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# THE COLLEGE SPECULUM.

VOL. I.

LANSING, MICH., APRIL 1, 1882.

No. 3.

## THE COLLEGE SONG.

BY H. W. COLLINGWOOD.

The twilight shadows softly fall  
Along the College green,  
And faintly glimmering through the trees  
The summer moon is seen.  
Along the level green I walk,  
Tho' thick the dew and damp,  
Tho' o'er the river bed the mist  
Hangs like a sleeping camp.

With halting step I pace to night  
Along the dampened grass;  
By each remembered rock and tree  
With saddened heart I pass;  
The sound of some old College song  
Comes throbbing soft and low,  
And tender memories fill my heart—  
Sad thoughts of long ago.

The simple, foolish words and tune,  
How dear they seem to-night—  
How oft with boyish heart I sang,  
While all the world seemed bright!  
The weary years of toil and care  
Roll back before that strain,  
The burden of my life seems gone  
I'm but a boy again!

It seems but yesterday since I  
Viewed trouble from afar,  
When in the twilight's deepening gloom  
We sang "The Last Cigar."  
But now a weary man I come  
With heart grown stern and cold,  
And yet that sweet song rouses still  
Old memories long untold.

I've seen the hopes and joys of years  
"Fade in the distance dim;"  
"I've watched beside a blighted heart  
Where once proud hope had been."  
I've seen the friends of years ago  
Pass from my sight away;  
I've stood beside a grave that held  
The dearest of earth's clay.

It all comes back to me, as slowly  
I pace the College green;  
Down through the vista of the years  
My hard life's work is seen.  
What dreams lie buried in the past—  
What hopes lie cold and dead—  
What noble deeds *might* have been done—  
What tender words been said!

But on the air the study hour  
By evening bell is borne,  
And all the sweet song dies away,  
And all my dreams are gone.  
But dearest of all memories  
We meet life's path along,  
Are those so softly called to life  
By that old College song.

## An Object in Life.

BY MARY J. C. MERRELL, '81.

In my window is a pelargonium graveolens, with a stumpy stem and a bright face; it has only a pot of coarse clay for the worn out earth encircling its roots,

and the window is sometimes too warm and sometimes too cold; but it quietly accepts its conditions and toils from morning to night with its leaflets. There is much unpleasant work to do, moiling in the dark, sending down roots and root hairs to fill every space in the shallow cup; there is much skill necessary that the right salts may be chosen and a sufficient amount of matter carried with them to the leaves; there is much tiresome pumping to complete this last operation; and now there is active labor to turn the sunbeams to account.

The bustling housewife has spent hours of time in preparing the mid-day meal, and finally sits down tired and flurried to partake of it; while my æsthetic neighbor forgets its works, its work in its dark, dank laboratory, and smiles serenely in the sunshine, sipping at the carbon of the air, and building its starch, and sugar, and oils, with a manner which seems to say, "There is a great deal here to be enjoyed, if I can only get to where it is." So it reaches out a straggling leaf toward the light; a very ugly, imperfect leaf it is, but it gets to the light, and carries home a portion of it to the mother stem which is so strengthened that it sends out other and prettier leaves, until there are enough to use all the sap the roots bring; meanwhile the leaves do not forget the lesson of generous helpfulness which the roots have taught; and all day long, as they laugh in the sunshine, they are breathing out oxygen, their royal gift to us; and, as they give, they grow; shooting up stalks, bearing buds, which will emerge into flowers, and soon my window neighbor will have accomplished all its work.

Unconsciously we have fallen into a friendship; I admire its warmth and spirit, and it has made me its confidante. "I wonder," says my friend, "at the perplexed faces your people wear; tell me, have they no feeders bringing home juices to them? Is there no food in the atmosphere about them? Can they not catch the sunshine which falls upon them?" And, as I listen to these quaint questions, my mind reverts to the homely pot and homely lot of my brave pelargonium; itself half starved in its impoverished earth, it has never lost hope nor swayed one moment from the pursuit of its one sole object in life—the becoming just as much of a pelargonium as possible with the means at its disposal.

What a fine plant it might have been under tropical sky, with earth, and air, and moisture in abundance; but what a fine plant it has been without fair skies, and garden soil, and dew, and rain!

What fine men and women most of us might be if every means of culture had always been at our command—books, masters, travel and sight-seeing; what noble growth we could show to the world, and how it would smile at us, nodding as we passed by! but, like the pelargonium, we are often wedged in; a solid wall of circumstances prevents our free action; we suffer mental hunger because we can reach but little intellectual light; the social atmosphere is contaminated with ignorant prejudice, and we are slow to choose out that which is good for our use, giving no heed to that which is valueless; we spend our vitality sending out untrained senses

which grope and grope, bringing back a little experience; and so we learn bit by bit; but, how much better could we do, if we had always before us one object to work for; how many feeders we could have bringing nourishment to it; how we could conserve and concentrate our forces in its behalf and gather from our surroundings to give to it.

And what sunshine we could grasp and store; and how the world would nod and smile at our perseverance and success; and how it would need us; and how happy we should be at being able to help it carry its burden; and we should never have time for envy, or faultfinding, or unhappiness! Surely an object in life is the best of possessions.

### The Study of Specialties.

BY PROF. C. C. GEORGESON, '78.

(A. & M. College, Texas.)

The advantage, both to the individual himself and to society, of training in special lines of work is becoming more and more apparent. The demand for thoroughness is a spontaneous outgrowth of an enterprising and increasing people. The prosecution of the industries in an independent and populous nation is not unlike the business in a large manufacturing establishment, where each workman becomes expert in some particular part of the work. He may know little beyond what he has been trained to do, but in this he excels. In Europe, where the density of population compels a greater division of labor than is yet the case in this country, special training is indispensable to success in any calling.

A broad education is greatly to be desired for all who have the opportunity, time and means to acquire it; but these are comparatively few. A large majority of the young men who take a college course do so with a view of turning the knowledge they gain to practical account in the bettering of their circumstances. Only a small minority seek education merely as an accomplishment. The aim of the former must therefore be to attain proficiency. A steadily increasing competition is fast pushing mediocrity to the rear, while thoroughness takes the lead. But the field of science is too vast for any one to become thorough, in the proper sense of the word, in more than one department, or even in some special line of a subject. He who spreads his energies over the whole ground will have more than he can do to follow the paths hewn out by specialists. He can never hope to rank as an authority with men who give their entire attention to special subjects, but must, at best, be contented to pass for "a well informed man."

The field for specialists is as broad to-day as at the dawn of science, for, though knowledge has advanced with giant strides, the boundaries constantly widen like the horizon before the traveler on the plains. Botany, which is perhaps the best developed of the natural sciences, is yet far from being exhausted. The flora in many sections of the country, especially in the South and West, is but imperfectly written up. There are, undoubtedly, still many plants of economic value which have not been brought to notice.

Entomology offers a still wider field for observation and study, in which the faithful worker may honestly gain renown.

Chemistry, young as the science is, has opened many and fertile channels of trade, developed manufactures and agriculture, and, to a certain extent, changed the mode of living. Still, her devotees, with the untiring industry which characterize them, are ever discovering new facts.

New sciences are springing up. Electricity, which half a century ago was a mysterious and untamed force, has since been the means of doing wonders which would startle the early experimenters themselves, and gives promise of still greater wonders in the future. None but a specialist can fathom the depth of truths it presents. Thus the constant development of new facts in science give peculiar force to the statement of Newton, that he had "only been gathering shells on the shore while an ocean of truths lay outstretched before him."

The science of agriculture, too, which it is the mission of agricultural colleges to develop and teach, is a specialty as distinct in its aims and as unbounded in its possibilities as any science above named. It is neither botany, chemistry, entomology nor physics, but rather the application of the facts revealed by these to increase the productive capacity of the soil, and to transmute the products into the most profitable shape. Students of agriculture are apt to overlook this, and to mistake the related sciences for agriculture. The point is not that the student should give less attention to the former, but rather that he should give more attention to the latter. The scientific farmer must necessarily be familiar with the principles which underlie the sciences related to his calling; but as a student he should bear in mind that he studies these sciences not for themselves, but for the aid they may give him in agriculture. To him botany should mean the study of the plants he cultivates, of the weeds he labors to exterminate, the production of new and better varieties, etc. While he should have a clear idea of the elements which compose his soil and plants, he need not necessarily be an expert chemist. Other sciences should be given prominence in accordance with their importance. The field is broad enough to engage the full attention of the cultivator.

It is a characteristic of our people, as a whole, that they can adapt themselves with readiness to any circumstances, and to change their pursuit as often as it may seem expedient to do so; but the natural consequence of this is a lack of that thoroughness which will mark the successful man of the future.

### A Biological Puzzle.

BY PROF. A. J. COOK.

One of the most interesting biological puzzles that the recent developments of science forces upon the mind of the student of natural history, is that of giving a definition that will positively separate animals and plants. The old idea that plants were peculiar in containing chlorophyll has strong refutation. Shultze showed, forty years ago, that certain of the Planarian worms formed chlorophyll in their tissues. Ray Lankester, in his researches, showed by the use of the spectroscope, that the fresh water hydra, sponges, the sea-anemone, some of the radiolarians, some other worms besides the Planarians, and even some of the crustacea were among these chlorophyll producers.

In a recent lecture before the Royal Society of Edinburgh, Patrick Geddes gave some very interesting facts in reference to the chlorophyll found in the tissues of some of the Radiolarians. He finds that the chlorophyll in the tissue of the animal is no part of the animal, but is an alga. This little plant luxuriates in the tissues of its host, secreting starch, and forming chlorophyll absorbing the nutritious carbon dioxide, which is a part of the excreta of its host, and giving in exchange the oxygen which it excretes, to nourish the sheltering animal, which is giving her plantship a domicile in its

own tissues. The plant can in no wise be called a parasite, as it gives a fair exchange for all the benefits that it receives as a result of its curious position. Manured by the nitrogenous and carbon dioxide excreta of the protozoan, it furnishes in return oxygen and starch, two of the most nutritious elements in the food of animals.

Geddes found that the alga would live after the death of the radiolarian in which it had taken root, and would even reproduce. He also found that by exposing the animal to bright sunlight, the oxygen was evolved so fast by the alga, that it proved fatal to its animal host.

We have here then one case of supposed production of the green coloring matter of plants, in which it arises not from the animal tissue, but is really like most other chlorophyll, a plant production.

### Wrong Ideas.

BY J. M. HOLLINGSWORTH, '82.

Nothing seems to stand more in the way of the educator to-day than the wrong impressions and ideas existing in the minds of the people. Instructors do not object to lack of information and inquiry so much as they do to the prevalence and fixedness of wrong ideas.

Much valuable time and many strong efforts are expended in trying to rid the mind of these ideas before it can receive truth. Prejudices, whims and notions which have been instilled into the mind from its earliest recollection, stand an impenetrable barrier to the admission of plain simple truths.

It is not only the theorist who finds this barrier, but the carefully trained educator; and not only is it found by him who would instil profound truths and abstract ideas, but by the teacher of children in primary studies. Since the difficulty is found at an early age, it is obvious that means for its prevention should be employed by primary instructors. This is certainly most effectual where it can be carried out, but many difficulties present themselves. Children receive wrong ideas from their parents. This, from the very nature of the case, makes the work of eradicating such notions more difficult.

The work of the teacher of the young is great, but if it is well done it will save much time and many efforts in the future. The first teacher can, if he is able and willing, keep many false notions out of young minds, by instilling into them the counteracting true ones. Of course if parents are competent and diligent they can best attend to this matter, but since they are not, we must look to the teachers of our primary schools for the remedy.

As each succeeding generation is better educated than the preceding one, we may reasonably expect that in time the labor of careful, efficient teachers will be rewarded. Parents may oppose, by word and deed, but victory will certainly be achieved, if teachers will only take up this matter in good earnest and stick to it. Get children interested in the natural sciences, in reading, in anything which is pleasing and practical. Get them to become more independent in study, in work, in life, and above all get them to *think* more, and in the future educators will have less reason to complain.

A competent authority says that \$5,000 would supply us with machinery and materials sufficient to add to our course a good instruction in mechanic arts. As long as the cry is for practical education, why not have it in a tangible form, not merely nominal, as at present? On cold, stormy days in spring and fall, place the students under a competent instructor, in a well regulated work-shop, and let them learn the first elements of successful farming.

## Scientific.

### The Natural History Society.

The October meeting was held on Friday, the 21st. Dr. R. C. Kedzie performed an experiment showing a combustion producing a combustible. A piece of magnesium wire was placed in a glass tube where steam was allowed to flow through. Heat was applied to the tube; the wire took up the oxygen from the steam and oxidized or burned. The hydrogen thus set free escaped and burned with a pale bluish flame. The wire also took oxygen from the silica of the glass.

T. D. Hinebauch had been studying the flowers of *Catalpa speciosa*, the tree which has lately been attracting so much attention in the west, where it is largely planted on account of its rapid growth and durable timber. The stigmas are flat and spread apart in fresh flowers. The style projects beyond the anthers. He finds that it is not capable of self-fertilization. Many kinds of insects visit the flowers, and on entering a flower are likely to leave pollen on the stigmas. These are sensitive and will close up when touched in from two to twenty seconds, according to the weather. The stigmas are usually closed by the time an insect is ready to back out of a flower. By this contrivance and the aid of insects one flower is crossed by another.

Dr. W. J. Beal exhibited some Johnson grass—*Sorghum halapense*. This is a large forage plant, which often produces immense crops in the rich soil of some portions of the southern states. Late last spring, Prof. F. A. Gulley, of Mississippi, sent him some large root-stocks. They were planted and for a time grew slowly. To our surprise, the plant has flowered and ripened seed this year. Very likely our winters will destroy the roots; we shall see. The root-stocks are nearly as large as one's finger and spread like those of quack grass. They serve for swine the same purpose as artichokes.

He also exhibited some large, sound ears of yellow flint corn, lately sent from Missaukee county, where it has been grown successfully for several years. This is one of the frostiest counties in the State.

Professor S. Johnson spoke of the history and nature of ensilage and of the silo at the Agricultural College. The green fodder thus preserved will most likely take the place of roots for stock.

L. H. Bailey, Jr., read a somewhat lengthy paper on "How certain plants prepare for spring."

The plants are now preparing for winter; that is the common notion, and one which is beautifully sustained by the curious contrivances by which many plants protect themselves from excessive cold or from extremes of temperature. But while the plants are preparing for winter, many of them are seemingly anticipating the first warm days of April, and are accordingly preparing for spring. All our early flowering plants possess "fruit buds" at this season of the year. These buds contain the flowers. Usually these bud flowers are quite rudimentary and very small, but often, as in the common bell-wort, *Uvularia grandiflora*, they are quite large and conspicuous. In the bell-wort they now measure a quarter of an inch in length, without any of the investing bud scales; in the violet they are very small. Some of these bud flowers are characterized by excessively developed anthers, as in the bell-wort in question; others by a greater development of the parts of the corolla, and the willows and poplars by excessively developed bracts. These different developments, as well as the size of the bud flower as a whole, "seem to bear no relation either to the time of flowering or to the size of the mature flower." These flower buds represent all the transitions from bud scales, through rudimentary

leaves, to the parts of the flower. "As different as the external bud-scales appear from the beautiful petals and delicate stamens and pistils of the mature flower, still there are in these buds just that kind and extent of complete and almost insensible gradations that will at once demonstrate the common origin of leaves and flowers." There are external evidences of preparation for spring. "Many of our hardy annuals germinate in the fall, and many of our early flowering wild perennials send up small leaves late in autumn, and probably all of them send out from the root a large bud, or buds, which sleeps till spring just underneath the surface." The peculiarities of the bud flowers of several of our trees, shrubs and smaller plants were illustrated by drawings.

Dr. Kedzie remarked that besides the preparations for spring mentioned by Mr. Bailey, there was also a laying up of food for spring in different parts of the plant. The twigs usually contain starch at this season of the year. If a willow twig be boiled so that the starch will be gelatinized, and the iodine solution applied to it, the peculiar blue color indicative of starch will be produced. The hard maple possesses grape sugar, which, through some process that man cannot discern, is transformed into cane sugar.

The November meeting was held on Friday evening, the eleventh. Hereafter the meetings will be held on the second Friday of each month of the College year.

Dr. W. J. Beal exhibited specimens and spoke of posts set "top end down." It is believed by many persons that posts set in the ground in a position the "reverse" from which they stood while growing in the tree, will last much longer than when set "top end up." In the spring of 1879 he selected seasoned sticks three feet long. These were split in two, and cut in two, making four pieces of each. One set was placed in well drained sand, the other in clay soil. In every case two pieces were set side by side, with earth between; one as it stood in the tree, the other reversed. He tried thirteen kinds of timber. Some of these were young wood, with bark on. All contained some heart wood. Those growing in sandy land have just been examined. In case of the beech, sugar maple, iron-wood, black ash, and black cherry, the piece reversed or placed "top end down" was somewhat most decayed. In case of red maple, American elm, butternut and red elm, the reverse piece was a trifle the soundest. In case of bass-wood, white ash, white oak and blue ash, there was no perceptible difference. He infers that where one piece decayed more than the other, it was caused by some trifling difference in the sticks. The freshly sawed ends in each case were placed uppermost and came an inch or so above the ground.

E. R. Stone read a short illustrated paper on the aestivation of the corolla of *penstemon digitalis*. In the examination of 89 flower buds, he found 55 with the petals lapping to the right and 34 lapping to the left. The petals were imbricated in seven different ways.

Dr. R. C. Kedzie exhibited well water from two different places in the state. The water was shown to be abominable—too foul for man or beast to drink.

G. L. Knight read a paper on the tendrils of grape vines. He showed how they were arranged, and how they represented a cluster of flowers. He spoke of their branching, twining, how they developed from the bud, and their internal structure.

The section on geology was united to that of zoology and a new section was formed, called agriculture.

F. F. Rogers exhibited some white oak acorns from four different trees on the College grounds. Those from each tree were quite uniform in size and shape, but

those from different trees varied a good deal. He also found, on examining several hundred acorns, that from two to ten per cent. contained two embryos.

Mr. W. C. Latta read a paper on "Wheat, corn and chess, in germination." The following notes were taken: Although the seeds of wheat, oats and chess differ considerably in size, they are much alike in botanical structure, and hence their germinative processes are very similar. Each seed has an embryo or "chit," and also an endosperm, or "mealy" portion, upon which the embryo feeds while germinating or "sprouting."

When the proper conditions for germination are supplied, the embryo becomes active, and, by means of the rich juices of the endosperm, develops a few tiny roots and leaves, which enable the young plant to draw upon the soil and air for its subsequent growth.

The following is a brief summary of the results of many observations taken at various stages of the germinating process: The chess not only germinated, but also appeared to develop with even greater regularity than either wheat or oats. To one familiar with the nature of plant growth, the above facts afford conclusive proof that chess is a well defined species, and not a mere "sport" from the wheat plant, as some suppose. As to size and vigor of the young plantlets, and the number of roots developing from the seed, the wheat stands first, oats second, and chess third. In other words, the vigor of the young plant while getting its *entire* nourishment from the *endosperm*, is in *direct ratio* to the *size and compactness* of the seed. We must, therefore, sow plump, well matured seeds if we would have a good "stand" of strong, healthy plants. The farmer cannot *afford* to sow shrunken and sprouted grain, because the growth from such seed is likely to be too feeble to withstand insect ravages and adverse climatic conditions.

Dr. T. C. Abbot, chairman of the section of scientific methods, read a paper on "Fanciful science." Modern philosophy differs from that of previous ages, chiefly in the matter of caution in determining what are facts. Up to very recent times a limited experience was generalized into a universal rule. Modern science generalizes slowly,—no faster than severe rules of evidence permit. A very common fault, even to this day, amongst half educated speculators, is the assumption of mere fancies of the mind as fundamental principles.

One of the old notions was that the moon was known to be a perfect sphere, because that is a perfect solid form, and nature must be perfect in all its parts as well as in the whole. The man who afterwards found mountains and valleys was a sacrilegious blasphemer, fit only for purgatory. Some ingenious speculator filled the moon's cavities with solid crystals and restored her perfection. The same notions of perfection helped sustain the old theory of the circular shape of the planets' orbits. Circle must be added to circle, and circle upon circle to save nature's perfection.

The ancients knew of seven planets according with the numbers of the musical scale. The same harmony that prevailed in music must rule in the heavens, and so came the idea of the "music of the spheres." As late as 1596, even Kepler showed that the law of harmony makes the existence of more than seven planets impossible.

The following in regard to the extent of cultivation of peppermint is from Wheeler & Smith's catalogue of Michigan plants: "It is extensively cultivated in St. Joseph and Wayne counties for the oil. Michigan produces about two fifths of the world's crop. St. Joseph county leads in production, followed by Wayne county, and then by Wayne county, N. Y., which is the only

other locality in the United States where peppermint is grown to any extent. The annual production in Michigan varies greatly, ranging from 20,000 to 60,000 pounds of oil. Some growers estimate the yield, in exceptionally favorable years, as high as 75,000 pounds. In severe seasons the plants are very apt to winter kill.—T. F. Wood *et al.*"

At the meeting on March 10, 1882, sixty three persons were present.

James Troop had spent two months of his winter vacation studying at Cornell University. He spoke very highly of the opportunities offered for study, especially in the botanical department, which is under the direction of Professor Prentiss, who is a graduate of this College. Mr. Troop attended lectures in several other departments, all of which he found very interesting and instructive. The courses are quite numerous, and, as is the case in all similar institutions, the number of students in the course in agriculture is very small when compared with the number in the classical courses. Owing to the large endowment fund which the University has, its facilities for instruction in all departments are excellent. There are defects, however, in the method of giving lectures without requiring recitations from the students. They soon become careless and indifferent, so that when the time comes for examination, in many cases they have to resort to a general process of "cramming" in order to pass. Students should be frequently examined upon the different subjects gone over. There was one feature the importance of which was discussed at some length. This was the plan which the Professors of Cornell have adopted, of visiting other institutions of learning, thereby gaining much useful information, which is a great source of improvement and helps in the class-room work.

Another point which brought out considerable discussion was the system of co-education. This is carried on at Cornell with perfect success. There is no separate course for lady students, and they are treated in every respect the same as the gentlemen, and no evil results are experienced. It should be the object of every College in our land to give to the young women, as well as to the young men, an opportunity to pursue the higher studies of a college course.

With regard to co-education, Professor Cook made a few remarks. He had spent two months at Cornell this winter. For some years he has been opposed to the erection of a dormitory at our College for women. He has studied the subject at Cornell and he now comes squarely around and says henceforth he shall be heartily in favor of giving ladies a good chance. We are glad to place this decision of Professor Cook on record.

Dr. Beal read a paper on "Some of the best trees to grow for timber in Michigan." Our most valuable forest trees found in abundance were black walnut, white pine, white ash, white oak, shagbark hickory, black cherry, tulip tree, rock elm, sugar maple and arbor vitæ. Of these white oak, tulip tree, rock elm, arbor vitæ and sugar maple grow too slowly to be desirable trees to plant for timber.

The Doctor had been Professor of Horticulture for nine years, but he could not think of any effort of his which gave more satisfaction in proportion to the cost than a couple of acres planted with a large variety of the seeds of trees. The interest in this little arboretum will continue to grow as the trees become larger. Some trees of *catalpa speciosa*, nine years old, had been moved when three years old. They are now sixteen to twenty-four inches in circumference a foot from the ground, and about twenty feet high. They have grown

in an open place. They are as hardy as any of our oaks. They split down a little like trees of American elm. Some white ashes have grown six years where the seed was planted. Many of these are each eighteen feet high and from eight to nine and a half inches in circumference one foot from the ground. From the start the white ashes have been straight, clean and handsome. Some black walnuts have grown five years where the nuts were planted. Many of them are fifteen feet high and measure seven and a half to eight and a half inches around one foot above the soil. They are beautiful trees. Of forest trees indigenous to Michigan, all things considered, where the site and soil are suitable, he would select to plant for timber, black walnut and white ash. He would plant in some *catalpa speciosa* to remove for fence posts, before the walnuts or ashes were removed.

Professor Cook had often taken his friends to the arboretum, and was himself thinking of planting some trees for timber on his farm in Shiawassee county.

Professor C. also spoke at length of our alumni, and referred to numerous instances in which many of them were distinguishing themselves.

A box of geological specimens was presented the Society from Charles McKenny, '81.

O. L. Hershiser, '84, presented a beautiful nest made by black hornets.

Dr. Beal made some remarks in regard to the death of Professor R. F. Kedzie, of Mississippi. He had done more than any other person to improve the museum of the Society, and was the only member ever twice elected its President.

The pines of Michigan are represented by three species: *pinus banksiana*, or scrub pine; *pinus resinosa*, or red pine, often also called Norway pine; and *pinus strobus*, the common white pine. The scrub pine occurs almost entirely in the northern part of the State, and along the sand dunes of the lakes. In the western part of the State it extends south to Newaygo county, and then is not found again, as far as known, till we reach Michigan City, Ind., where it is again seen on the dunes. The scrub pine is usually a rather low, straggling tree, although it sometimes attains a height of from fifty to sixty feet. The red pine is common in the upper peninsula on low, sandy plains. It also occurs in dry woods in Isabella county, and is abundant in Clare county. Its wood is firm and often quite resinous. The tree attains a height of over a hundred feet. The white pine is the tree which furnishes the lumber of commerce. It can be distinguished from all other pines in having five leaves united in a loose sheath, instead of having only two or three leaves together as in other pines. According to Wheeler and Smith's catalogue, "the annual production of pine lumber in Michigan for the last decade has exceeded 2,000,000,000 feet. Yet, in spite of this enormous consumption, it is safe to say that Michigan still contains more valuable pine than any like area in North America. The lumber interest alone enriches the State something like \$40,000,000 a year."

THE ALUMNI MEETING. The next meeting of the Alumni will be held at the College Aug. 16, 1882. The commencement for 1882 will be held Aug 15. The alumni exercises will be held in the chapel at 10 A. M., and will consist of an oration by J. P. Finley, of the Signal Service at Washington; poem by Frank Hodgeman, of Climax, and history by Henry Haigh, of Detroit. Business meeting at 2 P. M. Banquet in the evening. Every alumnus should spare no effort to be in attendance at the exercises. The older alumni will hardly recognize their alma mater. The officers of the alumni are: Wm. Satterlee, president; R. C. Carpenter, secretary.

# The College Speculum.

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BY THE STUDENTS

—or—

THE MICHIGAN STATE AGRICULTURAL COLLEGE.

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LANSING, MICH., APRIL 1, 1882.

## In Memoriam.

PROF. Robert Fairchild Kedzie died at the Agricultural College in Mississippi, on February 13, 1882, of typho-malarial fever. He was the second son of Dr. R. C. and Mrs. H. E. Kedzie, of our College, and was about 29 years of age. He graduated at this institution with the highest honors in 1871, although he was one of the youngest members of his class. He spent one summer in the nursery business with L. G. Bragg & Co., of Kalamazoo, and then for a year or so began to develop his fruit farm at South Haven. After this he became the assistant of his father in the chemical laboratory, which position he held for seven years—till 1880—with the exception of one year, when he acted as professor of chemistry in Kansas Agricultural College, while his brother, the late Prof. W. K. Kedzie, class of '70, was traveling in Europe.

His faithfulness as an officer of the college has never been excelled. He was very competent and thorough in whatever he undertook. He always showed a deep interest in the College Natural History Society, in which he acted for some time as curator. He was the only person twice elected president.

Several of his vacations were passed in the chemical laboratory with Prof. S. W. Johnson, of Yale College, and with Prof. F. H. Storer, of the Bussey Institute, of Harvard University, where he distinguished himself by his industry and scholarly attainments.

In the spring of 1880, Gen. S. D. Lee, President of the Mississippi Agricultural College, visited several colleges in the United States. He decided to copy largely the Agricultural College in Michigan, and considered himself very fortunate in securing R. F. Kedzie as his Professor of Chemistry and Frank A. Gulley as his Professor of Agriculture. He has since frequently expressed himself as greatly pleased with the success and solid achievements of these two "Michigan boys." In the debilitating climate of the South they worked with the energy of Northern men. Last August, at the

Cincinnati meeting, they were both unanimously elected members of the Society for the Promotion of Agricultural Science. This was certainly a very high honor, especially for men so young.

Last December, Professor Kedzie was married to Miss Nellie Sawyer, of Ottawa, Kansas. This lady was a classmate of Mrs. Ella G. Kedzie, wife of the late Prof. W. K. Kedzie, and both of them graduated from Kansas Agricultural College. It was only two years ago that the elder brother died, while he was Professor of Chemistry at Oberlin, Ohio. Both died at about the same age. Both were young men of unusual promise, and had entered upon life's work and had prosecuted it as thorough-going Christian men.

THE State Board of Agriculture at its meeting last month appointed one of its members, Hon. Henry G. Reynolds, and Professor Carpenter, a committee to visit other institutions for the purpose of obtaining estimates and general information concerning their mechanical departments. This is an initiatory movement to the establishment, sooner or later, of a mechanical department at this College. Quite contrary to often expressed opinions, all the members of the Board and Faculty are heartily in sympathy with the movement. The necessary funds for the establishment of such a department will probably be asked of the next Legislature. There will be no friend of the College who will not heartily favor this measure—a measure which if successfully prosecuted and completed will meet one great deficiency in our present course. Our total deficiency in mechanical instruction has caused much censure to be heaped upon us by other industrial institutions. And, indeed, it is true that we greatly overpraise the practicability of our course. Our institution lays great stress upon its labor system—upon the great practical benefits which farmers' sons acquire by repeating on the College farm the many operations which they had already learned to do better at home. Of the thirty-five studies in our curriculum, only nine can possibly be practically applied in out-door labor, while as a matter of fact only four of these nine are so applied. This strenuous cry of practicability does not deceive the educationists of other states. At Iowa Agricultural College, at the Illinois Industrial University and at Purdue they asked of us: "Why is Michigan Agricultural College getting so far behind the times?" "Why do you boast of practical instruction when you have not even the rudiments of essential mechanical discipline in the use and care of tools?" Along with these questions came similar ones regarding our lack of military discipline and our feeble gasp at veterinary instruction. These criticisms are well founded. Our own offspring among the agricultural colleges of the South and West are outstripping us. Nor can our constant lack of funds be urged as an excuse for our backwardness, for the matter has never been given a practical test before the people of the state. It is highly probable that the practicability of a mechanical department would have presented itself to the mind of



the average legislator at first thought. The establishment of a military department would have called for scarcely any outlay two or three years since, as we had a quota of arms, and the officer whom the Government sent to Orchard Lake could have been obtained here. But now, however, with our facilities for steam power, it seems that the mechanical department, at least, could be easily secured.

CONSIDERABLE money has been and is still being expended on our College library, but this money is poorly invested if the library is not of the greatest benefit possible to the students.

In the first place we need perhaps most of all a better arrangement of the books and a proper catalogue of them. As the library is now it is very difficult to look up any subject, where, with a good catalogue, it would be comparatively easy. Again, so much time is required in the rambling search after information that it discourages students in attempting it. Before going into the new library the books should be properly catalogued, according to the *Courier* or some equally good system. If it can not be done now it certainly should be done at the *very* first opportunity. Thus we may greatly enhance the utility of our library.

We should also have a permanent librarian, whose knowledge of the library and its contents would increase from month to month, thus being of great assistance to the students in their researches. Any person gains efficiency by experience, and having such a person in charge of the library we could better appreciate its true value.

The reading room and library should also be open all day to the students. Many odd minutes now wasted would be improved in reading if we had access to the books and papers. The seniors have, for example, an hour from 11 to 12 A. M., which is generally wasted, but which would be occupied if there was access to the library.

When this is done the books should not be drawn from the library, thus obviating the difficulty so much experienced by frequent requests for books already drawn. Again, if a permanent librarian is secured, the books can be enclosed by a railing so that every book shall pass through the librarian's hands, thus preventing an annual loss of many volumes.

There are many strong arguments favoring these schemes, and we hope they may receive attention from those interested.

EACH new year seems to bring more advocates of co-education at this College. As members of the State Board and of the Faculty and as friends of the College become acquainted with other institutions and learn of the almost universal success of co-education, they naturally wish to see the system established here. On abstract principles perhaps none have ever doubted the propriety of the co-education of the sexes, but whether the system would not be attended with unwarrantable difficulties if transplanted to an agricultural college has

been a subject of much contention. While the difficulties attendant upon an extensive change of curriculum and the expenses necessary to the introduction of the system would undoubtedly be very great, it is nevertheless our conviction that the change would result in many advantages. It is an apparent fact that our students often lack dignity, earnestness and courtesy. If ladies were admitted to our classes much of this boisterous element would disappear. More than elsewhere, however, we need some restraining influence in the dining hall. At present one sees there a disgusting element of boisterousness, confusion and greediness. All is hurry; and such a sense of eagerness seems to possess every one that they cannot even wait for their share of the eatables to be duly apportioned, but all must simultaneously dive for anything within reach, and instead of placing the dishes in their proper places, must pile them one on another in the most unsavory manner. No doubt very many of the distempers so common among the students are due to nothing else than this greedy, half-masticating way of eating. If ladies were placed at the tables with the gentlemen this state of things must soon cease, and in this refining process, in this quieting of boisterous conduct and of indiscriminate conversation, would lie one of the very great advantages of co-education.

WHY can we not form a College athletic association? The matter has been discussed for some time. Now that the season for sports and out of door work is opening, why can we not agitate the question? It is safe to say that every College of equal prominence with ours has such an association, and that the students derive both pleasure and profit from it. Why should we be behind other Colleges in this respect? At present our sports are confined to an occasional "scrub" game of base ball, or to a miscellaneous kicking at the football. Why cannot the energy displayed in these games be organized and improved?

The advocate of pure, unadulterated agriculture will doubtless say that a student can secure all the exercise he wishes on the farm, and that any extra vitality he may possess can be easily expended at the end of a hoe handle. In this respect we are different from other Colleges. But there is a true old saying that "all work and no play makes Jack a dull boy." Students must and will have sport of some kind, and is it not better to encourage healthful out of door exercise in preference to questionable indoor sport? We have seen students come in from work, or go out from hard study in their rooms to kick at the football, simply because in the active exercise of the game they found rest both in mind and body. There was a freshness and life in the play that sent them back far better prepared for study. We think an athletic association would surely benefit us. It will be simply organizing and developing the energy and talent now displayed. It would stimulate a healthful rivalry in athletic and manly exercises. It would tend to cultivate in us activity, endurance and grace.

None of us are too good runners or walkers, and more than one student has saved his winter's school simply by his knowledge of boxing. It would create an interest in college life and society which would be healthful to the College and pleasant for students. Why not bring the matter up before the students' organization, and push it till all are interested? The idea of a contest for the College championship between base ball nines from each class is a good one. Let us hope that from this contest will grow an athletic association which will not only be a source of pleasure to students, but a credit to the College.

## Correspondence.

We should be pleased to receive communications on various topics for this department, from time to time.

Anonymous articles will not be noticed by the editors.

All correspondence should be addressed to L. W. Hoyt.

This department is designed as the place for the discussion of all current topics of interest to alumni and students. In any such discussions of military drill, a mechanical department, the improvement of the library, etc., let this column be the place for free discussion *pro* and *con*. THE SPECULUM is published to represent the ideas of students, and how can this be better accomplished than by a discussion of live, interesting topics?

Editors of THE SPECULUM:

This winter I was discussing the advantages and disadvantages of our College with a friend. He had visited the College, he said, some time since and had not been very favorably impressed with a survey of the buildings, and their halls especially. He said that the halls were full of dirt and rubbish, and to make this more gloomy, there were no lights, so that he had to grope around in danger of falling down stairs or coming in contact with some unseen wall.

I merely mention this to show what kind of an impression may be given to strangers by our general untidy appearance in and about the building. This can be easily remedied, and by so doing much will be added to the appearance of our fine grounds and buildings.

Yours truly, H. W. L.

TECUMSEH, Mich., Jan. 14, 1882.

EDITOR SPECULUM: I have this week received the first two numbers of "THE SPECULUM," and have very greatly enjoyed reading them. I have myself to blame, no doubt, for the failure to receive them earlier. You are furnishing just the information that I have been desirous to secure. I see many names that recall incidents of '67, '70 and '71, and revive the faded memories of the happy days spent on the College farm. The knowledge of current events of interest will surely draw the students of former days into a closer sympathy with those of the present time. The knowledge of the fact that the labors of the graduates have been crowned with success, and that many of them have been assigned positions of honor, will encourage others to persevere to the end, and, perchance, arouse the fainting hope of a few who might otherwise give up in despair. May abundant success attend your efforts.

Yours fraternally,

E. B. FAIRFIELD, JR.

We print the following without consent, as being too important to omit:

RANSOM, Mich., Oct. 12, 1881.

COLLEGE SPECULUM:

I received your card some time since. Inclosed find fifty cents for SPECULUM. I have received the first number, but thought it didn't amount to much. Try and give us something worth reading.

Yours truly,

H. V. CLARK.

## Colleges.

The Illinois Industrial University at Champaign has passed anti-fraternity laws.

The writer, in a visit to Dr. Bessey last winter, found the genial professor engaged in making preparations for the writing of an elementary botany, to be used as a sort of introduction to his larger work.

The sentiment of the Iowa Agricultural College faculty is against secret societies.

The people of Kentucky, and especially the Grange, are strenuously advocating the separation of the State University and Agricultural College, and the organizing of an agricultural college largely copied after our own.

President E. E. White, of Purdue University, La Fayette, Ind., has been spending considerable time in Cincinnati lately, engaged in a revision of his arithmetics. We understand that the series is to be quite extensively re-written.

Purdue University, La Fayette, Ind., has passed strict anti-fraternity laws. A student belonging to a Greek-letter fraternity preferred charges against the University for its action, and much ill feeling has resulted. The lower court sustained the University, but the matter has now been carried to the Supreme Court.

A SPECULUM man enjoyed, not long since, a pleasant chat with — Bullard, the genial editor-in-chief of the *Illini*, of the Illinois Industrial University, Champaign. Brother Bullard is an architectural senior, and was at the time of the visit wading nearly knee deep in a mixture of architectural designs and geometrical figures, which would well nigh discourage even an editor.

Much has been said as to the impropriety of ladies pursuing a scientific course, but a SPECULUM man in a visit to the Illinois Industrial University, thought that the fair ones who were using the compound microscope that day were as dexterous, as accurate and as well pleased with their work as were the gentlemen, and he is free to say that they were much more attractive. At Purdue, ladies were engaged in wood turning. Some of the finest work done in their shops is the work of ladies. The healthful exercise which they get from this labor showed itself in blooming countenances.

The Inter-Collegiate Society Association holds its first annual meeting next May, at Albion. It is a league between the Adelpheis of Olivet, Amphyctions of Hillsdale, Alpha Nus of Ann Arbor, Erosopheans of Albion, Sherwoods of Kalamazoo, Stars of Adrian, and the Eclectics of Lansing, for the purpose of advancement in literary society work. J. W. Beaumont, of this College, is President, and B. S. Bennett, of Ann Arbor, is Secretary. During the session an open literary entertainment will be given, one of the features of which, we understand, will be a debate, to be participated in by one representative from each society. This confederation, established last year, bids fair to be a grand success.

Much has been said by fraternity and anti-fraternity men in regard to the suit between S. T. Stallard and E. E. White, President of Purdue University. Many seem to think that the Court, in deciding in favor of the University, have decided against Greek-letter fraternities. This is not the case. We quote from the "Opinion of Judge D. P. Vinton" the questions raised: "1st.—Whether the rule in dispute is within the power of the faculty; 2d.—If it is, whether it is void either as being in contravention of the constitution of the State, or of the act of Congress, or some legislative act, or as being in a legal sense unreasonable." The question was not whether fraternities were beneficial or injurious, but whether or not the faculty or board of trustees had a right to pass a rule excluding any one belonging, or intending to belong, to a Greek-letter or secret fraternity.

## College News.

A telegraph line has been put up.

The new barn is completed. The tool house is under way.

Our state law requires the Agricultural College to teach the mechanic arts.

The wheat on the College farm is looking well. Forty-six acres were put in.

About fifteen new Freshmen this term, making a total matriculation of eighty.

The students elected Mr. W. C. Latta Sunday-school superintendent, March 12th.

Our dining hall is unusually orderly. No one complains, but all "eat and be merry."

The College catalogue will be issued during the latter part of the present term—sometime in May.

It is undecided yet what is to be done with the old museum and Professor Cook's old recitation room.

Class hats are the rage. The seniors lead with shining tiles; the freshmen follow with four-cornered tasseled caps.

One admirable result of Professor Cook's study at Cornell last winter is the lectures he is giving on animal histology.

The Secretary's old offices in College Hall have been refitted, and are now occupied as living rooms by Professor Harrower.

Considerable ditching is to be done this year in No. 13, the swampy field north of the Grand Trunk R. R., and east of the lane.

A seven month's calf of the celebrated Hereford, mentioned in the last SPECULUM, was recently sold to A. H. Hord, Marion, Ohio, for \$250.

The most notable of the farm implements lately purchased are a Kemp manure spreader, at a cost of \$115, and a Warner cultivator and harrow combined.

Mr. Fredrick Singlinger has been given the charge of our vegetable gardens. He has been for some time in the employment of the horticultural department.

A thrifty row of young elms along the college premises is beginning to add beauty and value to the real estate along our highway. Resident farmers please copy.

The authorities have in choir-ed into our singing, and we now have a permanent quartette for church and chapel services, with a remuneration of fifty cents a week to the singers.

If boards were laid along our walks, the lawns would be protected and feet would be kept dry. The margins of the lawns about Wells' hall are entirely spoiled from this lack of protection.

Cases are to be placed on the second floor of the botanical laboratory for the purpose of exhibiting some one-hundred varieties of corn from various places, which Dr. Beal now has in his possession.

The old library room will be given to Professor Johnson for a class room. The west side of the room will be partitioned off for an office. Some part of the room may be used for the exhibiting of agricultural products.

The College lost a warm friend in the death of W. S. George, editor of the *Lansing Republican*. He was often present at College exercises, and twice he lectured before the students. All had learned to admire and respect him.

Among the severe criticisms so often passed upon the general features of our College by other institutions, it is gratifying to hear the praise given to those departments which have been so well perfected by our trio of specialists.

People generally are eager for a greater knowledge of their insect enemies and friends. Why not have a state entomologist? The reports of other state entomologists are among the most valuable works we have on entomology.

The Eclectics are making extensive improvements in their rooms on the fourth floor of Williams' Hall. A new piano has been lately added to their already pleasant fixtures. An ante-room has been built and a commodious dining room will soon be added.

Hon. Franklin Wells of our State Board thinks, since visiting the National Agricultural Convention at Washington, that an agricultural museum should be started here. We wish that others of our State Board would visit other institutions and make extended comparisons.

The College Christian Union has been changed into a branch of the College Y. M. C. A. The chief objects in making the change were to secure a more thorough and effectual organization, and to profit by the instruction and experience of those who have made Christian work a constant and life-long study.

Nothing is more refreshing than a visit to the green-house during these bleak, cold spring days. A fragrant, blossoming summer greets one as he enters. Nothing is untidy or out of place; everything evinces constant care and great skill. We can afford to boast of our green-house. Mr. Cassidy deserves great credit for his faithfulness and labor.

The seats in class room B have been arranged so as to face the east, and the President's old front office has been connected with the room by folding doors. The old office will now be used as an instrument room, to contain the mathematical and surveying instruments. The south room of the old office will be fitted up for Professor Carpenter's private office. When the old class-room is repaired, and the old offices refitted, the mathematical department will be quite comfortably located.

Mr. George H. Stewart of Grand Blanc has presented the College with a pair of Jersey Red hogs. The College has lately purchased four fine Essex of Jos. Harris, of Rochester, the notable author of "Harris on the pig"; two Berkshire sows of N. A. Clapp, Novi, Mich., and one Poland China of S. O. Barnes, Byron, Mich. Our swine now number 16 Essex, 4 Berkshires, 1 Poland China and 2 Jersey Reds. It is a rule of the State Board of Agriculture that only Essex shall be kept for breeding purposes, and of other breeds only enough for specimens. A pair of Suffolk will probably be procured soon.

Our new heating system is a success. Some improvement should be made, however. The radiators which were placed in the upper rooms in Wells' hall, are only about half the capacity of those placed lower down, and with our poor circulation the steam does not rise as it should. This arrangement necessitates more steam, and then the upper rooms are poorly heated on cold, windy days. But we do not complain; this system is to the old one as warmth and comfort are to colds, rheumatism and ague. Now give us a good water supply—especially good drinking water—and we will be quite comfortable.

Our lawns and drives which were so promiscuously cut up, and so generally disarranged by the building and improvements on the premises last year, are just getting respectably straightened out again. Among other ornamental fixtures on the grounds is a great hollow mound of brick and earth surrounding an expansion joint on the steam pipes between Wells' hall and the chemical laboratory. It is so big that the horse mower cannot cut it off, either. The boys of '82 are wondering if there are any ditches to be dug across the lawns, or any drives to be moved, etc., just about next commencement time. It is rumored that the visitors last year admired those large ditches, especially those who fell into them.

The new rules posted in the students' rooms are good. Damage to a room is charged to the occupants, if the offender is not known; damage to a hall is charged to the students who room near it. The steward is obliged to visit the halls once each week, and to visit the students' rooms at the beginning and close of each term, and at every full change of occupancy, and to take notes of any damage done. This is a wise provision and students should concur with it. It savors of barbarism to kick in doors and to intentionally mutilate buildings. The condition of things in the east part of Wells' hall last fall was outrageous. The panels of many doors were broken in, and other damages done. Students who wish to destroy property should apply at the Reform School.

Communication between College and Lansing has been nearly impossible, much of the time this spring on account of bad roads. This road has always been a standing disgrace to the community. The State Board has considered its interest in the matter, and has decided to donate considerable in work. The funds at its disposal will not allow of any expenditures in money. Some members of the faculty have donated liberally to the fixing up of the road, and citizens of Lansing, and farmers about the College have also given. It is proposed to gravel it. The students will probably give some labor. If ladies are ever admitted to the College, it will be no light problem to provide means to convey them to the city and back. Most of the time it is a hard day's work for a man to make the journey.

A distinctive and growing feature of the College is the increased facility with which the different departments are enabled to perform their work owing to the fitting up of class-rooms for the express use of a single department, and to the private offices provided for the different professors. This division of rooms and material is an element of substantial progress. A man can not do good work if he is crowded for room, and especially if the same class-room is used for a half dozen different purposes. It certainly must be a source of much satisfaction and an incentive to better work if a teacher has a private study and class-room which he can arrange to suit his own tastes and needs. Aside from the offices and rooms devoted to the chemical and botanical department, we now have them devoted to the department of entomology, zoology and physiology, to the department of mathematics, and will shortly be similarly supplied in the agricultural department.

We have the following from one of the participants in the January Farmer's Institute at Cassopolis: The query-box produced the question, "Was it right for the legislature of Michigan to vote \$10,000 of the peoples' money that the legislators might attend the Yorktown centennial celebration?" The obnoxious question provoked almost unlimited discussion from many who wanted to have something to condemn, and who were unfriendly to a few politicians present. The discussion had thus dragged along its weary length until everyone was disgusted, and yet no way appeared of disposing of it. Finally a deliberate looking person arose from an obscure corner and in an unpretentious manner remarked that the discussion reminded him of a story. "One day," he said, "a man goin' along the road, met a young fellow an' asked him if he'd ever read the Bible; young man said no; 'well,' says he, 'you'd better do it', an' the man passed on. After a while the man was goin' over the same road again and met the same young fellow. 'Did you do what I told you?' asked the man; young man said yes; 'How did you like it?' young man said 'Pretty well, but did not get far; I began at Genesis and read it through and then I came to a place where it said, Leave-it,-y' cuss, and I quit.' The hint thus delicately conveyed was taken and further discussion of the vexed query was dropped.

The extensive addition to the chemical laboratory is completed, with the exception of the finishing of the quantitative rooms in the basement. The old portion is quite entirely re-modeled; the old lecture room now contains five tables for chemical analysis, and is used as an addition to the old analytical room. The present lecture room is probably the pleasantest on the grounds; it will seat one hundred and fifty, is well heated by steam, exceptionally well ventilated, and thoroughly lighted. A sky-light admits light to the lecture stand. The Professor's office is in the addition, the old office being used by the assistant. Doctor Kedzie takes great pride in showing his laboratory and its appliances, and well he may. He says that as soon as his quantitative rooms are completed, he will be ready to compare notes with any other laboratory anywhere. Special attention in the arrangements has been given to the preparation for special courses of study in higher chemistry. Now when our chair of chemistry is divided into the two chairs of elementary and organic chemistry, and analytical chemistry and chemical physics, our chemical course will fully sustain all the anticipated results which have been so fully warranted by the thorough and much-renowned manner in which it has been conducted in the past. We congratulate Professor Kedzie on the successful completion of the laboratory for which he has striven so long.

The library and museum building is completed, although the cases are not yet in the library and museum rooms. The library room is a very fine one, large, and well lighted. The cases will be arranged perpendicularly to the walls. A reading room opens from the library. In this room will be a table devoted entirely to SPECULUM exchanges. The library will be moved next vacation. The President and Secretary each have very fine double offices. The whole upper floor of the building is devoted to Professor Cook's department. The rear of the building over the library will be used for a museum. This museum room is nicely arranged: high, commodious, and exceptionally well lighted by cupola skylights and side windows. The museum will be moved in the latter part of the term. Professor Cook's class-room is a credit to our institution; it is provided with a raised floor, and modern conveniences for class illustration. The Professor has a private office opening into his class-room on one side, and into the main hall and the dissecting-room on the other sides. The dissecting-room is arranged for the practice of felotomy, more familiarly known in junior provincialism as "cutting cats." The dissection of cats as an auxiliary to the study of anatomy and physiology is getting to be a prevalent method of instruction in many colleges, and some claim that it is the best preparatory step to the dissection of human cadavers. The State Board have accepted the building.

**THE SORGHUM EXPERIMENT.**—The last session of the Legislature appropriated money for the purpose of conducting a series of experiments to determine whether or not it would be profitable for farmers in Michigan to grow sorghum. This work of experiment and investigation was put into the charge of the College. Last spring an acre of sorghum was planted, and last fall it was manufactured into syrup, the expenses attending the entire production and manufacture being kept. The experiments were made under the charge of the chemical department. The following facts were gleaned from Mr. Frank Kedzie's report: No attempt was made to produce sugar this year, the object being a production of superior table syrup. The soil upon which the sorghum was grown is a strong sandy loam. Early in the spring the land received ten loads of barn-yard manure, and just before planting thirty bushels of unleached ashes. The variety raised is known as the Minnesota Early Amber. Much of the seed failed to grow and a second planting was made. The crop was cultivated five times and hoed once. When the cane was harvested, September 23d, it averaged eight feet in height. It was immediately worked up after harvesting by a No. 3 Victor crusher and a No. 5 Cook's automatic evaporator. In the manufacture "the question of clarifying the juice is of the greatest importance, for it is at this point that the whole question of good syrup or bad syrup is definitely settled. The peculiar substances which give the grassy taste to sorghum syrup must be cleared away in the boiling process by the use of clarifying agents." There is no clarifying mixture known, however, which will entirely remove these undesirable materials.

Five samples of syrups were manufactured. One was clarified by lime, one by sulphite of lime, one by phosphate of soda, one by bisulphite of soda and one was not clarified at all. They were all perfectly fit for table use or for cooking, with the exception of the unclarified sample which had a decidedly raw, grassy taste. The best tasting sample was probably the one clarified by bisulphite of soda, although the sulphite of lime sample was nearly as good. The unclarified syrup was, however, the lightest colored, owing, probably, to the clarifying agents acting upon the coloring matter in the juice of the other samples.

The syrup could not be prepared quite as cheaply here as on an ordinary farm, as the student labor could be employed only

half a day at a time, an item of considerable importance during the manufacturing process. The total yield from the acre of cane was 150 gallons of syrup. The entire expense of growing and manufacturing, including interest on the land, was \$45.00, or 30 cents a gallon. Under different circumstances of labor, it could probably be produced for 25 cents a gallon. "The samples of syrup, with the figures on expense which have been given, show quite plainly that sorghum can be grown profitably, and with a reasonable amount of care will produce a good quality of syrup; and that ten or a dozen farmers, by uniting to purchase a crusher and pan, at an expense of from \$30.00 to \$50.00 each, locating the works at some central point easily accessible by all, can profitably grow from half an acre to an acre of sorghum a piece, producing a good quality of syrup and an abundance of it for their own use." These experiments of a single year are not regarded as decisive. They will be further pursued.

**THE COLLEGE FEEDING EXPERIMENT.** As the readers of the SPECULUM will be glad to know how ensilage as a cattle food maintains its position when subjected to careful trial along with other feeds, a brief summary of the experiment, as conducted under Professor Johnson, is given by Mr. W. C. Latta, assistant in farm experiments:

The object of the experiment was to determine the value of ensilage as a cattle food, for the production of milk, flesh and growth. With this aim in view, the ensilage was fed to milch cows, dry cows and young stock, in place of roots, and as a full or partial substitute for the dry rough feeds. The results of the experiment were as follows:

1.—*Effect of Ensilage on Milk.*—The verdict of the palate is that milk from the ensilaged cows is of good quality and has no unusual odor or flavor. This milk was used daily by families on the College grounds, and, in one instance, fed to a young babe several weeks, with no apparent ill results. The yield, though not increased, was well kept up. The two milch cows, fed wholly on ensilage and meal, made an average gain in weight in twelve weeks of forty pounds a piece, and the average shrinkage in milk during this time—Dec. 1 to Feb. 23—was 15.81%. The only other cow that had been giving milk the same length of time lost forty pounds in weight, and her shrinkage in milk was 16.07% during the same period. The last mentioned cow had dry, cut cornstalks, good meal, and a little hay occasionally, besides getting, during February, a peck of roots daily.

2.—*Ensilage as a flesh producer.*—As a substitute for roots in a dry feed ration, ensilage has proved to be equal to roots, pound for pound. On a ration consisting wholly of ensilage and meal, the gain in flesh was very good indeed, much better than on hay and meal.

3.—*Ensilage and growth.*—The only animal fed wholly on ensilage lost weight. On an ensilage and meal ration very fair gains were made. It is far superior to corn fodder in a mixed dry feed ration. As substitute for roots, pound for pound, and as a partial substitute for hay, three pounds for one, ensilage made good returns.

4.—*Effect on the health of the animals.*—The animals were slick, lively and apparently in excellent health at the conclusion of the experiment. Even the steer that had been losing weight on an exclusively ensilage ration, began to gain at once when fed on ensilage and meal, showing that his constitution had not been injured. The comparative feeding and cost value of ensilage with other feeds at their market values,—hay \$10; corn fodder and straw, each \$5 per ton, and rutabagas, 40 cents a bushel,—shows a feeding value of four times the cost of growing the crop and putting it into the silo.

The inferences based on the experiment are:

1.—Ensilage of the best quality, is an excellent feed for milch cows, as well as for growing and fattening cattle.

2.—It is an admirable and cheap substitute for roots, as a cattle feed.

3.—The relative amount of ensilage in a standard ration will depend upon the particular object of the feeder.

4.—The experiment has not determined the proportion of ensilage to be fed for milk, growth, etc., but leaves this subject for future investigation.

**ORANGE BLOSSOMS.**—On Wednesday evening, at the residence of Jas. R. Steele, in the village of Palmyra, occurred the marriage of Mr. Cyrus T. Crandall, of Raisin, and Miss Frankie Grinnell, of Palmyra. The service was performed by the Rev. Pardington, of Tecumseh. A very pleasant company of about fifty friends and relatives helped to celebrate the occasion, and wish the bride and groom a happy and prosperous future. Some very handsome presents were made. A reception took place at the residence of Mr. Crandall at Raisin Valley on Thursday.—*Adrian Times.* Mr. Crandall graduated here in 1880.

## Personals.

THE Editor of this Department desires the earnest co-operation of the alumni in aiding him to fill these columns with interesting items. Give occupation since graduation, what offices held, whether married or not, etc., etc. Let this receive prompt attention from every alumnus.

G. L. Stannard, '76, is farming in Ionia Co.  
 C. W. Hume, '73, is a doctor in Corunna, Mich.  
 Carroll E. Miller, '72, is a physician at Cadillac, Mich.  
 Donald McPherson, '74, is an attorney-at-law in Ionia, Mich.  
 T. E. Dryden, '79, is a hardware merchant in Allegan, Mich.  
 James L. Morrice, '73, spent the winter at home in Ionia, Co.  
 Mathew S. Lowder, '72, is a prosperous farmer in Salem, Iowa.  
 L. F. Ingersoll, '74, is a prominent doctor in Sutton Bay, Mich.  
 Arthur Jones, '81, is studying law with J. E. Nichols, Lansing, Mich.  
 Mr. Knapper is beginning to improve the looks of the College lawn.  
 John T. Fraser, '72, is a veterinary surgeon in Fowlerville, N. Y.  
 Chas. A. Jewell, '62, is a hardware merchant in Springfield, Missouri.  
 E. J. Rauchfuss, '79, is a clerk in the office of the State Board of Health.  
 Satterlee Trowbridge, '78, is in the Land Office at Washington, D. C.  
 W. W. Remington, '80, is engaged in teaching at Fort Collins, Col.  
 A. H. Voigt, '81, is a salesman in a furniture house in Los Angeles, Cal.  
 C. B. Fisk Bangs, '76, is railroading between Ionia and Howard City.  
 Charles S. Crandall, '73, is a prosperous merchant in Harbor Springs, Mich.  
 B. T. Halstead, '73, has recently opened a law office in Harbor Springs, Mich.  
 Charles J. Goodwin, '77, is farming on the old homestead, in Ionia Co., Mich.  
 George Bloodgood, once with '76, is a lumber merchant in Cassopolis, Mich.  
 W. S. Delano, '81, a member of the Signal Corps, is located at Fort Myer, Va.  
 Jay D. Stannard, '76, has sold his farm and will probably locate in Wisconsin.  
 Lyman Cady, who was murdered by Vas Camp, was once with the class of '77.  
 Samuel B. Long, once with the class of '76, is a prosperous farmer at Dearborn, Mich.  
 Charles S. Williams, '70, is a dealer in agricultural implements at Owosso, Mich.  
 A. B. Peebles, '77, is a student of theology at Oberlin, Ohio. He graduates next June.  
 W. B. Jakways, '76, is a farmer in St. Joseph, Co., Ind. His address is Dayton, Mich.  
 W. Crissey, editor of the *Midland Republican*, was once a member of the class of '70.  
 T. H. Hough, once with '83, was married, Dec. 20, to a lady of Santa Barbara, California.  
 Russell A. Clark, '76, is speculating quite extensively in farming lands in central Michigan.  
 C. W. McCurdy, '81, is a bookkeeper for Jno. R. Lee, a railroad contractor in New York.  
 L. G. Carpenter, '79, took a post graduate course at the University during the past winter.  
 Charles L. Jackson, '70, died at Midland, Mich., last October. He was a druggist and unmarried.  
 Mrs. President Abbot and her son Rodney, spent a part of the winter vacation in Iowa City, Iowa.  
 Frank A. Sessions, '71, has been in a bank, in Ionia, since graduation, and is at present cashier.  
 F. S. Burton, '68, has left Midland and is at present editor of the *Freeland Banner*, Freeland, Mich.  
 Mason W. Gray, '77, is physician for the Nonesuch Mining Co., at Nonesuch, Ontonagon Co., Mich.

F. C. Wells, once with '73, is proprietor of the Harbor Springs House, at Harbor Springs, Mich.

Prof. C. E. Bessey, '69, of the Iowa State Agricultural College, has lately returned from a trip to Europe.

W. C. Latta, '77, has had charge of the feeding experiments here at the College during the past winter.

Albert Dodge, '77, is a lawyer in Fowlerville, Mich. He is married and has a daughter nearly a year old.

"Hackstaff," the memorable farm hand of two years ago, is assisting Prof. Ingersoll on the farm at Purdue.

Mr. Cassidy has so far recovered from his last fall's illness, as to be able to fulfill once more his duties as florist.

L. J. Gibson, '64, is a farmer at Wacousta, Mich. In company with his wife, successfully keeps an apiary.

James Troop, '78, spent his winter vacation at Cornell University, studying microscopy and microscopic botany.

Frank W. Hastings, '78, was married Oct. 25, '81, to Miss Lillian C. Livingston. We wish them much happiness.

William H. Smith, '75, is teaching near Grand Rapids. His health is not good and thinks of settling in the south on that account.

C. C. Georgeson, '78, was married, Jan. 2, '82, to Miss Maggie Lovett, of Long Branch, N. J. They have the best wishes of the SPECULUM.

Harry E. Emmons, '78, has become the successor to R. G. Rudd & Son, dealers in feed, Detroit. He has a daughter four months old.

Ransom H. McDowell, '74, formerly foreman on the farm here, has accepted a similar position at Purdue University, under Prof. Ingersoll.

Henry A. Haigh, '74, graduated in the law department at the University in '79. He is at present located at Detroit. He is still unmarried.

Frank J. Annis, '75, having finished his law studies at Ann Arbor, has gone to Fort Collins, Col., as a member of the law firm of Rhodes & Love.

Clifton B. Charles, '79, was married Feb. 25, to Miss Louia Grills, of Bangor. The SPECULUM sends congratulations and customary good wishes.

H. V. Clark, '78, is taking Greek and a few preparatory studies at Oberlin, Ohio, where he expects to enter the theological seminary next year.

We desire to correct the statement made in our last issue in regard to Mrs. M. J. C. Merrrell of '81. She is studying domestic economy, and not medicine.

Prof. E. J. MacEwan spent his winter vacation here at the College. Besides attending the institutes, he has been engaged in selecting new books for the library.

Marcus S. Thomas, '79, is the father of a promising boy, who is the winner of the class cup, which was offered by '79, to the first child born to any member of the class.

Amos Troop, '81, has recently returned from Rush Medical College, Chicago, to spend his vacation at home. He intends to return to Chicago when the term opens again.

Prof. R. C. Carpenter, '73, attended the Farmers' institutes during the winter, but spent most of his time in preparing a report for the Engineers and Surveyors' Association.

Geo. W. Long, '74, died not long since at his home in Dearborn, after having prepared for his life's work. He had lately graduated in the medical department of the University.

W. L. Simpson, two years with '81, is expected from West Point on a three months' furlough, at the close of his second year there—next June. He will make the College a visit.

W. W. Reynolds, '70, was in dental business for two years after graduating, but as his health failed him he went to farming. He has had good success as an apiarist. Is married.

Frank Benton, '79, was presented with a daughter, named Thekla, at Sarnaka, Cyprus, Sept., 5, '81. Mr. Benton has now an apiary at the foot of Mt. Lebanon. He is quite unwell.

Edward M. Preston, '62, is President of one of the leading banks in Nevada, Cal. He is one of the leading masons in that state. He will be here to the next alumni meeting if possible.

George Hale, Hartford, once with the class of '83, was married February 11th to Miss May Winslow, a neighbor's daughter and sister of Warren Winslow, who entered here with George.

George W. Mitchell, '74, is farming near Bloomingdale, Ind. He was married in 1874. His daughter, Ida M., who received the class cup, died in '77. In 1879 he took a trip through the south for his wife's health, but, on Jan. 31st, she, too, died, leaving him alone.

Dustin C. Oakes, '74, taught school for some time after graduation. In 1876 he bought a farm and has since been a farmer. He was married Dec. 25, 1876. Has held several responsible offices.

We acknowledge the receipt of an invitation to a "social hop" given by the young men of Dearborn. Wm. Sloss, '76, H. A. Haigh, '74, and O. P. Gulley, '78, represent the committee on invitations.

Charles L. Bemis, '74, has been teaching ever since his graduation. He is one of the county board of school examiners in Ionia county. Is married and has two children. His address is Portland, Mich.

Dr. John K. Gailey, '74, after studying in New York city and graduating at the Michigan University, went to Europe to complete his medical studies. He is at present resident physician at Harper hospital, Detroit.

Eugene Davenport, '78, Emmor O. Ladd, '78, and John Q. Thomas, '79, have each been married since the last issue of the SPECULUM. We failed to learn the particulars, but we hesitate not to offer them our best wishes.

Jay R. Monroe, '78, has bought the famous Revenue mine for which he paid \$40,000, within sixty days. Mr. Monroe took immediate possession and will work it to its full extent. It is considered cheap for the price paid.

A. E. Smith, '81, since graduating, has been traveling through the southern states. At present he is located at Crescent City, Fla., engaged in the drug business. He intends to return north soon to take his proposed medical course.

Fred. E. Smith, Penn. Mich., formerly with '82, has been engaged in stock raising. During the past winter, he has recorded surveys for his father. He is going to Dakota this spring, to prospect and will probably go to wheat farming.

Edward J. Rawson, '78, after graduating went to Dowagiac to engage in the grain business. During '80 and '81 was in a commission house in Detroit. Since January 1, '82, has been with his father, who is a grain buyer in Decatur, Mich.

W. K. Prudden, '78, since graduation has been in the loan office of James M. Turner, Lansing, Mich. He expects soon to engage in the real estate business for himself in the Upper Peninsula, and will probably locate at Marquette, Mich.

E. C. White, once with '82, is a sophomore at Purdue University, La Fayette, Ind., where he has taken outside work in teaching lower classes and in the editing of a weekly college paper, *The Purdue News*. His health is now good.

William L. Carpenter, '75, graduated in the law department at Ann Arbor, in '78. He then entered the law office of M. E. Crofoot, of Detroit, where he remained until 1879, when he formed the partnership of Carpenter & McLaughlin.

Con. B. Malory, our worthy steward, spent the whole of his vacation here at the College, making the needed repairs in the kitchen and dormitories. He has proved himself to be the man for the place and we appreciate his earnest efforts to do us justice.

At the close of the fall term, President Abbot went to New England and New York. He visited Dr. Manly Miles' experimental farm, which is situated a short distance from New York City. He returned in time to attend the farmers' institutes held this winter.

J. D. Williams once with '78, is a prominent doctor at Fife Lake, Mich. He obtained his medical education at the Eclectic Medical Institute of Cincinnati. He was delegate to the National Eclectic Medical convention at St. Louis, June, 1881. Married Oct. 9, 1881.

B. A. Nevins, '75, after graduating went to Otsego, Mich., where he taught four years; then began manufacturing fanning mills, etc. His factory was burned last December, but expects to have a new one completed by next May. He was married Aug. 3d, '80.

Rev. Oscar Clute, '62, is one of the leading writers for the *Live Stock Journal*, and it is possible that he may give up his other duties and become editor of that paper. We remember him as author of "The Bessed Bees," an interesting and instructive book.

Charles McKenny, '81, traveled in the book business four or five months after graduation. He is now engaged, in company with his former classmate, Henry Dickie, in giving temperance lectures in the northern part of the state, and in organizing Good Templar Lodges.

Chas. S. Emery, '77, is at present scaling for the lumber firm of Whitney & Remick, at Clare, Mich. He went to Dakota last fall, where he joined an engineers' corps that was engaged in laying out town sites along the C., M. and St. P. R. R. He returns to Redfield, Dakota, next spring to take charge of a large farm that he owns.

Harvey L. Rosenberry, '81, is prosector for the Professor of Anatomy in the Medical College, at Columbus, Ohio. He entered that college last Sept., but was chosen for the position on account of his superior intelligence and skill. He is also practicing to some extent in the city.

Prof. A. N. Prentiss, '61, was professor of botany and horticulture in this College until '69, when he accepted a similar position in Cornell University, N. Y. He has one of the finest of class rooms to which is attached the green house, containing many thousand native and tropical plants.

Ira B. Gage, '76, was in a bank until October, '80, when he went to Dakota. He is now farming and speculating near Fargo. He says the College is the least of his troubles and that he will not subscribe for the SPECULUM. We do not gauge the remainder of the alumni by this gentleman.

One of the largest stores at Pentwater, Mich., bears over the door the sign C. E. Bush & Co. The C. E. Bush turns out to be Charlie Bush of '81. He has a large and growing trade, and yet finds some time to devote to society matters, being a prime mover in the Pentwater Dramatic and Musical Club.

Dr. W. J. Beal, during the winter vacation, attended the meeting of the State Horticulture Society, at South Haven. He also attended several other meetings, reading papers and delivering lectures. He has also edited the Proceedings of the American Pomological Society, which are noted elsewhere.

At present, Dr. Kedzie is President of the National Board of Health; Prof. Cook is President of the American Bee Keepers Association; Dr. Beal is President of the Society for the Promotion of Agricultural Science and Secretary of the American Pomological Society. We have at least our share of national honors.

Secretary R. G. Baird, in company with Franklin Wells, of the State Board, attended the agricultural convention which was held in Washington, D. C., this winter. The secretary returned in time to attend most of the institutes held this winter. He is now comfortably located in his new office, which is a very fine one.

George A. Royce, '75, for five years past a clerk in the office of the Auditor General, has accepted a position as land agent for Thomas Nestor, of Baraga Co., Mich. It is a very desirable position and we congratulate him on his good luck. He was married last fall to a daughter of Gen. Ralph Ely, of Lansing. His address is L'Anse, Mich.

Prof. A. J. Cook, '62, attended the Bee-keepers association in Dec., then lectured in Ohio until Jan. 1st; since that time he has taken a six weeks' course in microscopy at Cornell University. While in Ohio and New York, he visited several herds of Jersey cattle. He bought eight for Judge Marston, of this state, and one for himself. The prices ranged from \$60 to \$200.

L. H. Bailey, Jr., editor-in-chief of the SPECULUM, while traveling through the south, met two of his old class-mates at Louisville, Ky.—George Rosen and George Harmon, who were at one time members of '81. Rosen is expecting soon to be owner and manager of a farm in central Kentucky. Harmon, formerly of Detroit, is engaged in the U. S. Signal Service in Louisville.

Prof. Ingersoll is intently engaged in his work at Purdue University, which he has grown to love and admire. The vigorous institution compliments his efforts. He is at present happy from the obtaining of an agricultural laboratory, the first probably in the United States. The building is a good sized brick, containing an office, class room, rooms for the exhibiting of agricultural products, tool room, and apartments for the storing of experimental crops. It also has an observatory, commanding a view of the farm. He was a delegate from Purdue to the convention of Department of Agriculture in Washington, D. C.

## Literary Notes.

PROCEEDINGS OF THE AMERICAN POMOLOGICAL SOCIETY. Edited by the Secretary, Dr. W. J. Beal, published by the Society and printed by E. R. Andrews, Rochester, N. Y., 1882. 4to, 325 pp. \$1.00.

The volume contains a full report of the eighteenth biennial session of three days, held in September, in Boston, Mass. Numerous papers were read by some of the ablest pomologists in this country. A long and able address was given by the venerable Marshall P. Wilder, who has been President for about thirty years. Delegates were present from many of our States and the British Provinces. Long and valuable discussions were had on various fruits, especially full on grapes, strawberries, peaches and pears. The meeting closed with a grand banquet, held in Music Hall. Speeches were made by representatives of various societies and sections of our country. A hymn was written for the occasion by John G. Whittier. The volume contains reports from various portions of North America. These are full and very valuable to any who are seeking for information in reference to the capacity of any state for fruit. Then follows a catalogue of fruits, so arranged that any one can see at a glance what is recommended for any state. For example, a list of 330 varieties of

apples is given, some good for one section and some for others; some are desirable for many states, others for only one or two. A very complete index makes it easy to find what is said of any fruit in the country. The paper is excellent, the type clear, and in every respect the report reflects great credit on all concerned in its construction. Patrick Barry, the First Vice-President, rendered valuable service in the state reports and in revising the catalogues. The volume is larger by about thirty pages than any previously printed.

**ORNAMENTING MICHIGAN SCHOOL GROUNDS.** This is a pamphlet of seventeen pages, taken from the Annual Report of the State Horticultural Society, of which Hon. C. W. Garfield is the Secretary.

The matter of this pamphlet is a good deal out of the beaten road in regard to awaking a much needed interest in the common schools. Some of the members of the state Horticultural Society, notably Secretary Garfield, W. W. Tracy, T. T. Lyon, set the ball in motion. D. M. Ferry & Co., of Detroit, gave seeds with specific directions for treatment to all school teachers who promised to use them and make a report to Secretary Garfield. The newspapers of the state advertised the subject and rendered valuable assistance. Eighty-one teachers applied for seeds. The pamphlet is largely filled with reports from these teachers. The results are very gratifying, indeed, to any who are interested in rural improvement. The garden was a source of amusement and instruction to the children. It helped keep them from mischief, and made it easier for the teacher to maintain good order. The flowers were used for object lessons, bouquets in the school room, and for the sick in the neighborhood. This effort stimulated the cultivation of flowers in the neighborhood. In most cases, some seeds were saved for use next summer. Nothing but good can come from such work, and we trust the coming spring that many more will join in ornamenting the grounds about their school-house.

**MICHIGAN AND ITS RESOURCES.** Edited by Col. Frederick Morley.

No section of the west was more undervalued than "the Michigan" of sixty years ago: its chief productions were said to be "fever 'n ager and swamp hay." Gradually she has dispelled these illusions—but the old saying, "Give a dog a bad name and hang him," has proved its power, and many desirable settlers have turned their faces further westward, in their search for a home, or account of these traditions.

There is now before us the result of the first effort made by Michigan men to place her advantages before the world, in the form of a pamphlet, entitled "Michigan and its Resources," compiled by the Commissioner of Immigration, Col. Frederick Morley.

The publication is what it should be, a plain statement of Michigan's resources and the inducements for settlers to "go in and possess the land." The first thing encountered is a good railroad and county map corrected up to October, 1881. Next follows brief articles, giving sketch of its early development, the obstacles met with by those contemplating settlement, nativity table of those who did settle, etc. A glance at the table will explain why so many people say they came from "York state."

The various industries of lumbering, salt, copper and iron production are fully treated. Its agricultural value is well brought out by articles and careful tables. One table shows the average cash value of products per acre during the last five years in Michigan to be five dollars more than the average of eleven other principal farming states, and thirty-four cents greater than any other state. Among the various articles our College is well represented by "Soil, Productions and Climate," by Dr. Kedzie; the "Flora of Michigan," by Prof. Beal, and "Experience in Northern Michigan," by Geo. E. Steele (an old student).

The educational interests of the state are given much attention, and a very good description of each of the institutions of learning will do much toward convincing the new comer that his children need not grow up in ignorance for want of public schools.

Quite an extensive table has been prepared, showing the cost of living in several of the leading towns as compared with the wages of workingmen. This of itself is of great value to the stranger, and taken as a whole, we have no hesitation in pronouncing this pamphlet the best thing of the kind we have ever seen.

## Exchanges.

Not long ago our attention was called to the great difficulty in securing interesting items about neighboring colleges, and the matter led to some thought and investigation on our part. We think that a plan might be arranged by which several of our leading Western college journals might secure promptly what they sometimes get now several weeks after its occurrence. We here submit a plan which we hope may receive thought and discussion and lead to better results:

We propose having a central office either under the control of some college paper, or, perhaps better, controlled by some person entirely outside of college whose exclusive attention can, if necessary, be given to the prompt execution of all duties connected with it.

All expenses of this office should be paid by those papers forming the association, each in proportion to the amount of matter received from the central office. One editor from each paper belonging to the association should be a reporter, sending immediately to the central office any item he may secure, letting each paper receive proper pecuniary credit for all matter thus sent in. This will urge all reporters who have the welfare of their paper at heart to put forth earnest efforts to secure items. As fast as the items come to the central office there should be printed at least as many copies of it as there are papers in the association. The central office should have the date of the going to press of all the papers, and just before that time send said paper all items which have been received since their last issue.

We think this is a scheme which presents every prospect of success if tried and carried on with energy. This plan is somewhat like the one now in operation in the West, but our plan has, we think, more elements of permanency and success than the one now in operation.

The great objection to the present plan is, that if the association becomes extensive enough to secure numerous items concerning the many colleges of the United States, it will require too much time and money to be managed by one paper like the *Knox Student*, Galesburg, Ill.

Then, again, it is not right for this paper to bear the expense which brings benefit to all concerned. We think also that items will not be so easily secured by the present plan. Let us find the best plan and then unite in making it a success.

We spoke in our last issue of the tendency of college papers to deal with matter of mere local interest or no interest at all. A fine illustration of this is found in some articles of the *College Mercury* of March 9. Perhaps "W. H. R." obtained some good from his poem entitled "Night" by the relief such an effort must have been to his over-flowing sentimentality. It has been suggested that while the writer was kneeling and listening to "silent chords" a good cold bath would have afforded speedy relief.

The article, "Alumni Dinner," is an example of how a fair two-column article can be made a tedious eight-column inflation. We quote:

"The aesthetes have scored a point. Let the champions of the little Renaissance add a new petal to the 'leonine' flower of their fame. Let the drooping-locked *protege* of Mr. D'Oyly Carte carry home with him to 'his sapphire cave of sea,' as a fillet for the triumphant brow that has braved a hundred tea-fights and borne itself unbleachingly through the heterogeneous receptions of much-receiving America, the lavender ribbon of New York. The pale poet of Magdalen walks has received high homage from the sons of his Alma Mater's strong sisters across the sea. Tell it not in Bulgravia—whisper it not in Castle Bunthorne—for proselytes are won—and the Philistines are discomfited—and Pottlethwaite and Maudie may pose in sweet and curvilinear joys. For the Associate Alumni of the College of the City of New York—the children of the home of practical utilitarian progress—gathering to hold high festival and to glorify themselves, have chosen to assemble beneath the glamour of a frieze and to dine upon a dado."

We would propose a toast we once heard in the author's honor: "May his soul hibanderate down the grand decaduck of time to immortal futurity." One can bear a little of such, but when it comes to eight columns of similar matter, it is, to say the least, tiresome. The editorials are good and pointed, and generally we take pleasure in reading the *Mercury*.

One of our best exchanges, if not *the* best, is the *Student Life*, St. Louis, Mo. Its appearance is neat, its articles are excellent and its typography is superior. We heartily welcome the *Student Life*, and wish there were more college papers like it.

We have just received Vol. 1, No. 2, of the *Palette Scrapings* from the St. Louis School of Fine Arts. We are very much pleased with its appearance. We liked the cuts, especially "Jeune" and the "The Little Musician," and heartily welcome our new visitor, hoping it may often call in future.

We acknowledge the receipt of the following papers: *Academica*, *College Record*, *College Mercury*, *Student Life*, *College Journal*, *The Lariat*, *Mississippi University Magazine*, *Oberlin Review*, *Sunbeam*, *Campus*, *Hobart Herald*, *College Courier*, *Ann Arbor Chronicle*, *University Quarterly*, *Round Table*, *Illini*, *Ypsilanti Normal News*, *Niagara Index*, *Varsity*, *Simpsonian*, *Perdue News*, *Napa Classic*, *Archangel*, *Concordensis*, *Educational Review*, *College Cabinet*, *Heidelberg Monthly Journal*, *College Rambler*, *Knox Student*, *Monmouth Collegian*, *Acta Victoriana*, *Student's Offering*, *Palette Scrapings*.

## College Pun and Conundrum Club.

MR. EDITOR—The season for the taking in of new members has passed, and, in common with the rest of the college societies, we entered tooth and nail into the contest. We have various and strict qualifications, which we require all new men to possess.

Flip, the President, spoke to the members a word of encouragement in their work: "Look unto yourselves, my brethren, and be ye not cast down with the difficulties that beset your path. Though the Senior and Junior affect to despise thee; though the Sophomore abuse thee with terrible depravity; and, though the Freshman looketh upon thee as an oxydized mass of humanity, yet the day is at hand, and now is, when the language of the world shall be in puns; when the lawyer affect to despise shall be made pungent with puns; when to hail a ship at sea without a pun shall be a *nauti-call*, and when there shall be no *mere chants* in business. Till then, my beloved brethren, hold steadfast."

Old Red Sandstone is a nickname we have for one of our members. He's a perfect fanatic in geology. He has a bulls-eye lantern and a murderous looking hand sledge with which he prowls around at all hours of the night, turning over old stones and defacing them. It has been whispered that he sleeps in the Rockery. He knows every stone for miles around the College. The other day, in his ramblings, he unearthed from under the old class stone of '74, a musty old parchment, on which was written some verses. He could not decipher them, they were so anciently written, so he resolved to bring them before the club. In presenting the relic he made a speech, which appears on the records of the clerk somewhat as follows:

"*Talc-ing* isn't much in my line, but ye can *all-bite at all* I say; for no man ever caught me *in-a-lie-oh-saurs!* and all can say that anything I ever *sed-i-ment!* In my great love for science, I *am-o'-nites* often obliged to be out, even in the stormiest weather. My friends call me a *queer-cus*, and often say to me, '*U-ti-ca*, old Sandy! When you *Tri-a-sic* spell for awhile you will be more careful!" But my motto has ever been, '*O-risk-any* thing for science! and grant yourself a *Quarter-nary* a time till you have finished your work!"

He continued to speak in this wise to some length, and then abruptly finished by presenting the yellow looking parchment to the museum of the club. His speech was quite highly commended by the President. The poem has rather a quaint orthography, and there are various opinions concerning it. Some think it the work of an irrelevant joker; but the most of the members have the greatest faith in its ancientness. It has been referred to a committee, who compose the literary element of the club, Messrs. Musty, Blackletter and Doggerel. The poem reads as follows:

## YE CHAPYLE BELLE.

Ye chapyle belle ryngeth out loude and cleare,  
Ryght merrylic ryngeth oute he;  
And ye college boye runneth wyth mad delyght  
For ye houre has come to take tea-tea-tea,  
And his coat-tayles fly oute behynde he.

Ye rusty old belle for full many a yeare,  
Hath sounded hys varying songe.  
To ye lecture we've gone, with a feare and a teare;  
To revels and feastes where ye Senyor took beere,  
He hath called wyth his ding-a-ding-dong ding-dong!  
He hath summoned us loude and longe.

At ye lone houre of night, 'twas a terryble syght,  
When he called us out to some fantastyc ryte.  
And ye Freshy-fresh wakened with sudden affryght,  
To heare ye mad peale of ye belle.  
And there in his garments so ayry bedyght,  
At ye sound of wild yells, and ye belly-belle-belle,  
He tremblingly nayled ye doore of his cello!

But ye old belle now ryngeth for us nevermore,  
And has not for many a year;  
For ye young college days are past and longe o'er,  
And will never come back to us here.  
Yet ye olde note oft sweeps with a sygh o'er myne ear,  
And I dream of ye past with a teare.

The wind sweeps with such a dismal howl through the boarded-up windows of the brick tower in which the club holds its meetings, that it was thought appropriate to appoint some member to read a poem made up of a sort of fantastic, lively meter upon that weird and fickle element. Doggerel is the only member that ever essays rhyme. Critics of no mean order we have in abundance, who can pounce upon a shrinking, modest, little verse with commendable avidity and boldness; hacking it the more vigorously, and belaboring its mild-eyed, long-haired author the more soundly if he be audacious enough to have mounted his muse upon some illegitimate bone-yard of a Pegasus. But we must confess to a lack of poets. Now, Doggerel is of a melancholy turn of mind, and when he rose to read his piece, he was compelled to confess that he had failed to secure that liveliness, and, perhaps, humorous spirit, which the members desired him to put in his poem. At this point most of the members

immediately went to sleep. Both Blackletter and Musty, however, seized their pencils and tablets with a sprightliness that was admirable, and waited greedily for the reading. The poem was entitled

## THE VOICES OF THE WIND.

Oh list to the strain that the wild wind doth blow,  
As o'er the bleak hills it comes flying!  
It comes from a land where there's wailing, I trow;  
Where there's wailing, and sadness, and sighing.

Dost hear the wind laugh of the wolt-demon blown,  
With his mad shouts exultingly vieing?  
That tremulous moan,—oh, that sad undertone!  
He would drown with tumultuous crying!

And oft doth he pause, as though he would hark  
For that low, solemn monody sighing;  
As though he had driv'n into echoless dark,  
This wind phantom cry of the dying.

But as ever he hears the low, faint struggling moan,  
Faint and low, but resistlessly crying,  
The more mad doth he howl, and the more madly groan,  
Its sad strain, so fantastic, outvieing.

And he rocks the tall trees with a frantic commotion;  
And they roar, to his wild shrieks replying.  
Aye, they roar like the shore of a surf-beaten ocean,  
Where the dank foam is heavily flying.

Yet all thy mad howling, wolt-demon, is vain;  
Thou mayst rend thy fierce cheeks in defying.  
Thou wilt soon grow aweary, and yet that refrain  
Still sadly sweeps sighing, far over me flying.

The instant Doggerel finished reading, Blackletter and Musty both leaped to their feet, for the purpose of offering a gentle criticism upon the piece. Musty secured the floor, and Blackletter dropped into his seat with a malignant scowl at poor Doggerel, who was sitting tremblingly in the corner by the janitor. Every member who had been asleep during the reading, now woke up to hear the criticism. Musty said: "Such ranting nonsense should not be permitted. The meter was bad; the rhythm was incorrigible; the manner of treatment was villainous! Yet," he kindly added, turning to young Doggerel, who was weeping, "thou mayst write tolerable stuff when thou'rt older, and hast had my experience!" The President remarked that Doggerel would do well to profit by the good advice of the venerable Musty.

In closing, Tupperton sang a song, and accompanied himself upon the guitar:

## SONG.

I've a fairy maid I love,  
In the sky!  
And at night from up above,  
She looks down upon her love,  
Ah, so shy!  
And her beauty it enhances,  
When she sends me loving glances,  
As in cloud-land there she dances,  
Up so high.

Chorus—She's a-winking, and a-blinking  
At me now!  
And her dancing is entrancing,  
As she bends her jeweled brow  
To hear my vow!

Ah, my love she is afloat  
In the night!  
And a cloud it is her boat,  
And the gods upon her gloat  
In their might,  
But when all the world's a-dreaming,  
Then her love for me is beaming,  
From her laughing eyes is gleaming  
Loving light.

Chorus—She's a-winking, and a-blinking,  
There's a rival seeks my wrath  
From afar;  
And a blood-red look he hath,  
As he flits across the path  
Of my star.  
But she winks with sly delight,  
As I offer up each night  
In a fairy incense light  
My cigar.

Chorus—She's a winking, and a-blinking.

As the members departed for their rooms the moon shown bright through the chilly air, and across the glittering lawns, studded here and there with a hobgoblin of an evergreen, Wells' Hall loomed up blackly against the sky. Only far up in one corner of the hall shone a single glim, and all that was visible through this solitary window was the bended shadow of a giant head on the wall, tightly clasped in two great hands, while yet its studious maker was invisible. And the only sound that could be heard was far in the distant recesses of Williams' Hall, a faint-sounding chuckle, and then a far-away murmuring of a "why is a—?" followed by a slight rumbling rustle, as of a falling leaf, and all was silent as the grave.

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