

## Industrial Education.

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### AN UNSATISFACTORY CONDITION.

There are many things we cannot make in this country because nature has not supplied us with the raw materials. There are many things we cannot make because our people have not the skill and intelligence necessary to manufacture. We need not regret the first fact. We should deplore the second. Because of our inability to use our brains and our hands to the full we endeavor to get most of our wealth from the soil. We sell the natural products for a mere song. We buy back manufactured products for a fortune. Wheat brings less than two cents a pound. Imported biscuits which require skill in the making we buy at thirty cents a pound. We sell our soil wealth, and our hand labor; the foreign manufacturer sells his brains. We dispose of raw hides for a trifle and buy back shoes for a king's ransom. We ship our pig-iron and buy watch springs because we lack the skill to handle the raw products. Not occasionally but repeatedly there come into our shops from other lands those who lead in directing operations. They have the intelligence and the skill required. Our own boys and girls are but underlings—mere hevers of wood and drawers of water. Surely it is not right that such bargaining as ours should continue. Surely we should see to it that our own people shall hold their own with the world in the number and quality of manufactured articles. Of all the forms of waste in this land none is more pronounced than this, that we waste the opportunity of conserving our wealth. We sell in its raw form what we should sell as a finished product, and often because of ignorance we rob the land of its wealth by our methods of crop-production. Agricultural efficiency and industrial expansion we must have if we are to conserve our wealth. The key to the whole question is the development of intelligence, moral quality and skill in our young people. And the chief argument for aiming at such ends is not that we shall remain wealthy and build up our industries, but that we shall save our young people. Over fifty per cent. of the boys and girls in towns and cities drop out of school at or before fourteen years of age. Some of them do chores, some engage in low forms of industry, some enter the blind alleys, others suffer shipwreck. Is it not worth while considering how their manhood and womanhood might be preserved? Would it not be worth money and effort and outpouring of feeling if good, wholesome, serviceable life could be guaranteed for each member of the community, and if at the same time the wealth of the country could be conserved?

### PROPOSED REMEDIES.

Roughly speaking, there are three ways of meeting the need. In the first place Secondary schools or High Schools may open industrial courses, courses in agriculture, courses in domestic economy. In the second place there may be evening classes—in the day schools or elsewhere—for those working in the industries. In the third place there may be part-time teaching either in school-rooms or in shops and stores for those actually engaged in daily work.

### THE VOCATIONAL HIGH SCHOOL.

When a secondary school in a city or town opens courses directly leading to trades and occupations it becomes a vocational school. As such it may be of great value to a community and particularly to the young people who attend. To make provision for teaching all the vocations, and even the chief vocations of a community is not an easy matter. It costs money and it is difficult to secure instructors. They must be skilled workmen and have the gift of teaching. Two or three advantages pertain to a school of this kind. It is a good thing for a boy to see several trades taught side by side. He has an opportunity of judging among them and of selecting that which is most attractive. As things are now, most boys stumble into their occupation. In the next place, boys who learn their trade in a modern shop become narrow in their sympathies and in their range of work. They become little more than machines. For example, in making shoes there may be 450 distinct operations. In a properly organized vocational school their activity takes a wider range. Furthermore everything is done thoughtfully and one might say scientifically. The reason for operations is perceived at the time the operation is performed. For example, a carpenter's apprentice is told to lay shingles in a certain way. In a school he finds out both theoretically and practically why that is the best way. On a farm a boy is told to observe a certain rotation in crops. In the school he learns why this rotation is necessary.

### THE DIFFICULTIES IN THE WAY.

Yet it is evident there is something in the vocational school yet to be desired. It can reach only a few, for few are able to bear the expense in time and money. Then in the smaller towns few vocations can be prepared for and these in an imperfect way. More than this when young people are going to school all the time, even if it be a vocational school, they do not seem to be in touch with reality. They tend, not necessarily, however, to become theorists. The boy who learns his farming at the agricultural school somehow cannot always turn his knowledge to practical account. Indeed he frequently does not go back to the farm at all. And so it is in other callings. This very fact leads many to favor the continuation school rather than the vocational school. They say that a boy who is working at a trade will receive more instruction in an hour in all that pertains to his trade than a non-participant can possibly receive in a day.

### THE TECHNICAL HIGH SCHOOL.

There is nevertheless a value in the study and practice of some industry in the secondary school even if it is never turned to practical account. A boy who uses his head and his hands in learning printing or blacksmithing or farming gets as much training from it as if he spent the same time on Latin. Indeed it seems to be pretty well agreed that every boy should have some practical hand-work as a part of his education. A boy must learn to use his mind in producing something by the use of his hands if he is to save himself as a boy. At least this is true of most boys, but this fact has been overlooked in the educational systems of the past.

Accepting it as containing a germ of truth, it is clear that if towns and cities are not able to open vocational schools to suit the needs of all the boys and girls from fourteen to sixteen, they can at least open courses in say printing, wood-work, iron-work, domestic science, sewing and dressmaking. Those who take the courses will receive education from following these courses even if they never put all their knowledge into practice. Further than that, they will be prepared for admission to many industries and for entrance into higher technical schools.

### A QUESTION OF COST.

To operate technical or vocational high schools costs money. It is not difficult to secure the money if all the parties concerned join hands. In the first place the community may pay its share. Then the province can pay its part, and there is much to be said in favor of the argument that the federal government should give a grant to this form of education. It has just given a large sum to the various provinces for the development of agriculture and much of this will go to agricultural institutions. Most of it should go to that form of agricultural education which will reach the masses. In the same way a grant might well be made towards industrial schools and towards schools in which girls are prepared for household duties.

Of all the courses suggested for secondary school education, five or six stand out prominently—agriculture, wood-work, business methods, sewing, cooking, and the household arts. These branches should receive just as much prominence as algebra, geometry, ancient history and physical geography and they provide as much culture for the individuals who follow them. So the high school may come to mean a vastly different thing from what it was in the olden days. For purposes of education the schoolmaster and the trained workman must join hands. Even if the products of the school shops are sold for money to support the school it will be a gain rather than a loss. Nor will organized labor object to this since the producers are their own children and their progress is very dear to them.

### THE EVENING SCHOOLS.

But the great mass of those who leave school at fourteen cannot take advantage of the technical or vocational high school. What can be done for them? The first solution is the evening school. Here instruction is given in the trade and in branches related to it, and all the general education the students will stand is added. For instance, a boy is in a printing office and is kept at press work all the

time. In the school he may get a command of other processes and other machines; he may learn about paper, inks, making out of estimates, keeping books, and may add to his knowledge of composition, science and literature. It is wonderful how much a student from 14 to 16 may learn in two years in an evening school. There are many institutions in Winnipeg and western cities where these evening schools could be established. They might lift the laborer from the rank of drudge to that of a skilled and intelligent workman. It is not strange that in many cities twice as many are to be found in the evening classes as in the regular day classes in the vocational high schools. Yet it will be agreed that evening classes are not ideal. They are an invasion of the rights of adolescence. Germany is probably right when it insists upon compulsory day education for all from 14 to 16 (soon it will be 18). The recent legislation in Ontario looks in the same direction. Of course it would be absurd to compel attendance at school from 14 to 16 if the school followed in the old lines. But if there is a practical twist given to things, if the education really suits the needs of the students and the community, then state control is more necessary than at any other period of life.

### THE PART-TIME SCHOOL.

And so because the vocational or technical high school reaches only a few, and because evening classes have their dangers and can at best give but a very limited instruction, the minds of men have turned to the part-time scheme of instruction as the most likely solution of the problem that is being felt and struggled with in Germany, England and other European states, United States and Canada. This part-time scheme varies greatly in its operation. Where agriculture is studied the teacher takes his holiday in winter and the rest of the year he gives to superintending the work of his pupils who carry on "projects" on their home farms. In the early spring and fall more attention is given to work in the school, but during the practical season the teacher goes to his pupils, directing, inspiring and informing. In cities sometimes the boys put a week in the shop and then a week in the school; in other cases they give a few hours a week to the school. In other words part of the time of each boy and girl is given to shop and part to school. In Germany this part-time schooling is being treated seriously by the state. They expect that in ten years there will not be any untrained or uneducated adolescents in the country. On our side a little has been done by private effort and there is now a general movement in most of the states of the union and in nearly every province of the dominion. Industry, agriculture and life in the home must be rendered more efficient. Private effort is leading the way. Owners of canny factories noting the monotony and narrowness that followed the pursuit of this occupation, have opened classes in home economy and the girls are given an opportunity to attend without loss of pay. They learn how to sew, bake, make beds, decorate a room, choose furniture and wall paper, how to buy and how to economize. The result is that when they leave the factory they know many of the things that are demanded in the mother of a home. What an opportunity is open to employers of labor in Western Canada in this matter! Suppose the girls in a departmental store were given two hours a week for instruction in (1) the art of selling goods; (2) home economics; (3) literature and composition. How much better would their lives be!

So this matter of educating the youth of 14 to 16 and of 16 to 18 should begin with private effort. Employers must be the first to provide for themselves proper helpers and worthy successors. Then the community and the state, for the sake of the children and the industries, must give liberally to support day and evening schools for the same purpose. The great waste of time and habit in the idle two years must be no longer permitted. If ever compulsory education is warrantable it is just at this time.

There is not a point in all that has been said which does not require amplification and which is not open to question. If people will only recognize the seriousness of the situation, both as regards the youth and the industries, a beginning will be made, and no one can foresee the end. As yet we are in the experimental stage. Slowly and steadily the principles of procedure will be set forth. Let our own people be among the first to "follow the gleam."