

social mission of the school, these changes are seen to be indispensable means for the accomplishment of this social ideal of education.

Let me now leave this ideal for a while and consider some of these means by which the new education is striving to realize it.

First among the new features of our new schools comes physical culture. In the earlier stages of human evolution man was compelled to struggle with his physical environment; and in the struggle the physically weak were driven to the wall. Now, in our highly complex social conditions, the struggle for existence is not so much that of man against nature as that of man against man. Mental rather than physical quality, nerve rather than muscle, counts for most in the struggle for existence which goes on to-day. Hence the physical, being less immediately essential, and not being kept up to its previous standard by the necessity to wrest the means of subsistence from the forest and the furrow, has been suffered to decline. This artificial premium on nervous and mental force has stimulated the development of the mind at the expense of the body. But nature cannot be cheated long. Already she is beginning to enforce her penalties. Insomnia, dyspepsia, nervous prostration, heart-failure, insanity; these are the universal tokens of outraged nature's righteous wrath. Into this fierce competition, into this high nervous tension, the boys and girls of our schools must go. It is the duty of the school to shield their early years from all needless strain of anxiety and worry; to prohibit all forms of overwork; and to insist that in these formative years the body shall at least keep pace in its development with the mind. To this end the introduction of physical culture is a necessity.

Wherever the experiment has been fairly tried and tested, its results

abundantly justify the expenditure of money and time involved. At Bowdoin College we require every student to take systematic exercises four days of every week in the winter months of each year of the course. We spend as much money on this as on any department of the college, and a comparison of the rank of students in scholarship and in physical development shows that the two lines of development tend remarkably to coincide. The majority of those who were first-class in study were first-class in physical development; the majority of those who were second-class in study were second-class in physical development; and in the third class the coincidence between poor physical development and inferior mental power was remarkable. The positive and decided benefit of physical exercise to growing students is strikingly shown by tables recently published by the Department of Physical Training in Wellesley College, giving the relative changes in physical development of three classes of girls in that college from November, 1892, to May, 1893. The first class consisted of forty-three members of class crews; the second class was made up of twenty students who took five months of Swedish gymnastics in the gymnasium; the third comprised twenty students who had no physical training during this period. In girth of chest, those who rowed gained 1.04 inches; those who took gymnastics gained 1.1 inches; those who took no training gained nothing.

In capacity of lungs, those who rowed gained 20 cubic inches; those who took gymnastics gained 14 cubic inches; those who took no training lost 2 cubic inches. In strength of back, those who rowed gained 20 pounds; those who took gymnastics gained 20 pounds; those who took no training lost 16 pounds. In depth of chest the rowers gained .4