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EDUCATION IN SCIENCE AND ART.

(CONTRIBUTED BY MR. RICHARD LEWIS, TORONTO.)

In the annual report of the Board of Arts and Manufactures for Upper Canada special attention is directed to the necessity of establishing a science and art department in connection with its operations. We attach the highest importance to this recommendation. It claims the earnest consideration at once of the government and the general public. The material progress of a people depends so entirely on its industrial development and energy that no obligation presses itself stronger on a government than that of encouraging and aiding the agricultural and manufacturing efforts of a country; and the successful development of these efforts depend so much on science and art, that a general and wide-spread knowledge of their principles and their application to industrial operations is of the first importance to national prosperity and greatness. If we regard ourselves as pre-eminently destined to be an agricultural people, a knowledge of the sciences on which a prosperous agriculture depends is imperatively demanded. Our material prosperity will be advanced in proportion as we improve and export our superfluous agricultural produce. Hence the importance of science and art as the great means for increasing the productive powers of the soil and of supplying the agriculturist with the resources of mechanical skill and invention. The nation whose farmers have a scientific knowledge of the soil and atmosphere—who are educated in chemistry and geology and mathematics, and whose mechanical genius, guided by science, is largely devoted to the improvement of agricultural implements, will take the foremost place in the agricultural markets of the world; while its internal economy and prosperity, as well as its physical and sanitary condition, will be improved and exalted. But with our splendid mineral and vegetable resources, it is vain to deny us a great manufacturing destiny. We belong to a race eminently mechanical and commercial, and with almost boundless natural advantages, we cannot fail to take a high place in the ranks of manufacturing

nations. Hence the duty of government to spread a knowledge of science and art amongst the people. We need scarcely say that our manufacturing prosperity will depend altogether on the superiority of our productions; and the value of these productions will be as much due to the beauty and finish—in other words, the æsthetic character of the workmanship, as to the material of which it is made and its substantial utility. A taste for ornamentation and beauty of structure in articles of manufacture is growing throughout the civilized world, because civilized nations are advancing in intelligence. It is the inevitable consequence of education, and is at once its most important element and its most hopeful result. For the love of ornamentation and the beautiful, is the love of order and harmony and truth and nature. It tends to an *ideal* which only the infinitely good and pure can satisfy, and thus it has a high moral and religious influence on the character of our civilization. Hence it is as much the duty of government and the interest of the people to spread a knowledge of art, and kindle an æsthetic taste in a manufacturing community, as it is to foster and protect manufactures by legal enactments and prohibitions.

It is this view of the subject which gives such importance to the suggestion for establishing a school of art and design, and the study of all sciences bearing on the progress of material industry in these provinces. The superiority of French manufactures a few years since—superiority both of structure and appearance—was entirely due to the better education of the workmen. Science and art were popularized by means of schools of art and design within the reach of all who desired the instruction; and the manufacturing operative, having his mind cultured in a knowledge of the sciences bearing on his daily work, and his eye and hand disciplined by art studies, rose at once to the rank of an intelligent artizan—his judgment enlightened and guided by scientific truths and refined and ennobled by correct and pure taste.

The example and success of France in art culture have led to similar efforts in England. Art schools and schools of design have been established in every part of the kingdom, and elementary drawing instruction forms a part of the studies of every common school throughout the country. Thus art education has been practically admitted to be a public duty of the highest consequence to the public interests. It has not been the issue of philanthropic speculation; but animated by that genius of common sense which makes the English people often the last to accept new theories of progress, until tried by experience and sanctioned by success, and the foremost in availing themselves