

Agricultural & Mechanical College.
W. A. Darenauagh.

June 10, 1896.

Outline

1. Introduction.
2. Agricultural Colleges.
 - (a) Their growth and object.
3. Agriculture
 - (a) As an honorable occupation
 - (b) The improved methods.
4. Agricultural Depression
 - (a) Cause and possible cure.
5. Agricultural Experimental Station.
 - (a) What they are doing etc.
6. The Mechanic arts.
 - (a) What they have contributed to man's advancement.
7. Preparation for a calling
 - (a) Its needs
 - (b) Its advantages.
8. Practical Education.
 - (a) Improvement in methods and system.
9. Conclusion.

Agricultural & Mechanical Colleges.

Since the foundation of the colonies on this continent, one of the first policies was to furnish to all of its people a means of securing a good common school education. As early as 1649, before the foundation of the United States, we find that the New England states, Massachusetts in particular, made provisions for educating its people. Every township was required to maintain a school for teaching reading and writing, and to qualify the youth for higher and more thorough training. The people of our country have had exceptional educational opportunities of which they have duly taken advantage, and as a result they have today a school system that cannot be excelled by any other nation. The American educators have enlarged the utility of education and extended its range until now it has the most thorough system

of education ever enjoyed by any country, and it cannot be more efficiently applied to the necessary avocations of life than it is today. Is it any wonder that we are proud of such a nation?

The national congress has set aside vast quantities of our public domain for school purposes. Senator Justin S. Morrill, while chairman of the committee on agriculture of the house of representatives, introduced a bill, in 1857, appropriating to the states a portion of the public domain for the purpose of encouraging institutions for the advancement of agriculture and the mechanic arts, which became a law July 2, 1862. The act provided that each state should receive a quantity of land equal to 30,000 acres for each of its senators and representatives in congress, according to the census of 1860, for the purpose of establishing a college where "all the needful sciences for practical avocations of

life should be taught and agriculture, the foundation of all present and future prosperity, may look for troops of earnest friends studying its familiar and recondite economies."

The objects of an agricultural and mechanical college are numerous and liberal. They are free from sectarian influences and christian doctrines. It has the dual function of developing the mind and training the hand. It goes in search of knowledge and applies it to the most common needs, and imparts instruction according to its most essential value to mankind. Its course amply provides for a scholarly, and useful education. Its students are assigned to manual labor both in the mechanical shops in learning a trade, and upon the farm; this is not as a burden-bearer, but as eager searcher for utilitarian results.

In fourteen states schools devoted to this special work are maintained for

Both white and colored students. The total number of institutions offering courses in agriculture is 65. In these institutions the college course leading to a degree in agriculture extends over a period of three or four years, while there are, in some, shorter courses in dairying and similar work, which covers only a few months. Besides these there are courses of lectures on farming given in various localities by members of the faculty of these colleges. As a rule these courses are particularly popular. Some idea of the extent of this work may be gained from the following figures taken from the United States Agricultural Report. The total number of professors in the faculties of these several colleges numbered in the past year 1,282; the total number of students 34,000; the total revenue of these institutions for the year was 4,024,132 dollars; and the value of additions to their equipments is placed at 1,481,600 dollars.

There is no other occupation equal to that of agriculture. It was among the first industries of primitive man. Their crude and clumsy implements made the calling a somewhat objectionable, as well as unproductive one. How the tillers of antiquity sowed and reaped and what they cultivated is to a great extent speculation. Agriculture was in ancient times and remains so today, one of the most honorable callings among men. The Egyptians were probably the greatest agriculturists of antiquity, and during the famines all Europe looked to them for food from whence it received the name "Egypt the Grain Emporium." The Egyptians raised vast quantities of corn and were the first to practice the rotation of crops. The standard of all farm products of today are but the results of careful selection and skilful improvements upon the primitive methods. "The cereals

that give food to man are from the wild abundance of material chosen and by careful cultivation propagated unto perfection."

During the Dark Ages agriculture was neglected and languished with the morals of Europe, and the first impetus of its revival was brought in with the invasion of the Saracens. The writings of Fitzherbert were probably among the chief causes for the bringing about of the new era in agriculture. Later, in South Carolina, societies for the "Promotion of Agriculture" were organized, some of which are flourishing at the present time.

That the art of agriculture, the very basis of human existence, was the most neglected branch of industry seems strange, but it is nevertheless true, with the exception of late years during which time it has increased its productive capacity; minimized its labor; and

lessened its expenditures more than any other one industry. We have in the United States over ten millions of people engaged in agriculture with an invested capital of over eight billion dollars, and are now producing one-third of the entire cereals of the world.

In writing of this unparalleled result a British economist said; "To deal with the facts of American progress makes one dizzy."

The primary cause of the agricultural depression for the past few years cannot be agreed upon, but it is said, that it is not owing so much to the prevailing low prices as it is to the absence of any substantial hope for better results in the near future. I think, however, among the chief causes is the one that our production exceeds our consumption. Our food supply is constantly increasing over our population, and our foreign markets for cereals are being diminished by the increased

production of other countries. Agriculture, like any other industry, has its periods of prosperity and disaster. It is, however, the most reliable for so long as there are human needs there will be an opening for agriculture in supplying food and raiment.

The passage by Congress of the "Hatch Bill" in March, 1887, provided for the organization, in each state, of a station for experiments in lines promotive of agriculture, and conducting investigations and printing the results at least once in three months, one copy being sent to each newspaper in the state, and a copy to any individual engaged in farming who may take the trouble to ask for it. With this end in view Congress appropriated 15,000 dollars annually, payable quarterly. Such communications, embodying the results of personal experience in branches of farming with the lessons taught by new experiments will prove instructive and valuable.

There has been no other one industry that has contributed more to man's advancement and comfort than the mechanical arts. The prehistoric races had their crude implements of stone, bronze, and later iron, which we have discovered and hold as valuable relics. The discovery of metal was of vast importance to primeval man in his hard struggle for existence. Unnumbered ages have swept between the crude and unscientific methods of antiquity, and the polished and scientific methods of today. Between the two extremes sprung up the operative influences which brought civilization from barbarism, and of these elevating influences that of mechanical arts has been the mightiest.

It is one of the important functions of the Agricultural and Mechanical colleges to give practical instruction in the mechanical arts, and as Americans we should take especial interest in such a course, for we are now

recognized as the leading mechanics and inventors in the world."

Every man in early life should have in view some trade or profession and prepare himself for that particular purpose. What possible chance is there nowadays for a man without an avocation? He must lead a life of considerable uncertainty. If he is not fitted for any occupation his locality is apt to be uncertain and shiftless, hence depending upon chances for a living.

Were not the ancients more particular to educate their sons for some one occupation than we are today? We read in history that every Egyptian had to have some regular means of support, and a certificate of his trade deposited in the public archives. So with many other countries. The younger generation was required to prepare themselves for a definite pursuit in life. How much better it would be

if this were true today?

It has been recognized in the last few years that utility is the "golden ore" of knowledge, and to this end we have made vast improvements in the methods and system of education. The defects of past educational theories have been thoroughly investigated, thus opening a large field to us for study and improvement. "Life's every-day work must be studied to broaden the mind and strengthen the judgment," as it has been said. "We study nature in the house and when we go out doors we cannot find it." The mere smattering of the numerous arts and sciences we receive in a college life which we call an education, cannot establish or conduct a profitable business, simply because they are not properly equipped for the essentials of every-day life in the outside world. No doubt, the glow of a classic education is delightful, but in my estimation it should be subordinate to life's graver prerequisites.

To those who have the time and means it is well worth their efforts to obtain a good thorough classical education, but to those dependent upon their own time and resources the rudiments of an education are far more important. "We must incline our mode of instruction to the needs of the individual, therefore let us strive to develop the student's most striking tendencies toward mental, moral, or physical superiority in whatever honorable direction the grace of nature has seen fit to incline them."

So in conclusion I would say, the chief aim of every Agricultural and Mechanical College is to give the students a good practical education, one which will enable him to become a prosperous business man or woman in whatever occupation he may wish to follow. It, also, gives him sufficient foundation in theoretical work to pursue a more scientific

course with ease and better results than he would otherwise receive.

People, as a rule not knowing just the aims of an institution of this character, have a very misleading opinion in regard to its teachings. Many are narrow minded enough to think that nothing but studies pertaining to agriculture, with practical work upon the farm, is all that is taught, and that a graduate of an agricultural college knows little outside of that line, whereas agriculture is taught in connection with other sciences, especial attention being paid to those most intimately related to agriculture.

W. A. Parsonaugh

For many of the above facts I
am indebted to the following works.

Scientific American, Vol. 17.

Agriculture Society, several volumes.

Missouri agricultural Report 1875.

American Agriculturist Vol. 3.

Kansas Farmer.

Industrialist Vols 14, 9, others.

Risley's speech before the Okla-
homa Agricultural college.

W. A. Cavanaugh.