

The M. A. C. Record.

Mrs Landon

The Senior Banquet.

Ever since the Seniors announced that they were to do away with the time honored custom of holding a class day during Commencement week, substituting in its stead a Senior Banquet, the College population has been eager to know the success of this new feature. Before the anticipated event took place on Tuesday night all who ventured an opinion seemed to like the idea, and now that it has become a part of the history of the Class of '98, those who were privileged to enjoy the evening with the Seniors speak in the warmest praise of the entertainment. From first to last the arrangements had been carefully planned, and were executed so smoothly that nothing save the absence of Bristol's orchestra, which had been engaged for the evening, marred the pleasure of the event. At eight o'clock the gay company of Seniors began to arrive,—not as we have been accustomed to see them for the past few days with an anxious expression of doubt and fear all too plainly shown on their countenances, but all these former cares seemed to have been laid aside, for the time, at least, and the Seniors with one accord seemed bent on having a good time. During the early part of the evening the Seniors divided their attention about equally between the best girl, who has been anticipating for weeks spending commencement at M. A. C., and the Faculty and other invited guests.

In addition to the decorations which were arranged for the Baccalaureate, a row of screens tastefully arranged divided the Armory into a banquetting hall and reception room. It was pleasing to observe here and there groups of Faculty, Seniors and other guests reading some of the funny things which had been said seriously at one time and another during the last four years by members of the Faculty and Senior class as well.

At eleven o'clock the banquet was announced. All that is necessary to say in regard to the banquet proper is that it was in charge of Miss Amy Vaughan, who was ably assisted by several of our College girls.

Dewey A. Seeley presided over the banquet as toastmaster with the same pleasing modesty and ability which has been so characteristic of all his College work.

Did space permit such mention we would gladly notice some of the witty things said by those who appeared on the banquet program below.

The Faculty - - - GEO. F. RICHMOND
"We will miss our old-time Faculty."

The Class of '98—Past, CHAS. E. TOWNSEND
"Of all sad words of tongue or pen,
The saddest are these, 'it might have been.'"

The Class of '98—Present - - D. J. HALE
"O wad some power the giftie gie us
To see ourselves as ithers see us."

Music - - - - - ORCHESTRA
The Class of '98—Future, CHAS. A. GOWER
"So wise, so young, they say do ne'er live long."

> 1/2's 2 B - - - - F. W. ROBISON
"The fairest flower God ever made."

Music "Defiance" - - - QUARTETTE
< 1/2's 2 B - - - - - BERTHA BAKER
"Three-fifths of him genius, and
Two-fifths sheer fudge."

M. A. C. - - - - A. M. PATRIARCHE
"But through all changes that have passed and
all that yet may come,
Our hearts still fondly turn at last to our old
College home."

Most students speculate on the probability of being called on at certain times. Many can testify how embarrassing it is to be called out when not prepared. Prof. Mumford says he can have more sympathy for such students in the future, after knowing how difficult it is to respond to a toast under similar circumstances.

The Senior banquet was a success, and future classes can well consider making it a permanent feature of Commencement week. From the time we were met at the door of the Armory by the reception committee, until we said "Good night," we were pleasantly entertained.

H. W. M.

Review of Battalion.

Wednesday afternoon at 1:30 o'clock the battalion of cadets was formed for review inspection and the appointments and promotions were read. Following is a list of the same:

Assistant Commandant, Capt. Charles Johnson; Adjutant, Lieut. A. B. Krentel; Quartermaster, Lieut. W. K. Brainerd; Ordnance Officer, Lieut. P. F. Fischer; in charge of band, Lieut. G. N. Gould; in charge of signal squad, Lieut. C. Wolf; chief musician, Lieut. E. D. Gagnier.

Company A.—Captain, E. R. Russell; Lieutenants, A. C. Krentel, F. R. Crane; First Sergeant, J. L. Baumler; Sergeants, H. B. Gunnison, A. T. Swift, W. T. Parks, H. P. Baker; Corporals, P. T. Johnson, R. L. Bigelow, V. M. Shoemsmith, G. D. White.

Company B.—Captain, W. D. Hurd; Lieutenants, C. B. Lundy, R. M. Agnew; First Sergeant, P. Thayer; Sergeants, C. F. Austin, H. B. Clark, William Ball, J. J. Parker; Corporals, F. L. Radford, H. T. Thomas, J. C. Green, O. F. Mead.

Company C.—Captain, J. Severance; Lieutenants, S. F. Edwards, F. N. Lowry; First Sergeant, B. H. Holdsworth; Sergeants, F. E. West, C. W. True, A. J. Cook, L. J. Cole; Corporals, M. L. Ireland, T. G. Agnew, R. M. Lickly, C. A. McCue.

Company D.—Captain, W. H. Flynn; Lieutenants, J. C. Nichols, G. B. Wells; First Sergeant, E. W. Ranney; Sergeants, C. H. Hilton, C. W. Bale, F. W. Dodge, T. J. Leavitt; Corporals, J. H. Skinner, L. J. Hart, W. J. Bailey, C. A. Warren.

The President's Reception.

The President's reception was held in the Armory Thursday evening. The guests were received at the east door by President Snyder, Miss McDermott, Dr. Kedzie, Mrs. Kedzie, Hon. C. W. Garfield and Mrs. Garfield. Refreshments were served at small tables in the west end of the Armory by one division of the Ladies' Society of the First Presbyterian church, and music was furnished by the College orchestra,

Commencement Day Exercises.

By ten o'clock Friday forenoon a large crowd had assembled in the armory to listen to the forty-second commencement day exercises of the Michigan Agricultural College. After the Board of Agriculture, faculty, graduating class, Prof. Hutton, Rev. Seasholes and Hon. Jason E. Hammond had taken places on the platform, the following excellent program was presented:

Invocation, Rev. C. L. Seasholes; piano solo, Mrs. Maud A. Marshall; address, "The Influence of Bessemer," Frank V. Warren, representing the mechanical course; address, "Development of Markets," D. J. Hale, representing the agricultural course; address, "The Realm of Woman," Miss Pearl Kedzie, representing the women's course; music, piano quartette, Misses Bach, Bohn, Phelps and Fay Wheeler; address, "The Economic Significance of Technical Education," Prof. F. R. Hutton, M. E., Ph. D., of Columbia College, New York; music, vocal quartette, Messrs. Calkins, Hale, Patriarche and Robison.

Dr. Edwards, in a few well chosen words, presented to F. W. Robison, '98, of the Union Literary Society, a handsome set of "Larned's History of Ready Reference" as an award for being best orator in the College Oratorical Contest, held June 10.

President Snyder then gave a short address to the graduating class, and on behalf of the faculty and Board of Agriculture conferred the degree of Bachelor of Science upon each whose name here appears: Bertha Baker, Mary Baker, E. A. Calkins, George Campbell, Jennette Carpenter, T. A. Chittenden, C. A. Gower, H. A. Hagadorn, D. J. Hale, T. L. Hankinson, Pearl Kedzie, W. J. Merkel, H. L. Mills, R. E. Morrow, A. M. Patriarche, Geo. Richmond, F. W. Robison, D. A. Seeley, H. C. Skeels, O. W. Slayton, Clara M. Steele, Charles Townsend, F. V. Warren, Catherine Watkins, F. T. Williams, F. L. Woodworth.

The degree Master of Science was conferred upon Victor H. Lowe, '91, and Amy B. Vaughn, '97; and the degree Doctor of Science upon Doctor R. C. Kedzie.

The exercises were excellent throughout, and the addresses were of so much value and so much general interest that we publish them in full.

Vacation on Faculty Row.

Now that the College year is over, the faculty are preparing for their summer outing, and soon faculty row, as well as the dormitories, will have a deserted appearance.

Traverse seems to be a favorite resort. Prof. and Mrs. Holdsworth leave for Traverse Bay the early part of the week, to spend the summer in their new cottage. Prof. and Mrs. Wheeler and Mrs. Landon will visit them during the summer.

The Woodworths left on Monday to spend a few weeks in Caseville,

Prof. Edwards and family will go to Virginia.

Prof. Hedrick and Mr. Crosby will attend the summer school in Ann Arbor.

Prof. Noble will attend the University of Chicago, and Mrs. Noble spends the summer at her old home in Iowa.

Mrs. Bacon goes to Traverse and Mrs. Haner to Bay View.

Among those who remain at the College are Profs. Vedder, Barrows, Taft, Westcott, Dr. Kedzie, Dr. Beal and Secretary Butterfield.

Miss McDermott returns to her home in Pennsylvania.

After spending a few days in Detroit, Miss Husted will leave for her home in Forestville, N. Y.

K. S. C.

A Mid-Summer Record.

It is probable that we shall send out a mid-summer issue of the RECORD. If so we shall send it to all students and hope to make it especially interesting to those who are away for the summer vacation. To that end we should be glad to hear from each student who was here last year and to know how he or she is spending the summer. At any rate let us hear from you about July 15. Address—the M. A. C. RECORD, Agricultural College, Mich.

The Influence of Bessemer.

COMMENCEMENT ADDRESS BY FRANK V. WARREN.

The inventor is the greatest benefactor of the race. The greatest inventions are those which change most the economic, political and social aspect of the world. Foremost among the men who have exerted such a wonderful power in changing society is Sir Henry Bessemer, the perfecter of the process for making steel which bears his name. He, perhaps, more than any other man has aided his nation and his race in its onward progress in wealth, comfort, safety and general prosperity; furnishing the material foundation upon which all moral and intellectual advances must ultimately rest.

Bessemer was an inventor from his youth, and the number and diversity of his schemes show his work not to be mere accident, but the result of a wonderfully powerful inventive mind and a nature of untiring energy. The failure to obtain the merited reward and fame from his earlier undertakings, only increased his zeal. At the completion of each task he took up something new with a determination to master it, and bore with patient fortitude the prolonged interval which separated him from success. Having perfected a stamp which saved the British Government \$500,000 annually, and for which he received not a farthing, Bessemer says of himself, "Sad and dispirited and with a burning sense of injustice overpowering all other feelings, I went my way from the stamp office, too proud to ask as a favor that which was indubitably my right, feeling that only increased exertions could make up for the loss of time and expenditure." But

these early reverses only turned his inventive genius in new directions. While his inventions of type, bronze powder, high speed railway train, centrifugal pump, sugar separator, and plate glass polishing machine, would ordinarily make a man famous, they only served to prepare and educate Bessemer for his great master-work, the making of steel. By seven years of constant study and practical research, he developed his process from a mere abstract theory to such a degree of completeness that, notwithstanding the keen competition of rival manufacturers and the ceaseless activity and inventive talents of mechanical engineers the world over, his original process today is followed almost in every detail, as he dictated over forty years ago, and although another method is coming into public favor, there is made annually in the U. S. alone 5,000,000 tons of Bessemer steel.

The idea was suggested to him by an army officer, who remarked that stronger metal was necessary for guns. At that time Bessemer knew nothing of the iron or steel trade and very little of metallurgy, but his mind was unwedded to things as they existed, and in this spirit he began his investigations. One idea after another was put to the test of experiment, one furnace after another was pulled down, and numerous mechanical appliances were designed and tried in practice with only partial success until the labor and anxiety brought on a severe illness. While lying in bed he conceived the idea of a converter and on regaining his health constructed one three feet in diameter and five feet high. The primitive apparatus being ready, the engine was made to force streams of air through the bottom of the vessel, the stoker poured in the molten metal and instantly out came a dazzling volcanic eruption. The air cock to regulate the blast was beside the converter and no one dared go near it, but during their bewilderment the combustion ceased. The new metal was tried and its quality found good. The problem was solved; the age of iron was gone; the age of steel had come, and Henry Bessemer was king.

Certain it is that no event in the history of our time has more of the marvelous connected with it; none illustrates more strikingly the singular and impressive aspects of physical science; none is more far-reaching in its effects and none reveals a greater man, than this invention of Bessemer's. It takes rank with the great events which have changed the face of society since the time of the middle ages. The invention of printing, the construction of the magnetic compass, the discovery of America and the introduction of the steam engine, are the only events which belong to the same category. It may be high praise to class this invention with these great achievements, but a candid survey of the situation leads us to the conclusion that no one of them has been more potent in preparing the way for the higher civilization which awaits the coming century. Its influence can now be traced and its future results are beyond the reach of the imagination.

It has contributed materially to lessen the severity of the sentence passed upon Adam, that he should eat his bread in the sweat of his brow. Men's muscles have been largely freed from wasting drudgery and are used only in healthy exer-

cise. The sweat of the brain within the brow is now in a greater number of cases the true reading of man's destiny.

The fact that steel is now produced at a cost no greater than that of common iron has led to an enormous extension in its use and to a great reduction in the cost of the machinery which carries on the operations of society. The cost of constructing railways has been so greatly lessened as to permit of their extension into sparsely inhabited regions and the consequent occupation of distant territory otherwise beyond the reach of settlement. The cost of transportation has been reduced to so low a point as to bring into the markets of the world, crude products which formerly would not bear removal and were thus excluded from the exchange of commerce. It is now possible to carry grain from the interior states to the seaboard so cheaply that it can be delivered in distant lands at a reasonable price. Fast ships are hurrying from San Francisco to India to feed the famine stricken ones of that land, and the Atlantic has been turned into a ferry, dotted with grain laden vessels crossing to supply the demand of European countries. Its effects can be traced still further. The competition of our western wheat regions made practically impossible the raising of wheat in the British Isles, and farmers who depended upon it could no longer pay the rent stipulated in their leases. As the aristocracy of Great Britain is a survival of previous conditions, depending for its existence upon the revenue derived from the ownership of land, a serious blow was struck at the privileged class of Great Britain, and while Bessemer may be inclined to disavow the claim, history will record the fact that he has been instrumental in reconstructing the British constitution upon the basis of universal suffrage.

On the sea the improvement has been as great as upon the land. The vast extensions and new directions of commerce which have resulted from the construction of steel vessels, has converted the commercial world into a vast clearing house for the exchange of products. The balances are passed to the credit of each country in the general settlement, the functions of the precious metals are reduced, and economy in exchange effected, due largely to improvement in transportation made possible by Henry Bessemer.

In accordance with the law of commerce, that nations cannot sell without buying, the imports of the United States have been largely increased, and under the fiscal system made necessary by the war for the Union, a revenue has been derived enabling us to reduce materially our National debt.

The great practical result of all this has been to reduce the value of the food products of the civilized world; and, inasmuch as cheap food is the basis of all industrial development and the necessary condition for the amelioration of humanity, the present generation has witnessed a general rise in the wages of labor accompanied by a fall in the price of the food which it consumes. In the essential elements of comfort, the working classes of our day are enabled to earn and expend double the amount which was at their command in any previous condition of the world, and this is due largely, if not altogether, to the economy in

the agencies of production made by the cheap steel of the Bessemer process and the other inventions which have followed in its wake. These material results have been accompanied by the slow but sure elevation of the great masses of society to a higher plane of intelligence and aspiration, made evident by the association of working men together for the advancement of their moral and social condition. Good must come out of this tendency, and one of the chief glories of Bessemer is that he has contributed more than any other man to the condition of industry which compels all to combine on a scale unknown before in the work of economic production and distribution. The interdependence of the human race has thus been increased; the probability of hostile action by war diminished, and the name of Bessemer added to the honorable roll of those who have succeeded in spreading the gospel of "Peace on earth and good will toward men." Is it any wonder that wealth, and glory and honor came to him from every land? England mourns for Gladstone, America reverences the name of Washington; Russia, Peter the Great; Germany loves Bismark; but the whole world owes a debt of gratitude to Henry Bessemer.

Development of Markets.

COMMENCEMENT ADDRESS BY
D. J. HALE.

America has astonished the world by her immense industrial development during the last half-century. A goodly share of the credit for this success is due the farmer. To have peopled the broad plains of the west, to have conquered a vast wilderness, and to have caused stubborn nature to yield the great staple food products in quantity sufficient to feed the people of this nation and several nations besides, is a very common-place but a very substantial achievement of the American farmer. But nevertheless the farmer throughout the country begins to feel that this is for him but a defeat in victory. For though he expends costly energy of brain and brawn in raising immense crops, yet when he markets those crops he receives in return scarcely a livelihood. He knows that for some reason the markets are to blame, for those same products of his are valuable, not only in foreign countries but in many parts of the United States.

One great reason for the farmers' low prices and lack of prosperity is that the development of markets has not kept pace with increased production. Our farming industry, leaving the rock-bound and sterile East, for the fertile plains of the West, has become giant-like, while the East has become instead a thickly populated manufacturing district, whose hungry workmen demand the transportation of the Western food. For each one of our seventy million people $5\frac{1}{2}$ acres of land are tilled, while each person can consume, at most, the product of but $2\frac{1}{2}$ acres. Then over half of our country's produce must, as surplus, be transported to Europe and marketed where food is scarce and high-priced.

An extensive and efficient market is then one of the farmer's greatest necessities. Its function is to first thoroughly distribute the farmer's great crops in the United States. It must ascertain and supply the vary-

ing demands of different sections, placing most where most is needed. Next, it should carefully study and supply the important foreign demand, strengthening old markets, opening new, to receive our great surplus.

In both these functions our middlemen, the boards of trade, commission merchants, and other organizations which manage our markets, fail. This can be partly accounted for in three ways.

First, they fail to accommodate production and consumption to each other because both vary from natural and uncertain causes. Production depends upon the number of acres of a crop planted and upon the presence or absence of drought, flood, and frost. But the acreage of crops has not yet been controlled, and to foretell the weather for more than 24 hours is beyond the power even of the weather bureau. On the other hand, consumption, not the desire but the power of the worker to buy, fluctuates with every great commercial crisis or unfavorable political measurer that closes the office, shop and factory. The plan and calculation of our farmer's marketman is never in the least based upon the probabilities concerning these changes.

But the second great cause is the salesman's ignorance or carelessness. He never stops to think that the capricious market price, like uncertain weather, is controlled by great laws or that a given set of conditions will always give a like variation in price. Making no effort to systematize distribution or steady the market, each group of merchants desires only to buy cheap and sell dear. Without general system or foresight, produce is heaped into the large towns till the consumer is surfeited while small towns are thoroughly neglected. Often the actual cost of fruit, dairy products, or even staple foods, differ by one-third in a large town and a hamlet a few miles away.

This lack of care is further illustrated by the criticism of the United States Secretary of Agriculture, who says that the disposal of our surplus in foreign markets is mismanaged. When there is a large home crop the poorest of it is dumped as surplus into our foreign markets while with a normal crop these markets are entirely neglected. Canada, using more care, demands higher prices than does the United States in foreign markets. But the third and greatest cause of the mismanagement of our markets is the monopoly or dishonesty of the two great controllers of the farmer's market,—the means of distribution or the railroad, and the agents of distribution or the middleman as we see him in the board of trade and the commission merchant.

The railroad and elevator companies of the West are the only means by which the farmer's great crop, otherwise worthless, can be transported and distributed throughout the country. But the railroads are natural monopolies. They seldom compete for the farmer's produce but uniting with each other and the elevator companies, raise the rates so high that the farmer, who must ship, is robbed of nearly all his profits. On the one hand railroads will discriminate in favor of a great corporate manufacturing industry, but on the other, have no fear of the single-handed farmer. Before any reform in the markets themselves can take place, these silent filch-

ings from the farmer's purse must be stopped and some magic charm must force the railroad monopoly to give the farmer's produce good rates and the best connection for thorough distribution.

But fully as detrimental to the farmer is the dishonesty and monopoly of our agents of distribution. Of these middlemen who are responsible for the farmer's markets there are two classes, the boards of trade and the commission merchants who are especially unfair to farmer and consumer as well. A board of trade in Chicago is organized for handling wheat, for instance, at the greatest profit. The wheat is consigned by western elevator companies to a broker in Chicago, is shipped to him and there stored to await distribution over the country. But without touching the wheat the broker sells the ownership to another at a profit and so on to another till all possible profit is wrung from it. Or else several make a corner, buying up all the wheat in the market and then disposing of it at immense profits. The wheat is finally reshipped to other points but at a cost that would be wealth to the farmer who raised it. Were it not for this ruinous monopoly our great staple foods could be distributed at a fraction of the present expense.

The second class of monopolists are the commission merchants and their associations, of Chicago especially. These business houses receive fruit from growers at a distance and having sold it, are supposed to remit the sum excepting the freight and their 10 per cent. commission. Some times a suspicious fruit grower not only ships his fruit but accompanies it to its destination, and, a complete stranger to the commission men, buys his own fruit, takes a purchaser's receipt, and quietly departs. At home again he receives as a fruit grower the commissioner's bill of sale. The receipt of purchase often shows an excess of 25 or 50 per cent. over the bill of sale, showing that the commission merchant has pocketed much more than his 10 per cent.

To sum up the situation we see that the total production varies on account of unfavorable seasons and differences in acreage, that total consumption varies on account of great political business crises. This natural difficulty is many times increased by the carelessness and lack of thoroughness of our middlemen. Finally our tandem monopolies of means of transportation and agents of distribution completely ruin the soundness of our markets, defy all accurate calculations and make markets what they now are, arenas of chance for the merchant, the assurance of poverty to the farmer.

The only course under these circumstances left for the farmer is a necessity. He must control his own markets and make his own terms with the railroads.

And the most intelligent farmers are beginning to do this. Instead of shipping to overstocked cities they supply grocers in small towns; others deal directly with their customers, giving them better produce at less cost.

Fruit growers are perhaps succeeding best. Some shrewd men in our fruit belt are supplying Chicago fruit stands with best fruit at best prices. Several large fruit growers' associations in California are shipping fruit to large and small cities all over the United States, and sometimes even to Great Britain.

Why should not the farmers deal successfully, as have many other business interests or industries, which handle as great sums of money, and successfully support as great responsibilities? Our great factories have agencies of their own that sell their produce. They would not give railroads or middlemen the profits. Our giant insurance and loan associations are partnerships in which one man disposes of another's money for their mutual profit.

On such a plan two or a hundred farmers, the more the better, could associate in a lawful partnership. Several should be especially good business men with a large practical knowledge of markets. These specially fitted men could fill and more than fill the place of our middlemen. The association could better succeed in controlling than the individual farmer because today, as ever, union means strength. First they could control the great prime cause that we have found disturbs our markets, i. e. supply and demand. They could build storehouses and store the nonperishable staple foods, giving to the market when needed, withholding the surplus of an immense harvest. In this way flour would not as now be \$1 per sack one month and \$2 the next. If associations combined they might ultimately control the number of acres of staple crops planted.

Secondly, they could do away with the ignorance and carelessness of the middleman. The fruit associations of California are now distributing the perishable fruit produce not only in large cities but in towns, doing the work more thoroughly and cheaply than it was ever done before. These associations, all working for the same end, would make an exact and efficient working knowledge of markets possible to farmers in general and would greatly systematize and steady our markets.

But the third and greatest difficulty, ruinous monopoly of means and agencies of distribution, would be largely overcome. While railroads pay little attention to the single farmer they become the obliging servant of a large association with a great producing power. The California fruit associations get the best rates, the swiftest and the best trains, and good connections by rail and steamships even to Great Britain.

The control of staple food products would be the greatest monopoly in the world. The farmers could store and sell their own wheat and more thoroughly distribute their fruit at far less cost to both producer and consumer. Again, such associations could largely do away with the commission merchant and make their own terms with boards of trade.

To bring about these beneficial results the farmers of the country need first a thorough knowledge of markets. That they may intelligently fulfil their part in an association, they need a class of business men whose sympathies lie with the farmer, whose business ability is unquestioned. Second, they all need honesty. When their partnership makes a contract they must stand by it. In fact the law may be invoked to hold them to it as in any partnership. They must also pack their fruit or other produce honestly so that their association may be trusted by its patrons.

The farmer then must himself attend to the development of his own markets. He is bending labor, ma-

chinery, science and Yankee ingenuity to the task of growing two blades of grass where one grew while all the world of industries beyond him in development sneer at him because he does not better dispose of his one blade.

The whole trend of our industrial development is toward the business association of man and man, a greater inter-dependence of men and far grander industrial accomplishments. The farmer resists his own control of markets at his own peril. Unjust monopoly and mismanagement of markets threaten not only the farmer but the vast population which the farmer feeds. Not only his own just interests but those of the world demand that he arise to the emergency.

Spend Your Summer Here.

There is every evidence that the State Teachers' Institute to be held at the College from July 11th to Aug. 5th, will be well attended. The regular Ingham county institute will combine and form a part of the attendance. The local committee are and have been hard at work arranging for rooms and board.

The several facilities for teaching, the fine library, the well equipped laboratories and the natural beauties of the M. A. C. campus cannot fail to attract large numbers from all parts of the State. Every spare hour can be profitably enjoyed.

It is the design to give training in the natural sciences and other subjects required for first and second grade certificates. Regular classes will be in progress daily in botany, physics, general history, algebra, and geometry. There will also be review classes in grammar, arithmetic, geography, U. S. history, spelling, school law, and pedagogics.

Dr. R. C. Kedzie, Pres. Snyder, and other prominent educators of this state have consented to give a number of addresses to the teachers during the session on important phases of educational work.

Prof. C. L. Bemis, Supt. of the Ionia Schools, will have charge of the Institute as Conductor. Mr. Bemis is one of the leading educators of the state, and his presence in this capacity insures the success of the institute.

Commissioner M. Hanlon will be present and give instruction in school law and look after the general needs of the teachers.

Prof. Chas. F. Wheeler will give his attention to botany. Teachers will be shown how to use, in the school room, such material as is accessible to every teacher—how to interest pupils in the plant-life about them. The large botanic garden, the arboretum, trees, flowers and shrubs on grounds—all labeled—will aid greatly in this work. No better place in the world to study botany.

Prof. Philip B. Woodworth will have charge of the work in physics, and students will be given instruction in a laboratory well-equipped with all modern illustrative apparatus.

Prof. Warren C. Babcock will teach algebra and geometry—two classes in each in a thorough, systematic manner.

EXPENSES.

Good table board and comfortable rooms, with electric lights, will be provided for \$12.00 for full course. In addition to this a fee of \$3.00 will be charged all teachers residing outside of Ingham county. A

reasonable reduction in board will be made to those who spend Sunday at home.

Rooms are plainly furnished, usually with two single cots, table, chairs, dresser, wash-bowl, pitcher, etc. The occupants should bring comforters, pillows, changes of bed linen, towels, rugs for the floor if desired, and such small toilet articles as may be thought necessary.

Applications for rooms or for further information should be addressed to

PROF. WARREN D. BABCOCK, JR.,
Agricultural College,
Mich.

At the College.

Miss Ella Phelps entertained her mother and brother last week.

Born, Thursday morning June 16, to Pres. and Mrs. Snyder, a son.

The Union Lits enjoyed their usual term-end party Friday night.

Major James D. Elderkin, Detroit, visited his brother, H. B. Elderkin, one day last week.

Mr. H. M. Howe and Miss Helen Lane of Detroit were the guests of E. F. Good Sunday.

Fourteen of the College population indulged in a picnic at Leadley's Saturday afternoon.

June 15, a letter to Prof. S. H. Todd remained uncalled for in the Agricultural College postoffice.

Miss Vandivert, of Bethany, Mo., was the guest of Miss Jennette Carpenter during commencement.

George Severance will have charge of V. M. Shoemith's newspaper agency at the College during vacation.

One good result of the introduction of free instruction in music at M. A. C. is that music for all public College functions is now furnished by home talent.

All students that remain at the College during vacation should leave their names at the postoffice so that their mail will not be forwarded to their home addresses.

The following officers for the fall term have been elected by the Phi Delta Theta Fraternity: President, H. B. Clark; secretary, A. B. Krentel; treasurer, F. H. Smith; warden, Eugene Price.

Fred T. Champion, with '99, O. R. Austin, '99, Ralph W. Clark, '99, Walter K. Brainard, '99, L. J. Hart, '01, Phil Shepard, '01, D. B. Jewell, '00, E. H. Trumley, '01, F. J. Eckenfels, '00, and Phelps L. Millar, '01, have enlisted in Co. E., Lansing, and left for Chickamauga yesterday.

Professor McDermott Resigns.

We are sure that all who have been associated in any way with Miss McDermott during her two years as head of our Woman's Department, will be sorry to learn of her resignation. She began here an utter stranger, to build up from the foundation a new course of study; the result of her labor is one of the best and fast becoming one of the most popular courses in the State for young women. So it was with extreme reluctance that the Board learned of her determination to retire from the department. Miss McDermott leaves hundreds of friends in Michigan who sincerely regret her departure and who wish her God-speed in whatever she may undertake.

THE M. A. C. RECORD.

PUBLISHED WEEKLY BY THE
MICHIGAN AGRICULTURAL COLLEGE.

EDITED BY THE FACULTY,
ASSISTED BY THE STUDENTS.

SUBSCRIPTIONS SHOULD BE SENT TO THE SECRETARY, AGRICULTURAL COLLEGE, MICH.

SUBSCRIPTION, . . . 50 CENTS PER YEAR.

Send money by P. O. Money Order, Draft,
Registered Letter. Do not send stamps.

Business Office with LAWRENCE & VAN BUREN
Printing Co., 122 Ottawa Street
East, Lansing, Mich.

Entered as second-class matter at Lansing, Mich.

For various reasons THE M. A. C. RECORD is occasionally sent to those who have not subscribed for the paper. Such persons need have no hesitation about taking the paper from the postoffice, for no charge will be made for it. The only way, however, to secure THE RECORD regularly is to subscribe.

This issue of the M. A. C. Record will be the last regular number until September 13.

The New Catalogue.

The College catalogue for 1897-8 is out. It shows a total enrollment of 469 students classified as follows: Graduate students, 5; class of '98, 36; class of '99, 39; class of '00, 68; class of '01, 217; specials, 39; special short courses, 65. The teaching force, including Experiment Station workers, numbers 54. The catalogue contains a number of new cuts and a new map of the grounds with a key that gives considerable information about the various buildings indicated on the map.

Board Meeting, June 15, 1898.

Present—Messrs. Wells, Monroe, Garfield, Bird, Marston, Pres. Snyder and the secretary.

Minutes of last meeting read and approved.

Pres. Snyder reported for degrees the names published under "Commencement Day Exercises." The recommendation was approved and degrees granted.

The president reported conditional contract with Miss Ronan for calisthenic instruction to ladies for next year. The contract was approved.

The special courses for the coming year as outlined in the catalogue were approved.

The matter of employment of an instructor in cheese-making for next winter was left to the president of the College and the chairman of committee on employes.

The president presented the matter of rooms for employes. On motion the whole matter of rooms for employes was referred to the president of the College and the committee on buildings and college property, with power to act.

It was resolved that the president of the College is hereby requested to report to this Board at the session tomorrow the aggregate income of the College during the past six months and the amount of the expenses; also his estimate of the income for the closing six months of this year and the apportionment of the same to the various departments that he would recommend for adoption by the Board.

It was resolved that the com-

mittee on employes is hereby requested to consider the matter of adjusting the work at the College so as to provide a professor or instructor who shall have as an important duty the general charge of religious work at the College, so that the young men and women intrusted to the care of our institution shall be given the same thoughtful pastoral attention enjoyed in their own homes. The following resolution was adopted:

Resolved, That the chairman of the committee on institutes and the superintendent of institutes are requested to consult with our professor of forestry and plan to have instructions given at as many of the farmers' institutes as practicable, on the conservation of forests and utilizing poor and waste lands in our State by growing forests upon them.

A communication was received from Professor Weil relating to mechanical course which was referred to the committee on Mechanical Department.

Recess taken to 9 A. M. Thursday.

THURSDAY MORNING.

Board met, all members present. It was resolved to hold the next meeting at South Haven at the call of the president of the board.

The salary of foreman of iron shop was made \$850 from Sept. 1, 1898.

Dr. Beal presented request for closet in his house. Referred to committee on buildings and property, to report at next meeting.

The salary of librarian was made \$725 from June 1st.

The honorary degree of Doctor of Science was conferred on Dr. R. C. Kedzie under the following resolution:

Resolved, That in recognition of the eminent services of Dr. R. C. Kedzie in scientific investigation along agricultural lines and of the high position he has attained among the scientists of this country, the Michigan State Board of Agriculture hereby confers upon him the honorary degree of Doctor of Science.

It was resolved that the secretary be requested to report at the next Board meeting all the resolutions adopted by this Board since May 1, 1897, and to inform the Board regarding the enforcement of said resolutions.

It was resolved that the matter of choosing the workers for farmers' institutes during the next institute season be left to the chairman of our institute committee, the superintendent of institutes and the president of the College.

It was resolved that the compensation for employed institute workers be referred to a committee consisting of the chairman of the committee on institutes and the superintendent of the institutes, with power to act.

It was resolved that the full minutes of the board be published in the RECORD within three weeks after each meeting of the board.

The resignation of Edith F. McDermott as professor of domestic science was taken from the table and accepted.

The resignation of A. A. Crozier was accepted as of June 1st.

A recess was taken to Friday morning at 8:30.

FRIDAY MORNING, JUNE 17,
8:30 A. M.

Board met. Present Messrs.

Monroe, Garfield, Marston, Bird, president and the secretary.

President presented statement of receipts and expenditures for past six months and estimates of receipts for next six months with recommended apportionment to the several departments as follows:

Salaries	\$21,500 00
Farm Department	3,500 00
Hort. "	1,800 00
Mechanical	1,400 00
Heating	5,000 00
Academic—English	25 00
History	25 00
Chemistry	500 00
Botany	400 00
Mathematics	25 00
Physics	250 00
Veterinary	100 00
Military	200 00
Athletic	75 00
Women's	500 00
Library	600 00
Drawing	200 00
Zoology	250 00
Office	880 00
Advertising	1,000 00
Miscellaneous	1,500 00
Total	\$39,730 00

Adopted.

A recess was taken to 1:30 p. m. 1:30 p. m. Board met, same members present.

It was resolved that the commencement addresses be printed in the RECORD.

It was resolved that the secretary is hereby instructed to immediately look after the acquisition of the strip of land on the south side of Cedar river for the purpose of saving the fringe of timber and that he be given authority to close a contract, in his discretion.

It was resolved that new pipe for steam heating chemical laboratory and college hall be put in, under direction of the secretary.

The salary of Chace Newman, assistant foreman of the wood shop, was made \$500.00 per year, and room, from Sept. 1st, 1898.

The following resolution was adopted:

Since the contract for electricity provides for no extension of service, when necessary, resolved that the former committee on contract be instructed to make by further contract, such provision.

Adjourned.

I. H. BUTTERFIELD,
Secretary.

The Realm of Woman.

COMMENCEMENT ADDRESS BY PEARL KEDZIE.

If there is one word in the English language which is dearer to us than any other, that word is "home." It enshrines all that is most precious, that is most sacred to the human heart. The old adage, "home is home, be it ever so homely," appeals to all. From the camp of the savage under the open sky or the tiny cottage of the laborer to the magnificent palaces in our great cities,—each one is a home with all its import. No man is poor who has still a spot to call home, and no man is rich who has no home.

The home is a necessity for the perfect life and development of good citizens. How can one describe it? It is there that the weary laborer finds rest and peace after the day's work. Under its shelter, the energies are refreshed for the coming day. Led by its guiding hand, the young lives which will some day be the world's rulers and toilers are brought to manhood and womanhood.

Because of the dear ones in that home, nobler motives arise and grander effort is put forth in the world's strife. There, those who sway the opinions of the country, who make and execute our laws, who lead armies into battle, are known at their best and purest. There, man is noblest and woman is loveliest. In the home,—the society, the religion, and the civil polity of the future are formed. The home is the most perfect of schools, and so much depends upon it that "if this be right, nothing else can be wholly wrong; so much that if this be wrong, nothing else can be altogether right."

But what would be the picture of home without woman as its central figure? Woman has ever been the home-maker. It is her influence which is most felt, and it is in her power to make of home the happiest or the unhappiest spot on earth. From the beginning of time, woman has laid out her line of work and kept to it unremittingly. God has given her a character and a realm of her own with her special work to do. Yet it was only with the beginning of Christianity, that the ideal of womanhood was raised to its present exalted position. The life of the primitive woman was one of obscurity and darkness,—her only future being a marriage, which meant only a life of slavery, and drudgery, and ignorance. Christianity has raised woman to what she is today,—educated, refined, ennobled, working shoulder to shoulder with her brother in nearly every branch of labor. She occupies everywhere positions of honor and trust, but she fills no higher place in the world than that in her own home as queen over her own household.

Frances Willard has said, "If I were asked the mission of the ideal woman, I would reply, it is to make the whole world homelike. Home is woman's climate, her vital breath, her native air. A true woman carries home with her everywhere." What a gain to the race if the true woman brings the outside life into the home, and beautifies and ennobles it under the rosy hues of the home-life. What need is there for woman to go to the polls to bring purity into politics? If she would take the interests of the country's welfare into her home, and there interpret every event with personal interest and sympathy, how much more lasting would be her influence. Let the home be the bond of our nation's interest and our private welfare. Let the whole world be brought to the hearthstone, and so make of home the dynamic force for the advancement of the whole race and of future nations.

Knowing the influence of the home to be so powerful, can we give too much thought to perfecting it into an environment which shall give the conditions for the best development of our people? The needs of the home and the requirements of the homekeeper stand first in importance. For the demands of the household, who can be too well prepared? No doctor, or lawyer, or minister would think of making a place for himself in the world without years of study and training. If so much importance is given to the previous preparation of the professional man, what can be said of the necessity for the preparation of the professional woman, who undertakes the profession of housekeeping,

which means the making of men strong to be good doctors, or lawyers, or ministers?

By far the greater proportion of the women of the world are daily performing household duties in their homes. Knowing it is the natural destiny of the normal girl to some day marry and make a home of her own, should every girl not feel that this is a definite line of work needing the most thorough preparation, and a calling than which there is no other more exalted or sacred? But whether she marry or not, every woman at some time in her life is called upon to do or direct household duties. As the profession of housekeeping is the most common one undertaken by woman, it stands to reason that her most thoughtful energies should be expended in preparation for it.

It has not been many years since a girl's education was thought to be completed with a knowledge of reading, writing, and arithmetic, together with what was termed the accomplishments, consisting of a little French, painting, and music. Mankind has at last awakened to the real needs of the woman's education. Now, beyond the accomplishments and elementary learning, the highest and best that education can offer is not considered too good for her. More is expected of the woman of today than ever before. Her education must give her high ideals and practical habits which will enable her to fill any position which the coming century may bring. Some one has said: "Education, if it means anything, is the quickening of the powers that enable us to live—ideally, and practically, morally and mentally,—or that give us the capacity to enjoy and expand this life."

The education of the girl of today may not train her for any special position in the world, but it aims to make of her the whole woman, whose influence shall be felt for good wherever she may be; and into whatever circumstances she may be thrown, the educated woman, and especially the woman with a practical education, is better equipped to meet life as it comes to her. Then if it falls to her lot to become a home-maker, surely the best education, the most brilliant accomplishments, and the most charming personality are not too much to give to that home.

People are fast seeing that no education is complete which does not teach one how to live. The girl should be taught—besides sciences, languages, history and literature, those things which have a direct bearing upon the peace and comfort of every day. If mere intellectual training did this, there would be no need of manual training. But brain and hand must work together in harmony for the most perfect results. With science as the foundation, manual training becomes a help and not a hindrance to the intellect. To train a woman to be a housekeeper along with her other education, is not to narrow her sphere but to enlarge it. Whatever work she may afterwards undertake, will only be helped, because she has been made stronger for it, by the equal training of hand and mind.

If the woman enters the home after such a preparation, how much better will that home be than it ever could have been otherwise. If she is not called upon to do the work of the household herself, she

will at least be able to direct her work with the surety of certain knowledge; but if she does do it herself, she will know how to do it with the best expenditure of time and strength, and make of her work not drudgery but pleasure. The need of an education for the home is often realized too late. We once heard a lady who was finely educated, but yet without practical training, and who had suddenly become mistress of a beautiful home in one of our large cities, say to her friends: "I would give all I know about Shakespeare to be able to tell what ails the bread when it isn't good."

Good housekeeping requires a knowledge of art and science; and to be a good housekeeper, one must have a knowledge of cooking, chemistry, bacteriology, hygiene, handling of the needle, and countless other things; and as many of these courses as possible should take an important part in every girl's education.

The food consumed is very powerful in determining the character of the individual. If our people had better, more wholesome food, much of the unhappiness of this world would be lifted. Fewer men would depend upon their tobacco and liquor for the day's strength. With good bodily nourishment, health is always present, and with health—happiness. The opinion is too common that medicine alone is what is needed in disease, but science is now teaching that nutrition both as a cure and preventive is more important. The wise housekeeper will provide the kind of food that is needed by each member of the family to do his work in the best way, and make the body strong and able to endure. She will know that Heaven's gifts of air and sunshine are intended for use, and will not close windows and doors—shutting out purity and keeping in the germs of disease. She will also know the need of pure water. Then with good food, pure water, and plenty of air and sunshine, she has in her control preventives and cures more powerful and lasting than all medicines. On the other hand, she must have at least the elementary knowledge of the trained nurse, and in case of sickness or accident must know what to do and when to do it, for it may be that a life's thread will be snapped through her ignorance.

Economy and system are fundamental principles which must underlie the management of any successful household. Every girl should understand the value of money, and know how to utilize the family income in the most perfect way to make the home beautiful and the lives of its inmates ones of pleasure and comfort. Great expense is not needed for an attractive home, but where there is an appreciation of beauty, the home may be made attractive and its furnishings in harmony. Whether or not the surroundings are harmonious has more influence on character than is usually considered. Beautiful environments cannot help but tend to make beautiful characters. The woman of culture will bring beauty and art into her home. Appreciation for the highest in painting, music, and literature will be fostered there, for she will realize their uplifting and ennobling influence upon the lives they touch.

Then realizing the influence of home—too deep and lasting for

comprehension, is it not time that more earnest thought were given to making the home as faultless as it is in human control to do so? And as it has been given to woman to be the home-maker, it is her duty to be fully prepared in all lines which relate to it. When the importance of the home in the progress and development of the race is fully realized, then the science of housekeeping will be given an exalted place in every girl's education. When it is recognized as the best work to which woman aspires, because it is in the realm in which God intended her influence to be most potent, then will come to every home-maker the pride in work well done, and the knowledge that her profession is the profession without which there could be no other.

The Economic Significance of Technical Education.

BY F. R. HUTTON, M. E., PH. D., OF COLUMBIA COLLEGE, NEW YORK.

It gives me great pleasure ladies and gentlemen and graduates of the Michigan Agricultural College to be the choice of your President for the opportunities of this occasion. I bring you today not only the salutations from an Eastern Sister in education on the seaboard, but I bring you these salutations at a period of signal significance in the history of our great country. I come to you at a time when America, as these United States stand for it, has been brought by the successes achieved by its agriculture on the one side, and its engineering on the other—and your institution stands for the progress of America upon both of these foundations—to a point when the responsibility has been forced upon us by the governance of a higher power to bear a hand in the solving of the world problem of development and civilization. We are an industrial and commercial nation, whose strength and whose interest lie in world-wide peace. And yet, almost in our own despite, we have had to take our share to bring about the transition from the mediaevalism of provincial mismanagement and abuse inherited under the feudal system and help to usher in the new era which dawns when the period of national home-rule begins under conscientious and faithful captains of industry.

It is in this view that I venture to head my address with the title, "The Economic Significance of Technical Education." It is because I wish to bring home to you the vital relations between the material prosperity and wealth of a district, or a State, or a nation, and the proper provisions for the education of its youth in technical matters, or the application of science to the avocations of our lives. It is in this view that I turn with admiration and respect to those wise founders of your commonwealth, who felt with an intuition which perhaps they could not have explained or justified at that time, that the foundation of your College had much to do with the prosperity and stability of the State into whose constitution they inwrought it.

It is in this view that I address you, young men and young women graduates of today, because you are rightly to be regarded from this day on as the trustees of your Alma Mater as respects her repute in the community. You have it in your hands to make or to mar the opinion

in which she shall be held. This is apparent, first, when you consider that by your future work will her usefulness be judged; but more than that I want you to leave her halls with an enthusiasm for her and for her work which shall be felt wherever you may be. I shall have secured my purpose if I can implant in your minds a respectful and well grounded affection which shall be different from that baseless feeling which makes college men "root" for their college, right or wrong. You have perhaps heard of the man who thought so well of himself that he lifted his hat whenever he heard his own name mentioned. I covet for you the possession of a deeper and more permanent esteem. I would like to have you carry away a memory from your commencement day, even if it must be impersonal to myself; that you heard a possibly gifted, but surely prosy person, who showed conclusively that the M. A. C. had a good reason for being.

It is almost a platitude of the commencement platform to refer to the necessity of education for the conduct of a government of the people by the people and for the people, as the great Lincoln put it, and to repeat with serene solemnity that knowledge is power. And yet it will be of service I am sure if you will allow me to assume this accepted truth, and carry our thoughts a few steps further in lines to which perhaps you are not so well accustomed.

I want to call your attention to the fact that when we consider as settled and satisfactory the work of the primary and secondary schools in which department labor the great public schools of your state in their grades of grammar and high school, we have settled the question as to the boyhood and girlhood of our State, and have well treated the question of fundamental education before the question of the life work of the boy or girl is to be faced in his home. We have had our boy or girl at school well into his teens—say till sixteen—but the high school is done with him, and he must be entering into that shadow of future responsibility which makes these years so full of interest and of promise if they are rightly treated. We face then as educators and as thinkers on these questions, the problem of the man and the woman—not the simpler one of the boy and the girl—and the state has too vital a stake in the matter to be indifferent or careless as to the result. If we turn back to study the lesson of history on these questions, we shall find that up to the period of the Civil War of 1861-65, society offered two alternatives in most walks of life. The young man was either apprenticed to a master to learn his trade or calling, or he went to a college or university with a view to further culture if he could afford it. I am speaking of the condition in England in the time when Dickens wrote, when doctors graduated from the mortar and pestle, and lawyers entered the labyrinth of technicalities by serving as clerks and copyists of forms. There were faculties of law and medicine in a few European centres of university life—notably German—and a consecrated young man might enter the church through the classical university course which led him to his theological seminary. But at the period of which I speak, by far the greater number entered their life-work through the apprentice system in some of its forms.

The university life was for the leisured class—the wealthy, the high-born, the nobility, the aristocracy, the few. The needs of the many were as yet unconsidered.

I need not stop long to point out the origin of this apprentice system, and the relation of master and learner. It runs deep into our inheritance of chivalry, and our histories and romances and ballads are full of the lives where the noble scion of a lordly house learned his arts of war and sport and deportment by serving as page and squire until he won his spurs as knight. It belongs, however, to the feudal period, and to a somewhat inflexible social order which is not that under which we breathe freely. It belongs to the time in which war was still, the accepted path to preferment and worldly success, and the history of the king and his nobles is the history of the campaigns which they led, either as depredators themselves, or as defenders against the encroachments of others. It is a period of lower standards in every department, except those of literature and physical prowess—observe the suggestiveness of the union—when medicine was outgrowing herb-simples and contagious disease was still a divine visitation. We say our trade-unions are responsible for the disappearance of the apprentice system in industrial life. I believe the explanation is deeper and wider than that, and that in the economy of our brighter day its disappearance is not to be mourned as an unmitigated sorrow.

There are also many of us—too many of us—who have never outgrown our inherited notion as to the place of the university under that older atmosphere. Our sons must be toilers amid practical affairs—not dreamers in cloisters, nor hair-splitting controversialists, nor any variety of the mere talker about abstractions. Hence, think we, we have no need of a school after the high school, and our State has done its full duty by us when this opportunity has been provided for our sons.

My friends, this is not so.

The first group to separate itself from the apprentice system was naturally that in which fell the experts in military and naval matters. It was early appreciated that for the conduct of modern warfare training different from that then procurable at the universities was called for, and one which yet should be no less exacting along the lines of mental culture. Here the French have been our leaders in matters military, and England the leader in matters maritime. Our schools at West Point and Annapolis are governmental colleges and were the first break in the old tradition. But they were a most significant one. Their establishment, their popularity, their success, the standing of their graduates in the community, broke the ice of conservatism which had crusted around the idea, that on the one side stood the cultured few with an inheritance in literature, in theology, in jurisprudence, in philosophy, and in a narrow range of science, while over against them upon the other side were all those who were in touch with the realities of existence, the producers, the creators of things.

We must make up our minds which of the two views we shall hold, or rather to which of two desirable things we shall give the preference. We can regard our college or university as a center of personal culture, or we may regard it as an emporium of learning. We may

combine these two ideas in one place, as in your own State University, but it is but rarely that it is given to one man to combine in himself the best results of the two ideals. The two objects cannot be well sought together or at the same time; usually they are sought in succession,—and happy the man who by frugality or industry or by fortune can have the opportunity laid before him.

For while we would like to believe otherwise, and to fancy like the ostrich with its eyes concealed that a disliked something is not near because we do not see it for the moment, yet in fairness it must be admitted that taking a country over or a State, it must be a fortunate few for whom the trend of their education does not have to have an immediate and practical bearing upon their life-work as bread-winners or as producers for the benefit of others dependent upon them. It is the *time required* in proper preparation beforehand, and in the postponement of the beginnings of productive work which form the barriers, and not our theories, our wishes, or even our ambitions. All men are born free and equal before the law, but all men are not equal in endowment, and to try and make them so is a rainbow-dream.

How then is this acquirement to be met in a modern state? I answer the Michigan Agricultural College exists to meet it. What I believe in our modern conditions is the great need of the community is the proper and effective education of the many who must be producers in their several industrial vocations, that the capacities and resources of the State may be effectually utilized. For comfort in a community and the prosperity of which wealth is the measure is to a degree a matter of relation. Our ideals of natural prosperity are not those of the pre-revolutionary period in France, or even of some parts of Europe today—where there is unnecessary luxury and idleness for a few and after a great gap, a dispirited, discontented incapable many who are so near starvation that but a few days or even hours of sickness or inability to work will land them there. Or, to put the idea otherwise, we may measure our wealth and our prosperity in a state by comparing the condition as to comfort and outward civilization with us, or the measure of privation which must be endured by the most poorly paid grade of labor, with the same class in some other community. In other words it is not the few, but the many who are the index of prosperity. It is the amount on deposit in your savings banks, which measures the intervals between present comfort and imminent suffering when wage-earning must stop, from sickness or temporary industrial derangement or from death. And if therefore it be conceded that the education in such a college as this is intended to make its students and graduates more capable of that historic achievement of two blades of grass; or more capable of manufacturing a desirable article cheaply so as to bring its purchase within the reach of a greater number of citizens, then I claim for it an economic significance and a necessity for its existence in the commonwealth which is not to be disputed. For it is to this point that I have been seeking step by step to lead you. If I can impress upon you my argument, I shall be well content. I recapitulate it in this form:

1. A community is prosperous when it is busy and every one can find paying work.

2. A busy community earning money can afford to buy things, which others have to sell.

3. A community can only afford to be busy when it can produce its products at a price less than these products can be brought in to it from outside.

4. Cheap production is a result of knowledge as to what is to be done and how to do it, with a combination of industry, frugality and sound judgment in the man who has the knowledge.

5. The technical school which furnishes both the knowledge and the character training is the foundation of cheap production, on which rests the busy-ness of the community on which rests its prosperity, its wealth, its opportunities for wider culture, its happiness, its devotion to art and æsthetic development, its realization of its highest ideals.

If my foregoing contentions are sound, they force upon us certain conclusions or deductions.

1. Michigan may well be proud of this school, by reason of its economic significance in the State.

2. It has a field of its own, distinct from that of the University, and while it would be a throwing away of opportunity to invade the field of the latter on the one hand, it would be no less wasteful and unfortunate for the latter to feel an envy or jealousy as to the scope and field of this.

3. Bend your energies therefore to the development of courses of study having a direct relation to the life-work of your students. There will be but one consulting engineer or chief engineer of a manufacturing corporation or a railroad, while there is room for a staff of assistant engineers in charge of departments, and an army of skilled workers. Labor for the good of the many, and leave the good of the few to others.

4. This is not a political platform, nor am I on the stump. But you will find that most mechanical engineers are moderate protectionists and all agriculturists ought to be, because that national economic policy which induces a community to furnish opportunities for profitable labor in its midst is the policy which ought to bring prosperity in its train.

5. The educational policy of the state as respects its primary and secondary schools should be so moulded and directed as to favor the possibility of easy passage from high school to your doors. It is your school which is for the many, as is the fundamental purpose of your public school system. To educate a boy or a girl up to that point at which unrealizable ambitions are fostered, is a mistake, even a cruelty.

And, finally,—

6. I said in glorification of the results of knowledge that these were to be applied in combination with a sound judgment and a strong character. The wisest of men saw the danger of mere ambition without the ballast to keep the well-sparred ship from keeling over-much. And so, though I am not delivering a baccalaureate sermon, you will, perhaps, from its very unexpectedness remember the better in your future lives the wisdom of Solomon, when he said,—“The fear of the Lord is the *beginning* of knowledge.”

The Society Reunions.

COLUMBIAN SOCIETY.

The Columbian Society held their annual reunion in their parlors in Williams Hall. As soon as the guests had all arrived the following literary program was rendered:

President's address, T. L. Hankinson; Reverie, R. E. Morrow; Biography of a Senior, E. C. Green; Poem, “Dormitory Life,” F. E. West; Solo, I. Gingrich.

After a short recess the company repaired to Club D. where all enjoyed a nicely prepared banquet. This was followed by toasts with T. L. Hankinson as toastmaster:

“The New Men,” C. E. Townsend; “City Life,” T. Chittenden; “Farm Life,” Geo. Severance; “The Girl I Left Behind Me,” A. G. Boudourian; “Bachelor Life,” H. A. Williams; “M. A. C. Volunteers,” D. B. Lanting; “The Society,” M. W. Fulton; “The Class of '98,” V. M. Shoemith.

After this flow of wit and wisdom was ended all returned to the Society rooms and enjoyed a good social time till two o'clock. Various games were the chief amusement of the evening.

Among the guests were M. W. Fulton, '95, J. H. Steele, '96, and E. C. Green, '97, of the Alumni; Misses Birchard, Dunkert, Cox, Armstrong and Sheppard, of Lansing; Misses Hayes and Sanders, Eckford; Misses Richardson, Grand Rapids; Miss Barlow, Greenville; Miss Parks, Pipestone; Mr. and Mrs. Steele and son, and Mrs. Fulton, College; and Mrs. Townsend, Onondaga. G. S.

ECLECTIC SOCIETY.

The members of the society and their guests first met in their society rooms, where the following literary program was given:

President's address, W. J. Merkel; oration, F. W. Newman; music; address, P. G. Towar; music.

The society then adjourned to Club B., where, after the banquet had been discussed, Toastmaster G. B. Wells called for the following toasts: “Our Guests,” E. D. Gagnier; “Cuba Libre,” Walter Flynn; “?,” Joseph Bulkeley; “Ticology,” H. L. Mills; “Partings,” L. H. Taylor. Impromptu toasts by Profs. J. D. Towar and C. L. Weil.

“If we must part, let us go together.”

One feature of the banquet was that the Eclectics were favored with the services of two State Board members—Messrs. Marston and Bird—as table waiters.

The alumni present were P. G. Towar, '85, J. D. Towar, '85, J. E. Hammond, '86, T. F. Marston, with '92, A. C. Bird, '83, Prof. G. A. Waterman, '90, and K. L. Butterfield, '90.

The society hop was given with the Hesperian Society in the Armory. About 45 couples were present, and the music of Richmond's orchestra held sway until 3:30 a. m. G. B. W.

HESPERIAN SOCIETY.

The annual “round-up” of the Hesperian Society was attended by the active members only, with the exception of D. E. Hoag, with '99, of Detroit. None of the alumni found it convenient to be present but sent their regrets with words of cheer to the society. Between 8 and 9 o'clock the members and

their guests, Prof. and Mrs. A. B. Noble and Mr. and Mrs. Gunson, assembled in the society rooms where a reception was held, after which a banquet was served in Club E.

David J. Hale, '98, acted as toastmaster and the following toasts were responded to:

"Counting our Chickens;" Dewey A. Seeling, '98; "College Life," A. C. Krentel, '99; "Girls," C. H. Smith, '00; "War," C. H. Parker, '00; "The Hesperian Ideal," D. E. Hoag, who also read a few words from C. B. Smith on the same subject. The program closed with a few trite remarks by Prof. Noble.

The rest of the evening was spent in a joint hop with the Eclectic Society at the Armory. A. H. S.

OLYMPIC SOCIETY.

The literary program consisted of the following numbers: Music, orchestra; president's address, Geo. Campbell; poem, A. M. Patriarche; oration, G. E. Chadsey; music, Miss Gussie Ohland; prophecy, W. R. Wright; society paper, F. R. Crane; music, orchestra.

At the banquet Toastmaster W. R. Goodwin called upon A. M. Patriarche to respond to the sentiment, "Olympic;" C. A. Warren, "The student's butterfly"; T. G. Agnew, "Water"; C. H. Chadsey, "To the Seniors." V. J. Willey, '93, N. M. Morse, '96, and H. W. Hart, '97, made impromptu responses. T. G. A.

UNION LITERARY SOCIETY.

The society hop is always one of the most enjoyable features of Commencement, and this was surely no exception to the rule.

As the members assembled with their relatives and friends, they were very much pleased to find among them several old members, with smiling faces, knowing they would have a good time. Among the alumni were L. E. Rowley, '90, C. J. Foreman, '94, Clay Tallman, '95, C. H. Briggs, '96, John Rigterink and G. A. Parker, '97.

After all had arrived they gathered in the assembly room and thoroughly enjoyed the following program: President's address, F. W. Robison; Poem, E. A. Calkins; Oration, F. S. Woodworth; Music, Society Quartette; Prophecy, G. N. Gould; College Paper, H. C. Skeels.

The editors of the college papers prepared for these occasions always try to have something new. Mr. Skeels made the attempt, and he surely succeeded. His paper, *The Friday Evening Gazette*, was a manuscript a yard wide and fully twelve yards long, and contained numerous full page cuts illustrating the items of interest.

In about an hour the program was completed and the music commenced. Soon the dancing was begun. After seven numbers had been danced, all went to Abbot Hall and partook of the banquet. Mr. George Richmond acted well the part of toastmaster and called for the toasts in the following order: "The Seniors," W. R. Kedzie; "Airy Nothings," S. F. Edwards; "The Ladies," M. H. Lapham; "Looking Backward," Clay Tallman; "Dreams and Realities," F. V. Warren.

As soon as the last toast was given, all went again to the society building and entered with as much eagerness into the dance as they had at first. There were twenty numbers and five extras on the program

and all were danced. From the happy faces and the manner in which everyone entered into the different features of entertainment, we judge that all had a most pleasant time. B. H.

President Snyder's Address to the Graduates.

LADIES AND GENTLEMEN: You have now reached the end of your journey which seemed so long to you when you started four years ago. While many hardships and difficulties have been encountered, yet on the whole I believe it has been a pleasant journey to you, and I know that no one of you regrets the time and effort it has taken. On the other hand, you are to be congratulated on having successfully completed your course. You have had great opportunities, and you are to be commended for having had the energy and ability to take advantage of these as they came to you. But your success brings with it corresponding obligations. "To him that much hath been given, shall much also be required." Your nation and the commonwealth to which you belong have done much for you, and they have a right to expect much from you in return; not perhaps on the battle field, nor in a position of public trust, but in teaching the principles of true patriotic citizenship to all those with whom you may come in contact. They have a right to expect you to be model citizens in the fullest sense of the word, and to freely give to others of such knowledge as you have received here.

That you will meet their highest expectations we have every reason to believe from your success and deportment while in this College.

There are two thoughts that I would like to leave with you in parting: First, remember that there is very often but a slight difference between success and failure: only a small margin. A race is lost by a yard, by a foot or even by a single inch. One person may know but a very little more than his competitor yet that little places him in advance of his rival. It was a small margin but it brought success. In all lines of activity it is this small margin that wins. Let everything that you undertake be done ordinarily well, and then add a good margin and your efforts will be crowned with success. Keep a sharp lookout for this margin. By a little extra effort, by a little more courage and self-denial keep it always on your side and you will succeed.

Remember also that there is but one true road to success and that is by honest persistent effort. Success does not always mean wealth or distinction. Better have an approving conscience than high office or large possessions.

"We live in deeds not years; in thoughts not breaths;
In feelings, not in figures on a dial. He most lives
Who thinks most, feels the noblest, acts the best."

A graduate from Cambridge loses his degree and his name is stricken from the alumni roll, if he commits any crime.—*Ex.*

Ten hours of study, eight hours of sleep, two of exercise, and four devoted to meals and social duties, is what President Eliot, of Harvard, recommends to students.—*Ex.*



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News from Graduates and Students.

R. S. Baker, '89, spent Sunday at College.

C. H. Robison, '95, will teach at Mooreville next year.

Miss Clara Stocoum, with '00, visited us during commencement week.

Friday forenoon L. C. Brooks, '92m, arrived at M. A. C. for a vacation.

L. E. Rowley, '90, Harvard, Mich. spent several days of last week at College.

J. H. Steele, '96m, has been spending a week at his home near the College.

Wilbur Judson, with '99, is home from Northwestern. He called at M. A. C. Wednesday.

Thomas Bradford, with '92m, is home after a year at the Emerson School of Expression, Boston.

C. J. Perry, with '99, South Frankfort, visited at College and in Lansing several days last week.

C. R. Tock, with '96m, graduates this week from Stevens Institute of Technology at Hoboken, New Jersey.

William Petric, '90m, is now employed by the Sprague Electric Co. at Bloomfield, N. J., twelve miles from New York.

C. J. Foreman, '94, attended commencement exercises. He goes to the U. of M. next year to enter on a three years' course for the degree Ph. D.

H. W. Lawson, '95, has been elected to the principalship of the Maywood school, Chicago. He will teach chemistry, physics, botany and geology.

Thorn Smith, '95, has accepted a position as chemist of the Idaho Experiment Station. During the absence of Dr. McCurdy he will have charge of classes in chemistry.

W. R. Goodwin, '97m, Union Pier, attended last week's festivities at M. A. C. He is employed in the Michigan Central machine shops at Michigan City, fourteen miles from home.

Lemuel Churchill, '89, St. Paul, Minnesota, is just recovering from a serious accident to one of his hands. John P. Churchill, '95m, is also at St. Paul, a draftsman for the Northern Pacific R. R.

C. H. Briggs, '96, came up from Ann Arbor Wednesday and remained through commencement. He gets his M. S. this year and returns to Ann Arbor next year as assistant to Prof. Frere.

E. H. Sedgwick, '97m; writes that he had no difficulty in passing the examination for stationary engineer's license, which he was required to take before entering upon his duties at Lewis Institute. He has been offered an increase in salary to remain another year. He reports that I. L. Simmons, '97m, is with the Illinois Central railroad; J. R. Saylor, with '96m, is a foreman with Winslow Bros.; E. D. Randall, with '96m, is with the C. B. & Q. at Burlington; C. E. Hoyt has a very neat foundry and is doing well; and G. N. Eastman, '97m, is working from 10 to 15 hours a day with the Chicago Edison Company.

What the Graduates Will Do.

Messrs. Campbell, Morrow, Slayton, Mills, Woodworth and Townsend will probably farm it. Robison remains here in the chemical laboratory; Gower has a position with E. Bement's Sons; Hankinson goes at once to Cornell; Warren left Saturday morning to begin structural steel work with Danziger, Detroit engineer for the So. Bethlehem Steel Co.; Williams has gone to war; Patriarche goes into the hardware business with his brother at Marlette; Hagadorn continues in the city engineer's office, Lansing; Miss Kedzie goes to Wellesley College; Richmond enters the U. of M.; Chittenden expects to take the examination for the position of second lieutenant in the regular army, and Skeels will remain here in the botanic garden. The other members of the class are uncertain about their work for the immediate future.

Colleges and Exchanges.

The senior laws at the U. of M. presented their department with a \$200 picture of Prof. Griffith on commencement day.

Brown University practically won the eastern college baseball championship last Monday by defeating Pennsylvania 16 to 0. Brown had already disposed of Yale and Harvard in easy style.

Cambridge University is sending an expedition to New Guinea for purposes of exploration and scientific research. It consists of seven members, mainly graduates of the university.—*Ex.*

The Wandering Singer and His Songs.

One of the handsomest College souvenirs ever published is the book of poems by Frank Hodgeman, '62, of Climax, entitled "The Wandering Singer and His Songs and Other Poems." The book is bound in pebbled white cloth with blue and gilt trimmings, contains 185 pages, and is printed on excellent paper with full gilt edges. It is beautifully illustrated with half-tones of College and other scenes and with sketches by Prof. W. S. Holdsworth, '78, and E. N. Thayer, '93. In that part of the book devoted to College poems there is hardly a page that does not suggest sweet memories of days gone by, not only for the student of the sixties but for the student of the nineties as well. Everybody who has seen the work is delighted with it.—M. A. C. RECORD, Feb. 8, 1898.

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