

in 1841, he has been connected with the Geological Survey since he was fifteen years of age, devoting his vacations to survey work during his college terms, and even while Professor in Chemistry at Queen's University. He has explored through Quebec, Ontario, Manitoba, the Northwest Territories, and the Mackenzie River country, travelling on foot, on horseback, and by canoe, over vast tracts of wilderness. After forty-three years of field work of this kind he was two years ago made acting director of the survey.

In connection with his survey work, Dr. Bell has published some thirty pamphlets and reports, of great scientific value, descriptive of the topography, geology, and botany of Canada. He is a naturalist as well as an explorer, and no one has done so much to gather the facts concerning this great country and to make them known to the world. His publications on scientific subjects include more than 190 titles. His valued services to Canada have been long recognized, and his latest honor is one which comes rightly to one of the most representative of all our Canadian scholars.

Technical Schools and the Trades

THE aim and purpose of technical education have unfortunately been often misunderstood both by students and by the employers of labor. Trade schools have been looked upon by the one as a short cut to success and efficiency, and by the other as a false encouragement to young men who imagine themselves to be competent without the practical experience of the workshop. The managers of one or two well-known manufactories have stated that they have never found any benefit from employing school-trained foremen, and the adverse attitude of the Toronto Trades and Labor Council toward manual training in the public schools is significant, as showing the position taken by the labor men themselves.

The technical school, rightly understood, however, is not open to these objections. Technical education does not supplant the training of the workshop, but supplements it. It does not make mechanics, but it makes better mechanics out of men who are me-

chanics already; or, if it begins with a boy, it teaches him the theory and then sends him to a shop for his apprenticeship. The best technical schools in Canada are following closely along these lines. They teach Theory, giving the student a basal and intelligent knowledge of principles, but emphasise the fact that when he leaves the school he is not a master of his craft, but must still gain his practical experience as an apprentice, unless he has had such experience before entering the school. It has been the confessed purpose of some schools in other countries to take the place of workshop apprenticeship, but in Canada another policy has been adopted, and there can be little doubt that it is a wiser one. Canada needs thorough mechanics, and when technical education is rightly understood it will be seen that it is an invaluable means to such an end.

Canada at the St. Louis Exposition

EACH of the great world's fairs, which are being held now nearly every year, is expected to outdo in some respects its predecessors. The exposition to open next year at St. Louis will, in point of cost, greatly exceed any previous show, representing a capital of over \$40,000,000. In size, variety, and splendor, it will be one of the modern wonders. But its greatest interest to Canadians, at present, is not in the extensive preparations that are being made for it, but in the fact that Canada will be substantially benefited by an important exhibit and a Canadian bureau.

Some eight or ten million people will probably visit the exposition, and their attention will be called to Canada by means of a carefully-planned enterprise, whose object is to develop the summer resort industry. The tourist business has immense possibilities, and so far as it has been exploited in Canada has proved highly profitable. Canada's advantages in this way are unexcelled, nature having provided the chief essentials for a successful industry that might become as truly national as the growing of wheat. Not only is there the immediate profit resulting from tourist travel, but permanent business interest very frequently follows a traveller's visit. One of the largest pulp and