

we believe, considerably larger this year than in previous years; we hope in the course of a few years to see these students come up for their degrees. The candidates for the now defunct junior and matriculation examinations were more numerous in 1886 than on any previous occasion. The number who have passed the first and second years of their degrees is greater than we have noticed in the announcements of the results of the examinations in other years. The exact figures will, we presume, be found in the report, which the Chancellor said would be presented to the Governor during next month. The list of undergraduates, we know, exceeds 100, and there are nearly as many non-graduating students. Such numbers and such results present a picture of work and enterprise and laudable ambition of which no South Australian need be otherwise than proud. The University has done well, and what it has done in the past is an earnest of greater and better things in time to come.

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THE address delivered by Professor Tate at the recent University commemoration deserves and ought to obtain the earnest consideration of every thoughtful colonist. Its lucid and simple style makes it as pleasant to read as it was to listen to. Its practical character and its suggestive hints ought to cause it to be pondered by all. It is a deliverance addressed not merely to graduates and students but to all South Australians, whether they be farmers, or engineers, or gold-miners at Teetulpa. The first part of the address took up the question of technical education as a portion of the system of University training. No one will undervalue the advantages to be derived from such a discipline as is implied in the current phrase "technical education," but it is another question how this form of education can be introduced into a University. Every form of constructive enterprise requires a certain amount of manual dexterity to enable any one who undertakes it to succeed. This dexterity varies, however, so much in different trades and professions that the education which would fit a man for one calling would be useless for another. The carpenter who works in wood and can use the saw and the plane would not find himself qualified to work in iron as a blacksmith or to mix colors as a decorator. Acquired skill in mechanical drawing would not assist a man to become an adept at soap-boiling or wine-making. To be handy with common tools is doubtless an advantage to every one, whether he be a lawyer, or a farmer, or a miner, but the learning of this handiness is not exclusively what is meant by technical education. Technical education has so many departments, and is so utterly useless unless it rests on a basis of sound knowledge, that it is impossible for such a body as the

Council of the University to undertake it except in special cases. The function of the University is primarily to educate the mind, and to provide that intellectual acquirement and discipline without which no amount of skill in mere technology would be of any great use.

Professor Tate made this very plain by his pertinent illustrations. Chemistry is not brewing, but the man who is ambitious to brew good ale will succeed better and will make fewer uncomfortable experiments upon a long-suffering bibulous public if he know the scientific principles of his art than if he merely learned by practice certain useful recipes and methods. Geology is not mining, but if the miner knew even a little geology thoroughly he would not be found wasting his own and other people's money by digging for coal among the sands of the Coorong, and hunting for gold where no gold can ever be found. Practical miners are even yet waiting for the scientific chemist to help them in their work. They have known for years that far more gold is probably wasted than is gained because their modes of extracting gold are too clumsy and mechanical. The chemist who could devise some method by which gold can be got out of washdirt as completely as silver is got out of ore, would be more useful to the mining community and to the colony than the inventor of a new cradle or an improved battery of stampers. A ready example is afforded by some scientific chemists in Victoria, who have recently patented a process for extracting the gold by chlorine, which they assert will leave only a very small residuum of gold in the quartz or the gravel which is subjected to their method. It is to be hoped that their dream will become a practical reality, and that they may have the satisfaction of revolutionising the great industry of gold mining and making it more remunerative. All the trades which require technical skill in handicraft, without a single exception, rest on principles of science and demand for success a knowledge of those principles. It is the duty of the University to provide the requisite scientific knowledge by the brain work

carried on in its lecture-rooms and laboratories, where the very best men should be employed to impart that knowledge, and not to attempt to turn out shallow handicraftsmen who can use tools but not their brains.

There are, however, certain technical professions which, by their peculiar national importance, may claim the earnest attention of the University. The Professor himself admitted that there were two such instances clamorous for recognition by the highest educating body in the State, and which the University ought to foster. The one is mining and the other is agriculture. The individual digger or farmer who is utterly ignorant of either geology or chemistry may succeed in unearthing a nugget or raising a good crop; but if either mining or agriculture is to succeed as a national industry it must be the result of an increased scientific knowledge of the principles on which it rests. The University ought not to be blind to its duty to the nation when such occasions arise. To whom but the University should the community look when it is anxious for some scientific help in carrying on the great work which has come into its hands. Venerated academic prejudice may shrink from touching such mundane matters as raising crops or tunnelling mines, but when we remember that the