

many cultivated men of Arithmetic is frequently astounding. We feel sure, from our own experience, that hundreds of what are called well-educated men, and thousands of accomplished women, could not do a Rule-of-Three sum if their fortunes depended upon it; while a number, presumably less, but still very large, cannot do any calculation on paper at all. We venture to say the majority of middle and upper class women are worried by the simplest question about interest, and to a very large proportion the simple adding-up of household accounts is a wearisome labour very inaccurately performed, while if the calculation is in foreign money they are hopelessly bewildered. They do not understand compound addition, while as to compound division, or any problem of any sort involving fractions, they frankly decline to make the attempt. We have personally known a lady, mistress not only of four languages, but of their literatures, give up the effort to discover what the fourth of a seventh was as something wholly beyond her capacity, and ten minutes after discuss a foreign budget with keen intelligence; and that is not an extreme case. The most extreme we ever knew was that of an Oxford M.A., Head-Master of a Grammar-School, and an almost unrivalled master of Greek lyrical poetry, who was honestly unable, and confessed himself unable, to do the simplest sum in simple addition—who, to get an account right, would put the actual coins on the table, and always called a boy to verify the weekly statistics of the school. There must have been some odd loathing for figures in him, as well as want of interest, resembling the loathing some lads have for Euclid; but we should like to try the House of Peers with a stiff bit of notation. Not one in six would put down the figures right, and of their wives, not one in sixty; yet they and all those we have mentioned have, at some time or other, learned these things, and are ignorant of them only because their interest has never been excited. It is just the same with geography, of which educated and competent men often do not know the simplest facts, though they have all learned them in a way, as one usually learns things of no interest, that is, without learning them. They have to learn them again when they want them, and meanwhile are just as ignorant as medical students are of spelling. We should just like to make the English members in the House of Commons draw each for himself a skeleton map of Ireland, and see how many of the maps bore a fair resemblance to the truth. Yet they were taught about Ireland as well as England, and at the same time. No doubt, the English method of teaching geography, even in the very best schools, is ludicrously bad, very few masters ever thinking that distances and areas ought to enter into their teaching, and leaving pupils under a happy belief that they know all about Arabia if they can draw its outline, though they do not know whether it is as big as Yorkshire or as Europe. But still, most educated men once knew much more of geography as lads than they do as men, the reason being want of interest in the subject. To test them on it would not be fair to the schools, wretchedly bad as their system is, any more than it would be to test most girls' schools by their old pupils' knowledge of figures. They may have been taught them fairly enough, but the memory, unstimulated by any interest, refuses to retain its loads. The real failure is not in these things, but in the entire absence of any attempt to secure the main end of teaching, which is not the communication of knowledge, but the development of the powers of the mind. Half an hour's chat by a shrewd, good-tempered arithmetician with a lad on the Rule of Three, its principle and its management, will give the student a more perfect control of that invaluable machine than years of "sums" done by cram rules without the smallest notion why those rules yield accurate results. We know a child of eight, a girl, whose acquaintance with geography is far greater than that of most men, whose study of the subject was induced by the accidental awakening of an interest in the shapes of the different countries on the map, arising originally from some grotesque remark about the likeness of Britain to an old lady dandling Ireland on her lap. The teachers even in commercial schools are not such bad machines as they are described; but then they usually are machines, and we need intelligent teachers instead. Mere practice will not

even enable boys to spell, and it is practice only which is required of them—*Spectator*.

Phases of Intellectual Discussion.

A dispute is being at present carried on between two opposite sets of opinions in the intellectual world, which has agitated it from the remotest ages, and which it is probable will continue to agitate it to the end of time. The extremes of these opinions may be represented on the one part by that which asserts that intellectual culture should be carried on for its own sake alone, and that any utility which follows therefrom is rather to be despised than commended; on the other by the one which maintains that mental improvement is, *per se*, of no value, and that those branches of instruction only should be attended to which produce money or money's worth, or at least some physical or material advantage. In the time of Plato and Aristotle these opinions, though in many instances not openly expressed, or perhaps understood, were pretty evenly matched. The hard and rigorous catechism of Socrates, his perpetual *cui bono*, were powerful weapons in the hands of the utilitarians of that age; while their excesses met the best refutation in the lofty speculations and glowing language of his brilliant disciple. Plato, in fact, both by word and example, gave such an impulse to the intellectual energies of his age that they retained the one direction for nearly twenty centuries. Buried for a time by the barbarism of the middle ages, his works and those of his disciples or imitators, when at length resuscitated by the dawning intelligence of a modern epoch, gave the stamp and impress of his nature to the tone of thought which characterized the writers of that period; and the same impulse which moulded and directed the cultivated intellects of Athens and of Rome exerted a still stronger influence upon the minds of their less polished successors. Like all things human, however, when pushed to extremes it did not fail to produce a large proportion of evil; and the subtle and trivial disputations of the schoolmen, exaggerated as their character has been by unscrupulous opponents, remain at once a monument of perverted ingenuity and a standing argument for triumphant materialists. In obedience to the never-failing laws of nature, reaction succeeded the excess of mental speculation; and first Ramus, and afterwards Bacon, gave a new direction to the spirit of mental and physical investigation. The characteristics which distinguished the latter we need not stop to enumerate; but we may say that while his example and his writings oppose strongly all merely intellectual displays, they by no means bear out the assertion of his would be lauders, viz., that the father of modern philosophy was nothing but an advanced utilitarian. The old opinions, in spite of what was supposed to be his teaching, still held their ground, as they ever will; and the old battle was fought, sometimes in regular campaigns, more frequently in incidental skirmishes, with varying success; and the combatants turn up at the present day almost in the same array as when the conflict was waged in the walks of the Academy or the halls of the Sorbonne. Utilitarianism, or rather the opinions which arrogate to themselves that title, partly on account of the advantages attendant on that assumption, and partly on account of the unscrupulous and shallow assertions of its advocates, seems to the unthinking mind to have much the best of the warfare. Rampant in the mouths of platform orators, or from the pens of sophistical writers, careless as to the solidity of the arguments they advance, and merely wishing to have a flashy article, which their fond admirers term brilliant, appearing under their hands from week to week, or from month to month, it seems to reign triumphant. At one end of the educational scale, it endeavours to exclude the study of classics, or of any other merely intellectual branch, from colleges or high class academies; and, at the other, it seeks to enforce what is termed "payment by results" in our primary schools. "I pay a carpenter so much for making me one table; and double that amount if he manufacture two; I treat my tailor and my shoemaker in the same manner; why should not you, O