

ANNUAL REPORTS FOR 1854.

Blank forms of report have been sent, during the present month, to each Local Superintendent in Upper Canada, to be prepared according to the General Instructions, and returned to the Department with as little delay as possible. Should any Superintendent not have received the form, he is requested to notify the Department at once, in order that no delay may be experienced in preparing the Chief Superintendent's Annual Report, before the adjournment of Parliament. Before compiling his report, however, the Local Superintendent will notice the typographical error in column 9, in the Trustees' annual return,—which should give the balance unappropriated after payment for 1854, not 1853.

In answer to the inquiries of some local school officers, in reference to sections 11 and 12, of the General Instructions to Local Superintendents in compiling their annual reports, we reply, that the instructions and the headings of the columns of the financial part of the report should not be taken *separately*. For instance, when the amount received (column 20) is less than the amount to which the teacher is entitled for the year, (column 25,) the latter part of the 12th section is inoperative, simply because the "difference" which exists between those amounts does not accord with the heading of column 23, and cannot therefore be inserted in it. The 11th section of the Instructions should be interpreted as it reads; and with the above reference, we think no difficulty will occur in complying with the 12th and other sections of the Instructions.

A copy of the Chief Superintendent's Annual Report for 1853, has also been sent, by post, to Local School Officers and Corporations entitled to receive it.

MINERAL RESOURCES OF CANADA—WANT OF "SCHOOLS OF MINES," &c.

During the present week were shipped from Bytown a number of large specimens of ores, marbles, building stones, and other natural productions, destined to take a part in the great Exhibition of the Industry of all Nations at Paris in May next. There was a huge mass of the magnetic iron ore contributed by J. Forsyth, Esq., from the mine in the Township of Hull, weighing over two thousand pounds; another six feet long, and of about the same weight, of specular iron, from the township of MacNab, from A. Dickson, Esq.; and a piece of silicate of iron, weighing about two hundred and sixty pounds. This latter is a rare mineral, and the specimen in question is perhaps the largest yet seen. Besides these, there were two strongly hooped casks, weighing over eighteen hundred pounds of other specimens of ore, and a number of boxes and uncovered blocks of limestone and marble. The object in procuring such large masses is to enable the Parisians to form some conception of the extent of the supply by the magnitude of the specimens. A country whose mineral wealth is only represented by a few insignificant fragments will not be much known, unless the visitors receive verbal or written information that the collection only partially represents its riches. Large specimens, however, are the heralds of their own and their country's greatness. They make an impression of natural wealth on the mind which cannot be effaced. The name of Canada will be associated with the idea of one of the richest spots of the earth. And what is still better, the idea in this instance will be in no way an exaggeration. The bed of ore from which the first of the above mentioned specimens was procured is situated about six miles from Bytown, in the Township of Hull. It is about 400 feet thick, and of such an excellent quality that it will yield about 75 per cent, of pure iron. It rises into a dome-shaped mound about 70 or 80 feet above the level of the surrounding land, and it is computed that there are three millions of tons of it above the surface. The only mining operations, therefore, that will be required for a long time will be to break it up, and several thousand tons of it, have been already quarried and is now being transported. It was lately purchased by J. Forsyth, Esq., of Pittsburgh, in the State of Pennsylvania, who intends to convey it to that place and smelt it along with other ores.

The Collection of Minerals above mentioned was made under the superintendence of W. E. Logan, Esq., the Provincial Geologist, and no person can witness Mr. Logan's operations without being at once convinced that this Province will be creditably represented at Paris in 1855, as it was at London in 1851.

While speculating upon these huge masses of ore, we are led to make a quotation from HUMBOLDT, the great master philosopher of the nineteenth century. In commenting upon the progress of nations, and the causes which must produce pre-eminence or inferiority among the races of men who are now struggling for masterships, he remarks,—

"An equal appreciation of all parts of knowledge is an especial re-

quirement of the present epoch, in which the material wealth and increasing prosperity of nations are in a great measure based on a more enlightened employment of natural products and forces. *The most superficial glance at the present condition of European states shows, that those which linger in the race cannot hope to escape the partial diminution and perhaps the final annihilation of their resources.* It is with nations as with nature, which, according to a happy expression of Goethe, knows no pause in ever-increasing movement, development, and production—a curse still cleaving to standing still.

"Nothing but serious occupation with Chemistry and natural and physical Science can defend a state from the consequences of competition. *Man can produce no effect upon nature, or appropriate her powers, unless he is conversant with her laws, and with their relation to material objects according to measure and numbers.* And in this lies the power of popular intelligence, which rises or falls as it encourages or neglects this study. Science and information are the joy and justification of mankind. They form the springs of a nation's wealth, being often indeed substitutes for those material riches which nature has in many cases distributed with so partial a hand. Those nations which remain behind in manufacturing activity, by neglecting the practical applications of the mechanical arts and industrial Chemistry, to the transmission, growth, or manufacture of raw materials—those nations among whom respect for such activity does not pervade all classes—must inevitably fall from any prosperity they may have attained; and this by so much certainly and speedily as neighbouring states, instinct with the power of youthful renovation, in which Science and the arts of Industry operate or lend each other mutual assistance, are seen pressing forward in the race."—*Cosmos*, vol. 1, page 33.

The above paragraph constitutes one of the most profound political aphorisms of the age. It is somewhat in advance of the present time, not in its immediate practical necessity, but in the amount of appreciation which it receives,—for it is perfectly clear that although a few statesmen of superior intelligence do feel the full weight of its importance; there are many who do not. Humboldt does not intend to point out as worthy of national consideration that musty lore which qualifies men to take part in metaphysical discussions, but those particular species of knowledge which enable man to subdue the inorganic world to his will and make it yield him food, clothing and general comfort in greater abundance and with less labour,—which, in a word, teaches him to make "two blades of grass grow where but one grew before." He points out to the nations that the pursuit of certain branches of knowledge is a race in which, if any one of them fails to contend, it must soon be blotted out. Were England to take no account of her geological treasures, how insignificant would be her power in the present state of European affairs. The sulphur, nitre, iron, and coal, used by France, England and Turkey in the present war alone saves them from destruction. In view of these facts, these countries, as well as Austria, and the Germanic States, generally, have established National Schools, in which mining, metallurgy, and the innumerable chemical applications of the materials which constitute the earth's crust to agriculture, engineering, and manufactures of all kinds, are taught and investigated by the most scientific men whose services can be procured. Science is strained to its utmost tension by each of those countries, in order to prevent the nation from loitering in the rear.—Let us ask ourselves the important inquiry, is Canada to be permitted to linger behind in the race? We sincerely hope not.—The consequence of neglecting to cultivate the physical sciences under the fostering care and support of the government of the country, must inevitably be national inferiority. We have many excellent institutions of learning, devoted to almost every thing else, but we have no school especially dedicated to practical science as it is taught in the chemical and mining schools of Europe. Our educational system is, therefore, incomplete. There is a great blank in it. The key-stone of the arch has not yet been supplied. The United States governments who have stopped short in their surveys are beginning to get their eyes opened to this point, from the fact that numbers of their young men are leaving the country to be educated in the mining and chemical schools of Europe. In England too, we perceive by the last number of Silliman's Journal, that those intended for the army and navy constituted the most numerous class of pupils at the museum of economic Geology.—The reason is, they find that they cannot acquire at the Universities the knowledge they stand in need of without much more time and expense; and above all, not so thoroughly as they can while surrounded with a vast collection, and in constant association with field-taught Professors. In Canada the information acquired at such schools, might not it is true, be used by a great number in mining, but then to thousands engaged in agriculture, and the arts requiring a knowledge of geology, and the chemical properties of the materials of the earth's crust, it would be of inestimable value. Above all there would result, that enlarged understanding, those habits of accurate observation, and a love of nature continually urging on the mind to investigate the laws of the physical world, without which, in this age no man can be said to have received a proper education. As intellectual exercises, the studies pursued at these institutions have no equals, and no young