



THE ALFRED STUDENT.

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Literary Department.

ABOUT SNOW.

Read before the Science and Art Club, and published by its request.

What the writer has to say, was principally called forth by a few words spoken in connection with the reading of a paper by Pres. Allen, in which, relative to his theory that all force is life, he referred to the process of crystallization, as illustrating this life-energy in matter, which we call inorganic, and which we ordinarily think of as lacking those inner forces, whose co-operation in animals and plants is designated as life, viz., that unknown power which determines the existence, the form, the growth, and the being of the individual, and which disappears with it. Certainly the force of crystallization would seem most nearly to approach to the manifestations of life. It is a mysterious force, its causes unknown, constantly inducing changes in solid materials, at work now in the strata of our earth, as it has been for millions of ages. Savants attempt to define it and call it metamorphic or molecular action; but we suspect that these are only wise names, that mean nothing and hide their ignorance. All we know about it is, that nearly all matter under certain conditions has a tendency to assume a definite geometrical form of some kind with plane faces, each form being characteristic of one or more substances. The most favorable condition for the crystallization of substances, if they are salts, is from their solution in water or liquid. A liquid usually dissolves more of a salt, when warm, than when cold, and when a warm saturate solution is allowed to cool, a portion of the salt deposits itself in crystals. In cases of metals they are mostly fused and gradually allowed to cool and partially solidify, when the remaining liquid poured off from under the broken crust will exhibit a network of crystals. A third method is to vaporize the substance, which on con-

densation resolves itself into crystals. The most beautiful example of this kind is the formation of snow crystals from the watery vapor in the atmosphere. Many mathematicians and naturalists have made the snowflake a subject of study, but the mystery of its formation none has fathomed yet. It is well known, that all its elements are six-sided columns, existing either as long thin needles or shortened into broader six-sided slabs, and that these parts always join under an angle of 60 or 120 degrees respectively into regular six, or more rarely, three-parted star-like figures of greatly varying shape. The cause of the manifold variations of their form has never been determined. Generally the six rays of the star are ornamented on both sides, with side crystals joining the stem at the same angle, but in the number, extent, and connection of these, prevails the greatest change, as the main law seems satisfied if the formation of the six-rays only comes out alike. At one time the side crystals stand in close rows, and the star appears to be put together of six plumes; then we find them again regularly interchanging with shorter blades, every ray looking like a deeply sinuate or lacinate leaf; or again they stand at larger intervals or singly, connecting and crossing each other with the corresponding raylets of the neighboring branch. Sometimes we find a smaller star, like raised work, laid upon the larger one, so that the mid-ribs appear in relief. In nature, there is no second instance, either in the world of animals or plants, where so exhausting a variation of a simple primitive ground-form unites so much elegance with so much inflexibility. From Chamber's Cyclopedia we take the statement, that about a thousand distinct forms have been classified and described by different observers; many of them of the most exquisite beauty. It has been observed in comparing crystals of the same fall of snow, that they all belong to one and the same, or at least but slightly deviating shapes, while those of the next day perhaps are constructed on an entirely different model. This fact would lead us to conclude, that each of these forms may be the exact expression of a certain fixed proportion of vapor, motion, pressure, temperature, light, electric tension,

and chemical condition of the air, which existed at the time of its formation. Now in olden times it was believed that the stars controlled the circumstances; in this instance we might reverse the saying and have it, that the circumstances control the stars. But in all seriousness, who shall say, that this varied beauty of the snow crystals may not become at some future day the alphabet, from which the searching eye of the philosopher will read the events and conditions in the regions of the upper air. To me it seems there is no inorganic substance, whose crystals have been made the matter of study at all, which even approximates in wealth of form to that of water, when cold assists its latent, plastic power and fixes as it were, its hidden thoughts. Turn for a moment from the snowflake to the frozen window pane. Into what surprisingly charming forms does the thin film of water, which is precipitated upon the glass, often resolve itself. We must distinguish here two cases, according to which this window ornamentation assumes quite different aspects; namely, when the vapor in the atmosphere exists but sparingly and is directly secreted in solid form upon the pane exposed to the wind, and therefore of colder temperature; and the more frequent case, when the abundant moisture, first condensing into liquid, falls upon the glass and then freezes. Under the first instance, which takes place only in unbeated rooms during sharp frost, the crystalization resembles rime or hoar frost, representing delicate tree-shapes upon the dry glass background. During the second more frequent occurrence, the ice growth is more glassy and consists of longer spears. One can often see them growing rapidly upon the damp ground, and can well study the fact how the first crystals determine the position and direction of the succeeding ones. As the process ordinarily begins from the lower edge, where the first water is collected, the ice plants properly grow from the bottom and not from the sides; and though they are not one and the same branches, extending from the bottom to the upper edge, yet they appear to all radiate from the lower ones, as they are determined and directed by them. There we may sometimes behold luxurious jungles and thickets of palms and reeds and rushes; the dream of Winter about the Spring, or as a German poet calls them, the ghosts of the slain flowers, accusing their murderer, the cruel cold.

This plastic power of water does not belie itself, even in river ice, which in its interior might appear at first glance, to be a shapeless homogeneous mass. There is a certain experiment made by Tyndall to prove this fact, coming in the line of my argument. When a strong burning glass is directed against a thick piece of ice in such a manner that the focus falls upon the interior of the diaphanous mass, one can see rising in the path of the ray, small points, glistening metal-like. When these points are scrutinized under a powerful microscope, they are seen to be lens-shaped bubbles, around each of which six leaf-like rays are forming, fringed as ferns or brakes. The whole path of the light-beam in the ice appears covered with minute delicately-shaped starry ice-flowers, spreading out in a plane parallel to the surface planes of the ice-block. The shining lenses in the centers of these

flowrets are bubbles emptied of air, arising from the fact that the water melting under the heat, occupies a less space than the ice that was there before. In proof of this, when such a piece of ice is melted beneath hot water, minute bubbles of air rise up from all these hollow spaces. It is believed that these ice flowers, which are melted out, as it were, one by one from the mass, were existing in it before, and are merely rendered visible by the application of heat. But to return to our snow phenomenon. Concerning its probable origin and process of growth, naturalists are not agreed. This is established, that snow can never be frozen rain, as we used to hear it said, but that it is directly separated like hoar frost, from the moisture of the atmosphere; different in this respect from sleet and hail, whose globules, in part at least, are conglomerations of freezing water. In high latitudes, it is sometimes witnessed that in rooms filled with very moist air, as hall-rooms or cattle stables, a whirling snowfall takes place when the icy air from without finds a sudden opportunity of entering vehemently. In recent times, machines have been constructed producing artificial cold for manufacturing purposes by compressing the air in an air chamber into a narrow space, and after depriving it of its warmth, which escapes in condensation, again expanding it. When this condensed air contains much moisture, there arises during its expansion a dense white steam cloud; and when it takes place very suddenly, a snow shower. During such improvised snowfalls in rooms, no regular star-shaped crystals occur; for *that* process, probably including a number of steps, nature takes, as it were, more forethought and consideration. In the high, cold regions of the upper air, vapor in Winter often assumes the form of minute, six-sided prisms or plates, being so small, that in connection with their transparency, they cannot be perceived by the naked eye. But their presence is known to the naturalist from certain optical phenomena—large rings around sun or moon, or mock-suns—with as much positiveness as we judge from the existence of a rainbow, that where it appears, drops of water must be in the air. In cold climates, this invisible snow often descends to the lower strata, making itself emphatically felt if not seen, penetrating all crevices of dwelling or clothing, and causing often keen suffering. When upon a cloud of such snowdust a current of damp air impinges, a similar occurrence must take place, as is witnessed in the formation of frost upon the earth. The vapor will be precipitated in radiate crystalline form upon these small ice-slabs.

There is a pretty experiment to give one a conception of the process: Dissolving epsom salts or sugar of lead and gum arabic in warm water, the quantities being of equal weight, with a small addition of glycerine, let one spread this mixture with a brush upon white paper, as if to varnish it. If now immediately a few very small grains of sand are thrown upon the lackered surface, or if it be touched here and there with the point of a needle, these impressions become the centers of crystalization, radiating in hundreds of lines and growing larger and larger, until the separate rosettes limit each other. The process illustrates for us the fact, that

small solid bodies thrown into a crystalizing fluid, easily produce star-shaped secretions; but the six-sided slabs of the microscopic snow, which we may sometimes recognize in the center of the star, determines the adherence of the vapory particles in a more definite way. Its six sides or angles seem to act like magnetic poles, like a ground plan, according to which the remainder of the edifice is to be completed. In the axes of its rays, the shape takes gradually more and more accretions, growing heavier all the while until it is no longer capable of floating, and sinks down, still increasing on the way. When the temperature near the earth is also low, the starlet comes down in perfect form upon our hats and cloaks, and by holding our breath we can delight the eye for a few moments upon its delicate structure.

It was the great astronomer, Johann Kepler, who to his manifest merit of having fathomed the secret of the universe, added the more modest one of first calling the attention of his fellow-men to the wondrous form of the snowflakes. Your humble servant does not flatter herself that she has told you anything new concerning it, but feels satisfied if she shall have given expression, in some measure, to the sentiment that fills her heart. "Wonderful are the works of the Lord." "From the greatest to the least they show forth his glory."

I. F. KENYON.

THE YEARS.

Uplift, O year, thy vesper shades,
 Whose lingering shadows 'round us fall;
 Renew the flush of life that fades;
 Thy happy vanished hours recall,
 And let the rosy tints arise,
 That beamed upon thy morning skies.

How softly, from the mists of time,
 The radiant floods of dawn break through,
 When burning hopes and dreams sublime,
 Illumed fair fields begemmed with dew—
 An Eden fair, whose bowers and streams
 Still mingle in our waking dreams.

Yet oft was found a desert drear,
 Whose mirage beauties, falsely fair,
 Of verdant shores and waters clear,
 Dissolved, anon, in viewless air;
 The ways of life, how oft, are found
 A desert waste, a stony ground.

Yes, smiles of joy, and sorrow's tears,
 Soft mingle on the darkling skies,
 As, dim within the veil of years,
 The varied scenes of life arise;
 Each wreath, we weave of by-gone hours,
 Hath withered leaves and faded flowers.

Yet e'en the ashes of decay,
 With vital germs, are ever rife,
 And fairest forms that fade away,
 May bloom anew in brighter life—
 When, kissed again by sun and dews,
 The earth its latent life renews.

And, while the past may not return
 With all its store of joy or woe,

The crisped leaves in mem'ry's urn
 To fairest flowers, in time, may blow,
 And deck with radiant life the tomb,
 As though it bore no blighted bloom.

The vanished year was not in vain:
 We cherish still its power to bless,
 Its strengthening ministry of pain,
 And sunny smiles of happiness,
 The treasured good that still survives
 And gives new purpose to our lives.

As now we drop the parting tear,
 And bid the Old a sad adieu,
 With joy we greet the glad New Year,
 With all its treasures hid from view;
 Still trusting that each moment's seal,
 Life's bright unfoldings shall reveal.

O. M. ROGERS.

LIFE'S MISSION.

1. Every individual stands in a two-fold relationship—divine and human—with corresponding duties flowing out God-ward and manward. As children of one divine Father, as members of one great human family, the present and future of every soul is solemn yet sublime. Each is energized by immortal powers, illumed by divine fires, that shall flash athwart the misty ocean of eternity over which he is to sail evermore. These undying powers are capable of indefinite development. This imposes subjective, or self-culture, personal growth. No one is fit to help, enlighten, ennoble, inspire others with all that is true, and beautiful, and good, till he has himself been thus enlightened, ennobled and inspired. Duties imposed by selfhood lie at the center of duties imposed by brotherhood. The former must be fulfilled preparatory to fulfilling the latter. In this self-culture, piety is the topmost blossoming of the soul God-ward. Religion, like a divine atmosphere, envelops and transcends all.

2. On passing from self, each individual finds duties lying round about in concentric circles. The social come first, including the domestic affections, parental, filial and fraternal. The friendships clustering around these, constituting the heart of humanity, flow out into the broader relations, in streams of life or death. Amid these cluster all sweet sympathies, all the amenities of life, enriched by culture, exalted by religion, whereby the selfish, dissocial, malevolent affections are subdued, the social and benevolent are developed. This cannot be done by intellectual training, however clear, sharp, and quick it may be. To the luster of learning there must be added the deep, the full, the gentle sympathies of love and religion. The finer, lovelier qualities of the soul have here full scope for their growth and fruitage. In seeking to enrich and ennoble society, one's own social powers are enriched and ennobled.

3. Patriotism is the next outlying virtue. All have direct or indirect political influence and power. Economics and ethics extend to national relations and duties. Ethical principles require each one to rise above the dust and storm of party, and act in the clear light of reason, helping this

Republic to demonstrate the capability of man for self-government, that governments exist for the people, not the people for the governments, that the generalization of interests and the development of individualism are correlative and compatible principles, tending to equality and freedom. All the great principles permeating society, for whose solution men are earnestly seeking, and which are continually vexing and upheaving nations, involve the well-being of every individual. It is the duty of every one to stand for the eternal principles of justice, equality, and liberty, and with all struggling for their realization. Patriotism extends its sympathy to all peoples seeking to hasten the great brotherhood of nations, terminating in the universal brotherhood of man.

4. Philanthropy, circling out into the broader domain of humanity, demands universal good-will for every human being, irrespective of party, sect, sex, color, or race. It makes the world a common brotherhood. All the better influences of advancing Christian civilization are conspiring to aid in this work. Tribal and race distinction are disappearing. Pent up prejudices are broadening into universal sympathies. The keels of commerce are plowing thick and rapid furrows through every sea. Trade, with its golden chain, is binding nations together. Steam is driving the locomotive into every nook and corner of the earth. Electricity, thought-laden, is darting in every direction, charging, illumining, energizing mind. Science and religion, side by side, are elevating and fraternizing mankind. The chords of human sympathy touched now, vibrate much longer than formerly, and their influences are felt much further. This oneness of pulsation in the heart of humanity is causing individualisms to give place to the broader sentiments and more general aims of a common destiny. These demand a corresponding breadth of thought, feeling, and action. Every one has a common interest in whatever pertains to humanity. Ignorance, superstition and misery call upon all to aid in their removal. Every heart needs to beat as a part of the great heart of humanity. Wherever one's lot is cast, from that spot as a center, he is to work outward, striving to agitate the great world of mind surrounding him. Like luminous orbs, each is to radiate the rays of truth, which mingling with similar rays from other orbs, shall go to form one vast flood of light, sweeping over and illumining the remotest and darkest portions of the earth.

5. Passing from these spheres of labor, we enter one underlying and transcending all the others. This is the religious. Whatever may be one's more especial sphere of labor, in this there will ever be duties most important and imperative. Here rest the final interests of humanity; around it cluster the hopes of a fallen world. Sin and woe and spiritual death call for its healing and life. God and all holy influences call upon each to assist in the world's evangelization. In responding to these calls, the line of duty will often be found running counter to natural inclinations, opposing worldly interests. These spheres are not opposed to each other, but occupy affiliated and concentric relations—relations that re-

quire one to work from a common center outward and upward.

6. Industry, intelligence, and religion must be the principal and controlling motto of every one proposing to fulfill well and nobly life's mission. Industry is one of the leading elements to success. In the every-day realities of life it is more potent than genius. There is no rival so powerful, so difficult to overcome, as hard-fisted, sun-burnt, brow-wrinkled, sweat-producing industry. Every one to be successful needs to practice an industry which possesses the characteristics of an orderly, energetic, and assiduous direction of one's faculties upon some well-chosen employment, and is opposed to everything like remissness, shiftfulness, and frivolity. Such an industry must needs be lighted by an intelligence that gives keenness, skill, and power, the outcome of much deep, energizing study, producing a healthy, mental activity, and progressive intelligence. Without constant study, present light soon dims, present power soon fails. Self, man, nature, Deity in and through all His revelations, are ever present objects of study. Religion alone can supply sufficiently lofty and perpetual inspirations for nerving and steadying one in his life-labor. It is the golden chain, binding fast to the throne of God, steadying through all temptation and evil, and holding him to the true, the right, and the good. Without industry, religion and intelligence are inert, ineffective; without intelligence, religion easily degenerates into fanaticism or superstition, and industry is but brute force, as apt to pull down as to build up, as apt to kill as to cure; without religion, industry and intelligence are servile slaves, yielding their service to sin as readily as to righteousness. Where the three are harmoniously and symmetrically blended, they become a hundred-eyed Argus, joined with a hundred-handed Briarius, impelled by supernatural powers for good. It is, therefore, all-important, as well in preparation as in action, to preserve this trinity. The morning, the noonday, or the evening sun of life ought not be obscured by mists of ignorance, idleness, or irreligion. The careful training of the intellect and the sedulous culture of the spiritual powers should go hand in hand. Prudence, punctuality, order, energy, thoroughness are the precursors of success, only as integrity, kindness, constancy, and a disinterestedness, inspired by love to God and man in the light of eternal destinies, are the ruling motives to all action. Using the experience of the past as light to guide in present preparation, and leaving the future to the guidings of Providence, ever strive to make the best of all the powers which God has given, using all influences for good, and the kindling of a true light for the future. Let each labor faithfully in his proper mission field for the advancement of knowledge and religion.

Scene—West wing. *Fresh.*: I once saw a fellow who bit off the end of his tongue in his efforts to save himself from falling off a horizontal bar. *Soph.*: Did it injure his articulation? *Fresh.*: Eh? *Soph.*: Did it injure his articulation? *Fresh.*: No. He ate as much as he ever did.—*Ex.*

A CRY FROM THE SHORE.

Come down ye grey beard mariners,
 Unto the wasting shore !
 The morning winds are up—the gods
 Bid me to dream no more.
 Come, tell me whither I must sail,
 What peril there must be,
 Before I take my life in hand
 And venture out to sea !

We may not tell thee where to sail,
 Nor what the dangers are ;
 Each sailor soundeth for himself,
 Each hath a separate star ;
 Each sailor soundeth for himself,
 And on the awful sea
 What we have learned is ours alone ;
 We may not tell it thee.

Come back, O ghostly mariners,
 Ye who have gone before !
 I dread the dark, impetuous tide ;
 I dread the farther shore.
 Tell me the secret of the waves ;
 Say what my fate shall be—
 Quick ! for the mighty winds are up,
 And will not wait for me.

Hail and farewell, O voyager !
 Thyself must read the waves ;
 What we have learned of sun and storm
 Lies with us in our graves ;
 What we have learned of sun and storm
 Is ours alone to know.
 The winds are blowing out to sea,
 Take up thy life and go.

—Nelly Mackay Hutchinson, in *Harper's Monthly*.

CORRESPONDENCE.

The welcome visits of your little paper call vividly to mind the familiar scenes of old Alfred. I often wondered, when with you, that so few of the students seemed to realize that they were in a beautiful country, and so little appreciated its fair scenes. If they were situated here with me for a time perhaps, on their return, their interest in the scenery about their *Alma Mater* might increase. I am on almost a dead level, where no streams babble and sing; where no forests with lights and shades, chatting squirrels and falling nuts invite the wanderer; where no hills furnish outlooks, and no dales or glens with silvery cascades offer cool retreats. Wherever the eye turns, the prospect is the same: houses, peach orchards, and dull brown prairie, with trees in the distance, it is true, but so low and far away that the general dullness of the plain is not relieved by them. Then when Winter comes, there will be no coasting on the swift "bobs" with "Betsy" or "Polly" clinging timidly to you, half delighted and half afraid, but on the whole, rather liking it, she thinks, while *you*—ah, you feel that words would fail you if you should try to express yourself. The ice here will not "ring to the skater's heel" you are sure, while rarely will you be permitted a ride over the crisp snow after the swift

steed with the jingling bells. As it has been, so we suppose it will be, that instead of the song of the bird, the melodious notes of the donkey will arouse you, when spring-time comes, from your morning nap. Would that they might wait the morns of the spring-time before they let their notes be heard !

We do not wonder that the poets have sung of the hills and vales and babbling brooks from the time poesy was young until the present; but what there is on the brown prairie to arouse a poetic inspiration, would be hard to see. It is true that Bryant, the sweet singer of nature, has celebrated the prairie, but it was a prairie, where there were

"The mighty mounds
 That overlook the rivers or the rise
 In the dim forest, crowded with oaks;"

Where

"A disciplined and populous race,
 Heaped with long toil, the earth, while yet the Greek
 Was hewing the Pantellicus to forms
 Of symmetry, and rearing on its rock
 The glittering Parthenon."

He sung of a prairie on which were the wolf and prairie dog, and where

"The graceful deer
 Bounds to the wood at my approach."

Let him gaze on a prairie covered with weeds and dead tangled corn, and methinks his muse would be dumb. There are some redeeming features in the *country*, while the *people* are interesting indeed. They represent nearly every State in the Union, and show forth to some extent the peculiarities of their old associations and local customs. Alfred University has no mean representation here. The pastor of one of the churches and his good wife are graduates of the University, while from fifteen to twenty other graduates and old students dwell here. In the Cemetery, new and weed-overgrown, sleep two of Alfred's noblest children: Phœbe Evans Morton and E. Cordelia Hydorn; one known for noble self-sacrificing work as a nurse during our late war, and the other for no less noble work among the freedmen of North Carolina. The deeds of such workers are, or should be, a greater glory to a college than the names of a thousand wire-pulling, tricky, "Honorable" members of Congress, Governors of States, and Presidents of the United States. May the teachings of our beloved University ever tend to produce such results as are shown in the lives of the two we have just mentioned.

I shall ever hope for the STUDENT the fullest success in support and in the truth and nobility of its teachings.

PEDAGOGUE.

FARINA, Ill., Nov. 15th, 1874.

Among the 1,176 students at the University of Michigan there may be numbered ninety-two ladies in the several departments. When they are all assembled to hear a lecture in the college halls, the sittings assigned them are pointed out to strangers as the Art Galleries of the University.—*College Days*.

subject of the Valedictory, spoken by J. E. Spicer. The subject strikes us unfavorably for an article to fill this position, as we prefer to hear theology in other places, yet the reasoning was good and the arguments expressed in a clear and concise way.

New Year's eve, the Ladies' Athenæan Society called out a full house. The Salute, "Warp and Woof," by Miss Clymena Johnson, was spoken in a clear and distinct tone, while the oration that followed, on "Desolation," by Miss Elosia Dimick, lacked very much force and distinctness of expression, so much so that we cannot speak of its contents. The recitation, "The Pilot's Story," by Miss Mary Bradley, was delivered in an intelligible and pleasing manner. Miss Bradley exhibited good taste in making this selection, which, unlike the other recitations, was prose, and possessed an ample amount of interest. After this came "Correspondence," finely read by Miss Mary Crumb. The writer of the letter presented a description of the oil regions of Pennsylvania, in a highly interesting and instructive style, showing the rise and fall of Titusville, Pithole, and other cities, and the effects of the suddenly acquired fortunes upon the inhabitants. The first and only biography in the course was written by Miss Alice E. Lamson, on "Maximilian of Mexico." The oration showed a fair amount of historical knowledge. "Eloquence" was announced as the subject of the Valedictory by Miss Maud M. Beattie. The writer failed to follow her subject very closely, leaving it to give rather a pretty farewell to 1874, then paying a tribute to teachers and sister Athenæans.

Although the stormiest day of the season, there was quite a large attendance at the Orophilian session, which occurred on Saturday evening, Jan. 2d. G. B. Cannon saluted those present with a well written oration on "Industry." The full and distinct tone, and easy style of delivery won for the Salutatorian the good opinion of the audience. The orator, E. L. Magner, was absent on account of sickness. The essay, "Honesty," by H. G. Stillman, was lively yet with but little depth. The recitation by W. E. Burdick we did not hear distinctly enough to warrant comment. In the *Radiator and Review*, read by E. A. Higgins, was a letter giving a pleasant insight into California life, and a poem entitled "Our Jubilee," by J. P. Wager. The style of presentation was not attractive. After the paper, came the lecture by Rev. W. H. Rogers, A. M. His subject was "Rights," though the theme suggested it to be "Light." The lecturer argued that Science would eventually agree with the Bible, and teach God to be above mind, and mind above matter. He also advocated co-education, and affirms that woman's voting is only a matter of time. The piece, which was extempore, had more the characteristics of a sermon than a lecture. The Valedictorian, I. L. Cottrell, gave some well drawn illustrations of "Selling One's Birthright." The writer showed Esau and William M. Tweed both to be characterized by such a deed. He ended with an enthusiastic address to his Orophilian brothers. The oration, both in matter and presentation, was evidently the result of work.

The music rendered by the "Harmonics," under the leadership of Mr. J. G. Burdick, is worthy of a more extended notice than we have space or talent to give. Solos, duets, quartettes, and choruses, admirably arranged and executed, were presented to the audiences, and received many hearty applauses, showing the music to be satisfactory and well appreciated.

We forbear speaking of the comparative merits of the four sessions, as each society is wont to think theirs the best, yet we deem them, as a whole, not up to the standard hitherto attained. This is an unpleasant aspect, and should arouse each Lyceum to inaugurate some improved system, some new plan, or better fulfill the old one, for there is much that is good in these annual Jubilees. One thing especially displeasing to us, is that pathetic "let us," which almost invariably commences the closing sentences; and we beseech you, writer, to take cognizance of the fact and "let up" on this old habit. Upon an average, every session contained two pieces almost exclusively devoted to theology. There are, in our humble opinion, other times when they would be full as acceptable. Again, with making but one more complaint, lest you pronounce us "chronic grumblers," we close. It is this, that the ushers by conducting people, who are too late, everlastingly, in front of a speaker, greatly injure the effect of the production. Fully one-half the Salutes are spoiled by this act of carelessness.

DEATH OF HON. WESLEY B. LEONARD.

From the *Maunch Chunk Democrat* we learn of the death of our beloved Brother Orophilian, the Hon. Wesley B. Leonard, who, after a short sickness of acute pneumonia, died on the 2d of January, 1875. He was born at Hancock, Delaware Co., N. Y., on the 13th of January, 1835. His parents moved to Andover, Allegany Co., N. Y., in '37. He became a student in Alfred University, and graduated in the class of '57. Mr. Leonard was a prominent member of society, entering into all its various duties with zeal and energy. In 1861, he was admitted to the bar, and in '62 and '65, was elected District Attorney by the Democratic party. In '69 and '70, he served with honor in the State Legislature. Afterward he was appointed Revenue Assessor by Pres. Johnson, and before his death was a prominent candidate for United States Senator for the next term. As a citizen and statesman, his faults were few and his virtues many. The Orophilian Lyceum feel that they have lost a worthy brother, and to his family extend their heartfelt sympathies in this hour of mourning. We rejoice, in this affliction, that our brother leaves behind him so pure a history. May it be an incentive to us to follow his noble example, and leave in memory the record of a well spent life.

MENDELSSOHN QUINTETTE CLUB, of Boston, assisted by the distinguished vocalist, Miss Fanny J. Kellogg, at the Shattuck Opera House, Hornellsville, N. Y., Tuesday evening, Jan. 19th, 1875.

DEATH OF HON. GERRIT SMITH.

Already both in this and other countries the news of the death of Mr. Smith has been received, bringing sadness to millions of hearts. His death occurred in the City of New York, at the house of Gen. John Cochrane, on Monday, Dec. 28th, 1874. His disease was apoplexy and his death sudden, as he only lived some fifty-three hours after he was taken. As our limits forbid an extended notice of Mr. Smith's life, it only remains for us to say he was a man well informed in the general affairs of the world, and took the deepest interest in everything which concerned the wants of humanity. From his father he inherited great wealth, which, in the most generous manner, he used to promote the well-being of the poor, but was especially interested in behalf of the slave, to whose personal well-being and deliverance from bondage he devoted himself with an absorbing interest. But his untiring labors and munificent gifts were not employed in any one direction. He felt himself a citizen of the world; and for the interest of those of every clime he was ready to sacrifice. He was a warm friend of education, as his noble gifts to several of the colleges and seminaries of the country, not excepting Alfred University, of which he was one of its Trustees at the time of his death, bear ample testimony. But his work is done; he rests from his labors. But while his flesh was mortal, his deeds of charity, justice, and mercy shall be immortal.

THE GYMNASIUM, now that it is erected, presents a more pleasing appearance than was expected, and, with the exception of painting, is completed on the outside. The apparatus already put in, or in process of construction, consists of two trapezes, two horizontal bars, parallel bars, three ladders, peg post, swings, climbing rope, and Indian clubs. In addition to these, boxing gloves, dumb bells, fencing irons, etc., will be procured as soon as possible. Mr. Milo Green has placed a cute representation of a "gymnaast" performing a daring fete, on the pole, which, had we a flag to put on it would show off well. We hope that the ladies will have public spirit enough to heed the suggestion, and present us a specimen of their industry in that line. Considerable expense has been incurred, and that our finances may not suffer, we urge upon every one the necessity of paying their subscription soon. The Treasurer, Mr. Cotton, has tickets for term and life membership, which he kindly offers to dispose of for the cash. Give him a call.

THE MINIATURE CONGRESS, spoken of in our last number, has become a permanent organization, adopted a Constitution and By-Laws, and elected the following officers: President, J. Davison; Vice-President, W. H. Ernst; and Speaker, J. E. Spicer. The organization is for practice in congressional duties, and, as nearly as practicable, will follow the order of the United States Congress. Eight Senators, representing districts, are chosen from each Lyceum, and all the remaining active members are members of the House of Representatives. The

President has selected his cabinet officers; quite a number of standing committees have been appointed, and lobbyists are found on every street corner. A lively time is expected at the first session, which occurs on Saturday evening, January 9th.

THE birthday of 1875 passed off quite jovially in Alfred, as "no school" always quickly awakens the spirit of merriment. Early in the afternoon an omnibus full of gentlemen "sot out" to "do" the town in making New Year's calls; and judging from appearances they had a merry time and a "Happy New Year." Later, Mrs. Prof. Williams, accompanied by her lady *proteges*, took up the "calling," and successfully made the rounds. Also, single individuals availed themselves of this occasion to call upon special friends. A card presented by one of the latter class, reads thus: "Williams Bros., New Year's, 1874." Neither party, we understand, accepted refreshments or money.

OUR village was visited, on a recent evening, by a party of young snobs from an adjoining town. Some of the party showed evidences of the effects of "benzine," and were heard to repeat portions of the Lord's Prayer backwards, and use words referring to the Deity in not a very reverent manner. We kindly advise the *parients* of these misguided children to take better care of their "young hopefuls" in the future, and when "night spreads her dusky mantle o'er the earth," to hear them say their little prayers and tuck them away in their trundle-beds.

THE MITE SOCIETY, *alias* the Pipe Organ Association, held its last meeting at the residence of Mr. Philip Green. Through the kindness of the Faculty, students were permitted to attend, and a very pleasant sociable was enjoyed by all. Rev. N. V. Hull made a very pleasing speech to the party, after which the Treasurer of the Association took up a collection amounting to \$4 30.

THAT MAGIC SEAT at "Jarvey's" table has been vacated the second time—this time by the marriage of Mr. Williams—and competition now "runs high" as to who shall be the next participant. The prospects lay between George and the Doctor.

PROF. WILLIAMS has instituted a new plan in his rhetorical division which bids fair to be a decided improvement on the common monotonous and unattractive exercises. A programme, with a great diversity of subjects, is made out, and persons selected to fill the appointments.

SHOELLER'S CANTATA OF NEW YEAR'S EVE will be rendered by the Conservatory of Music of Alfred University, on the 21st of January, 1875, at 7.30 P. M. Admission, 25 cents. For the benefit of Alfred University, to purchase a reading desk for the Chapel.

FRESHMEN are inquiring where that "Terris" class recites.

THE new barber shop is worthy of liberal patronage, as the proprietor, Mr. Jack Hatter, does a nice job in shaving and hair-cutting, and is endeavoring to pay his expenses, while in school, by his trade.

WE had the pleasure of passing a social hour, last week, with Mr. P. B. McLennan, who is reading law with the firm of Fuller & Vann, Syracuse, N. Y. Peter's good humor and pleasing address always make him a welcome visitor.

AN Alleghanian brother, who has recently returned from a trip to New Jersey, has frequently been discovered looking down in the mouth. He says he can't help it; he gets his living by getting at the root of things.—*Alleghanian*.

THE following notice, heavily decorated with crape, is reported to be on exhibition on the door of some lady students' room: "All gentlemen are positively forbidden entrance to these apartments unless excused by the Faculty."

A NEW PUBLISHING HOUSE for the *Recorder* is talked of, which is an improvement much needed, as any one knows who is acquainted with the present location.

MR. ORSON C. GREEN, an old student, and formerly a resident, now engaged in the furniture business in Plainfield, N. J., is visiting his relatives and acquaintances here.

WILL some one ask the Oro Jubilee editor at what time, and from which side of the depot the 12.30 P. M. train leaves Hornellsville?

MISS SARA M. BURDICK has gone to Woodhull Academy to take charge of the instrumental and vocal music classes there.

NEW STUDENTS! look up the canvassing committee, and get them to take your names as subscribers for the STUDENT.

PROF. W. R. PRENTICE has taken the place of Mrs. H. V. D. Burdick in the Grammar School Department.

MR. H. F. BARBOUR, an old student, now editor of the *McKean Miner*, Smithport, Pa., was in town Christmas.

WHERE is the painter's authority for putting "Burdick & Sons" on that street lamp?

THE CUPOLA of the "Tremont House" is now used as a reading room. Business manager, F. B. Nichols.

GEORGE PARKER will be, so he says, twenty-five next Spring, in August.

Latest from the "Brick:" "Ho, Bill! pass it around."

MR. W. S. BONHAM ('72) and wife, of Shiloh, N. J., spent the Holidays in Alfred.

CHARLEY WHITE, of Rhode Island, is spending a few days in town, visiting his *friends!*

PROF. E. P. LARKIN recently made a hasty trip to New York City.

MISS MINNIE ERNST has returned to her home in Minnesota.

MISS CELIA DOWSE has left school on account of sickness.

MARRIED,

BURDICK—WITTER—At Nile, N. Y., Dec. 12th, 1874, by Rev. W. B. Gillette, Mr. James T. Burdick, of Friendship, and Miss H. Frank Witter, of Nile.

COBB—ROSEBUSH—At Andover, N. Y., Dec. 7th, 1874, by Rev. J. Kenyon, Mr. Henry H. Cobb, of Woodhull, and Miss Celia Rosebush, of Andover.

MAXSON—REYNOLDS—At Milton, Wis., Nov. 30th, 1874, by Rev. W. C. Whitford, Mr. Charles A. Maxson, of Westerly, R. I., and Miss M. Maria Reynolds, of Milton.

CARPENTER—SINNETTE—At Friendship, N. Y., Jan. 7th, 1875, by Rev. J. Allen, Ph. D., assisted by Rev. Mr. Higley, Mr. Wm. D. Carpenter, of Westerly, R. I., and Miss Susie Sinnette, of Wirt.

WILLIAMS—GRIFFITH—At Alfred Centre, N. Y., Dec. 31st, 1874, by Rev. N. V. Hull, Mr. Isaac S. Williams, of New York, and Miss Mary M. Griffith, of Arkport.

The printers were remembered.

YEOMAN—WEST—At Alfred Centre, N. Y., Dec. 13th, 1874, by Rev. N. V. Hull, Mr. Lafayette Yeoman and Miss Elsie V. West, both of Almond.

Alumni Notes.

WE earnestly solicit information from all sources concerning any of the Alumni or Old Students.

ALUMNI.

'47. Prof. James Marvin, D. D., former Professor of Mathematics in Alleghany College, entered as President of the Kansas State University, Jan. 1st.

'54. T. Dwight Thacher, editor of the *Lawrence (Kan.) Journal*, has lately been elected Representative in the State Legislature.

'61. M. Grace Stillman, A. M., is teaching at Rye, N. Y.

'63. Mrs. Mina French Metcalf, A. M., is at present residing at Friendship, N. Y.

'71. May C. Simpson, A. M., is teaching in Cameron, Pa.

OLD STUDENTS.

'42-'43. M. Rev. Joseph C. Dana, of Cedarville, Smith Co., Kansas, is now in the interest of the Kansas Relief Society.

Margaret Doty, at Dansville, keeping a green house.

'54-'55. Maggie McCurdy is an artist in Dansville, N. Y.

'72-'73. Phineas B. Davis is teaching at Walworth, Wis.

D. F. Brown, a former teacher of penmanship in this Institution, is working at his art in Brooklyn, N. Y.

Mary McHolland Lewis, residing at Warcoma, Iowa.

Carrie McNair, during the war a nurse in the army; afterward Matron in the Woman's Hospital, St. Louis, Mo., is at Canisteo, N. Y.

Sarah McNair Boreland resides at Essex, Iowa.

Fannie McNair Dey resides at Marquette, Wis.

Hattie McNair, for a while connected with the public charities of St. Louis, Mo., is at Canisteo, N. Y.

'68-'69. H. E. Young is a druggist at Damascus, Pa.

'70-'71. Mrs. E. F. Elkins is studying in the Commercial College, Oberlin, Ohio.

'71-'72. Henry W. Smith is a member of the Senior Class of Dartmouth College.

Gleanings.

NOTES

Taken at the Science and Art Club.

Oct. 14th, 1874. Prof. Coon gave a continuation of his paper on molecules. All we know of matter is its pressure and its motion. These are determined by the molecular conditions and motions which affect the senses, or are made subject to measurement and calculation. The divisions of matter already found are mass, molecule, and atom. The mass is made up of molecules, which determine its properties and are the centers for the manifestation of the forces which appear in the universe. The molecule is made up of atoms, two or more of which represent the positive and negative polar forces. These atoms are indestructible, indivisible, always manifesting the same properties for the same substance from whatever source derived. No theory of evolution can account for their similarity, for evolution implies a continuous change. Their existence or identity of properties cannot be ascribed to natural causes. Herschel says: "They have all the essential characters of a manufactured article." The arrangement of matter, the orbit and size of planets, depend upon a particular collocation of matter, and natural causes may modify and destroy them, but the atoms are unchangeable. We can study the molecule and all the forces represented in the phenomena presented in the universe. These manifest themselves in three conditions: solid, liquid, gaseous. These conditions depend upon the motion of the molecules. The motions are compounded and form different systems. Motion is a series of successive positions of a body in different points of space. Force, the tendency or whatever may be converted into motion. Matter is at once form and force. Force is form indefinitely diffused. Form is force circumscribed. Extension, the image of matter, is not an essential property of matter. Dimension or extension is a

resultant of force; hence, matter is force. Motion determines the attributes of matter, and its unity must exist; then it must consist in the atoms of Ether strongly held together. Ether is an attribute of force. The forces that manifest themselves through the molecule are light, heat, electricity, and chemism. Light, heat, and electricity are forces that directly effect the living organism. Electricity produces a shock that gives a sensation like extension. Light sets in motion the wonderfully delicate little granules perched upon the end of the rods and cones of the retina, to each one of which is attached an electric-like nerve fiber that tells us which one vibrates. Thus we know what color causes the vibration, for each color sets in motion a granule which oscillates so as to correspond to the varying lengths of light. Heat affects the nerves of sensation, giving the sense of warmth. In the molecular motion of substances we have a force more subtle in its action and more permeating in its influence than any other. Chemical changes are produced only when the substances which unite are either in the liquid or gaseous state, or when there is perfect freedom of motion among the molecules. It is proven by the crystal that each molecule has its own shape as well as motions and weight, and that when they unite the molecules lie parallel to each other. Life is a form of force susceptible of being modified or destroyed by other forces, and the instrument through which it manifests itself being the most complex. As it comes in contact with other forces it is so constructed as to be the most susceptible to their varying influences of any instrument known.

The College World.

EXCHANGES.

We notice by the *College Courier*, of New Haven, Conn., that that paper is to be merged into the new weekly to be published in Boston, the *New England Journal of Education*, and the *Courier* informs its subscribers who have have paid into 1875, that they will receive the *New England Journal of Education* in place of the *Courier*. "The new journal will be a consolidation of the *College Courier*, *Massachusetts Teacher*, *Rhode Island Schoolmaster*, *Connecticut School Journal*. Its editor will be the Hon. T. W. Bicknell, a graduate of Brown University, and Commissioner of Public Schools of Rhode Island, a position which he resigned to accept this. The first number of the new paper will be sent to all subscribers of the *Courier*. The large list of contributors engaged for the *New England*, and the able support it will have, will make it one of the first papers in the country. Its office will be 16 Hawley St., Boston; its subscription price, \$3 per year."

Several of our exchanges have changed their editorial corps, among which are the *College Argus* and *Bates Student*,

two of our best exchanges. We wish the new editors success.

The following exchanges have been received: Brunonian, the Potter Journal, Nunda Academy Advocate, College Herald, the College Courant, the Trinity Tablet, Madisonensis, the Magenta, Angelica Republican, the University Record, Hornellsville Herald.

WHAT OUR EXCHANGES SAY OF US.

The *McKean Miner*, in speaking of the *STUDENT*, says: "This magazine is published monthly by the Literary Societies and Faculty of Alfred University. Every old student of Alfred who would keep green the memory of his happier college days should subscribe for it. We would not willingly do without it. Send \$1 25 to Silas C. Burdick, Alfred Centre, N. Y., and try it a year."

Bates Student: "The *ALFRED STUDENT* has always been a favorite. Ably edited, well supported, and admirably managed, it deserves and has achieved a marked success in college journalism. We regard it as one of our ablest exchanges."

College Argus: "The *ALFRED STUDENT* is a very high-toned paper. . . . We notice that the faculty have a representative upon the editorial staff; this is rather unusual, but we are not prepared to say that it is not a good idea. From a literary point of view, the *STUDENT* is certainly superior to many of our exchanges."

Elmira Advertiser: "The *ALFRED STUDENT* continues to grow in interest. It is an organ especially valuable to the alumni and old students, yet it is appreciated by all."

FACTS.—A young lad of four, busily mixing various things, berry juice, water, salt, etc., in his tumbler, at the table, gravely remarked that "he was making medicine, which he would give to sick folks, and it would make them 'get dead.'" The intuitive knowledge of a physician's work was certainly pleasing.

On another day, while rubbing a couple of cobs together, bringing down the fine white dust, he said to his little sister: "I am God; I'm making it snow."

Another little fellow being sent by his mother to inquire after the health of a convalescent neighbor, was told that she was "mending," *i. e.*, getting better. He reported that she was all right; she was "patching," *i. e.*, had gone to work.

NO MORE REGENTS' FREE TUITION.—It will appear from the following announcement that the present law, providing for \$12 worth of free tuition to those having passed within two years, becomes inoperative at the end of the year 1874. The instructions of the Regents under date May 20th, 1874, says: "As the Legislature of 1874 failed to make an appropriation for continuing such free instruction, the existing provision will virtually end with the present year (1874)." This circular has just been received by this Institution.

HARMLESS.—A stranger who lately crossed from Canada to Ogdensburg asked his hack driver as to the population and form of government of Ogdensburg. On being informed that it was an incorporated city whose chief executive officer was a mayor, he inquired: "And does the mayor wear the insignia of office?" "Insignia! What's that?" asked the astonished hackman. "Why, a chain about his neck," explained the cockney. "Oh, bless you, no!" responded the other. "He's perfectly harmless, and goes about loose."

THE COMPULSORY EDUCATION ACT went into effect in this State on the first of January. The law is entitled "An Act to secure to Children the Benefits of Elementary Education." It requires that every child between the ages of eight and fourteen have at least fourteen weeks of schooling during the year, eight of which shall be consecutive. Eleven other States have a similar law, viz., New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New Jersey, Michigan, Kansas, Texas, Nevada, and California.

PROF. JAMES MARVIN, D. D.—The Board of Regents of the University of Kansas, at Lawrence, have elected Prof. James Marvin, D. D., of Meadville College, Pa., (late a Professor of Alfred University,) as Chancellor, *vice* Gen. Fraser, who has resigned, and been chosen State Superintendent of Public Instruction. The University has an able corps of Professors, and some 200 students.

THE COMMERCIAL NATIONAL.—Under the sagacious presidency of L. K. Thacher, A. M., a member of the class of '58 of Alfred University, this sterling banking institution advances steadily, year by year, making new friends and keeping old ones, with a fidelity strongly proving the substantial character of the bank and its corps of officers.—*Kansas City Times*.

SWINGING CANES.—"The Cornell Freshmen swing canes, wear plugs, and do as they please." "The Freshmen at Amherst sport canes unmolested." We hope *our* students have got brains enough left to let such foolishness and foppishness alone.

A graduate of Brush College, who teaches not far from here, created quite a panic at the spelling match the other evening, by pronouncing "egg-wipe-it." For the next three minutes all was confusion; the best spellers sank into their seat with hardly a gasp; a small boy—the last one—on the east side, immortalized his name and redeemed that of the school by spelling "e-g-y-p-t, egg-wipe-it!" "Right!" said the teacher.—*Crescent*.

Prof. "What causes the Aurora Borealis?" *Student.* "I knew, sir, but I have forgotten." *Prof. (excitedly)* "Great Heavens! The only man in the world who knew what the Aurora Borealis was, and he has forgotten it!" —*Hamilton Lit.*