

2. To give a practical knowledge of the sciences with a view to their utility in after life.

3. To impart a theoretical knowledge of the sciences, that is, to give information.

4. To train the pupil mentally and morally, that is, to develop a well-rounded character.

Only one of these objects is worthy of the true teacher, and in attaining it, he secures all that is of worth in the others. A charlatan, a coward or a witting will aim at the first, a money-grabber at the second, and a mere dreamer at the third. The aim of the true teacher, in all subjects, is to develop a strong, symmetrical, moral and religious character. No doubt many teachers make the aim of their science teaching, and indeed the aim of all their teaching, the successful passing of an examination. They feel compelled to do this by the brutal force of a false public opinion. The public opinion which they feel constrained to pander to was created ten years ago by the official reports of High School Inspectors and the dissemination of these reports by the public press. Newspapers and inspectors alike helped to create the impression that the intermediate examination and its legitimate offspring, the teachers' second and third class examinations were thoroughly efficient, just and exact means of estimating a teacher's scholastic attainments and his ability to teach. This superstition still maintains a firm hold upon the public mind. It lingers along the corridors of our Universities and legislative halls, and is echoed from ten thousand school-houses throughout America. As recently as last summer, a university examiner—a beardless boy with a beggarly B.A. to his name—gave expression to this superstition in an open letter to the *Week*. What wonder then, that many a teacher, against his better judgment, makes the main object of his teaching the passing of an examination. His reputation, his position and his prospects all depend upon the result.

Mr. Herbert Spencer is the writer who, ahead of all others, has advocated the importance of science teaching on the ground

of its practical usefulness; but school life is too short in which to accomplish even a tithe of what Mr. Spencer aims at. Besides, as Mr. Quick in an essay on "Educational Reformers" points out, what we should teach, even according to Mr. Spencer's reasoning, is the *results* of science—not science itself. The practical results of science, the telegraph, the telephone, the electric light, the myriad applications of physics and chemistry to manufactures, can all be taught, but this should not be called science teaching. These results are seized upon quickly enough by the money-grabber, why teach them in our schools? Are we to try to develop a nation whose aim shall be wealth-getting? Certainly wealth-getting is important, it is the foundation of all art and refinement, but it is a miserable object to set before our boys and girls. The passing of an examination and the study of science, because it has a pecuniary value, because it will help us to get on in the world, are poor, sordid objects to set before our students. Let us aim at the highest—at mental culture, at character-building, at soul-wealth. This culture, of course, does not admit of measurement in coarse, vulgar percentages; it is too subtle and intangible for that. Nor can it be accurately gauged by the rude markings of an examiner, no matter how able, careful and conscientious (and our examiners are improving slowly), but this mental culture is nevertheless the proper aim of the teacher. The best and wisest men and women of Europe and America demand this, and when testing the scientific and literary training of a boy ask, "Does his education render him more industrious, more skilful and efficient, more ingenious, more persistent, more practically masterful in whatever he undertakes? If he has been trained to use his senses, to acquaint himself with natural phenomena *at first hand*; if he has been taught to think, to make careful comparisons, noting essential differences and significant similarities, making patient inductions and wise generalizations; if he has been led to form fixed habits of thoughtfulness, self-reliance, moral earnestness, inflexi-