selves very slowly to men who were not brought into competition with the ever-advancing methods of science. Then, the exigencies of European warfare gave rise to the beet-sugar manufacture. Liberal inducements were offered to men of science, and the problem was at least partially solved. But the method at first used for the extraction of sugar from the beet was very imperfect. France and Germany, ever in the front rank in encouraging scientific research, found men who were able to make great improvements in the machinery, and to suggest the adoption of new principles. But, note the unexpected directions in which a knowledge of the principles of science leads men to look, when an industry is to be developed. The physicist and the engineer had done their part, and now the chemist and the botanist took up the work, and showed that by using certain fertilizers the percentage of sugar in the beet-root could be largely increased. These improvements in the European sugar industry have forced the West Indians to make similar improvements, and those who have failed to do so have gone to the wall. It is not surprising then to hear, from time to time, of the establishment of botanical gardens in various of these islands; and we can also easily understand the anxiety shown by large employers of labour in the same part of the world to facilitate the founding of schools for the education of the labourers' children. They know that, as a rule, education means advance in intelligence, and that this brings with it increased efficiency in *any* kind of work. The industries of a country advance with the technical education of its inhabitants. Imperfect training means imperfect, wasteful methods of doing things. Good training in any branch of industry includes the acquisition of the principles which underlie the art. In order that progress may be made, it is not sufficient to know only the methods at present employed; it is also necessary to know where improvements are needed, where they are possible, and the best way to attempt them. We do not need to go far afield to find instances of disastrous failures in manufacturing enterprises, due to reliance on empirical knowledge.

It is a fact of every-day experience that the method of carrying on any manufacture or other industry must be varied to suit a great many varying circumstances. Mere experience of what has been done will not enable a man to grapple with these pioneer problems. He must get down to principles. If a man has that commanding native genius which enables him to grasp principles and applications at a glance, he may succeed in surmounting every obstacle to an enterprise: but these men are rare, and the community's prosperity depends on the average man. If the average man depends on knowledge gained from a necessarily limited experience, he is not as likely to be successful as one who has added to experimental knowledge an acquaintance with the laws and those generalizations called laws, which underlie and connect all phenomena. For example, a copper mine is discovered. The ore is very rich, and contains silver as well as copper. An attempt is made to work the ore by a process which has given excellent results with other ores. Expensive plant is set up, but the results are found to be unsatisfactory. This is a *new* ore. There are substances in it which make the old process inapplicable. The average empirical man is floored. He can do nothing without the advice of a scientific metallurgist. The thing is *new*, and requires a reference to the general principles of chemistry and metallurgy. At the Montreal meeting of the British Association for the Advancement of Science, a very noticeable feature in some of the departments was the prominence of great manufacturers as readers of papers and sharers in the discussions of scientific questions. These men dealt with both practical and theoretical questions in a way which convinced the hearer that they were thoroughly at home in both domains. When one listened to such men, and knew who they were, one could better understand the position which England holds as first in metallurgical and in many chemical industries. In the latter, however, Germany is perhaps in advance. Her technical schools are numerous and efficient, and the names of Siemens and Hofmann attest to her influence in English industrial arts.

Canada, with her vast agricultural, mineral, and other resources, surely needs to make more adequate provision for technical education than is now available. The wealth of a country can only be increased in one way, and that is by increasing the rate of production. This can be done by increasing the number of productive labourers, and especially by increasing their efficiency. Wealth must be raised from soil, rock, and sea; or it must come from the laborious hands of the skilled artificer. It is useless to look to any policy of government for material prosperity, until we have attended to this point, viz., to see to it that the *producers* are as efficient as possible. To this end, we require technical schools. We have one in Toronto, and now we ask for one in Kingston, for the eastern part of the Province, to train our young men for their inheritance. Here is great mineral wealth. Here is room for the planting of manufactures which shall meet the wants of our increasing population. In a word, there is good reason for the prayer of the city and county councils of Eastern Ontario, as embodied in the resolutions which we have laid before our readers in previous issues.

"SHE."

IN a practical age with ever increasing practical tendencies there can, no doubt, be much said in favor of those subjects and objects, every day lessening from neglect, that might and should cultivate the imagination. But we have arrived at such a height or depth of practicality that it is hard to strain the imagination to appreciate the far-flights of 'She.'

It has been said with some justice that there is now a relapse in fiction lovers from the real and life-like pictures