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The U. of N. Sagebrush



Published by the
Associated Students
of the
University of Nevada

Vol. XIX UNIVERSITY OF NEVADA, RENO, NEVADA, JAN. 9, 1912 Number XVII

CYCLONES AND THEIR CAUSES

A LECTURE GIVEN BEFORE THE FACULTY SCIENCE OF THE UNIVERSITY BY S. P. FERGUSON—REPRODUCED FOR THE BENEFIT OF OUR READERS

The true relation of the phenomena of rain, local storms, periods of fair weather, high and low temperature, to the general circulation of the earth's atmosphere was not fully demonstrated until about the year 1831, when the studies of Dove in Germany and Redfield in the United States were published. These investigators employed, for the first time, the method of plotting, meteorological data that is now in general use in the preparation of our daily weather maps. The results of these studies showed that the phenomena known as changes of weather were intimately connected with vast whirls in the air, the movement and development of which were controlled by well-defined laws. These atmospheric whirls were given the name "cyclone" by Galton who, in 1851, published the first of all weather maps at the Great Exhibition of London.

This discovery of the connection between cyclones and local phenomena of the weather have led to the direction of more time and energy upon the study of cyclones and anti-cyclones, probably, than have been expended upon all other meteorological phenomena combined. If, according to one writer, a science is a science only to the extent to which future events may be predicted, meteorology is the one of all in which the ability to predict is both desirable and of immediate value.

Concerning the origin of cyclones and anti-cyclones, it may be said that as to the primary cause there is general agreement. To quote from Prof. Ferrel, "The motions of the atmosphere depend either directly or indirectly, upon differences of temperature. Without these the aqueous vapor would be uniformly distributed in all parts, there would be everywhere the same density, and a perfect calm in the atmosphere would exist over all parts of the globe. The great disturber of uniformity of temperature is the unequal distribution of the sun's radiated heat. This gives rise, not only to differences of temperature but also to differences in the amount of aqueous vapor from both of which causes the density of the atmosphere differs in different places and thus atmospheric currents are produced. The forces, therefore, which overcome the inertia of the atmosphere when at rest and set it in motion and which overcome the frictional and other resistances and maintain this motion, depend upon solar heat energy."

Concerning the direct causes of cyclones, two important theories have been proposed which usually are referred to as the "conventional" and the dynamical or mechanical. In the first, contrasts of temperature are considered ample to account for all the phenomena of the origin, growth and movements of cyclones and anti-cyclones, while in the second these phenomena are assumed to be whirls or eddies due to the meeting of air currents of different directions or to other mechanical causes. The conventional theory was proposed by Ferrel in 1856, and the following account is quoted from his last treatise: "If the air over any portion of the earth's surface is warmer at all altitudes than that of the surrounding parts at the same levels, it is lighter and tends to rise above its original level, and flow out in all directions above. This decreases the pressure at the earth's surface over this area, but increases it a little over the surrounding parts; and thus there arises a gradient of pressure decreasing from the exterior toward the interior below which causes a flow of air from all sides to amplify the ascending current. If the earth had no rotation on its axis, the air in its vertical circulation in all such cases of local and temporary disturbances would move in the lower strata directly toward the central part of the area of high temperature and less pressure, and out from it above, as already described and there would be no rotation. But

in consequence of the earth's rotation, the air, in being forced in from all sides toward the center, runs into a gyration around this center, and this, in the northern hemisphere is from right to left, contrary to the motion of the hands of a watch." In the southern hemisphere the rotation is in the opposite direction.

When Ferrel's hypothesis was proposed, our knowledge of the upper regions of the atmosphere was very incomplete compared with its state, even twenty years ago. Excepting occasional balloon ascensions, records were available only from a few mountain observatories, most of which were at a distance from the established paths of cyclones. As a result of his studies of these data, Dr. Harm proposed the theory that the extra-tropical cyclones and anti-cyclones are not spontaneous convectional disturbances, but secondary eddies driven by the general winds. If cyclones and anti-cyclones are convectional phenomena, the former must be regions of relatively high temperature, and the latter of relatively low temperature, when compared with one another or with the surrounding atmosphere. In the case of the cyclones, the surface air must be warm enough or warm and moist enough to maintain a higher temperature than that of the surrounding air through which it rises, in spite of its cooling by expansion in ascent. In the case of the anti-cyclone, the upper air must be cold enough to remain at a lower temperature than that of the surrounding air through which it settles in spite of the increase of temperature by compression during descent. The greater frequency and intensity of extra-tropical cyclones in winter forbids the supposition that they arise, as a rule, from the convectional overturning of an unstable mass of air.

If cyclones and anti-cyclones are driven eddies forced to move by the energy of the general circumpolar winds, no such instability need be assumed. The air of a driven eddy near a street corner is not necessarily warmer and lighter than the air through which its whirling currents are raised; it may be heavier than its surroundings as is the dust it bears aloft and owe its ascensional motion to some external force stronger than its own weight instead of rising spontaneously like a hot, desert whirlwind. Dr. Hann's recent essays on this subject show that as far as observations on high mountains are concerned the mass of air in anti-cyclones is from six to ten degrees warmer than the air at corresponding heights in cyclones.

The preceding statement of reasons favoring the mechanical theory is condensed from Davis' Elementary Meteorology, 1893. At that time we did not have the kite or the balloon-soude as instruments for exploring the almost unknown upper atmosphere but, within the next ten years a large amount of material was gathered that led Clayton at Blue Hill observatory to the opinion that the convectional theory agreed better with the conditions actually found in the atmosphere as a whole. The differences between the temperature of cyclones and anti-cyclones in the upper atmospheric were found to be quite small and in consequence there is still much difference of opinion as to the immediate causes of cyclones and anti-cyclones. This is likely to continue until data of greater precision are obtained or better methods are employed in the analysis of existing material.

Laboratory experiments have proved to be unsatisfactory, but Nature has provided a possible substitute in the total eclipse of the sun. It has been known for many years that the moon's shadow causes a lowering of the temperature of the air of several degrees and in the eclipse of May 28, 1900, it was shown for the first time that there also occurs a small change in the atmospheric pressure. From a

(Continued on page four)

Freshmen Win At Basketball

In a stubbornly fought game of basket ball, the freshmen again showed their superiority by defeating the Goats. The game from start to finish was fast and marked with many spectacular plays. In less than two minutes after the first whistle, McCoffin of the Goat guards had two baskets to his credit. McKinley and Loyd McClubbin also of the Goats then followed up with a basket apiece making the score 8 to 0 in seven minutes of play.

The Freshmen then began to wake up and after a pretty passing rally Sheehy shot a neat basket. This fact seemed to awaken all the fight in the '15 team and they steadily decreased the Goats' lead until the time keeper's whistle announced the end of the first half. Score: Freshmen 13, Goats, '15.

The ten minutes intermission brought the Freshmen back to their standard form and from the beginning of the second half to the end it was hard to pick the winner.

Three different times the Goats were one point in the lead, but by steady and consistent playing the Freshmen managed to come out nine points to the good when the final whistle sounded. Final score: Freshmen 41, Goats 32.

Curtin, captain of the Goats team, showed up conspicuously, especially in his basket shooting, his aim seeming unerring and from almost impossible angles he would drop the ball into the basket with no apparent effort.

Need of the Freshmen managed to pile up 18 points to his credit although he missed several that could have been easily handled.

The game from a spectator's view was undoubtedly the finest exhibition of basket ball that has ever been witnessed in Reno. But, due to the fact that no dance took place after the game, the spectators were almost a minus quantity, which fact plainly shows that to have basket ball we must also have dancing.

The lineup of the teams was as follows:

Goats.	Freshmen.	
Charles	Center	Boggs
Lee McCubbin	Guard	Trabert
Curtin (Capt)	Guard Painter	(Capt)
McKinley	Forward	Sheehy
Loyd McCubbin	Forward	Nield
Referee—E. Conway.		

Poultry Show This Month

On January 25-27 the Nevada Poultry Association will give a poultry show that will open the eyes of all the people who visit the display. This is the first annual show to be given by the organization. The exhibitors will be many those from Nevada who are taking a keen interest in poultry and the allied interests here.

When the show opens it is expected that the students will take a great interest in this educational enterprise and will become the fans of the poultry industry.

It was at the U. of N. that the first poultry association was organized and it will be at the varsity that the greatest interest will be shown in the show. The association was organized by G. H. True and associates who have been very active in fostering this baby industry in Nevada and in Nevada it is expected and has been proved in the past years that everything is ideal for the successful management of poultry in this state.

Plans are on foot now to prepare a university night at the poultry exhibition for the benefit of the students who may not be so fortunate as to know the finer distinctions between a chicken and another chicken. These distinctions will be explained by those in charge and will no doubt influence many to enter this important business, that aids health and finances at the same time.

The committees in charge of the affair are busily engaged securing premiums and prizes that will be awarded to the winners. In this respect, the students of the agricultural department will be given a chance to judge the fowls before the judges express their opinion.

The prizes awarded for this will be announced at a later date but the cow club will certainly be in on the money somewhere and that is proven by the interest take by them in the organization.

As to individual prizes, the management have secured a number of valuable prizes that will be awarded to the winning birds as the judges may prescribe on the first day of the show, January 5, 1912. These prizes have been awarded by the more up-to-date merchants that can appreciate the business that such an enterprise will bring into Reno and the state of Nevada.

AGRICULTURE PROF' RESIGNS HIS POSITION

PROFESSOR C. S. KNIGHT LEAVES THE UNIVERSITY TO BE CHIEF AGRICULTURIST FOR NEVADA SUGAR COMPANY AT FALLON. U. OF N. REALIZES ITS LOSS

Concurrent with the resignation of Prof. Charles S. Knight, assistant in agronomy, the faculty of the U. of N. has sustained a loss that will be felt for some time to come. Nor is the faculty the only sufferer. The university loses one of the best friends she ever had—and yet, it should not be characterized as a loss, for though he is not with her in the flesh, one might say he is, in the spirit, and the kind of spirit that Prof. Knight possesses is the kind that those of our forefathers who made our nation displayed. But he can no longer, in justice to the position he now occupies, give our university any more than a passing thought—and in passing, let it be remembered that that thought will seize any opportunity there may be to linger.

The students—not only those of his own school but the students in general—will miss the kindly influences of the "Aggie" professor, whose radiating smile always assured one of a warm welcome, no matter on what business one approached him. And the pity of it all is, that "Charlie" Knight would have been with us this semester, in all probability, had he been accorded a little more support from headquarters. None of us are in business for our health, but the writer knows that if the agricultural department had seen fit to make a few slight concessions—which would have proved a godsend—that were asked for, Prof. Knight would have waived the extra few hundred dollars that he will now be in receipt of, and the faculty roll would still bear his name.

What benefits the agricultural college of the university, and incidentally the state of Nevada, would have received will now be conferred upon the Nevada Sugar company and those tillers of the soil whom Prof. Knight assures have the right kind of land for sugar beet growing. In his capacity of chief agriculturist for the Nevada Sugar company, the professor will have a large field for his operations, and concomitantly, will have a "hard row to hoe." But that is what will spur him on to greater things instead of acting as a deterrent, for, surmounting difficulties is what he has been up against, during his connection

with the university, and naturally he has become well versed in the business.

When Prof. Knight came to the U. of N. in 1909, the agricultural college boasted but one student, and the last semester he was with us the roll call totalled twenty-one, while two students have graduated, one of whom is in business for himself and the other holds a lucrative position in the agricultural department of the United States government.

Prof. Knight had the interests of his students at heart, and that they might come together socially as well as otherwise, he drew up the charter for the agricultural club, during his first semester here, with the result that the membership is now twenty-six, twenty-one of whom are active members. The club has for its motto "More farmers and better farming," and to this end every member is working.

The state dry farm loses a valuable superintendent in Prof. Knight and the state will soon recognize the fact that men of his calibre are not to be found in abundance. There is little use to dilate on what he accomplished at the dry farm, for every farmer throughout the state and in the neighboring states can tell of his progress.

On two occasions has the United States agricultural department published bulletins of Knight's authorship—one dealing with corn in the state of Kansas and the other with the raising of sugar beets in this state. And in regard to the latter it might not be out of place to mention that the work was written after a succession of experiments at the experiment station and tells of what has been done, thus eliminating the possibility of the objectionable "what might have been done."

Prof. Knight will be missed in athletics, too, for was it not through him that the baseball game was revived? In addition to being a good coach, he was a valuable asset as a player.

He is going to be missed sadly, on the campus and off it, and the heaviest losers are the "Aggies." We, individually and collectively, wish the big-hearted professor every success in his new venture, and are perfectly confident that he will make good.

Two Prominent '10 Grads Wed

Tuesday, December 26, saw the happy ending of a pretty college romance in the wedding of Hazel Pearl Larcomb and Clyde Stewart McKenzie. Both are graduates of the university with the class of 1910. The nuptial knot was tied by Rev. Samuel Unsworth of this city.

While at college, both Mr. and Mrs. McKenzie were actively interested in college affairs and in student activities. Mrs. McKenzie was secretary of the Associated Students during her senior year. She was a very prominent member of the sorority of Theta Epsilon.

Mr. McKenzie played on the varsity football team in his sophomore and junior years. During his senior year he was vice president of the student body. Soon after his graduation, he joined the office force of the Stone & Webster engineering corporation, which had its headquarters in this city. Last summer he resigned his position to go into the employ of the Belmont mining company at Tonopah, where he holds a responsible position.

Their many friends join in wishing them happiness and success in life.

Miss Ann H. Martin, B. A. '94, who has been in London for the past two years, was a visitor on the hill last week. Miss Martin took an active part in the "Votes for Women" movement in England. Miss Martin is now working with the equal suffrage movement in this state.

College Romance Ends Happily

On December 20 in San Jose, Cal., W. H. (Bill) Goldsworthy, a graduate of the school of mines with the class of 1910, claimed Miss Gladys Catlin, ex-'12, and a graduate of San Jose normal, as his bride.

Both bride and groom are well known to the older students in the university. Mr. Goldsworthy graduated with the class of 1910 and Miss Catlin was a member of the present senior class during its freshman and sophomore years. Before entering college, Miss Catlin attended the university high school, of which she is a graduate. Two years ago she left college and entered the California state normal at San Jose graduating with the class at Christmas.

Since leaving college, Mr. Goldsworthy has been in the engineering department of the Stone and Webster engineering corporation where he has a good position.

Mr. and Mrs. Goldsworthy will make their home in Reno.

We join their many friends in wishing them happiness through life.

STUDENTS MAKE MOST OF OPPORTUNITIES

The city Y. M. C. A. building has been a popular place for many of the students during the vacation period. The gymnasium handball court, the swimming pool, bowling alleys and other features having their attractions for the young men and a goodly number of the students have joined. The special membership rate to students is being taken advantage of and doubtless many more will join this season. All members of the university "Y" have their fee deducted from the membership fees when joining the city association, both organizations in the same brotherhood thus cooperating.

Next week—beginning the 15th—the Y. M. C. A. will conduct a campaign in swimming, and an expert swimmer, Mr. A. C. Callis of New York City, will be the guest of the association and give instruction. This special effort will give opportunity for all men and boys to become more proficient in the water and doubtless many will take advantage of this.

FORMER CO-ED IS NO LONGER A "MISS"

During the holiday season the matrimonial game was played as "high card." The marriage of Miss Tone Talbott to Mr. Ben D. Cardinal of Minden, Nev., was the most startling social event of the year.

Miss Talbott was, during her attendance at the varsity, a very popular young lady. Her wide acquaintance with the younger set has made her an army of friends that will be greatly surprised to learn of her marriage.

The couple are at their new home near Minden, where Mr. Cardinal is managing a large creamery.

The Sagebrush, faculty and students extend to this young couple their best wishes for a prosperous career on the sea of matrimony.

Dr. Robert O'Neill, formerly of this city and at one time a student at the university, was married in December to Miss Amy Ford, formerly of Eureka, Nev. Dr. O'Neill is a practicing physician in San Francisco.

The Owl Cafe has plenty to eat, and that all the time.

Dr. George Lyman, a prominent young physician of San Francisco, was married on December 28 to Miss Dorothy Van Sicken of Alameda, Cal. Both are favorites in the smart social set of the bay city and many social events have marked their engagement. George Lyman has many friends in this city and on the hill. He was formerly a member of the class of '04 B. A., but later went to Stanford and then to Columbia, where he took his M. D. degree.

"Slats" never sleeps at the Owl.

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VOL. XIX RENO, NEV., JANUARY 9, 1912. NO. XVII

EDITORIAL

THE A. S. U. N. CARD

A new scheme in the way of keeping tab on those who have paid their athletic fee is to be put into effect this semester. It is the A. S. U. N. card.

This card is your license to have a say in student body meetings and is your pass which you must present to get in free to the athletic games. See that you get it and when you get it be sure and keep it.

By this system of issuing a card to each student who pays his athletic fee and requiring him to present it at student body meetings and games,

an accurate check may be kept on the delinquent ones. Those who hold no card will be charged for the games as though they were outsiders.

This year the registrar will issue the cards. Next year it is hoped that the executive committee will take the matter up and have the cards issued by the treasurer. The treasurer will issue the cards on the presentation of the registrar's receipt. The scheme is well worth giving a most thorough trial. It will stop, too, the uncalled for howl about irregularities in handling the athletic money through the office.

A WORD TO OUR SUPPORTERS

Without support there would not be a paper. The Sagebrush wishes to say that the support that has been given it and its able corps of assistants in the past year has been nothing short of marvelous. The paper has increased in every way, in the subscription list the names have increased threefold in the past year. The support given the paper has been very creditable for the number of students enrolled and they have received the best and most complete lot of news that it has been possible to give under the circumstances.

This semester The Sagebrush intends that every student shall read The Sagebrush and that they will be profited by so doing needs no argument at all. The college paper and not read by the students—that sounds absurd but it is true that several of the students are still outcasts and are not all subscribers. This is the intention of the management and will certainly be carried out to the letter.

FREE PRESS

Mr. Editor: We hate to be crabbing at the executive committee all the time, but it seems as though they have been very negligent in keeping account of the money turned in.

As the old saying is, "Every little bit helps," an every cent that belongs to the student body should be carefully looked after, therefore, we would like to know why the \$22.25 due the student body from the rally at one of the local theaters does not show on the records? The failure of the executive committee to recognize these small sums not only works a strong injustice to the business houses of the town, but also one equally as bad on the entire student body. If this thing is allowed to continue, and no accounts of the commissions that the local theaters have been so good to allow us, are not turned in, then it is of reasonable that in the future we can expect them to allow us commissions on any rallies held in their theaters.

A. B. Y. STANDER.

The faculty at Denver university are considering the plan of having the moving picture shows in Denver throw law cases on the screen.

The women at the University of Kansas went down to the station en masse to cheer the team as they left for the Minnesota game.

BREAKFAST FOODS ARE INVESTIGATED

The pure food department of the state has just completed the analysis of over forty-five samples of breakfast foods which are offered for sale in this state. The scope of the investigation was to determine the composition and nutritive value of foods. Among the samples analyzed were Kellogg's Corn Flakes, Grape Nuts, Carnation Mash, E. C. Corn Flakes, Cream of Wheat, Egg-o-See, Quaker Puffed Rice, Puffed Wheat and Rolled White Oats. Each sample was analyzed for its percentage of fat, moisture, protein, crude fibre and ash.

A bulletin of the investigation is to be published by the department for the public. This bulletin will contain the name of the manufacturer of the breakfast food, net weight, price sold for, and its analysis. From this record, the housewives in Nevada will be able to determine those breakfast foods which contain the most nourishment for the least sum of money. This information is important to the housewives of Nevada, for today the cost of living is exceedingly high.

The large number of breakfast foods on the market testifies that they are an important factor in our food supply. They are usually sold under trade mark names which may or may not give an indication of their origin or character. Sometimes in fact, the trade mark gives a false indication and the use of such trade names must be considered as entirely reprehensible. They are generally prepared from wheat, oats, corn or rye, and free from adulteration although their food value varies greatly. The important constituents of breakfast foods are protein, fat and carbohydrates. The protein of cereals are the nitrogenous substances. These are all absorbed in the body. The carbohydrates are starch, sugar and cellulose, and about 70 per cent is absorbed by the body. On an average, wheat contains 12.25 per cent of protein, 1.75 per cent fat and 76.7 per cent carbohydrates; oats, 15.5 per cent protein, 7.4 per cent fat and 67.6 per cent carbohydrates; corn, 12.6 per cent protein, 4 per cent fat, 7.3 per cent carbohydrates; rye, 12 per cent protein, 1.5 per cent fat and 75 per cent carbohydrates. F. H. '15

Eastern colleges apparently have but a hazy idea of rugby football. The following is from the "Reville" of Louisiana state university: "Rugby football has entirely replaced the American game in California, and, according to reports, the sport is far more popular than ever before. In the Rugby game nine players instead of eleven are used and play is much more open."

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In England there are over 16,000 regularly organized rugby clubs playing a schedule of games throughout the season.

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CYCLONES AND THEIR CAUSES

(Continued from page one)

study of meteorological records made during this eclipse, which occurred under very favorable conditions, Clayton found that a brief cyclonic circulation was established in the path of the shadow, the deflection of the wind being only a few degrees of azimuth, and the changes of temperature, humidity and pressure minute but clearly evident. This result has not been accepted by some investigators, but it appears quite probable that the reason for this disagreement is that data of the required precision have been obtained in but few isolated instances. Special apparatus capable of recording minute changes of pressure, wind and humidity and employed at times when eclipses occur under very tranquil conditions of weather will be necessary to establish fully the existence of the eclipse-cyclone.

Therefore, a comparison of modern theories shows that there is as yet no general agreement as to the cause of cyclonic phenomena. At the present time, the tendency appears to be in favor of considering cyclones and anti-cyclones as secondary phenomena of the general circulation of the atmosphere. Some investigators are attempting analyses of the details of atmospheric phenomena despite their complex nature, and the results appear to be encouraging. Clayton finds that certain atmospheric waves have a progressive motion that varies according to their intensity and has been successful in applying this principle in forecasting. However, the labor involved in handling, even by mechanical methods, the large masses of data required for a study of this kind is very great and probably years may pass before very great advances are made.

The most important conclusions to be drawn from a review of present-day meteorology is that improvements in the accuracy of data now being accumulated and in methods of analysis are imperatively needed. The method of climatology are not entirely satisfactory when employed in the study of dynamic meteorology the problems of which are essentially those of a department of physics; and instead of the many observing stations where routine observations of doubtful quality are now being made we should have laboratories where the data are gathered for definite purposes and analyzed as rapidly as obtained.

STRONG PLAY TO BE GIVEN AT THE MAJESTIC THURSDAY, 11TH

Mystical, mysterious, misunderstood, the third degree takes vague shape in many minds as a shadowy something of horror, to which half-fainting wrongdoers are subjected by inhuman police officials, with night as an ally, in the evil-smelling jail cells of a forbidding station house.

The third degree, indeed, has been termed the police inquisition. This would not be a bad definition if it be understood that the victim's torture is of the mind, the heart, the soul, rather than of the body.

There used to be days when American cities were the scenes of shocking physical brutality practiced as part of the third degree. There are stories, part truth, part exaggeration, known to those brought into contact with police tradition, of defiant suspects who have been beaten senseless, who have had their teeth knocked out, who have been starved until so ravenous they would say anything for food, who have been kept without sleep until on the brink of madness.

But such is not the third degree of today. In the worst days of the third degree, physical violence was not used as a generality. It was a distinct exception. But today, physical torture has been almost abolished, largely due to the exposures and scandals resulting from some flagrant cases of third degree application.

Nature of Third Degree
What, then, is the third degree of 1900? It is the merciless, brutal, ingenious, incessant ordeal of cross-examination with the aid of information secured by "digging" on the case with colossal "bluffing" by the police officials, which is forced upon a suspect with no friend present, absolutely in the power of the police. A bit of French method of "reconstruction" of a crime is sometimes employed as an adjunct to the application of the third degree. The object

C. Novacovich E. A. Stewart C. W. Perry

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ADVERTISE IN SAGEBRUSH



STROLLERS AT MAJESTIC

The famous Strollers male quartette which is one of the foremost four-artists' musical combinations before the public today will appear at the Majestic theater next Friday evening, January 12, the fourth attraction on the Y. M. C. A. entertainment course.

A pleased public is the best endorsement any attraction can boast of and a sufficient evidence of this assertion is found in the fact that during the season of 1909-10 the Strollers were asked for in many more places than there were days in the year. The Strollers are not musical "pick-ups." They are musicians for life. They court no other calling. To be first in music is their one ambition. This quality places them at the top of the list of male quartettes. Reserved seat sale begins Wednesday at the Majestic box office.

As for fine lunches, the Owl cafe can supply every want.

PERSONALS

"Boohey" Hilton, '13, and H. W. Grayson, '13, have taken up their abode in Lincoln hall after an absence of one semester.

"Parson" Coe, '14, has returned to register in agriculture.

Delwyn ("Dutch") Dessar, '14, is on his way to Reno to resume his work in Mines.

Miss Sissa spent Christmas with her mother at Virginia City.

President Stubbs has been confined to his home for several days with a bad cold.

Miss Day, of the college of education, has been doing institute work during the holiday vacation.

Always is to make the suspect either confess to the crime or divulge such guilty knowledge as he has of it. "Make him tell," is the watchword of the degree.

Analyzed the third degree shows on one side police prestige and power, police knowledge of crime and criminals, judgment of men and motives, harshness and inventiveness, directed against the suspect.

Seat sale opens Tuesday morning at 10 o'clock. Prices, 25c, 50c, 75c, \$1, \$1.50.

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LATEST STYLES AND LOWEST PRICES

A PEACEFUL NIGHT IN "PREPDOM"

One night when all the world was dead,
When every Prep had gone to bed,
When "Prof" was lying in peaceful slumber
Sawing through several kinds of lumber,
A piercing shriek pealed through the air,
Which caused the rising of many a hair,

For a reason quite unknown to all,
The "Deacon" in the tub did fall,
To the rescue came our friend "farmer,"
Who hugged the "Deacon" and made him warmer,
Dragged him by the hair to bed
Where he lay as if half dead.

The "goat" who had been to the land of Nod,
A shoe at a fleeing form then threw;
A wail of agony and of sorrow
Escaped from the lips of "Hoppy" Morrow,
"Oh, Goat," he cried, "what have you done?"
When "Boiley" Hovey came on the run.

With the aid of "Jepson," who pushed through the door,
They raised poor Hoppy off the floor,
Quickly they called for "Frenchy" Bernard
Who promptly gave "Hoppy" strychnine and lard.

Hoppy fell in fits and spasms,
Raved then of aeroplanes and chasms.
In the midst of all this muss
Came in poor little "Rusty" Fuss.
He raised his voice, but all in vain
For David Able was "raising Cain."
"Ike" Richardson with his Irish hat
Jumped on "Fuss" and in his left eye spat;

Half blinded and in real disgust,
"Fuss" made a dive for little Rust
But he was quick to leave the room
To return pretty sudden with an old straw broom;
He poked the broom down Hoppy's throat
When again they heard from Governor "Goat,"

"You're a l— according to parliamentary law!
Shut up, now, or I'll bust yer jaw!"

These were the words they all took in,
Rising above the clamor and din.
Then in comes the "Carp" all pale and white,
"Oh, Lord," he cried, "what an awful night."

While he was relating his tale of woe,
They didn't hear "Prof." Oh! No! No!
The latter, while coming down the hall,
Tripped over the barrel and took a fall,

Stubbed his toe on the radiator
And went up in the air like an aviator.
He let out a whoop and set up a yell,
And told all the hall to go to—bed.
A. A.-H. S.

IF

If you can keep your head when all about you
Are losing theirs and blaming it on you;

If you can trust yourself when all men doubt you
But make allowance for their doubting too;

If you can wait and not be tired by waiting,
Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look too good nor talk too wise;

If you can dream and not make dreams your master,
If you can think—and not make thoughts your aim,
If you can meet with triumph and disaster
And treat those two impostors just the same;

If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave your life to, broken,
And stoop and build them up with worn-out tools;

If you can make one heap of all your winnings
And risk it on one turn of pitch and toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;

If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you

Except the will which says to them "Hold on!"

If you can talk with crowds and keep your virtue,
Or walk with kings—nor lose the common touch,

If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;

If you can fill the unforgiving minute
With sixty seconds worth of distance run,

Yours is the earth and everything that's in it,
And—what is more—you'll be a man,
my son!—Kipling.

C. O. DAVIES TAKES OVER BOTH HOUSES

Well, we all know what the Wigwam was and what it is. Well, the Wigwam is in the same fix. Charlie Davies, the popular show man, is now running both houses and so far has made good inasmuch as he put on the best show ever put on by any house in the town for the first week.

A representative of The Sagebrush when interviewing Mr. Davies said, "Mr. Davies, how can you afford to put on such a show in this town?" The answer was, "I want the confidence of the public. I'll do anything to get it and then we will put on the show that will please the people the most. I intend to make the shows the very best that can be had on the coast or anywhere else and I want the students from the hill to come down and visit us. We will treat them right and will show them the best time for their money they can get anywhere."

This sentiment was carried out to a letter when Mr. Davies took over the house. He made a "White Way" from Virginia to Center streets and he put the finest show on that has been seen in Reno. He also started the Wigwam with a first class show that will well merit the attention of any one with ten or more cents to spend.

As the purpose of this little story is not to give the reader the program or anything of that kind, we would suggest that the reader claim residence in Missouri and then be shown.

"POP" ANDERSON MEETS WITH BAD ACCIDENT

While at work near the elevator shaft in the Reno Mercantile store last Saturday, Walter W. ("Pop") Anderson slipped and fell against the guard in front of the shaft. The guard was a rather flimsy affair and broke under his weight and Anderson fell down the shaft to the basement. He sustained a badly sprained wrist and a severe gash on the head, but was not rendered unconscious.

"Pop" is one of our most popular instructors. He has the freshman classes in chemistry.

The intercollegiate shot put record was broken in a recent interclass meet at Columbia. R. L. Beatty put the 16 pound shot 49 feet, 2 3/4 inches.

THOMAS H. WESTERN, New Optician in Reno

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Special Stationery Sale

STARTS TUESDAY, JANUARY 9th

Now is the time to stock up with good stationery at your own price.

We have a large number of high class fancy Xmas gift boxes of Cranes and Whiting's papers which have been left over on the shelves because we could not offer them as holiday goods. The paper is still unsoiled and high quality.

These will go at cost and below.

We are going to mark all of our 1912 calendars down to cost this week also. A good line of 1912 diaries and Memindex outfits left to choose from.

5000 votes of each \$1.00 purchase on above goods.

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