KODAK S'AFE

that there shall be an enforced attendance of the children for whom the schools have been provided. While such a law may involve increased expenditure, and may prove difficult to enforce, it does not follow that the law should not be enacted. The history of education for the last thirty years shows that the opposition to compulsory legislation which formerly prevailed is passing away, and that the principle of compulsory education is steadily gaining ground. More than half the countries of Europe, twenty eight States of the American Union, Ontario, Nova Scotia, Prince Edward Island, British Columbia, and several of the Australian Provinces, have enacted more or less stringent compulsory attendance laws, and have enforced them with greater or less effect. It is significant that no country, so far as I have been able to learn, having once adopted such a law, has abandoned it. I commend the subject to the consideration of the legislature.

## Practical Education.

Dr. A. H. Mackay, superintendent of education, delivered a most interesting address before the students of the Provincial Normal School, Truro, his subject being "The Public Schools and our Industrial Development.

The main or central idea of Dr. Mackay's address was "What means can we use to make our schools of more value to the people." Education, Dr. Mackay said, was formerly for the few, the wealthy, and adapted to their needs. But under our changed modern conditions, with the free school system, such an educational plan was, in certain ways, unsuitable. The problem is so to change this state of affairs as to bring education to the needs of the 155,000 wage earners of our province.

Professional men form a small part of our population, some 6,000 in all, and are fairly suited by our present system. There are over 18,000 engaged in trade and transportation. The other part of our industrial workers may be divided into three classes. Of these more than 23,000 are employed in domestic or personal service. They certainly should have a suitable education. The great difficulty is that such persons are, as a rule, unable to attend special schools, and it is impossible to have cookery schools in every section. Can not the academies do something in this direction.

Another class, those engaged in manufacturing, comprise 26,000 of our people. Their education should be in every way the best. They must understand their country, its needs and resources, their mother tongue, and the other elements of a good common school education. These men must also have an understanding of the laws of supply and demand, the natural laws of the materials they work upon, and more important still, must be keen judges of human nature, since they have so much to do with their fellow men.

In the last and largest class, 83,000 people are en gaged as farmers, workers in mines and fishermen. These, the doctor characterized as the lords of the country, the real backbone of the province. Farmers, fishermen and miners need, more than anyone else, knowledge of the laws of nature. The laws of rotation of crops, the curing and marketing of fish, and the working of our vast mineral resources, all these should be subjects of our educational care. Above all, our people should be taught to think, for a little thought often changes the whole aspect of industry. Perkins, by a little thought and experiment on coal tar, produced the beautiful aniline dyes and revolutionized the dyeing industry. The use of our great staple, the potato, came through the thought and experiment of some one who reclaimed it from its wild state.

In Germany the cultivation of many crops has been completely changed by the discovery that certain bacteria aid their growth. Immediately a great firm of chemists were ready to furnish bacteria for sale to aid the growth of clover, peas, beans and other crops, and the farmer has only to inoculate the soil with this disease to have crops four-fold greater.

All this means that education must be more highly specialized in the direction of the sciences. This is the case already in Germany and in Italy, and England, just being awakened by the loss of many of her markets to the Germans, is following in the footsteps of the continental nations. Much money is being spent in giving a true practical education, carried even into the common schools.

Sir J. W. Dawson, our first superintendent of education, paid great attention to this subject, and the late Dr. Forrester, the first principal of the Normal school, tried hard to interest our people in education and in improved methods of agriculture. Such efforts were also kept up for some time after, but more and more our education took a classical and literary form. It is only by the most practical, by the most universal education, that an interest in all phases of life and occupation, that a real stake and anchor in the country is to be fostered, and our boys and girls kept at home. An education which opens the mind to active participation in all the processes of life gives an interest and an enthusiasm which is at the root of successful business and all true patriotism.

Dr. Mackay closed with an earnest exhortation to the young persons who are to become teachers, to give all their future instruction from a practical point of view, to illustrate their lessons by facts from common life. Thus may the facts become firmly fixed by reference to every day occurrences. Such operations as cooking, grafting, planting, etc., are all excellent examples of chemical or physical properties of life. The interest in and attention to the lecture was most intense. large audience were held completely to the end and ex-

pressed their approval by hearty applause.