LIFE AND WORKS OF MICHAEL FARADAY.

In thinking of the lives and works of the few men and women, whom history has chosen to call great, we often wonder in what respect their environment differed from ours and are wont to assign imaginary causes to their wonderful achievements, picturing their very childhoods as extraordinary.

In some few instances our ideas may be partly correct, but not so with the life of Michael Faraday. Perhaps all would not call him great—science certainly does.

He was the third child of a poor blacksmith, who worked hard to provide his family with the necessaries of life. His mother was a whole-souled, but uneducated woman, who is chiefly known for her devotion to her family.

Michael's schooling consisted of the few years from 1796 to 1804, when he became thirteen years old. He was not a precocious child, spending his out-of-school hours poring over books far beyond him, but rather spent his leisure time playing marbles and leap frog.

Although distinguished by a pious disposition in later years of his life, there is nothing in his boyhood to make us imagine that he was above "swapping commies" in school, or playing "pinny" for "keeps."

In 1804 he became errand boy for Rieban's book and stationery store; one of his duties was to carry the newspapers around in the morning and to call for journals that had been loaned during the week. He then became an apprentice in the book-binding establishment of Mr. Rieban. It was in this office that Faraday really received his education. Books of all sorts, in the process of binding, passed through his hands and he improved the opportunity to read such as seemed of special interest to him. His first interest in science was aroused by an article on "Electricity and Maret's Conversations in Chemistry," which were published in the Encyclopedia Britannica. Little did he think, as he tried the experiments he read of, that he was really laying the foundation for the great works of his later years. One of these experiments was the making of an electric machine which is now preserved at the Royal Institute in London.

The reading of these articles led him to attend a course of twelve or thirteen lectures on Natural Philosophy; he made very careful notes of everything he heard.

After a short experience as a traveling book-binder, he became very much dissatisfied with his trade and through the advice of a friend, who had become particularly interested in him, he wrote to Sir Humphrey Davy, sending at the same time carefully prepared notes of four of Davy's lectures. The impression that he made on the great scientist must have been favorable, for on several occasions, he was engaged for odd jobs when Davy was disabled on account of slight accidents. In 1813 Faraday became assistant in the laboratory of the Royal Institute; his duties were to attend and assist the lecturers in any way that he could and keep the apparatus of the laboratory in perfect condition.

His services at the institute had proven so valuable to Davy that at the end of six months he requested Faraday to accompany him on an extended foreign trip. Faraday was now twenty-two years of age and had never been out-
side of London farther than a very few miles. Before returning to London, a year and a half later, they visited almost every city of importance on the continent and became personally acquainted with the foremost scientific men of the time.

While Sir Humphrey Davy interested himself only in matters of scientific importance, Faraday was wide awake to everything about him; he visited libraries, museums, art galleries, and took time to admire the beauties of nature which he found everywhere about him. In that short time he became familiar with several foreign languages. Their work, while abroad, was mainly on iodine and its compounds, compounds of chlorine and oxygen, the diamond, which they found to be pure carbon, and the prismatic spectrum.

Immediately on their return to London he was re-engaged at the institute and began his work with renewed interest, much better fitted now to enter into original researches. He wrote quite extensively for scientific periodicals of the day, on investigations of his own and of other scientists. For two years he busied himself with researches on steel, making many different alloys of iron, such as silver, platinum, nitrogen, etc. He was disappointed in hoping to obtain a steel that would not rust.

In 1821 Faraday, who, during his younger days, had written many rhymes, showing his scorn for all sentiment, and had called "Love a nuisance to everybody but the parties concerned" pleaded guilty to the folly of his former opinion and as an evidence to his thorough conversion, married Miss Lara Barnard, the sister of an artist friend.

The following year or two he carried on many experiments, in his leisure hours, regarding the liquefaction of chlorine and other gases; some of these experiments were successful. He accomplished the liquefaction of chlorine by enclosing the hydrate in a sealed tube and heating under pressure, thus separating the chlorine from the water, and finally cooling when the two liquids were readily distinguishable, the chlorine having an oily appearance. In 1824 he made several valuable discoveries on the compounds of carbon and hydrogen, such as benzol, butylene and the so on acids. Besides writing papers on those subjects he gave several courses of evening lectures before a large audience at the Royal Institute.

The investigation of optical glass, particularly the chemical side, occupied a great part of his time four or five years after his promotion as director of the laboratory in 1825. Herschel was at the same time testing the refraction and dispersion of lenses. Their hope of manufacturing a glass, far superior to anything used up to that time for telescopes, was not realized, although many improvements were made for its use in smaller instruments.

Faraday had, by this time, thrown all of his interest into experimental work and absolutely refused to do anything in the line of expert analysis, although he might have accumulated great wealth, had he not made this resolution. Oersted made his discovery, regarding the effects of currents on the deflection of a magnetic needle in 1820, and in the year following Faraday discovered that a wire carrying a current, hung with its lower end in a cup of mercury, would rotate around a magnet. This was the first of a series of important discoveries which came a few years later. About this time Ampere worked out his law of parallel currents and Sturgeon invented, or rather discovered, the electromagnet. It was now possible to produce magnetism from electricity by passing a current through a copper wire around a soft iron core, and if this were true, Faraday could not but think that the converse was true, or that magnetism could be converted in electricity. To this end he experimented zealously for some time and at last, in the fall of 1831, he made a discovery of ever increasing importance. The experiments, leading to the discovery, are varied and interesting. Failing once, twice, or many more times he was just as anxious to begin
again with some slight modification of his first efforts. It is said that he carried with him all the time a miniature electro-magnet and, when not otherwise occupied, gazed at his open hand, in which the magnet lay, to solve the problem which had for so long been the chief object of his thoughts.

After repeated experiments with currents and magnets he discovered that when the core of iron was thrust quickly into a helix of wire a current sufficient to move the needle of a galvanometer very slightly was induced, and when withdrawn as suddenly the needle was deflected in the opposite direction. Motion then was necessary to induce the current and this was where all previous attempts had failed.

A description of the different apparatus which he devised for the perfection of his discovery cannot be given here, but it is sufficient to say that he had fully demonstrated the principle which has proved so invaluable, as our system of electric lighting, our modern dynamos and motors are based upon it.

In 1832 he succeeded in getting a spark between the wire of a helix when brought near the poles of a magnet, and gave expression to the theory he had long held regarding the lines of force between the magnet and coil and the necessary cutting of them in producing an induced current.

The terms “Cathode” and “Anode” in electro-chemical work are names given the two conductors by Faraday.

Two problems, which greatly perplexed him, were, the influence of electric charge at a distance, which seemed to him impossible, as he believed all action to take place in a medium, and the difference, if any, between electricity by different causes. Later he demonstrated that all electricity was identical.

His too arduous applications to his work proved almost fatal and in 1839 he was forced to take an absolute rest from all investigation, although he continued to give lectures on scientific topics in London and elsewhere.

Upon resuming his work in 1845 he made another important discovery, that of dia-magnetism. His old theory of the electro-tonic state, new theories of light, and ideas on the possibility of utilizing magneto-electricity for light houses, occupied much of his time during the last years of his active life.

His memory and other mental powers had, for some time, been failing, and realizing his own infirmities he retired from the scientific world in 1862. “A process for silverying glass, ozone, the regelation of ice, etc.” were among the last of his discoveries and lectures.

His last appearance before the Royal Society was in June, ’62, when he attempted to describe the process of the Leeman’s gas furnace. Through accident he had destroyed notes taken on the subject. His memory utterly failed him and he was obliged, before the large audience to refer to his waning powers and retire without finishing his lecture.

It would be an injustice to one, whose life was a splendid example of quiet determination, and honesty, to speak of his wonderful achievements without giving a little thought to his splendid character. He devoted himself exclusively to his work, taking no part at all in the social life around him and his delight over the discoveries of other philosophers was nearly as great as over any of his own. He was particularly methodical in his habits of work, one instance of which is shown by the careful manner in which he took his notes.

His excessive modesty kept him from accepting many honors that might have been his, though two of the greatest honors that London could offer him, the presidencies of the Royal Society and of the Institute, were refused because of his failing health.

He was a great admirer of nature in her grandeur and in her simplicity. He possessed an unassuming manner and a keen sense of humor that made him popular wherever he went.
Dr. Gladstone says, "he was no model of all virtues, but rather his inner life was a battle with its wounds as well as its victories." His was not the gentleness of a weak nature, but rather the evidence of a strongly controlled temperament.

Much more might be written of his character, dwelling more fully on his kindness of manner, his simplicity of thought and action, his child-like love of animals, the sacredness of his religious thoughts and his devotion to the principles of the creed he professed, but time and space compel us to bring this imperfect sketch to its close. E. L. H., '01.

BAST FIBRES OF THE FLAX PLANT.

Bast fibers are composed of long, pointed cells lignified. They are found in the area just outside of the brittle wood of nearly all woody and herbaceous plants, especially in the linden tree, bass wood, elm, hemp, jute, and flax. The fibers found in the inner bark of many trees are bast and the fibrous appearance of the outside of many vines is due to the annual shedding of the bast fibers.

In the flax plant the bast fibers are grouped around the wood in three or four irregular layers, and separated from each other by a thin, celled tissue. This peculiar association of the fibers with thin walled tissues is fortunate because it allows the separation of the fibers as strands by decay or other method. The ends of the cells over-lap, and fibers of considerable length are thus formed.

When a cross section is examined, through a microscope, the cells appear as flattened circles with a small lumen. The cell walls are regularly thickened and show concentric layers in a longitudinal section marked with spiral striations or slits, the ends extending some distance beyond the lumen. The cells appear to have no contents. According to De Bary they are from twenty to forty millimeters in length and from fifteen to seventeen-hundredths millimeters in breadth.

When first cut off, or formed, the cells are soft, parenchymatous and not of unusual length.

The exact method of growth is not understood. Some authorities state that their transverse walls are absorbed; others that they result from the metamorphosis of individual cells. The cells grow, and by means of their sharpened ends, force their way between the others and become many times their original length. When the fibers are stained with analin chloride and sulphuric acid they take a light yellow stain, and with phloro-glucine and hydrochloric acid they become a light violet, showing that the walls are, in part, but not wholly lignified.

The bast fibers of the flax plant are used in the manufacture of linen, and the methods of its preparation have been known since the most ancient times. Evidences of its use have been found even during the Stone Age. A. W. '02.

THE LOST HELLAS.

O, for a breath of myrtle and of bay, And glints of sunny skies through dark leaves flashing, And dimpling seas beneath a golden day, Against the strand with soft susurrus flashing! And fair nude youths, with shouts and laughter dashing Along the shining beach in martial play!

And rearing 'gainst the sky their snowy portals, The temples of the glorious Immortals!

Thus, in the olden time, while yet the world, A vale of joy was, and a lovely wonder, Men plucked the bud within its calyx curled.
Revered the still, sweet life that slept thereunder;
They did not tear the delicate thing asunder;
To see its beauty wantonly unfurled—
They sat at nature's feet with awed emotion.
Like children listening to the mighty ocean.

And thus they nobly grew to perfect bloom,
With gaze unclouded, in serene endeavor.
No fever vision from beyond the tomb Broke o'er their bright and sunlit pathway ever.
For gentle as a kiss came death to sever From spirit flesh and to the realm of gloom
The pallid temples with fearless brow descended
To Hades, by the winged God attended.

Why sorrow, then—with vain petitions seek
The lofty gods in their abodes eternal?
To live is pleasant and to be a Greek,
To see the earth in garments fresh and vernal,
To watch the fair youths in their sports diurnal,
To feel against your own a maid's warm cheek,
To see from sculptured shrines the smoke ascending,
And with the clouds and ether vaguely blending.
And sweet it is to hear the noble tongue,
Pure Attic Greek with soft precision spoken!
And ah! to hear its liquid music flung,
From Homer's stormy Harp—the deathless token
That Hellas' Titan soul is strong and young—
Young as the spring that's past, whose name assuages
The gloom and sorrow of the sunless ages.

Her fanes are shattered and her bards are dead.
But like a flame from ruins, leaps her glory
Up from her sacred dust, its rays to shed
On alien skies of art, and song, and story.
Her spirits, rising from her temples hoary,
Through barren climes dispersed, bias northward fled;
So, though the flower be dead, its breath may hover,
A homeless fragrance sweet, the meadow over.

MECHANICAL NOTES.

At last the Carpenter's Calorimeter is here.
Professor Keene has just finished a number of fine pictures of the buildings and grounds and also views taken during class work.

It would be well for all students interested in electrical appliances to look over the electric light system the Northern Pacific has recently placed on its passenger trains and locomotives.

None but those taking the regular Mechanical course are in the Machine Shop this term.

There are two classes in surveying this term: the sophomores taking the regular and the juniors and seniors advanced.

By a new process in manufacture, it is estimated that calcium carbide, the substance used in our bicycle lamps, can now be made at a cost of half a cent.
per pound. No need of anyone being “run in” for not complying with the bicycle lamp ordinance at this rate.

The seniors are now working on designs for boilers and boiler settings.

The Chemical department is making analysis of waters from different parts of the state to determine its scaling properties in steam boilers. From these tests and in actual practice it is found that the Red River water is unusually free from scaling properties and that the sediment simply precipitates to the bottom of the boiler as a loose mud where it can easily be blown out.

One of the most self-evident facts in the college is the painful lack of accommodation for students wishing to take subjects in Mechanics and Engineering. Last winter a large number had to be turned away on account of this state of affairs. Now this is a condition that should not exist. The care and management of machines; a knowledge of their parts and how they are made are things that a farmer who is constantly dealing with different kinds of machinery should know. If then ample accommodations are not provided for instruction in this very important subject the young man that comes here and is not able to get it is being deprived of a very important branch of education. There are more students registered in the winter term for shop training and engineering than in any other line of study, and it is estimated by one who knows that to provide accommodations for all who would wish to take subjects along these lines accommodations would have to be provided for over 200—a fact which goes to show the importance it bears. With the equipment and space we now have good work is being done but the trouble is there is not near enough of it. What is wanted is a large appropriation to remedy this condition at once.

EXCHANGES.

The closing part of “Over the Lake” in The Georgetonian is very interesting.

The March Carletonia contains a very good story entitled “Clarissi’s Experiment.”

Base ball seems to be well started in most of the colleges by this time and several important games will soon be played.

The exchange department of The Wahpetonian, while very voluminous, is decidedly questionable as to actual merit as it is made up principally of anecdotes, stories, and clippings.

Among our new exchanges we notice True Blue and The Red and Black. Both of these are new papers in their first volume and are very creditable attempts.

In The Clemson College Chronicle for March there are several articles of interest and several good stories, one, however, hearing, as a title, “A Peculiar Alteration of Kipling’s” seems to be slightly over-drawn.

The Normal Red Letter and Polaris are two new exchanges recently placed on our list.

The College Exponent contains an interesting article on logging.

The Phreno Cosmian ranks among the highest of our exchanges. In their last number they embrace the opportunity to reply to our note on the subject of changing college colors.

The following lines are noticed in one of our exchanges and as they might apply in this institution we copy them for the benefit of the noisy few:

“When you’re fooling in the library,
And having lots of fun,
A laughin’ and a jabberin’,
As if you’re deaf and dumb;
You’d better watch your corners,
And keep always lookin’ out,
For the librarian’ll get you,
If you don’t watch out.”
ATHLETICS.

Arrangements are being made to incorporate the association.

After that rolling and scraping, the base ball diamond is in fine shape for business.

If the athletics of the institution do not prove a success, the coming year, it will not be the fault of our general athletic manager.

Professor Bolley is kept busy now a days in the matter of locating a football coach. He thinks we are to have a good one this year.

The manager thinks he will be able to schedule a full season of foot ball games—4 games at Fargo—two in South Dakota and two in Minnesota.

Professor Rose, while playing ‘first’ one day last week, was struck on the end of a finger by a swift ball, causing such a painful injury as to lay him off for a few days.

The managers, as appointed for the coming year, are: Football, O. A. Thompson; basketball, J. McGuigan; base ball, L. B. Green, and for field sports, A. W. Fowler.

The opening day of the fall term will find on the ground a good foot ball coach and more old players than the institution ever got together at one time. Football ought to go this next year.

The Inter-collegiate Athletic Association board is to hold a meeting in this city on the 16th inst. to make arrangements for the state contests in May.

The new wing to the Gymnasium, as proposed by Professors Keene and Bolley, shows prospects of soon appearing in material form. Good dressing rooms, shower baths, office, etc., will put the present building in elegant shape for our present athletic needs.

A local base ball league has been formed, comprising this college, the Moorhead Normal, Fargo College and Concordia College. Two games are to be played by each team per week, the first being the game between Fargo College and the Agricultural College last Wednesday.

The indications are that we are going to have a base ball team that will be a credit to us this season. The weak spot seems to be in the pitcher’s box. While Green and Treat do fairly well, they are hardly heavy enough and have scarcely control enough of their curves to fill the bill. Our opinion is that it would be better for the former to play ‘short’ and let Fowler stand on ‘third.’ Rockwell is all right at catching.

Governor Fancher has issued his annual proclamation for Arbor day, and designates Friday, May 4. This college usually observes Arbor day but often the program is not arranged more than one or two days in advance and the efforts are usually extemporaneous. Why not arrange a program at once and have variety in the speaking and music? The state superintendent has issued several suggestive programs which may easily be modified to suit the conditions, and several students could participate. The choir could prepare some new music and make the program highly entertaining as well as instructive.

We see by one of the Chicago dailies that the University of Chicago Glee Clubs have been disbanded and all engagements cancelled by order of President Harper. The reason given was that they took up so much time as to interfere with the members’ studies.
No great work of human hands or mind that has won lasting fame but was the product of patient work in the preparation in some form or other—either directly or indirectly. It is said that Dewey had been preparing for the Battle of Manila years before that famous battle, by perfecting himself in the tactics he employed so successfully that eventful morning. The same is said of Wellington and Waterloo; Lincoln and the emancipation of the Slaves; McKinley and the White House. It was one of our great men who defined genius by saying that “it is an infinite capacity for hard work and taking pains,” and this is true. While we are not all willing to admit it, we find that the student who stands at the head of his class or makes the best recitations does not do it because he is so much brighter than the rest but because he puts time and energy in preparation while the other students, his equal, intellectually, but inferior in class standing, while away their time on some trivial amusement. This is true in everything. That old maxim, “practice makes perfect,” is as true today as it ever was, but it takes time and patience and energy and a purpose to practice. In a little over a month the regular inter-collegiate athletic field day is to come off. Each college of the state is to enter its representatives for some particular event. There are prizes offered for the winners of each of these events. These prizes are to show that the winner has excelled in some particular branch of athletics. Now if we wish to capture our share of the prizes it means that our competitors will have to excel in the events in which they win prizes, and to excel means to prepare to excel—to practice and train weeks before hand. It is unreasonable to wait until a day or so before the contests come off and then expect to gain enough strength and skill in but a few hours practice to defeat others who have put in months of patient work. There are no freaks here capable of such a thing. Each one should get down right now and systematically train until
the time for the crucial test. Not until then and then only can we hope to go in and come out with our share of honors and with honors for our institution.

Admiral Dewey, in spite of his public utterances—of his previous avowed intentions and statements to the contrary, has at last consented to become a candidate for president of the United States. Not satisfied with leaving well alone or of being contented with the honors heaped on him as a great naval commander, he at last goes back on his word and gives his name to aid party politics. Because Dewey is a great naval commander it does not indicate that he will make a great president. It is true he showed himself capable of rising to the emergency in his special line when the time came, to become a nation's hero and a nation's idol, at the time when the country was worked up to the highest patriotic pitch; but there is a difference in the ability to command a fleet in battle and in controlling for four years the affairs of state of a great nation like ours. A nation is as fickle as a child; at one time it goes into ecstasies over its great, at other times for some apparent mistake, no words are caustic enough. The public man that can resist these flights of public opinion and carry out a definite purpose is the man to govern. Dewey has shown himself incapable of this. When he called down public criticism on himself for deeding a public gift away he showed himself woefully lacking in that necessary political constituent, self-control by getting angry. It seems a pity that after having so much honor thrust on him he should not have been satisfied to let well alone but should lend his name to a political party for the purpose of vote getting. It will tarnish a lasting fame—a fame for which a Nelson or a Farragut will always live—won by great deeds in a great cause, to satisfy an unsati able thirst for fickle public praise and glory.

The American people rule yet. This is being demonstrated in the present "eligibility to membership" cases, some of which congress has already passed on and which are before that body at the present time. A country is what its laws make it, if the law-making powers are in the hands of wise and honest men just so will the laws be wise and honest. Every once in a while a great cry is raised about our country going to the bad—our government falling into the grasp of the money kings or it being rapidly passed into the hands of unprincipled political bosses. While this is true to some extent, it is by no means the rule. Take for example the late Roberts case. See how quickly the American people, the real government, rose up and had him removed from congress when by his remaining he might violate their constitution. How quickly they demanded his removal when he endangered their liberties. The present Clark investigation goes to show that it is not money that is to make our statesmen—not if the people know of it. The case of Senator Quay, to be tried shortly, shows that honesty is yet one of the chief requisites in our highest legislative body. Talk about being pessimistic; it is optimistic that we should be. As long as good morals form the principle requirements to be one of the nation's law makers, our country is safe.

Owing to the early spring some of the students have already begun to show signs of spring fever. It is hoped they will hold it in check for at least six weeks longer, as the work this term is exceptionally heavy and students will have to work harder than heretofore.

What is the matter with making our inter-society debate an annual affair? It seems that it would be a good thing. By making them inter-society affairs, the spirit of rivalry would prompt the speakers, chosen on both sides, to bring forth their best efforts, both in preparation and delivery. We would suggest also that they occur in the fall term or early in
the winter and the three debaters making the best showing be chosen, irrespective of society or winning side, to represent the college in an inter-collegiate debate. These latter also to be made annual occurrences. Debating in itself is good. In it the mind is trained to think quickly and accurately and the power of expression cultivated so that the tongue can say, before an audience, concisely what the mind thinks. It is an art which should be encouraged by all and by making them regular occurrences it will be introducing a feature which will be of great value to those interested.

From the time when new ideas began to creep into the field of education until the present, there has been a gradual and constant change going on in college courses. Many of these changes have been productive of much good and, we may say with as great emphasis that many of them, while they have done no harm, are absolutely useless to ninety-five per cent of all students. While they are useless they prevent the student from taking something that would be of use to him, and to that extent are detrimental. Agricultural Colleges have endeavored to remedy this existing evil and have succeeded in a great measure, yet perfection has been by no means attained, and our own College in this line is with the great majority. We will not name any of the studies which we consider almost useless, lest our criticism be construed to be a personal attack, yet we cannot refrain from naming some branches which we think have been abused and pushed aside to make room for some of the aforementioned subjects. The study of French and German in our own course is given entirely too limited a time. It is true, with the exceedingly bright student the time given may be abundant, but we have yet to find one student among these exceedingly bright ones who considers for a minute that enough time is devoted to these important subjects. The idea of "sandwiching," or in other words, alternating studies, is a method to be condemned. The turning of a student from one topic to another, may be all right for mature students, but we consider that better results for all concerned can be obtained by the consecutive application of the student's energy. For this reason we condemn many of our one-term subjects and especially those which are compulsory. They prevent the student from laying permanent plans, inasmuch as they can be seen ahead in his course and are known to be unavoidable, and thus he is hindered from beginning a study which he may wish to carry through his course. It is a fact that many students can be heard condemning the compulsion that makes them take studies that they know they never can use, even in a remote way, unless that it enables them to catch B. S. at the end of four years. In our estimation there is no necessity for this existing evil. There are enough studies from which one may select, and still have as polished and valuable an education as though some one else did this selecting for him. It is this privilege of selection that is filling our technical schools, and the students of such institutions are making life a success. We do not wish to advocate a change of all academic schools to those of a technical nature, but we believe in framing academic courses so that when the goal is reached the graduate will not be entirely compelled to begin at the bottom of the ladder, but can at least have directed his course so that he can make immediate use of at least part of his education.

One of the problems our new military commander has to deal with is, what to do with all the officers. Since the leaving of the winter term students it is found that there are about three officers for two privates and as it is against military rules to reduce an officer except for insubordination, the captain has a very perplexing problem on his hand.
SPRING POETRY.

Why it is that the first promise of the balmy days of spring should excite to action that maggot of the human mind, whose excreta produces spring poetry, and which lies dormant during the remainder of the year, is not within the range of our intellect. Suffice it to say that the maggot has been at work and from the worm holes has dribbled the following spring inspirations.

The first must have been penned by a sophomore, since, sines and cosines adorned the margin of the paper on which came this:

The cold north wind hath flopped around,
An soon we hope 'twill bring
A thermometric change to be
Indicative of spring.

Then blackbirds once again will flock
And rubbers we will lug,
While sophomores, with minnow net,
Will chase the kissing bug.

Good bye, good bye to winter, dear,
To frozen ears and nose;
Good bye to trigonometry:
We want no more of those.

Now spring exams. come on us fast,
We hope that we will pass,
For if we don't, what will pa say?
Alas, alas, alas.

We hope, Sophi, that your examination paper deserved a better mark than your rhyme.

Next came into THE SPECTRUM box a remorseful chirp from one of the last term unfortunates, who sometimes stayed out nights—a junior of course, for who dissipates and is in turn filled with remorse, but the junior.

The midnight hour,
From the courthouse tower,
Has sweetly Chimed.

And fain would I
In bed now lie,
But first
My
"Dutch."

I'll mount my "steed,"
A friend, indeed,
And
Gaily
"Ride."

"Exams" are here,
I greatly fear,
My "horse"
Has
"Bucked."

Now came to us on a torn and crumpled piece of yellow paper—the kind used mostly by those who are trying to convince the flinty hearted Prof. that they know all about the subject. This must be from a veteran, for it is written with a four H pencil, with few flourishes. He must have met the boarding house "cow" many times, but in the last term of his course is overcome and weeping, says:

Whence and what art thou—ye gruesome thing?
What is thy mission and what dost thou bring?

Is it thy purpose to torment me sore,
Must I induce thee as now, evermore?

Cut from no healthy, natural cow,
But from side show freak—were't thou I trow.

At thee a Pawnee would look with distrust;
From thee the hungry white man turns with disgust.

Only just in time to get in before the forms were closed, came these twitterings from one of the girls—we suppose. She has attended chapel and has heard from the platform the announcement that "it is sugaring off season," that "spring is the time when birds and other things
begin to pair." This is not her first year she has been through the grind and surely knows what she is talking about, as do you, reader, if you have been through this thing:

The sun shines warm.

The birds do sing.

Why shouldn't poets

Write of spring?

With face abeam

And hair acurl,

Let's give the quill

Another whirl.

This time of year,

As e'er before,

Doth mate

The "Prep" and Sophomore.

At end of term,

More time he begs,

The Prof says nit.

Here are two oo.

This is all bad—very bad indeed, but there is worse, oh! much worse. You can't imagine unless you have occupied the editorial chair of a college journal of great importance, what fearfully bad stuff people give you. Of course this is not any worse than some of the spring guff dealt out by some of the other ten-cent magazines that make a specialty of pictures of charming creatures in soda water diamonds, but then we can't afford half-tones this year and some time, when we unexpectedly discover that we are a galley short on copy and must make it up somehow, we fall back on our spring poetry—particularly when it is spring.

LOCAL HAPPENINGS.

We have seen and heard the man who developed Beveridge.

The brick walk is a decided improvement over the old "horticultural canal."

E. D. Stewart has left us for a few weeks, to help his father during the busy spring season on the farm.

On Sunday, the 25th ult., Professor Bolley delivered a lecture at the Plymouth Church on the "Basis of Education."

A number of the students enjoyed a very pleasant evening at the home of one of our juniors, E. D. Stewart, on Thursday, March 22nd.

With such a fine musical instructor as Mrs. Burnham, every student who can sing at all should improve the opportunities offered here for musical culture.

At the close of last term Professor and Mrs. Keene entertained the juniors and seniors at their new home on Seventh Street. Everyone there had a good time.

On the 9th instant, Fargo College played our ball team a practice game on the home diamond. The visitors were "easy." Score, 12 to 29, in favor of the A. C.

Miss Senn recently graduated two of our fair co-eds. from the Domestic Economy class. They received the degree of M. O. We are yet in the dark as to whether this means Mistress of the Oven or Old Maid.

In the Annual Stock Judging Contest, held at the end of the winter term, J. C. Cummings won the gold medal and Mr. Henderson the silver cup. There was a large number who took part in the contest and the winners ought to feel proud of their prizes.

C. W. Buttz of '99, who has been attending the University of Minnesota Law School the last two years, while up here to take the examination to be admitted to the bar, came out to see his numerous friends. He successfully passed the examination and is admitted to practice law in North Dakota.
The Spectrum.

Attorney C. W. Buttz, if you please.

The 10th annual report for the Experiment Station Staff is out.

We hope our base ball team will regain some of the glory lost in basket ball and foot ball.

George Keyes came out to see us on March 18th. It looks natural to see him with us.

All the competitors for the Lavoisier gold medal must have their papers in on or before May 2nd.

Harry Hammis, a former student, is now a soldier in the regular army, doing duty in the Philippines.

The Double Quartette will give a concert, in the near future, for the benefit of the two literary societies.

A green shade is already beginning to supersede the black since the burning of the grass on the campus.

Miss Senn lectured at the Unitarian Church on "Aim and Tendencies of a Modern Education," Sunday, April 1st.

The girls who study in the room downstairs study too loud, as it disturbs the professors, whose class rooms are near by.

C. E. Lee, '97, visited college during last week. Mr. Lee holds a responsible position in a large creamery at Monticello, Iowa.

The term reports for the winter term are unusually late this year, due, probably, to the farmers' institutes held last week in March.

In the inter-state debate between Michigan and Minnesota, for the championship of the northwest, Michigan won by a unanimous decision of the judges.

Miss Iona Senn, a former student, has shown her musical talent by giving a musical concert with the assistance of two of her pupils, at her home in Kansas.

Professor Waldron, on the evening of April 1st, discoursed on "Science and Ethics" at the Plymouth Church.

The Minneapolis Journal says the University at Grand Forks is experimenting with wireless telegraphy and will soon have established communication with the city.

From a recent letter we learn that M. C. Henry is still in the United States transport service. He is at present on the U. S. S. Grant, plying between San Francisco and Manila.

The spring term opened March 27th and the work now is well under way. Our attendance is not quite as large as last term but is large enough to make a good showing, and larger than a year ago.

What is the matter with Professor Mills reading extracts from the reports of the Department of Agriculture, in place of the supreme court decisions for a change, during the Constitutional Law Class period?

President Worst attended the funeral of our soldier boy, Alfred Almond, who was killed in the Philippines during the late war. The services were held in Grafton, N. D., Almond's home town, on March 18th.

Once more we have a regular detail from the United States army to look after our Military department. Captain Ulio, late of Fort Keouka, is now commander-in-chief of the armies of the North Dakota Agricultural College.

In answer to the juniors' petition for a dinner, Miss Senn replied that she would give them one with three courses less than the one tendered the seniors one time since, provided they return half the plunder taken from her department during the term. Miss Senn is truly generous. While we have great respect for the juniors' capacity at meal times we feel that half the plunder would more than cover one meal.
Ask the juniors the price per square foot of greased carpet.

The Collegians gave a very pleasant party at the Loyal Knights Temple, on the 16th ult.

On March 16th, President Carhart, of the Mayville Normal, gave a talk in chapel on the "Art of Public Speaking."

The board held their regular monthly meeting on Wednesday last. Accepting the plans for the addition to the gymnasium was the most important work done.

On the 17th of March Professor Keene exhibited a number of colored lantern slides in connection with the regular program of the Athenian Literary Society.

Some of our professors sing in the church choirs of the city to escape the omnipresent orthodox collection, while others go to the Unitarian Church where no collection is taken.

A program for the annual concert at Ypsilanti, Michigan, by the Normal chorus, is at hand. The chorus consists of 200 voices and in the list we note the name of Miss Clyde E. Foster, who for several years conducted the chorus classes here.

There are not so many girls in the Domestic Science department this term. Those who were here for the winter term only, spent most of their time in the department, and went home feeling they were benefited by their short course work with Miss Senn.

President Worst cautioned the students the other morning in chapel about handling anything in the laboratories. He referred in particular to the danger a meddlesome student was running by accidently tampering with the disease germs in the Bacteriological department, the poisons in the Chemical department and the eatables in the Domestic Science department. Pay up your term dues, you members of the Athletic Association.

The Chemical Society held a very interesting meeting at Professor Shepheard's on March 30th. Besides the regular scientific and literary discussions a paper was read by Miss Hill on the Biography and Works of Faraday and one by Mr. McGuigan on "Cements—Their Composition and Uses."

Announcements have been received of the marriage of Miss Christine Larson and Mr. David Askegaard of Comstock, Minn. Miss Larson was a special student in the Household Economic Department during the winter term.

The sophomore class in surveying is making rapid progress in the art of laying out triangles. In their first day's work of laying out a triangle, each one had his own idea how to do it. The professor being absent, they proceeded to make themselves comfortable and discussed the problem (?) during the balance of the afternoon.

The University of Michigan students imitated us by having a flag scrap the other day. The seniors ran their colors up a 150-foot pole and then cut the halyards to prevent the juniors from taking it down. But it wouldn't work. The later class, by employing Meinecke and Mann's artillery tactics, by a lucky shot, brought down the flag and after some resistance succeeding in dividing it among the members of the class.

The seniors report a very pleasant hour interviewing the one-legged turkey. The guest of honor was given the leg that survived the war while the seniors had a wing a piece. To prevent the possibility of any great mistakes, such as drinking their coffee from the saucers with the usual windy suspiration, each senior was put under the able supervision of a fairy who had been carefully trained for the job by the master hand, and who, in turn, coached the seniors in the delicate manners of the table.
The Inter-state Oratorical Contest is to be held in Mitchell, South Dakota, some time between the 4th and 8th of June. It will be here that North Dakota's representative, our illustrious Junior Demosthenes, E. D. Stewart, will battle for the honor of his state and college.

On Friday evening, May 4th, a concert will be given in the college chapel that promises to be the best musical treat offered in Fargo for a long time. The program will be made up of instrumental solos, piano duets, selections by the ladies' double trio, by the mandolin and guitar clubs and vocal solos by Miss Taylor and others. Everyone should come and bring their friends.

The professors of Agriculture and Horticulture are now busy superintending the field work, getting in the crops, and starting the various field experiments which these departments carry on each year. The spring is very favorable for early work on the land. The soil is in excellent condition to cultivate, but too dry and loose to germinate seed well. Rain is needed badly, not only to start the seed but to keep the soil from blowing. A hard wind, with the soil in its present condition, will cause much damage to plowed fields.

Francis Hall is quiet and almost deserted this term. Of the 150 busy students, who thronged its halls and class rooms last term, scarcely a dozen remain. The three months' course is good and of great value to every young man or woman who is able to take a short course only, but a longer course is much to be preferred and of far more value to the student. It seems unfortunate that more of our students are not able to take advantage of the splendid opportunities for a full and practical education in Mechanics, Agriculture, Science, or Household Economics, offered by the several long courses of study in this college.

ATHENIAN-PHILOMATHIAN DEBATE.

The second annual debate between the literary societies took place Saturday evening, April 7th. The question was: Resolved, that the Nicaraguan Canal should be under international control. Messrs. Fowler, McGuigan and Phelan represented the Philomathian Society on the negative, while Messrs. Manns and Heath and Miss Edith Hill from the Athenian Society defended the affirmative proposition.

Although the debate had been well advertised in two of the town papers, yet the audience was not of a very encouraging nature in regard to numbers. The occasion certainly deserved more attention than it received for the work done was on a par with that of the oratorical or declamation contest. Perhaps one reason for this is that the debate is not as well established as the other contests are.

The Athenians claimed that to put the canal under the control of the United States would be a violation of our historic policy, an abrogation of our treaty rights with England, Nicaragua and the other countries, an entailment of great expense upon the United States for repair, and increased danger of war, and minor points. The Philos claimed the Clayton-Bulwer treaty was already broken, that the canal under American control would build up our merchant marine and would be in line with our present aggressive policy.

Each side debated forty-five minutes and at the close of the debate Judges Young, Hildreth and Colp took the matter under advisement and decided by a vote of two to one that the affirmative side had won their case. The decision seemed to be well received by the audience. The feeling among the students is that our debaters should be allowed a wider field in which to work and that next year arrangements should be made whereby we may test our strength with other colleges.

The musical program consisted of a vocal solo by Mr. John Cronan, a piano duet by Miss Spencer and Mr. Treat, and a selection by the Double Quartette. Professor Ladd acted as chairman and Mr. Waldron as timekeeper.
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