

The New Hampshire.

VOL. 5, No. 22.

DURHAM, N. H., APRIL 1, 1916

PRICE 5 CENTS

TELEPHONE EXCHANGE ASSURED FOR DURHAM

WILL RELIEVE PRESENT CONGESTION OF SERVICE

200 SUBSCRIBERS CAPACITY

Five Cent Toll Rate to Dover—Over Two Dozen New Subscribers are Added Already

It is now assured that Durham will have a telephone exchange of its own within a short time. For some time past, there has been considerable agitation for a central station here, on account of the growing demands of the college and the increasing number of residences, to offer a bigger telephone service.

Twenty-six new subscribers have pledged themselves to have telephones installed, and about forty or forty-five in all are expected. The plan is to have the station large enough to accommodate two hundred subscribers.

Two classes of service are offered, one for the business end of the town; and one for the residential end.

The rates for those using 'phones for business purposes will be \$33 on a one party line; \$24 on a two party line; and \$21 on a four party line. These are good for within a radius of one mile. For residences, the rates are \$24 on a one-party line; \$21, on a two-party line; and \$18 on a six-party line. These will be good for calls within a two mile radius.

Twenty-four hour, seven day service will be offered; that is to say, an operator will be on duty at all times in the station. There will be trunk lines to both Dover and Newmarket; while the toll rate to Dover will be cut down to five cents. The rate to Newmarket will be the same as it is now.

Dean C. E. Hewitt, to whom the credit is due for pushing this thing through, is now carrying on negotiations with the Twin City Gas and Electric Company, who now supply Dover with gas, to take up the matter of running a gas main from Dover to Durham, if it is feasible.

TEACHER'S CERTIFICATE EXAMS TO BE HELD JUNE 23 AND 24.

The next examination for teachers' certificates will be held Friday and Saturday, June 23 and 24. It is very desirable that all who contemplate teaching in secondary schools in the state pass these examinations, as in some towns state aid is apportioned in proportion to the number of teachers employed in the town who hold a teacher's certificate. There are other reasons that would justify taking these examinations.

The examinations are divided into three parts. The first includes the professional subjects of psychology and pedagogy, the second, the major academic subjects, and the third, the minor academic subjects. There are no exemptions from part one, but one can be excused from the second part by filing their marks in their major group of subjects, and from part three by presenting proof of graduation from college. Detailed information is furnished in the pamphlet entitled "Regulation's Governing State Examination and Certification of Teachers in the Public Schools" which will be furnished free upon application to the Department of Public Instruction at Concord.

SECOND DEBATE FOR ALPHA ZETA CUP HELD NEXT MONDAY.

The second debate of the series held under the direction of the Agricultural Club for the Alpha Zeta cup will be held next Monday evening, April 3, at 8 o'clock in Morrill Hall.

The subject for debate is, Resolved: "That sheep husbandry is a more profitable type of farming for New Hampshire than dairying." The affirmative will be defended by Whippen, Morgan, and A. E. Smith, while Benson, Butterfield, and Merrill will present the negative.

ANNUAL ALPHA XI DELTA DANCE ENJOYED BY MANY

Takes Place in Woman's Gymnasium in Thompson Hall—Original Decorations Add to Pleasure

Tau Chapter of Alpha Xi Delta fraternity held its second annual dance in Thompson Hall Friday evening, March 24. In the receiving line were Miss Nellie White, Mrs. C. W. Scott, Miss Nellie E. Goldthwaite, Mrs. Shirley Onderdonk, Mrs. I. E. Ewer, Mrs. S. J. Sutherland, Mrs. R. V. Mitchell and Mrs. Frank Follansbee.

The hall was decorated with the fraternity flower, the pink rose, and streamers of light blue, dark blue and gold. The stage was changed into a rose parlor and punch was served from a well beneath a trellis of climbing roses. Ice cream was served in rose cups. Music was furnished by Messrs Ward, Prescott and Fenderson.

The fancy dances "A Fan-cy Dance," "Ribbon Risk," "Flay Ball," and "The Rose of Alpha Xi," arranged by Miss Natalie Ewer were especially enjoyed.

The guests were the Misses Florence Dudley, Mildred Flanders, Lillian Maek Alice Scott and Sarah Sanders of Durham, Mrs. Loie Coffin of Dover, Miss Muriel Nickerson of Jackson College, Miss Gladys Arnold of Enfield, Miss Arline Sullivan of Concord, Miss Lou Crandall of Lebanon, Lieutenant Sutherland and Messrs R. V. Mitchell, Onderdonk, Richard Mitchell, Steele, Parnell, Boomer, Weigel, Hoffman, W. J. Nelson, Hurd, Ewer, Libby, Dresser, Rollins, Morgan, Meserve, Ordway, Horne, Whittemore, Flanders, Work, Grant, Blake, Coggin, Perkins, O'Brien, Bartlett, Chase and Rasmussen.

DAIRYMEN'S ASSOCIATION TO MEET IN NORTHERN COUNTIES.

The Granite State Dairymen's Association of which Professor Rasmussen is the secretary, plans to hold meetings in the northern part of the state at Lancaster, Whitefield, and Claremont on April 12, 13 and 14 in cooperation with the farmers association of Coos and Sullivan counties. These meetings are held to discuss dairy problems, breeding and feeding and diseases of cattle. Besides the annual meeting held in Manchester, the state association aims to hold at least one meeting yearly in cooperation with the farmers' association of each county.

N. H. SEASON SCORE IS 218 POINTS TO OPPONENTS' 352.

As a sort of summary of the basketball season, statistics have been compiled showing the number of goals from floor per man, number of goals from fouls per man and total number of points scored by the team. Following is the summary: Goals from floor: Steele, 31; Sanborn, 27; Cahalane, 11; Prentiss, 9; Bissell, 8; Badger, 7; Taylor, 3; Brown, 1. Goals from fouls: Bissell, 61; Badger, 7.

In comparing total scores it was found that New Hampshire scored during the season 218 points, while her opponents scored 352. Cushing Academy was largely responsible for the size of our opponents' total, since they won the return game.

C. J. HAM JUDGES DEBATE.

Conda J. Ham, registrar of the college was a judge in the recent semi final debate between Portsmouth and Rochester High Schools. The other judges were Mr. F. H. Damon of Dover, who spoke in chapel Wednesday and Dr. Chalmers of Manchester. Portsmouth won the debate, which was on the literary test for immigrants.

DRAMATIC CLUB TO GIVE "THE IMPORTANCE OF BEING ERNEST."

Oscar Wilde's "The Importance of Being Ernest" has been selected by the college dramatic club for its spring production. The play will be staged at the Dover Opera House May 11, thus forming one of the attractions of Prom week this year.

1917 GRANITE IS NOW ON THE MARKET

SIX DAYS AHEAD OF TIME SET FOR PUBLICATION

DEDICATED TO PROF. FISHER

"Hammer and Horn" Section Most Popular in Book—Bound in Blue Cloth and in Limp Leather

The event has happened!! The 1917 Granite arrived last Monday and the days of "Order a Granite" are over—for this year at least.

At first sight it is an innocent looking book with its peaceable blue or leather cover and its sober gold lettering. It inspires confidence and friendliness. But like some human beings, the skin does not portray the nature within—so it is with this Granite. Granites may come and Granites may go, but a more concentrated and supersaturated volume of "knocks" it will be hard to find. Knocks are handed out by the carload lot both retail and wholesale. For fear some one might have escaped the "Hammer and Horn" whole classes are hit at a single thrust. Today many move in an atmosphere of smiles and groans—smiles for the joke on the "other fellow," groans for the joke on themselves.

Another notable feature characterising the present volume is the fact that it was out on time, in fact it was several days early, a most unheard of situation.

While the general arrangement of material is similar to that of other annuals, several sections show much originality. The history of the college activities for the last year is produced in orderly detail. Numerous half tones of college life sprinkled here and there throughout the 250 or more pages illustrate many of our leisure moments and festivities.

The volume is dedicated to Willard James Fisher, Professor of Physics.

The workmanship of the printers is very good, all half tones being of a uniform depth, while the running head at the top of each page adds much to the appearance of the volume as a whole.

12 NEW HOME ECONOMICS CLUBS TO TAKE UP FOODS COURSE.

The Home Economics clubs of the extension service which have been carried on since February, 1915, have received eight lessons and will wait until September for another course. Meanwhile 12 new clubs have been formed and will take up the course on Foods this spring. They are as follows:

Cheshire Co., Swansey, Alstead Center. Hillsboro Co., Peterboro, Grasmere. Rockingham Co., Hempstead. Belknap Co., Barnstead (2 more pros.) Sullivan Co., So. Aekworth, Lempster. Grafton Co., Lebanon, Sugar Hill. Coos Co., Colebrook, Columbia Bridge (probable) Mountain View. Carroll Co., Sanbornville.

PROF. GOURLEY STUDIES FROST LINE IN WOODMAN ORCHARD.

An important investigation of the ground conditions in the Woodman experimental orchard was made recently by Professor J. H. Gourley with the idea of ascertaining the relative depths of the frost in the areas planted to cover crops and in those left bare.

In the upper orchard on the summit of a hill where the ground was bare the soil had frozen to a depth of 21 inches. In the lower orchard, on level ground where there had been no cover crop planted, or but a light one, the frost was almost twice as deep as where thick crops were planted. The maximum was 18 inches in bare ground, and the minimum 7 inches in ground covered with clover and vetch.

Aside from the depth of frost to be considered in the comparison is the fact that the thawing and freezing alternations will be constant in the spring in bare ground, but in the covered ground there will be a gentle, gradual thawing much less harmful to the root system.

SOUTH AMERICAN DOES NOT TRUST THE YANKEE

Past Treatment Has Made Him Suspicious—Interesting Etiquette in Making Calls in Brazil

At the last convocation Frank H. Damon, superintendent of the Dover schools, gave an illustrated talk on "South America from the Inside."

The speaker was well equipped to discuss that subject, since he was born in Buenos Aires, where his father, a staunch old Maine sea captain, was serving as an officer of high rank in the Argentine navy.

Mr. Damon declared that South American people, generally speaking,

were distrustful of the citizens of the United States because the latter had robbed and ill treated them too often in the early days. For instance, the first people to go to South American from this country were outlaws, for the most part, who, instead of leading a better life, continued to practice their villainous ways, in their new abode. They were followed by an equally or more disreputable lot after the Civil War, all possessed with the same idea of leading a luxurious life at the expense of the native inhabitants. That this unfortunate circumstance has worked lasting injury is shown by the fact that today the best American citizens are often treated coldly, whereas the Europeans find their mere nationality a ready passport into the confidence of the people.

CUSTOMS OF THE PEOPLE.

Another serious impediment to business intercourse between the two continents is the difference in customs, arising from the different stages of civilization the two represent. For example, in their social life it is permissible to call on a brother or other near relative as early as 9 o'clock in the evening, but a formal call, especially on social superiors, must not be made until around 11 o'clock. Any deviation from this code on the part of a native South American would be considered a gross insult. It is usual for a man to carry a revolver for the purpose of defense against dogs, criminals, and because the laws especially prohibit it. Therefore, when a couple make a call, the husband and wife separate upon entering the house, the latter meeting the hostess, while the former passes into the dining room with the host and deposits his revolver on the sideboard as a token of trust in the host. The retention of the weapon is considered one of the most deadly insults and often leads to grave results.

POPULARITY OF BULL FIGHT.

Strange as it may seem, the bull fight appeals most to the ladies of the aristocracy, who outnumber the men in attendance. The more revolting the scene, the better they like it. In contrast to this the South American can not appreciate our prize fight, which seems to be a distinct Anglo-Saxon amusement.

One of the very first requisites for success in this new commercial field then is to become thoroughly familiar with the traditions and customs of the people, otherwise the foreigner in his ignorance is continually antagonizing his business associates. Mr. Damon said that many important transactions fell through from this cause alone.

HIGHLY ENJOYABLE SOCIAL GIVEN AT CHURCH PARLORS.

A most enjoyable social was held in the church parlors Friday evening, Mar. 24. The time was spent in playing games and singing college songs. Each man was called upon to tell a funny story as his contribution to the evening's entertainment. Mr. Philbrick and Mr. Watson brought down the house with their recitals. Refreshments were served.

"THE JAPANESE GIRL" VISITS COLLEGE GYM.

PICTURESQUE KIMONOS OF FAR EAST SEEN ON STAGE

OPERETTA BY GIRLS' GLEE CLUB

Caroline Perkins, '19 and Marion Lewis, '19 Provide Humor for the Occasion—Japanese Dance a Feature

Upon a stage bright with many colored flowers and the picturesque kimonos of the actresses, the "Japanese Girl" was presented in the Gym by the Girls' Glee club last Saturday evening.

The idea of this operetta was suggested by a fanciful custom prevalent in some parts of Japan. When a near relative has to be absent from home for a considerable period he often leaves behind a growing plant, young tree or a singing bird, which is called by his name and regarded as his substitute. The greatest care is bestowed on this object, as it is considered most unlucky to the person whom it represents, should any harm befall it during his absence.

FIRST ACT.

The first act opens by a number of Japanese girls visiting O Hanu San, a young Japanese beauty, who is about to celebrate her eighteenth birthday, regarded in Japan as "the coming of age." Her part was effectively taken by Miss Julia A. Roberts, '17 leader of the glee club. The story is told in the dialogue and songs and contains many amusing and interesting situations.

In the second act, two inquisitive and self assured American girls, Nora and Dora Twinn, who are touring in Japan with their governess for education and pleasure are impelled by curiosity to enter the garden, and while their governess is sketching they slip away from her. Their antics as depicted by Misses Caroline Perkins, '19 and Marion Lewis, '19, provoked hearty laughter, while Miss Nettie Finley as their governess was as good. The Japanese girls returning resent the intrusion of a foreigner and awake the governess, who has fallen asleep at her easel and pretend not to understand her explanation. O Hanu San comes to her rescue and finally invites the party to remain as witnesses of the festivities. Miss Rachel Colby '17 was a most impressive Mikado. Commendable solo work was done by Misses Sara Greenfield, Doris Dudley, Abby Turcotte.

JAPANESE DANCE.

A special feature of the occasion was a Japanese dance, which received well merited applause, executed by Misses Mary Worcester, Marion Chase, Irene Huse, Irene Hall, Laurence Edwards, Emma Wetherbee, Ruth Stevens and Christine Sutherland.

The chorus was as follows: Helen Bugbee, Hazel Shedd, Mary Worcester, Mabel Foster, Marion Chase, Bernice Reed, Irene Hall, Ruth Stevens, Louise Burpee, Lorraine Edwards, Mary Dole, Emma Wetherbee, Rose Dietrich, Christine Sutherland, Marion Dudley, Irene Huse.

NEW COURSE OFFERED IN FIRST AID AND SHOP SANITATION.

General First Aid and Shop Sanitation is the subject of a course offered for the first time this year in the Zoology department. The work includes practice in the first aid treatment of wounds, burns, fractures, sprains, etc., as well as bandaging, disinfecting, fumigating, etc.

In giving this course, New Hampshire falls in line with some of the larger colleges, who have just recently made this addition to their curriculum.

15 Arts and Science and Mechanic Arts students enrolled in this course, which is taught by Prof. C. F. Jackson and Mr. C. H. Batchelder.

"HAM THE HATTER"

The New Hampshire.

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Published Weekly by the Students.

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DURHAM, N. H., APRIL 1, 1916

EDITORIALS.

TO THE GRANITE BOARD.

The 1917 Granite is out and is all that the class promised it would be—and then some. It is without doubt one of the best annuals yet produced and the pictures, comments, poems, jokes and "obituaries" are of an exceptionally good order. One must indeed walk circumspectly if he is of a sensitive nature, otherwise—"murder will out." Oh humor, what truths are told in thy name! But then, nobody believes the truth, so why worry? We have already had our 3 dollars' worth of laughs so we say heartily, Well done, Granite Board!

FOR USE—NOT ABUSE.

The bulletin board is the college information bureau. By it the student is enabled to keep in touch with class affairs, athletic and social functions. It is the advertising medium, the daily news sheet of the college. It is a democratic institution, uncensored, uncontrolled, open to the use of all who wish to avail themselves of the privilege. It is governed only by courtesy and decency, and with the understanding that college men and women are beyond such childish acts as defacing or changing notices, even at the risk of their witticisms never reaching the eye of the student body. May this highly valuable and efficient publicity board be allowed to continue to serve its good purpose unhampered.

GIRLS' BASKETBALL TEAMS.

Basketball is the king of indoor games and it is no wonder that the young women of the college are manifesting such an interest in the sport. No form of exercise has a greater recreational value, or is more beneficial. It has long been a matter of regret that there was no opportunity for the women to demonstrate their athletic ability and receive the benefits therefrom, but now this is no longer true, for with the opening of the new gymnasium in Thompson Hall, the young women are provided for. Undoubtedly next season will see class basketball games, with possibly a league of some sort, thus providing a healthy competition. We may yet see the co-eds wearing with much pride their class numerals—won by themselves!

THE GOLDEN RULE.

Those whose observation is at all acute recognize the fact that the conduct of certain of the students during past convocation exercises has not been all that was desirable. Whether thoughtless or not, the marked restlessness which they exhibited was neither creditable to themselves nor just to the speaker. Every student should realize that it is neither expedient nor gentlemanly to give other than the most respectful and courteous attention to the speaker, no matter whether the message is interesting to that particular hearer or not. Those who speak to us do so gratuitously, and often at a cost of much inconvenience on their part. It

is needless to dwell upon this theme, as we all realize just what our error is and the method to use in correcting it. The best way to deal with this matter at all times is to treat those who speak to us as we would have them treat us were we in their place. Doing this, we will never forfeit our right to be called gentlemen.

IMPORTANT SHEEP BREEDING EXPERIMENTS IN PROGRESS.

About six years ago, shortly after the sheep breeding experiments now in progress at the New Hampshire Station were begun, Dr. C. B. Davenport, an authority on animal breeding, made a statement regarding the scope and possibilities of this work which is well worth repeating here.

HIS STATEMENT.

"The New Hampshire Experiment Station has undertaken a more extensive and better devised set of experiments in sheep breeding than is being undertaken anywhere else in the world.

"One strain or race of sheep differs from another in respect to one or more qualities or traits which are called characteristics. It has taken nearly a lifetime to make a desired race and there are many failures to record where there is one success. During the last eight years scientific breeders have discovered a new law which bids fair to bring about a revolution in breeding. This new law consists of two principles; first, when one parent has a characteristic that the other lacks, the hybrid offspring all have the characteristic, but in a diluted or changed condition; and second, when such hybrids are mated together the characteristics come out in the offspring in their pristine purity, and in new combinations.

"These newly established principles hold for all plants and animals but they are still little known to practical breeders."

LACK OF KNOWLEDGE.

The progress of the work since this statement was made has brought out many interesting facts. Perhaps the most important of these is the woeful lack of fundamental knowledge with which animal breeding, when compared as a science with other applied sciences such as chemistry or physics, has been carried on. Animal breeding in the past has been a chance operation. Even today no breeder can foretell what the result will be from a mating with as positive a certainty as a chemist can anticipate his reactions, though basically the action is the same and founded upon similar fundamental laws of nature. Animal breeding must in time become a science which will be applied with equal scientific exactness and certainty of results as is now the case with chemistry.

Another interesting development is the apparently infinite number of combinations of traits that make up any particular type of which our various existing breeds are expressions. Still another is the great variation in the behavior of different traits so far as their note of inheritance is concerned.

When the experiment was begun, 26 traits of characters were selected for study, though it has been found necessary to add other correlated factors since then. These refer to wool, conformation, color of hair, wrinkles, twinning tendency, horns, etc. A few of these have now been worked out and steady progress is being made in solving other riddles of inheritance.

FOUR REELS SHOWN IN MUNICIPAL MOVIES AT GYM WEDNESDAY.

The second free moving picture entertainment arranged by the college was given Wednesday evening, March 29. The program consisted of four reels portraying Italian life and scenes, the titles of which were: "A Trip to Rome," "Picturesque Naples—Naples and Vesuvius—Modern Naples," "Northern Venice—Venice on the Grand Canal," "City of Florence—Straw Hat Industry of Florence." The evident relish and abandon with which peasants in "Picturesque Naples" consumed macaroni caused considerable amusement to the audience. The films were all instructive and well worth seeing.

FREE ILLUSTRATED LECTURE.

An illustrated talk on Panama and the Panama canal, will be the program for the College Christian association meeting next Sunday evening at 7.30 o'clock in the gymnasium.

C. B. Russell, Y. M. C. A. Secretary of Rockingham County, will be the speaker. It will be an open meeting. All are invited.

EXTENSIVE WORK DONE IN SEED TESTING LABORATORY

Begun Because of State Pure Seed Law—Samples Received Voluntarily from Farmers and Dealers

The seed testing work, which is carried on by the Agronomy Department, was started six years ago as a result of the Pure Seed Law passed by the State Legislature in 1909. The laboratory was designed to do the seed testing work which would aid in the enforcement of this new law. It has found a wider field of usefulness, however, for at present many of our farmers and seed dealers voluntarily send in samples of seed to be tested.

EQUIPMENT.

The laboratory is equipped with a large wooden germinating chamber, made in the department. Owing to the thickness of the walls of this chamber it is easy to maintain the temperature by means of electric bulbs at from 20-30 C. This is the most favorable temperature for the germination of field crop seeds. Most of the germination tests are made either between, or on top of blotting papers. Corn and other seeds are tested by the rag doll method.

To assist in testing seeds for purity a seed mixer and sampler have been secured; a very delicate chemical balance has also been added to make these purity tests very accurate. With the apparatus at hand the department is able to test seeds both for purity and germination by the most approved methods.

750 SAMPLES TESTED.

During the past six years seven hundred and fifty samples of seed have been received and tested in the laboratory. Approximately sixty per cent of these tests have been made for the State Department of Agriculture, the remainder having been sent in voluntarily by farmers and dealers.

Besides these tests which are annually recorded, the laboratory each year makes numerous tests, both for purity and germination, for the Association of Official Seed Analysts, to assist them in standardizing the present methods of seed testing.

The laboratory not only affords a place for our farmers and seed dealers to have their testing work done, but it also enables the Agronomy Department to better illustrate to the students practical methods of seed testing work for the farmer and the necessity for this work on the farm.

NEW HAMPSHIRE COLLEGE GREENHOUSES WIDELY KNOWN.

The college greenhouses were built in 1906 and have been used for station work, for college work and as a conservatory. They consist of six houses 40 by 20 feet and an arcade and conservatory running through the middle, thus having three houses on each side of the palm house. This gives six separate units in which various temperatures can be maintained, and which are very well arranged for their purposes.

The breeding work carried on in these houses has excited interest over the whole country. The Granite State cucumber which originated in these houses as a cross between the English Telegraph and White Spine, is now being grown successfully in the Boston district and is considered one of the best varieties on the market for forcing. One of the melons which originated as a cross between the English muskmelon and a French cantaloupe stook the silver medal at the Massachusetts Horticultural Society in 1913.

Views from these greenhouses are shown in several standard text books now being used in colleges.

Students make use of the houses in various courses to study methods of plant propagation, the growing and handling of greenhouse crops, and the ventilation, heating and fumigation of the houses.

Visitors to the campus are always attracted to the greenhouses by the conservatory. A large collection of palms and "stove" plants are being grown here among which are a number of rare specimens. A large collection of orchids, together with such flower crops as chrysanthemums, carnations and sweet peas are grown as successfully as those produced in the best flower establishments about Boston. Early vegetables such as tomatoes, cucumbers, lettuce and melons are grown each year and are sold locally or on the Boston market.

Professor F. W. Taylor spoke last Wednesday at a Grange meeting in Peterboro, on "Fertilizers and Crops."

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\$416 PUTS AVERAGE STUDENT THROUGH A YEAR AT N. H. C.

A tabulation of student expenses that is to be published in the next college catalogue has just been completed by the registrar, Conda J. Ham. The results will doubtless be of much interest to prospective students and their parents.

Mr. Ham has discovered that the total expense for the average student is \$416.11 a year. As a large proportion of the students at New Hampshire support themselves wholly or in part by outside work, the actual cash expense of the average student is materially less than this. The figures were gathered by asking each student a series of questions. He wrote the answers on a blank form and handed them in to the Registrar's office, and the figures have now been averaged.

They represent last year's freshman, sophomore, junior and first-year two-year men, and women regardless of class. The average freshmen expense for men was \$430.91. The average sophomore's expense was \$424.39, and the average junior's expense \$476. The average for women students was \$437.36 and the average of the first year two-year students who remain in Durham only until the middle of May is \$386.19.

The figures for the average New Hampshire College student, item by item are as follows: room rent \$53.88; board \$138.47; books and stationery \$17.19; laboratory fees \$3.61; laundry, pressing and mending \$8.15; incidentals, college activities \$20.30; athletics, \$4.00; traveling expenses, \$23.77; clothing \$43.84; other expenses \$22.90; tuition \$60; fees \$20; and for the freshman there is added to this always \$19 for his uniform in the cadet regiment.

A conference of the County Agents was held in Durham, Wednesday, Thursday and Friday of this week.

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AND the butter-fat that goes into the can through the skim-milk spout of a cheap, inferior, or worn out cream separator is just as surely lost as the milk in the pail the cow kicks over.

The farmer who is trying to get along without a cream separator, or with an inferior or worn-out machine, is losing butter-fat right along, and butter-fat is money.

Thousands of Babcock and other tests have proved that the De Laval skims closer than any other cream separator under any condition, and particularly under the more difficult conditions so frequently experienced.

Just think what a loss of as little as ten cents worth of cream at each skimming means to you in a year—twice a day for 365 days—over \$70, and with as many as ten cows the cream losses alone from an inferior separator usually amount to more than this.

It doesn't matter whether the cow kicks the milk over or the cream separator doesn't skim clean, the waste is there just as surely in one case as in the other. The former is bound to happen once in a while but it is always possible to guard against the latter by buying a De Laval Cream Separator.

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NEWSY ITEMS OF THE ALUMNI.

CHEMISTRY PRIZE GIVEN 29 YEARS BY DR. BAILEY

B. H. Baghdigian, ex '16, Prominent Figure at Kansas State—Miss Florence Trimmer at Overbrook, Pa.

Since 1887, the Bailey prize, ten dollars, has been given annually for proficiency in chemistry.

The donor, Charles Hardy Bailey, M. D., has ever been a loyal son of New Hampshire College, attributing the greater part of his success to the training received at this institution.

Dr. Bailey was born September 21, 1856, at West Swanzy, N. H. From force of circumstances his early education was deficient, but he was a man who sought every opportunity for self-development, and during his college course he was a persistent and conscientious worker, one not satisfied with mere superficial training. He was one of a class of six to be graduated in 1879. This was one of the strongest classes in the early history of the college. He immediately entered the Dartmouth Medical College, from which he was graduated in 1881 with his degree of M. D.

He was married to Miss Clara E. Morse of Winchester, N. H., August 14, 1884. Their home is in Gardner, Mass. They have three children, Louise and Katherine, both graduates of Smith College, and Charles, a junior in Gardner high school.

It can be said of Dr. Bailey that he is a man who inspires respect and trust in all who know him. The quiet earnestness, characteristic of his work, has made him one of the leading physicians in his section of the state.

B. K. Baghdigian, ex '16, now a student of industrial journalism in Kansas State Agricultural College, is a prominent figure in the Cosmopolitan Club of the college. Mr. Baghdigian said before the Cosmopolitan Club recently: "No more do foreigners look upon American as a country of business adventure or a haven for the politically or religiously persecuted, but because of her remarkable progress as a Mecca of learning."

E. R. Montgomery, '15, is now located at his home in Contoocook, N. H.

P. E. Tubman, '13, a teacher in the High School at Ipswich, Mass., was a recent visitor in Durham.

On March 14, a girl was born to Mr. and Mrs. W. S. Blaisdell, 2 yr. '12.

Miss M. DeMeritt, '11, instructor in Botany at Wellesley College, is spending her spring recess in Durham.

On March 16, Miss E. A. Joslin was married to L. E. Ellsworth, 2 yr. '11.

H. C. Read, '10, is now located at the New York office of the American Telephone and Telegraph Co. At present he is travelling all over the East giving Transcontinental Demonstrations.

Smith Sanborn, '13, is now connected with the Chevrolet Motor Car Co., in Brooklyn, N. Y., as assistant to the sales manager.

Miss Florence Trimmer, former registrar, of the College, is now in the office of the Pennsylvania Institute for the Instruction of the Blind at Overbrook, Pa.

COLLEGE SHARK VIVISECTED AT CHRISTIAN ASSOCIATION MEETING.

The college shark was vivisected without mercy last Sunday evening at the regular meeting of the Christian Association. The surgeon who performed the operation was W. E. Chamberlain. The topic under discussion was "Resolved that the so called college 'shark' is more of a detriment than a benefit to the college of which he is a member. The term 'shark' was defined as one who was after ranks to the exclusion of all other forms of college activity. The speaker showed how little ranks were worth as an indication of a man's ability under the present system of marking and produced figures to support his claim. A short discussion followed, in which was brought out the difference between a shark and a grind, and a few questions were asked the speaker.

215 BOOKS ADDED SINCE JANUARY 1 TO LIBRARY

Since January 1, 1916, two hundred and fifteen books have been added to the college library. Of these, one hundred and sixty-five are technical works, mainly for use in the different courses. An unusual number of French and German text books were purchased, including works of such famous authors as Lamartine, Daudet, DeMaupassant, Sand, Dumas, DeBalzac Rostand, LaFontaine, Baumbach, Raabe, Freytag, and Von Moser.

BOOKS ON WAR.

Of the books of general interest, fifty accessions have been made. A number of these are books on the war, "The Lusitania's Last Voyage," by C. E. Lauriat, Jr., is the personal experience of a man who was rescued from the sinking ship. Mr. Lauriat is a young author, son of the head of the Lauriat Bookstore in Boston. Other books dealing with the war are: "The Pentecost of Calamity," by Owen Wister; "Memories of the Kaiser's Court," by Anne Topham and "Fighting France," by Mrs. E. N. T. Wharton. People interested in the subject of preparedness will enjoy "The Higher Patriotism" by J. G. Hibben and "Military Obligation of Citizenship," by General Leonard Wood who was a recent chapel speaker.

"MY LIFE IN PRISON."

Donald Lowrie's "My Life in Frison" urges the need of prison reform, to which he is devoting his life. Mr. Lowrie served a ten year sentence in San Quentin prison and was dismissed five years before his sentence expired. He is a recognized authority upon the subject, and is associated with Mr. Osborne in his work of bettering prison conditions. Lowrie's "Life Out of Prison" and Osborne's "Within Prison Walls" the personal experience of a wealthy New York business man, are both in the college library. In the same connection is an article by Lowrie in a late number of the "Forum."

"THE NEW HOUSEKEEPING."

"The New Housekeeping" by Mrs. C. M. Fredericks was quoted by Miss Terrill of the University of Vermont, in her lecture here during the One-Week Course. It deals with household efficiency and is of especial interest to home economics students.

COMPLETE LIST

The complete list of fiction and books of current interest follows:

Souls of Black Folk, W. E. B. DuBois, The Lusitania's Last Voyage, C. E. Lauriat, Jr.; Civilization During the Middle Ages, G. B. Adams; The Canadian Commonwealth, A. C. Laut; A Soul on Fire, F. F. Williams; Why Not? M. Widdemer; A History of the Philippines, D. P. Barrows; Tad and His Father, F. C. Bullard; The Research Magnificent, H. G. Wells; Spoon River Anthology, E. L. Masters; Around Old Chester, Mrs. M. W. C. Deland; The Heart of Philura, Mrs. F. M. Kingsley; The Pentecost of Calamity, Owen Wister; Struggle for a Continent, F. Parkman; Hempfield, D. Grayson; What a Man Wills, J. B. Baizey; Moonbeams from the Larger Lunaey, S. B. Leacock; Aristocracy and Justice, Paul E. More; Emma McChesney and Co., E. Ferber; Memoirs and Anecdotes, K. A. Sanborn; Bodily Changes in Pain, Hunger, Fear and Rage, W. B. Cannon; Leading Cases on American Constitutional Law, L. B. Evans; Memories of the Kaiser's Court, Anne Topham; New Hampshire Women, H. H. Metcalf; Fighting France, Mrs. E. N. J. Wharton; My Life in Prison, Daniel Lowrie; The Higher Patriotism, J. G. Hibben; Military Obligation of Citizenship, Leonard Wood; His Big Brother, L. E. Theiss; Closed Doors, M. P. Montague; The Clockmaker, T. C. Haliburton; Dear Enemy, Jean Webster; The Bent Twig, Mrs. D. F. C. Fisher; The Three Things, Mrs. M. R. S. Andrews; New Worlds for Old, H. G. Wells; The New Housekeeping, Mrs. C. M. Fredericks; The Boy with the United States Life-savers, F. W. Rolt-Wheeler; A Boy's Will, Robert Frost; Home Life in China, I. T. Headland; Home Life in Russia, A. S. Rappoport; The Schools of Medieval England, A. F. Leach; The Grey Dawn, S. E. White; Horace Greelley, W. A. Linn; The Laughing Muse, A. Guiterman; Government and Politics of the German Empire, F. A. Kruger; The Renaissance, E. M. Holmes; Little Book of American Poets, J. B. Rittenhouse; Home Life in Turkey, L. M. J. Garnett, and Sailing Ships, E. K. Chatterton.

At a meeting of the Pomona Grange which is to be held in Manchester, April 4, the advisability of having a County Agent in Hillsboro county will be discussed.

SPECIALIZED VEGETABLE GROWER HAS PROBLEM

Cause is Special Conditions Arising from the War—Ways of Meeting it—Fertilizer Problem Important

Although the fertilizer situation is widely discussed by grain farmers, the man to suffer most by it is the specialized vegetable grower. Vegetable growers commonly apply amounts up to 100 tons of manure, besides commercial fertilizer, to an acre of ground each year. The largest and most progressive growers operating on expensive land near the cities neither can nor do raise stock to produce the manure required for their extensive operations and are therefore forced to obtain all their fertilizers elsewhere. Today the fertilizer situation is the most widely discussed question before the farmer for since the United States began to supply munitions to Europe, the major part of the supply of acid phosphate and nitrate of soda is used in their manufacture. The supply of potash is cut off because its source is the German potash mines and since "England rules the waves," its export is prevented. Nitrate of soda is used in the manufacture of sulphuric acid which in turn is used in making picric acid, and this is used in gunpowder. It is said that potash is quoted at \$500.00 per ton. Considered on the basis by which commercial fertilizers are valued, manure is worth \$7.50 per ton. Every farmer ought to save and use intelligently all the manure produced on his premises. Imagine a vegetable grower paying \$750.00 for the manure applied to one acre of ground; Fortunately manure has not risen in price nor is there any indication that it will, but should it do so the vegetable grower would very likely be forced out of business.

FERTILIZER NEEDS.

Some general farmers, unlike the vegetable growers, believe that they can get along without commercial fertilizers. This belief is not always tenable, especially in the northern New England states, where the growing season is short and nitrification necessarily slow. Quick-acting fertilizer is needed to hasten the maturity of crops. Phosphorus, also, is lacking in all soils, as it is in manure, which contains only 3 to 4 percent. Therefore the formula of commercial fertilizers used by vegetable growers is always high in phosphorus and potash, usually containing from 8 to 10 percent. Last summer most fertilizer mixtures contained only from 3 to 4 per cent due to the curtailment of the supply from Europe. Growers obtained fully as high yields in most crops as in previous years, although on account of the unusual season it is hardly fair to draw conclusions from the results of a single year's observations. The explanation of the results is that the enormous amount of manure used produced chemical action which liberated the potassium in the soil. Some growers have even become so optimistic as to assert that to soils high in potassium content little if any potassium salts need be applied while certainly most of them are of the opinion, due to the results obtained this year, that in previous years we have applied too much of this element to the soil. This is far from conclusive however. Where such tremendous quantities of manure are added, organic acids do set free considerable potassium.

POTATO FERTILIZATION.

Last year Maine, New Jersey, and several other states foresaw the coming shortage of commercial fertilizers and ran experiments in potato fertilization. In their plots, the amount of potash varied from nothing to 10 percent in mixtures of commercial fertilizers. In almost every instance yields were high where no potash was applied, but the soils were all high in humus content. In all these experiments, the greatest yields were from plots high in potash, but these did not show marked increase enough over check plots where from 2 to 4 percent was used to warrant the practice of using it in large amounts. Even these were but one year experiments and therefore were by no means conclusive. The vegetable grower around large cities has always had little or no trouble to secure manure, usually at very nominal cost, and for that reason he has used it extravagantly. He had no regard for the fact that the greatest percentage of potassium was in the liquid and took little or no pains to preserve it. Now, however, due to the great change in conditions, he will be forced to handle it properly with a view to inhibiting a loss of valuable elements. Prevailing conditions will no doubt mean that grower and experiment stations will carry on more practical experiments in fertilization.



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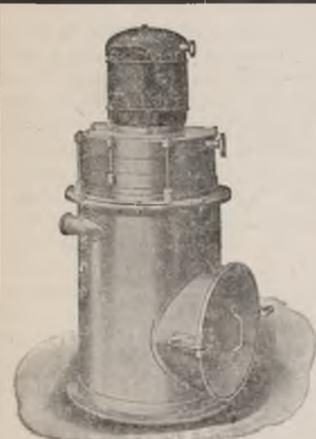
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Come in and see our new line of College Pins, Fobs, Cuff Links, Etc. at reasonable prices.

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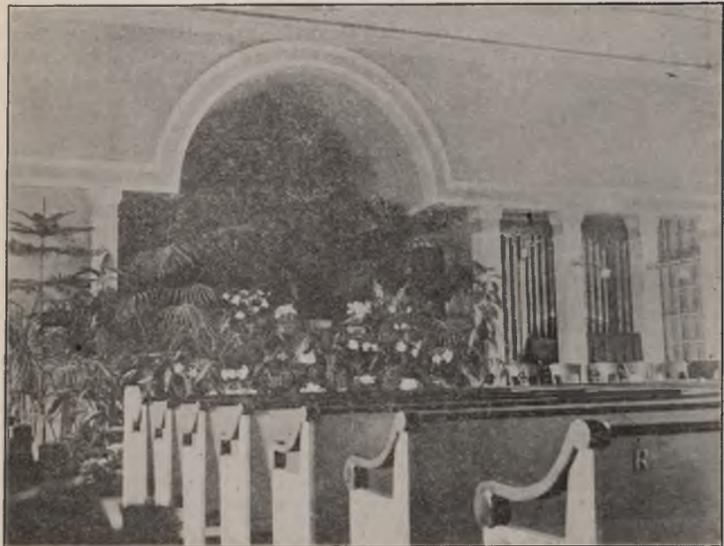
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Preaching 10:45 a. m. Bible School 12:00 noon

Preaching Service as Usual.

ALL WELCOME

STORY OF HILL'S MILL ON OYSTER RIVER UNIQUE

Grant Given Valentine Hill in 1648—Torn Down Shortly Before Erection of the Onderdonk Dam

Hill's mill, one of the oldest saw mills in Durham, was completely destroyed when the concrete dam erected by Mrs. Shirley Onderdonk was completed. It was at the left end of the present dam, opposite the one now run by Fred Jenkins, and was a wooden two-story structure erected as a saw mill. The saw used was a traverse type, being installed before the period of the circular saw, and worked up and down vertically as the log was fed along to it.

MILL PRIVILEGES

In 1649 a grant was given Valentine Hill at Durham Falls at the head of Oyster River "for the Ericktion and building of a sawe mill." He was to pay a yearly rental of 10 pounds for that privilege, which proceeds were to go for the support of the church. At the same time a grant was given him for mill privileges on Lamprey River, in Newmarket. Thomas Kemple of Charlestown, Mass., got control of these options later.

THE "SEVEN SCOTS."

Mention is made also of a grant of land to Valentine Hill incliding four acres for his "Seven Scots." The grant included the greater part of the present village of Durham. He built his home on this grant at the present site of the Frost Homestead.

Hill's "Seven Scots" were sent to him by Thomas Kemple, who had extensive lumber interests in Durham and in the vicinity of South Berwick. These Scots were captured by Oliver Cromwell at the battles of Worcester and Dunbar. 222 of them were sent to Mr. Kemple in Charlestown and he thought that these men would make good woodsmen. They were supposed to work off their passage, and bondage and took from five to ten years to pay this off. The bondage was made by the selling of the Scots at 20 pounds per head.

In 1820, when the Newmarket Manufacturing Company was looking for a site for their cotton mills, the location of Hills mill was a desirable one and they tried to get the right of way. The people of Durham were hostile to such a concern and would not allow the mill to build up.

TWENTY YEARS AGO.

Until twenty years ago the building was standing, though not in use for a few years previous, but it became so decayed that it was unsafe. When it began to topple the upper part was torn down and some of the machinery and water wheel were left until the old wooden dam was replaced.

BOOK AND SCROLL.

The regular meeting of the "Book and Scroll" was held in Thompson Hall last Tuesday evening. Miss Genevieve Charbonneau, assisted by Miss Helen Tilton, led the meeting. The poet discussed was John Masefield.

THE COMPANY WITH THE PYRAMID

45 CONSECUTIVE YEARS OF PYRAMIDAL PROGRESS

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4,881,149.81	1,409,691.54
5,196,017.48	1,510,064.23
5,553,270.70	1,572,330.82
5,725,409.34	1,684,604.81
6,097,887.20	1,700,781.80
6,250,526.89	1,705,433.67
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TOTAL LIABILITIES \$3,149,365.31
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GREAT SCHEME POSITIVELY BRINGING IN \$10,000 A DAY.

A fortune lies almost under the feet of some unsuspecting Durhamite all ready to be seized. This portentous statement is made possible by the fact that one of the seniors, from the press of his other engagements, is unable to make use of the wonderful idea that a friend has written him about. The letter follows and is self explanatory:—

"Knowing that you have interest in all sorts of stock, cattle or watered, I am presenting to your what seems to me a most wonderful proposition. Send your subscription check as soon as convenient so we can start the company.

BIG CAT FARM.

"The object of the company is to operate a large cat farm in or near Dover, where the land can be purchased cheaply for this purpose. To start with we collect say, One million cats. Each cat will average 12 kittens a year. The skins run in value from ten cents for the white ones to 75 cents for pure black, the average being 30 cents apiece, making our revenue \$10,000 a day. We will feed the cats on rats and will start a rat farm next door. A rat multiplies four times as fast as a cat. If we start with a million rats, therefore, we shall have four rats a day for each cat. Now, then, we will feed the rats on the carcasses of the cats from which the skins have been taken, giving each rat one fourth of a cat.

"It will be seen that the business will be self acting and automatic all the way through. The cats will eat the rats and the rats will eat the cats and we will get the skins. I await your prompt reply and trust that you will appreciate the opportunity that I gave you, and you will get rich quick."

Further information about this grand opportunity may be obtained by addressing Box 416, Durham, N. H.

FIVE MAKE SPECIAL HONOR IN NEW COLLEGE CATALOGUE.

About one half the seniors and juniors, one quarter of the sophomores, and 15 to 20% of the freshmen for last year made the honor roll, which required at that time an average for the year of 80% or more. It is found that each of the upper classes has increased their percentage of their own record for the previous year, but that only the senior class bettered the record of the corresponding senior class of last year. The going into effect of the 85% requirement will take off quite a few more than half of the honor list under the present system and will require more effort to make.

Those whose average for last year was 90% or more, giving them special honor, are L. W. Crafts, '15, Miss M. E. Nash, '15, W. W. Swett, '15, Miss P. M. Blanchard, '17, and Miss M. L. Hoitt, '18.

FACULTY SET SEPTEMBER 13 AS DATE OF OPENING COLLEGE.

It has been settled by the faculty that college will open next fall on September 13, in order that football team may have a better opportunity to prepare for its first game of the season with Dartmouth. Farmer's Week will be held the second week of the Christmas vacation, which extends from Friday night, December 22 until January 8, or a couple of days more than two weeks. The mid-year vacation is done away with entirely. Examinations at the end of the semester from now on will occupy a whole week, rather than beginning Thursday and continuing through until the following Tuesday. They will instead begin Monday and conclude Saturday. The faculty are still undecided as to whether to grant a two weeks spring vacation and close June 13, or have but one week's vacation and close June 6.

H. E. EXTENSION WORK.

It is planned to place in Sullivan County a woman to assist in home economic extension work, relating to problems of the home and rural life. This will be the first Government cooperative woman county agent in New England.

OPTICS OF PHOTOGRAPHY SUBJECT OF LECTURE

Given Engineering Society by Prof. W. T. Fisher—Swing Back, Lenses, Stops, Length of Exposure Explained

"The Optics of Photography" was discussed in a brief, but comprehensive manner by Professor W. J. Fisher at the last meeting of the Engineering Society. He began with the fundamental proposition that light is energy and therefore capable of doing work. This work may take the form of chemical action on certain dyes, or on cloths dyed with chemicals effected by light, or in the form of an image on the photographic plate.

The first camera was probably discovered by accident and is known as the pin hole camera. It consists of a light tight box or room, darkened on the inside and having a minute hole in one of the walls. Rays of light pass through this hole and form an inverted image on the opposite wall, of whatever is within range. There would be no advantage in using a lens if it were not for the fact that the lens not only produces a sharper picture, but gives a sharp picture with a large opening, thereby giving more light and consequently cutting down the time of exposure. The time of exposure is excessively long with the pin hole camera, and unless cut down in some way prohibits the making of instantaneous photographs.

CAUSE OF DISTORTION

When the plane of the surface upon which the image is formed is not parallel to the plane of the object, the image will be distorted more or less depending on angle. There are occasions, however, when the camera must be pointed upward instead of horizontally, as in photographing tall buildings. The best cameras therefore have the back mounted on pivots for a vertical and horizontal swing to bring the plate parallel to the plane of the front of the object. This device is known as the swing back. The rising and falling front is used for the same purpose; within closer limits, however.

EXPERIMENTS ILLUSTRATE TALK.

The focal length of a lens is the distance from the center of the lens to the point to which parallel lines converge after passing through the lens. To get the proper perspective, a picture should be viewed from the same distance as the focal length. Short focus lenses give pictures with exaggerated foregrounds, while the long focus lens gives an exaggerated background. In the first case, the distortion may be overcome by using a magnifying glass when looking at the photo, or by enlarging it.

Experiments were performed to show that with a single lens, the center or edges of an image could be made sharp by focusing, but not both together. With a double lens the sharpness became somewhat more uniform; while with a lens made up of many parts, the whole image was sharp.

In the discussion of stops, the most important use brought out was that of producing a sharp image. The smaller the stop the sharper the image as long as enough light is admitted, since, as shown above, the center and edges of a lens cannot both be put in focus at once. The Uniform System of marking stops has them numbered from one to 128 by doubling each successive number. The numbers are proportional to the area of the opening. In the f system the focal length divided by stop number gives the diameter of the corresponding stop. In this case the numbers are proportional to the diameter of the opening.

The exposure time is an exceedingly variable quantity depending upon the size of stop, lens, subject, light, length of bellows, etc. It is a matter requiring experience to be able to judge correctly.

This is the first of a two part lecture on photography. At the next regular meeting, Professor G. A. Perley will take up the chemical aspect of the subject.

ALPHA ZETA PLEDGES.

Friday, March 24, the following men were pledged to Alpha Zeta: E. S. Johnson, '17, Winchester, Vt.; S. W. Wentworth, '17, Hollis; H. P. Bachelder, '18, East Andover; P. B. Badger, '18, Portsmouth; C. Cummings, '18, Colebrook; J. E. Humiston, '18, Hanover Center; W. H. Jeffers, '18, Pike; R. H. Sawyer, '18, Bradford, Mass.; S. L. Stearns, '18, Manchester; C. B. Wadleigh, '18, Newton.

Good Northern Grown Trees and Plants.

Apple Trees No. 1, 5 to 7 ft. Baldwin, McIntosh etc. \$25 per 100. Pear, Peach, Plum, and Cherry trees at low prices. Grape Vines, strong 3 year plants \$2.00 per 10. Raspberry and Strawberry plants in the best sorts, including the Fall Bearers. Hardy Roses, Porch Vines, Shrubs, Street and Lawn trees. Our varieties include the best for Northern New England. Highest quality, moderate prices. Write today for our New Spring Catalog.

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