set times and on very special occasions, the sombre face of the Puritan. Though a Roundhead, we very much question if his head was ever very round; that is, we very much question if he ever submitted to have it very much cropped. On the testimony of Mr. John Evelyn, who knew him well, he must have been a very jolly companion. He possessed in great perfection the dangerous talent of mimicry; and if space permitted, we might cite a passage from Evelyn's "Memoirs," in which that gossip chronicler dwells with relish upon the richness of his accomplishments in that kind. He was manifestly neither a gloomy bigot nor an impracticable fanatic, but a strong, courageous man of the world; strong, in that he performed whatever work was entrusted to him faithfully and conscientiously; courageous, in that he never permitted himself to be oppressed, much less overcome, by the numerous difficulties and dangers which beset him at all stages of his career. An able, versatile, and most useful man he was,