

the direction of physical culture, an ample supply of good air stands pre-eminent. No one can keep the body and mind vigorous for any great length of time in impure air. And the most impure air is that which is filled with emanations from the human system. The lungs should be trained to free, full and vigorous action. They are, so to speak, the very springs of vitality. The more immediate importance of the lungs in the animal economy will be brought to mind when we recollect that a person may live for days without food; but to deprive him of air, even for a few moments, is to deprive him of life itself. Any form of dress or belt, therefore, which constrains the base of the lungs and presses upon the stomach and intestines must do serious harm. Intimately connected with the function of breathing is that of vocalization. So great importance did the Greeks attach to this feature of human development, that the tyro passed through the hands of at least three different masters in this department alone before completing his course. One master developed the power and range of his voice; another improved its quality; a third taught modulation and inflection. The production of voice is a muscular operation. It calls into action many organs directly related to the vital economy; and, consequently, every step taken toward permanently improving the voice is so much done toward building up the health and vitality of the general system. The prevalence of harsh, grating voices, so little calculated to convey the "whisper of love," is very noticeable. The tone which often prevails in schools, and carried afterwards into life, is the hard, unnatural, half-screaming one in which both teachers and scholars often carry on their recitations. The natural, easy, musical quality of voice which marks refined society, should be cultivated in the school-room from the beginning. Imagine a polite person asking a visitor to take a chair in the tone used by scholars in reciting their arithmetic lesson! Yet the forced and stilted tone is as fitting in the one case as in the other.

Professor Munroe contends that nowhere "in our educational system is there so great a defect as the failure to secure attention to hygienic laws. To cultivate the brain while we neglect the vital system is as absurd as to furnish a powerful engine to a frail boat. The more we increase the steam power, the more should we make sure that the hull is staunch. We rush to destruction when we force the engine unduly. Nervous diseases and frail constitutions are becoming every day more abundant; and they will continue to increase till an intelligent hygiene shall furnish the true preventative. Proper habits of dress, diet, sleep, cleanliness and exercise are of infinitely more importance to a child than the geography of Siberia or the history of the Dark Ages. Yet the latter absorb a large share of time in schools where not a word is said of the former. May it not be asked with solemn emphasis—What shall it profit a child to gain a whole world of book-knowledge, if, in gaining it, he forfeits the chief condition of earthly welfare, bodily health."—*London Free Press*.

### 3. MAX MULLER ON NATIONAL EDUCATION AS A NATIONAL DUTY.

Perhaps few recollect the first beginnings of the local examinations, carried on under the auspices of the two universities, Oxford and Cambridge. I recollect them well; and when I see how the tree has grown, and is growing and spreading its branches wider and wider every year, I feel no slight satisfaction at the thought that I was present when it was planted—nay, that I rendered some assistance, however small, in planting it.

I can assure you it was no easy matter to plant this tree. The first generous impulse came from Oxford, but from Oxford came also the first repulse. I go back in my thoughts to the year 1857, when Mr. Acland, now Sir Thomas Acland, first mentioned to me this idea, that much might be done to improve the middle-class schools all over England, if the universities would undertake to examine them, and to give some kind of academic recognition to the best candidates and to the best schools.

There were some men at Oxford who at once perceived the excellence of such a scheme; but there were others, too, who treated it with open scorn and derision. We were told by some that no one would come to be examined of his own free will; by others, that there would be such a rush of candidates that the university could not supply a sufficient staff of examiners: while as to giving the academic title of associate in arts to candidates who might not know Greek and Latin, that was considered simply high treason.

While these discussions were going on, Mr. Acland and some of his friends resolved to try the experiment, and in June, 1857, they held the first examination of middle-class schools in Devonshire. There is nothing like trying an experiment, and Mr. Acland's experiment proved at least three things:—

1. That the middle-class schools required to be looked into most carefully;
2. That the middle-class schools were willing to be looked into most carefully;
3. That the examinations presented no insurmountable difficulties to frighten the universities from undertaking this important task.

I was myself one of the examiners at Exeter, and I well remember the enthusiastic meeting that was held there, for it was the first time that I allowed myself to be permitted to speak, or, rather, to stammer in public.

Mr. Acland's scheme was soon after accepted by the university; and when I look at the excellent results which it has produced during the last seventeen years all over England, it seems to me that Sir Thomas Acland, the worthy son of a worthy father, has deserved well of his country, and that no honour that the nation could bestow on him would be too high, in recognition of the great and lasting benefit which, by taking the initiative in these local examinations, he has conferred on the nation.

I do not speak at random, and I know I can appeal to all here present, parents, teachers, and pupils too, who have been successfully taught under this system, and are here assembled to-day to receive their prizes and certificates, to support me in saying, that these examinations have been a real blessing to the teachers as well as to the taught.

And their capacity of usefulness is by no means exhausted.

At present, schools consider it an honour if they can pass a certain number of their pupils, and if a few gain prizes or certificates. The time will come, I hope, when schools will not be satisfied unless they can pass nearly all their pupils, and if at least one-half of them do not carry off prizes and certificates. Till schools consider themselves in duty bound to send up at certain periods, every one of their pupils to be examined, the true scope of these examinations has not been reached; nay, I fear, their object may be defeated, if they encourage schoolmasters to aim at high excellence in a few, rather than at the average excellence of the many.

And not only schools will benefit by these local examinations, but home education also, and more particularly the home education of girls. Allow me to put before you my own experience in this matter. As there were hitherto no good schools for girls at Oxford (I am glad to say a High School for girls will be opened there next week) my children had to be taught at home; but I told them, and I told their governess, that I should have them examined every year at these local examinations. That put them on their mettle, it gave a definite direction to their studies, it made them fond of their work, and in spite of all the drawbacks of home education, the results have been most satisfactory. I sent my two eldest girls to be examined last year, chiefly in order to find out their weak and their strong points; I sent them again this year, as junior candidates; and if you will look at the division list which is now in your hands, you will find both their names in a very creditable position. I shall send them again next year, and year after year, till their education is finished, and I can assure all parents who are obliged to educate their daughters at home, that, however excellent their governess may be, they will find these examinations affording a most useful guidance, a most efficient incentive, and, in the end, a most gratifying reward, both to pupil and teacher.

In 1857, however, I had no such selfish interest in these examinations; and you may wonder, perhaps, what could have induced me then to go from Oxford to Exeter, in order to be present and to help in the first experiment of these local examinations. Well, you know that education has been for many years our national hobby in Germany, the one great luxury in which so poor a country as Germany is, and always must be, has freely indulged. But I may confess that I was influenced, perhaps, not only by a national bias, but by what is now called family bias, or *atavism*, that mysterious power which preserves certain hereditary peculiarities in certain families, and which, if it is true that we are descended from some lower animals, may even help to explain some strange and perplexing features in human nature. My own *atavus*, or at all events, my great-grandfather was Basedow (1723-1790), a name which perhaps none of you has heard before, but a name well known in Germany, as the reformer of our national education, as the forerunner of Pestalozzi, as the first who, during the last century, stirred up the conscience of the people of Germany and of their rulers, and taught them at least this one great lesson, that next to the duty of self-preservation there is no higher, no more sacred duty which a nation has to fulfil than national education.

This sounds to us almost like a truism, but it was not so a hundred years ago. The idea that the nation at large, and each man and woman in particular is responsible for the proper education of every child, is a very modern idea—it is really not much older than railways and telegraphs. Great men like Alfred and Charlemagne