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# TheUniversity Argonaut 

Vol. II.

## Course in Mining Engineering.

Many people, who lay claim to being educated, have such an erroneous idea of mining that the writer will be pardoned for devoting part of this article to mining in general.

Mining is one of the oldest industries of the world. Mining for gold and silver was carried on since prehistoric times. "In the code of Menes, who reigned in Egypt in 3600 B . C., or about $2000^{*}$ years betore Moses, the ratio of value betweengold and silver is mentioned', (Rose). Hence these metals must have been mined long betore that time.

When mining began civilization dawned. During all the epochs of the Stone Age, man was a savage. Stop mining and the human race will soon be reduced to the material condition of the savage. "Thenard asserted that we may judge of the civilization of any nation by the degree of perfection it has attained in working iron. We may safely say that, without a knowledge of the metals, man would have remained a barbarian," (Steele). Dr. R. W. Raymond, while commissioner of mining statistics in 1869, wrote, "As mining is an essential condition to the progress of civilization, so we may reasonably conjecture - the
progress of mining at any given period from the culture of the people. * * * The iron and coal mines of England are well known to be the secret of her commercial strength; and in our own country the State of California owes her wonderful progress and increasing power to the mines: Even the enormous agricultural capacity of that state would never have been known nor developed but for the gold mines."

Mining has been the cause of the beginning and the development of several sciences. As astrology lead to the study of astronomy, so alchemy (the art of transmuting the base metals into gold and silver) lead to the study of chemistry. "Metallurgy is the most ancient of the arts, and many of the facts on which the science of chemistry is based were discovered by the 'early smelters of metals'' (Sextou). The develcpment of the sciences of geology and mineralogy is due to the miniug industry.
"In a technical point of view, it is certain that we owe to the working of mines and to the material difficulties, often considerable, agaiust which the miner has to contend, many ingenious, daring, and powerful processes which have afterwards passed into the general domain of ind ustry."
"In the middle ages it was for
mines that the flrst works for husbanding water as a motive power were made and the first hydraulic machines set to work on rational principles; it was also for mines that thefirst steam engines were set to work, and the first railroads established; and lastly the necessity of working and dressing have caused apparatuses for ventilating, sorting, classification, etc., to be invented and multiplied from which general industry has since derived its profit" (Callon).
A large mine in operation with its pumping machinery, its air drills, its means of sinking in running ground by tubbing, freezing or the pneumatic pile, its system of timbering to withstand enormous pressure, its means for ventilation, its hoisting machinery and tramways, its electric light and air compressor plants, its crushing, dressing and milling machinery, is a marvelous illustration of human activity, and of the triumph of mind over matter.
"Mining, in its broad sense, embraces all that is concerned with the production of minerals and their complete utilization?" Any course that is intended to fit a man for this work must be a broad one, and necessarily a severe one. The mining engineer must be educated along mãy lines of work. He should be a geologist, mineralogist; chemist, engineer (mining, mechanical, and electrical), surveyor, and metallurgist: Among other subjects such a course presupposes such subjects as drawing, physical
geography, physics, and mathematics. All the subjects are either practical or preliminary to those that are practical. We must not lose sight of the fact that while this course is intensely practical, it is also disciplinary in its effect. The fact that it is a difficult course; according to a well established pedagogical principle, makes it also of great disciplinary value. Those who master the subjects tauglit in this course should receive such a discipline that they can use their minds to the best advantage, which is the object of a collegiate education. Such a course must be of great value, and of much satisfaction to a person in any line of work. Mining is so interwoven with the history and development of this western country that some knowledge of this subject is required even for an intelligent understanding of the economic condition of the West.
To enumerate the practical value of each subject taught in this course, would fill many volumes. There are many mines lying idle now because their owners have not been able to work them at a profit. The mining department aims to train men not only to work these properties at a profit, but also to work those that are in operation at a greater profit. The mining engineer, knowing the efficiencies of the different types of boilers, would select one for its durability and calorific economy. He would determine the evaporative power of the fuels procurable at the mine, and
select the one that would give the most power for the least money. He would analyze the water to be used in the boilers and treat it so as to prevent the formation of scales in the boiler tubes. These scales are often the cause of explosions, and "a scale one-sixteenth of an inch thick on the tubes causes a loss of 13 per cent. of the fuel hèat." He aualyzes the chimney gases, and if he finds carbonic oxide, there is incomplete combustion. The grate in the boiler is too small, the fuel is too thick on the grate, or not enough air is supplied. If too much air is supplied, heat is carried up the chimney, and fuel is wasted. The exhaust steam and the chimney gases can be utilized to heat the feed-water, and thus fuel can be saved. He manages the engine in a similar intelligent manner. He assays the ore and the tailings, whicli indicates whether he is getting the highest possible value out of the ore. By whatever process he may work the ore, he is educated how to check every part of his work, to know the causes of loss and how to remove them.
Knowledge is far enough advanced that the principles of dynamic chemistry can be applied to the solution of metallurgical problems. The equilibrium produced by the products of the reactions of compound bodies on one another must be understood. The heat energies developed or absorbed by different reactions have been determined. Unless the engineer has a thorough kriowledge of this subject, it is of no,
practical value to him; as, for example, an exothermic reaction calculated to develop a certain number of heat units, if allowed to take place above the critical temperature, would become an endothermic reaction. The Scientific Press of Nov. 25th, 1899, says: "The necessity of employing technically educated men to superintend various branches of the mining business has long since been recognized, and old time-honored but inefficient methods have been forced aside for new ideas and common sense application of scientific principles.'

The mining engineers, under the name of The American Institute of Mining Engineers; constitute the largest technical society in the world. At present they have a membership of over 2600 , distributed over all parts of the world. They have-had a wonderful influence on the world's material progiess by the advances they have made in mining appliances and in metallurigical processes.

The world has use for, and respects men who can bring things to pass. The young men thained here will be a great factor in the development of -the natural resources-of this state. When our mines are in opieration, there will be a demand for the products of other industries, and the state will grow in influence and power and take a prominent place among the sisterhood of states.

Science and engineering have advanced the world to its present power. While our orafots are still talking of Greece and Rome, and
thrashing over old straw that has yielded no grain for/ centuries, science and engineering are developing our resources, building our roads, crossing our streams, making our cities inhabitable, and ministering to the health and comfort of mankind.

In Idaho the mining industry is of primary importance, and it is the principal industry of this state. Last year this state produced $\$ 13$, 623,448 worth of gold, silver, copper,-and-lead, and roi new mining companies were incorporated. The Coeur d'Alenes alone pay out over $\$ 3,000,000$ a yeat in wages, yet mining is in its infancy in this state. The state has been only partially prospected, yet there have been already discovered gold, silver, lead, copper, platinum, cobalt, nickel, tin, antimony, molybdenite, Scheelite, mica, asbestos, infusorial earth, monazite, coal, building stone, limestone, marble, onyx, opals, garnets, and rubies. Idaho is literally "the gem of the mountains."

> A. S. MILLER.

## The Testing of Materials.

The prosperity of a nation is measured by the success of its people as builders. We may go still further and say that its civilization is also measured in the same way. Mans first structures were rude and massive. As he built more he learned, by proper designing, to accomplish the same end with less material. A modern engineer with the amount of material and labor that the py-
ramids represent, could build a city of skyscrapers. The twenty-story building, the suspension bridge, the railroad and the ocean liner are types of higher civilization and imply a comprehensive knowledge of the strength and properties of the materials of which they are built. The evolution from the pyramid to the Eiffel tower has necessitated study along two lines. First-Structural designing. Second-The strength of materials. From these has grown the science of mechanics of materials.

The first scientific investigations in this subject were those of Galileo in 1839 on the flexure of beams and forms of uniform strength. Forty years later the law of the proportion of detrusion to the force applied was announced by Hooke. During the eighteenth century the theory of flexure was improved by Leibnitz, Euler, and others. Early in the nineteenth century the science received renewed attention and many of the formulae used today for beams, columns and shafts were deduced at this time. About 1850 the first testing machine was built and systematic investigation has made the science what it is today. Since that time the growth has been rapid/and progressive.

They two fundamental principles of engineering design are:

First-The structure must safely withstand all the stresses applied to it.
Second-The structure must be built and maintained at the lowest possible cost.

In other words the structure must, like the "one-hoss shay" of the poet be equally strong in all of its members, and if it should fail all parts should fail together. If one piece is stronger than this ideal con-

## Of What Value is a College Education?

Undoubtedly the most noted agricultural paper in the United States is the "Rural New Yorker." Do many of its thousands of subscribers in the West know that its editor is one of these much-dreaded scientific farmers? The cause which led Charles W. Collingwood to seek an education is told in the following words, by himself, at a farmer's institute in Massachuesetts.
"I stand here a graduate of the Michigan Agricultural College, class of r883, and I thank God today that I took that course in that college. I want to give you just one leaf out of my life, and tell you what induced me to take that course. When I ran away, I was thirteen years old. I went to school two terms after that, then went to work. When I was nineteen I drifted to Colorado as a cow boy on a ranch, and one day there on the plains I saw two old men talking together and going over their lives. One was a man of wealth. He had ten or fifteen thousand head of cattle. The other was a poor man. The rich man could barely sign his name. The poor man had a college education. And I tell you, as I saw those two men there at the evening of life, side by side, and
compared them, the thought came into my mind, What is life after forty-five or fifty years? And I made up my mind then I would go through fire and water if need be to educate myself, and that was how I happened to go to the agricultural college. I went there because that college offered me a chance to work my way through. I milked cows, waited on tables, washed dislies, tried to teach a district school and was thrown out, but I went back again."
There are scores of others who have made their way through College under difficulties of the same nature. Don't let the lack of funds take you from your classes. Ten to one you will never return. Don't be ashamed of seeking work. Half your professors made their way through school in just the same way thạt Mr. Collingwood did.
T. S.

## Some Chinese Customs.

Because the Chinese are so vastly different from Americans in their customs, the study of them often proves interesting.

Every Chinaman believes that if he has a-son to perform ceremonies over his dead body, that it will tend greatly toward giving peace to his soul. This is the reason given for the early marriages in China. When a young Chinaman becomes of age his parents seek alwife for him, without cousulting his tastes whatever. All the wortis idgne by a person called a "Gopretween," who is employed by the parents of
the young mau. She selects a young lady that she believes would be a suitable wife, and calling on her, presents her with a card, which contains the year, the month, the day, and the hour of the birth of the young man. If the parents of the young lady think of accepting. the proposal, they consullt a fortune teller, and if the prophesy concerning the marriage is favorable, a like card is given the "Go Between" for the young man, whose parents go through the same process as the parents of the young lady. If the prophesy is favorable for him, two cards are prepared, containing the particulars of the engagement. One is given to the young lady and the other is keept by the young man. On the day of the wedding, the young lady with lier friends, starts for her future home. On the way she is met by friends of the groom, who accompany her the remainder of the distance. She alights from her sedan chair, and is taken to a room in which is her betrothed.' Her face is covered and without saying a word they each try to sit on the other's dress. They believe tliat the one who succeeds in doing so will be the ruler of the houseliold. From this room they go into a reception room, where they worship for a time, and then after drinking a glass of wine together, the groom sees the face of his bride for the first time. This is the end of the ceremony.

When a Chinaman intends giving a diuner party, a few weeks before the time set for the party he sends
invitations to his guests on large red paper. The day before, he sends another invitation on rose colored paper. On the day of the party, a few hours before, he sends another invitation reminding the guest that the feast is being prepared. When the guests have arrived, exactly the same kind of food is prepared on each table. The tables are of ebony, and each has two or more tops so that as the courses are served, a top is carried away dishes and all, leaving the table ready for the next course. No linen is used whatever, and for the first course on the table will be found china ware, wine-cups, chopsticks, plates with fruit or nuts, and several small dishes containing different kinds of salads. The table is completely filled with the exception of a round place in the centre. When everything is in. readiness and the guests are seated around the tables, the master and the guests arise and he salutes them with his wine cup. They all drink and again seat themselves. A cup of hot food is then placed in the centre of the tablé. After the first course, the guests arise and walk around and amuse themseives as they wish while the table is being prepared for the next course. In a few moments they are seated again and the host places the first dish of food on each table as an act of courtesy. The last thing that is served is the tea which they, drink without milk or sugar. The day after the feast the host sends an apology to the guests for the poor-
ness of his repast and they answer by telling him of what a pleasure it has been to them.

## The Argonauts.

The Golden Fleece was at Colchis, at the extreme east of the Euxine Sea. It was in a consecrated grove under the vigilant care of a sleepless dragon.
Jasoṇ was a young prince, heir to the crown of a relm in Thessaly. Heroism being the essential of an honored king, and adventure the means of proving heroism, it took but little suggestion to fire Jason with a consuming ambition to achieve glory in this difficult quest -obtaining the golden fleece.

But Colchis was far away, dangers innumerable were to be overcome on the journey from land and sea. A staunch vessel would be needed to stand the heavy seas, and brave hearts to man it on its perilous way.
$\therefore$ Argus was chosen to build a ,vessel large enough for fifty men, immense compared to the little canoes then used by the Greeks. A band of heroes were soon ready to embark, heroes who were already famed for many brave deeds. Hercules, used to difficult tasks, Pelens, father of Achilles, Nestor; sage in counsel, Theseus the sturdy warrior whose very appearance commanded the admiration of even his enemies, Zetes and Calais, the winged warriors, Castor and Pollux, Orpheus the sweet musician, were in that famous company:'

The Argo, so-called atter its builder, started out with this goodly band under Jason from the shores of Thessaly, touched at the island of Lemnos. at Mysia, and at Thrace.
At this place they learned from the sage Phineus how they might avoid the dangers in passing between the clashing islands at the entrance of Euxine Sea. Accordingly when they reached these treacherons islands they released a dove which took its flight between the crags, losing only a few feathers of its tail. as the rocks crashed together behind. Just as the islands separated, the Argo, urged by the strong oars, leaped forward and passed through in safety, but the stern was grazed by the closing rocks. From there on in smooth water they followed the coast till they reached the land where their object lay.
Jason, after performing some alloted tasks by the aid of Medea's magic, obtained the fleece and returned with it to Thessaly.
Like many prizes which men struggle hard to win, it was not worth the trouble expended in its quest. But the company of heroes, starting out with their craft, daring an unknown sea, for a fixed purpose, is a picture of strength and bravery. No dangers daunted them, but Onward! was their watchword, and they pushed on to their desired goal in spite of all obstacles, setting an example of steadfastness which could well be followed at the present day.

## LITERARY DEPARTMENT <br> Intimations of Immortality.

"Intimations of Immortality" and the "Vision of Sir Launfal," two of the greatest poems in the language, taking just the opposite view of life as they do, are worthy of comparison.

Wordsworth in his poem describes how the older we grow the farther we get from God. He tells of how beautiful and glorious everything appeared to him when he was a child, but when he has grown older, he finds no glory and shows his grief plainly. In places he tries to throw this feeling off, but it again comes back and he explains how much purer and better a child is than a man because the child is fresh from God and still has his glory around him.

In the beginning of his poem Wordsworth describes his recollections of the glory of his youth, and how he feels that there is something going from his life each day that "our birth is but a sleep, and a forgetting" at what took place in óir pre-existence, and that "heaven liesabout us" only "inour infancy."

Lowell, on the other hand, takes just the opposite view, and looks at the bright side of life. He, in many places, seems to refute what Wordsworth has said and tries to show that the older we grow the nearer we are to God. "He says that "not only around our infancy" but also around manhood does
heaven lie, and that even the dried wood is ready to bless man

Wordsworth hears the birds singing their happy songs, he hears the shout of the merry shepherd boy; he sees the whole earth beaming with joyousness and mirth and he thinks his sullenness is the one blight on the happy day. For a time he is strong again and he forgets his unhappiness, but he soon returns to that melancholy strain and thinks that even the pansy at his feet tells of a glory that is gone.

Lowell's description of June or the springtime of life, containing not a vestage of melancholy, would prove him to be more of an optimist. He seems to be full of hope and thinks that heaven is not so far away or so hard to gain as Wordsworth had supposed. He speaks of it as being the only thing that is given away. At this time of life "the eyes forget the tears they have shed. The heart forgets its sorrow and ache." Everything is brightness and it makes no difference how the past has been, happiness comes now be-cause God wishes tt.

Although it is said that Wordsworth did not believe in pre-existence, yet be has written his poem with so much earnestness that it leaves the impression that he really did believe what he wrote and it fills one with gloom, while Lowell's poem has more influence for the good. It causes one to feel that there is something to hope for, something to live for, and something to gain.

## The Testing of Materials.

(Continued from page 77.) dition calls for there is an excess of materials which could have been saved.
Perfection in designing has not yet been reached, owing to our lack of knowledge of materials. We may compute the stresses in a structure, resulting from any load and deduce mathematical formulae that will be true. for all conditions. but when the effect on the material is brought into the question, the science with its formulae are largely emperical. This forces us to note the action of materials under stress in testing machines. The science then rests on conclusions based upon actual tests. A material is tested.

Firrt-To find its mechanical structure.
Second-To find the effect that its chemical composition has upon its value.
Third-To find its actual strength elasticity or resistance.
Fourth-To find the effect that mecianical treatment has upon its strength.
Fifth-To find flaws in materials and workmanship.
Engineers place all confidence in tests made by standard machines and the members of all structures are designed by the results deduced from such tests. This affects the intelligent builder. The untrained workman puts certain pieces in a structure because in existing strustures of similar kind they have been
so used and have sustained the stress. But in a bridge or other important structure where the failure of one piece would cause the failure of the whole, such a risk could not be taken. Every member is tested to stand more than it will be required to sustain when in its place and under the maximum load.
It has always been customary to design a structure to withstand several times the amount of stress that will ever be applied to it. This is using a factor of safety. It has been called by some "factor of ignorance" for if we knew the exact amount that a material would stand under certain forms and conditions we could reduce this and design an ideal structure. In old stone bridges it reaches oftimes five hundred: But such careful and thorough investigations have been made upon steel that the bicycle has been designed with a factor of safety of only two. As we learn more of materials the factor of safety is gradually reduced.
In nearly all colleges and universities that give engineering courses are provided with suitable testing machines and laboratories. This places the experimental part of the science in the hand of. the students where it rightfully belongs, and the knowledge thus gained will be of the greatest utility. "With these facts in view it is most certain that many things which are now shrouded in mystery will be explained, and the science reduced to an exact one. J. E. M.


Piano Practice.
EMIL SAUER.
The creed of Nicholas Rubinstein, my teacher, wa's that it is not how longy one practices, but how. And he taught us how. He taught us how to utilize our brains as well as our fingers. It is the brains which are chiefly taxed. Playing must become merely mechanical if such is not the case, and in these inventive days mechanism can accomplish this kind of playing much better than the himan fingers:

I never practice now longer than four hours a day, and I never play formal exercises or studies. Beethoven's concertos and Hummel's works, not to mention the compositions of other masters, contain "exercises" infinitely more valuable than any which have ever been written with the express purpose of attaining digital agility.

After once acquiring technical perfection in the playing of a composition, I throw my whole mind and soul into the reading in order to infuse feeling and expression into every note. Consequently I have to be enthusiastic when I practice, or give it up. No; I do not study every effect and every expression. That would be the inerely mechanical again. Oftener than not, when I am playing before an audience the music rouses something
within me, and I find myself giving entirely new interpretations to passages.-The Mussicians.

The Philharmonic Club is to be organized with an associate membership, the subscription to which two dollars- will entitle thid holder to eight concert tickets, admitting to any of four concerts, two by foreigni talent ane two by the club. It is hoped that this afrangement. will enlist the interest of a large number of citizens in advancing the welfare of the club and the interest in music in the city.

Miss Elsie Watkins has been engaged to take charge of the Mandolin club and to give instructions to those who wish lessons in Mandolin playing. Miss Watkins is an artistic player upon that instrument and very much interested in that class of music and will be an acquisition to the department.

The Philharmonic club are making arrangements for a series of four recitals, two by a pianist and a violinist from abroad and two by the club.

## The Christian Student Clovement.

"The Students of the World United" is the title "of a pamphlet concerning the Worlds' Student Christian Federation and tells of the progress made since its orgnnizatien in 1895. John R. Mott, the general secretary of the federation states its object thus: "To unite students' Chrtstian movements
throughout the world; to collect information regarding the religious condition of the stukents of all lands; and to promota the following lines of activity: To lead students to become disciples of Jesus Christ as only Savior and as God; to deepen the spiritual life of students, to enlist students in the work of extending the Kingdom of Clitist throughout the whole world."
America leads in the number of organizations and members, there being in the United States and Canada 559 associations and nearly 34,600 members. These associations are distributed among theological colleges, law colleges, medical, dental and pharmacentical colleges, universities; - and normal, technological, military and naval colleges and schools.

Founded upon the bible wiih faith in the divinity of the lowly Nazerene, and in the efficacy of his teachings toward the betterment of mankind, not only in moral and spiritual matters, but also in physical and mental, The Young Mens' Chiristian Associetion is organized to disseminate those principles and teachings amongst the students gathered in the institutions of learning.

Idaho has come to be represented in this Federation of Chistian students by the $\mathrm{Y}, \mathrm{M}$. and Y : W. C. A. in her university.

Now on you, my student friend, rests a part of the responsibility of making these organizations a help to yourself and to others. It is within your power to aid these
associations; and in doing so you will add to a power that lifts and enlightens students in their pursuit of knowtedge and truth. In helping others we help ourselves. In helping and eńcouraging students we help our institution and thereby our state and nation ond in thus serving men we serve God.

## Words of Sympathy.

In accordance with the divine purpose of Him who guides our destiny, two members of the Amphictyon society-Bertha and Frank Morris have been bereft of a beloved mother. The members of the society realize that in the hour of so deep grief human sympathy avails but little and that the greatest consolation must come to the sorrowing ones from a power higher than human. They yet mourn with the afflicted ones, the death of her whom all had learned to love, and through their committee bid them be assured of the abiding sympathy of every member.
Com. $\left\{\begin{array}{l}\text { Burton L. Frenci, } \\ \text { Edna Dingee, } \\ \text { Olor Larson. }\end{array}\right.$
President Blanton, Miss Bowman, Profs. Bonebright and Cogswell and Burton L. French were in attendance on the State Teacher's Association in Boise during the holidays. They report a very enthusiastic fleeting and large attendance from the citizens of the south as well as of teachers and educational officials.

# University Argonaut 

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BURTONA, FRENCH "01 EDITOR-IN-CHIEF.


Miss Ollie McConnell, Literary and Musical MR. W. B. Griffin - - Athletics Mr. H. Lancaster locals and Mrss Brimtannia Daughters? Personals Maybelle Wolfe Marion Fitzpatriok $\}$ - - Society

Through the generosity of Dr . W. W. Watkins of Moscow, Hon. Wm. Kaufmann of San Francisco, and Hon. W. B. Heyburn of Kellog, special recognition of merit in various lines of work has been offered to the students of the University. The Watkin's gold medal for oratory is awarded annually to the winner of an oratorical contest. The Kaufmann award consists of $\$ 250.00$ cash, and is equally divided among the three best students or one student chosen from the Preparatory Department, one from the Freshman and Sophomore classes and one from the Junior and Senior classes. The Heyburn $\$ 20.00$ cash award is given to the best debater determined in a contest between the best debaters of the two literary societies-the Amphictyon and Websterian. The gentlemen tendering these prizes are certainly deserving of the sincere
gratitude of the student body. Their names will be cherished as of men interested in the welfare of the rising generation. By every stup dent whether a recticiet of a pilie or not, will these ment be estefiled and loved-not for a day or for a year, but for the years to come.

The Argonaut has repeatedly made editorial mention of the needs of the University. We have done this not supposing that any immediate action can be taken that would aid in attaining a present realization of our desires, but rather that the nucleus of a public opinion that would demand the best for the first educational institution in our state might be formed, It is self evident that the University is best advertised through its students. Localities that six years ago sent but one or two students today send many times that number. This is as it should be and argues our position that through the students may the people of the state be reached. Then let the student body not alone direct theirattention toward interesting new students in the courses offered, but as well their friends at home in the needs of our institution. The people of our state have a pride in our state University and it is their ambition to provide for it reasonably. So let the student body convey the message to their friends at home that we need a science hall, that we
need dormitories, that we need dower rates for students upon all railroads. Let them do this and we need not fear but that the people of out state will, as fast as fossible, fill all our wauts.

Criticism and faultfinding, otten confused in the public mind, are as widely different as the east is from the west. The oue is commendable, the other despicable. The power to criticise is a virtue, the inclination to find fault is a vice. Of the privileges given to man one of the greatest is his right to criticisethe world is made better thereby. Of the means by which be may blight and tear down the life of his fellow man none is more effective than faultfinding. Criticism is essential to healthy progress, faultfinding a menace to its growth. The former aids not alone the one who criticises, but as well the one who is the object of consideration. The latter, while it hurts the one from whom it emanates, gnaws ofttimes into the very marrow of its victim. Criticism need not be adwerse to the object criticised, it may be in commendation throughout. Faultfinding is always aimed regardless of vine or virtue, and satisfies nothing except a vain conceit of its author. True criticism is born of a desire to know truth. Faultfinding is born of ignorance and nourished by bigotry. Criticism gives to merit and sincerity its ty:
hearty commendation and banishes evil that it may be forgotten. Faultfinding distorts truth, makes sincerity hypocricy, and impunes and shames the motives that are most holy. Criticism considerately reproves if ill be found and kindly points its object to a better way. Faultfinding knows no better way, but having scourged the object of its spleen, suspends its lacerated and bleeding form before the eyes of a world to be punished by the severe gaze of a poisoned public opinion.

It is within the range of possibility that the person who is quick to impune the honesty of another needs watching; that the person who sings of virtue need keep the curtain of his own life closed, that the person who turns up his nose at worn coat sleèves would wear no coat at all if his debts were paid; that the person who sits in the back seat and laughs at the mistakes of a boy making his first speech has not enough intellect to form two sentences on the same subject; that the person who mocks the awkward boy has not a grain of genuine nobility, that the person who condemns the common people is but a numskull inflated with egotism.

Mr. William McIntosh, of Caldwell, has given the museum some specimems of fossil vegetation consisting of leaves and plants found near Sucker creek, in Owyheeconn-


The department of zoology has at present 12,386 pinned insects, besides several thousand in bottles.

The agricultural department is preparing to send out seeds of various forage plants for experiment in southern Idaho.

The lights have been placed in the remainder of the rooms in the building, and the entire building is now wired and can be lighted.

In the future notes on injurious insects will be preserved in the form of a card catalogue. The outfit for this work has been received recently.

Arrangements are being made to give a series of four recitals by the Philharmonic club and by foreign -tallent during the second semester.

The farmers' institute which was to have taken place at Lewiston on the 26th and 27 th has been postponed on account of the washouts.

A farmers' institute will be held at Moscow in the U. of I. assembly hall on the ist and 2d of February. Program and announcements will appear later.

The lighting capacity of the university has been increased by the addition of a 200 light transformer, which was placed on the fifth floor Wednesday.

At the beginning of the second semester the cadets will be drilled in pointing and aiming. This is preparatory to target practice which will be taken up next spring.

The short course in agriculture has been changed from Jan. 22 to Feb. 5, extending to the 17 th. The committee were compelled to change the date on account of other school work.

While in southern Idaho, President Blanton delivered a lecture entitled "The Ministry of Woman," to an enthusiastic audience at the Pleasant View school house near Payette.

Dr. Avery has just finished numbering the reagent bottles in the chemical laboratory, which is a very great improvement that is highly appreciated by the students in that department.

In the American Kitchen Mágazine for this month appears an excellent article from the pen of Mr. Thorn Smith, Dept. of Chemistry U. of I., on the subject, "The use of added preservatives."

Peter Skjarve, an old prospector, and W. H. Campbell are taking a short course in assaying, mineralogy, and chemistry, and last week Mr. J. J. Murphy of Montana, entered the same course.

The minstrel given by the Athletic Association at Pullman last
week was well received. The performãnce at that place was somewhat better than the one given here. The Moscow band accompanied the boys.

Prof. French "brought back from his trip to South Idaho, some fine specimeins of corn grown in Canyon county. This will be planted at the experiment station next spring with a view to testing its growth in this region.

The department of horticulture will make rooo root grafts this spring to add to their already well established nursery. Students of that department will have an opportunity to add to their knowledge of grafting.

The mining department received six samples of wire cable from Seschew \& Sans Rope Co., of St. Louis, Mo. This firm liberally donated these samples and prepaid the expressage to Moscow, something that is done by very few firms.

The department of chemistry is engaged in the analysis of severalsamples of baking powder. Only the most prominent brands are being analyzed. The work is undertaken at the instance of the manufacturers who pay liberally for a correct analysis.

The "'Varsity Vif" rendered a pleasing selection at assembly last week.
.

President Blanton and Prof. A1drich are in the southern part of the state attendiug the meeting of the

Two publications, "The Christian Science Journal'; (a monthly,) and the "Christian Science Sentinal." (a weekly,) have been added to the library by the local society:
state board of horticulture. Prof. Aldrich will address the meeting on "Injurious. Insects." President. Blanton will deliver addresses at Boise, Mountain Home and Glen's Ferry.

The Freshman class will have an oratorical contest. A suitable prize will be given to the successful one. The one receiving the highest marks will enter the Watkins contest.

The following students have registefed since vacation: Lucile Mix, Mabeil Moodey, Hattie Staley, Carlton French, Eugenie Dangs, Peter, Skjarve, Curtis Brigham, Hulda Anderson and Lena M. Olson.

The first of the bulletins, "Apple Scab on the Potlateh," by Prof. L. F. Henderson, is being distributed. The pamphlet gives a history of the disease in northeri Idaho, and a description and treatment of the same, together with spraying formulas.

Prof. French shipped 100 pounds of Sand Vetch to Pocatello this week, for distribution among the
farmers of that section. This is a Russian forage plant and is sometimes known as the Russian Vetch. It is esfrecially valuable for feeding. stock, and is very similar to alfalfa in its food value.

Prof. Frink's class in contract law is working upon origial sets of engineering specifications. Each student has a different subject, and all the documents involved in the letting of contracts will be prepared for each case. Typewritten copies will be filed in the engineering library.

The civil engineering department has just received twenty of the best módern reference books. Railroads, engines, masonry, sanitation; hydraulics and bridges are among the subjects covered. The department library now. contains over 200 standard books of reference, besides many pamphlets, trade publications and bound periodicals.

Professor French has received a request from the Department of Agriculture for ten bushels each of the following varieties of wheat, to be distributed in this and other counties for seed: Canadian Hy brid, Little Club and Red Chaff. This seed was selected from samples sent to Washington for the display to be made at the Paris exposition.

Dr. Miller receives letters. from California, Oregon, Washington and other states inquiring about the
course in mining engineering. A man from Rio Vista, California, writes: "Would like some information concerning your course in assaying which has been, recommended to me as being very fine." On account of the crowded condition of the mining department parties have not been. encouraged to come here from a distance.

The Argonaut notes with pleasure that Miss Elsie Watkins, of this city, will be identified with the department of music in the $U$. of I. She will take pupils for the study of the mandolin and will direct-the 'Varsity mandolin club. Miss Watkins is an artistic mandolin player and the department and institution, as a whole, are to be congratulated on securing her services.

A letter from Paul Draper to his parents in this city brought the information that he had been promoted to the position of Second Lieutenant and had been assigned to the 22nd infantry, Gen. Lawton's regiment. Mr. Draper enlisted in the Sixteenth regulars, stationed at Fort Sherman, in July 1897, and was promoted to the position of sergeant for gallantry at San Juan hill. The members of his company presented him with a handsome uniform and a pair of field glasses costing over $\$ 80$.

Dr. Blanton then spoke of the work being done by the University of Idaho. and told of its wonderfu1 growth and ot the important posi-
tion it occupies today as a state institution. . The results attained reflected the highest credit upon the citizenship of the state that had made its foundation and maintenance possible. The great educational institution of a state was the chief factor of that state's ğlory. It would be so with Idaho if she fostered her educational interests; and the progress would be just in proportion as the people lent their assistance.-Statesman, Dec. 28th.

Dr. Willard K. Clement, formerly of the university, has just pubpublished a series of six articles in the New York School Journal on' "The Schools of the Northwest," more especially those of Idaho. The university and its influence upon the state are treated at some length and special attention drawn to the unjust discrimination against the university diploma, as compared with that of the normal schools, in the case of graduates wishing to teach. This discrimination, it is shown, will result in the graduates forsaking Idaho for other states where a college diploma receives adequate recognition.

A fine photograph of Captain E. R. Chrisman adorned the Amphictyon bulletin board last week. It, together with a letter from the captain's wife, was received by Miss McCallie. Mrs: Chrisman writes that Captain Chrisman has sailed for Manila and she and babes will spend the winter with relatives in New York. In the spring she
hopes to meet the captain in Japan and maybe thence to Manila. He is now with the Sixteenth, and after their return to America, they are to be stationed at Fort Wright -the new fort in Spokane.

The mining department is fitting up a room $20 \times 60$ feet for a laboratory. This room adjoins the fire assay room and will be provided with facilities and apparatus for all kinds of wet assay work, and for cyaniding and leaching ores on a working scale.

The people of this part of the country are beginning to appreciate more and more their college, judging from the number who have been visitors to the building during the yast five weeks; yet there are many in this very city, who know not how the interior of our beautiful building looks.

Lieut Edward R. Taylor who was killed by a train at the Aguo river crossing, Dec. 26, 1899, was Idaho's first (state) cadet to the military academy at West Point. He was appointed in 8889 and was graduated in the class of ' 93 , He saw service with the 12 th Infantry in the Dakotas and Nebraska and went with his regiment to Cuba where he served through the Spanish war. He was in the hottest of the fights at El Caney and Santiago. After hostilities ceased he was transferred to Fort Riley, Kansas, where he remained until February, 1899, when he accompanied his
regiment to the Philippines. He saw service under Gen. Lawton. For gallantry in action he was promoted to the captaincy of Co. E r2th Infantry, Lawton's brigade. He was married Nov. 2oth, 1895, to Miss Laura Balmer of St. Louis, Mo., who with an infant daughter mourn the death of a loving husband and father. He was 31 years of age, the youngest son of Wm . and Priscilla Taylor, of Moscow. A brave soldier has fallen.

Dr. J. P. Blanton in speaking before the state teachers' association at Boise regarding the educational interests of the state, said that he considered the sympathy for education exhibited by the people as one of the most hopeful signs of he age. Looking out over the audience, he said the people had not come out to see strangers, they had not come out of curiosity, but they had come because of the deep interest and intense sympathy they feel for the cause of education. The people, he said, recognize the importance of the position held by the teacher and realize that the welfare of the nation depends upon the stability of her educational institutions. He spoke of the strides made by education and science during the past century and of the encouragement extended by the people in more recent years, whereas before they regarded the progress of science with doubt, placing every obstacle in its pathway and often resorting to persecution to smother it. Our civilization, he said, had
advanced hand in hand with the advancement of knowledge and science had contributed to the moral quite as well as the material welfare of the world.

The Agricultural College of the State University offers work this winter for farmers, dairymen and horticulturists that should do much to improve the agriculture of the section represented. This work begins the fifth of February, the time having been changed from the date previously given; it will continue two weeks. It is a training school in the best up-to-date methods of general farming, stock raising, breeding and feeding, dairying, fruit growing and gardening. The work will be practical and any farmer of reasonable :intelligence will be able to use the information gleaned in his daily work on the farm. Experienced and successful farmers and horticulturists will find many things of great value to them in their course. The tuition is free and the course is open to all without entrance examinations. The young men and women of this state who expect to farim should not neglect this opportunity of gaining much practical knowledge. without a great outlay of time or money Send to Prof H. T. French, Professor of Agriculture in the University at Moscow, for a circular explaining this course, and begin your preparations to attend this winter.

Much interest is being taken by
the stidents in debating and oratory. Hitherto the only incentives to such work were the medal given bp Dr. Watkins to the winner in the UUniversity oratorical contest, and the prize in the inter collegiate contest. This year, however, each of the literaty societies offering a prize of $\$ 20$ to its best debater. These prizes are being offered for the best orations, to the members of the Frsshman class, and Hon. W. B. Heyburn offers a permanent prize of $\$ 20$ to the winner of an in-ter-society debate. As Mr. Heyburii's letter is of general interest it is printed below:

## Hon. J. P. Blanton,

President University of Idaho, Dear Sir:

Replying further to your letter of December 2 ist, I hand you herewith a check.for $\$ 20$, to make good my offer of a prize for the best debater in your proposed inter-society contest. I think it is better to give prizes of this class in money than in medals. : The competitors very often need financial assistance in the pursuit. of their studies, and, while the medal represents a very nice sentiment, it seems to me under the circumstances that I would prefer each year to offer a twenty-dollar cash prize, and allow the winner to use it for his own purposes.
With best wishes for the University and yourself personally, I remain, Yours very truly, W. B. Heyburn.


Thos Burke was a Lewiston visitor during vacation.

Carrol Smith spent fis vacation with his parents in Oakesdale.

Chas. Armstrong spent hisis vacation with his parents at Lenville.

Mr. Reed spent several days in Spokane during the Christmas tide.

Lieut, McClure and Mr. Huggins were Spokane visitors during vacation.

Several of the high school students were visiting the 'Varsity this week.

During the absence of the president Mr. Condon has charge of his. classes.

Miss Florence Skattaboe has been ill for several days and unable to be in school.

The members of the Freshiman class expect to give a medal for oratory this year.

Miss-Winnifred-Booth expects to quit school soon, and will then visit friends in Spokane.

Mr. Corbett spent a part of his vacation in Colfax visiting with his sister, Mrs. Dr. Johnston.

Miss Grace Woodworth has been detained at home this week on account of illness.
$\qquad$
$\therefore$ Miss Squibbs of Spokane, is visiting friends in the city, the guest of the Misses Misses Booth.

> The Junior B. E. M. students are engaged in making colored maps of the workings of large mines.

Miss Nichols ' 98 spent her vacation with her parents. Miss Nichols is teaching in the Cheney public schools.

Nellie B. Ireton of the college, spent vacation at her home in Marsh, Idaho, thirty miles from Boise.

Mr. Ralph Jameson was perfecting, during vacation, his-invention to save the fine material in ore. dressing.

Miss Mary Tierney, one of the early 'Varsity studeuts, was married during the month and is liying in the city.

Emil Mautz, a former student and member of the "old gtard" will probably visit the institution in the near future.

Ernest J. McKay, of Odessa, Wash., visited his sister Miss Mamie at the University during the early part of the month.
Edward Cuddy, of Salubria, a
former student of the 'Varsity, spent the vacation visiting with his sister, Miss Marie Cuddy.
T. P. Marton, father of T. P. Marton, $\mathrm{J}_{\mathrm{r}}$. was up from Boise a few days and took advantage of his trip and visited the. 'Varsity.

Miss Poe spent her vacation in Spokane visiting friends. While there she saw Miss Cushman, and reports having a pleasant time.

Roy Fisher has been employed in the county assessors offlce since Xmas, but lias now resigned his position and is attending school again.

Mr. Hodge, principal of the Russell school, and Miss Grant of the Moscow High schools, visited the U. of I. on Wednesdäy and Thursday.

Miss Pauline Moerder, after graduating at the Northwestern Business college, has returned to the 'Varsity and is now employed as stenographer.

Miss Lucy F. Dean, who has been attending the $U$. of $I$. was appointed to fill a vacancy in the corps of Spokane teachers. She began work Jan. 8th.

Joseph Lavin has returned to school. He was accompanied by his sister, Miss Katie, who visited the University and then returned to her home in Rathdrum.

The base ball tossers met Wedresday and elected G. O. P. Mix, captain of the base ball team for the season: The prospects for a strong 'Vassity tean were never better.

Prof. Huntley has gone to Tacoma to attend a meeting of the Northwest Fruit Growers Association. While there Mr. Huntley will deliver a lecture on "Orcharding.'

Mrs. Susie Maxwell-Works, of Lewiston, a Junior of last year, spent several days in the city this month, the guest of Wm, Taylor's family. She returned to her home on Jan. 8th.

Mrs. Geoo. T. Crane"and daughter Marguerite, of Spokane, are visiting our old U. of I. student $=$ Earl, in Boston this month. Miss Marguerite visited the 'Varsity last commencement.

The Websterian society elected officers for the ensuing term as follows: Pres, Mr. McGregor; Vicepresident, Miss Mamie Hunter; Sec'y, Miss Brittania Daughters; Sergeant-at-arms, Mr. Wma. Lee.

The Websterian society have elected Messrs. Frerbert, Reed and Thos. Marton its team for the annual debate with the Whitman college team. The debate will be held about the middle of February.

Harry McConville who attended
the college this fall, has been visiting the family of Dr. Keener for the past year. He will not return to school until next September, but will work in a drug store in Lewis. ton, his home.

We are pleased to see the interest that is being taken by the students in the literary societies and hope this interest may continue. Each society will give a medal this yedr and the winners of these two prizes will compete for the inter-society twenty dollar prize offered by Hon. W. B. Heyburn.

Miss Margarite Van De Walker, stemographer for the Thompson Investment Company, of Butte, Montana, is spending a few weeks with her father's family of this place. Misș Van De Walker lived for years-in-Moscow and this is her first visit since she left about four years ogo.

Miss Pauline Moerder, who has been attending the Northwestern Business College of Spokane, (of which our old friend Prof. Thompson is president) has-refurned-to her home and is for the present stenographer at the U. of I. She is a very competent young lady and all her friends are glad to hear of her success in her chosen line of work.

The Weiser Sigual of this week has the following notice which will be of pinterest to U, of I. students: "James T. Jewell; of Salubria, is the
recipient of a gift-that coming from an old soldier to a young one -he will highly appreciate and always hold with pride. The gift is the service sword that his uncle on his mother's side, Capt. Henry Markbam, of Mount. Ayr, Iowa, carried through the civil war for four years, four months and four days, and then hung up as an honored record of faithful service. Aud now as a recognition of his nephew's devotion to his country, turns it over to the Jewell side of the house, secure in the belief that it will always be ready at the call of the nation and not drawn without just cause or sheathed again in dishonor."

A new literary society is being organized in the university which will include only members of the Preparatory department who do not belong to one of the present societies. A committee is now at work. on the constitution and by-laws. Features that seem to have been already decided upon are that membership ceases upon graduation from the department and that work in the new society shall be accepted in lieu of rhetoricals lieretofore required.

##  ALUMNI ET ALUIINAE 

Nrs. Stella Allen Roberts ' 96 is now nicely located in her new home in Colfax.

Margaret B. McCallie ' 98 spent two days in Spokane, the first of
the month, the guest of the famiiry of Geo. T. Crane.

Guy W. Wolfe 'g9 is reading law and hopes eo be admitted to the barin the spring.

Edward Smith 'g8 was in Moscow the first of the month from his. placer claim at Warduer.

On accotnt of ill health Olive McConnell ' 98 has been foreed to drop her school work for the term.

Adrain F. Nelson '97, now a practicing attorney in Moscow, visited Assembly at his alma mater last 'week.

Maud Mix '99 has dropped her music for the present and intends wielding the rod in the Whitman county schools.

Fred C. Moore '99 left Jan. 18th to resume his work in Republic. He hopes to be back in early June in time to respond to a toast at the Annual Alumni Banquet.

Helen F. Adair '97 (Music) left on Jan. 16th for Cincinnati to be gone until May. Arthur P. Adair ' 96 , her hrother, is only fifty miles from there and she will visit with him most of the time.

## Y. W. C. A.

The bible class, which meets every Sunday afternoon at the home of some of its members, is increasing in interest. On Jan. 7th a meeting was held at the home of
the bible class teacher, Mrs. Padelford, and on the following Sunday at the home of the preceptress, Miss Moore. Mrs.-Padelford is an enthusiastic worker along the line, hence the study is made pleasant and instructive.
Wednesday, Jan. roth the standing committee on the nomination of officers for the ensuing year made the following report:

President-Carrie Tomer.
Vice-president-Annie Peterson:
Sec'y, Recording,-Lucy Fistrer.
Sec'y, Cor.-Flora P. Moore.
Treasurer-Ethel Oderlin.
The report having been accepted the committees were duly elected. Standing committees are being appointed already and early the following semesters work will be planned.

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... Oood Rendiar Metter Por Rvery Orea.e

It aupporte \& fournalintic eduettion in college verthy of every one' anapport.

Subscriptlon Fr per youp an etvence\} uge per cegy.





Sot your alim high. and terew your courage to the attoking place that you may at-talnzt-ghakespearo onco sald. THe ovil that men dolives atter them, The good ts of tinterred with their bones.

We belleye the great poet wá only playing with words when he uttered this potheg m, fortin the ines immedlately followIng he exhibited one by onie the tirtues or the dead, and piint ed them in such overlating colora, that
"Age cannot wither nor custom stale":
thelr brillant hues.
The ovil he hadidone was efpunged from the memorlen of men, and consigned to obllrion ere the heated blood that fol lowed Brutus dagger' out, had time to cool.
Every young man should oppy the advice of Polonius to his son, and pin'it in hls hat. Thls above all:

To thine om belf be true
And it must follow, es the night the day,
Thotroanst not then be false to any man."
$4+$ Allhistory teaches that desolstion, taninge, slokness and death, follow olosely on the heels of "Grim vieaged war.' Theretore while war is on or daring the fitterim of peree, "Let all the ends thou alm'st at,
He thy country's, thy God'r and truth's."
Then should fate Beem unkind, pid strike you down with BMALLPOX Or any of the many
"Tils that flesh ls helr to"
Some one will rlse and say,
cHe was my friend, raitiful and just to me
His 1 ife wan gentle, and the elements so mired
In him that Nature might standup and eay
To all the world, This wasa mant or
This was a lady
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Then we will cater to your whims so nice, All will say, we are the proper creatures.
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Youre Truly,
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