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THE GROWTH OF CHEMISTRY.

The subject of which we are to treat has to do, in a more general way, with conditions and laws that affect equally the evolution of any science or art, or rather that affect the evolution of all sciences, or of art considered in a broad sense. This is necessarily so, because the different sciences are so co-related that it becomes quite impossible for the proper development of one to take place without co-development of those allied. It is not to be inferred, however, that all branches of a science, or all sciences, advance with equal rapidity; for within a science, many parts are subservient to others.

The history of every science shows the study, grouping and correlation of the most obvious facts, at the beginning. From later and more recondite studies and observations, broader generalizations are made. In botany, the first work was upon the classification of plants, and, while not valuable in itself, it paved the way for valuable results. But a few years have passed since laws were laid down in regard to various kinds of oscillations in rarefied media, which, if known at all to laymen, were undoubtedly laughed at as being absurd. Today, those same laws are being put to practical uses by Mr. Tesla, the results of which will, in a short time, startle the world.

The conditions must be suitable, or development will be anomalous. It was not because the ancient Greeks lacked apparatus or text-books or because Aristotle considered that the study of physical science was of no moment, that no advance was made in chemistry or biology. More abstract and recondite causes than these were at work, the true nature of which may be forever beyond our

ken. The Germans ascribe such illusive conditions to the "Zeitgeist." But the thinking man asks for a more abstract cause than the time spirit. And it is for this abstract conception that the thoughtful mind ever strives in science, art, or literature. The more generalized, the more abstruse the cause; the more difficult it is to find. And as the circling waves from a pebble cast in water become less manifest as they recede from the center and merge insensibly into the glassy deep beyond, so abstract laws become less sensible to our understanding as they approach the infinite.

The science of chemistry, in common with other sciences, found many obstructions in its path in early days. It was besieged from without and from within by so many enemies; the curse of pope and anathema of church were hurled against it so often, that we are filled with awe and admiration on finding it occupying the place it does.

Consider for a moment its numerous enemies from without. Organized theology, the church as a political factor, was, in early times, the archfoe of this science. In the few hundred years subsequent to the establishment of the Christian church, all investigation was looked down upon by those in authority as of no value. Scholastic methods were assumed to be sufficient for gaining scientific knowledge. This mediaeval conviction was undoubtedly due in part to the attitude toward science of the Greek philosophers, Plato and Aristotle. Deductions from the Scriptures had to suffice for nearly all that was known in astronomy, geology and kindred sciences. Generalizations in regard to the natural world, however secured, were

held in far greater esteem than were those obtained by scientific methods. One writer says: "The most careful inductions from ascertained facts were regarded as wretchedly fallible when compared with any view of nature whatever, given, or even hinted at, in any poem, chronicle, code, apologue, myth, legend, allegory, letter, or discourse of any kind which had happened to be preserved in the literature which had come to be held as sacred."

The next period is characterized by the union of theology and science, and for the time being, there was no fear that the church would be injured in the slightest degree by the rise of either chemistry or physics. For twelve hundred long years the science of chemistry made practically no advance. A few facts were obtained in regard to the metals or their oxides and, to a less degree, in regard to other substances, but these facts were expressed in a language so obscure and allegorical as to be nearly unintelligible. If some really great investigator appeared upon the scene and had the requisite courage to speak out, as was the case with Roger Bacon, it sufficed but little; for the church immediately shackled and clapped him into prison. But such a course could not last forever. Here and there, when the power of the church began to wane, men arose who would not allow their minds to be molded to forms arbitrarily fashioned by other men. To such noble minds are thanks due that chemistry occupies the place it does today.

There was yet another enemy hostile to the advance of chemistry and this came primarily from within. I refer to the mystic pseudo-philosophy which directed and controlled all investigation. One illustration of this must suffice. Alchemists assumed at the outset the postulate that there were only seven metals and furthermore that there could be no more. Why was this? Because there were only seven planets. And this was due to what? To the fact that there

were seven cardinal virtues, which fact in turn depended upon the existence of seven candlesticks, seven angels, seven seals, etc., of the Apocalypse and most important of all, the whole thing depended on the basal fact that there were seven sacraments. Of course no real progress could be made while such a state of affairs existed.

Such arts as dyeing, weaving, tanning, etc., were all well known to the ancients, but the science of chemistry had practically no existence up to the time of Robert Boyle and Lavoisier. The chemistry extant passed under the name of alchemy, the hidden science. The facts composing it were isolated and subject, apparently, to no law. They had not yet risen to the dignity of a science. The motive force in the minds of the investigators was not the love of pure truth. Their aim, in nearly all cases, was either to find the philosopher's stone or the elixir of life. There is a lesson for us in these misdirected efforts, which, in their day, were regarded as so practical. Men spent their lives in seeking after that which would bring them youth and fortune, which efforts time showed in the highest degree impracticable. If on the other hand, their time had been spent in laying broad and sure foundations, in the way of principles and laws based upon a sufficient number of facts, practical results, such as we see manifested today in a thousand different industries, would have followed much sooner than they did. They were pioneers and we can not hold them culpable. But even today, we find men holding prominent positions in the scientific world who declare with all apparent seriousness that the time spent in the pursuit of pure science is practically wasted.

Before considering the chemistry of Lavoisier, it will be well to make a brief resume of the science as it existed in 1750. That which commanded most attention was the theory of combustion. Stahl, supported by many others, held that all combustible substance

contained a principle or element called phlogiston. When the substance was burned the phlogiston escaped, leaving a residue called a calx, now known as oxide. Thus a metal was supposed to be a mixture of calx and phlogiston. If it was desired to combine the calx and phlogiston, to form the original metal or substance, the calx was heated with a substance rich with phlogiston; in other words, with a reducing agent such as coal. They conceived metals to be compound instead of simple. The ideas in regard to the nature of phlogiston were various. Some considered it as the flame itself, others as something similar to Berlin blue, while others regarded hydrogen as the substance. Hydrogen was given off from a metal when acted on by an acid. A calx was restored to its original state when heated with hydrogen.

The theory of the transmutation of metals was still prevalent. As shown above, the idea of a metal being elemental was ill defined and chemists could not understand why such transmutation should not be effected.

Another belief, common to the chemistry of that day was that of the transmutation of water. It was believed that on heating water for a period of time, it would be changed to an earthy substance.

Along with the idea of transmutation of metals and water, there was a hazy notion that in some mysterious way, matter might be created.

Practically nothing more was known as to the nature and composition of organic substances.

The nomenclature of the science was cumbersome and unwieldy.

Lavoisier, a Frenchman, 1743-'94, was one of the greatest of chemists and in his lifetime did more than any contemporary worker to put chemistry on its present foundation. His first important work was the demonstration of the composition of water. This was the entering wedge that served to overthrow the

phlogiston theory. He showed that pure water, when boiled to dryness, left no sediment behind in the way of earthy matter. He developed a rational, though not entirely correct, theory of acids. He gave the first correct definition of an element, "It is a substance from which no simpler body has as yet been obtained."

About this time the balance was brought into common use, which was instrumental in advancing a true chemical theory.

It is much more important to observe correctly than to theorize correctly. With accurate observations we may express laws that are in some degree correct and, even if they are erroneous, they serve as guide posts for future thinkers. On the contrary, nothing but evil can result from inaccurate observations.

It is worth while in passing to note that the balance did more than anything else to establish that mighty doctrine, the indestructibility of matter. Then the chemist could satisfy himself that he took as much from the crucible as was put in, in one form or another. From now on a theory had to withstand more rigorous tests than before.

It is an interesting fact that of the four natural sciences which stand pre-eminent today, each has contributed a fundamental doctrine to human thought and without which true science could not progress. Astronomy gave the doctrine of gravitation, chemistry that of conservation of matter, physics that of conservation of energy, and finally biology contributed the doctrine of evolution.

Finally the investigators had learned to throw off the deadening weight of some revered authority and henceforth facts and theories had to go before the world on their merits.

Dalton, 1766-1844, gave definite form to the atomic theory. Like evolution, it had been an apparition in the minds of

thinking men for ages, but not until Dalton appeared did it take concrete form.

This theory allowed the laws of definite and multiple proportions to become recognized and firmly established. The law of definite proportions was opposed by Bertholdt who clung to the theory of affinity.

Chemists were now ready to determine the atomic weights of the elements. The first list was published by Dalton in 1805. The work was preliminary and of slight technical value. The list published later by Berzelius was much more accurate, differing but slightly from the weights given at the present time.

Gay Lussac, a French chemist, announced in 1808 the law of volumes, the volumes of combining gases bear a simple relation to one another and to the volume of the resulting product.

Avogadro, an Italian chemist, clarified Gay Lussac's work by introducing the modern conception of atoms and molecules, elucidated the law that equal volumes of gases under similar conditions contain an equal number of molecules.

By means of this, it was possible to determine the number of atoms in molecules and it paved the way for the law of valences to be developed in later years.

These various fundamental laws which we have been able only to mention were all laid down by 1820. From that time on, for many years, a vast number of facts were piled up which served mainly to substantiate former laws and to pave the way for new ones. Also many new methods and kinds of apparatus were introduced.

Davy was successful in discovering many new elements and in determining the nature of acids.

Berzelius, a Swedish chemist, as before stated, determined atomic weights and introduced the modern symbols. He, in conjunction with Davy, introduced the due-electro-chemical theory which held sway for about twenty years.

Mendelejeff gave the science a mighty impetus when in 1868-9 he announced the periodic law. Empirical as it is at the present time, a Newton will seize hold of it some day and lay bare laws which affect all natural sciences profoundly by teaching the world more of the atom.

But I will let a better pen than mine describe the work of synthetic and analytic chemistry in the last twenty years along the lines of agriculture, astronomy, physiology and biology and in the research of the stereo properties of the atom.

L. R. W.

FUR AND FEATHERS.

Our minister in a late sermon made mention of sparrows, as they are referred to in the Bible, and this caused me to be more watchful than usual of the actions of these little birds while I was raking up some dried grass in the door-yard the following day. I like sparrows and dandelions because they come in such great profusion, and am glad to reflect that Christ had such common objects in mind from which to draw lessons on the universal and

special goodness of God to all creatures. My wife thinks differently, however. She classes dandelions and sparrows as trash, and says that a mistake was made in their creation, so she does not deal with them as tenderly as I am inclined to. On this occasion my attention was particularly directed to the movements of a couple of sparrows, seemingly more bold than the others, snatching up their little beaks full of straws and making dexterous dives

through the open slats of a closed window blind, upstairs. My first thought when I discovered what they were up to was that they were building their nest in a dangerous place. I anticipated trouble in case our housekeeper should happen to observe their movements. One thing, though, was in our favor—the birds and me—and that was the fact of the window being in a spare parlor bedroom, never in use except twice a year, to clean. The blinds are kept closed between times, for when it comes to a choice between sunshine and cheerfulness on the one hand, and a possibly faded boughten carpet and gloom on the other, the sun has to hide its blushing face every time. The dismalness of the room is further enhanced by a stately bed with its six-foot polished headboard towering in lonely grandeur over a waste of pillows, and shams, and doilies, and counterpane, all smooth and half hidden in gloom. It is very melancholy, and whenever I get unduly elated over things of earth—too much inflated for my soul's good with the oxygen of life—I steal away to this room to meditate and get properly toned down in spirit. It works beautifully, but I do not undergo the treatment often. So, on the whole, I was greatly in hopes we would get our brood of sparrows through all right. I crept upstairs and watched operations through the glass, as the nest was being built on the window sill. What a sight of stuff they brought up—enough for a gooseneck, and how daintily they shaped it, even to the plastering with mud. I couldn't have bettered it myself, even with a jack plane and trowel. After we—or they rather—got our nest built I stayed away a few days, from motives of caution, and at the end of that time returned to find housekeeping fully commenced. The mother bird was on the nest, and I could watch her at short range, and note the ingenious manner in which she had got everything fixed, that the sight, and reflections they gave

rise to, were absorbing. The miracle of life was there, more interesting than the pages of Darwin, and above all, infinite wisdom and goodness was manifested so clearly.

One of my failings is that I cannot keep anything to myself. So in this instance, I had got so enthused that I wanted to share the sight with some one else, and thus one unfucky day, when the bird was off and the eggs lay exposed, I ventured to call down stairs, in the full belief that no one could be so hard hearted as to molest, or do aught else than admire the beautiful creation. So I made the mistake to call: "Say," "Whereare you?" I heard in response. "Up stairs in the room." "What are you doing up there?" "Watching a sparrow's nest in the window. Come up and see it. It's wonderful. Bring your specks so you can see how nicely—"

The noise of a hustling around down stairs interrupted further information at this point, and footsteps not at all like the usual sedate ones of our housekeeper followed. An excited but resolute looking woman, armed with a broom, dipper of water and a poker,—but not any specks—burst into the room.

"Where is the nasty things?" she angrily inquired, but before I could enter a word of protest, or make a move in defense, her eye caught sight of the nest against the glass, and in a flash the window was opened, the blind pushed back, and one swoop of the broom had brought desolation to our hopes—the sparrows and mine. She even reached out with the broom to strike at the distracted and fluttering bird that had returned just in time to witness the sudden and disastrous termination of her labors. I went sadly down stairs, quoting back to her that "God marks the sparrow's fall," but the only response I heard was the swash of water on the window sill and a vigorous scrubbing. I felt guilty at sight of the disconsolate bird perched on a twig

as near to the fatal window as safety permitted, looking down at me as much as to say, "You are a great one to keep a secret, you are."

Though depressed by this disaster I was not utterly cast down. I had one more secret, and this buoyed me up. Nobody knew a word about it—nobody but me and the cat. It was connected with a certain hole in a straw heap at the barn. Whenever I went to the barn I would look around, to be sure of not being seen by anybody but the cat and then by lying flat down I would reach into the hole, in the depths of which I was conscious of a furry nest: By separating it with my fingers this nest resolved itself into five little—but that is the secret. On this occasion, after the wreck of our sparrow's nest, I went to the barn as usual to make sure my remaining secret was keeping all right. It was there as I had left it, but my caution for its safety led me to try to deepen the hole. I had accomplished this and was tenderly jamming the little—the furry nest—to a depth of greater security when I was startled by a woman's voice. "Why, what in

the world are you doing down there in the dirt, poking into that straw heap?" "I thought maybe the yellow-neck hen had a nest in here somewhere," I answered, crawling out as rapidly as possible. "The yellow-neck hen! why, she lays round in the shed, and all the others lay in the coop. You needn't be looking around here for eggs, but I believe that cat's got kittens here somewhere, and if she has I want to find them. I aint going to have such a lot of cats around last year. I shall drown them all but one. Are you sure there is none in that hole?"

This was a stumper. Luckily, she d'd not wait for an answer but stooped down to make an examination for herself. And how glad I was that I had got them successfully jammed beyond her reach before she came in.

"If you find any be sure and let me know," she said, as she got up and started for the house.

"O yes, I will," I said, while the cat at my feet rubbed harder and purred louder than before, and, I added, mentally, "I will say bring your specks along."

CIVILIZED MAN.

Civilized man may well be proud of his wonderful achievements. He has conquered the forces of nature and compelled them to serve him. He has transformed inhospitable forests into fertile fields. The mountain fastnesses yield their treasures at his demand. The fierce animals obstructing his progress are being exterminated, while others which are useful to him are made to yield a thousandfold.

The waves of the ocean carry him from land to land, and even towering mountain ranges are no barrier to him. His genius has molded inert matter into powerful machines, which wait but

a touch of his hand to serve his manifold demands.

What wonder if he pities a people who have not succeeded in subduing nature; who labor in the wilderness; who hear with trembling the roar of wild animals; who remain restricted by ocean, river, or mountain, and who strive to secure the necessaries of life with the help of few and simple instruments? What wonder if civilized man, considering himself of higher order than primitive man, becomes ruler over savage nations, and causes them to serve him. Hitherto through human history there have always been wild and

barbaric races lurking on the borders of civilization. For centuries no man could predict what strange new race might not descend, like a mountain torrent, from the mysterious North, or from some undiscovered continent.

Today explorers have pushed into every wilderness and island. For the first time in history there are now no longer new races to reckon with. Everywhere the savage peoples are dying out, or giving way to civilized colonists.

Civilized man is that noble endogenous plant which grows from within outward. He is a civilized man who inhabits a higher sphere of thought, into which uncivilized man rises with difficulty; the former has but to open his eyes to see things in a true light and in large relations, while the latter must make painful corrections and keep a vigilant eye on many sources of error.

As the river makes its own shores, so this higher type of mankind, if in its proper place, is constructive, fertile, magnetic, making weapons to fight with, handling great armies, both military and industrial. As plants convert the miner's into food for human use, so each of these men converts some new material in nature to human use.

Subject a column of water to tremendous pressure, and you develop a marvelous elasticity, latent in every atom of the water or steam. So it is with the development of civilized man; you bring out his hidden elasticity under stress and pressure. This very pressure which is brought to bear upon him has caused the invention of fire, electricity, magnetism, iron, lead, glass, linen, cotton, etc. Men who are the products of largest civilization are by secret liking connected with some district of nature, whose agents and interpreters they are, as Linneus of plants, Dalton of atomic forms, Newton of fluxions.

Man made of dust does not forget his origin, and all that is inanimate may yet speak out. Unpublished nature will

some day have its whole secret told. The mass of creatures and qualities are still hid and expectant. It would seem as if each waited for a destined human delivery. In the history of discovery, each ripe and latent truth seems to have fashioned a brain for itself.

How easy it is for us to adopt the labors of others. Every ship that comes to America obtained its chart from Columbus. Every novelist is a debtor to Homer. Every carpenter that shaves with a foreplane borrows the genius of a forgotten inventor.

Life is girt around with a zodiac of sciences, the contributions of men who have perished in order to add their point of light to our sky. Engineer, broker, jurist, physician, moralist and theologian, and every man inasmuch as he has any science is a definer and map-maker of the latitude and longitude of our condition. These road makers on every hand enrich us. We are as much gainers by finding a new prophecy in the old earth as by acquiring a new planet. The discoveries of these men never leave us, their works are immortal. They contain those eternal truths which survive the shock of empires, outlive the struggle of rival creeds, and witness the decay of successive religions. All these have their different standards; one set of opinions for one age and another set for another, the discoveries of the genius alone remain. A genius is for all ages and all times. He is essentially cumulative, thus he influences the most distant posterity, and after the lapse of centuries produces greater results than he was able to produce even at the moment of his promulgation of discoveries.

All the majestic push of these men is in one direction—toward uplifting and civilizing manhood. However desirable and picturesque some of the methods of barbarism may seem to lovers of antiquity, barbarism is as certainly doomed, as were the bear and the wolf when the Mayflower landed at Plymouth.

We have to look, not to barbarism, but to the broader and more intelligent development of civilization to find the

needful means for making brave and noble men.

O. A. T.

ATHLETICS.

Victory is a guest of our basket ball team, and she, with her friend championship, promises to spend the season with us. We extend to both "the glad hand," and assure them as pleasant a time during the coming baseball season as they have spent with us in football, baseball, and oratory during the past year.

The basket ball game between the A. C. and University of Minnesota teams on Feb. 16 gave our boys an opportunity of matching themselves against the western college champions. While our team was somewhat out-classed the game was by no means uninteresting. Our guards especially did good work, Greene holding Deering down to two field baskets, while Holden secured but one off McGuigan. The final score, 24 to 5 in favor of Minnesota, was made up of seven field baskets and ten points from free throws after fouls. Our five points were secured from free throws.

The third game of the local league series was played on the afternoon of Feb. 22. The contestants were the Fargo College and Y. M. C. A. first teams, and the A. C. and Y. M. C. A. second teams. The attendance was small and enthusiasm, owing to better attendance from that institution, greatly favored Fargo College. The second team's game was very much in favor of the A. C., Bert Corbett proving himself a star basket shooter for that team. The score was 11 to 4, the Y. obtaining no field baskets. The first team's game was also a decidedly one-sided affair, though this was not manifest until the beginning of the second half. In the first half there was some fast play-

ing—a fact which might have tempted one unacquainted with the staying qualities of the Fargo College team to indulge in some "tall" guessing as to the probable winner. Kinne, the Fargo College center, desirous of a large score, succeeded in making the majority of the points for the college. The final score was 20 to 8.

The fastest, hardest and most scientific game of the season was played on Feb. 27, between the Fargo College and A. C. teams. Owing to the slight difficulty over the first game between these two teams, which was finally awarded to Fargo College, much rivalry was manifested, and great interest was taken in the game. Previous to this game the Fargo College and the Y. M. C. A. second teams played an uninteresting game, which clearly illustrated the back number occupied by the "Y" second team, the score being 24 to 8, in favor of Fargo College. The first team's game was fast from the outset, the A. C. excelling only by speed and superior staying qualities. The first half ended with the A. C. in the lead. The score was 8 to 3. The second half was a continuation of the good work begun in the first. Fargo College tied the score, but that was the last look she had of her contestant's face, for she was soon trailing in the dust, two, four, six, and finally nine points, in the rear. The final score was 21 to 12 in favor of the "pumpkin jugglers" from the A. C. The game was remarkably clean throughout, there being but four fouls called on the A. C. team, and seven on the Fargo College. The line up was as follows:

F. C.	A. C.
Orchard	Forward ..Fred Jensen
Cleveland	Forward Al. McAlister
Kinne	Center. T. F. Manns (capt.)
Best	Guard L. B. Greene
Briggs	Guard .. J. McGuigan

—The fifth game of the league series was played on Friday, March 1, by the A. C. and Y. M. C. A. first teams and the A. C. and Fargo College second teams. The second team's game was lively and close. The Fargo College team, however, were too heavy and tall for the diminutive "farmers", and won the game by the score of 9 to 7. This gives the second team championship to Fargo College, they having won four games in succession. In the first team's game the "Y" played an exceedingly strong game, the score at the end of the first half being 4 to 3 in their favor.

The staying qualities of the team, however, proved to be inferior to that of their rivals, and when the referee declared the A. C. team winners the score stood 15 to 7 in their favor.

On Saturday evening, March 9, the sixth game of the series was played between the A. C. and the Y. M. C. A. second teams and the Fargo College and Y. M. C. A. first teams. The first half of the second team's game was the slowest ever witnessed in Fargo, but in the second half a little faster playing was indulged in, the A. C. second team finally winning by a score of 10—6. The game following was exceedingly fast, and very interesting throughout. At the end of the first half the score was 8—8, but in the second half the college players made nine points as against four made by their opponents, winning the game by a score of 17--12. This placed Fargo College and the A. C. in a tie for first place, each having won three games. It was suggested that the tie be played off on either March 12 or 13, as after those dates the armory could not be secured for about two weeks. The A. C. management wished to have the game

played on the latest date on which the armory could be secured, giving as a reason the poor physical condition of the team, caused by sickness. The management therefor wished to have the game played on Wednesday evening, March 13. The Fargo College management thought that the game could be arranged for that evening, but afterwards decided otherwise, and in conjunction with the manager of the Y. M. C. A. team announced in the city papers that the game would be played on Tuesday evening, March 12. As the A. C. team had not agreed to play on that evening, they declined to do so, holding that it was impossible for them to forfeit a game which they had not consented to play. At the time set by their manager the Fargo College team appeared and claimed the game as forfeited, but the referee decided that inasmuch as the A. C. had not consented to play the game on that evening they did not forfeit it by refusing to do so. It has not yet been decided whether the game will be played, as Fargo College still insists that the game was forfeited.

Mr. Greene, manager of the baseball team, informs us that he is scheduling a season of heavy games, and promises to keep the record of the A. C. up to the top notch in this line of athletics. He is at present speculating upon a trip through Minnesota, taking in the principal institutions of the Twin Cities, and returning through the southern part of the state, where several games will be played.

The Philos are feeling very exuberant over the fact that they secured first place on the oratorical contest, and both first and second in the declamation. Their exultation was made manifest at the declamation contest.

Why did not the debating Farmers and Engineers invite the public to their debate?

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With the amount of preparation necessary for the production of a satisfactory class day program, it is high time that a start be made in that direction. Thorough preparation is necessary, and now is the time to begin it.

Get out, ye base ball enthusiasts! Now is the time to perfect your team organization. Let everything be ready for practice as soon as the weather is favorable. The first week of baseball practice is not proper time to secure baseball appliances. Have everything in readiness

for the first day's practice, and have the team practice as regularly as they recite their lessons. Our athletic standing this year is the best in our history, and only requires a little effort on your part to make it even more so. Are you willing to make a little effort?

Already the gentle breezes of spring have struck a responsive chord in students' lives, though most of the breezes have as yet been only promisory of the better time coming. With the advent of spring it may be "timely and righteous" for us to warn procrastinating students to be on guard during the spring term against the too prevalent practice of allowing studies to take care of themselves. Most of our students seem to act during the spring term on the principle that it is wrong to do today what may be put off till tomorrow. Such attitude is liable to exercise a baneful influence on one's future. Our college days are the springtime of our lives, and if they are wasted in idleness and pleasure-seeking, instead of being used as a mental planting time, then the autumnal harvest will indeed be scanty. While all nature is busy in glad preparation for the summer and fall, and every sign in earth and sky points to an increasing usefulness, is it right that we should blight fair prospects with slothfulness and procrastination? Rather let us pattern after the example of animate and inanimate nature around us, and make the spring a season of renewed activity and tireless exertion along the line of mental attainments. Then may we rest assured that the autumn of our lives will not find us laboring in another's vineyard.

From time to time we receive at this office complaints from subscribers who fail to receive their papers. Most of these complaints seem to be based upon the assumption that it is the duty of the management of this paper to keep informed as to the location of the mi-

gratory subscriber, who changes his address without taking the slightest trouble to notify us of the change. Some time after such change has been made he suddenly discovers that The Spectrum has not been arriving regularly for perhaps a month or two. Boiling with indignation, he writes an abusive letter to the management, and generally fails even then to give any definite address. Thus the management is deprived of at least the grim pleasure of sending him a retaliatory missive. On behalf of a much abused management we would request that subscribers, before taking the trouble of sending us abuse through the United States mail, are quite sure that the management of this paper have laid themselves open to criticism.

It may not be amiss for us to inform the, in their own estimation, high and mighty 'Naughty-ones that this institution is not being run expressly for their benefit. Because the faculty has been forbearing with their vagaries, it has not meant that they might become a law unto themselves. They may also be sure that the future of the college will not be jeopardized if they do not consent to graduate in June. It is, perhaps, in consonance with schoolboy ethics that they should, as time for graduation approaches, manifest some exuberance of spirits, but they should let their gayety be imbued with reason. A patronizing attitude on the part of a student towards his college—an attitude fed by conceit and braggadocio, is, even when he is paying for his instruction, very far from being indicative of good breeding. What shall such attitude be called, then, when it is assumed by a student who receives his education gratuitously—a free gift of the state? It is a part of education to learn to respect authorities in power.

With the close of the winter term most of our short-course students will

leave us. On the impression of us which they carry away will depend to a great extent our school attendance next year. It is a matter of regret that the college has not better facilities for the instruction of these young men, on whom the future of our state is to a great extent dependent. We hope, however, that the short-course students have been here long enough to become acquainted with our inadequate equipment. They will realize that the recent favorable legislation was but a necessary step in placing our college in its rightful position. As the institution grows its field of usefulness will be widened, so that, though we are now favorably situated for a few years, we will require continually favorable attention from the state authorities. Our short-course students can therefore be of great benefit to us by letting our usefulness become known throughout the state, and thereby engendering a generous spirit among its inhabitants towards the Agricultural College.

The Athenians held a private declamation contest, to select representatives for the inter-society contest. A young lady who was to supply some music was left unprovided with an escort and Manns appealed to Greene to bring her out. Greene agreed to sacrifice himself and do so for the good of the society, but when he arrived at her residence "pa" would not let her come because the distance was too great for her to walk. Greene said he'd get a buggy and come back. He did so, but in the interim another enterprising young man appeared on the scene, and after much prevarication succeeded in carrying off the dear girl. What Greene said when he returned from his second fruitless trip can not appropriately be here printed. Alas! Poor Greene!

What professor was it that escorted two charming misses part way home and then left them?

THE SPECTRUM.

LOCAL HAPPENINGS.

Query: Did he really promise not to do it again?

Thompson is acquiring a local reputation as a "lady-killer."

Spring overcoats and hats are rapidly coming into use again.

Professors Rose and Hall are recovering from severe sickness.

"Annie" Stapleton has again resumed her studies at the college.

The outlook for a good baseball team at the A. C. was never better.

Chacey and Osgood have joined the choir. Watch for large posters.

L. R. Waldron had charge of Professor Bolley's classes during his illness.

Professor Bolley is able to be out again, after a severe tussle with a bad cold.

It is reported that Miss Minnie Larson has engaged a Cook for the rest of the year.

It is rumored that Miss Elita Olsen has applied for a position on Sousa's band.

C. B. Chacey was one of the orators who held forth at chapel exercises recently.

Did you hear the Philos yell when their representatives carried off both medals?

Ask Larson how he got his complimentary ticket to the dance last Friday evening.

One of our professors' idea of misery: Poverty, with a wife and six or seven children.

Did you attend that dance at the armory last Friday night? If not you are to be pitted.

Thompson, Manns and Sleight cast a heavy vote in the recent elections in Reed township.

"Doctor" Greene recently delivered in chapel an eloquent oration on "The Dawning Century."

Miss Idah Archbold has returned home to teach school and _____ is "looking for another—occupation."

Miss Taylor said it would have been all right if she could have screamed. Treat says it was all right anyhow.

Miss Worst has been unable to attend college for the past two weeks, but will soon be able to attend classes again.

Mrs. Hult delivered an address, on the subject, Sidney Lanier, at the Unitarian church last Sunday morning.

Professor Bolley has just recovered from a severe attack of the grippe. He is now talking baseball with all corners.

Elmer May is an expert decorator. Ask him about that red lily which he manufactured for the declamation contest.

The mechanical department has received a new chemical balance, which will fill a long-felt want in the mechanical building.

Fowler and Stewart had an entertaining discussion as to the propriety of Mrs. Nation's tactics, the event being decided as a tie by impartial judges.

The musical numbers occasionally introduced at the chapel exercises serve a good purpose in varying the monotony—besides being very enjoyable.

Dr. M., lecturing to psychology class: If a man has any grudge against his sons or daughters, and wishes to place them in an untimely grave, the best thing to do is to send them to a boarding school.

Miss Manning visited here during the past week, arriving in time for the declamation contest.

Why Miss Mabel Leininger received the highest mark in the chemistry examination has been a subject of general discussion.

P. C. Gorder was here to take in the show" i. e. the Mother Goose melodies. It seems to us that P. C.'s visits are becoming rather numerous.

One of our promising young actresses tried to put "pa" Phelan off with a stage kiss when he left for Washington, D. C., but it did not work.

A number of our students took the teachers examination which was recently held in Fargo. Among those taking the examination was "Doc" Mauseth.

Tom Jensen visited his home at Buffalo about three weeks ago, and was compelled to remain a week longer than he had planned owing to sickness.

H. McGuigan will leave for Washington, D. C., about April 1, to take a position in the department of agriculture as an assistant in chemical work.

Seniors, you should not take it to heart if a professor accuses you of stealing orations, for professors are competent to judge of your ability to think.

The reason why N. R. Olsen wears such a pleasant smile of late is that he received a check from "pa" and a letter from Illinois on the same day.

Miss Stapleton: Professor Keene, why are you riding your wife's wheel? If I were she, I would not let you do so. Professor Keene: Well, I'm glad you are not my wife.

In *The Blue and Gold* we notice that the advice of the Fargo College girls to Mr. McGuigan is to spend his loose change in buying chewing gum. From the appearance of the same young ladies several times when they have come un-

der our observation we would advise them to spend all their spare change in the purchase of toilet soap.

Judging from the way in which some of our boys loiter in the halls of the domestic economy department they must intend to take a course in cooking and dressmaking pretty soon.

Miss Phelan has recently returned from a pleasant trip to Washington, D. C. She has promised to tell her experiences while there to the Philos at one of their meetings in the near future.

One of our young lady students wrote a letter to her mother. It ran as follows: Dear Mamma: I went to the Labies Club with my sister. My sister scrubbed the floor. We had a good time, etc., etc.

We read in *The Forum* of James McGuigan's popularity in that he received three votes for the free scholarship in the International Correspondence Schools — "and his votes come from Dickinson", says *The Forum*.

Sleight, in referring to the chicken served at a recent Sunday dinner at the dormitory, says he believes that the man sent to kill the chickens made a mistake and slaughtered an incubator. At any rate, he says, the chicken reminded him of a little hatch—it.

The young ladies of the college had a discussion as to the propriety of dancing, attending theatres, wearing low necked dresses, etc. They decided that dancing and theatre-going were allowable, and low-necked dresses are all right, "if they are not too low."

After the operatic performance given by the choir and assistants, a report was circulated that the play would be reproduced in Casselton. On questioning a member of the troupe we were informed that somebody told somebody else that the troupe should go out of town. Our own belief is that someone told them to "pack their clothes and go."

The annual oratorical contest was held in the college chapel on Monday evening, March 4. Owing to the extreme inclemency of the weather the attendance was somewhat limited, not more than fifty people being present. There were but three contestants, Messrs. Manns and F. Jensen, Athenians, and Mr. Osgood, Philomathian. The judges' decision gave Mr. Osgood first place, while the other two contestants tied for second place. Mr. Manns voluntarily withdrawing, Messrs. Osgood and Jensen will represent the A. C. at the annual state oratorical contest to be held in Grand Forks in April.

The annual declamation contest for the Worst-Hinebauch medals took place on the evening of March 8. The college chapel was crowded to its utmost capacity, many of those present being unable to obtain seats. President Worst being unavoidably absent from the city, Dr. Hinebauch presided, fulfilling the duties of the office with great credit. There were nine contestants, five from the Athenian, and four from the Philomathian Literary society. An abundance of good music was provided, under the direction of Professor McArdle and Mrs. Burnam, so that not the slightest monotony was allowed to encroach on the evening's enjoyment. The judges were Superintendent Smith, of the Fargo schools; Professor Childs, of the Fargo High school, and Mrs. Judge Young.

The judges awarded the gold medal to Mr. Osgood, and the silver one to Mr. Stewart. The decision was extremely gratifying to the Philos, both the winners being members of that society.

The college choir gave a high grade entertainment February 20 and 21, in their presentation of "Mother Goose Melodies." The announcement said: "Old Mother Goose became quite new, and joined a woman's club; and left poor Father Goose at home to care for Sis and Bub." The music was selected,

largely from the extravaganza "Jack and the Beanstalk," supplemented with college songs. The libretto was arranged and rewritten by members of the choir, to fit local conditions. The "cast of characters" as it appeared on the official program contained none of the names of the choir—each member appearing under a "nom de guerre." The costumes were very neat and added much to the undertaking. Unfortunately the curtains were so hung that those who sat at the sides of the room could not see all that was being done on the stage, but experience is valuable and for the next entertainment of this sort an entirely different setting will be arranged so all in the room can see the entire stage, and more room will be given the actors.

Mrs. Burnam directed the choruses and played the accompaniment for the special numbers. Mrs. Shattuck was at the piano for the chorus work and Miss Grace L. Smith won many compliments for her violin playing. The chapel was filled for both evenings and all were enthusiastic in their praise of the entertainment.

The program opened with a band of masked robbers shrouded in black robes and "armed to the teeth", as the music progressed, representing the dawn the lights were gradually turned on. Soon the masks were removed and King Cole and his fiddlers three made merry with their friends. All did well in their respective parts and we trust that the generous reception of this effort will induce the choir to appear again soon.

A cow came forth at early dawn
To crop the dew-besprinkled lawn.
A bulldog, passing slowly by,
Resolved to make that bovine fly;
Taking a hurried look about
He launched him at her cowship's snout.
With awful force and fearful grin,
His vicious teeth sank through her skin,
A loud, unearthly, frightened bawl,
A cloud of dust and—that is all.

L-G.

EXCHANGES.

It is better to have the best portion of a college paper between, rather than on the covers.

A collection of over three hundred valuable Egyptian antiquities has lately been presented by Edward Everett Hale to the Sematic Museum of Harvard University.—*Ex.*

The Puduc Exponent is one of our most faithful exchanges, as well as one of our best. *The Exponent* evidently believes that a flashy cover is not essential to a good paper.

The oldest college in the world is the Mohammedan College, at Cairo, Egypt. It was 1,000 years old when Oxford was founded. At present there are about 11,000 students in attendance.—*Exponent.*

The *Blue and Gold* is cracking its cheeks in a self righteous little article anent "G. R.'s" article an Novels and Novel Reading, published in one of the recent issues of THE SPECTRUM. The writer charges "G. R." with plagiarism, and is angry with the liberty which, he says, "G. R." has taken to outrage his intelligence.

This reminds us of a famous case of plagiarism which was fanned in New York papers several years ago. One of the most distinguished Episcopalian clergymen of that city had preached as his own an Easter sermon which he had taken *in toto* from a collection of sermons by a Unitarian clergyman of the preceding generation. The sermon was published in New York papers as a masterpiece of eloquence, and attracted wide attention. A Protestant clergyman in Newark, N. J., happening to possess a copy of the Unitarian clergyman's collection of sermons, exposed, in a fit of outraged intelligence and self-righteousness, his Episcopalian brother's theft. At his instigation the New York papers published in parallel columns, the original sermon and its plagiarised copy. For a moment the Newark clergyman's

outraged intelligence seemed to be appeased. A mischievous, pestiferous son of man, however, had, in the meantime, been busily at work investigating the record of this Newark's conscientious Protestant minister, and, as a result of his researches, he was able to publish in New York papers an ode which this righteous Newark clergyman had, when a student at Yale, read as his own production before a gathering at the time of his graduation, and which he had subsequently published in a periodical, but which was, stanza for stanza, and word for word, taken from a classical poet in the English language.

THE SPECTRUM does not wish to make application of this to the present case. It simply wishes to present to the attention of the *Blue and Gold* another phase of the humorous and the comical which usually attaches itself to subjects of the kind under consideration.

As for "G. R.'s" article which seems to have troubled *Blue and Gold's* conscience, as well as its intelligence. THE SPECTRUM will say that "G. R.'s" Novels and Novel Reading had, before its publication, been read before one of the college literary societies as a *digest* and not as an original production,—a fact which would, were it not for the inexperience of one of the associate editors, have been made known also in connection with the publication of the article.

The faculty are busy making changes in the courses of study and arranging for several new electives. Additional time will be given to the required work on English and German. French will become an elective five days a week, and an opportunity will be given for extended work in chemistry or biology. The daily program of recitations will be published with the courses of study and a student will be able to map out his work for two years ahead, as the daily schedule will probably be followed closely.

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