mind ! How vastly important that all modes shall be avoided which shall lead to a lower development of the mind, and of the body through the mind ! If, indeed, it could be that the mind could be elevated while the body was degraded, I, for my part, should doubt the wisdom of education. And if it be really impossible, as I should maintain it is, to elevate either mind or body alone, and absolutely impossible to make one great and the other little, how wide a problem lies before us in respect to education in this age !

What, then, are the modes to be followed in education by which the mental training may be made conducive to both mental and physical development and regeneration? May we think of such modes? I am sure we may, and practice them also. At the same time, the thought as well as the practice requires to be considered from new points of view of an educational kind.

Let me proceed to indicate what seem to be some of the basic changes that must be made in education in order to found a system of mental and physical health on education. I cannot pretend to do more than touch on a few of these changes, the more prominent to my own mind, but far from a complete list.

In the first place, there is, I venture to think, too much friction of mind in education, and, as a consequence, much injury, mental and physical, from cross, nervous vibration, owing to the plan which now prevails of treating every boy and girl as if every boy and girl had the same nervous construction and mental aptitude.

As it seems to me, there are as distinctly two grand divisions of mental aptitudes as there are two grand divisions of sex, and any attempt to convert one into the other is a certain failure. The two divisions I refer to are the analytical and the synthetical, or, in other words, the examining and the constructive types of mind. In our common conversation on living men with whom we are

conversant in life we are constantly observing upon them in respect to these two qualities of mind. We say of one man that he has no idea or plan of looking into details ; he cannot calculate accurately ; he cannot be intrusted with any minute labour of details; but he can construct anything. Give him the tools and materials for work, and he will build a house; but if he had to collect and assort the tools and materials, he would never construct at all. We say of another man that he is admirable at details, and can be intrusted with any work requiring minute definition, but he has no idea of putting anything together so as to produce a new result or effect.

Moreover, we assign to these different men distinctive services in the world. We understand them perfectly, and by an unwritten and, I may almost say, by a spontaneous estimate we reckon them up and give them their precise place in the affairs of life with which they are connected. It is as if by design of nature these classes of men, and it may be of women also, exist as pure types of intellectual form, have always existed and are always being repeated. In other words, it is as if they are definite families, and that out of them, as out of a dual nature, that human organisation of thought, which we call history, is educed.

The elements of the analytical and synthetical minds appear on a large scale in the pursuits which men follow. The mathematician is analytical, and he, in whatever science his powers are called forth, is always working on the analytical line. He may be an astronomer, a chemist, a navigator, an engineer, an architect, a physician, a painter ; but whatever he is, all his work is by analysis. We often wonder at his labour, at his accuracy, at his fidelity. We may say of him that he approaches nature herself in the magnitude and perfection of his results, but we never say of him that he is inventive or constructive. From him much that is quite new comes forth, but it is always something that he has hauled out of the dark recesses : he lays his treasures at our feet, and we are content to admire and wonder. We may be entranced with our view of the produce of this man, but he very rarely kindles our enthusiasm for him as a man, and very often we find that no credit has been given to him We praise only his industry. The poet This does not always follow, but it usuas himself deserving of it. The poet is, as a rule, synthetical. ally does, and I think we may fairly say that every man of a purely constructive mind is a poet, albeit we may not be able to say that But in whatever particular phrase of every poet is constructive. life and action he exists he shows his synthesis distinctively. His tendency is naturally to drift into such labours as are inventive and constructive. Frequently he avails himself of the labours of the analyst whom he unconsciously follows believing meantime in himself alone. He makes for us romance in literature ; mechanical instruments in handicraft; pictures in art; tunes and melodies in music; plays and epics and songs in poetry; strategies in war; laws in parliament; speculations in commerce; methods in so easily becomes the promoter of universal doubt and the opener science.

The two orders of men are often as distinct in feeling as they are They do not love each other, and they admire each other in work. little. Jealousy does not separate them, but innate repulsion. The analytical looks on the synthetical scholar as wild, untrustworthy, presuming, hasty, dangerous. The synthetical looks on the analytical with pity, or it may be contempt, as on one narrow, conceited, and so cautious as to be helpless ; a bird that has never been fledged, or, being fledged, has not dared to stretch out his wings to fly.

It has in rarest instances happened that the two natures have been combined in one and the same person. It is, I think, probable that this combination has been the reason for the appearance of the six or seven greatest of mankind. As a general fact, however, the combination has not been fortunate. It has most frequently produced startling mediocrities, whose claims to greatness have been sources of disputation rather than instances of acknowledged excellence.

These orders of mind, distinctive of the distinct, are in their primitive forms so essential to the course of progress, that it is difficult to assign priority of value to either. The analytical mind seems to be most industrious and soundest in practice; the synthetical, the most brilliant, and when on the right track the most astounding, in the effects it produces. The analytical is the first parent of knowledge, the synthetical the second---both necessary.

To apply this reasoning to our present argument, I maintain that, as the child is the father of the man, so in every child there is always to be detected, if it be a child of any parts at all, the type of mind. I will undertake to say that every experienced teacher could divide his school into these two great analytical and synthetical classes. He might have a few who combine both powers, and he would no doubt have a residuum, a true caput mortuum, that had no distinctive powers at all; but he would have the two distinctives. He would have the scholars who could analyse as easily as they could run or walk, and to whom the mathematical problem and all that may be called analytical is as easy as play, but who have little inventive or constructive power. He would have the scholars whose minds are ever open to impressions from outer natural phenomena, who have quick original ideas, who have, it may be, the true poetic sentiment, but who cannot grasp the analytical and de-tailed departments of learning at all. The illustrious William Harvey was a scholar of this latter type. It is related of him that late in his life he was discovered studying Oughtred's "Clavis Mathe-It is related of him that late matica," and he remarked then that the simplicity of the proposi-tions—their obviousness, as it were—had formerly been an obstacle in his way. Harvey was simply a pure type of a most original, and I may go so far as to say mechanical, mind, which, abashed in youth before mathematical problems, in later life, when the reasoning faculty—the wise faculty—was brought to bear upon the difficulties, looked on the understanding of them as difficulties merely from their self-obviousness and simplicity.

The moral that I draw from these outlines of natural fact is that in teaching it is injury of mind, and thereby injury of body, to try to force analytical minds into synthetical grooves, or to try to force syn-thetical minds into analytical. I have an instance under my own observation at this time in which a worthy, a most earnest, and I may add most practical, mathematical master is trying to teach a boy, whose mind is all for construction, the details of the science of details. He had better try to get a third chemical element out of water by chemical process, for that task, hard as it might be, could possibly be a success. But this boy, bright of brightness when the lines on which he can tread are before him, is hopeless here. The master may be angry or perplexed, the parents disappointed ;—the the thing cannot be done. If fifty masters could be employed in the effort, or if the ability of fifty masters could be forced into one master, the thing could not be done. By a mere act of temporary cram, the thing might be carried out in what we may call a treacherous manner; but it could not be carried out in an honest and reliable education of that poutful mind. Meanwhile, the injury that is being inflicted on the youthful organism is incalculable. Time that could be usefully expended is ruthlessly cast away. Then, the mind itself is rendered irritable and obtuse with each lesson, and the hope deferred makes the heart sick in the truest sense of the term. The failure of each lesson tells on the heart, making that organ irritable and uncertain—making its owner, in fact, "sick at heart." This tells in turn on the stomach, causing persistent dyspepsia, and soon there follow the trains of sensations of disappointment, fears of failure in other things, anger at sight of the success of other minds, and all those troubles which lead to the perversion of feeling which of despair.