

The Spectrum.

Published by the Students of the North Dakota Agricultural College.

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No. 6.

Resumé of Lowell's Works.

In a liberal sense, and somewhat as Emerson stands for American thought, the poet Lowell has become our representative man of letters; not as our most exact scholar, though of a rich scholarship, and soundly versed in branches which he has chosen to follow; not as an indomitable writer, yet when he wrote, from whom were we surer to receive what is brilliant and original? nor yet chiefly as a poet, in spite of the ideality, the feeling, the purpose, and the wit that belong to his verse. But, whatsoever enabled Mr. Lowell to reach and maintain his typical position, we feel that he holds it, and, on the whole, is entitled to such distinction.

He is regarded not only as a man of letters, but as a fine exemplar of culture, and of a culture so generous as to be thought supra-American by some observers. We, however, count Mr. Lowell, among others, as a specimen, not of foreign, but of home culture, especially of our Eastern type. His life shows what the New England culture, not always so fortunate, can do for a man of genius. And so, even aside from his writings, he was a person of note. The tributes frequently paid him would of themselves keep his name before us. Yet many of his sayings, like those of Emerson, are a portion of our usual discourse and reference, and the people have taken some of his lyrics faithfully to heart.

Mr. Underwood has given some account of Mr. Lowell's ancestry, and of the conditions which led to the birth and breeding of a poet. We have a picture of the Cambridge manor, Elmwood,—a home not wanting in the relics of an old time family,—portraits, books, and works of art. Mr. Lowell's father, and his father's father, were clergymen,

orthodox, well-read,—bearing honored names; his mother was a gifted woman, the mistress of various languages, and loving the old English songs and ballads,—no wonder then that three of her children came to be authors, and this one, the youngest, a famous citizen and poet. It is not hard to fill in these outlines with something of the circumstance that fore-ordains a genius. All it needs is food, atmosphere, and a place to grow. In these Lowell was exceptionally favored, under the influence of local and family traditions, the home, culture, the method of his father, and the taste of a mother from whom he inherited his bent toward letters and song.

His college course made little change in the direction of his growth. It seems that the light-hearted Cambridge student was eager for all books except those of the curriculum, and troubled himself little as to mathematics and other prosaic branches. We suspect that he passed for what he was, or promised to be, with the faculty, and became something of an oracle among his mates.

Lowell wrote the Class Poem, and took leave to print it, being under discipline at the time appointed for its delivery. Mr. Sanborn neatly points out that it abounded in conventional satire of the new-fangled reformers whom the poet was soon to join. As a law graduate, he shortly clouded his professional chances by writing for the Boston "Miscellany," and by issuing a little book of verse. A writer's first venture is apt to be a novel or a poem. Should he grow in station, it becomes rare, or valued for its indications. The thin, pretty volume, "A Year's Life," does show traits of its author's afterwork, but not so distinctly as many books of its

kind. Three years later he termed its contents:

"The firstlings of my muse,

Poor windfalls of unripe experience."

"The Legend of Brittany," an artistic and legendary poem, was quite a significant production, so much so that Poe said it was "the noblest poem yet written by an American."

Mr. Lowell's "Rhoecus" is an example of the modern feeling. Passages such as that beginning:

"A youth named Rhoecus,
Wandering in the woods,"

are simple and lovely; the scene where Rhoecus, playing dice, rudely treats the winged messenger, is a picture equaling the best of Lander's. But the story itself is preceded by a moralizing commentary, and other glosses of the same kind are here and there. The whole is treated as an allegory conveying a lesson. The wood-nymph herself draws one, tenderly and sadly, at the close:

"'Alas!' the voice returned, 'tis thou
art blind,

Not I unmerciful. I can forgive,
But have no skill to heal thy spirit's
eyes;

Only the soul hath power itself."

There is a beautiful feeling in Lowell's poems of nature. The charm of Lowell's outdoor verse lies in its spontaneity; he loved nature with a child-like joy, her boon companion, finding even in her illusions welcome and relief,—just as one gives himself up to a story or a play, and will not be a doubter. Here he never ages, and he be-guiles you and me to share his joy. What Lowell loved most in nature were the trees and their winged inhabitants, and the flowers that grow un-tended.

The "Bigelow Papers" ended all questions of Mr. Lowell's originality. They are a master work, in which his ripe genius fixed the spirit of its region and period.

A poet of intellectual scope will not content himself with verse, as the sole outlet of his thought and feeling. Mr. Lowell's essays display his genius in

free activity, and have added greatly, and justly, to his authority and standing.

But let us see what this man accom-plished. In 1841 he published the small volume of poems entitled, "A Year's Life," and became a regular con-tributer to various journals, including The Boston Courier, in which appeared the first series of the Bigelow Papers, mainly a satire on slavery and the Mexi-can war. In 1851 he traveled in Europe, and in 1855 succeeded Longfellow as professor of modern languages at Har-vard. From 1857 to 1862 he wrote many essays for the Atlantic Monthly. He was joint editor of the North Ameri-can Review from 1863 to 1872.

In 1877 he was appointed American minister at Madrid, and in 1880 he was transferred to London, whence he was recalled in 1885. He was very popular in Britain, was made D. C. L. of Ox-ford and LL. D. of Cambridge, besides being elected rector of St. Andrew's University. Besides his poems, of which numerous editions have been published, and the Bigelow Papers, his chief works are: "Conversation on Some of the Old Poets," "Among My Books," "My Study Windows," "Democracy," and other Addresses.

If Lowell did not utilize his surround-ings, he was none the less aware of them. The solution of his problem came when least expected, and as a con-firmation of his theory of the Unsought. The clew was not in ancestral or Ar-thurian legends, but in his own time and at his own door-stone. It was woven of the homeliest, the most un-gainly material. It led to something so fresh and unique that its value, like that of other positively new work, at first hardly could have been manifest, even to the poet himself.

He has written clever satires, good sonnets, and some long poems with fine descriptive passages. He reminds us often of Tennyson in the sentiment and construction of his verse.

Imagination and philanthropy are the dominant elements in his writings.

J. E. T., '01.

Ptomaines.

This is not exactly a subject which appeals to one's imagination; I doubt if even a Baron Munchausen would find it possible to elaborate much out of it; and viewing it from the standpoint of facts—those stubborn things—which some people are always dragging in like a bull dog by a chain, as Charles Lamb says, and which are so deadly to conversation, it is not much more prolific for the would-be essayist, who is unfamiliar with Italian or German. Almost all the authorities seem to be in these languages—the only thing in English, aside from a chapter or two in a few text books—and occasional magazine articles—being Vaughan & Mavy's "Ptomaines, Leucomaines, Toxins and Anti-toxins"—which I believe is used as a text book, and from which I quote—following the illustrious example of a certain professor who, when giving a lecture, was interrupted by smothered laughter from one of his students—and whose conscience troubled him a little, evidently, stopped to explain—that he didn't pretend that his lectures were original; that he thought the books used just as good language as he could, and that it saved a great deal of time—and thought to use their expressions.

All of us have, I believe, a bowing acquaintance with, at least ptomaines, we recollect that etymology carries us back to a Greek word meaning "a cadaver," and which meaning, even in the light of the most recent investigations, has considerable significance, since ptomaines whenever found, inside of the body or out, are the product of the action of bacteria upon dead material.

We also remember that ptomaines belong chiefly to the class of compounds called amines, and are consequently basic in character; that they have also been called animal alkaloids from their remarkable resemblance to the alkaloids found in p'ant tissues, but from which they are distinguished by specific properties and reactions.

Some object to the use of the term

"animal alkaloids," as some of the ptomaines are found in the putrefaction of vegetable matter. Brieger, the Italian chemist, restricts the word ptomaine to the non-poisonous substances, and designates the poisonous ones as "toxins;" but as Vaughan says—this differentiation is of questionable utility, as it is not always easy to say which bodies are poisonous. The poisonous action of a substance depends on several things—the quantity administered, the conditions under which, and the length of time—it is given.

The kind of ptomaine produced is dependant upon the individual bacterium engaged in its production, the nature of the material acted upon, and the conditions under which the putrefaction goes on, such as the temperature, the amount of oxygen present, and the duration of the process. Brieger found that cultures of a certain bacillus grew well in solutions of peptone, but did not produce any ptomaines, while from cultures of the same bacillus in beef tea he obtained a poisonous alkaloid. We are all familiar with the peculiarities of the aerobic and anaerobic bacteria. The products of the putrefaction of the same bacteria working upon the same material will vary within certain limits, according to the extent with which it is supplied with air, and also upon the stage of putrefaction. Ptomaines, it must always be remembered, are transition products—temporary forms through which matter passes as it is being transformed by the activity of bacteria life—from the organic into the inorganic state.

"Complex-organic substances, as muscle and brain, are broken up into less complex molecules, and so the process of chemic division goes on until the simple and well-known final products, carbon dioxide, ammonia and water, result, but the variety of combinations into which an individual atom of carbon may enter during this long series of changes is almost unlimited, and with

each change in combination, there is more or less change in nature. In one combination the atom of carbon may exist in a highly poisonous substance, while in the next combination in which it enters it may be wholly inert."

Vaughan says—that it must have been known to primitive man that the eating of putrid flesh was liable to affect the health more or less seriously, and when he began his endeavors to preserve his food for future use, instances of poisoning from putrefaction must have multiplied greatly. The first scientific experiments concerning the effect of putrid matter upon animals were about the middle of the eighteenth century by a distinguished German physiologist, and since then investigators along this line

have made more or less rapid progress, employing different methods, but, generally, injections of varying amounts of the substance under investigation, upon different kinds of animals which had been kept under the same conditions, and under different conditions—rabbits, guinea pigs, rats, dogs, chickens, snakes, turtles, frogs, etc. One investigator found that while rats, which were immune to anthrax, became susceptible, when fatigued by being kept on a small treadmill. This question of sensibility to poisons and of immunity, is an exceedingly interesting and also a most perplexing one. There is the natural immunity and the artificial or acquired immunity.

L. T. W.

Sensation in Invertebrates.

Any inquiry, however limited, into the subject of sensation in lower animals has a peculiar interest.

We very often witness the mutilation of little creatures, and our sympathy for them leads us to wonder to what extent they suffer. And furthermore, when we see them exercising their organic functions we would be glad to know how far they can appreciate sights and sounds.

For obvious reasons these problems cannot be completely solved.

The whole body of the amoeba, the lowest type of all animals, consists of nearly unmodified protoplasm, a mass of matter given the spark of life, but possessing no part that differs essentially from any other. We can scarcely conceive of the existence of sensation without the presence of nervous tissues, yet this animal is bound to shun strong light, and to seek shade. This power may be of the same nature as that which causes the leaves of a house plant to turn toward the sunlight; or, rather, as that in the fine roots of a plant which causes them to withdraw from it. But the amoeba shows repulsion for other things than excessive light, and as we

follow the rise in the scale of animal life, it is discovered that there are complex activities without the presence of nervous structures. This is either the manifestation of a wonderful characteristic of protoplasm, or the result of the work of some undiscovered organs. Most likely the former.

Sponges are the first to possess nerve cells, whose function is to excite action. Some classes of the next higher series (Coelenterates), have elongated nerve cells connected to form a nervous system, and in the jelly fish there is the first occurrence of sense organs. These are protected in marginal indentations, and consist of a pigmented spot, a club-shaped projection with calcareous bodies in its cells, and some grooves that seem to be sensitive. These organs are not connected with the nervous system, but each body has a special layer of nervous epithelium around it. Their structure is very simple and consequently their service is incomplete.

All worms, except the parasitic forms, have a sort of sense organ in the head region, by which they can distinguish between light and darkness, but which are unable to form images of external

objects. The latter is evident from the absence of a focussing medium. Most worms are diffusely sensitive, having a very complete nervous system, so that in cutting one with a spade we undoubtedly inflict some type of suffering.

The Echinoderms (starfishes) have sense organs connected with their nervous system. At the end of each radial nerve is a rudimentary eye, consisting of a little cup lined with sensitive cells, and filled with a clear fluid covered by cuticle. All of the animals of this phylum are very sensitive, a few have organs of hearing, and some of their tube feet seem to have smelling capabilities.

The next series, the Arthropods (crayfishes and insects), are well supplied with sense organs. The covering of their body is chitinous and non-

sensitive, but they have eyes, ears, antennae, and sensitive hairs, by means of which they communicate with the outside world. The efficiency of these organs is shown by the varied activities of ants and bees. That insects are strongly sensitive to light one is convinced of upon opening a window in a lighted room any dark summer night.

The most perfect eyes of invertebrate animals belong to the cuttlefish, a mollusc. They greatly resemble those of vertebrates, yet they differ from them in some important structures. There is one thing about the eyes of some invertebrates, as, for example, the insects, that makes them more tangible to our minds, and that is that the images of objects formed in them are erect instead of upside down. H. A., '00.

Antitoxin and its Use in the Treatment of Diphtheria.

In our Western cities people often hesitate in using nature's specific for diphtheria, antitoxin, until it is too late. Doubtless this is natural because few of us have had experience in its use. Many have never heard of it even, except through newspaper reports, or occasional magazine articles which are seldom read by the masses.

A proper understanding of the nature of antitoxin would do much to allay fear as to its use or probable results.

Diphtheria is a bacterial disease. These bacteria, commonly called germs, are vegetable organisms. These germs, gaining a foothold in the delicate mucus membranes, increase rapidly in numbers. Like all other disease producing germs they elaborate a specific poison. This poison circulating throughout the system gives rise to systemic disorders.

The bacterial poisons form two general classes, viz.: the ptomaines and toxins. They differ in their chemical nature, also in their toxic effects, the toxins being more violent poisons than the ptomaines.

We all know that one attack of small-

pox is a guard against a second attack, the same is true of many other diseases. This acquired immunity is probably due to the presence of an antitoxin in the system. "Antitoxin is a substance formed in the tissues, not a product of bacterial growth, but of tissue energy, not depending upon the presence of bacteria, but upon the presence of a poison." Its physiological effect is to neutralize the ptomaines and toxins, thus making them inert.

In vaccination we introduce the virus of the cow-pox into the system. This poison acting upon the tissues forms an antitoxin, thus giving immunity. Every disease germ probably, indirectly, produces its own antitoxin, which, in turn, neutralizes the poison producing it. Cow-pox is now believed to be a weakened, or attenuated, form of small-pox.

The antitoxin of diphtheria is produced by innoculating animals, generally horses, with the toxins of the diphtheria germs. The toxins are obtained for the purpose by developing the germs in a

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Meeting every Saturday night at 8
o'clock.

Phllomathian Literary Society.

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Literary meetings fortnightly on Friday
night.

Oratorical League.

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Y. M. C. A.

Carl Lee President
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Meets every Sunday in chapel at 3:00
p. m.

The work done by the literary societies this winter is commendable. A deeper interest seems to be manifested in literary work, due to increased rivalry between the two societies. The work is not of the first quality by any means, but such a thing could not be expected, considering the few years which our College has been established, the comparatively small number of College stu-

dents attending, and the limited means of reference furnished by our library.

One thing that is noticeable at the meetings of one society cannot call forth too harsh criticism. It might be supposed that College students attending a literary society would be gentlemen enough and ladies enough to refrain from disgusting giggling and whispering during the entire performance. It is not good form. They show no respect either for themselves nor for the College. They insult the society. They insult and embarrass the persons taking part. They show their lack of breeding, and to students visiting us from other colleges it must appear nothing more nor less than disgraceful. Further than this it is not limited to underclassmen. The society should take active steps to promptly put such disturbers out. The sooner it is done the better it will be for all concerned.

We are pleased to note that the Board of Trustees has voted about \$150 for the purpose of purchasing additional gymnastic apparatus. The apparatus has been ordered, and it is expected here at any time. The services of a gymnasium instructor have also been secured, and a gymnastic class has been organized. This is the first time, we believe, that the apparatus has been put to much practical use, for a gymnasium without an instructor is in a bad way. It is due to Lieutenant French, more than to any one else, perhaps, that this apparatus was purchased. It only serves to strengthen the cordial relationship already existing between him and the cadets.

It seems to be the tendency of a person to be independent in ignorance and dependent in knowledge. We see the child looking on the surface, satisfied with one glance, and yet as confident of his assertions as though he were clothed with omnipotent powers of investigation. It is only when he becomes older that he finds out that "things are not what they seem." And

indeed it is only the few who ever become wise by experience. The large majority of us are willing to abide by the statements of others, who, perhaps, are as ignorant of the subject as ourselves, or else to assume that what we are pleased to call the product of our thought can bear the buffets of criticism. There are so very few who ever take a logical course of reasoning to arrive at a certain conclusion that they should be highly honored.

A student entering college here has many preconceived notions acquired in one way or another. These notions may or may not be correct. More often they are not. But however that may be, he implicitly believes in them, and when an instructor states some well-known law or fact of physics or biology, if it happens to be counter to the opinion of the student he promptly denies it. Now it would be more becoming in a student, and also be a greater aid to him in the further pursuit of knowledge if he were to take for granted those great truths which great minds have spent years in developing. The chances are very small that he, himself, will ever become an investigator, but if he is ever to apply practically the knowledge he gains at school it is absolutely essential that he believe and appreciate fully the foundation truths of science. It is no credit to a person, but a discredit, for him to maintain ignorantly that this earth was not in existence 6,000 years ago. Nothing is gained by denying the fact that the force of gravity acts on bodies independently of other forces acting at the same time, because he can not realize that a ball shot horizontally from a cannon and one dropped from the mouth of the cannon will take the same time to reach the ground. An earnest investigator of truth has no hobby horse to ride, and he cannot afford to advance false theorems on imaginary facts, for his reputation is at stake, and too many others are watching him. Many mistakes are made, and comparatively little of the truth is seen,

but then earnest investigators do the best they can. They are not so much of theorists as the general run of people, for their training leads them away from all theories unless they are sound ones. Let any one carefully consider the steps which have led him to a certain conclusion—a question of creeds or politics—and see if it has a better foundation for support in those steps than have any of the conclusions of science.

In conclusion we advise the student to tread somewhat humbly where greater minds have paved the way.

(Concluded from page 5.)

prepared beef boullion. After the required time for incubation the boullion is filtered. The germ free fluid remaining is injected into the horse at intervals during a period of several months, or until the horse becomes immune. When experimental tests show that the process has been carried far enough, the horse is bled, and the serum separated from the cellular elements of the blood. This blood serum is the antitoxin used in the treatment of diphtheria. It is harmless in its effects, even where introduced into the healthy system. In the treatment of diphtheria it is almost a specific if used during the first three days of the disease, but later than that it is practically ineffective. During epidemics of diphtheria it is often used in small quantities as a preventive.

Small-pox, diphtheria, anthrax, tetanus, and hog cholera have all yielded their antitoxins, and now yellow fever, cholera, and bubonic plague are in line, while consumption is on the "anxious seat." It is but a question of a few years when all infectious disease will have yielded to the onward march of science.

M. F.

We acknowledge the receipt of THE SPECTRUM, published by the students of the North Dakota Agricultural College. The local department is well edited, and gives one a good picture of life at the College.—The Comenian.

Local Happenings.

"Jays."

Spring.

Baseball.

Demerits.

Meadow Larks,

And other larks.

Keep off the grass.

Bicycles and bloomers.

Still there's more to follow.

Senior—Where is Portugal?

Winter overcoats at reduced prices.

Some new transmitters adorn the telephone boxes.

The girls of the Basket Ball team now shine in a new costume that is very becoming.

Some of the students desire to study the "physiology of the Solar System," next term.

Ernest Schollander left for his home at Jamestown, not wholly recovered from a severe sickness.

In case of war with Spain, the companies of the College will be ready to take part; this assures the public that the war will be of short duration.

"Birds in their little nest agree,

And it is a shameful sight

When our girls 'round the basket ball
Fall out and chide and fight."

That little harbinger of spring, the meadow lark, made his first appearance on the campus March 7. We hope he has not missed his calculations.

Our College quartet made its first public appearance at the intercollegiate oratorical contest, held in deLendrecie Hall, Feb. 24.

Prof. Kaufman represented North Dakota at the meeting of the National Buttermakers' Association, which met in Topeka, Kan., Feb. 23.

Great preparations for the beautifying of the gardens and the campus are being made, and it is expected that the general aspect will be more artistic than ever.

Misses Brunton and Decker have left

for Lisbon to teach for the spring term.

The Physical Laboratory is to have a couple of arc lights. It wouldn't be a bad plan to have one in front of the building at night to guide the belated back to the Dorm.

Shelving and benches have been provided for the U. S. standard weights and measures, and they will soon occupy a permanent place in what will be the testing room of the Mechanical Laboratory.

It is suggested that male students visiting the Girls' Dormitory supply themselves with an a'arm clock, and set it to notify them when it is half past nine. Later—Prices on alarm clocks have advanced twenty per cent.

Paulson performed a beautiful experiment in electrics before the boys of the machine shop the other day. The apparatus was his flowing locks and the rapidly traveling belt on an emery grinder. We always did suspect there would be some use made of Paulson, but now alas he has had his hair cut.

If we all could have what we wished for, what a funny world this would be. What peculiar forms some of us would take. One case that has recently come under our notice, and illustrates how changeable we are, occurred a few nights ago. A young lady seemed to take a liking to a very fine Maltese cat that happened to be there, and lifting him up on her knee fondled him in a very loving manner. A young gentleman in the company wished that he were a cat. We don't know why. A few days afterwards this same cat—or another one very similar—was the subject of an operation by the students of Veterinary. The same young gentleman thanked the Lord he was not a cat. We don't know why.

A desire for experimenting is early instilled in the heart of every student of the College, but boys "look before you

leap," for it is written that witch-hazel will not grow whiskers on a uniform.

At the ladies' basket ball game one of the fair ones "got a black eye, and escaped with her life," as the poet says.

Miss Mary Hill, a former student of the College, and now teaching in the Wahpeton City schools, paid us a visit Feb. 22.

On the night of Feb. 21 a number of the students visited Miss Morris, who is teaching one mile north of the College. All report a big time.

In order to get well accustomed to teachers' examinations coming soon, some of the students took the exams at the Moorhead Normal last week.

The target butt is in process of construction at the edge of the slough near the northwest corner of the College section. The range will be along the edge of the slough.

Every degree in the rise of temperature verifies the statement that the best of friends must part. Overcoats are going. Whiskers are falling by the wayside, overshoes in every ditch. We are all young once more.

George Olsen, a former student, with the class of 1902, died on Feb. 28 of pneumonia after a short sickness of two days. The class attended the funeral in a body. Appropriate resolutions were extended, and a garland of white roses presented as a last tribute.

One of the students in physiological chemistry was out a "little late" a few nights ago, and next morning in class, part of the lesson referred to an experiment that had been conducted on the *Faster Cetti*. The above mentioned young man did not know what sort of an animal the *Faster Cetti* was—but he found out.

The series of basket ball games is now over, and we can say, as of football last term, "we have met the enemy and are theirs." However in basket ball circles we have one victory to feel proud of, and that is the glorious victory of our girls over those of the Y. M. C. A.

in a game on March 3, when a brilliant score of 16 to nit was made.

About twenty students and patrons of the Red River Valley University inspected the departments of the College on Feb. 25. They apparently believed this to be a "farmers' rendezvous," and very suitably adapted themselves to act according to their belief.

The program rendered by the Athenian Literary Society last Saturday evening was as follows:

Roll Call—Quotations from Bill Nye.

Music—Society Trio.

Sketch of Nye—W. C. Bowman.

Recitation—Miss Birt Higgins.

Humorous Reading (Nye)—Miss Theresa McCann.

Instrumental Duet—Misses Hill and Chisholm.

Jokes—L. R. Waldron.

Reporter—H. Brand.

Vocal Solo—Miss Jessie Taylor.

Critic's Report—B. F. Meinecke.

One of the higher classmen recently purchased a large amount of witch-hazel, which he hoped would restore his face to its normal shape after shaving; but it so happened that little brother's uniform was dirty, and he had bought some benzine, which he believed would restore his uniform to the normal, and by mistake used the witch-hazel on the uniform. Now we do not know whether the other "feller" used the benzine for shaving or not, but we shall not be surprised if his countenance takes the color of the uniform.

Mr. Hall, '95, writes very entertainingly from Johns Hopkins. He has been very fortunate, and has secured a position on the state geological survey of Maryland. He will spend about two months doing field work before he returns to Fargo. He says that class organization and class ties are very strong in Johns Hopkins, and each class strives to outdo the other, or "do" the other. At this time of year they are celebrating their annual class day. On Feb. 22 the University celebrated its twenty-second anniversary. President Adams

of Madison, Wis., delivered the address.

What was the "dead give away" in the physical culture class?

Miss Helen Jewett has been on the sick list for the last few days.

Ask Benn what date is on the corner of the Swedish Lutheran Church.

Mr. J. W. Hillborn, '95, was a welcome visitor at the College Feb. 25.

Dr. John's lectures on "The Worth of a Man," and "Did God Make Man or Did Man Make God," were largely attended by the students of the College.

A great demand for thesis paper is anticipated, and the seniors are, as usual, giving us the idea that many discoveries in science are just on the verge of publication.

The first game of baseball for this season was played by the students last Saturday, and resulted in a score of 17 to 16 in favor of the side the umpire was on.

Washington's birthday was celebrated by appropriate chapel exercises, at which patriotic songs were sung, and addresses were delivered by President Worst, and Professors Bolley and Bottenfield.

Married: Andrews—Fritz. On Monday, Feb. 28, at the home of the bride's parents, Montrose, Wis., Mr. John Andrews, editor of this paper, and Miss Mary Fritz.—Lidgerwood Broadaxe. THE SPECTRUM extends congratulations. Miss Fritz was a student here two years

Two of our young people went to church a few nights ago, and when almost home they could not quite agree as to the correct date on the corner of a certain building they had passed about eight blocks in rear, and to satisfy their curiosity they retraced their steps to the sacred spot, but when they reached it they had forgotten what they were after, and so wended their way homeward just as happy as if nothing had happened.

The class in French is now reviewing grammar, reading French history, and incidentally gaining such a knowledge of the topography of France and its

beautiful capital as will enable them to greet Paris as an old friend if they have the good fortune to see its exposition in 1900.

The second year students, though fewer in numbers than the first year class, have done excellent work. They have already reviewed the grammar, have read "Hoehner als die Kirche," and are now finishing "Die Harzreise." During the next term they are to read "William Tell."

The first year class in German, having almost completed "Immensee," expect soon to take up the study of the "Science Reader," by which they will acquire the vocabulary so needful to them in consulting the excellent foreign scientific works used as authorities in our advanced science work.

They have now mastered most of the difficulties of German grammar, and are well prepared to appreciate the beauties of a literature, exceeded in extent by that of the English language only, and quite without a rival in purity, sweetness, and profundity of thought.

Bromus inermis, a grass well suited for high dry lands, is being introduced into this country. At this Experiment Station it has proved an unqualified success. It grows from creeping underground stems, and when once it gets a hold upon the ground it grows thicker and thicker. As a forage grass it seems destined to become second to none.

The State oratorical contest held in deLendrecie Hall Feb. 24 was well attended by students of all the educational institutions of Fargo and Moorhead, and while, for some unknown cause, we were unable to take part in the contest. The attendance of our students showed that there is still a germ of oratory about the College that requires only cultivation to place us amongst our brethren, with as envious a position in oratory as we now hold in science. We congratulate Fargo College on being able to obtain the honors they merited, and wish them every success in preserving

the reputation of North Dakota, at Vermillion, in the inter-state contest.

Some very artistic ability was displayed on the chapel blackboard after the talk on "jays," representing two. Which one was the jay?

The English department is busy training contestants for the gold and the silver declamation medals that are to be won the latter part of the present month.

The senior preps will undertake the delightful art of English Composition next term, and they will succeed if the results from the study of word-etymology are any indication.

One afternoon a week during the next term the sophomores will study and analyze some specimens of oratory, and undertake to do some original work of an oratorical and argumentative character.

The volunteer Latin class are doing some sight reading from the first book of Caesar's Commentaries. They are succeeding well considering the fact that they have studied Latin but little more than a term.

The electives offered in the English department for the spring term are Logic, Analytical Literature and the Origin and Development of Language, all of which are very interesting and thoroughly practical subjects.

The different College classes are actively engaged in formulating their commencement week programs. It is to be hoped that each will begin immediately upon the part assigned him, and will see to it that his effort shall be worthy of himself and the College.

The preparation of an original part for a commencement week program should mean a great deal to our students, especially in the acquirement of the power of expression. If, however, they are to refrain from such efforts until they are able to make a phenomenal appearance, when shall such appearance in public occur, if it is remembered that the student's work in English is almost

completed with the freshman year?

The following orations have been given by members of the senior class:
 Alexander Hamilton... Purl Bottenfield
 Inductive and Deductive Reasoning... Anna Small
 The Influence of Pride and Advancement... H. McGuigan
 U. S. Grant... B. F. Meinecke
 Superstition... Angie Gibson

The freshman class have completed and reviewed the text on English literature, and are now engaged upon whole works of representative authors. They are acquiring a very satisfactory knowledge of the subject. During the spring term they are to study the development of American literature, and do as much reading besides as the time will permit. Might not the class have an organization for the study of some phase of American literature, meeting once a month at the professor's home?

The power of expression is as important as the ability to think; for he who is unable to put in good spoken or written form the results of his investigations has fallen far short of what he might have been. Yet we expect the ability to write or to speak forcibly to be attained in a very small fraction of the student's time. At N. D. A. C. the time given to the cultivation of the power of expression is a trifle more than one-sixth of the student's time. By this apportionment of time we shall not produce good thinkers even; for language is the means by which we think, just as truly as the equation is the means of the algebraic solution of problems. Loose, inaccurate sentence structure causes cloudy, mystified, illogical thinking.

Experiment Stations throughout this country are daily placing agriculture upon a basis of scientific accuracy. If farmers are to be real farmers in the future they must read the literature of the Agricultural Colleges and Experiment Stations. Every month new discoveries are being made, and practical benefits are reaped by those who are

closely following the principles taught.

Lieutenant French has ordered for his department the History of the Civil War in America by Comte de Paris; Military Encyclopedia and Manual of Physical Drill.

At a business meeting of the Philomathian Literary Society, Friday, March 4th, the following officers were elected: President, F. G. Benn; vice president, Carlyle Stark; secretary, C. R. Foley; treasurer, Carrie B. Bronson; member-at-large, C. O. Follett.

The military department is in receipt of a war game known as Kriegspiel. The freshmen are busy fording streams, posting pickets, and will soon be besieging cities. A "kindergarten table" is also a late addition on which the pensive junior can build parapets with a paddle and sand.

The gymnasium has received a lot of gymnastic apparatus. Among the different articles we note the following: One dozen pairs of Indian clubs, two felt mattresses, five by six and five by ten; one set of twelve traveling rings; a double and a single trapeze; vaulting horse; suspended horizontal bar; indoor baseball outfit, and two fencing outfits.

This unexceptional weather ought to be utilized by the students in active preparations for Field Day. The sooner that earnest training is commenced the more prizes we will carry off when the day of contest is at hand. We will notice the loss of Tucker and Schollander, but Worst promises to be with us, and Clyde we hope will surprise us with his kicking or running.

MECHANICAL ITEMS.

The Mechanical Building is fairly bustling with activity.

The College can say, as every one else, that this past winter has been very lenient with the fuel item, leaving a fair sum in the treasury.

The first steam engine manufactured in our machine shop has just received

a nickel plate coating by means of electrolysis, and fairly shines in its new brilliant covering.

The work done by the new students in the wood and blacksmith shops, under the supervision of O. P. Nordby, is very commendable. Some very useful and ornamental articles have been made.

Mr. Howe, our amateur electrician, has completed the tedious task of winding the six miles of wire for his induction coil, which he estimates will give a three-inch spark or more.

Our amateur engineers occasionally meet in their practice with what in technical terms is designated as a "hot box." Adjust your bearings properly, keep them clean and well lubricated, and you'll have the box without the hot.

Despite the constant shaking which our draughting room undergoes from the shafting below, making it extremely difficult to do good work, the class in mechanical drawing is producing some designs of engines which show not only skill in the use of the right line pen, but a knowledge of the design in hand.

EXCHANGES.

The College Exponent, Agricultural College, Bozeman, Mont., has an extensive and commendatory local column, but lacks literary productions.

The Student Record, January number, contains an excellent article on foot ball by Rev. John L. Sewell, and a sketch entitled Gain and Loss, by a student, well worth reading.

The man who finds most fault with the Bible is probably the one who has made the least trial of it in his life. If we test its principles by our practice we shall find them true and constant.—The Georgetonian.

The Furman Echo, Furman University, Greenville, S. C., has a good literary department, which many of our college papers are sadly in need of. It contains an article on Our Duty to Our Institution, which every student can read with benefit. We quote the following: "The success of an institution

depends as much on the student body as on the faculty."

Prof.—Why don't you make something of yourself, John? Why, Alexander had conquered the world when he was no older than you.

John—Yes, professor, but he had Aristotle for his teacher.—The Furman Echo.

The Comenian, Theological Seminary, Bethlehem, Pa., for the month of March contains an interesting and well written character sketch of Hamlet.

How dear to our heart
Is the cash on subscription
When the generous subscriber
Presents it to view;
But the man who won't pay
We refrain from description
For, perhaps, gentle reader,
That man might be you.

The annual cost of maintaining a modern battleship is over three times the total annual expense of an institution such as Johns Hopkins University.—The Student Record.

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