ENGINEER'S EDITION

The Daily Nebraskan

Vol. IX. No. 55. UNIVERSITY OF NEBRASKA, LINCOLN, FRIDAY, DECEMBER 17, 1909. Price 5 Cents.

THE PANAMA CANAL AS SEEN BY TYPICAL LIT

CHIEF PURPOSE IS MAKING WORK FOR ENGINEERS.

THE VALUE OF THE CULEBRA CUT

Lock System and Ten O'clock Closing Rules Meet With Approval of University Students.

Columbus discovered America in 1492. He had had quite a little difficulty persuading his crew to stay by him, but when he placed foot upon land, he pointed to the south and said, "Comrades, behold the site of the future Panama canal. It was for this that I held firm when you wished to turn back. You see before you the spot toward which the gaze of future America will turn." This historic remark of Columbus has proved true. Whether we are to regard it as the remark of a seer or whether it has, itself, served as an impetus to American curiosity, the writer will not attempt to say.

Many great minds have considered what is now expressed as the "Problem of the Panama Canal" (conversely it is true that all minds which have considered the problem are great).

Many different results have been considered for the proposed canal. Had some other been chosen, the American nation would have defeated its own purpose and Columbus and others would have lived in vain.

There are many benefits resulting from the choice of the Panama route. Time only and not the limits placed by the instructor upon the length of this paper, forbids the mention of but one, namely—the large impetus given to the sale of the Panama hat. Since active work has been begun upon the Panama canal, the price of Panama hats has gonoe up to a fabulous sum, and the sale has increased to the extent that the making of the same might almost be regarded as a new industry. This will mean, in the future, a sure and ever-increasing income to the nation from the tariff. The aesthetic appeal made by the beauty of the Panama straw should not be overlooked. In time it should create a marked influence upon the artistic appreciation of the nation.

Need Canal to Work.

The purpose of the Panama canal is apparent to all. If we did not have one, civil engineering students would be forced to cut short their college courses by a year; their instructors would have their salaries docked and the librarians would lose their positions. These three reasons, I regard as entirely sufficient for the nation in undertaking so great a project. The American people are in the habit of showing the other inhabitants of the world (who are here by accident) that Uncle Sam is "it." Hence when the Frenchies couldn't make good on the canal, it became necessary for American capital and enterprise to show them what they might have done, had their machinery and college courses been up to date.

Again it is of vital interest to see how much money the government can spend on the canal. It is refreshing to note that in this line we are succeeding beyond our wildest expectations.

Value of the Level.

And yet again—when the canal project first came under discussion it was thought by many that the government would do things "on the level." In other words, that we would have a sea-level canal—instead of a Lock system. Immediately the idea of using the canal as a resort was promulgated. There seems to be no question but that the sea-level attitude, and the sea air should do wonders in restoring the health and happiness, many, who, since the decision for the Lock System must remain hopeless invalids. At the same time the canal as a pleasure resort would be certain of popularity. Being rather overstocked with the straw used in making the hats spoken of above, a new kind of breakfast food could be put on the market (as a by-product obtained only in the Canal Region- and the rush of weary grau-eaters to the "Promised Land" would exceed the Klindike "Hurry." Already it is asserted that those of our brothers who are fond of tobacco think that there is nothing like the "Culebra Cut." In a recent issue of the Canal Record, mention is made of "The Slide" in Culebra Valley. This leads me to believe that although the lock system was finally decided on, Coney Island amusements are not lacking in the zone.

Owing to the above strong arguments in favor of the Sea Level Canal, there was much feeling when a decision was reached in favor of the lock system. As time goes on, however, it is thought that the stupendous advantages of the latter will be more fully realized. The Lock system on our Library door is such a howling success that only one person can make the key work. This leads me to express the hope that a slight modification of the same may be used in Panama. At least two, and preferably three, people should know the combination. Then if death should unmercifully cut down one, there would still be a chance for all "Knockers."

Closing Hour Good.

In instituting the Lock System, the desirability of the "Ten O'clock Closing Hour" cannot be overlooked. When most of the executive work on the canal will be done by young college men—graduates and undergraduates—it should be remembered that their habits have already been formed on the ten o'clock scale—the general dormitory rule throughout the country being "all callers out; all roomers in, and the key turned, at ten." The government should, when possible, cooperate with the universities. The result, in strengthening the good habits of our high crow classes, will in this case be unquestioned.

The Lock System should be of the greatest value to the American government in keeping possession of the canal. If we put in a sea level "affair," and leave it unprotected by lock or key, what would hinder any old Dago from walking off with the whole works when we were not looking? It is argued by many that we could have guards whose duty it would be to watch all the time and knock down the first foreigner caught in the vicinity, but such a plan seems absurd, when we reflect that by the use of a little hardware and caution about locking up early, no one need lose even a night's sleep. The difference between the price of a man's time and a lock, capitalized at 4 per cent, would show the expense item to be a consideration.

It's Ours Anyway.

The lock or high level canal seems to be the only rational one. Use it all day; lock it up at night, and if anyone comes along in the dark watches, let him sit down and wait. We are building the canal anyway. It's ours, and the foreigners can get wise to our house rules.

As a good American, I suppose I must still consider the Panama Canal a problem. Yet it might remind one of a joke on oneself; it must be seen to be appreciated. We want the thing well done, anyway, so it's me for a laboratory course.

A prize of one 1910 Cornhusker will be given to the engineer submitting the most acceptable cover design for the 1910 Blue Print.

Your car fare would pay for a nice lunch at the Boston Lunch. Why go home?

WORK OF CORNHUSKER ENGINEERING SOCIETY

ORGANIZATION PROMOTES GOOD FELLOWSHIP AND KNOWLEDGE.

ALWAYS BOOSTS FOR NEBRASKA

Results of Activity Are Shown in Loyal Support of Engineers to All University Enterprises.

BY I. W. DYE.

Perhaps the most striking feature of the rise of the profession in the last twenty-five years is the large number of technical societies that have been organized. The medical, legal, dental, ministerial, enginering, and all the branches and ramifications of the professions are organized. There are town, city, county, state, national and international societies of professional men, meeting all over the United States and the world, in answer to a demand for closer union and more hearty co-operation among men whose business it is to know their technique, their men, and their materials.

One of the great results of this organizing spirit is a broad camaraderie among men in the same profession. Your society pin becomes an introduction to men you meet. Each one knows the other is the right sort, and the preliminary mental fencing that usually occurs when strangers meet is dispensed with. You are friends and comrades from the first, and can trust one another Kipling says:

"But there is neither East nor West,
Borner, nor Breed, nor Birth,
When two strong men stand face to face,
Tho' they come from the ends of the earth."

This mutual respect is one of the most noticeable and important results of professional societies in general.

Division of Labor.

Another result is the division of labor, with its accompanying increase of economy. In this age of progress, it is impossible for any man to even approximately know the details of all the branches of one of the major professions, such as engineering, law, medicine, or theology. This is an age of specialists. The corporation attorney does not attempt to handle divorce cases, the surgeon does not pull teeth, nor does the bridge engineer design special transformers for a power plant. Each one has his special line, and sticks to it, and refers his clients to men in other lines when he is unable to handle their cases himself.

At the same time, there are many of the general problems that are similar in all professions. A doctor may learn from an engineer how to analyze the cost of his services, and how to proportion his fees. The engineer may learn from his legal friend how not to write specifications. Each gets many new and valuable ideas from the other, and this broadening and deepening of professional men is one of the great results that may properly be credited largely to the professional societies.

Nebrasna Society.

The Engineering Society of the University of Nebraska is a local college society which has as it aim sthe same great ideas as do all professional societies, and also the local aim of making the university college of engineering of the greatest possible benefit to the state of Nebraska and the students in the university in particular.

To promote good fellowship, the society gives a number of social functions every year, including smokers, a dance, and an annual banquet, and such other events as can be made beneficial. The older members always try to make the freshman's first year agreeable and beneficial. Mutual friends are discovered, songs are sung stories told, the faculty come and smoke our cigars and drink our coffee and make us encouraging talks, and ambitions are fostered and often created by this social mixing of the engineers that are and those that will be.

Professional Addresses.

The more technical meetings are made the occasion for introducing the students to men who can give them exact and often new information on engineering subjects, and also for hearing from men, who, from their different points of view, can tell us how the rest of the world sees us. The lines between the various branches of engineering are pointed out, and the young engineer is given data on which to base his selection of a specialty, which decision is often not made until he is a junior or senior.

The results of the enginering training on the university are many and obvious. For example out of twenty-five men now in the university who have won the "N" in athletics sixteen are engineers. Instead of knocking over sixty engineers attended the Cornhusker banquet to boost for Nebraska spirit. The aims and the results of the Engineering Society include an increase of healthy college spirit second to none.

Another fact which makes for the greater good of the university is that the profession of a young engineer takes him on long journeys to many places and Nebraska men are to be found from South Africa to Alaska boosting for Nebraska and real live manhood and sending men here not only from over the state but from all over the country to better themselves, the university and the world in general.

SIGMA TAU VALUABLE AID.

Engineering Fraternity Has Part in Affairs of College.

Sigma Tau is the honorary engineering fraternity at Nebraska. It was founded seven years ago with the object "to promote a greater interest in engineering education; to inspire engineering students to greater effort both in the classroom and in the field; to bring the various engineering departments closer together, and to incite an attitude which will be common to all."

Since its organization the society has been very successful. It has established a second chapter at Iowa City, and it is understood that several more chapters are soon to be established at other schools.

The membership of the Nebraska Alpha chapter consists of five honorary members, some eighty alumni members, and twenty-five active members. The honorary members are Dean C. R. Richards, Professors Stout, Morse, Chatburn, and Hollister. Sigma Tau is not a society for political benefits; on the contrary its whole habit of thought and work is to reach effective and honest results, through which its purposes may be most efficiently accomplished and that constitutes an excellent qualification for an engineering fraternity.

M. E. STRIETER.

Frank and Jesse Parrott, civil engineering graduates of '08, have, with C. C. Cottrell, ex-member of the same class, formed a partnership and are doing a thriving general engineering business under the firm name of Parrott, Cottrell & Parrott at Baker City, Oregon. They claim to have done everything from building sidewalks to making the preliminary surveys for a $1,200,000 irrigation project. They have put in two septic sewer systems which are working very satisfactorily. Besides furnishing their office with a very substantial, up-to-date equipment, they have each become the proud possessor of an eighty-acre farm.

ENGINEERING TRAINING AS GENERAL EDUCATION

VALUE OF MECHANICS COURSES TO THE NON-ENGINEER.

WILL TEACH YOU HOW TO ANALIZE

Power of Imagination Also Developed in Engineering Students of Value in Other Professions.

BY ALFRED BOYLE.

The president of one of our universities recently said that the ideal modern education should produce men who know a little of everything and some one thing well. By the phrase "a little of everything," he did not mean to justify the acquisition of a smattering of many things, but he did mean that a man should, in addition to a thorough mastery of his specialty, possess also a sufficient acquaintance with other fields of knowledge to understand his relationship to them. To have this acquaintance is to be liberally educated.

Not so many years ago it was thought that a liberal education was to be obtained by studying the dead languages. At that time it was not supposed that anyone seeking a university training would ever have to use his hands as well as his head. Since then an age of wonderful material development has come.

During the last century, no influences seem to have been of greater importance than those due to inventions and improvements in the industrial world. The Bessemer process, which cheapened the production of steel rails, was an important factor in the settlement and development of this western country. Our intellectual life has not escaped these same influences. Improvements in the methods of refining and transporting oil had much to do with the founding of onoe of the largest of our universities.

Age of Resources.

Since this is, then, an age in which the energies of men are devoted, as never before, to developing the resources of the world in which we live, and in making it a more habitable place, does it not seem appropriate that a general education should include a training in the principles and methods which underlie such development? The courses in engineering in our universities aim to train men not only to produce results, but to produce them economically.

An engineer must be able to analyze conditions and must have sufficient imagination to foresee the outcome. He is taught to see clearly and to think straight. We have the proverbial expressions, "figures do not lie," and "facts are stubborn things." They are suggestive of the work of the engineer. His structures depend for their existence upon facts,—facts of the solid, substantial sort. Technicalities or precedent may affect the force of a court decision, but engineering data have a more permanent quality.

Practical Benefits.

Study of the applied sciences confers a benefit not only because it puts men in closer touch with the actual work that is being done, but the training itself teaches the value of accuracy, method, and honesty. This does not mean that such training can not be had in other ways, nor is it suggested that every one should take up the study of engineering.

It is maintained, however, that such study is not narrowing in its effect, but gives as comprehensive an insight into human affairs as the study of the classics or of history. Not every student who completes a course in engineering continues in this line of work after graduation, nor would this be desirable. But the training which he receives, as well as the broader outlook which he has, will enable him to recognize more quickly and with greater certainty what his place should be, and to find it. From the standpoint of the man himself and of the community, this is the most important part of any education.