

# LETTERS

Sirs:

IN RESPONSE to the inquiry (from the Institute's C. E. Division) as to what extent I have been able to use the technical knowledge I acquired at Caltech, I decided to shoot the works—as the following treatise will prove.

Before I can say much about what I'm doing, it might help matters if I gave a little background history of my company and the project it's now engaged in in Indonesia.

To begin with, the California Texas Oil Company, Ltd. is owned jointly by Standard of California and The Texas Company. It might be said that Caltex, as it is called, is the foreign "right arm" of these two companies—and it, in turn, owns several companies that operate refineries, develop oil fields, and market the products in all parts of the world except the U.S.A.

It has its central engineering and purchasing office in New York, and most of the engineers there—of

which I am one—are often sent on assignments in various parts of the world.

One of the companies owned by Caltex New York is N.V. Caltex Pacific Petroleum Maatschappij. At present it has offices set up in Djakarta, Java, and is prepared to take over operation of the Minas Crude Shipping project in Central Sumatra, once the preliminary construction (putting in flow lines to the wells, storage tanks, pumps and generators, gathering lines to a central station, roads, power lines, loading facilities for tankers, etc.) is over.

Here is where I come in. The New York office has sent out an engineering staff to work separately, but in cooperation with the Dutch company, whose job it is to complete the construction end of the project. I am part of that staff. I was not sent out on any contract basis, but rather to do a job, whether it takes two months or two years—though rarely is an engineer away from the New York

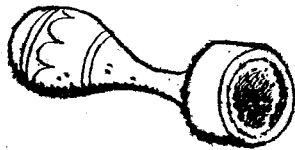
office for more than 18 months at a single stretch.

Most of the actual physical aspects of the job have been contracted to Bechtel (roads, pipelines, pumping stations, buildings, etc.) and the Chicago Bridge and Iron Company (tanks). The Engineering staff sent out by Caltex works mostly in coordinating and supervisory positions. Part of my job here is to keep close check on the shipment and delivery of critical items to the project. Up to now my job has been largely that of the job engineer, who does little design work but is on hand to advise the field and handle all of the thousand and one little problems that come up every day and require immediate solutions. The solutions are not always the best but they must always be adequate.

I'll have to admit that so far I've found very little need for the so-called "technical knowledge" I acquired at Tech.

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## LETTERS

CONTINUED FROM PAGE 4

I spent about three months in the New York office before coming out here. There I spent some time working thermo problems (which, by the way, was anything but my forte in college) but out here the only place I can see where my technical knowledge helps me is in understanding somewhat the basic principles of what's going on and making sense out of drawings and technical conversations. Ah, yes, by looking at a chemical analysis of some well water I knew at a glance that the total dissolved solids content made it unsatisfactory as drinking water. Chalk up one for McKee's class in Sanitary Engineering.

I have come to the conclusion that the real benefit in a technical education is that, after four years of it, one requires less explanation and instruction in order to learn anything. This is true largely because, whether the student realizes it or not, he spends a good portion of his time learning to learn. This learning to learn is something that may or

may not be acquired through practical experience. It's been my observation that it usually is not.

It's true that a good many students have the mental capacity to retain in their heads quite a bit of actual factual information. This is all to the good, as it allows these individuals to come to accurate conclusions about some problems with a minimum of lost time. But there are probably plenty of students who manage to struggle through Caltech, and feel as I did on graduation: "I just can't seem to think of a single fact." However, one of the things these men are soon to discover is that, given a problem of almost any nature, they will unhesitatingly launch off on its solution in a logical and sometimes methodical way that has its origin in the working of countless math problems, numberless problems in physics and chemistry, endless themes and papers on English and history, and thousands of arguments with instructors. It is surprising how often these men come to the right conclusions.

In its stress on a basic educational policy Caltech accomplishes what to

me is a great thing; it teaches you just enough about a great number of things so that with very little research and study you can be fairly well informed on any one of them.

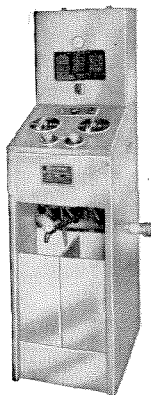
A little now about my plans for the future. One of the big factors affecting these, of course, is the draft. But forgetting about that for the moment (which isn't very easy), I'd like to say that I'm doing now just about what I had planned on before ever going to Caltech. I know that sounds hard to believe, but it's true. I am working for a company that is still young and expanding rapidly; I have a job that pays well and also gives me a maximum of varied experience, thus permitting me to branch out at any favorable opportunity; I'm working under men who, in every case, have proved to be capable, fair and easy to get along with; I am in close contact with the field and thus have the opportunity to be in the open, which is important to me; and the kind of work I am doing is so diversified that it is impossible to get in a rut.

I have in the back of my mind the thought that I'll try a couple of

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**LETTERS...** CONTINUED

different jobs before I settle for any particular one, but that's something I can only speculate on now. I'm sold on California and, if it's at all possible, I'd like to end up there eventually. I've seen a little of the rest of the world and haven't as yet seen anything to approach the United States in general and California in particular.

*Dean M. Blanchard '51*

*Indonesia*

**Sirs:**

I was very much disturbed to read of Caltech's action in joining eight other colleges and universities in southern California which will choose liaison representatives to

maintain relations with the State Senate's Committee on Un-American Activities (*E&S*—April, 1952).

Fundamental to a sound educational program is a free interchange of ideas and facts. Naturally, a professor who forces the students to listen to only one point of view, or propagandizes in class on subjects far afield from those which he is paid to teach, is not doing a proper job and should be dealt with accordingly. However, outside of the classroom, the professor and the student should be treated as other citizens. The sole criterion of the worth of each in the academic field must lie in his actions in the academic field, not in his politics.

The State Senate's Committee on Un-American Activities looks only to the left. It has spent much time and money besmirching names. The

purpose of such a committee is to investigate in order to provide information on which to base laws. The laws are their end; but they, as with their counterparts elsewhere, have forgotten this in an orgy of witch-hunting and headline haunting.

Therefore, I do not understand Caltech's position. Is it fear of spies that motivates? Since when have these committees replaced the FBI? Is it fear of criticism? How can you expect a man to lay down his life for the freedom for which you will not even stand up to be counted?

Must another good school be weakened to the extent that a man considers it an insult to be invited to teach there, before we learn the lesson of the University of California?

*Richard Schoen '49*

*Los Angeles*

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