proposed to expend on scholarships be at once applied to increase the efficiency of these underpaid positions.

## A SERIOUS QUESTION.

THERE is a strong element of reason at the bottom of the great popular cry against our public system of education. The people say that the system is unpractical, and it is unfortunately true that in a large measure they are correct. The facts will not be altered by ignoring them and by stigmatizing as Philistines those who call attention clamorously to them. Hard words are not arguments.

Here is the great fact. The whole tendency of our system of education is to turn young men from mechanical, mercantile, or agricultural pursuits, into the learned professions.

We say that we have a university system of purely liberal education. But it is not liberal enough. Liberality leaves no bias, but all our university graduates are biassed against one line of life and in favor of another.

It is argued that a university is not a professional school. It will not take a man and fit him for law, for divinity, or for medicine. But the fact remains that almost all university men subsequently enter these occupations. So that as it is, the university is simply a primary professional school.

It is beside the question to say that a man will be all the better artisan, merchant, or farmer for having had a university education. In one hundred cases to one his university education has made him averse to these callings, and he will never enter them.

The public consciousness recognizes strongly enough the defect, but the remedy it proposes is entirely insufficient. The public cry out for "practical education," meaning thereby technical cultivation. They desire a system that will fit a young man for the occupation he shall follow in life. But this supposes the state knows or can know the future pursuits of its members. A preposterous notion! If the state is going to dictate the particular path of life each is to follow, then it can give him the education advisable in the case. But with all our socialistic tendencies we could never submit to such dictation. We will not sacrifice the individual to the state to this degree. We cannot afford to lose the special abilities and aptitudes of individuals. We want no state Procrustean bed for young Canadians.

The advocates of liberal education have, in the main, the right ideal in view. The trouble of it is that the means which they adopt to realize it, introduce a new element, namely, aversion or disinclination to manual pursuits. The problem is how to keep this objectionable factor out of the result. What scheme of education can be devised which will cultivate and develop the mind without prejudicing it?

The cause of the whole difficulty is that education, self-culture or development, is too often regarded not as being in itself a great and final good, but only as a means to some other supposed higher good, as rank in class lists, or scholarships, or medals, and later in life as a means of acquiring wealth or distinction or position. It is very much to be regretted that this fatal heresy prevails no less widely in university circles than in the larger world outside.

What is wanted in the first place is a higher ideal of the object of education. It is to develop character, to cultivate taste, to improve the judgment. In short, it is to make men all that they are capable of becoming, morally, mentally and physically.

Then as to the means. Young Canadians should be led to understand that a truly liberal education does not inhere specially or solely in the subjects taught in universities. A high state of culture may be reached in an infinite variety of ways, even altogether outside of colleges. Culture is an active, positive desire, rather than a negative or passive condition—a desire for the highest and best things and a constant choosing of them in preference to the lower.

And those who attend colleges should be taught that honor and dignity and success do not belong in any especial degree to the so-

called learned professions. There is nothing mean in the humblest occupation; every man's work is what he himself makes it. A good shoemaker is a greater credit to himself than a mediocre lawyer—and a far more necessary factor in an ideal community. But a bad man can never become an ideally good workman in any department of life. Character makes the work as well as the man, whether it be in trade or agriculture, or the professions or in art.

If such ideas as these were granted due prominence in our high schools and colleges, a strong check would be given to the present unhealthy tendency of these institutions.

## THE DISCOVERY OF THE PLAGUE MICROBE IN THE 17TH CENTURY.

Arising in the far East in China, this virulent epidemic spread westward. In the 14th century, the plague, then known as the Black Death, desolated Europe; 25,000,000 of people are said to have perished in Europe alone. Boccaccio utilized this visitation as the background or setting for his Decameron. Thereafter the plague permanently infested the Levant and periodically swept over Western Europe. This awful scourge naturally received much attention at the hands of contemporary physicians.

Among the MSS. preserved in the Library of the Medical Society of London was found the diary of the Rev. John Ward, A. M., vicar of Stratford-upon-Avon. The period included in the diary, (1648 to 1679) embraced the time of the great plague in London described by Sydenham, Pepys and Defoe. In the published extracts from the diary of Ward, who appears to have practised as a physician, there are several references to the plague. One of these has a peculiar interest, as it probably announces the discovery, by the aid of the microscope, of the Plague Microbe.

He notes :-

"Kircher was in Rome in the time of the great plague that was there, and letting severall blood, after the blood had settled a little, by the help of a microscope, he perceived divers little small animals in itt, intimating that putrefaction cannot long bee without the generation of a new matter."

The Kircher mentioned in the extract seems to have been the learned Jesuit, Athanasius Kircher (1602-1680) whose extensive knowledge in a variety of subjects rendered him justly famous.

Other observations are recorded, which, if they had been followed up, might have led to an earlier recognition of the "Germ Theory of Diseases." Thus Ward says in another place:—

"Wounds of the bodie are more difficultly cured when the air is corrupt, as appeared at Wallingford, in the time of the late warre (i. e. between the Parliament and Charles I.), where, because the air was infected, allmost all wounds were mortall."

W. H. HUNTER.

## Literature.

## VERSES.

When the sun with lingering kisses
Bids the tired world good-night,
When, within her fleecy cradle,
Rides the infant moon in sight,

Nature weeps with fond regretting, Dew drops on her bosom rest, Tributes of a love that steadfast Follows to the blushing West.

But these tears of love, when Phœbus Comes with smiles and glances bright, Rise in clouds of perfumed incense, Offered to the God of Light.

FREDERIC B. HODGINS.