

MANY TECH MEN EMPLOYED BY SOUTHERN CALIFORNIA GAS CO.

Twenty-seven Tech graduates have found their places in the business world among the many technical and semi-technical positions available in the Southern California Gas Company. Of these, fourteen are doing various types of work in the Sales Department where an engineering background is helpful if not essential to their duties.

Within this Department several of the executives can be listed as "Tech men." W. M. Jacobs, '28, heads the Sales Department as General Superintendent of Sales. Directing the sales policy for the entire territory served by the Company, from the San Joaquin Valley on the north, to Palm Springs on the south, he heads a department which employs nearly 300 people. The varied activities of this department include the direct sale, and sales promotion, of all domestic gas appliances, industrial and commercial sales, extension of gas mains, home economics work, and consultation service with architects, contractors and prospective home builders.

Edgar M. DeRemer, '25, is in charge of industrial gas sales. Because of the large pipeline capacity necessary to bring natural gas from the various oil fields to metropolitan areas during certain peak periods, it is possible to use this capacity to supply surplus gas for industrial purposes at low rates. DeRemer and the staff of industrial sales engineers sell this surplus natural gas to industries, helping them with design of boiler equipment, operation of plants, and many principles of heat application. Heat for a battery of kilns to bake brick and tile, or for a new process to heat treat small metal alloy pieces — all can use natural gas, and in many cases more economically and better with the properly designed gas equipment.

H. M. O'Haver, '29, Murray N. Schultz, '27, and Arthur F. Michael, '24, are each industrial sales engineers whose territory brings forth new heat requirements every day. Schultz works in the territory from Compton to the beaches, while O'Haver and Michael serve customers in the industrial section of Los Angeles.

Three of the six domestic sales supervisors, one of whom has charge of the sale of domestic appliances for each of the six operating divisions into which the Company's territory is divided, are Institute graduates. A. M. Cramer, '29, has charge of the appliance salesmen in the Los Angeles metropolitan area. Cramer, in addition to directing the salesmen's activity, supervises appliance displays and domestic sales clerical staff.

L. O. Scott, '29, is Domestic Sales Supervisor in charge of sales for the San Joaquin Valley area; while Frank M. Foster, '25, is Division Sales Supervisor in the Kern County Division of the lower San Joaquin Valley. Each of these men directs the sales activity of Gas Company personnel and co-operating gas appliance dealers in his respective district.

Other Cal-Tech men in the Sales Department include Robert Grossman, '33, who is Office Engineer for Jacobs, drawing up all manner of proposals and keeping various records and budgets related to sales activity.

Paul Hammond, '36, represents the many gas appliance dealers in the San Joaquin Valley, reporting to L. O. Scott. An extensive program is carried on with the dealers, educating them to make more and better appliance sales to earn more money for themselves and to add more satisfactory appliances to the gas lines.

Robert G. Smith, '31, is office engineer in the Domestic Sales Department at Los Angeles, keeping records, ordering appliance stocks, and analyzing sales policies and performances.

Harry L. Warren, '24, is research engineer in the Sales Department, coordinating sales activities, preparing analytical studies and doing certain staff work. In cooperation with men from other companies and government officials, he represents the Gas Company in preparing revisions of various ordinances relating to gas appliances and in raising the performance standards of gas equipment.

W. Wayne Wilson, '34, is commercial sales engineer for Glendale, Burbank, and the San Fernando Valley territory, making estimates of cost to install and operate heating plants. He also contacts restaurants, apartments and commercial establishments.

John L. Hall, '30, is in the commercial section of the Sales Department, supervising the promotional selling activities of the men in the hotel and restaurant cooking field. This department recommends proper type of equipment to obtain the most benefit from gas which is almost universally used for commercial cooking.

Besides sales engineers, the many technical problems in collecting gas from wells, preparing it for market, transmission and distribution, require the service of competent engineers. In the oil field territory around Taft we find John T. Cortelyou, '34, and M. Martin McMahan, '36. Their problems are chiefly those of checking large volume gas measurements, metering equipment and those encountered in collecting compression and transmission of natural gas to metropolitan markets.

John E. Michelmore, '26, is division engineer in charge of estimating and designing pipeline facilities in the San Fernando Valley territory from Glendale to Newhall. He also has charge of automotive equipment and is assistant to the general superintendent in that area.

In the civil engineering department at Los Angeles are James F. P. Thomson, '26, Claude T. Scott, '35, and Paul G. Parsons, '32. These junior engineers are doing a variety of work in designing pipelines, pressure regulators and other

SEMINAR WEEK-END

FURTHER REPORTS ON MARCH PROCEEDINGS

"Inflation on a Balanced Budget"

PROF. PHILIP S. FOGG

Reported by *Robert V. Carey*, '32

equipment. With the installation and maintenance of many miles of pipeline, surveys and mapping work are essential. It is also necessary to secure rights-of-way and permits to lay lines in streets and other public property. These men are getting a taste of all this work rather than being confined to any one particular duty.

Similarly employed in the design engineering department is Robert T. Bard, '35. He is primarily engaged in making maps and studying the layout of pipeline systems in relation to the topography of the country they traverse.

Charles H. Wilcox, '15, is chief steam engineer. He superintends the operation of the boiler plant as steam is used continuously to operate huge gas compressors, and during the winter season steam must be kept available at all times for use in the generators to manufacture gas in case of shortage or damage to the huge transmission lines bringing gas from the oil fields.

Engaged in the research laboratory is Rudolph G. Holman, '34, where he is working on numerous technical problems. Proper pressures, specific gravity and specific heat are important items to be calibrated exactly in determining the characteristics of natural gas in its behavior in transmission and distribution systems.

In other departments are still other Tech men. In the land and tax department are Charles F. Humphrey, '26, who is franchise engineer, and Howard R. Preston, '23, office engineer. The work of these men relates to recording and valuation of Company property for franchise, rate making and taxation requirements.

In the general agents office, Austin Strong, '30, and George Pickett, '33, are office engineers. They are engaged in job classification and cost and time accounting of the many standardized procedures of employees in many different departments where such studies may develop better ways to do the job.

Twenty-seven Cal-Tech men in one organization bespeak the recognition by the Gas Company of the value of a technical training in college. Not only technicians, but other employees are better qualified to handle their jobs when their background has taught them to think and act logically. Opportunity with a gas utility is wide for engineers, as evidenced by the positions attained by the men mentioned above, and Southern California Gas Company will undoubtedly list even greater numbers of Cal-Tech graduates as time goes on.

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STUDY FOSSILS

Systematic study at the Institute of fossil fish of the Pacific Coast will be made possible by a grant of funds recently made by the Geographical Society of America. The work will be supervised by Dr. Chester Stock, professor of paleontology, and will use fossils already collected and awaiting study, in addition to securing further material.

By means of a graphic analysis, Professor Fogg demonstrated the tremendous growth in Federal expenditures since the World War. Prior to the War, Federal expenditures amounted to between \$750,000,000 and \$800,000,000 per annum, financed largely by customs and liquor taxes.

The tremendous outlays necessitated by the War jumped expenditures to approximately 13 billion dollars in 1918 and 19 billion in 1919, necessitating the borrowing of 25 billion dollars. As a result of the War, Federal expenditures during the 'twenties assumed a new high level of between 3½ and 4 billion dollars a year.

The emergency spending undertaken by the Roosevelt administration as a means to combat the depression resulted in the borrowing of huge sums of money and a consequent rise in Federal expenditure to a new high level of 7 to 9 billion dollars a year.

Professor Fogg pointed out that this program would result in a permanent level of Federal expenditures of at least 7 billions dollars per annum below which expenses probably could not be reduced. The only method of balancing the budget would be to raise the income of the Federal government to a level commensurate with outlays. He further stated that an unbalanced budget cannot continue indefinitely without drastic price inflation. However, barring another war, Professor Fogg stated that, in his opinion, means would eventually be found to raise the Federal income.

Aeronautics Seminar

Reported by *Harry H. Canterbury*, '06

Papers presented as follows:

1. Louis G. Dunn—on the design of rocket motors with respect to investigating their thermal efficiency. Object—obtaining scientific data at great heights, possibly 200,000 feet.
2. Frank J. Malina—on monocoque construction and analysis of stresses of the skin and strengthening members.
3. W. L. Howland—monocoque construction analysis. In small structures, factors are well known but large planes now being built require extensive research analysis.
4. Lt. Beardsley, U.S.N.—Studies on impact with relation to failure of landing gear. Repetitive impact testing machine now being designed. This is a vertical drop type machine.
5. Robert S. Schairer—profile and drag measurements. Lantern slides to illustrate the apparatus and curves obtained.

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