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VOLUME XI.

No. 3.

NOVEMBER, '96.

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High School Register.

VOL. XI.

OMAHA, NEB., NOVEMBER, 1896.

No. 3.

• THE REGISTER •

Editorial.

THE REGISTER is a monthly journal published on the last Thursday of each month from September to June, in the interest of the Omaha High School.

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ON ACCOUNT of the unusually heavy work the teachers have been forced to do this year, it has been impossible, up to this time, to begin Rhetoricals, but now plans for them have at last been made. It is not possible to have the gatherings this year in the Senior study room during school hours, as has always been the case, unless a way for that be found later, since there is no means of disposing of the pupils there at that time. But each English class or division will have its own programs during its own recitation period; then, from these division programs will be chosen by the pupils, those who best represent the work of the class, these chosen ones to be put on for general meetings held in room 31 after school. This arrangement is not altogether a disadvantage, for by thus sifting out the best for the general programs, better public work will be obtained.

AGAIN Thanksgiving Day rolls around and we commence to have visions of large, appetizing turkeys, with cranberry sauce, and large indigestible mince pies. The small boy grows jubilant as the time draws near and again his eyes are in danger of becoming larger than his stomach. The turkey, poor bird, trembles in his boots, so to speak, and contemplates doping himself with anti-fat. We shall soon see the familiar pictures in the papers of the farmer, ax in hand, in the act of sacrificing the plump

gobbler. We wish all our readers, especially our subscribers, a happy Thanksgiving. May they celebrate, one and all, by unusually fine dinners, among other ways, and may they not suffer any uncomfortable consequences. The Monday after our short vacation may we see all back at school again, and of course they will be looking forward immediately not to the Christmas vacation, but needless to say, to resuming their studies and labors at school. Let no facetious reader dare to insinuate that we are not perfectly sincere in this.

OF LATE the crusade against the cigarette, and for that matter the smoking habit as a whole, has been started afresh, chiefly in the schools. The newspapers have taken up the subject and interest has been aroused generally. A plan has been arranged to have boys sign the pledge and it is hoped that an unusually strong movement will be made against the evil. If that "horrible" (?) game of foot-ball has slain its thousands, the cigarette has slain its tens of thousands. Much ado is made by fond parents and timid friends over blackened eyes, bruised shins, and scratched faces, but what about the danger of this tobacco habit, which has gained such a hold? Its visible effects are seen in the livid skin, the shaking hand and the nervous cough, these are the results physically; but the boy who smokes is certainly handicapped for life by the sluggish intellect and dulled moral perception, as well. He might much better have a broken bone or two. The harm resulting from the habit has been discarded upon so much that of course we are not intending to give information when referring to it. The smokers themselves realize it as well as any one, and the continuing in the habit is as often as anything the result of a mind too weak

to resist, or to leave off when once started. The worst phase of it all is the contracting of the habit by boys only seven or eight years of age, but this, of course, we do not see in the High School. To return to our parallel between cigarette smoking and foot-ball playing, painful and fatal accidents occur in every walk of life, but as between the harm from the large, round, leather-covered instrument, and the small, round, paper-covered engine of destruction there is no chance for argument.

MORE especially since the news of the death of Doane's quarterback as a result of injuries received in a foot-ball game, the hue and cry concerning the danger and brutality of the game has become louder. Those who know nothing about the subject, but only keep on the lookout to hear of some injury from foot-ball so as to take it up and continue the tirade against the game have become more firm in their opposition. Walter Camp, who probably knows as much about American foot-ball as any one yet heard from, has gathered testimony from people all over the country and has published several books on the subject; and looking over the immense number of letters from colleges, from presidents, professors and players, will do as much to convince one of the right side of the question as any other available means. Of course it is not necessary to say anything regarding the physical effects of the game; every one will acknowledge that it is the best form of bodily exercise. More especially is it superior, on account of the all-around effect it produces. So many popular games and sports tend to develop only a certain set of muscles, while foot-ball develops more thoroughly than any other. It has been well said that foot-ball is the Greek Pentathlon revived and combined

in one sport. Then in reference to injuries, the great mistake, made by nearly every one in this respect, is that they take into account merely the number of injuries without considering the number in proportion to the thousands that play the game. A foot-ball accident is taken up, spread abroad and made much of to a ridiculous extent. How many serious injuries have not resulted from such amusements as base-ball, swimming, shooting, cricket, coasting, lacrosse and others? The prejudice against the game is nearly always because of a narrow, unreasoning view of the subject. Then, as to the benefits mentally, foot-ball is far ahead of any other game. It tends to cultivate the qualities of self-control, courage, self-reliance, mental concentration, watchfulness and obedience. We have not the space here to explain just how each of these qualities is brought out, but it is certain that each is, in the highest degree, and the benefit of them is not questioned. The President of Lafayette College has said: "College athletics, and especially foot-ball, have done more to purify, dignify and elevate college life than any other single influence in the last quarter of a century."

"And you say the hailstones were as large as hens eggs?"

"No," said the cautious person, "they were not quite that. They were, say, about the size of boarding-house cantaloupes."—Indianapolis Journal.

Tomdix—Where are you going to send your son to school?

Howso—To some good agricultural college.

Tomdix—Why an agricultural college?

Howso—I take it that an agricultural college possesses superior facilities for sowing wild oats.—Washington Times.



THE ROLE OF MICROBES IN SOCIETY.

The Revue Scientifique publishes an address upon this subject, before the Society of Anthropology, in Paris, by M. L. Capitan.

Quoting from an address before the same society by the distinguished scientist Broca, he speaks of the gradual overcrowding of our planet, and of death as necessary to make room for coming generations. After showing that the decomposition of dead matter is also necessary to this preparation for new life, and that the process is the work of microbes, M. Capitan thus continues: "Microbes have an important role in digestion. Ordinary digestion takes place in the stomach and intestines by means of soluble ferments secreted by organic cells, which attack the foods, separate them, and make them fit to be assimilated; it is work similar to that of microbes. But the digestive tract contains great quantities of microbes constantly brought in by food. They multiply indefinitely, and play most complex roles. They necessarily take part in the digestive phenomena, as aids in the breaking up of organic compounds, and, again, they are the *only* effective agents to that end. M. Duclaux, insisting upon this point, says that certain kinds of cellulose can be attacked by microbes only; no organic juices have that power. M. Pasteur cannot conceive of the possibility of digestion where microbes do not exist.

The purely chemical work of the microbe is enormous. What we know about it is nothing in comparison with what it must be. Every kind of microbe, every race, every variety, is charged with a special function; the divisions of

labor is pushed to the extreme limits, so that for any chemical reaction whatever to be realized, the microbe makes several attacks. Each variety takes part in the work, beginning a partial separation of the matter, which is completed by another kind, and this goes on until the organic matter is reduced to its elementary constituents, or to a state of sufficient simplicity for the plant to assimilate it.

Further, as old as the world, contemporary with the first generations of vegetables, the microbes have contributed materially to the constitution and formation of the geological strata. Microbes made the peat which later became coal; they had their part in the complex work of precipitation which made the great beds of calcareous deposits; they played their part in the complex reactions which resulted in the deposits of sulphur, iron and many of the other metals.

Industrially, the chemical work of microbes is often utilized by man. Two typical examples may be given. First in the preparation of indigo. It is obtained from a wood cultivated in India, Japan and Central America. This plant contains a sugar, *indiglucine*, which is removed by washing with warm water; this *indiglucine* is then submitted to special fermentation. The microbe separates into indigotine and sucrose. The indigotine, which is white, is oxidized by the reaction due to the microbe, and is changed into indigo, with its blue color. And this preparation would be impossible without these peculiar reactions produced by microbes.

Again, the chemical action of microbes is illustrated in the preparation of opium to smoke. . . . But it is especially in the preparation of many of the most indispensable foods that certain *micro-organisms*, thus domesticated (*i. e.*, in the preparation, Tran.,) show themselves

incomparable chemists. Without them these different preparations would be impossible. Such is the case with bread, alcohol, wine, beer, and the different milk ferments (koumiss, kephyr,) cheese, sauer-kraut, etc.

I cannot show you in detail the part which the *micro-organisms* have in the elaboration of each of these products. Besides, you all know what characterizes bread. Yeast is the principal agent in the fermentation. There are milk ferments, and many other kinds of microbes. For alcohol, wine and beer, there are the different kinds of yeast, with the addition of various microbes and their numerous diastases, which, as the case may be, separate the molecules of starch and change them progressively, by successive separations, into dextrine, glucose and finally into alcohol; or again, change sugar into alcohol, or even, separating from the malt, make alcohol, and finally make the complex products, wine, brandy and beer. . . . I have spoken thus at length about microbes and I have not yet presented them to you. They are, as you know, very inferior *algæ* formed of one cell, generally with an envelope. They live almost everywhere upon and in living creatures, in the soil, water, upon solids, etc., multiplying with extreme rapidity. They have very varied actions, often useful, as you have seen, or, on the contrary, hurtful, as you will soon see.

Sometimes they take a rounded form, are little spheres with a diameter of about a half a thousandth of a millimeter. Sometimes they are isolated, and, again, they are in strings composed of a more or less considerable number of grains. They may present themselves in the form of little sticks from a half to one or two thousandths of a millimeter in diameter with a very variable length, thus forming, sometimes, short sticks (tuber-

culose), sometimes long threads (charcoal *en culture*). The little sticks are immovable, or, on the contrary, movable, rigid or curved. They may take the form of a half circle, as in the cholera microbe, or they may present themselves in a spiral form, as the microbes of intermittent fever.

They generally color easily with the aniline colors. Finally, when they are placed in a medium suitable for their culture, such as bouillon, peptonized gelatine or solidified blood serum, they multiply in great abundance. These elementary facts give you a general idea of the morphology and biology of microbes. You know them now. I have shown you how they may be useful in society. Now let us see how they are harmful.

If microbes decompose dead matter, they may also decompose living matter! Certain kinds especially have the power which is called *virulence*. They are called *pathogenes*, that is to say, they may determine the diseases. Every kind of microbe, moreover, produces a special kind of disease and has a power which varies much, according to a number of circumstances.

But the microbe cannot *alone* make the disease; the intervention of the organism of the subject in whom the disease is to develop is necessary. If you please, following the forcible comparison of Professor Bouchard, the organism is a stronghold, the microbe is the assailant, the struggle between the two is the infectious disease.

Thus the condition of the organic domain, which the microbe seeks to invade, is important. In fact, if the person is very well, he offers a great resistance to microbes. If, on the contrary, his health is not perfect, it is a stronghold poorly defended, and the danger is great for him. For, as M. Bouchard has said for

a long time, a person does not become ill, except when he is already not in very good health. But there are many means for getting into bad health. One may change his health by a number of processes, which may be summed up, essentially, in two grand classes: Troubles of organic functions and disorders of tissues. Many of the processes leading to the production and development of disease are directly dependent upon various social influences. Do you wish some examples?

Wealth, like poverty, is a powerful agent in disease. The rich man, from his frequent overeating, his want of exercise, his excess of comfort, easily acquires obesity, the gout or diabetes; his kidneys, his heart, are frequently affected. The poor man, on the other hand, from want in its different forms, from overwork, exposure to inclement weather, or want of cleanliness, may suffer from various derangements of the internal organs, the lungs, the liver, the kidneys, the bowels, etc. He has, like rich men, a special pathology in certain points and very different from the last; a pathology, moreover, due absolutely to his social condition.

The occupations create also special diseases. They may poison those who engage in them. Lead produces chronic poisoning among those who handle it (painters, printers, manufacturers of white lead); it is the same with mercury (silverers of looking glasses, gilders, hatters). Every poison produces its special effect upon the system: lead upon the kidneys, the intestines, the brain, and mercury upon the brain and the nerves. These examples might be multiplied; they show the occupation may affect the organs, create actual diseases, or induce such a state of health as to facilitate the invasion of the microbe. Is it necessary to mention that dreadful

form of poisoning, alcoholism, which produces its effect upon the kidneys, heart, liver, brain; alters all the internal organs and thus prepares the way for disease-producing microbes?

All the natural cavities of the body opening exteriorly (the nose, mouth, alimentary canal) are filled with microbes that come from without, borne by the air or foods, and subsequently multiplying. There are even some for the skin. In the midst of these, there are others which are the remains of previous infectious diseases which have attacked the subject actually cured.

All microbes, in a normal state, live a latent life, often useful, as we have seen for digestion, most often inoffensive, thanks to the resistance of the cellular lining of the organic cavities, thanks to the activity of the white globules, zealous defenders of the organism, thanks to the chemical action of organic liquids. But when various circumstances, external conditions, or internal ones, modify these elements of defense, alter the texture of linings (as in the case of poisoning from the occupation), or when one or more of the microbes take a sudden virulence, then the barriers of protection are broken, the microbe enters into the interior of the tissues, and may determine the greatest variety of diseases, from pneumonia to erysipelas, meningitis or an abscess in the liver.

The microbes which live outside the organism have equally diverse origin. We have spoken already of the innumerable varieties living in the soil, the water, and on plants which play such numerous and important roles. Certain ones may, under the right conditions, take on a disease-producing power, and determine a disease, but there are others which, disease-producing by profession, have been eliminated from diseased organisms, and instead of having suc-

cumbed have fallen into the outer world, have adapted themselves to new places and live another life, it may be in the earth or in water. They are all ready, when introduced by food, or by respiration, to penetrate anew, into a living organism, to develop there, if the circumstances are favorable, the disease which they characterize, such as is the case with the *vibrio* of cholera or the bacillus of lockjaw.

To these innumerable special causes of infectious diseases, the invasion of microbes and their development in the organism, hygiene may oppose numerous means of protection or of defense. This is the role of prophylactics. On the other hand, medicine may aid the system in struggling victoriously against the microbe: this is the role of therapeutics. But upon these two points the social influences have an important bearing: the place in society of the patient may modify profoundly these preventive measures and make them effective or insufficient, according to circumstances. . . . You see, then, though I have given only a simple outline of it, that the role of microbes in society is immense.

Bad or good, hurtful or useful, all have a role which is, on the whole, indispensable to the regular evolution of society. And however paradoxical that assertion may at first have seemed, I believe I have given you a clear demonstration, and in closing, I may formulate it thus: Society could not exist, it could not live or subsist, except by the constant intervention of microbes, the great carriers of death, but also distributors of matter, and thus the all-powerful carriers of life.

We love much more warmly when we are looking forward to make somebody happy than we do half an hour after, when we have done it.

NATURAL GAS.

By PROF. EDWARD ORTON, LL. D.,
Professor of Geology in the Ohio State University.

Within the last twenty years natural gas has been introduced in the large way into a few centers of population in the country, there to be used as household fuel, in producing steam, in manufacturing glass, in working iron and steel, and in various other industries. Its introduction has brought immense advantage to the communities that have been fortunate enough to secure it, and unquestionably constitutes the most striking advance of the last twenty-five years in our utilization of the mineral wealth of the world.

What is natural gas? It is essentially light carburetted hydrogen, one of the common products of decaying vegetation. It is the same gas that is known in coal mines as "fire-damp," but the great supplies now in use are directly derived from petroleum.

How does it occur in the crust of the earth? It is found stored, at various depths, in porous or water-bearing rocks, such as sandstone, conglomerate, and certain forms of dolomitic limestone. What holds it there? The rocks forming the reservoir are always directly overlaid by an impervious stratum of close-grained shale. The depths from which all the great supplies are derived range between five hundred and twenty-five hundred feet. Two other substances invariably share with it the possession of the permeable rock; viz., petroleum and water. The latter is generally saline to a high degree, and occupies the great bulk of the stratum, of which an insignificant portion is sufficient for the oil and gas.

A particular structure or arrangement of the strata in which the reservoir rocks are included is found in all gas-fields. The strata have been bent into low

arches, arches so gentle that they have not been fractured at their crowns in the process of bending. This structure is essential to the separation of the three-fold contents of the porous rock. Under these conditions, the gas will seek the highest portions of the arch, while the oil and water will be found at lower levels.

Inasmuch as the porous rocks somewhere rise to the surface, their outcrops must receive a share of the supply of surface water. In this way a connection is established with the salt water in the deep-lying portions of the rocks, and the necessary conditions are thus supplied for the rise of salt water in wells that are drilled to its levels. The limits of every field of gas and oil are established by lines of salt water wells.

Among the most important facts pertaining to natural gas is the pressure under which it is found when reached by the drill. In all gas-fields that warrant utilization this pressure ranges between one hundred and one thousand pounds to the square inch. It is generally between two hundred and five hundred pounds. Whenever it approaches five hundred pounds, it gives rise, when the reservoir is penetrated, to some of the most startling phenomena in the whole range of mining engineering. The gas rushes out from the well with the velocity of a cannon ball and with a roar like that of Niagara. Now and then a well is struck that discharges twenty-five or thirty million cubic feet of gas in twenty-four hours; what are called fair or good wells produce one to eight million feet a day. It is the pressure that sends the gas from the fields where it is produced, through lines of iron or steel pipes, twenty, thirty, fifty, or even one hundred, miles, to the cities that are to be supplied. When the gas reaches its destination, the pressure is cut down by

regulating valves to any required figure.

What is the cause of this pressure? The facts already stated carry, at least by implication, one of the explanations, and, I believe, the true one, of the amazing phenomena. It is the artesian pressure of the salt water on the oil and gas, compressing the latter in the summit of the arch of the reservoir rock. The amount of the compression will be determined by the height of the column of water that lies against it.

When the gas reaches its destination, to what use is it applied? The more important uses have already been incidentally named, but the question can be answered by a single word, viz., fuel. Natural gas is the perfect, the ideal, fuel. When burned by means of the best appliances, it gives no smoke, soot, or odor; and of course a fire fed by gas is free from ashes and dust. Besides these advantages it possesses extraordinary heating power, twenty-five thousand feet of gas being the equivalent of one ton of Pittsburg coal. The daily product of a well that yields twenty-five million cubic feet is equal to one thousand tons of coal. To transport such an amount of coal would require fifty freight cars and at least two engines. The gas transports itself.

It is in the capacity of domestic fuel that natural gas undoubtedly renders its highest service, doing here the greatest good to the greatest number. The advantages that it brings to the house-keeper are indescribable. Think of a kitchen fire, lighted with a match, at full efficiency the instant it is lighted, held steady at a required temperature as long as it is wanted. Think of a fire in a grate, as bright and cheerful as a fire of hickory wood when at its best, kindled and extinguished as easily as a gas jet or an arc light. Think of a furnace fire that never needs a thought, day or night,

from one week to another, except as a change of temperature suggests a little more or a little less heat, the needful regulation being effected by a valve in the sitting room. An invalid, if only able to sit up, can take the whole care of the furnace.

So perfectly is gas adapted to all these lines of service that it ought never to have been applied to any other, but it is obvious that the advantages already named would bring similar advantages for other uses of fuel.

For producing steam, especially, it is easy to see how admirable such a fuel would be. What a saving of labor on the part of fireman and engineer! What a saving of machinery and what increased efficiency through the steady supply of heat!

From the production of steam to the direct application in the mineral-working industries the transition is natural, but here there is no use of natural gas that is not an abuse. To turn this ideal fuel to coarse and common uses is a prostitution of one of the best gifts of nature. But if there is any manufacturing use for which gas could be granted it would be glass making. To every stage of this beautiful industry it is so happily adapted that one cannot help wishing that the supply was equal to this demand.

The most vandal-like and thoroughly reprehensible applications of it are to the manufacture of iron and steel, to lime burning and brick making. All these industries consume enormous amounts of gas, and bring speedy exhaustion to any gas-field to which, like vampires, they attach themselves. An average rolling-mill requires from three to five million feet a day; an average glass-house requires about fifty thousand feet a day; a steam boiler uses less than one thousand feet a day for each horse power

in the machinery that it drives; a comfortable home with a furnace, kitchen range, and three or four grates occasionally used, will require from two thousand to three thousand feet a day. A rolling mill consumes the fuel that would supply a thousand such homes with the unspeakable luxury of gaseous fuel.

From the drift of the last few sentences the reader will infer that the supply of natural gas is not unlimited. This inference is fully warranted. All the facts of our experience go to show that natural gas is stored in definite amount in the reservoir rocks. Vast periods of time have been used in its accumulation; and, when the stock is once exhausted, it will never again be renewed.

The geologists of the country cannot take credit to themselves for foreseeing the wonderful developments in this field, but since the introduction of natural gas their counsel has been sound and emphatic. Early and late, they have warned the communities that "have found gas" that the supply was sharply restricted, that exhaustion would follow waste and use as certainly as night follows day, that the entire stock ought to be reserved for household service. These warnings have been unpopular, and have brought upon their authors the maledictions of the speculators that throng to every new gas-field, but experience is certifying to their soundness and timeliness more promptly than could have been expected, except in the newest fields. Natural gas is being withdrawn from all manufacturing uses as rapidly as existing contracts will permit, and even the domestic supply is giving out in many districts in which the original stock would have been ample for this use for at least a quarter of a century.

It is a lasting reproach to the intelligence and public spirit of the communi-

ties that have found gas available in large amount that they have wasted and misused this precious form of stored power in so wanton and reckless a way. But it is never too late to mend. If they will reform their practice even now, the last days of natural gas may be its best days.



At the meeting of the Class of '99, a very pleasant program was rendered. Fred Cuscaden, Miss White and Miss Paulsen each gave good musical selections and several recitations were enjoyed by the class.

Ever since the Freshman year the Class of '97 has had a mandolin and guitar club. Of course '97, when it knows it has "a good thing," doesn't fail to "push it along," and this year is no exception in respect to the usual club. Irons, Whinnery and Wigton will play mandolins and Leonard, Lehmer and Morsman guitars. Then, last but not least, is the new feature in the club, Lyman and his violin.

The French pupils of the High School met in room 25 on Wednesday, Nov. 11, at the invitation of the "Cercle Francais," to enjoy a charming program arranged by that organization for the occasion. The chief feature of the meeting was the singing, in unison, of the "Marseillaise," all the pieces being prepared with reference to that national song. This was the first of what is to be a long list of delightful entertainments given by the club, for the purpose of promoting interest in the French work. Everything is to be entirely "en Francais," and it is to be hoped all will be as pleasing a success as the first.



COUNCIL BLUFFS VICTORIOUS—12-0.

With a badly crippled team the Omaha High School was "trun down" Saturday, Oct. 31, by the Council Bluffs students. The playing of the latter was wonderfully improved over that shown in the other game with us when we defeated them, and one could hardly be blamed for the escapement of a cheer now and then. Still, the home eleven cannot be excused on the plea of their condition. By condition is not meant the disablement of McKell, nor the unavoidable injury of Hopkins, but the general lack of team work that was plainly visible in their loose playing at critical times. This lack of team work, or in other words, *practice*, lost a game that should have been ours. The loss of Captain McKell cast a damper on the rest of the team, as did that of Hughes, and the retirement of Hopkins. Lehmer's condition also weakened the eleven a great deal. The line was a bit shaky, and gave way repeatedly before the nervy plunges of the Bluffs backs. However, we did not present the game to them on a silver server, and twice during the play were we within fifteen yards of a touchdown; but Council Bluffs took a brace, and although we nearly hammered the life out of their line, our score in each case seemed to sit up on the goal post and mock our efforts.

The winning team made both of its touchdowns in the last half.

Here is the order of line-up:

O. H. S.	POSITION	C. B. H. S.
Hopkins (Hutchinson)	R. End	Hutchinson
Morrison	Right tackle	Knox
Griffith	Right Guard	W. Dailey
Field	Center	Meisner
Jensen	Left Guard	
Tukey	Left Tackle	Anderson
Schwartz (Fradenburg)	L. End	Pardey
Gillespie	Quarter back	R. Dailey
Crandall	Right Half Back	W. Pardey
Lehmer (Schwartz)	Left Half Back	Stewart
Reed	Full Back	Mather

Place and date, University Park, Oct. 31.
Touchdowns—Council Bluffs, 2. Goals kicked, 2.
Referee, Pixley; Umpire, Hess; Linesman, Treynor.

NOTES.

Tukey had fun making holes through tackle.

Lehmer was not in condition to play, and had to leave the field.

Schwartz played a great game, and took Lehmer's place at half.

Gillespie, as usual, made some grand stand tackles, and played well.

Hopkins had his left arm dislocated at the elbow, and was compelled to retire.

McKell, the morning before the game, had an accident that prevented his playing. He stepped on a nail, and was out of school for several days.

Council Bluffs' great improvement was due chiefly to the coaching of Dick Stewart. He is not a bona fide High School student, but was allowed to play in the game.

DEFEATED AT LINCOLN—12-0.

The O. H. S. boys were defeated at Lincoln, Saturday, Nov. 7th, by the Lincoln High School, in a fiercely fought game. Luck seemed to be against them from the start, and, although they were as tricky as their opponents, bucked and ran as well, and held the line even better than they, it resulted in nothing for them but a neat little sphere—o. It is awfully discouraging to be beaten in such a game as this was, and we all came home with our voices tucked away in our vest pockets. Lehmer put up a strong game until he was finally forced to retire, giving way to Schwartz. Several times Reed got up with a large fishy look about his eyes, wondering how it had been done. Crandall slid in and out of the line with ease, and the tackles did splendid playing on both offensive

and defensive. Gillespie, at quarterback, proved an invaluable player on the defensive, a number of times dropping men who were pushing forward for touchdowns. The ends did well at times, but were not as fast as they might have been in getting down on kicks. The guards were a bit slow, and must be livened up if we hope to retrieve our lost laurels. Field, at center, was very good. It will always remain a mystery in the minds of those who witnessed this contest, especially the participants from Omaha, how it was we failed to score. Curious things do happen, sometimes twice in succession.(?) Lincoln made a touchdown twice, easily kicking two goals.

The line-up:

O. H. S.	L. A. S.
Schwartz (Fowler)	R. End Beckman
Morrison	Right tackle Trestor
Fradenburg (Hutchinson)	R. guard Ringer
Field	Center Tyson
Jensen	Left guard Westover
Tukey	Left tackle Skiles
McKell	Left end Prey
Gillespie	Quarter back Ryan
Crandall	Right half back Kier
Lehmer (Schwartz)	L. half back Webster
Reed	Full back Smith

Place and date—M Street Park, Lincoln, Nov. 7th.
Touchdowns, Lincoln 2; goals kicked, 2.
Time—Two 25 minute halves.
Referee—Cameron.

NOTES.

Wasn't that Lincoln manager funny? Gillespie's new play—"a fake pass."

What a "lovely" lunch we all had at the Palace!

Ask Reed if he often punts through the line that way.

Everybody thought the reception was fine, although all were rather tired.

At the Y. M. C. A. Building most of the boys went in to a short noon-day service in the chapel.

The boys enjoyed the shower baths at the Y. M. C. A. after the game. There was a fine cold plunge, too.

Of course McKell was late to the train and came down afterwards with Hopkins, arriving about half-past eleven.

The boys were presented with a large cocoanut cake to eat on the way back to Omaha. Rather bad for foot ball players, but it was eaten.

The foot ball team is thinking of turning into a glee club for the rest of the season. Some fine singing was done on the train coming back from Lincoln.

Crawford did all he possibly could for the eleven at Lincoln, during the game and between the halves. He considers the team did nobly, and attributes our loss to Lincoln's luck.

Lew Reed and Mac Morrison stayed over night at the Lincoln, and in the Sunday Journal it announced that "Lewis Reed and May Morrison of Omaha, are registered at the Lincoln."

The football team was tendered a delightful reception by the Lincoln High School on the evening of the game. Most of those who went down with the team were also present, a few returning the same night, however.

HIGH SCHOOL VS. THURSTON RIFLES.

The school eleven wandered out to the University Park to play foot ball with the Rifles, but discovering that aggregation's inability in that line, played horse with them instead. The Rifles got possession of the ball once, but did not know what to do with it, so relinquished it and watched our boys run around the field with it. Thurstons kicked off to Stubby Crandall who brought it back to the twenty-five-yard line; then began the Waterloo of the Thirstys, scarcely was the ball swapped when the school team seemed to vanish in smoke, and the bewildered Rifles would probably be standing there with mouths open yet, had not one of them

happened to look around and beheld their quodam apponents almost out of sight in the distance. Lehmer kicked goals as though that was his sole mission on earth, and scores piled up so fast that they could hardly count them. Stubby would start out on an end run and just as the Thirsty crowd would rush in to embrace him, Schwartz would be discovered sailing serenely down the field with the ball tucked under his wing and his raven locks streaming far behind him. Even when the ball was fumbled and Tukey nabbed it and crept down the field for twenty-five yards the weary Rifles took it for another trick and didn't even grumble. Crandall tried for a goal from the field, but one of the Rifles unconsciously got in the way and spoiled his aim. The final score was 42 to 0. The touch downs were three for Lehmer, two for Reed and one a piece for Crandall and Schwarz. They were easy enough to make, all that was necessary was to have the ball.

They say that Nielsen had his eye on the girls at Lincoln.

It seemed as though more teachers went to the Council Bluffs game, our first defeat, than ever go in a whole season otherwise.

Every one kept asking: "Where are those girls that were coming down to Lincoln to see the game? We would have won if they had only come with us."

Spafford had an enjoyable time at Lincoln. He liked it so well that he staid over and took a later train than the rest of the team. Not entirely of his own accord, however.

Some of the boys that watched the team practicing a few of their new trick plays, got so bewildered and confused

they couldn't tell whether they were standing on their heads or their feet, or where they were at.

The loss of Captain McKell is keenly felt by the foot ball team. He has stopped school and gone to work, and it seems strange not to see his long, familiar form at left end. This was his third year at that position and he could certainly fill it as well as any one in school or in this city. Lehmer was elected captain in his place.

A Thanksgiving Hymn.

Little Willie from the hour
Of his birth displayed the power,
Without effort, to devour
Everything that came in sight.
And his heart did flap with pleasure
As he, with his eye, did measure
The great, fat Thanksgiving treasure
That his dad brought home one night.

Willie went right into training--
For almost a week abstaining
From all articles pertaining
To the feeding of his face.
'Round the table he did linger,
Tasting viands with his finger,
And 'twas with a glorious hunger
That at last he took his place.

Then he started gormandizing,
In a manner quite surprising,
And his waistcoat was capsizing
Ere he rested from his toil.
But as the day was dying,
Little Willie started sighing,
For the bird within him lying
Hung heavy on his—soul.

Wearily to bed he started,
Feeling very chicken-hearted,
For his dinner had imparted
Quite an aspect of alarm.
And, as restlessly he slumbered,
His mind seemed much encumbered
With fantastic spooks unnumbered
That foretold the coming storm.

Suddenly a shriek he uttered,
For from up above there fluttered,
And sat and grined and sputtered,
A huge turkey on his breast.
There he perched and blinked and gobbled,
And all o'er his chest he hobbled,
And his wattles flopped and wobbled,
As he shook his gory crest.

But poor Willie lay and panted,
While the turkey o'er him ranted
And with dreadful voice decanted
On his great desire to dine.
"Now I've got you, you young sinner
And I'll eat you for my dinner!"
And he stuck his taloned finger
Right straight through to Willie's spine.

Little Willie has grown wiser,
He is not a gormandizer,
And he shudders at mince pies, or
Anything that makes him sick,
And he now takes Hood's Sarsaparilla,
Bromo-Seltzer, Comomilla,
Or whatever tonic will a-
Savage his feeling dys-peptic.



"By order of Lieut. Penn."—Clarke.
Capt. Tukey has had his hair cut.
Hoorah!

What has become of the noon hour
drill team?

Who saw Egbert drilling in the small-
est four of Co. C?

Some privates will soon be very well
acquainted with Lieut. Clement.

"Right forward, fours left!" has been
heard again on the drill grounds.

First Sergeant Carter is the rustler for
your life. He's hard on absentees.

There are still a few boys who ought
to be drilling. We'll get them soon.

Capt. Thurston has recovered from his
sickness(?) and is attending school again.

Say, but the committee is planning a
nice musicale for the Cadet Officers'
Club!

Lieut. Yates forgot he wasn't drilling
the company the other day in platoon
drill.

Wasn't that a hot Battalion parade
though? If Lieut. Penn could have
seen us, what then?

We haven't seen Ex-Senior Captain
Connell up here for some little time.
Don't forget us, Ralph.

Who is the smallest officer in the club,
does any one know? Who is the small-
est man in the Battalion?

Ex-Captain Egbert, Co. C, was up
looking over the boys one day last week.
He thinks they are all doing well.

Lieutenants Beans, Lehmer and Yates
have been advanced to First Lieutenants
of Co.'s E, D and C, respectively.

Lieut. Clement is still waiting for you
to get your uniform. Hurry up, boys,
let's get a good start in company drill.

'Tis said that Lieut. Doane, Co. C,
forgot he was a Lieutenant the other
day in open ranks. Wake up, Georgie.

Why don't somebody write some
"Squibs" on Battalion, and hand them
to Wagner? He'll appreciate their kind-
ness.

A part of Co. B has been compelled
to drill in the basement and has shown
that they can break windows if they
can't do anything else.

Sgt. Morsman has proven himself to
be a model pacemaker for a company,
but he must be careful not to anticipate
any more commands in the future.

Capt. Wagner has set an example and
keeps his Cadet uniform at school. If
you have any lockers to rent, Ray, I
think there are some that would take
them.

Capt. Tukey, with the able assistance
of his officers, is making Co. E one of
the best companies of the Battalion? If
they only had uniforms, wouldn't they
set a fast pace.

"Either play foot-ball or drill," is the
notice seen hanging in the halls. That's
a good thing. The foot-ball players
will report to Q. M. Sgt. Engel, and
must be excused by Captain Lehmer, or
they are expected to be seen on the foot-
ball field.

Within a few days the companies will
be reformed, the uniformed boys being
assigned to their proper company, and
the un-uniformed boys going to Co. E.
If you haven't as yet ordered a uniform,
do it, if you expect to be counted in the
uniform company.

All Cadets must understand that the
First Sergeants cannot excuse them.
They must either go to their Captain or

to Lieut. Clement. Whenever a Cadet is excused he must hand his excuse to the First Sergeant before drill or he will be marked absent without excuse.

The following promotions have been made: Sgt. Major Doane to be Lieutenant, Co. C; Sgt. Innes to be Lieutenant, Co. B; Sgt. Rood to be Lieutenant, Co. D; Sgt. Myers to be Lieutenant, Co. E; Private Knight to be Sergeant Major; Musician Cotton to be Drum Major; Private Lillie to be Sergeant, Co. A.

The drum corps this year will eclipse all former ones. An instructor from the Fort has been present during the last drill days, and has shown his efficiency in teaching the boys. The boys themselves now seem earnest to learn. With Ben. Cotton as Drum Major the corps ought to beat everything of its kind in the state.

Company Z is rapidly improving, every drill day making a difference. The girls themselves boast that they will soon be able to compete with the boys, and they intend to leave them far behind. Lieut. Clement has signified his willingness to drill the company himself now and then, and to criticise its faults, if there are any. The company will soon be supplied with Cadet caps.



Fred Teal, '94, was in Omaha during the day set apart for Mr. McKinley's election.

Fred Van Horn, '93, came home from the University of Wisconsin to vote for the next president.

Miss Hattie Manger, '96, is the first girl of that class to be married. May she have all happiness and prosperity!

The Class of '96 held a committee meeting Saturday evening to plan a program for their Christmas gathering. After business was dispatched candy was pulled and a jolly time enjoyed.



The Argus, from Harrisburg, Pa., has several artistic column headings.

We are glad to receive the Dartmouth. It is always welcome.

The Purdue Exponent has a very good though rather bewildering front cover.

The Studentana is the only girls' paper on our Exchange List. It is well written.

The Epsilon is published by a Greek letter fraternity and is certainly well managed.

It is needless to say that the Advocate, from Lincoln High School, is welcome with us.

The Minute Man comes to us from Concord, Mass., with several unusually good articles.

The Polyglot, from Wilton College, Iowa, has a good article and several poems in German.

The Tattler, from Des Moines, has a very striking and artistic cover for the October number.

The Mercer Student, from Charleston, West Virginia, is good as far as it goes, but it doesn't go far.

We have received for the first time the Catholic High School Journal from Philadelphia. It is an interesting paper.

We would like to suggest to those that are so interested in reading our Exchanges, that they are left in the bookcase to be read, not to be kept.

We hope to see the Coe College Cosmos regularly among our Exchanges. It is a well-managed paper; our only criticism is the large ad. on half the first page.

We sympathize with the Tattler, from Ithaca, N. Y., concerning their delay on

account of a printer busy with election ballots. We had exactly the same thing happen.

The Mirror, from Franklin Academy in this state, we think advertises the school a little more than necessary, in articles, etc., throughout. It gets monotonous.

Since our last issue we have received also, College Chips, from Luther College, Decorah, Ia.; Montclair High School Bulletin, from New Jersey, and The Silent Hoosier, from Indianapolis.

The Recorder, from Springfield High School, Mass., has a good serial story, each chapter by a different pupil, also articles by Alumni on the all important question "What College Shall I Choose?"



Oh, what a night! (We refer to election.)

Goodbye, Billy McKell, we're sorry to lose you.

W. J. B.—"Just tell them that you saw me."

F. M., in Senior Greek—"He sat down, rising up."

Heard in the 5th Hour History—"His maternal father."

Yates says he gets hot results in his heat experiments.

Miss M., in English—I corrected the sentence like thunder.

Oh, dear, yes! we all had our lessons the day after election.

Ninety-seven is getting impatient for class pins. Where are they?

An eighth wonder—Gillespie came to school several days in succession!

In Latin—Eo mulieres imposuerunt. "They imposed upon the women."

Some French pupils are cannibals. They will have "femme" for "faim."

What fun a cane-rush between '97 and '98 would be! (For '97.) Let's have it.

We are sorry for the silver boys at school. They are so meek and quiet now.

On the blackboard in the Latin room—Lost, two mirrors. Return to the boys of the Senior Physics class.

Now that cold weather is coming on we shall have no more of those big free-for-all fights on the grounds at noon h our

Teacher—Is this essay original?
Freshie—I suppose so, it said "original" over it, in the paper I took it from.

Some of the Juniors stole the keys to the lockers in the foot-ball dressing room. Verily, they are an enterprising lot!

Lillian Hellman, formerly '97, now in the Cincinnati High School, still takes the Omaha High School REGISTER. She is loyal.

We all know that the word Sophomore comes from two Greek words meaning "wise" and "fool." No comments necessary.

Gillespie and Engel are expert at breaking glass jars. They have some secret way of their own. Orders promptly attended to.

Seen on the ballots for our school election:

"McKinley and Hobart."
"Bryan for never."
"McKinley, nit."

A Freshman once to Hades went,
To see what he could learn;
They sent him back to earth again,
He was too green to burn.

—From an old REGISTER.

(This stanza is put in, not by any means because it applies to the present Freshman class, but simply because it is a good joke.)

Teacher—Describe a rabbit.

Boy—A rabbit is an animal with long ears, and an anecdote.

Teacher—What do you mean by an anecdote?

Boy—Why, a short, funny tail.

LOST—English flag stick pin. If found, please return to Dorothy Young.

MAXIMS.

There is nothing more beautiful than cheerfulness on an old face, and it is always a sign of a well-regulated and pious life.

What best thing has not occurred in a state of enthusiasm, and what worst thing has not been done in cold blood?

Victories beget victories as defeats do defeats. After the victory the new situation brings a new struggle.

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