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# The Cadet October 1894

The Cadet Staff

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# THE CADET.

NEW SERIES.

VOLUME IX.

OCTOBER, 1894.

No. 4.

## PROGRESS AMONG THE AMERICAN INDIANS.



the white man?

Morally he has absorbed vices before unknown, physically he has contracted his diseases and intellectually we often find him in a transition stage between a bright red man and a dull white man.

On the whole he has become worse. There have been scattering exceptions in the past and the present promises well for the future.

To briefly note the past and consider the progress of the present is the purpose of this writing.

The white man coming to America found children of nature. Self preservation is the first law of nature.

The white men were the aggressors, avaricious, licentious, cruel; the Indian retaliated, his outrages were barbarous, but then he was a barbarian. Some of his worst deeds were being paralleled at the same time in so-called Christian Europe under the authority of the Church.

IN four hundred years Christopher Columbus used blood has the American hounds to hunt down the inhabitants Indian, morally, of Hispaniola, the Spaniards made physically and in slaves of the natives, the Mexicans tellectually become of Chihuahua and Sonora in later better or worse from days have invited the Apaches to sit his association with down to feasts seasoned with strychnine, and even our Puritan fathers, whom we speak of so proudly, had little of the milk of human kindness flowing through their veins and were imbued with the idea that the red men had no rights which they were bound to respect.

The Indian, cunning and of tenacious memory, took horrible vengeance no doubt when he could; this has been told to us in story; we have read it in our school histories and have become convinced of its truth in the studies of our maturer years; but the Indian had no written language, no sage, historian or poet to hand down the story of his wrongs.

Admit, for the selfish greed of the white man, that the only good Indian was a dead one, but read the tales of some of the early missionaries, look up the often pigeon-holed reports of our army officers as to causes of more recent outbreaks, and you will conclude that for treachery, cruelty and

lust the honors are about even. Beginning on the Atlantic Coast four hundred years ago, a steady struggle and resistance against overwhelming numbers went on till in this



century our government by treaty and fair purchase in cash, rations or annuities has endeavored to locate the Indians on reservations ample for their needs and to open up the rest of our vast western possessions to settlement. The result is that ninety per cent. of the two hundred and fifty thousand (250,000) Indians now living within the United States are located either in the Indian Territory or on reservations in New Mexico and Arizona in the South or in Wyoming, Dakota, Montana, Idaho and Washington in the North, with connecting links, so to speak, of tribes in the Rocky Mountains. The other ten per cent. are scattered in small bands, a few in almost every state, like our own Penobscot, St. Francis and "Quoddy" Indians, for example.

Knowing that these people have thus been driven further and further West and seeing little or nothing of them about us, we are wont to conclude that they are rapidly becoming extinct and that a few years hence the few remaining will, like the buffalo, be herded together in Yellowstone Park by the government and be kept as an exhibit of what used to roam freely over our prairies and through our forests. Such, however, is not the case. While the Indians are not prolific as a race, they are holding their own and the census from year to year shows a slight increase.

But the Indian question was not yet settled when we had the tribes located on reservations; outbreaks still continued and the cause often times has been unjust treatment, broken promises and violated treaties.

As a fair sample of the experiences of large and powerful tribes let us take the case of the Apaches of Arizona versus the Americans.

When the Americans first entered Arizona, Bartlette, the commissioner on the boundary between the United States and Mexico, is authority for the statement that the Apaches were friendly, that their chiefs were anxious to aid us in advancing farther south, farther even than the Gadsden purchase ceded, for they preferred the American to the Mexican. All accounts here agree on what changed this order of things. One of Bartlette's teamsters killed an Apache without provocation, in cold blood. The Apaches laid the matter before the commissioner and awaited his decision. He decided that \$30 deducted in instalments from the teamster's pay was about right for this Apache warrior. The Apaches differed, appealed to the war path, and in forty-eight hours every settler within hundreds of miles was fleeing for his life. The army came in and



brought about a better state of affairs, but at the time of the Civil War the troops were withdrawn, and affairs again became tangled. The Indians got the idea that we had abandoned Arizona, and had left them to fight it out with their oldtime enemies, the Mexicans. Here another element came in. At this time Arizona was suffering from a liberal contingent of

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thugs and toughs whom the vigilance and swear to the sack—about as good committee had driven out of San Francisco. They certainly did not improve Indian, guaranteed certain allowances



matters any, by treaty in consideration for lands though forfeited and hunting rights forfeited, nately for all and then getting nothing, do you concerned, be-wonder he considered civilization a tween Mescal, failure and proceeded to wipe out Tucson whiskey what he saw of it? Then comes a and the Apaches, long inglorious Indian war till the they were a short War Department finally gets control

lived race. In the early '70's Gen. again and quiet is restored. Now it Crook took the Apaches in hand, got is the policy of the government to them on reservations containing detach officers from their regiments arable land, and started plans and detail them as Indian Agents. for making farmers of them. Gen. A thankless job for the army officer, Crook was then transferred to the without extra pay, away from his North to look after the Sioux, and regiment, from society and from friends, the carrying out of this work was with heavy financial responsibility, under control of the Indian Bureau cursed by all the ranchers and thievish of the Interior Department. Indian whites who thrived off the stealings Agents were appointed to direct the of the Civil Agent, and helped only work. To the character, or lack of by the satisfaction of duty well per-character of these men is largely formed and the knowledge that to the attributable the troubles, outbreaks Indian his word is law, that his and Indian wars that followed. There reputation for truth and fair dealing are exceptions to every rule, and with them is beyond all cavil. To some (very few) good men, imbued briefly sum up the situation, it has with true missionary zeal, have been been: Indian well disposed to American-appointed Indian Agents, but as a can, American injustice, Indian rule, they have been petty politicians, thus rewarded for dirty work perhaps, who, understanding that their tenure of office was insecure, their salary small for the responsibility devolving upon them, calculated in three or four years to steal enough to live comfortably upon the rest of their lives, and they generally did. Indians, promised so much beef and flour, if fortunate, would perhaps receive half to Indian Bureau of Interior Department their treaty called for; the rest the ment to keep control.



vengeance, Indian war, Indian conquered, placed on reservation, and vast areas of land given up. Then came Indian

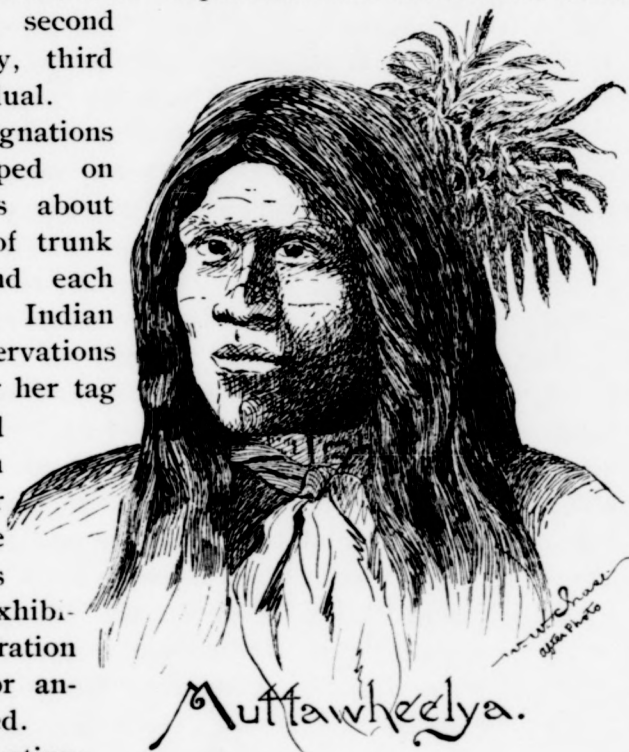
Agents who lied and stole; a another Indian war, Indian conquered, returned to reservation, and Army officers attached to Indian Bureau of Interior Department their treaty called for; the rest the ment to keep control. Agent would sell to prospectors and The reservations on which the ranchers at great prices, for his own Indians are placed are of the best land pocket; if with an exceptionally good for hunting, for fishing and also for pull with the powers that be, Mr. agriculture that the country affords. Agent would perhaps steal the whole Let us see what is being done for



them. To begin with they are all tilling the soil in the white man's duly accounted for—first by tribe, way. Grist mills were built on their then the families in the tribe by letter, trout streams, milch cows and draught then the members of the family by animals, carts and the necessary farming tools brought to them; these in sub-tribe in itself, with a head like some cases were to be paid for out of the old Patriarch of Bible story, who their crops. As a matter of fact, very controls his own family, his sons' few of the Indians succeeded in paying families and his grandsons' families ing, for neglect and ignorance used if he lives that long. "Apache, B, them up shortly. But the effort was 10" or "Tonto, I, 40" represents first not without its fruits and to-day many the tribe, second a small farm along the San Carlos and the family, third the individual. the Gila has an Apache, a Tonto, a Pima or a Maricopa Indian for its proud possessor.

These designations are stamped on brass tags about the size of trunk checks and each individual Indian on the reservations has his or her tag visible, tied usually in the hair back of the head. This must be exhibited before ration is drawn or annuity issued.

The locating of Indians on reservations has of course vastly reduced their hunting area, consequently lessened their supply of game upon which they largely subsisted. The white man, too, is a good hunter and has killed off much game on his own account. They were taken from all tribes, As a result, issues of rations have been an absolute necessity in many cases to keep the Indians from starvation. All plans for the improvement of these people aim to make them self supporting. One of the first was to allot them land in severalty, to engage farmers to instruct and assist them in their first attempts at plowing and



In buying supplies for the army on frontier stations preference is given to these Indian farmers and to any Indian who will work. Another scheme which, while nominally for the benefit of the army, presumably took the improvement of the Indi-

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the year. Their hair was long and unkempt; their moccasins were worn out, their feet were wrapped up in rags to protect them from the heat; their clothing was largely made up of old flour sacks—in fact, a dirtier, more ragged, and in general, more disreputable looking outfit it would be hard to conceive. They were placed in camp back of the officers' quarters, sergeants from the white companies were detailed to camp with them to teach them soldiers' ways and the English language. Within thirty days from this time they were paraded with the rest of the 9th Infantry, hair clipped, clothed in neat fitting blouses, trousers well brushed, white gloves, polished brasses, and three hundred yards away a casual observer might have easily mistaken them for white troops, our own get so sunburned down there. I am sorry to say that the early promise they gave has not been fulfilled. After three years trial the opinion of our officers is in general as follows: That when the novelty of the life wears off they find it too much work and are anxious to get out. They do not look into the future or consider how well off they are—much better than they have ever been before. At present they know they have too much drill and fatigue to suit them, and ask why should they be hampered in this way when they can go back to their reservations and draw a pound and a quarter of beef and flour, sugar and coffee in proportion, for the rest of their lives. Before an Indian can become a soldier, he has, coming from a savage state, to learn everything pertaining to a civilized life in addition to his military duties. He must learn to speak English, how to cook, how to wash, how to take care of his clothes and, last of all, how to drink beer without getting drunk. This last is the most difficult of all his duties. Besides requiring a high degree of civilization, it requires long and most diligent application, and I think that even in Maine the intelligent observer will bear witness that many educated white men go through a variety of vicissitudes before they can learn it. "As for their other duties, the trouble is not in teaching them, for they are really very bright, but in keeping them up to their work after they have learned how. This statement as to their brightness should be qualified, though, for it applies only to the purely military duties, in which they take a lively interest. In teaching them duties which require manual labor, such as scrubbing their barracks, cooking and the like, the gleam of intelligence suddenly dies out of their eyes and you have to deal practically with idiots." They were enlisted with privilege of discharge after three years, so that now most of the Indian companies are being mustered out of service. The experiment, as stated above, has not been a success for the army, for our officers object to making the ranks a reform school for Indians or any one else, but the Indian has learned many valuable lessons in cleanliness, discipline and good order, that are bound to combine with other elements and have a leavening effect on the whole. It has been well remarked that they seem capable of absorbing all the vices and none of the virtues of the white people with whom they come in contact. They certainly have proven themselves capable of absorbing all the vices, but in this transition pioneer period the white people with whom they came in con-



tact, male or female, had very few necessities, into the habits of childhood. virtues for them to pattern by. The Indian boys, too, returning alone to soldiers they have found truthful, their tribes, finding no companionship, seek the saloons of the neighboring frontier towns or camps and show that they have been educated by being able to sing Moody and Sankey hymns for the drinks.

Another element of progress has been the manual training schools established for the Indians, or to which Indian boys and girls have been admitted. Perhaps first among these in efficiency for the red man, is the school at Carlisle, Pa., under the superintendence of Capt. Pratt, 10th U. S. Cavalry. The school at Hampton, Va., where several of our own Maine State College graduates are employed, though not solely for the red man has done very much for him. There are schools of this nature on the larger reservations, supported by the government.

Military posts no longer needed for arts of war, are being converted into schools for Indian children, others have been established by churches, notably by the Catholics, others by private endowment; all are contributing to the elevation of the race. This feature has not been without its sad aspect, however, for we have met with Indian maidens carefully taught and neatly trained, then sent back to their tribes only to find father and mother still living in lousy teepees and vermin-infested wick-e-ups, eating entrails with avidity; to show disgust was to get the ill will of the tribe; to get into a respectable white family seemed out of the question, and the result has been often a relapse, from

necessity, into the habits of childhood. The Indian boys, too, returning alone to their tribes, finding no companionship, seek the saloons of the neighboring frontier towns or camps and show that they have been educated by being able to sing Moody and Sankey hymns for the drinks. Happily this difficulty is working itself out by youths and maidens of the same or different tribes forming attachments while at school. You may in your travels across

country have your horse shod by a Carlisle Apache and be served a lunch while waiting, by his helpmate, a Carlisle Sioux, not buck and squaw, thank you, but man and wife.

A last source of improve-

ment to notice is the source available to all mankind, namely, to take honest work wherever, whenever and whatever found and do it the best one can. This is anything but our idea of an Indian characteristic, but in the land of the *poco tiempo* and *mañana*, in the home of the rattlesnake and tarantula, in "Sun-kissed Arizona" (more truthfully sun-burnt Arizona), where laziness is justifiable if ever, this has been most strikingly exemplified. Our Indian servant, Muttawheelya, whom we called "Eph" for short,



was a month learned the off better hustling were two Saturday expected squaw, cetera, Another Jim in Indian was out toting v lieu of clay) he cans th in in th ment, b string, v with his flying i picture had pas and had a dude. among t desert, enervati that I s marked, years sp The passes di The first the Colo desert, a barren. impossib the road the rails thrown o ing office induced section



was a faithful fellow who worked month in and month out. He had learned that the crumbs that fell from the officers' tables at the Fort made better living than his best efforts at hustling for himself. His stipulations were two dollars and four bits every Saturday night and *meat*. He also expected the privilege of having his squaw, papposes, mother-in-law, et cetera, sit around our back door. Another old Indian whom we called Jim in despair of ever getting his Indian name pronounced before he was out of hearing, earned his living toting water for the post trader. In lieu of *ollas* (water vessels made of clay) he used the lighter five-gallon cans that mineral oil usually comes in in the Southwest. His one garment, barring the ever present gee string, was a dirty gauze shirt; this, with his long thin legs, frowsy hair flying in the breeze, made a vivid picture not to be forgotten. "Jim" had passed the first blush of youth and had no aspirations to be thought a dude. He was a Mojave and it is among these Mojaves, children of the desert, living in perhaps the most enervating climate on this continent, that I saw the most improvement, marked, rapid improvement, in four years spent among various tribes.

The Atlantic & Pacific Railway passes directly through their country. The first hundred miles after crossing the Colorado river is over the Mojave desert, a perfect Sahara, dry, hot and barren. In summer it has been almost impossible to get section men to keep the road in order; heat so expands the rails that many a train has been thrown off the iron. The commanding officer at Fort Mojave in 1887 induced the Indians to hire out as section men. Needless to say the railroad people were glad to try the experiment. At first the Mojaves would work a week, get their wages (\$9.00), then loaf till they had gambled away or spent it. Later it was arranged that when one quit he should have another ready to take his place, till in 1890 many men had worked six months continuously. They began to build adobe houses instead of dirt and brush tepees, the squaws sought and got help in making calico skirts and waists, and the Mohaves' monthly pay roll in 1890, but three years from the beginning, averaged about \$4,000. Some things they do not understand—change in price of labor, for instance. The railroad superintendent thought he could save a speck by reducing the Mojaves' wages from \$1.50 per day to \$1.35, and that it never would by them be missed. Indian "*no sabe*" that, "no work." They had probably never heard of a strike, did not know what it meant, but all the same they could discount Mr. Debbs on bringing railroad officials to time. That was not a strike that failed; it lasted just about an hour and thirty minutes—just long enough to send despatches marked "*hurry*" along the line to hire those Indians back at their own price.

The Indians of the Southwest are perfect children of nature. Marbles and shinny have the same attractions for the man of forty as for the child at five. In that hot climate they are not wont to exert themselves exceedingly and while I think yielding the more easily to influence, have not the capacity for such development as the more hardy and intelligent Sioux and other tribes of the north. They all need and deserve your attention. The War Department is controlling them, protecting them, teaching them

to become law abiding people; it is on us; let us attend to our own missionary work, if any missionary work at all is your work, to teach them how to live and how to die. Let people imbued with missionary spirit consider these wards of ours. Remember that the American Indian has a claim

—*Lieut. Mark L. Hersey.*



#### STUDY OF LOCAL HISTORY.

 **T**HERE is perhaps no study better fitted to awaken enthusiasm, strengthen the memory, and train the judgment than history; and there is no starting point in the study which unites in itself so many advantages as that of local history. Everybody likes stories. Everybody likes to know that they are true, or, at least, have a foundation in fact. Everybody, too, likes the story better if it has a local coloring and introduces names which are already somewhat familiar. It would be hard to imagine a healthy, normal child that would not be intensely interested in tales of the first settlers of his native town, of their hardships, struggles, and triumphs. It would be hard to imagine such a child as listening tamely to the recital and not, like Oliver Twist, crying for "more." Local legends and traditions will always possess an interest excelling that of any other kind of narrative, and for this reason, if for no other, should always have a place in every child's education.

But the study of local history deserves consideration for other and higher reasons than that it furnishes amusement for an idle hour. We Americans, as a rule, take too little

interest in all history except our national history, and chiefly in those portions of the latter which are spectacular or furnish a groundwork for self-glorification. Local history, except in comparatively isolated cases, can furnish little of the spectacular and less for glorification. It is more subdued, more commonplace, yet not deficient in interest or instruction. Among many reasons which may be urged in favor of the study of local history are:

1. That it tends to rouse a stronger loyalty for one's own home. Loyalty and local pride are almost inseparable, and both are essential to the development of a town. The people must feel that they have something worthy of pride, and therefore of loyalty, in order that they may be enthusiastic in working to bring out all the resources of their town. Point to a town of which the inhabitants are not proud and it will be easy to point to a town doomed to non-development or decay, a people minus energy, and a future without hope.

2. In these days of universal travel no place is exempt from the invasion of the tourist. No place should desire to be; the advent of the tourist means the advent of new

ideas, development, strive only to seek. To the history greatest legends will in streams known more at

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4. F study of value in at once investigat arranges tant ma weaves t cal whol whole p through to go in

ideas, contact with the outer world, Mexico" or the "Rise of the Dutch development, wealth. A town should Republic." It will easily be seen that strive to render itself attractive not such work would furnish invaluable only to the capitalist and the pleasure- training for one who is fitting him- seeker, but to the student as well. self to become a teacher of history or To the latter a knowledge of its for the work of historical investigation history will always be one of its on a larger scale.

Here would seem to be a fruitful field for the readers of *THE CADET*. There are numberless historic tales thus far unrecorded and only awaiting a narrator. The attack on Hampden by the British man-of-war, the battle of Norwood's Cove, the semi-ludicrous incidents of the so-called Aroostook War, the early settlement of the French on Mt. Desert, and so on, would not only render the columns of the college journal attractive, but would be of great value in cultivating the spirit of historical inquiry and the art of historical narration.

3. The study of local history furnishes the materials out of which are woven the more elaborate histories of state or nation. All history is more or less unified. The story of the most insignificant village is connected with that of the whole country, and the local historian is, in a measure, writing the history of his country. He who writes the story of the little country town is doing no unimportant work—a work which a Bancroft or a Parkman would not despise.

4. For the college student the study of local history is of peculiar value inasmuch as it introduces him at once to the methods of original investigation. He collects materials, arranges them, sifts out the unimportant matter, weighs the evidence, weaves the scattered facts into a logical whole—in short, goes through the whole process on a small scale, through which Prescott or Motley had to go in producing the "Conquest of local history.





## HELMHOLTZ.

SCIENCE has met with a loss that, while considering the master minds that have come up and been used in her service, it may not be best to say is irreparable, it is a gap that cannot be filled easily, a loss that will not soon be made good. She has lost Helmholtz.

Hermann Ludwig Ferdinand Helmholtz, the acknowledged head of the scientific guild, was born August 31, 1821, in Potsdam, the Prussian Versailles, that town of palaces, but famous above all as the birthplace of the two, Humboldt and Helmholtz. His father, a teacher in the gymnasium there, was a man with a large store of knowledge and a small store of worldly goods. His mother's maiden name was Caroline Penn, who came from a branch of the English family of that name settled in Germany.

Hermann from his earliest childhood had a strong passion for science, and the Latin and Greek taught at the gymnasium was but little to his taste, but with that perseverance so characteristic of him, he took the full course there, which he completed before his seventeenth year. But now, owing to the smallness of his father's purse, the career of our young scientist seemed fated to be checked as no road to a scientific training seemed within the family means, except that through the study of medicine. He accordingly went to Berlin and entered the Frederick William Institute, known as the *Pépinière*, a military school of medicine, from which he took his degree of M. D. in 1842.

His inaugural dissertation evinced such uncommon ability that he was at once ordered to report as assistant surgeon at one of the hospitals of Berlin from which he was promoted in a few months to the rank of physician of a regiment of hussars stationed at his old home, Potsdam. The scholarship shown by some of his treatises published about this time, opened the best medical magazines to him, and he was honored with an invitation to become a contributor to the "Berlin Encyclopaedic Lexicon of Medical Sciences."

July 23, 1847 was the date on which he gave to the world his great paper, "The Conservation of Force."

He was called in 1849 to the chair of Physiology at the University of Königsberg, which he filled with distinction for six years. Up to about this time (1850-51) it was generally believed that the time necessary to receive sensations, etc., could not be measured. Helmholtz, however, demonstrated by a series of ingenious processes of measurement that the duration of any action, however swift, could be measured; as for instance, the time taken by a sensation to pass from one end of a nerve to the other.

He next turned his attention to optics, devising, among other things, the ophthalmoscope, an instrument which has proved such a blessing to thousands. His triumphs in the field of spectro-analysis were no less marked.

In 1855 he was called to the chair of Anatomy and Physiology at Bonn, and in 1858 he accepted the chair of Physiology at the University of Hei-

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delberg, where he remained for twelve departments of science. He was a years. man remarkable in many ways; of

In 1862 appeared his great work, high scholarship, with a keen, analytical mind, active and tireless in the "Doctrine of the Sensations of Sound, as a Physiological Basis for the Theory of Music," which will be a landmark as long as science is. ment, free from professional vanity, firm in his convictions, but generous to his opponents, and helpful to those less great than he, yet perhaps his most prominent characteristic was that he patterned after no man, but was independent and original in thought and stood on his own foundation of truth.

He was appointed in 1871 Professor of Physics at the University of Berlin. In 1891 he was made president of the Physikalisch-Technische Reichsanstalt, an institution for the furthering of exact natural inquiry.

To attempt to give any extended list of the works of this remarkably prolific man would prove tiresome; it is enough to say that he scattered the rich gifts of his mind over a large and wonderfully varied number of the

—Frank Damon.



#### Y. M. C. A. RECEPTION.

THE annual reception to the Vice-President Tolman with a large members of the Freshman class, buck-board at his disposal brought given by the Y. M. C. A., occurred in charming additions in the persons of the Association rooms in Wingate the ladies of the Faculty, the ladies Hall, on Tuesday evening, September of the Library School, etc.

18, and was pronounced by those Owing to the absence of President present a very enjoyable affair. Damon of the Association, Chairman Chairman Buck of the Lecture Committee and his corps of assistants Buck in a very cordial and hearty manner welcomed the students to the proved themselves artists in the college, to the reception and to the matter of decoration, and the room Association. He was responded to did full justice to their efforts. in a happy manner by Mr. Burnell

The appearance of the room was for the gentlemen and by Miss changed greatly by the combination Virginia May Ring for the ladies. of rich floor rugs, potted foliage and The refreshments were served in flowering plants, palms, also divans Prof. Stevens' lecture room.

and sofas kindly loaned from the Among the ladies present were parlors of the B. O. H. House. Mrs. Harris, Mrs. Jordan, Mrs. Hersey, Mrs. Hamlin, Mrs. Stevens, Nearly all of the gentlemen of the class accepted the invitations and Miss Fernald.



## THE PROGRESS OF SCIENCE.

*"The work of Science is to substitute facts for appearances and demonstrations for impressions."*  
—RUSKIN.

THE summer vacation has not the simplest laws of Physics who been prolific in scientific inventions. Accordingly I venture to discuss in this number, a subject which, if related to science at all, must be classed with those scientific teachings, concerning which St. Paul says, they are "falsely so called." If there is any one thing that tends more than another to hinder the spread of scientific modes of thinking among the people, it is the prevalence of pseudo-scientific investigations into the realm of the mysterious or the supernatural. We have our Theosophical societies, whose leading members fly through the air at will from America to the South Sea Islands; we have christian science, which is neither scientific nor christian; we have spiritualists and spiritists, magnetic healers and mind readers, not to speak of holy coats, saints' bones and sanctified hair.

Of a noted woman, whose name I have forgotten, it was said that she believed anything that was not in the Bible. So with these isms, fads and fakes, there are people who will believe them if only they are unscientific.

Just now a popular fad is the study of the relation between the mind and the body. An eminently proper subject, to be sure, but there are many persons suprisingly unacquainted with

pose as authorities in Mental Physiology. In investigations of this character, where none but the most vigorous logical processes should be employed, we often find just the reverse to be the case. For example, someone within the last hundred years happened to be looking intently at a fellow worshiper in church, when said fellow worshiper turned around and looked at the looker. Amazing as it may seem, this happened twice in succession; that was enough to establish a theory and now you hear the statement made that this operation never fails. A moment's thought will show the utter absurdity of such a notion. In the first place it is extremely unusual for one to sit for five minutes without turning the head through a greater or less angle. The range of vision is nearly  $180^{\circ}$ , and therefore a slight turn would include anyone who did not sit exactly behind him. To find a pair of eyes fastened on one is enough to cause the head to be turned still further to see why one is being stared at. Try the following experiment: Fix your gaze for five minutes upon someone *directly in front of you*. Note the number of times the observed person turns around; withdraw your gaze for five minutes and note as before. Continue this for one hour, and it will be found that

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the person on whom you are experimenting turns around as often when unobserved as otherwise.

Very closely allied to this are the will-power tricks that are tried on winter evenings by people scientifically (?) inclined. Some one stands in the center of a room, the others place their hands in a circle around his body; then they will him to go across the room, and he goes—of course. Tell them that they push him across, and the statement is repudiated with scorn. Dr. Carpenter says, that people who on ordinary matters are perfectly trustworthy, become just the reverse in cases like this. The reason is, that they *cannot* wish earnestly for a thing to come to pass, without the muscles operating in involuntary obedience to the mind. When one has stood in a constrained position for a long time, it requires only the very slightest physical influence to start him traveling in the desired direction; then another step is taken, and another until the object is gained. That this is clearly unscientific may be shown as follows: If it is a purely mental experiment, there is no necessity for contact to be made with the body. But any attempt at influencing another without such contact is sure to be unsuccessful. Time would fail me to write of table turning, exploring for water with a hazel fork, and the thousand and one tricks that furnish amusement by their cleverness. It may be stated with the authority of an axiom, that mind and matter each has its separate sphere. To influence matter, requires a definite physical force which can be measured by some one of the laws of Physics. The investigations of every association for psychical research that has ever been founded, have not produced one single fact which may not be explained by the natural philosopher. It is of the utmost importance that all young people should have a clear understanding on subjects of this nature, as nothing so unfits one for true scientific work as a lack of appreciation of the stability and universality of natural law.

*J. S. Stevens.*

#### SKETCH OF THE HISTORY OF MATHEMATICS.

SIR ISAAC NEWTON.



IN following the history of mathematics from ancient to modern times, we find it necessary to devote the whole of one paper to the life and works of a man who stands out among modern mathematicians as one of Gulliver's giants would among the Liliputians. The mathematicians who preceded him were capable of propounding many difficult, though useful problems and processes, but it remained for the extraordinary ability of Newton to develop these processes and make them useful to the ordinary student. Investigate any branch of modern mathematics and almost invariably we shall find evidence that it either came from him or was revolutionized by him. Newton did not establish any new methods in pure geometry, but he solved many problems which had hitherto baffled all attempts at solution, and no modern mathematician has shown such power in using the methods enunciated by the ancients. In algebra he established the binomial

theorem and a large part of the theory of equations. One of the rules which he evolved in subject baffled all succeeding mathematicians until a very few years ago. Newton never used trigonometry in his analysis and, as far as we know, did not publish any work on that subject. He introduced the modern classification of algebraical and transcendental curves into analytical geometry and established many of the fundamental properties of asymptotes, multiple points and isolated loops.

One of Newton's greatest inventions was that of fluxional or infinitesimal calculus. The work in this was done about the year 1666, but no account of the method was published until 1693, though it was circulated in manuscript among his friends in 1670. He deduced the theory of statics from dynamics and placed both on a firm basis. He also created the theory of hydrodynamics and added considerably to the theory of hydrostatics which was first discussed by Pascal.

The law of universal gravitation, the application of the principles of nuclei to the solar system, physical astronomy, and the theory of attractions were all the products of Newton's versatile mind and were first published in his *Principia*.

Newton was born in Lincolnshire, near Grantham, Dec. 25, 1642, and died at Kensington, London, March 20, 1727. He was sent to school at Grantham and at first was very lazy, but a fight in which he was victorious caused him to determine that he would also be successful in learning. He became head of the school and was well known for his learning and mechanical proficiency. When he returned home he tried to learn to be a farmer, but most of his time was spent in solving problems, making experiments, and devising mechanical models. All this was noticed by his mother and she resolved to send him back to school,

that he might be fitted for a more congenial occupation. His uncle advised him to go to Cambridge. He accordingly entered Trinity to prepare for Cambridge. After entering Cambridge he devoted the larger part of his time to reading and studying mathematics. Newton was especially interested in the work of Euclid and he often afterward expressed his regret that he had not applied himself to geometry instead of algebraic analysis.

The first documentary proof of his discovery of fluxions is found in a manuscript dated May 28, 1665. Probably the idea of calculus was first thought over in that year. Newton lived at home for a year and a half about this time, and while there worked out more completely his idea of calculus. He also was working on the foundation of his theory of gravitation. His course of reasoning in the latter subject and the results of it have been so important to the study of physics that there is hardly a high-school graduate in the world who is not familiar with the name of Newton. Almost every one of them has been fascinated with the story of Newton and the apple.

On his return to Cambridge in 1667 he got a fellowship and took his M. A. degree in 1668. He was elected Lucasian professor in 1669 and the preparation of his lectures occupied the most of his time until the beginning of 1670. Newton was very averse to having his name attached to the published results of his work. He says: "So be it without my name to it; for I see not what there is desirable in public attention and esteem were I able to acquire and maintain it. It would perhaps increase my acquaintance, the thing which I chiefly study to decline."

When Newton took the Lucasian chair at Cambridge he chose optics for the subject of his lectures and researches,

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and before the end of a year he had worked out the details of his discovery of the decomposition of a ray of white light into rays of different colors. In 1671 he prepared an edition of his lectures on optics but it was not printed until 1729, after his death. In 1672-1675 most of his leisure time was spent in defending his theories. Of this he says: "I was so persecuted with discussions arising out of my theory of light that I blamed my own imprudence for parting with so substantial a blessing as my quiet to run after a *shadow*."

Newton spent considerable time in 1675 on two papers whose object was to establish the emission or corpuscular theory of light. This theory held good until the theory of interference, worked out by Young, made the wave theory more feasible than Newton's. Newton himself, in a later work, elaborated the fundamental principles of the wave theory, though he did not believe it to be the true explanation of the phenomena of light.

In 1769 Newton was led by a letter from Hooke to attempt the solution of the form of the curve which a body would describe when projected from a point and acted upon by a central attraction varying inversely as the square of the distance. He established a method of determining the law of a central force in order that any given orbit might be described under its action. He applied this to the ellipse and proved that if this curve were described by a particle under the action of a force directed to the focus then this force must vary inversely as the square of the distance from the focus. After this, Newton did not work much on mathematics for nearly five years but devoted his time to chemistry and geology, and perhaps to some experiments in electricity and magnetism. In 1684, Newton was visited by Halley and his attention was again drawn to the motion of the

moon. Several of the mathematicians of the time had worked on the theorem of attraction varying as the square of the distance, and had not been able to deduce from the law the orbits of the planets. The object of Halley's visit was to ask Newton to solve the problem. As Newton had already done this, he wrote out his old demonstration afresh and sent it to them in November, 1684; this was published in December of the same year under the title of *De Motu*.

In 1685, Newton solved the first problem on the details of the planetary motion, the members of the solar system being regarded as points. Newton had no expectation that his result would be so important as it was until it emerged from his mathematical investigation, and he was astonished to see all the mechanism of the universe spread before him at once. He found that the results which he had thought only approximately true to be really exact. It was now in his power to solve with absolute precision the actual problems of astronomy and in a little more than a year he completed the whole of that wonderful work—*The Principia*.

A great deal of his later years were spent in elaborating his work already begun and in solving difficult problems which had long baffled mathematicians. In 1692, Newton had a long illness and he never regained his former elasticity of mind.

In 1695 he was appointed warden and in 1699 was promoted to the mastership of the mint at a salary of £1500 per year. This brought his scientific investigations to an end. He held his office until his death in 1727. Newton was made president of the Royal Society in 1703.

In intellect Newton has never been surpassed and probably never equalled. Of this his extant works are the only proper test. He died March 20, 1727, and was buried with great state in Westminster Abbey.



## MATHEMATICAL NOTES.

In our June number we published some problems for solution and solicited solutions from our subscribers or anyone who might happen to notice them. No solutions have been received and we shall publish something less difficult this month hoping that we shall receive solutions and that the department may be kept up, for it may be made one of the most interesting in THE CADET. Solutions should be sent to the mathematical department of CADET, Orono, Me.

1. Find the locus of the center of a circle which touches a given circle and also a given straight line.

$$2. \quad x^{\frac{1}{2}} + y^{\frac{1}{2}} = 4 \quad (x - y)^{\frac{1}{2}} = 16$$

Find values of  $x$  and  $y$ .

This department of THE CADET will be only too glad to receive from its readers problems of any kind, or troublesome questions, solutions of which will be published. We should like to have opened the discussion of any engineering questions, civil or other.

Matter should be forwarded to this office not later than the 10th of the month preceding the month of publication.

## "OUR EXHIBIT."

It is not without a considerable degree of satisfaction that we present as "our exhibit" the following list of names of the incoming class, or '98.

We are quite sure that in point of numbers they will compare well with those of our sister colleges and when it comes to good looks and all the other desirable qualities, they are, in the words of the poet "out of sight."

Henry Gilbert Adams.....Cumberland  
Ralph Lidney Anderson.....Yarmouth  
Lester Franklin Bartlett.....Hampden  
Franz Hodson Blanchard.....Dexter  
Fred Wesley Bailey.....Belfast  
Fred E Burns.....Westbrook  
Wilson Darling Barron.....Dexter  
Leo L. J. Brann.....Gardner  
Edwin S. Bryant.....Portland  
Albro L. Burnell.....Woodfords  
Frederick Robinson Clark.....Yarmouth  
Edward Coney.....Bangor  
Charles Parker Crowell, Jr.....Orono  
Edward Harmon Davis.....Auburn  
Harry Earl Day.....Gorham  
John Washington Dearborn.....Bradford  
William Edwin Decelle.....Portland  
Humphrey Elmore Despeaux.....Brunswick  
Samuel C. Dillingham.....Portland  
Walter Dolley.....Gorham  
Leroy E. Dow.....Portland  
Augustus B. Drummond.....Bangor  
Rosell Olive Dunn.....Orono  
William E. Dyer.....Calais  
Willard C. Eaton.....Athens  
Walter L. Ellis.....Waterville  
Fred A. Emerson.....Winthrop, Mass.  
William Rolfe Files.....West Gorham  
Grace Lillian Fernandez.....Sangerville  
George Sherman Frost.....Bridgewater, Ct.  
Bernard A. Gibbs.....Glenburn  
Geneva Ring Hamilton.....Orono  
Ralph Hamlin.....Orono  
William Wallace Haney.....Eastport  
Walter Herald.....Calais

Harry A. Higgins.....Deering  
Fred W. Hopkins.....Hampden  
Hallie Lewis Jose.....Dexter  
Bertrand R. Johnson.....Deering  
Cecil Chestnut Johnson.....Fort Fairfield  
George Warren Lawrence.....South Gardiner  
Percival Farnham Lawrence.....Bangor  
Herbert Oscar Libbey.....Lebanon  
Albion Dana Topliff Libby.....North Scarborough  
Herbert Ivory Libby.....Biddeford  
Harry Matthew Lincoln.....Bangor  
Ray Herbert Manson.....Farmingdale  
Homer Elbridge Marks.....Woodfords  
Horace Wilkins Maynard.....Fair Haven, Vt.  
Dana T. Merrill.....East Auburn  
Elmer Drew Merrill.....East Auburn  
Harrison Pratt Merrill.....Turner Centre  
Walter Jean Morrill.....Madison  
W. Douglass Moulton.....Wales  
Edwin Ernest Nowlan.....Havelock, N. S.  
Charles Abram Pearce.....Fort Fairfield  
Ethel Ada Perkins.....Orono  
Ralph Hubbard Rockwood.....Waterville  
—Reid.....Washington, D. C.  
Virginia May Ring.....Orono  
Lene Edwin Ryther.....Bondsville, Mass.  
Albert Clifford Small.....Lisbon Centre  
George Albert Smith.....Auburn  
Haller D. Seavey.....Bangor  
C. J. Sawyer.....Bangor  
Irving Cooper Swett.....Bangor  
Alfred Andrew Starbird.....South Paris  
William Cobb Smith.....Gray  
Edwin Albert Sturgis.....Lewiston  
Roderic Desmond Tarr.....Biddeford  
John F. Thomas.....Brownville  
Fred M. Tolman.....Carroll  
Wilfred Reuben Tolman.....Augusta  
Fred Crandall Tucker.....Lubec  
Rena Pearl Vinall.....Orono  
Robert P. Vinall.....Orono  
Albert Frank Warner.....Ansonia, Conn.  
Lee Merton Watson.....Boston, Mass.  
Mortimer Asa Webb.....Ivoryton, Conn.  
Warner Edwin Welch.....Orono  
Charles Staples Webster.....Portland  
Albert Lawrence Whipple.....Solon  
Horace Loring White.....Portland  
Geo. Arthur Whittemore.....Farmington, Mass.  
Charles Ernest Woolcott.....Orono  
Jabaz York.....Bangor

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## THE CADET.

### EDITORIAL STAFF.

FRANK DAMON, '95.

ALBION MOULTON, '95. E. E. GIBBS, '96.  
L. R. FOLSOM, '95. P. D. SARGENT, '96.  
W. W. CHASE, '95. H. A. WHITE, '97.

### BUSINESS STAFF.

I. G. CALDERWOOD, '95. S. J. STEWARD, '96.

WE presume the issue this month will show that incompleteness which is apt to be characteristic of the first issue of the term, because of somewhat hasty preparation, lack of time, etc., and in this case we have unfortunately been deprived of the counsel and advice of a part of the staff, who have been unavoidably absent. We crave the forbearance of our readers and can promise them that our next issue will not lack in effort put forth, at least.

\* \*

WE congratulate ourselves in having persuaded Lieut. Hersey to favor us as he has; and it will be noticed that our Mr. Chase has wielded his pencil with the usual happy result. We invite attention to the suggestions made in the article on the study of local history. It seems to us that here is a profitable field in which we as students can work.

\* \*

OF course the principal topic of discussion on the campus is the new class. The class itself is not exactly the subject discussed, for that is a self-evident truth and a pretty solid one, too; but rather, what is the meaning of such an inflow—in thinking of Oak Hall we had almost

said overflow. In trying that old experiment to get at the "ultimate cause," we have heard all manner of opinions given, from the Farmer's Field Days to the Military Drill (this will cause some wry faces), and got no nearer the truth.

\* \*

It is very satisfactory to the friends of the college, however, to feel that its merits and advantages are more and more appreciated and that the years of solid, steady growth of the formative stage are likely to be followed by the same growth in its developing and broadening stage, at the commencement of which we now appear to be. And it does not seem a top ambitious idea for us to entertain, that in due time the college will fill a place in the educational world limited only by her geographical position and those circumstances that make men, towns and schools great or small.

\* \*

At a certain banquet some time since, one of the toasts was "Our Co-educational Department," which was at that time a little piece of mild satire and doubtless was responded to in a humorous manner. But now, with our six young lady students, it is by no means a satire but rather a very pleasant fact. Laying aside the discussion of the *pros* and *cons* of co-education, which does not seem to amount to much any way, we deem ourselves six times fortunate in having so charming and wholesome an addition to our numbers.





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THE scheme of having the text-books handled by the college is a mild form of socialism that does away with private *monopoly* and has many admirable features. The large profits that have been paid in the past on books, while very helpful financially to the students handling them, have been a very considerable item in the expenses of those of us who are blessed with more beauty than cash.

\* \* \*

A RECENT visit to the field when the practice foot ball was being played, discovered a very pleasing sight of broad shouldered, full chested young men, arrayed in well used suits, who seemed to know just what to do with the ball and who were decidedly quick about it, too. Foot ball is something that requires time for its development, as we have already learned, but with good hard work and '98 to help, we shall be likely to have use for tin horns in the future, if all signs prove true.

\* \* \*

THAT romantic idea of exchanging signals with the planet Mars has lately received something of an impetus from the announcement of the appearance of a luminous spot on the planet which can not be explained by reference to an outer source; that is to say, it must have originated in the planet itself. We know that Mars is most like the earth of all the planets and has its land and seas with tides, winds and storms, ice-covered poles, etc., and by analogy it may have inhabitants of intelligence. One fact that is of interest is that the position of the planet with reference to us was the most favorable for signals to be seen, as Mars was a morning star and its opposition was far distant. Just as soon as Prof. Hart gets back and we have our astronomical observatory fully equipped, we shall have to investigate the matter and perhaps settle the question.

THE expletives used about the new

"Single star, double star.

Goodness knows where we are"

system of recitation are varied and very expressive, at least, of the ideas of the students at the necessity of using so much mathematics to tell what recitations come each day. But a little reflection will show that naturally there is some reason for this scheme, cumbersome as it is. The absence of Prof. Hart necessitates, of course, a somewhat different arrangement of the mathematics. This and other circumstances has brought this system into being here.

\* \* \*

THE somewhat surprising fact has been impressed upon us lately, viz: that we need new dormitory accommodations. Not only do we need them, but we *must* have them. Heretofore the cry has been "Give us more students," while now it is "Give us more room" (and incidentally, more students, too). This may seem a little greedy, but it is the cry of a good, healthy appetite, which bids fair to grow stronger if there is an available supply of that college muscle forming food—good, hard cash.

\* \* \*

IF our new men are not already tired of advice and exhortation, the *Easy Chair* would like to say a word or two about the course to be pursued toward the college magazine. The college paper, theoretically at least, is a representative of the best undergraduate sentiment. That this representative may be a creditable one and go to the ninety-six colleges with which we exchange, in a form befitting its constituents, it is necessary that every student should give it support. To bring about this end: All students should support their college paper. You are a student, hence: You should support\* your college paper—THE CADET.

\* For terms see inside front cover.

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## LOCAL NOTES.

*"Master, Master! News, old news, and such news as you never heard of."*  
—*The Taming of the Shrew*,—Act III, Sc. 2.

Many of our sleepy students miss the 6.40 A.M. bell.

The Sunday chapel service has been discontinued.

"Steady" is with us no more. "Nimrod" succeeds him.

The new course in Electrical Engineering seems to be quite a drawing card.

Chase, '95, assists Mr. Colby in the instruction of the Freshmen in free-hand drawing.

Prof. Hamlin has recently been on a business trip to the Moosehead Lake region.

The Freshmen are talking of organizing a glee club. There is lots of musical talent in '98.

Who would ever have predicted that Maine State would have such a co-educational boom?

Several new rifles have been procured from Augusta and Bangor to supply the deficiency.

Chairman Buck of the Y. M. C. A., plans to have some new singing books in the near future.

Dr. Russell has received an appointment as Government Veterinary Inspector at Vanceboro.

The Treasurer's office has been removed from Wingate Hall to the lower floor of Coburn Hall.

We miss Lee of '96, who is who is employed in railroad work on the Quebec & Wiscasset road.

The Freshman class in Solid Geometry recites in two divisions, under the instruction of George P. Cowan, '94.

Among the improvements in the college buildings is the placing of a new bath room in the Beta Theta Pi house.

The Junior class in Differential Calculus and the Sophomore class in Analytic Geometry recite to President Harris.

Folsom, '95, will be back the first of November. It is somewhat late for "blossoms," but then "better late than never."

Mr. Fred P. Briggs, late Assistant in Natural History, conducted the chapel services on Monday morning, October first.

Owing to the absence of Prof. Hart from college during the year, the Seniors are excused from taking up Practical Astronomy.

The Junior civils are at work running out a railroad under the instruction of Mr. Grover. Its length is about a mile and a quarter.

The work on the residence of Prof. Estabrooke on Main street, is progressing rapidly. From appearances now it will be a charming and cosy home.

Three buckboard loads of students besides Uncle Ben with the ball team attended the Penobscot County Fair at Old Town on the afternoon of September 13th.



If any stranger coming on to the campus is in doubt as to whom he may be addressing, the chances are that it is a Freshman, as they are decidedly in the majority.

The sale of text books is now carried on by the college and students obtain them at the library at greatly reduced prices from those which they formerly had to pay.

"Haggerty's Freight" is now running on a new schedule, not stopping on any of its trips at Oak Hall, as the dangers of a washout are too numerous to warrant the slowing up.

The class of '95 has met and elected officers for their Senior year as follows: President, Earl C. Merrill; Vice President, Oscar L. Grover; Secretary and Treasurer, James W. Martin.

The band has received some excellent instruction from Chas. R. Eaton of Winterport, Maine, formerly of the 6th Regiment Band, U. S. Army. He will also accompany them to Portland on the encampment.

Wm. O. Sawtelle and Percy F. Lawrence of Bangor, M. I. T. '97, spent the first two weeks of the term in the chemical laboratory, taking special work in quantitative analysis, under the instruction of Prof. Aubert.

Lieut. Hersey made a trip to Augusta before encampment, and procured mattresses for the use in camp, also some red blankets like those that are used by the militia, to be rolled and slung on the shoulder on the march.

At the last session of the Electrical Society the following officers were elected: Prof. Chapin, President; Fernald, '96, Vice President; Martin, '95, Secretary and Treasurer; Morse, Randlette and Atwood, Executive Committee.

Bass, '97, who did such great work for Maine State in the box last spring, pitched great ball for the Camdens during the summer. DeHaseth, '95, also put up a superb game for the Rocklands, where he covered the initial bag in his usual free and easy manner.

Prof. Harvey accepted the invitation of the Gypsy Moth Commission of Massachusetts, and spent some time during vacation aiding them in their work. He also made a report of the work done and methods employed. The Professor also spent some time in the vicinity of Fryeburg, Me., carrying on observations relating to injurious insects.

Never in the history of the college has Maine State had such an entering class. The cross corridors in Oak Hall have been made into sleeping rooms; more students are boarding in town than ever before; "Spearing's Inn" and other resorts to the north are overflowing. The question is, where will the class of '99 be accommodated if they equal the present Freshman class in numbers?

The first session of the Shakespeare Club held at the residence of Prof. Rogers was a most auspicious inaugural. The work outlined for that evening was upon the Merchant of Venice, and as a prelude Prof. Rogers gave a charming description of that beautiful city, illustrated by stereopticon views, after which the work proper was undertaken, and it is needless to say was very interesting. The next session will be held on the evening of October 16.

One of the new conveniences that has recently been inaugurated at the college is the establishing of a telephone line from the college to Bangor. The telephone is placed in the exper

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ment station and is more than proving its usefulness. A private line has also been put up and will soon connect the residences of Prof. Hamlin, Prof. Flint, President Harris' office, experiment station, boarding house, Coburn Hall, Wingate Hall, railroad station at Orono and one of the town stores.

Among the many funny incidents that have occurred relative to the "celestial" system of designating days, is the one told of one of our genial professors, who seems to be as much perplexed as any of the students in trying to tell whether he is living on a one star or a two star day. His class not reporting on the day when there should have been a recitation, he at the next recitation was trying to ascertain the reason of their absence, when one student ventured to suggest as the reason, that the day in question was a "two star" day. "I want you to distinctly understand," shouted the Professor, "that geology comes Mondays, Wednesdays, and Fridays, star or no star."

At a meeting of the Athletic Association, held the first of the term, it was voted to assess the members enough to lay out work on the athletic field to the extent of one hundred dollars, in the hope that the field might be used for foot ball this fall. This money has been expended in leveling and grading the central part of the field, as the work of drainage is already finished. The college ought not to expect the students to make assessments of this nature very often, as the task of ridding the association of the debt contracted by base ball, foot ball and tennis teams is sufficient burden for them to look after.

The young people of the First Congregational church of Orono held a

reception in the vestry of their church Friday evening, Sept. 14th, in honor of the members of the Freshman class of the Maine State College. The vestry had been decorated in artistic style by the young ladies of the parish, so that when the light was turned on at eight o'clock, the hour fixed upon, it presented a most beautiful appearance. Soon after the light was turned on, the vestry was well filled by not only the young people, but many of the older ones of the parish and the members of the class. The pastor, Rev. P. J. Robinson, and wife and Oscar Grover, president of C. E. Society, received, and Nathan Goodridge, vice-president of the C. E. Society, introduced. Miss Blanche Mansfield and Mr. H. P. Gould acted as escorts. Immediately after introductions, the young men were escorted to tables, presided over by Annie Wilson, Berney Mansfield, and Hattie and Grace Colburn, who presented each with a beautiful souvenir bouquet, and then they were escorted to a booth in the southwest corner of the vestry and served to cake and ice-cream. After refreshments, all the members of the class mingled freely with the general crowd, remaining until nearly ten o'clock, when they left for the college campus, having had one of the most enjoyable evenings of their lives.

Poor Freshmen! They were not acquainted with the ways of College life and so lost the coveted peanuts for which they fought and which they so fairly won. For the benefit of our readers who are not familiar with the story of how '98's peanuts were won and lost the following day, a few words will suffice for an explanation. As has been the custom at Maine State for many years, the first game of



ball between the Sophomores and the Freshmen is for the prize of a bushel of peanuts provided by the loser, the winner taking all. This year's phenomenally large class of Freshmen being so confident that they would win the game, posted a challenge making the prize two bushels instead of one. The result of the game is known, the Sophomores being badly beaten. Everything would have been serene had not some of the upper classmen seen the genial manager of the Sophomore team, "Bill Nye," about 9 P. M., when he delivered the peanuts to Manager Webster, '98, in the latter's room on the floor of Oak Hall. The news spread with alarming alacrity that the peanuts were in the vicinity and when the Freshman manager left the room a moment to summon his hungry classmates to the feast, the peanuts took to themselves wings and flew out of the window to the ground below, where they were *palmed* and hid in the *bryer-wood*. In his eagerness to catch the purloiners, one Freshman chased a fake runner a quarter of a mile only to find that he had a pillow under his arm—a pillow instead of the fruit! While the Freshmen were searching every nook and corner of the campus, said peanuts were being devoured by eager mouths, which had no right to them except possession, which in this case was everything. The Freshmen are now consoling themselves by thinking of the vast amount of experience that they have gained.

The initiation of the Q. T. V., Alpha Tau Omega and the Kappa Sigma Fraternities, occurred on Friday evening, September 21, while the Beta Theta Pi Fraternity had initiation ceremonies on Friday evening,

September 28. The following are the initiates:

## Q. T. V.

|                   |               |
|-------------------|---------------|
| H. E. Day,        | Gorham        |
| Herbert I. Libby, | Biddeford     |
| Roderic D. Tarr,  | Biddeford     |
| Warner E. Welch,  | Orono         |
| Arthur H. Taylor, | Machias       |
| R. P. Stevens,    | Brooklin, Me. |

## BETA THETA PI.

|                       |          |
|-----------------------|----------|
| Homer E. Marks,       | Deering  |
| Albro L. Burnell,     | Deering  |
| Bertrand R. Johnson,  | Deering  |
| Louis J. Brann,       | Gardiner |
| Chas. S. Webster,     | Portland |
| Samuel C. Dillingham, | Portland |
| Ralph H. Hamlin,      | Orono    |

## KAPPA SIGMA.

|                      |          |
|----------------------|----------|
| Horace L. White,     | Portland |
| Wilson D. Barron,    | Dexter   |
| Lester F. Bartlette, | Hampden  |
| Fred M. Tolman,      | Carroll  |
| Lee M. Watson,       | Gardiner |

## ALPHA TAU OMEGA.

|                    |                |
|--------------------|----------------|
| Walter L. Ellis,   | Waterville     |
| Haller D. Seavey,  | Bangor         |
| Irving C. Swett,   | Bangor         |
| Cecil C. Johnson,  | Fort Fairfield |
| Chas. A. Pearce,   | Fort Fairfield |
| Albert L. Whipple, | Solon          |
| Walter Herald,     | Calais         |

The annual encampment of the Cadets will be held this year at Portland during the week beginning October 5 and ending October 12. An invitation was also received to hold the encampment at Foxcroft, but the invitation from Portland was accepted and the city authorities of that place have offered the use of the Eastern Promenade as a camping ground. The trip is to be made by rail all the way, the Cadets taking the early train which leaves Orono at 5.33 A. M. Reveille will be sounded at 4 A. M. after which a lunch will be served. The call for assembly will be sounded at 5.45 A. M. Breakfast will be had at Bangor and the regular train taken for Portland, arriving there about noon. Owing to the large number of students, the battalion is now formed of three



companies instead of two which has necessitated many new military appointments. We will not attempt to give the order and time of the new appointments, but the following is the roster of the officers of the Cadets at the time of their departure for Portland :

**FIELD AND STAFF.**

*Major, HAROLD S. BOARDMAN.*

*First Lieut. and Adjt., EARL C. MERRILL.*

*1st Lt. and Q. M. WENDELL W. CHASE.*

*1st Lt. and Chief Sig. Officer, FRANK DAMON.*

**NON-COMMISSIONED STAFF.**

*Sergt. Major, FRANK L. MARSTON.*

*Quartermaster Sgt., CHARLES P. WESTON.*

**CO. A.**

*Capt., Albion Moulton,*

*1st Lt., Oscar L. Grover,*

*2nd Lt., Chas. D. Thomas,*

*1st Sgt., Joseph W. Randlette.*

*Sergeants—Harry C. Farrell, Everett Glidden,*

*Fred A. Hobbs, Frank P. Pride.*

*Corporals—Arthur J. Dalot, Chas. S. Bryer,*

*Edward A. Merrill, George G. Leavette.*

**CO. B.**

*Capt. Melville F. Rollins,*

*1st. Lieut., Chas. A. Frost,*

*2nd Lieut., Ora W. Knight,*

*1st Sergt., E. Everett Gibbs.*

*Sergeants—Beecher D. Whitcomb, Gardiner*

*B. Wilkins, Gilbert M. Tolman.*

*Corporals—Tyler H. Bird, William T. Bras-*

*tow, Harry A. White, Stanley J. Heath.*

**CO. C.**

*Capt., Isaac G. Calderwood,*

*1st Lieut., Walter M. Murphy,*

*2nd Lieut., Halbert G. Robinson,*

*1st Sergeant, Perley B. Palmer.*

*Sergeants—Paul D. Sargent, George W.*

*Jeffery, Hermann S. Martin, John A. Starr.*

*Corporals—Stephen S. Bunker, Ernest H.*

*Macloon, William L. Holyoke, Chas. H. Farnham,*

*Justin R. Clary, Allen Rogers.*

**BAND.**

*1st Lieut., Alfred H. Buck,*

*2d Lieut., Merton E. Ellis,*

*1st Sergeant, Frank E. Weymouth.*

*Corporals—Stanwood H. Cosmey, Andrew J.*

*Patten.*

**SIGNAL CORPS.**

*1st Lieut., Clifford J. Pattee.*

*1st Sergeant, Roy Lynde Fernald.*

**COLOR GUARD.**

*Color Sergeant, Perley Walker,*

*Cadet, G. Andries De Haseth,*

*Cadet, Gilbert G. Atwood.*



## ❀ ALUMNI NOTES ❀

THE following letter, taken from the *Rockland Daily Star* of Sept. 18, was written by Murry, '94, who was on his way to Leland Stanford, where he is to take a post-graduate course in chemistry:

DULUTH, Sept. 2, 1894.

I left Duluth at 1 p. m. yesterday for Minneapolis. The sky was overcast with smoke of the great forest fires. Soon it became a deep yellow, then orange, and after turning blood-red the smoke became so thick that it was like night. We passed little fires now and then, and when we got to Hinckley everything had cleared up. Here the wind was blowing a gale and it was found that the fire was rapidly nearing the town.

I never saw a forest fire before, and never want to again. The flames came on at a terrific pace in an unbroken red wall, jumping a hundred yards at a time.

The people began to run for the train, carrying whatever they could pick up in their hurry.

Hinckley stands in a little clearing; that is, the station and a few of the houses. The train was heading west, and to the south the flames swept east like a cyclone, thus cutting us off from returning. To the north of the train the flames were a little slower in passing. Nearly all the people were relying on taking the St. Paul Limited and thus get away from that station, but that train met a horrible fate, and so the people had to run for their lives across the burning town to the eastern train.

It was horrible! The heat was intense. All the windows were down, but the glass was so hot that one couldn't touch it, and it radiated heat so that I leaned toward the aisle to avoid it. Those who relied on the eastern, which was my train, soon rushed aboard and closed the doors. They were frantic, and some almost crazed because the conductor would not pull out. But he knew there were hundreds of people at the other station, whose only hope was to get across the town.

Soon they began to come, running, on horseback and in teams, and some almost blind, led by others. By this time the town was all in flames. A team of horses got loose, and heading for the thickest part of the fire, increased their pace until they disappeared, galloping furiously in a sheet of flame. Almost at the very last a man and woman appeared carrying a trunk between them. It was perfect insanity to risk losing the train, but they wouldn't give up. The woman was too delicate and dropped her end, but even then the man tried to drag the trunk along. I got out and grabbed the other end, for the fool would sooner be left to burn than lose that trunk. It was not over fifty yards to the train, but I got a faint conception of what hell must be like. The tears caused by the smoke seemed to sizzle and dry up in the heat.

I thought when I got back into that hot car, filled with smoke, and crying women and children, that it was a paradise compared with the outside. By

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this time the flames had got completely around on both sides, and the station was on fire. At this point the conductor did not dare to stay any longer and backed out of the burning town into the flaming woods.

One of the last things to be seen was an old man, with his clothes on fire, staggering down the street toward the station. He fell twice. The second time, he did not get up.

We took off about five hundred persons; God only knows what became of the other seven hundred. Their only hope was to get into some pool of water, and die or live.

As we had to back out, and had no cow-catcher to turn off any fallen trees, we had to go very slowly at first. The fire had swept along the track, towards Duluth, with incredible speed, and for three hours we passed through woods burning on both sides. The ties were on fire, and I didn't count how many burning bridges we crossed. I thought my time had come, and so did everybody on the train. I felt that if I had got to go, I would be game to the last, and I tried to keep up the courage of a woman in the same seat with me, who was whining like a whipped cur and scaring her three children so that they howled in chorus and made things twice as bad as they otherwise would have been. If she had been next to that hot window, I guess she would have had a fit. The great danger was that the heat

would warp the rails, and once off the track, nothing could have saved a soul of the seven or eight hundred on board.

The trestles, too, were liable to be too weak to support the weight of the train. In one or two places the rails on side tracks were twisted all out of shape, and now and then the way the train bounced showed that those on the train line over which we were passing were beginning to warp.

The last two hours were not so bad, but I heaved a sigh of relief when I stepped out at Duluth with my face so grimy that the hotel clerk hesitated about allowing me to register until I explained. I shall have to stay here all day (Sunday), and I do not really know when I shall get away.

Well, I hope I shall live to get to California. What will come next? First the flood, then the fire! I have been delayed three days, so far, by accident. This letter may seem rambling, but when I think of what I saw yesterday I shiver and cannot write connectedly.

LATER.—A relief train has just come in and says that for two miles this side of Hinckley the tracks are covered with dead people, half naked. Over ninety have been found, so far. These belonged to the "Limited." Nothing is known of the seven hundred left in Hinckley, as the bridges are burned. This town is full of refugees, many of whom are blind and crazy.

#### REMINISCENCES.

(Continued from July number.)

THE military department in the early days of the college was quite different from what it has since become. No officer was detailed from the United States Army to take charge of the instruction, and consequently the development was somewhat slow. The cadets did not dress in uniform—at least they were not

required to do so. The first attempt at uniformity was the adoption of a cadet cap, regulation pattern. This was followed by the adoption by a portion of the battalion of the West Point Cadet uniform. Had all been clothed in this uniform the companies would have presented a fine appearance, but with every other



man dressed in a different kind of suit the effect was somewhat bizarre, to say the least.

The prize drill in Bangor, July 4, 1874—I am a little shaky about the year—was a great event in the military history of the college. The city had offered a handsome prize to the best drilled company taking part in its celebration of the day. The boys decided to compete. Forty men were chosen to represent the battalion, and drills began. Oh! those wearisome, wearisome drills! Morning, noon and night we fell in and drilled till life became a burden, and we longed for the time when we could lay our armor by. However, Captain Thayer's industry produced good effect, and when the eventful Fourth came the company was in fine condition. Probably nobody who took part in the celebration of that day will ever forget it. The heat was intense, and the distance we marched seemed without end. There were five companies besides our own in the procession—the Jameson Guards of Bangor, the Crosby Guards of Hampden, the Hersey Light Infantry of Old Town, the company from Dexter, and the Capital Guards of Augusta. We watched their appearance very closely and soon made up our minds that our only dangerous competitors were the Jameson Guards, a company which at that time enjoyed a high reputation for fine discipline. After dinner, and a much needed rest in City Hall, we again fell in to compete for the prize. To our surprise, we found ourselves alone; the other companies had withdrawn from the contest, and all we had to do was to go through with our part of the programme and receive the prize. The money—fifty dollars—

was at once invested in a silken banner, which was for many years treasured by the Coburn Cadets as one of their most precious possessions.

Co-operative college government has always been a dream of faculties and trustees. The idea invaded the Maine State College about 1874. Several boyish escapades had convinced the authorities that much investigation "was a weariness to the flesh," and they sought relief by striving to enlist the active assistance of the boys—on the principle of "set a thief to catch a thief," I suppose. One morning President Allen called us together and in his most persuasive manner, set forth the advantages of co-operation and his plan for securing it, which was, as nearly as I can remember, as follows: Each class was to elect one of its members to a body called the Council; each floor of Oak Hall was to elect two monitors. The Council was to act as a kind of court and consider all breaches of discipline reported to it by the monitors. It was clothed with authority to inflict any penalty short of suspension or expulsion, though all its decisions had to be submitted to the Faculty for approval, which thus became a kind of supervising board, and in some cases a court of appeal. The Council held weekly meetings for the regular transaction of business, and often—er when matters of importance had to be disposed of. The system of co-operative government worked well for a time and no doubt relieved the Faculty of much disagreeable duty, but it finally fell into "innocuous disuetude." It lived long enough, however, to demonstrate its possibilities, and ought to have existed with modifications up to the present day.

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Alfred M. Goodell, '75, of Waltham, Mass., has recently been nominated a delegate to the senatorial convention.

Prof. E. H. Hitchings, M. S. C., '75, of Bucksport Seminary, gave his popular lecture "Nature and Science," in the M. E. Church, South West Harbor, Saturday evening, Sept. 8. At the request of the pastor the same lecture was delivered to a much larger audience Sunday evening. The lecture is very fine in its tone, elevating, and cannot fail to please the people. Prof. Hitchings is a fine looking man on the platform, much endeared among the students, and makes friends wherever he goes.—*Bangor Commercial*.

N. H. Martin, '76, of Fort Fairfield, Me., has been elected as treasurer of a manufacturing firm established there.

C. C. Garland, '82, late of Minnesota, made us a visit the first of the term. Mr. Garland will soon establish a broker's office at Providence, Rhode Island.

John Burleigh, '87, has just been elected Superintendent of the Bath Water Works.

George E. Seabury, '88, has gone out of the brass foundry business and is at present draughting for the Hinckley & Egery Iron Co., Bangor.

Harry Butler, '88, will spend the next year in study at the medical department of the University of Pennsylvania. He is much pleased with the course of study offered there.

Rev. John W. Hatch, '88, of Kingman, Me., has been in town lately as the guest of Registrar Webb.

Gould, ex-'89, has gone into business at Houlton, Me.

W. S. Webb, '90, has been engaged as a Principal of the Grammar school at Houlton.

G. H. Babb, '90, who has been an instructor in the Kamehameha School, Honolulu, H. I., has come to Portland as instructor in the Manual School there.

J. V. Pierce, '90, has moved to Chicago, where he is the representative of life insurance companies.

S. H. T. Hayes, '90, is at Cornell University, where he will take a post-graduate course.

H. D. Dunton, '90, who has been located in Minnesota for some years, returned home the past summer to Boothbay and spent several months with his father on the salt water for the benefit of his health, which became somewhat impaired in the West.

C. N. Taylor, '91, of the firm of contractors, has just completed a thirty-five thousand dollar contract at Newton, Mass.

J. C. Graves, '91 and E. D. Graves, '86, have both visited their old home this summer.

F. C. Moulton, '91, has finished his post-graduate work at Harvard and returned to his duties on the Gypsy Moth Commission of Massachusetts.

M. E. Farrington, '92, has recently led one of the charming young ladies of Lincoln, Me., to the altar. Congratulations.

Butterfield, '92, Murphy, '93, and Gould, '94, have been employed by Prof. G. H. Hamlin on various engineering works during the past season.

Tolman, '92, has been secured as the principal of the Grammar school at Stillwater. Doubtless the same success will attend him here as has in the past wherever he has been.

Danforth, '92, has recently made a visit to the campus.

C. P. Kittredge, '93, is taking special work at Colby University.

O. J. Shaw, '93, is at present on the sewer construction of Medford, Mass.

Alford, ex-'93, and Rowe, '93, are also at Howland

C. C. Murphy, '93, is General Superintendent in full charge of the sewer construction at Caribou, Me.

H. M. Smith, '93, and John Jerard, ex-'93, have formed a partnership and are engaged in the hardware business in Caribou, Me.

Hayes, '94, and Norwood, '94, are doing engineering work at Bristol.

Kimball, '94, is at present situated at Westfield, in the employ of the Bangor & Aroostook R. R.

Gilbert, '94, and Bowler, '94, are both at Howland, Maine, in the employ of the Pulp Co.

E. H. Cowan, '94, has been in the employ of the Wiscasset and Quebec R. R. during the summer and is now stationed at China.

G. H. Hall, '94, has come back to take a post-graduate course in advanced physics, mathematics, electricity, etc. He has been, during the summer, engaged in draughting at Dexter, Maine.

George P. Cowan, '94, has been secured as instructor in mathematics and field work. He has the freshman class in two sections, also the senior civils in field work.

Harvey, '94, is with us for a few days.

Gray, '94, is employed as time-keeper at the mills in Veazie.

Wood, '94, who is in the employ of the Boston & Bangor S. S. Co., makes an occasional visit to the campus and we are all glad to meet him again.

Fernald, Ex-'94, passed through here en route to Cambridge where he will take up his duties again after a short vacation. He has been in charge of the arboratum for a part of the summer.

Just as we go to press, the sad news comes to us of the death on Tuesday, October 4, of Mrs. George P. Merrill, formerly Miss Sarah P. Farrington of the class of '80, which occurred in Cape Elizabeth at the home of her father, Superintendent J. R. Farrington of the State Reform School.

Mrs. Merrill, who had been ill for a long time, was the wife of G. P. Merrill, '79, Curator of the Department of Geology at the National Museum, Washington, D. C., and was about thirty-five years of age. Those so fortunate as to be counted among her friends, will remember her as a lady of broad, liberal culture, refined in manner and with the kindest of hearts, representing the best type of womanhood.

THE CADET extends to her husband and to the large circle who feel deeply this great loss its most kindly sympathy.



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### THE COURSE IN LIBRARY ECONOMY.

The course in Library Economy, tried library work, agrees that it of which mention has been made in avoids much of the nervous strain these columns, is now in active operation and the wear and tear of the class tion. Five young women are now room and of the direct responsibility taking the course and a sixth is for pupils, and that physically the working in this line at home and will library is much less exacting than join the class next term. The mem- the shorter hours of the school. In bers of the class are in the library five fact there is hardly any occupation hours daily, most of this time being that is so free from annoying sur- devoted to practical work. They are roundings or that has so much in the also studying English Literature with character of the work and of the the Junior class. people which is grateful to a refined and educated woman."

The profession of the librarian appeals to many tastes. It is especially attractive to women. Mr. Melvil Dewey says: "In few lines of work have women so nearly an equal chance with men. There is almost nothing in the higher branches which she cannot do quite as well as a man of equal training and experience; and in much of library work woman's quick mind and deft fingers do many things with a neatness and despatch seldom equalled by her brothers. While the hours of actual service seem longer and the vacation shorter, I believe every teacher who has also

In 1880 there were 3,917 public libraries in the country; in 1888 there were 5,568. This growth has caused a great increase in the number of professional librarians and has also done much to elevate the standard of preparation required by them. The first systematic course of instruction in library management was offered in 1887. Several courses have been established since, but, with the exception of a brief summer course, that announced in the last catalogue of the Maine State College is the only one offered in New England.



Cornell is to have a students' tribunal, which will correspond in general character to the late college senate of Amherst. Its object is to stop frauds practiced in examinations.

The following shows the interest taken in the college paper by the students at Stanford. The expenses connected with the issuing of the *Sequoia* from January 1st to May 31st, amounted to about \$1,400. Receipts during same period were \$1,950.

In regard to the inter-collegiate records for the thirteen principal track and field events, it is interesting to note that Yale, Harvard, Princeton and U. of P. each hold three, while the thirteenth was made by a Washington man by a jump of 23 feet 6 inches.

Prof. William Crothers of Wooster, Ohio, will occupy the chair of Latin and Greek for the ensuing year at the University of Omaha.



## ATHLETICS

Foot Ball, played as it is in our colleges, is a purely American game, but to the minds of many it brings up a mass of struggling players, clad in canvas suits, who are trying either to push an inflated pig skin forward, or striving to hinder its progress; or, again, some newspaper article that devotes a column or more in telling how brutal and rough, comparing it in many cases to prize fighting. And although this is one of the most skillful games ever played, yet by these gross mis-statements of the press, the public at large, whose only knowledge of the game is through these agencies, have begun to look upon the game with horror.

It is impossible to find a more healthy game, played, as it is, in the bracing air of the fall. It is also a game that teaches one to think quickly, to either make a quick maneuver and thus gain ground, or to hinder the other side from going into your territory.

There is another thing that, though not bearing directly on the subject, yet it is almost impossible to separate the two, and this is the long hair of the player. Many have been the comments made as to the looks of such locks, but it is not for beauty but for the protection of the head that the player wears this mass. It acts as a cushion and many times saves one from severe injury.

But the public judged so harshly of foot ball, and in many schools the faculty would not allow the game to

be played, that it became necessary, in order to preserve the game, to modify it somewhat, and last winter representatives from each of the large colleges met and made changes, so that now it requires more running and kicking, while the mass plays have been dropped, and we thus lose the exciting moment when the ball is about to be put into motion by the old V., the two lines ready and expectant.

Maine was a little late in adopting the game and therefore had not made a very good showing. Bowdoin, however, has earned a few laurels, but Colby, Bates and Maine State, having never played out of the state, or teams stronger than themselves, are comparatively weak.

In our own college is noticed this lack of spirit to rush athletics, for all know that out of the one hundred and seventy students, it is almost impossible to get men enough out on the field to practice, to say nothing of playing.

It is true that the athletic association is not in as good financial condition as we would wish, but we might do something and not let the game die out altogether.

If the prospects are as favorable next year as now, for a large class, it would not be strange if we got some good men out of it, but new men cannot do everything, they must have some encouragement from the upper classes; and in closing, we must not let the purely American game die by neglect.

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## COLLEGE WORLD



Northwestern University will hereafter allow oral examinations.

The University of Pennsylvania will hereafter give degrees to women.

The State Universities of Alabama and Tennessee have decided to admit women.

Of the twenty-nine Mayors of Boston, thirteen have been graduates of Harvard.

The University of Michigan is the first to enroll Chinese women among her students.

Ten donors have contributed \$100 each, for the benefit of the library of Brown University.

Chicago University is the only large educational institution in the United States that has no college colors.

In Eisenach, Germany, teachers of the public schools are to pay a tax for their income from private lessons.

Chicago University has discarded the name of "Prof." The members of the Faculty are addressed as "Mr."

Eton college has been celebrating its four hundred and fifty-second anniversary. The buildings erected in 1440 are good for another 100 years.

The late President of St. Edward's College, Austin, Texas, Rev. Peter Joseph Hurth, C. S. C., was consecrated bishop of Dacca, India, on September 16th.

There are 53 freshmen in the College of Dentistry, University of California, as opposed to 75 at the same time last year. This discrepancy is attributed to financial stringency.

Clara Bewick Colby's paper, The Woman's Tribune, Washington, calls attention to the fact that Howard University of that city is open in all its departments to women students.

When the new president of Wells College, Dr. William Waters, was a tutor at Yale his merry countenance won for him the pleasant nickname of "Minnehaha," Laughing Waters.

The value of public school property in the United States at the present time is estimated to be \$400,000,000 and of all the property used for educational purposes \$600,000,000.

The faculty of Colorado College have taken an advance step. They will hereafter give credit for work on the college papers. The credit depends on the quality of work done.

The San Francisco public schools have received a gift of \$500,000 from Philip Armour of Chicago, for the establishment of a manual training school in which to teach trades to boys.—*S. U. I. Quill.*

The freshman class of the Rensselaer Polytechnic Institute numbers forty-eight men with an average of 19 years, the oldest being 27 the youngest 15 years of age, and includes 23 Republicans and 14 Democrats.



Mrs. Emmons Blaine, the wealthy widow of the ex-secretary's favorite son, gives all her spare time to good deeds. She will, with another member of the McCormick family, establish a school for teaching things industrial.

A gift of \$10,000 from Mrs. Fiske of Boston, is to be used in building a new cottage at Wellesley, and funds are to be raised for the erection this summer of a separate building for the chemical and physical laboratories.

The new gymnasium and armory at Madison will be in readiness for use this fall. It is the finest building of its kind in the West, and but few Universities in the world can boast of a more complete equipment. The ball ground is also being raised and graded.

The Board of Regents of the State University of Michigan has resolved "That henceforth, in the selection of professors, instructors and other assistants for the university, no distinction be made between men and women, but that the applicant best fitted receive appointment."

George Colby Chase, the new president of Bates College was born in Unity, Me., March 15, 1844. He is of the branch of the family which produced Salmon P. Chase. He graduated from Bates, class of '68. He came to Bates in 1872 as Professor of Rhetoric and English Literature.

The Duke of York's Military School at Chelsea, England, contains 550 boys, sons of soldiers; during the last year 93 enlisted in the army, and there are now 1,466 in different regiments who were in this school, of whom fourteen are commissioned

officers, sixty are warrant officers, and 514 non-commissioned officers, all being of good character.

Of the total number of women university students in Paris, 155 are on the list of the medical faculty, 164 on the list of the faculty of letters, 7 in the department of science and 3 in that of law. Of the 155 medical students, however, only 16 are French women, while of the 164 students under the faculty of letter, 141 are of French birth.

The London School Board reports show that in the past year fourteen new schools were built to hold 13,669 children, the cost amounting to £377,278. Many existing schools were enlarged. Mention is made of various works which have been needful, owing to the development of technical education and special training, and of the steps taken to have all schools properly trained.

A Horticultural College, with twenty-one resident pupils, all women, was established three years ago at Swanley, England, about fifteen miles from London, and proves both a lucrative and healthful means of self-support. The course occupies two years, and the students, under the direction of practical gardeners, learn pruning, budding, grafting, also the best methods of gathering, packing and marketing flowers and fruits. A poultry farm and aviary are among the adjuncts of the College.

The football coach for the University of California team has at last been announced in the person of Charles O. Gill of Yale, '90. Mr. Gill is highly recommended by Camp, McClung and Heffelfinger. He played tackle on the Yale team, and

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is pronounced to be the greatest in the country; in his senior year he captained the team. After graduation he returned each year to his *alma mater* to coach the team, so that besides his other qualifications we will have the benefit of his years of experience at coaching.

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*Oliver Wendell Holmes.*

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