

tempted; geology revealing the natural history of the earth, aided by several auxiliary sciences, zoology, mineralogy, botany; chemistry working wonders of which ordinary alchemists never dreamt, though Roger Bacon caught a glimpse of them, with fresh discoveries in regard to heat, light, electricity, magnetism; physiology casting metaphysics into the shade;—what amazing and awe-inspiring results have they not produced! The great practical science of modern times is engineering. The engineer girdles the globe with new highways of travel, by land and sea, overcoming the obstructions of nature by vast bridges or tunnels, or supplementing her defective routes of communication by means of canals constructed regardless of cost. He takes the thoughts of men, when expressed in speech, and by means of the electric current, transmits them across vast continents or beneath ocean's depths, winged by the lightnings and guarded by the billows. He thus annihilates time and space and makes distant nations happy by bringing them into intimate social and commercial intercourse. The forces used by the engineer are not the only ones which influence material progress, and the great value of which has riveted attention on the natural and mathematical sciences, and tended to withdraw it, to some extent, from that of the ancient languages. As Humboldt comprehensibly says, "it is now being clearly perceived that an equal appreciation of all branches of the mathematical, physical and natural sciences, is a special requirement of the present age, in which the material wealth and the growing prosperity of nations are principally based upon a more enlightened employment of the forces and products of nature."

But these are not the only studies demanding the attention of the moderns, which come into competition with the study of the ancient languages, and make corresponding demands on the modern University. There is the great cluster of social and political sciences relating to trade and commerce; capital and labour; the public health; the management of humane institutions, including the treatment of the insane, the deaf and dumb and the blind, and of inebriate asylums; the repression of crime; the proper treatment and reformation of criminals; education; political representation and the proper sphere of legislation; municipal, international, and civil law; emigration; pauperism; the last mentioned subject being to English statesmen one of the most perplexing questions of the day, in the solution of which they require the aid of the economic sciences. There is Ginx's baby, for example, making his lusty voice heard over two continents, causing English