

allowed to weaken through oversight presages the collapse of the whole structure. The connection between our society and the college deserves a first place and the highest honor in our estimation when considering the elements that have contributed to the success of our Union. It has appeared to me that in the past this desired unity of all for the good of the one, though at all times apparent, yet has never been accredited with the importance that is due it and the fruits of this are to be seen in the number of the college alumni that annually gather here. Our weakness, and it is well that we should know it, is that we cannot bring out the number of ex-students, associates, and graduates, that should attend; this statement is grounded on the fact that there are hundreds of such throughout Ontario. Why is this? It may be a matter of dollars and cents with those far away but it cannot be so with those near at hand. It seems to me that not considering their presence according to its true value there never has been a very strong bid made for their attendance. As a means of in part remedying this condition of affairs we should in our programme give greater prominence to the discussion of collegiate matters, and through this means keep up the interest in the college in the minds of all the alumni. For some time past I dotingly mused on the pleasure I would have in broaching to you the subject of a college paper, but I am happier now in spending words, that otherwise would have been used in advocating this measure, to give cheering encouragement and express warm gratitude to the active and able movers in this important matter. As the REVIEW greatly strengthens the bond of union between friends outside the college walls with those within its Campus, so must it serve to make this Union of ours stronger in every way. The scheme that I would have advanced would be to make it not only an organ of the O. A. C. Literary Society, but of the Experimental Union as well, and it is still an opinion of mine that such a step might well be taken yet. As we are all aware there has always been a great delay in issuing our reports, and this has been the fault of the printer and not of the compiler. Being an organ of the society the results of the experiments and doings of this meeting would be made known through its pages long before it would reach the anxious experimenters through the usual tedious course. It would devolve upon the Union to bear some of the expenses of publication of the REVIEW, but that would not be considerable. This suggestion I commit to your charge. I have thought that in our brief sojourn here we do not extend our acquaintances among the students as we should. We are not here to merely criticise each other coldly from a distance and drop comments as to the evolution of the O. A. C. graduate, but we are here to know of each other and to co-operate with each other in helping along our good cause. Means should be considered such, perhaps, as the adding of a committee on reception to our list to make our meetings more genial in that respect, and further also provide, as far as possible, for the accommodation of visiting alumni in the college. It dampens their ardor and tempers their zeal to seek the modest Inns of Guelph, and I am sure that I voice the opinion of every graduate here when I say that they would willingly pay double the hotel charges to be allowed to make their home in the college while here. Repose this duty in the charge of the students and thus find them up with the interests of the Union as much as possible.

The most practical phase of our work is that of experimentation, and in respect to this it seems to me better to urge a thorough development of the various lines of experiment we now have in hand rather than weaken our forces by branching off into any-

thing new. It has been said by Coleridge that experience is like the stern lights of a ship which illumines only the track it passes over, and we may extend this simile by saying that experiment is the brilliant head-light that illumines the path before. Agriculture has long suffered for the want of experimenters to solve the many perplexing questions of practical import that are continually cropping up, but that day is past and now we find farmers and scientists, though long estranged, brought into close contact with benefit to both through the medium of experimental stations and associations such as ours. That the results of experiments carefully conducted and bearing on the practice of the farm are appreciated, is reflected in the energetic efforts that are being made in the establishment of stations in all countries. In our own Ontario and the older Provinces of our Dominion the bottom has been completely knocked out of grain farming, and moreover it is a bottom that will require the best knowledge and finest skill to restore. Be it our work to do this through the medium of our experiments.

The data we are constantly collecting through our fertilizer and grain experiments that deserves emphasis by repetition, is that each experimenter determines the best fertilizer and grain for his own soil and conditions, this no experimental station can do for him. It was a timely suggestion that was made by my predecessor in regard to experiments in respect to our live stock industry, and I am pleased to know that this suggestion has been acted upon. This is a field for our Union worthy of it for there is now in Ontario a strong reaction going on in favor of this interest, and it means that in a few short years Ontario will be the stockman's paradise of this continent, and as the interest grows the value and appreciation of our experiments will become greater.

In conclusion, let me say, our footpath through the labyrinth is already blazed for us, and all that we need is hearty co-operation, generous enthusiasm, and universal encouragement, and under such conditions the objects that gave birth to this society must gradually evolve into accomplished realities. Many of us rest too long after we hoe our row, but this should not be for this Union to make permanent progress in the work before it must ever have your interest, your best efforts, and the benefit of your counsel.

Having these views optimistic though I may be, I cannot with any degree of surety mark the limit of usefulness of this Union not only in keeping us shoulder to shoulder in the ranks of college defenders, but in elevating to a higher position in the industrial, intellectual, and social world, that industry with which we are all proud of being inseparably connected.

### The Scientific Principles Underlying the Making and Feeding of Corn Ensilage.

By C. C. James, M.A., Professor of Chemistry, O. A. College.

The making of corn ensilage began in America about fifteen years ago, its development belongs to the last ten. To-day the growing of corn, the production of ensilage, and the feeding of it to stock are among the most extensive and most numerous of the experiments carried out at the Experimental stations of Massachusetts, Maryland, Connecticut, New Jersey, New York, Ohio, Kansas, Missouri, Minnesota, Wisconsin, and Ontario, and it is upon the results of these that the present address is based. From the multitude of opinions and results I have carefully endeavored