# ENGINEERING AND SCIENCE Monthly



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# The Month in Focus

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#### PLACEMENT OF VETERANS

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THE "Month in Focus" which appeared in the August, 1945, issue of *Engineering and Science* discussed briefly the matter of technical employment, particularly the placement of engineers returning from service and transferring from wartime work to peacetime work. It seems advisable to review the situation as it stands at present.

The general demand appears to be for younger men who have had little or no experience and who are willing to start in subordinate positions in the engineering field. This demand has created a serious situation for a number of men returning from military service. In many cases, men were commissioned directly after completing their formal engineering education. In some instances, these men have not pursued technical duties in the armed forces, but have spent from two to four years away from the technical field. Such men, now between the ages of twenty-four and twenty-six years, lack technical experience. Many have taken on the responsibility of a family. Some have attained advanced rank in the armed services, with attendant satisfactory salary. What happens when a man in this situation applies to an industrial concern for an engineering position? In most cases, the company recognizes that this individual is more mature now than when he left college. However, from the strictly engineering point of view, he is only slightly more desirable than a green college graduate. He cannot be placed in an advanced position with the company, nor can he be placed in a subordinate position at a salary commensurate with that which he has been receiving, because such an arrangement would be unjust to men who have been with the company for some time. It may seem unjust to a man who has sacrificed from two to four years of his life for the benefit of the people who stayed at home and were advanced in their industrial positions, to be placed back at the bottom just as though he were a green college graduate. In such a situation, it is necessary to try to see all phases of the matter.

#### CHANGING POSITIONS

Sometimes older men who have been in service do not wish to return to their former employers. These men may overlook the fact that because of their extensive experience with a particular company they have gained a certain understanding of that company that only time and experience can create with another company. Moreover, these men have accumulated certain rights and privileges which most companies lean over backwards to grant their employees. These are the accrued benefits of service with one company. A man in these circumstances who feels that he would like to work for another company with possible betterment, and who expects to secure a position yielding almost equivalent compensation with greater opportunities for advancement, will not have an easy time of it.

Industrial concerns are, in general, reticent about filling positions of responsibility and advanced status with new men, for it is necessary that they retain positions for their former employees who entered the armed services. It is natural, too, that the company's own veterans should come first in its personnel policy, in so far as re-hiring is concerned, for these individuals are familiar with the general policies of the company. Those who are on leave from companies and who intend to return to their former employers will definitely recognize this situation and the problems involved.

With younger men, the situation is somewhat different. Some of the young engineers worked for companies for one or, at most, two years after receiving their degrees from college, and prior to entering the armed services. In some cases, these men have found that the company by which they were formerly employed is not the type of company, or does not present the particular opportunities, which they had hoped for. It is necessary, however, for these men to recognize that in changing from one company to another they will probably have to take a cut and start in a position of less responsibility than they may have had with their former employer.

The majority of men returning from the armed forces are well aware of these problems, and they are not asking for special considerations, or for special positions. Primarily, they are looking for an opportunity to go ahead with a concern that believes in engineering. However, these men must take stock and evaluate their qualifications: technical skills may have deteriorated to

(Continued on Page 17)

opinion as to your desire for another function of the same kind. If you want it, Carl has volunteered to shoulder the load and to arrange for another dance, tentatively suggested for October. Let us hear from you, and we will pass the word on to Carl.

# NAVY BASE IN MINIATURE

A 14,000 square foot model of a 60-square-mile naval base to be built at an undisclosed place in the Pacific will be used in studying effects of waves, currents and "other hydro-dynamic phenomena or ocean behavior", according to Dr. Robert T. Knapp of California Institute of Technology's Department of Mechanical Engineering, who will supervise construction of the model.

To be located in Azusa. California, the model will be built at a scale of 1 to 360 and will be based on exact topographic and hydrographic surveys including complete moles, breakwaters and lagoons. "Whatever the actual cost of this experiment", said Dr. Knapp, "it will be relatively small, perhaps as low as one per cent of the possible millions saved in correcting mistakes before they happen, thereby avoiding storm damage to costly harbor installations." In charge of the project at the site in Azusa will be Warren O. Wagner, Ph.D. '45, also of the California Institute of Technology.

# Month in Focus

#### (Continued from Page 3)

such an extent that they demand refreshing; experience in the technical field may be completely lacking because of duties of a different kind pursued since graduation from college.

### SHIFT TO THE WEST

A large number of men who left the Pacific Coast either many years ago, or within the past five years, were effectively frozen in their positions in the eastern part of the country during the war. It is surprising to see how many of these men are now trying to secure employment on the Pacific Coast. Men who have attained positions of considerable responsibility are seeking employment in the "industrially expanding west". The expansion that is talked about does not come as quickly as some would have it; before it arrives a reasonable period of development will be required. If one considers the problems associated with such a development from an engineering point of view, it becomes obvious that such a tremendous task cannot take place in any very short time.

#### ELECTRONICS

The armed forces have trained large numbers of men in the field of electronics, radio, communications, etc., and a majority of these individuals are desirous of remaining in that field on returning to civilian life. The greater proportion of these men are seeking electronic employment on the Pacific Coast where developments in electronics are not of the greatest industrial importance at present, rather than in the east where these activities are firmly established.

#### LOOKING AHEAD

Most industrial concerns tend to go a little easy on new technical hiring; they are waiting to see how many of their technical employees return to them from the service. Under these conditions, employment of newcomers is not now unusually active. Nevertheless, the longer-term outlook is bright. This is particularly true for those who return to their old employers, or who promptly recapture and improve their scientific skill by taking refresher, or graduate, work.

During the past three years, the universities have graduated relatively few technical men, and another four years will lapse before there is any regular class of B.S. to Ph.D. men. The general opinion prevails that it will take from ten to fifteen years to catch up to the normal availability and need of scientific men. Meantime, most companies are expanding their technical forces (especially along research lines) as rapidly as their own men return, or as other really good prospects become available. The long-term prospects are definitely conducive to optimism for those who are able and willing to qualify themselves fully for professional work.

# PERSONALS

#### 1920

ROSCOE R. ROCKAFIELD has been promoted from chief draftsman to engineerin-charge of the crushing, cement, and mining section at the Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin.

#### 1925

Dr. SAMUEL L. DIACK has returned to Portland, Oregon, from military service with the Army Medical Corps in North Africa, France, and Germany, where he is re-entering medical practice at the Portland Clinic, Portland, Oregon.

MICHAEL C. BRUNNER, formerly a colonel in the Army and now on inactive status, has returned to the Shell Oil Company, Houston, Texas, as assistant to the vice-president who is in charge of exploration work east of the Rocky Mountains.

Mr. Brunner's family, who has been living in southern California, is now returning to Texas. Michael Stuart, however, is remaining at the Southwest Military Academy, San Marino. While in service, Mr. Brunner was awarded the Legion of Merit.

#### 1926

COLONEL JOSEPH MATSON, JR., AUS, chief construction division office of the engineer, headquarters, MidPac, returned to civilian life November 1. After a month's vacation he resumed his post as civil engineer for the Waialua Agricultural Company, a position he held for two years prior to the war. Before his discharge, he was awarded the Legion of Merit.

J. E. VOELKER, formerly major in chemical warfare, has been released from military service and is now employed by the Riverside Cement Company as chemical engineer.

IVAN FARMAN has just been appointed brigadier general. He is moving from Asheville, North Carolina, to Langley Field, Virginia. The Farmans have one son.

### 1927

WM. A. MINKLER has been transferred from the former Westinghouse Air Conditioning and Refrigeration headquarters in Jersey City, New Jersey, to Hyde Park, Boston. Westinghouse Electric Corp. has purchased the B. F. Sturtevant Company, with factory and headquarters at Hyde Park. Mr. Minkler has been manager of application engineering and continues in this capacity in the new location.

LAYTON STANTON is now division geologist, Union Oil Company of California, Oregon and Washington division, with headquarters at Olympia, Washington.

TED C. COMBS, formerly lieutenantcolonel of the Army Service Forces, has accepted a position with Timber Structures, Inc., San Francisco, California.

FRANK A. NICKELL is in the employ of the Government of India (Punjab and United Provinces) for T.V.A. He is under contract for a year to supervise construction of five dams, the size of Boulder Dam. The construction is under the direction of the United States Board of Reclamation.