

TECH SEMINAR WEEK-END

MARCH 5-6, 1938

Of interest to every alumnus is the forthcoming "first edition" of Tech Seminar Week-end, March 5 and 6, with seminars Saturday morning, Saturday afternoon, and Sunday morning, with a general meeting Saturday night. Detailed programs and reservation cards have been mailed and everything points to a capacity crowd.

We have been told that the sign of an educated man is his desire to learn, and that college can do little more than train us in the art of clear thinking. After being exposed to intensive study during our undergraduate days, many of us thought on that eventful day of graduation that we would welcome relief from processes of education and that the speaker of the day merely talked in parables when he spoke of a mere "commencement" of learning. Many of us thought that we now had at our command the tools necessary for success, and that we could keep informed merely by reading the newspapers and a chosen periodical or two.

But many of us have changed our minds. Also, we have found that keeping informed in our chosen field is not enough to fit us for that advancement which requires a knowledge of related fields and human relationships which is all too difficult to obtain. Others of us have never lost the desire to learn, but lack the time or funds to enable us to remain on talking terms with our changing world and its problems.

A partial solution is to tap that well of information which many have lost sight of, our alma mater. Certainly, no group of men is better able to tell us about the newer things in science, engineering, and the humanities than is the present faculty of the California Institute. And the committee in charge of plans for the first seminar week-end is convinced that no group could have shown any greater degree of cooperation in imparting such information than was evidenced by the faculty in accepting our invitations to speak. Events such as the Seminar Week-end will cement a closer relationship between faculty and alumni which should benefit the Institute as well as its graduates.

The seminars themselves are designed to impart both general and specific information. Seminars of more general interest will occupy most of the time available. Two seminars on different types of subjects will be scheduled simultaneously for each period to permit a choice of subjects and speakers. These talks will contain sufficient general information to refresh your recollections but will also deal with the more recent advances. Departmental seminars on more specific subjects are scheduled for 2:00-3:50 Saturday afternoon. There will be eight of these, of which you will probably want to choose the one dealing with your specific branch of engineering or science. Here you can learn of advances



Dabney Lounge, which will recall pleasant leisure hours to many of the more recent Alumni, is to be the registration and central gathering place for the first Tech Seminar Week-end.

in your particular field and these departmental seminars will, in most instances, include short discussions by several men of their research work on the campus or reports of other current developments. All of the seminars will give you much specific information and will form a basis for a general discussion and questions on your part.

The program is thus nicely balanced to give you a maximum of information in a most interesting manner, with plenty of choices on your part. For example, if you missed the opportunities now afforded students of learning about the newer subjects now in the curriculum, you will want to attend the talks dealing with biology, geology, aeronautics, etc. For those who have wondered what's going on in the field of medical research, we offer a general discussion of the newer concepts of the treatment of disease by chemicals and X-rays. For those who are having difficulty in orienting their thoughts on the new particles of physics, there will be an outstanding talk which will revise your concepts of atomic physics. For those who want knowledge of chemical advances, general and specific, we will offer presentations which you could not obtain elsewhere. Finally, we will have information for you on Tech's new cryogenic laboratory, the 200" telescope, materials of construction, advances in transportation (including the recently announced non-sway train), and advances in the engineering sciences in general.

Is the plan experimental? Frankly, yes, though based upon the suggestions which many of you have given. The success of this year's program will determine in large measure the possibility of future endeavors to bring you closer in touch with the Institute, all of which is another reason for coming. As time goes on, and as we find out in greater detail just what you want, your Alumni Association feels that the appeal of the project can constantly be enlarged. But, while our program this year is experimental, almost unanimous approval of it in principle and general subject matter has been given by those who have heard of it.

Can you afford to miss this opportunity? If your reservations have not been sent in, mail them today.

— □ —

DEVELOPMENT OF LOCAL MADE

TALKIE

By D. Nitta

(Some excerpts taken from a translation into English by a Japanese of an article appearing in a Japanese motion picture trade journal. The article is said to be authentic by an American sound engineer who has been some time in Japan and has been closely associated with motion picture development there.)

Talkies of Japan of today has shown a remarkable development but before it reached to the present state of development,

there were many difficulties and episodes which I am going to write here.

It was seven years ago when I was working at a laboratory of Minatalkie. At that time, there was no expert or experienced engineer of talkie and when a trifle trouble was found, everybody was very anxious about it and he consulted with other engineers. When we went to Hakodate to project Minatalkie there, we experienced a very queer trouble. The trouble was that no sound was reproduced. As it was winter, we believed that sound reproducing machine was frozen and therefore we heated the machine but it was in vain. We all believed that we were the expert of talkie but no good idea was born. We therefore placed an amplifier on a table and prayed for a help of god. Later we found that cause of this trouble was due to wrong connection of wire and amplifier. . . .

Sound reproducing machine of today can be operated by one engineer but in the former day, it required several. When I equipped a sound reproducing machine at the Denkikan Theater of Asakusa, there was happened a very funny trouble. The machine was "sound-on-disk" system and the disk was rotated by a flexible shaft connected to a flywheel of the projector. The trouble was that the flexible shaft was twisted. If one engineer held one end of the shaft, the other end was twisted, and vice versa. Therefore, five engineers had to hold the shaft during projection. . . .

When I was making a research on talkie on the 4th floor of the Hogakuza Theater . . . Mr. Sasho of Paramount introduced me an assistant manager of Hotel New Grand of Yokohama who intended to project a talkie at the hotel. He came to my laboratory and I tested my machine. However, when a frame which was cut and spliced came in a sound head, very big noise like bang-bang of machine gun was heard and the assistant manager of Hotel New Grand ran away. It is not yet clear why such big noise was heard and due to my lack of knowledge, I missed one of my customers. . . .

When I delivered a lecture at a meeting of talkie engineers, one of the attendants asked me which was stronger, ampere or voltage and I was very much surprised to be asked such a question. As you know, ampere is a quantity of current while voltage is pressure of current and to compare these two units is very silly. It is my regret to find out such an engineer has no fundamental knowledge of electricity although he operates sound reproducing machine every day. Engineers should know Ohm's law at least. . . . However, as a matter of fact, engineers forget this law and they are puzzled when a trouble is found. This is because they do not know a fundamental theory of electricity and they excite when they meet a trouble.

Construction of amplifier is very complicated and its action is very delicate. Therefore, engineers should have a very quiet mind and they should be very careful before they touch on it.