

processes is greatly enlarged. Geography and History are extended. The grammar of other languages is introduced. The simple reading of narrative prose is extended to the study of higher forms of literature. The field of secondary education is no longer the absolutely necessary, but that which satisfies our rational and æsthetic nature as well and which enlarges the uses of life.

3 In the same way the higher or university education builds upon the secondary. 1st.—By perfecting the knowledge of principles by adding the study of various sciences, and in our day by carrying some one of these to its present limits. 2nd.—By extending the knowledge of literature to a wider view including not only our own literature but also those of our European civilizations both ancient and modern. 3rd.—By unfolding the laws of thought upon which all our knowledge is based and of moral action upon which all human history depends.

4. In the present discussion we may for the sake of simplicity set aside the consideration of technical and professional education which is based on one or other of the three stages of general education. That the farmer, the merchant, the mechanic, the journalist, the apothecary, the physician, the teacher or the lawyer should each understand his business goes without saying. But aside from that the excellence of work of one and all of these will depend upon the average intelligence of the profession or business and upon the particular intelligence of the individual. The first problem therefore of the economics of education is: How can we elevate the average intelligence of the whole nation? Then follows the second: How can we perfect and elevate the technical intelligence of the people in the fundamental industries of the nation? Technical intelligence is based upon general and to a people of high

general intelligence the acquisition of technical intelligence becomes easy.

Addressing ourselves therefore to the first problem our answer is this:—

1. The nation must first of all have within itself the resources of the highest intelligence. The education of the individual proceeds from the lower to the higher, that of the state as a whole from the higher to the lower.

Our fathers built wisely when in the last century before they had founded a single elementary school they made provision for a university. Out among the plateaus of the Rocky Mountains there are vast stretches of desert lands, requiring only the fertilizing water to convert them into a Garden of Eden. Men can never accomplish that however by carrying water by the pailful from some little rill. They go to the great lakes lying up amid the melting snows of the mountains and thence they carry great streams which, subdivided into rills, water and fertilize all the plain. So must it be in the work of the education of a nation. The perfection, the power, the very life of the whole work depends upon a strong, rich, abundant source of all needed learning at the fountain head. From this not only teachers but leaders of the highest intelligence and culture are continually flowing out into all the fields of living activity in the country. The nation without a thoroughly efficient university system of its own can only borrow its learning from other lands. This it may do partly through books. But all educators understand the serious and almost fatal defects of mere book learning especially in all the sciences which deal with material nature. It may import learned foreigners to fill its educational offices. But this will always prove expensive. If to-day we were obliged to import our high school teachers from abroad I venture to say that to obtain anything like the same quality the average salary would need