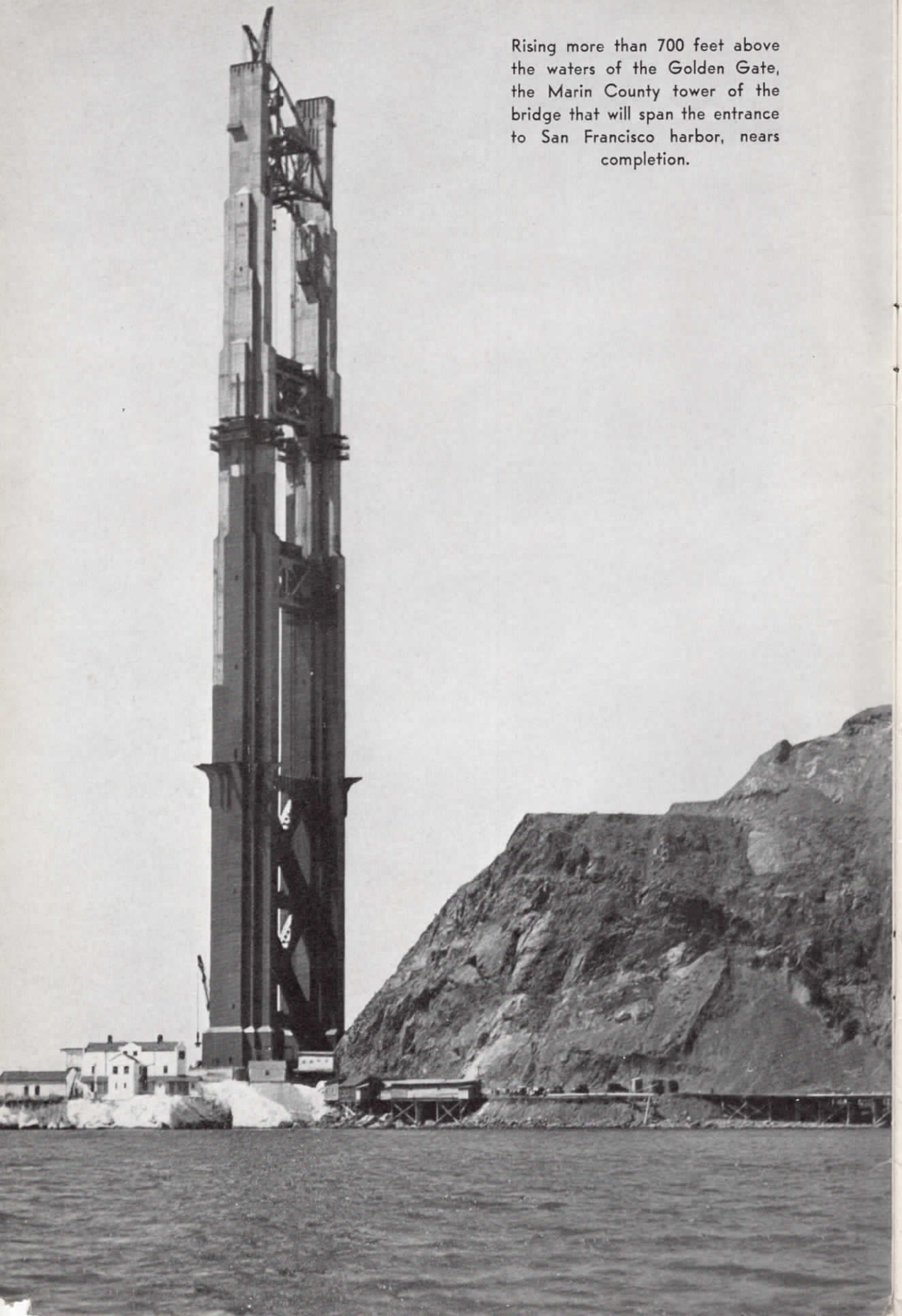
UNION OIL BULLETIN

JUNE 1934



Rising more than 700 feet above the waters of the Golden Gate, the Marin County tower of the bridge that will span the entrance to San Francisco harbor, nears completion.

UNION OIL BULLETIN

Published Monthly by the Union Oil Company of California for the information of its employees and stockholders.

Address all communications to the "Bulletin," 709 Union Oil Building, Los Angeles, California.

Volume XV JUNE Bulletin No. 3

Company Mourns Passing of John McPeak

IN the early afternoon of June 20, John McPeak, secretary of the Union Oil Company since 1916, was stricken with a heart attack while shopping in a downtown Los Angeles store and died before medical aid could be summoned. Although he had on occasions in the past suffered from mild attacks his condition was not considered alarming by his family or associates. He had been at his desk as usual on the day of his fatal illness.

He was born in Ballymoney, County Antrim, in the north of Ireland, May 5, 1878, and was educated in his native country where he spent the first years of his business career as a certified public accountant. In 1904, due to his father's ill health he and members of his family came to Los Angeles, where he obtained a position with the Title Guarantee and Trust Company, remaining with that concern for three years.

June 24, 1907, Mr. McPeak entered the service of the Union Oil Company as cashier, and Dec. 8, 1908, was elected assistant secretary. He later served as assistant comptroller, then as a director, and on April 20, 1916, was elected secretary of the company. Only two of the company's executives have longer service records than that established by Mr. McPeak.

John McPeak

His affiliations outside the company were numerous. He was extremely active in tax associations and a member of several clubs and organizations. He was president of the Western States Taxpayers' Association in 1933, and was for years a director of the

California Taxpayers' Association, and a member of the Los Angeles Country Club and of the Los Angeles Athletic Club. He was also a member of the Masonic Order.

He leaves a widow, Mrs. Ella McPeak, 332 So. Arden boulevard, Los Angeles; three sons, John Frederick, 20, a Stanford student; William R., 17, and Milford, 16; a brother, Daniel M. McPeak of Berkeley, general manager of the Great American Indemnity Co., and four sisters, Mrs. Jane Manwaring and Miss Elizabeth McPeak of Los Angeles; Mrs. Louise McGahie of San Francisco and Mrs. Mary Jacobs of Cork, Ireland.

The personality and kindness of John McPeak, the man, endeared him to his friends and business associates to whom his passing is truly a great loss.

Former Director and Executive Dies Suddenly

Isaac B. Newton

SUCCUMBING to a heart attack, Isaac Burkett Newton, chairman of the Federal Reserve Bank of San Francisco, a director of the Union Oil Company for eleven years, and for a time president of Union Oil Associates, died June 22 at his home in Los Angeles. Although Mr. Newton had suffered heart attacks for more than a month prior to his death, he had not, until the very last, ceased his activities, which characterized his long and brilliant career as a fiscal expert.

Born in Norwich, New York, September 7, 1861, Mr. Newton was educated in the schools of Norwich and at Yale University, from which he graduated in 1883. Immediately, Mr. Newton came to Los Angeles, where he subsequently made his home for 51 years. From 1884 until 1919 he was secretary-treasurer of the Harper and Reynolds Hardware Company, and, in 1907, while with that organization entered the banking business, becoming a director of the Farmers and Merchants Bank and chairman of its finance committee. Also, at various times he was connected with the California Bank and with the American National Bank.

Upon formation of the local branch of the Federal Reserve Bank in 1920, Mr. Newton became chairman of the board of directors, and held that office until 1926, when he was made Federal Reserve agent and chairman of the board of directors of the San Francisco Bank. He was widely known and very active in civic and club circles in Southern California, and was a member of the California Club and the Los Angeles Country Club.

Mr. Newton was elected a director of the Union Oil Company November 27, 1922, and resigned Nov. 30, 1933, feeling he should in view of his connection with the Federal Reserve System. In his passing the company lost a valued friend who had done much towards its advancement.

The Securities Exchange Act of 1934

WERE one to review the entire legislative history of the United States, it would be quite a difficult matter to find a period in which Congress has been as active as during the past year, or to find a comparable period in which as many important acts have been passed, dealing with the domestic life of the nation. Of this mass of legislation, prime consideration must be accorded the Banking Act of 1933, the National Industrial Recovery Act, the Securities Act of 1933, and the recently passed Securities Exchange Act of 1934, the latter of which included certain necessary amendments to the original Securities Act.

Briefly, with the exception of the Recovery Act, popularly known as the NRA, these enactments have been directed specifically toward the prevention of an undue diversion of funds into speculative operations in securities in an effort to maintain a supply of credit economically necessary for the maintenance and expansion of business. At the same time, definite regulations have been included for the protection of the investor. The Banking Act extended the power of the Federal Reserve Board over security loans of member banks of the Federal Reserve System, and divorced member banks from affiliates dealing in securities. The Securities Act provided for governmental scrutiny of new issues of securities and imposed upon issuing corporations, underwriters and dealers new responsibilities and obligations to purchasers of securities; this is the bill which upheld the doctrine that the seller *also* should be made to beware.

In reviewing the Securities Exchange Act of 1934, one is impressed with the apparent desire on the part of Congress to afford a protection to the holders of American securities from unfair practices relative to the issuance, distribution and marketing of securities. Direct prohibitions have been set forth, but the administration of the bill is to be in the hands of what is to be known as the Securities and Exchange Commission, having five members. The Commission has been delegated numerous specific and broad powers to the extent that its discretion will govern the worth of the bill in practical application. Its members are to be appointed by the President, with the consent of the Senate, and will be established July 1.

While the Act prohibits certain practices in the operation of our national security markets, and exacts very detailed information from corporations with registered, or listed, securities, the primary consideration has been the control of speculation. The bill has been designed to prevent speculation beyond that point necessary to maintain a liquid and reasonably stable market. Certain margin requirements have been stipulated, but the Federal Reserve Board, which is to control the amount of credit to be extended for the purchase or carrying of securities, has been given full discretionary powers in this respect.

Members of our stock exchanges, brokers and dealers in securities are restricted from borrowing from any but member banks of the Federal Reserve System and non-member banks which file with the Federal Reserve Board an agreement to comply with all provisions of the Exchange Act, the Federal Reserve Act as amended, and the Banking Act of 1933. This precludes the possibility of other financial institutions of whatever character, and corporations from extending credit to be used as brokers' loans.

Definite provisions have been made tending toward elimination of illicit brokerage practices, while other practices will be governed by the Commission. Manipulation, wash sales, matched orders, pools whose purpose is to raise or depress prices, and inducing the purchase or sale of securities by the circulation of information that price changes are likely to occur because of market operations, are ruled out. "Pegging" or stabilizing, transactions whereby any party acquires a put, call or straddle in connection with securities, short sales or stop loss orders, floor trading, excessive trading

off the floor by members for their own account, and specialists' trading for their own account are prevented, excepting as the Commission may permit. The bill also prevents the extension or maintenance of credit on new securities by underwriters for six months after such underwriting. Some of these prohibitions will be in effect July 1, but most of them are not effective until October 1.

All security exchanges are to be registered with the Commission, and all securities (excepting those exempted, such as government securities) traded in on such exchanges must be registered, or listed, on a security exchange. If an exchange wishes to withdraw from registration, it may do so only under terms enumerated by the Commission. Subject to the Commission's rules, present registration or listing of any security on a registered stock exchange will suffice until July 1, 1935.

Of particular importance to stockholders should be the requirements of the Act, making it obligatory on the part of a corporation to file certain information with the security exchanges on which the corporation desires to have its securities registered, and duplicates of the originals of these reports with the Commission as they may be required. This information must be in the form of an application, and it will be unlawful for a stock exchange member, broker or dealer to effect any transaction in any security (excepting those exempted) on a national security exchange, unless the security is properly registered. This will void the collateral value of all non-registered, or unlisted securities (excepting those exempted) so far as margin accounts are concerned, excepting as stipulated by the Federal Reserve Board.

The information required includes the following:

(1) The organization, financial structure, and nature of the business.

(2) The terms, position, rights and privileges of the different classes of securities outstanding.

(3) The terms on which the corporation's securities are to be, and during the preceding three years have been, offered to the public or otherwise.

(4) The directors, officers and underwriters, and each security holder of record holding more than 10 per cent of any class of any equity security of the corporation (excepting an exempted security), their remuneration and their interests in the securities of, and their material contracts with, the corporation, and any person directly or indirectly controlling or controlled by, or under direct or indirect common control with, the corporation.

(5) Remuneration to others than directors and officers exceeding $20,000 annually.

(6) Bonus and profit-sharing arrangements.

(7) Management and service contracts.

(8) Options existing or to be created in respect of its securities.

(9) Balance sheets for three preceding fiscal years, certified by independent public accountants if required by the Commission.

(10) Profit and Loss statements for three preceding fiscal years, certified by independent public accountants if required by the Commission.

(11) Any further financial statements which the Commission may deem necessary or appropriate for the protection of investors.

(12) Other information, such as the articles of incorporation, bylaws, trust indentures, voting trust agreements, etc., if required by the Commission.

Every corporation having a security registered on an exchange must also file the following information with that exchange, and with the Commission if so required:

(1) Such information and documents as the Commission may require, to keep reasonably current the information and documents filed pursuant to the above requirements.

(2) Such annual reports (certified according to the above requirements), and such quarterly reports as the Commission may prescribe.

Furthermore, it will be within the jurisdiction of the Commission to prescribe the accounting methods to be used in preparing the balance sheet and income account of a

corporation, the procedure in the appraisal or valuation of assets and liabilities, the method of determining depletion and depreciation charges, the differentiation of recurring and non-recurring income, the differentiation of investment and operating income, and may ask for separate reports on subsidiaries, rather than a consolidated report of the parent company. Railroads are exempt from this Act, with respect to accounting procedure.

Other sections of the Exchange Act make it unlawful to solicit proxies excepting as the Commission may prescribe, and provides that officers, directors and holders of more than 10 per cent of any class of equity security must file monthly reports showing changes in ownership, and that all profits made on trades opened and closed within six months by persons in this category are recoverable by the corporation. Also these same persons are not permitted to sell short unless definitely acting in good faith or the security is delivered within a stipulated time.

One very important feature of the bill is that it creates a liability for misleading statements regarding securities, to the extent of damages caused by reliance on such statements. And the Commission is empowered to suspend a security exchange, its members or officers, for violation of rules and regulations; also it may suspend trading in a registered security.

To make the Exchange Act binding by law, it provides liabilities for controlling persons, and makes it unlawful for any person directly or indirectly to violate the rules and regulations of the bill through, or by means of any other person. As an added restriction, brokers will be prevented, directly or indirectly, from trading in American securities on foreign exchanges in contravention of the Commission's rules and regulations.

In this article it has not been attempted to bring attention to all of the many provisions the Act carries; rather it has been our purpose to impress stockholders with the many changes to take place in the conduct of the nation's security exchanges, and the position in which the corporation is placed relative to these changes. All three legislative measures, the Banking Act, the Securities Act and the Exchange Act, have a direct and exceedingly important influence on American business by reason of the many ramifications governing the control of credit, and the manner in which this credit may be used. Regulations governing the instruments of finance are important from the standpoint of enforcing honest administration of extended credit and the methods in which securities are marketed, but the control of credit assumes greater importance because of the extreme necessity for establishing a proper and economically satisfactory relationship between credit for speculative purposes, and credit for business purposes.

Practical application of the Securities Exchange Act of 1934, as has been stated, will be virtually in the hands of the new Securities and Exchange Commission from point of administration, and in the hands of the Federal Reserve Board from point of credit control. Until the Commission is in operation for some time, a true interpretation of the Act can not possibly be undertaken, yet there are several conclusions which may be drawn directly from sections of the Act and from recent leading commentaries.

(1) Speculation in securities will be definitely curtailed, and credit in the form of brokers' loans, under a more powerful Federal Reserve Board, will not become excessive.

(2) Prices of registered, or listed securities will tend toward greater stability.

(3) On the whole, registered, or listed securities undoubtedly will prove to be more acceptable to banks for collateral purposes, than non-registered, or unlisted securities.

(4) Additional financing or refinancing will be largely unaffected, if for legitimate business purposes.

(5) Promotion of honest public relations between corporations and stockholders will be accentuated.

(6) Present accounting methods may be somewhat altered, to effect uniformity and standardization within an industry.

While the Commission will come into being July 1, most of the sections in the Act will not be in effect until October 1; only a few sections will be effective July 1.

Credit Meet Chairman

J. M. Rust

During the 39th Annual Convention of the National Association of Credit Men, held in Los Angeles June 11-15, J. M. Rust, treasurer of the Union Oil Company, had the high distinction of presiding as general convention chairman.

For years Mr. Rust has been an active member of the association, serving as a national director for the three years ended in June, 1932, and then as vice-president for western United States for the past year. Members of the association represent major business enterprises having a total volume of business said to exceed $65,000,000,000 annually.

Returns to His Desk

W. W. Orcutt

The courage and physical stamina which enabled Vice-President W. W. Orcutt to withstand the shock of a severed arm in a collision between his car and a truck on San Fernando road last April has brought him back to his executive desk, where he is supervising the company's production, leasing and geological operations. His return to duty has been cheering to his associates and scores of friends who anxiously watched his convalescence.

Mr. Orcutt was injured on the night of April 3 while speeding to the bedside of his dying mother. He returned to his regular duties the first week in June.

Bulletin Cover Subjects

The imposing new-type pump island which is shown on the front cover of this issue of the Bulletin is an innovation for Union Service Stations. It was installed at the new Beverly Hills station which opened last month and has created much comment on its appearance and utility. The back cover subject is of the same station, and indicates to what extent the company has landscaped and beautified the station in keeping with municipal planning.

Completes 20 Years of Service with the Company

R. D. MATTHEWS

R. D. Matthews, executive vice-president, April 1, last, joined the ranks of our 20-year employees, now numbering 232. Mr. Matthews started his employment as comptroller in 1914, at the age of 27. His executive duties during his twenty years of service have encompassed the supervision of three separate groups—comptroller's, manufacturing, and sales—each of which was successfully expanded and reorganized under his direction. He has occupied his present position since February, 1931.

Setting a row of conifers at Union's new station, Sixth and Mateo, Los Angeles.

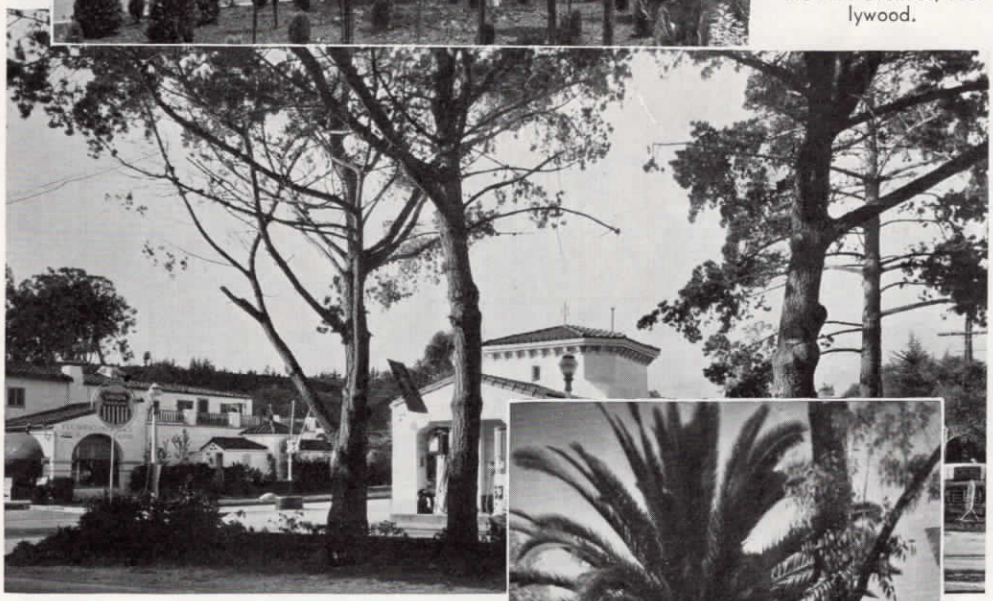
Service Station Landscaping

LANDSCAPING and gardening of service station plats has, within the past few years, become almost as important a feature of new service unit construction as the sales and service rooms.

With the definition of company-owned and controlled stations in 1932, Union Service Stations inaugurated a program of adding new strategically located stations to its group, re-equipping and rehousing stations already in service, and converting locations, where justified, to super service establishments. In each enterprise, landscaping was one of the initial considerations, the choice of building type and architecture being reconciled to the individuality of the community.

Beautification of the service station yard and surroundings is a sales asset. It is not done solely to appeal to the aesthetic sense of beauty-loving patrons and to comply with definite standards set up by municipal and community planning commissions and boards. Landscaping and gardening, combined with distinctive architecture, have proven their value through increased patronage at stations so improved. This combination has also been the means of transforming unsightly corners into sites of utility and beauty. The station at the intersection of Van Ness and Greenich, San Francisco, is an outstanding example.

Shaping service station plans and layout so that natural trees and shrubs might not be disturbed has not only added to the attractiveness of stations but been responsible for the receipt of awards from community planners. The imposing tower-type station at Beachwood and Franklin avenues, Hollywood, is an example of such installation. Here palm and other trees, and hedges were meticulously preserved and worked into a landscaped plan. So satisfactory was the use made of native growths at the company's station at State High-



Indicating how the modern Union service station is landscaped to conform to natural surroundings of the community; left, the new Beverly Hills station; center, Montecito, Calif., station, winner in Santa Barbara county contest, and below, a corner of Union's famous station at Beachwood and Franklin avenues, Hollywood.

way and Olive Mill Road, Montecito, Calif., that the station manager was awarded a prize for the "most beautiful and best kept station" in Santa Barbara county.

In the southern region a new type of landscaping has been evolved, due primarily to the efforts of Max Mueller, the company's genial landscape consultant in whose charge execution of all landscaping is placed. Instead of grass, Gazanias are being planted. These present a dense mat of foliage and have a large, showy orange bloom which harmonizes with the station colors. The use of Gazanias eliminates lawn mowing, is more economical, and considerably reduces the amount of attention demanded from station men. New stations at Florence and Pacific, Huntington Park, Calif., and Burton Way and Crescent Drive, Beverly Hills, Calif., are examples

Artistically laid out plat which rims the new Union station at Florence and Pacific boulevards, Huntington Park, Calif., is representative of plans followed at all new units.

of the use that has been made of Gazanias.

Landscaping for service stations varies according to the locations. Plants thriving on the Coast are inadequate, may not develop in inland areas. Golden Privet is used for inland stations, while those at the beach are embellished with Pottosporum and Dwarf Pomegranate, the latter of which has a bright red bloom. Photinias are used as supplementary border plants. Varieties of Hibiscus, year-'round blooming shrub, are used at many stations. For the border plats around station yards, pyramid Eugenia and Dracaena, both tall and slender shrubs, are generally used.

In the beautification of the station property, conifers—that name which applies to all class of small shrubs—comprise the encircling hedge, usually the greatest single factor. In Southern California and the Arizona territory the Bookwood and Eugenia conifers are generally used. The Japanese bookwood is best suited to the southern areas, the English bookwood to the northwest regions. An effective and pleasing arrangement is obtained by alternating one short conifer and one tall one in formation of a hedge around the sides and back of a station.

Planting of blooming shrubs and seasonal flowers is also done, the type being suited to the individual location and the climate. The Lantana and other blooming shrubs, which may be obtained in a wide variety of colors to harmonize with the paint scheme of the station, are selected and planted. Rock gardens and seasonal flower beds are laid out to further enhance the appearance of the service station.

Where advisable and possible, grass is planted, although little use is now made of lawn in the southern region. Vines on fences and on lattice work supplement the other vegetation in the yard to set off the picture of the station as a whole.

The selection of the various types of shrubs and plants for each station site is left to Mr. Mueller, a native of Dresden, Saxony, who came to the Union Oil Company in 1920 and was charged with the care of eighteen Los Angeles stations. He now covers the entire area from San Diego to San Luis Obispo, and supervises and directs planting of lawns, flowers, and shrubs at all stations, in addition to maintaining an inspection schedule covering every unit in the group. He advises with architects and construction engineers in laying out plats for new stations and revamping layouts of units already in operation. Max is a short, robust individual who is an embodiment of the theory that vocation leaves its mark. He's as colorful and perenially young as the flowers which under his careful ministrations lend warmth and beauty to Union service stations.

Union Service Stations is bending a definnite effort to make its service units attractive supplements to communities in which they are located. Landscaping and planning are considered along with architecture of the building to accomplish this end.

Heroism Is Rewarded

IN recognition of his heroism in effecting the rescue of Captain Ed Anderson, of the Inverness Cannery tender "W & F," George F. Tough, an employee of the Union Oil Company of Canada, recently was awarded $500 by the Executive Committee of the Company. This amount has been placed to his credit in the Employees' Provident Fund. Not only did Mr. Tough rescue Captain Anderson from the burning tender, but also was largely responsible for extinguishing the resultant fire on the dock to which the tender had been tied.

G. F. Tough

The cannery tender, powered by a gasoline engine, with Captain Anderson in charge, was taking on gasoline at the Company's dock at Inverness, B. C., at the time of the accident. The Company's facilities were operated by Tough. Before he passed the gasoline hose aboard and opened the valve, he went aboard the boat and satisfied himself that no fire was burning. One of the boat's bunker tanks was filled with approximately 180 gallons of gasoline, and the hose then was passed into the engine room where the other tank was located. Captain Anderson was personally handling the nozzle of the hose in the engine room.

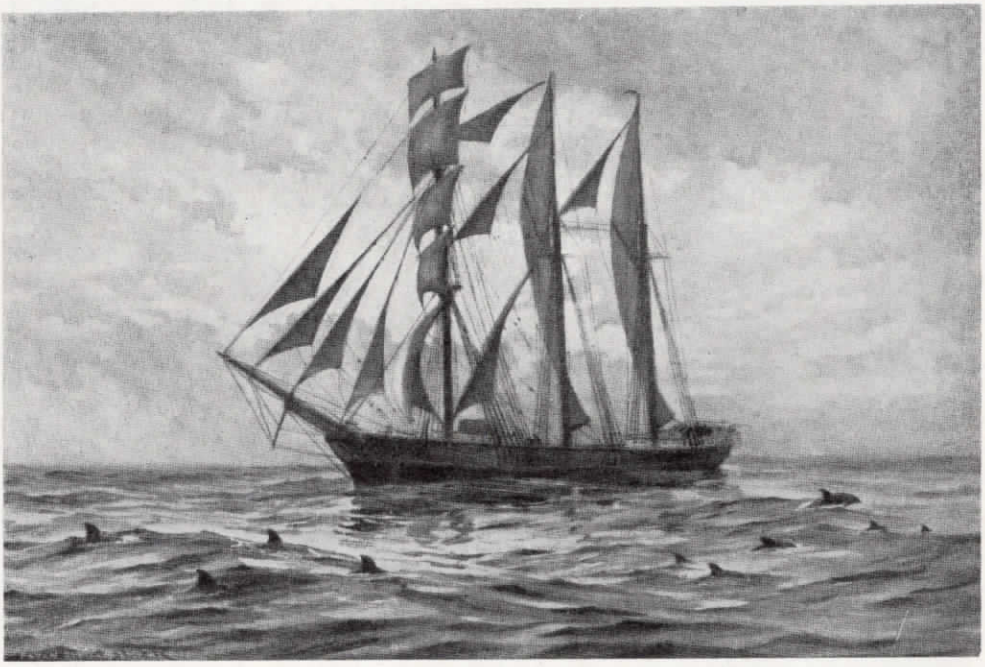
After the captain had signalled to again open the valve, and when some 20 gallons had been poured into the engine room tank, a terrific explosion occurred. Tough closed the valve on the wharf and jumped aboard the boat and dashed for the engine room. Meanwhile the lone deck hand of the boat ran to safety.

The force of the explosion had so wrecked the superstructure that Tough was unable to enter the engine room from the deck, so climbed back onto the wharf and then down onto a float from which he reached the bow of the boat. Here the the explosion had torn a hole into which water was rushing. Fire by that time was sweeping the entire superstructure. Aided by the inrushing waters, Tough was able to pull himself through the hole in the bow. In the engine room he found Captain Anderson badly burned and only partially conscious. He dragged Captain Anderson, a heavy man, against the pressure of the incoming water to the bow of the boat, where he pushed him through the hole, torn by the explosion, to the men who had arrived from the cannery.

By this time the vessel was practically submerged, although the fire was still enveloping the upper portions of the deckhouse. The boat was cut adrift, and allowed to sink at some distance from the dock. Tough then turned to fighting the fire on the dock and, with the assistance of some of the cannery crew, brought this fire under control.

Captain Anderson was rushed to Prince Rupert for treatment, but died the same day from his injuries.

The Barkentine Wm. Groundwater



Many Union Oil Company employees, who are regular readers of the Saturday Evening Post, were much interested recently to note in Norman Reilly Raine's latest story, "The Other Cheek", what appeared to be a very curious coincidence—the nomination of a fine old sailing ship as the "William Groundwater". As a matter of fact the christening of the barkentine by this name was not accidental, but in reality an unusual gesture by the famous "Tugboat Annie" creator, in recognition of his friendship for the genial Director of Transportation.

Dr. H. G. Reiber conducting test with Soxhlet Extractor in which he is extracting Pyrethrines from Pyrethrum flowers.

Insects and Insecticides

By A. L. Blount
Research Supervisor

THE number of kinds of insects is probably larger than the number of all other kinds of animal life. The great numerical superiority of the insects is undoubtedly due to their extraordinary ability to adapt themselves to the most diverse conditions. Insect life represents the highest order of evolution among invertebrates, not only as regards physical development, but also in mental development as expressed in instinct. Insects are world-wide in their range. They are found in the Polar regions and in greatest abundance in the Tropics. Insects are found in fresh and salt water; in hot springs; in deep wells and even in pools of crude oil. The extraordinary adaptability of insects to various conditions is probably explained by their antiquity and the rapidity with which they reproduce their kind. One authority estimates that man has passed through 40,000 generations while the insect has passed through 300,000,000, and since adaptation to changing conditions is better the greater number of generations, the insect is inherently better equipped to survive under hardships than is mankind.

A. L. Blount

As a matter of general interest, let us consider briefly, some of the advantages that the insects have in the contest to sur-

vive. The plant lice (the aphides) reproduce their kind during a certain portion of their life cycle without the intervention of the male. The virgin female produces living young, which in turn, and after a very short period of time, give virgin birth to living offsprings and so on for several generations. It has been estimated that under theoretically favorable circumstances the offspring of one aphis during one season would weigh over five times as much as the total weight of all the human beings on earth. It is not surprising therefore that one aphis on a rose bush can account for the presence of an enormous number in two weeks' time or that serious reinfestation of shrubbery with aphis may occur shortly after spraying even with a good insecticide like an emulsion of Union Garden Spray. One lone survivor or migrant from another bush is sufficient to perpetuate the species. Fecundity and parthenogenesis (reproduction by virgin females) are some of the advantages the aphis enjoys in the contest to survive.

The cockroach is notorious for his ability to survive. Some of the rocks whose formation dates back to periods millions of years ago contain fossil remains of this pest. If the meaning of the large number of fossil remains of cockroaches is correctly interpreted, there must have been a period in ages gone by in which the cockroach literally covered the earth's surface. This insect has survived and has remained practically unchanged in form over a period of time which undoubtedly has seen terrific upheavals and climatic changes. Therefore who can gainsay the statement that the cockroach will be one of the inhabitants of the last man's home.

The filth-loving house fly and his numerous relatives are old and their reproductive ability is well known. Under theoretically favorable conditions, a single overwintered female fly may account for over five trillion (5,600,720,000,000 to be exact) offspring in a month period. The house fly is particularly obnoxious. To appreciate the truth of this statement, one has only to consider that the house fly grows from the egg to the adult in animal refuse, such as horse, pig and cattle manure and that the adult fly enters our home and partakes of our foods. "Bif the fly" is a command that should be implicitly obeyed.

The carboniferous rocks contain the fossils of leafhoppers, and the vineyards and beet raisers in the San Joaquin and Imperial Valleys are now waging a battle against their descendants. Thus, this creature has survived over a period of at least 40,000,000 years. This insect which is somewhat like a small grasshopper in appearance is so small that its form cannot be discerned clearly by the unaided eye. Some of its kind live and feed on the leaf of the beet plant and grapevine, and the damage caused thereby is responsible for low sugar content in the beets and grapes, if not total failure of the crops.

The ant is a pest which is not of particular importance in so far as crop damage is concerned, except in the cases where it is responsible for aphis infestation by physical transplantation. The frequent invasions of ants into our pantries are extremely annoying, however, and for that reason the ants are classified as objectionable. Fossil ants are found in the so-called Baltic amber which is a fossil resin of pines that grew during the lower Oligocene Tertiary times in Europe. It is probable that the habits and general characteristics of the fossil ants were very similar to those of the ants we see today. The remarkable community life of the ants is evidence of their antiquity, and the high order of this life has fascinated many writers, particularly Maeterlinck, the poet and philosopher, and Fabre, the naturalist.

It would not be practical to consider any more of the insect pests in this short article. It will suffice to say that the grasshopper or locust, the mosquito, the louse, the tick, and all of the multitudes of other pests that plague man by consuming his foodstuffs, damaging his flowers, injuring his health and endangering his life as well as disturbing his peace of mind, have been on earth for millions of years and are notorious for their ability to reproduce in enormous numbers and to survive under hardship.

In order to overcome these creatures, man has to use weapons with which he is not naturally endowed; he must in the last analysis depend upon his intelligence and inventive ability to devise means of combating these creatures in order to keep them in control. In man's history, there are many accounts of famine occasioned by devastating attacks of insects on crops. In recent times such insect attacks have been

overcome largely by the development of effective methods of destroying the pest.

There are many ways of controlling insect pests. In some cases they may be brought under control by selection of the planting season, by the use of certain fertilizers, by the introduction of natural enemies, or by the use of insecticides. The Union Oil Company is interested in the latter phase of insect control since petroleum oils have played and are playing an important part as insecticides.

In order to present the subject of insecticides intelligently, it is necessary that insect pests be classified in some logical manner. It is rather common practice to classify the insects that live on vegetables, trees, flowers, vines, and shrubbery in general into two types: (1) Those that feed by piercing the foliage or bark with their mouth parts and sucking the sap of the plant; and (2) those that chew off and ingest portions of the plant. To the first type belong the aphides, the thrips, the mealy bugs, the various scales, the leafhoppers, the mites, and the red spiders. The second group includes the various caterpillars which in turn includes the larvae of the many moths; the beetles and the weevils.

In the control of the first type, that is, the sap suckers, oil sprays, nicotine sprays and sprays containing extracts of pyrethrum flowers, or in general contact insecticides, are required because poisons deposited on the foliage are not necessarily consumed by the insect in its feeding operations. The second type, that is, the chewing type of insects, is best controlled by the use of stomach poisons such as the various arsenicals (calcium and lead arsenates, paris green, etc.) Pulverized derris root and derris extracts containing rotenone, may also be used as stomach poisons.

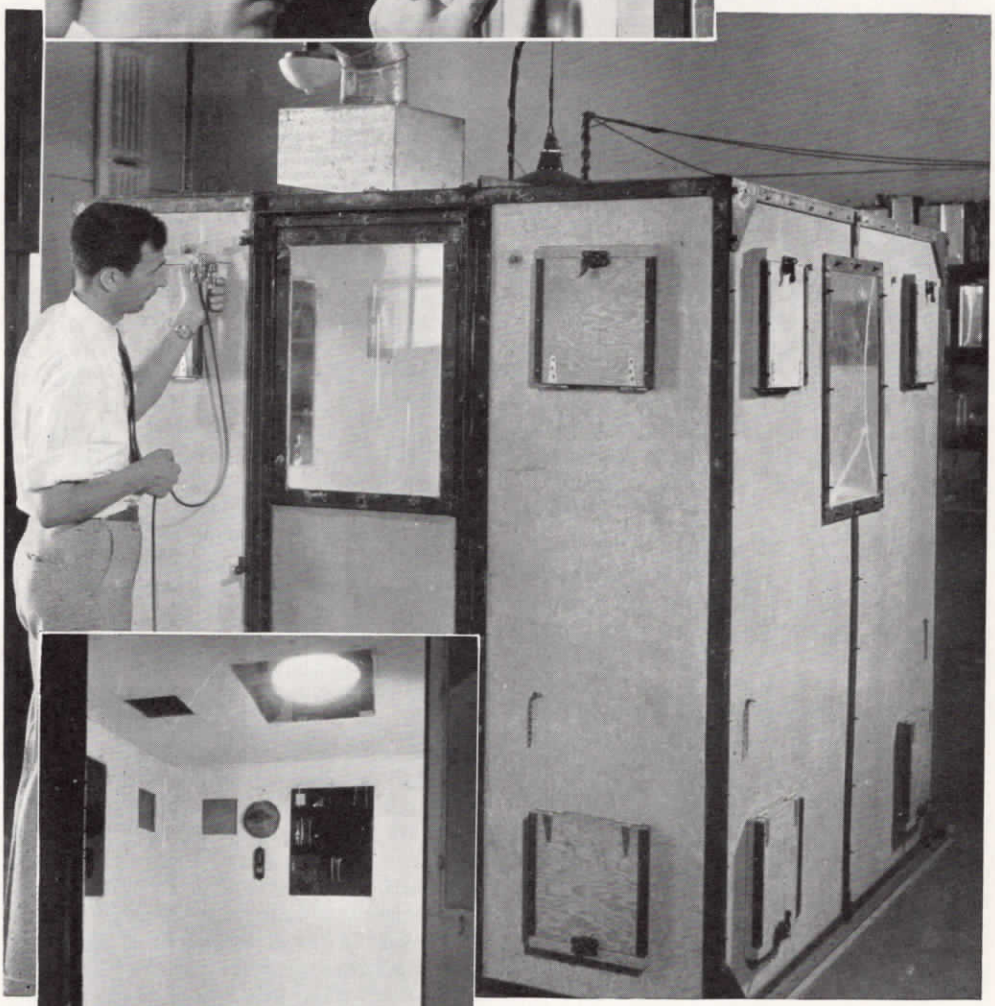
The Union Oil Company's Research Department has given considerable attention to the development of insecticides for use in the control of house flies and of the so-called sucking type of insects. The toxic materials considered have been generally of the type which are harmless to man and animals in the effective concentrations. The products of these studies are described below:

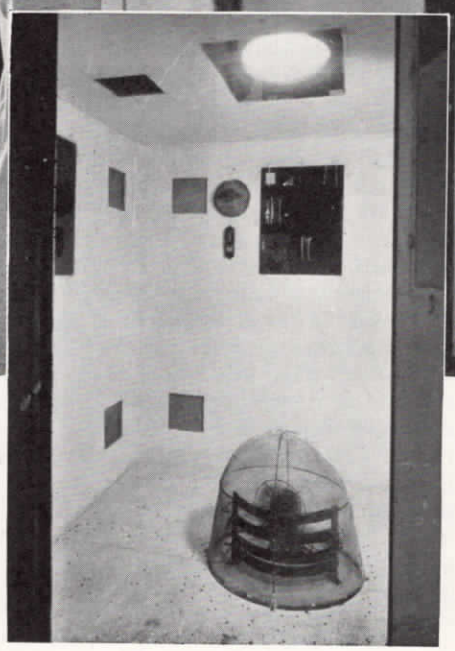
The introduction of Union Fly Spray, subsequently renamed "Bif," during the summer of 1931, may be said to mark the advent of the Union Oil Company into the household insecticide field. For many years prior to that time, the Company produced spray oils for use in citrus and deciduous pest control, but the general marketing of a household insecticide started with the introduction of Union Fly Spray. Since the introduction of fly spray, Union Garden Spray and Union Vine Hopper Spray have been added to our line of insecticides and work on the development of other insecticides is now in progress.

When Union Fly Spray ("Bif") was introduced, a certain standard of quality was established, and it was decided that the fly-killing quality of our fly spray would be maintained equal to that standard at all times. During the three years that have intervened since the introduction of Bif Spray, there has been no lowering of this standard, consequently, Bif Spray has enjoyed an enviable reputation and its sales have grown in a very encouraging manner. The toxic material in "Bif" and most other fly sprays is a substance extracted from the dried flowers of a daisy now grown extensively in Japan. The most important variety of pyrethrum flowers (commonly know as pyrethrum) is known botanically as Chrysanthemum (Pyrethrum) cinerariaefolium, and is very similar in appearance to a small field daisy and has been used for many years in a dried pulverized form as an insect powder. The toxic materials in pyrethrum are harmless to warm-blooded life. The actual production of fly spray from pyrethrum is a simple procedure, but the determinations of the quality of pyrethrum and the toxicity of the final spray are difficult ones, requiring the use of expensive facilities and the help of a trained personnel. The Research Department of the Union Oil Company has kept abreast of the field in the development of the methods of appraising pyrethrum for use in fly spray and other insecticides. Its present facilities and trained personnel place it in a position to purchase only the best pyrethrum. A pint of Bif Spray does not contain the toxic materials in a certain weight of pyrethrum flowers regardless of their quality, but the amount of toxic materials which is required to kill flies under abnormal conditions.

There are several checks established on the quality of Bif Spray. The pyrethrum

The company's new fly death chamber, where the Peet-Grady tests to determine the toxicity of its insecticides are conducted. At the left, flies are being introduced into the chamber.





Above, a measured quantity of Bif is being sprayed into the chamber prior to the introduction of the flies. For this biological test the temperature and humidity of the chamber must meet specific standards set forth for the experiment. The interior is shown at the left—the "Biffed" flies are on the floor. The screened object in the center is an electric fan.

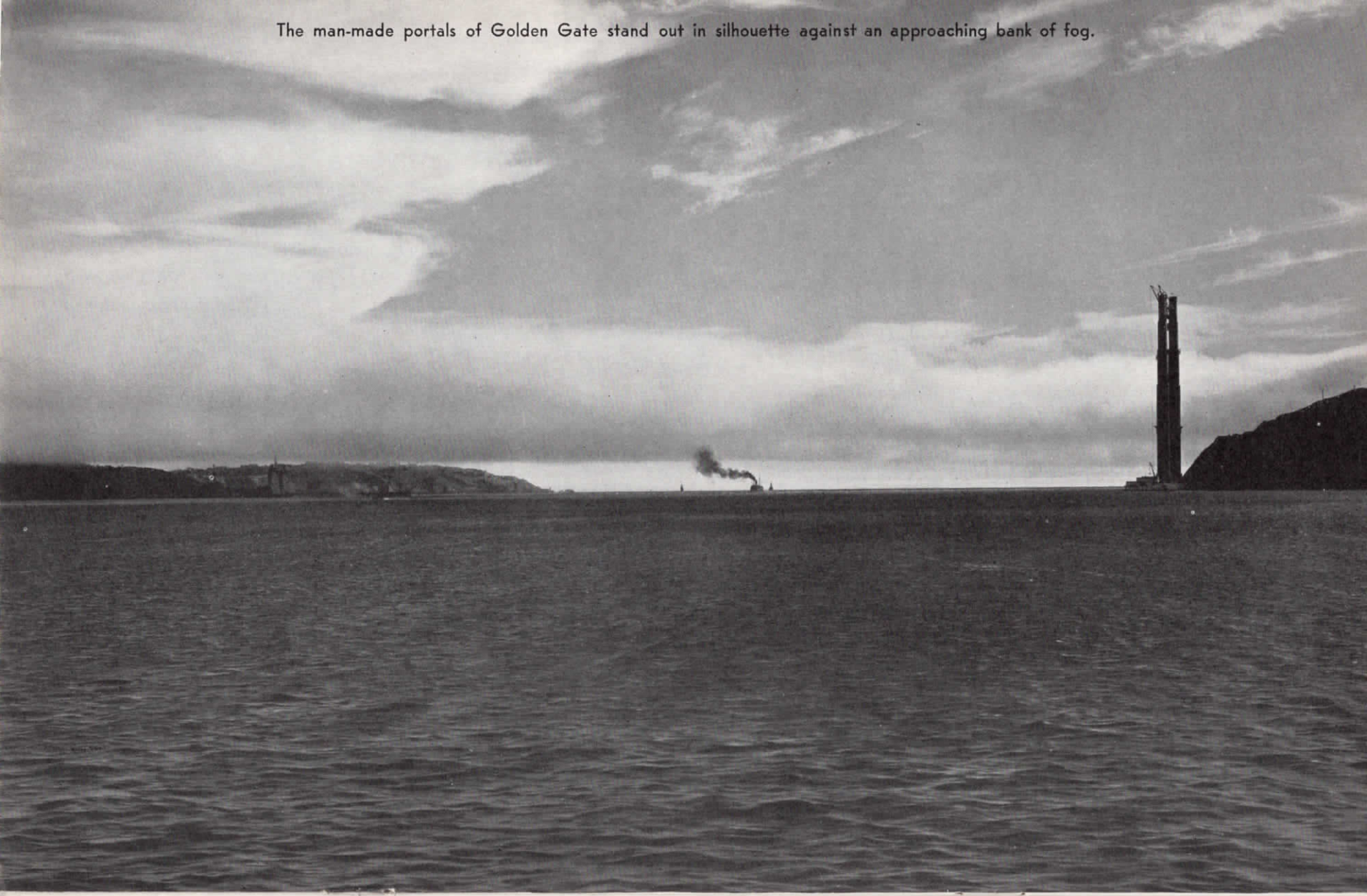
flowers used in its manufacture are purchased in Japan through our own agent who ascertains the quality of the flowers before shipment or they are purchased from reliable importers who sell a standardized quality of pyrethrum flowers. Regardless of the sources, the flowers on receipt are tested to determine their quality by biological tests. Two methods of biological assay are in use; the so-called Peet-Grady test and the Richardson test. The Peet-Grady test has been established by the National Association of Insecticide and Disinfectant Manufacturers as a standard method of evaluating fly spray and the insecticide manufacturer's code requires that a household liquid spray conform to certain minimum standards defined in terms of the Peet-Grady test, which are that a fly spray knock down at least 95 per cent of the flies in 10 minutes and that at least 60 per cent of the flies be dead 24 hours after the test. Bif Spray when tested accordingly shows a 100 per cent knock down in 10 minutes and 90 per cent dead after 24 hours which is 50 per cent more than is required by the insecticide code. The Peet-Grade test may be described as follows:

At least 100 carefully reared flies, 5 days of age, are admitted into the lethal chamber. The temperature of the chamber is kept at 85 degrees F. and the humidity is adjusted to a value between 60 and 70 per cent. Twelve milliliters of the spray under test is admitted through one-half inch holes along the ceiling of the chamber by means of a special atomizer. The action of the insecticide on the flies is observed through windows on the side walls of the lethal chamber and after 10 minutes the chamber is ventilated and the number of flies still clinging to the walls and ceiling are counted through the windows. The flies which are on the floor are carefully gathered and transferred to clean observation cages in which food and water are placed. The number of flies dead at the end of 24 hours is noted.

The time required to paralyze 50% of the flies under test is determined in the Richardson test. It has been found that this value bears a direct relationship to the amount of toxic material in the fly spray. This test has been used extensively in our work and has been found to be a very useful method of testing pyrethrum flowers and the final products. In order to make possible biological tests by either the Peet-Grady or Richardson methods, the Research Department raises flies under carefully controlled conditions throughout the year.

Last year the Union Oil Company introduced Union Vine Hopper Spray for the control of the grapevine hopper or leafhopper. The nature of leafhoppers and their antiquity have been previously mentioned. Suffice to state that the grape leafhopper is a pest of major economic importance to the growers of grapes for table and winery use. The work of entomologists of the College of Agriculture, University of California, in co-operation with the United States Department of Agriculture demonstrated that the toxic material in pyrethrum flowers was particularly effective in killing grape leafhoppers and that an insecticide similar to fly spray but of somewhat lower toxicity would be a satisfactory material for use in the control of this pest. The Union Oil Company has marketed such a material in the Fresno district since the middle of 1933. The same control of quality is maintained during the manufacture of Union Vine Hopper Spray as is maintained during the manufacture of Bif Spray. The quality of the pyrethrum flowers to be used in the operation is determined and with that knowledge, the correct amount to produce a spray which will kill the leafhoppers under average conditions is used.

During 1933 Union Garden Spray was added to our line of insecticides after extensive laboratory tests which established its merit as an insecticide for use in the control of aphis, mealy bugs, scale, thrips, red spiders, and other sap sucking insects. Union Garden Spray is a highly refined spray oil containing nicotin oleate(nicotine plus oleic acid) and spreading agents. It displays the virtue of a well treated spray oil in so far as scale-killing properties are concerned and the supplementary toxic action of nicotin required for the control of aphis, mites, and other small plant pests.



The man-made portals of Golden Gate stand out in silhouette against an approaching bank of fog.

Where the Golden Gate is to be spanned. This view shows the Marin pier completed to its column height of 746 feet in the distance, while in the foreground is Fort Point, Pylon S-1 (now 170 feet high and scheduled to rise 250 feet) which is part of the San Francisco Pier anchorage, and in the middle distance is the wharf extending to the point where the fender of the San Francisco Pier is being constructed. This pier will rise to the same height as the one on the Marin County side, and will be the first ever built in the open sea.

Golden Gate Bridge

Silhouetted against the skyline of the famed Golden Gate today stands one of two 846-foot piers from which will be suspended the single 4200-foot span—by far the longest ever built—that will bridge the open sea separating the Marin County and San Francisco shores.

The Marin pier, erected at the shore-edge, is completed to its full column height, except for the cable saddles. It rises 746 feet above mean high water and extends an additional 100 feet beneath the sea into the solid rock foundation. The San Francisco pier, the more difficult of the two to construct, is being built in the open sea 1100 feet from old Fort Point, built by the U. S. government in 1854. Skilled crews working on a 24-hour schedule of three eight-hour shifts, are rushing the construction of the concrete fender that will enclose the pier and protect it from the battering of waves and the swift current flowing in and out of the bay. As soon as the fender is completed the actual construction of the huge pier will start. A temporary wharf extends from shore to the site of the pier.

Alongside of old Fort Point is rising pylon S-1 which will become part of the San Francisco anchorage of the bridge. Its great concrete bulk has reached a height of more than 170 feet.

These are the more spectacular features of the work now in progress and are attracting more attention than the building of the roads and approaches. On the west half of the high viaduct of the Presidio approach, on the San Francisco side, the piers and columns, as well as the abutment, have been concreted, and grading for the low viaduct started.

The progress of the Golden Gate bridge is being followed as closely by engineers here and abroad as the more widely known Boulder (Hoover) Dam. It is in many respects regarded as a more daring engineering undertaking.

World's Largest Diesel Tractor Fleet

THE largest Diesel tractor fleet in the world is today being used in transforming 50,000 acres of mesquite and brush covered desert into irrigable farming land on the Pima Indian reservation at Sacaton, Arizona. Twenty-two Caterpillar 50 H.P. Diesel and twelve 60 H.P. gasoline tractors are engaged in the task of clearing, leveling, bordering and ditching the land which the government is preparing for the Pima Indians who have for centuries been tillers of the soil.

The project has been under way since the completion of the Coolidge Dam which supplies water for irrigation. At the outset it was a new venture for Uncle Sam. A. H. Kneale, a veteran of the Indian Field Service, was selected to supervise the work, and along with him, A. E. Robinson, who had been for several years connected with other government irrigation and agricultural work in southern Arizona. Mr. Robinson is in charge of the field work.

In April, 1929, the first tractor was delivered and put to work pulling mesquite and Ironwood trees, some of which measured more than two feet in diameter. Then other tractors arrived until fourteen were at work with either fresnos, hydraulic dirtmovers, road graders, bordering machines, or some one of the many pieces of equipment employed on the job.

In April, 1933, Uncle Sam pulled his purse strings shut and the work was stopped—temporarily. In October, six months later, he relented, and $1,000,000 was made available to finish the work, stipulating that it must be completed by June 30, 1935.

This required the purchase of more equipment in order to "speed up" the work. First consideration was given to the purchase of additional power units, and Diesel tractors were determined upon.

In selecting the Diesels, the cost of the machines plus fuel costs for 2,000 hours of operation (the estimated time to complete the project) was used as the basis for arriving at the ultimate cost to the government. It was shown that while the initial cost of the Diesel tractors was higher, the saving in fuel for the 2,000 hours amounted to approximately $27,000.

Since their delivery the tractors have been fueled with Union 4-A Diesol, and have not used any other fuel. Both the government laboratory and the Caterpillar laboratory, to which the government sent samples of the fuel, have approved it.

The lubrication of Diesel tractors, working in the extreme heat of southern Arizona, presents a problem. These tractors work fourteen hours a day (two shifts) without stopping, for all servicing is done at night.

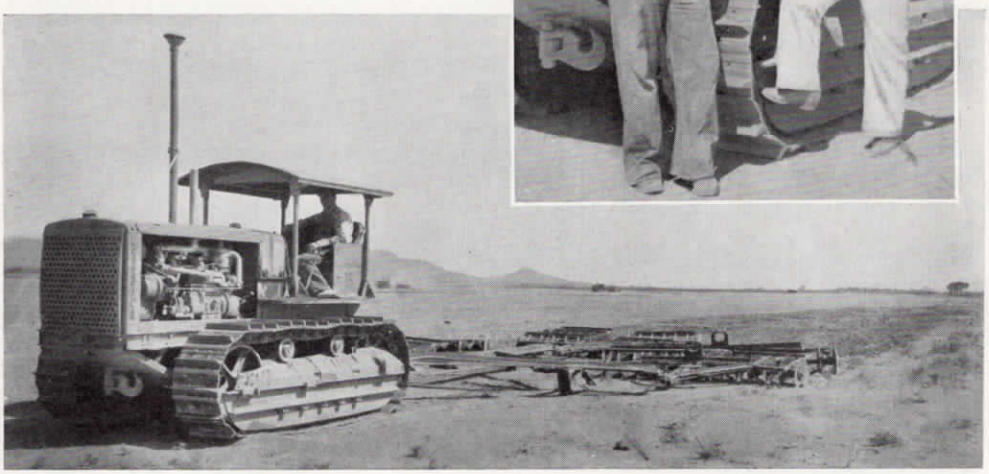
On the twenty-first of May, 1934, a bid was opened by the Pima Indian Agency at Sacaton calling for the immediate delivery of 18,750 pounds of gear lubricant which had a film strength of not less than 45,000 pounds per square inch. Union Oil Company had previously submitted a bid and both the Bureau of Standards, and the Kansas City Testing Laboratories, to which the government sent samples of some twenty greases, marked Union E.P. Gear oils as meeting the specifications, and the award was made to the company.

So as it stands now, Union is caring for Uncle Sam's crack fleet of Diesels in both fuel and lubricants.

These machines start the day at 5:00 a.m. and work continuously until 7:00 p.m. In the working day, 40 to 50 acres of land that was rough desert waste at 5:00 a.m., is ready for planting by night.

Transforming the desert from a wasteland of brush into tillable soil.

At the right is Albert Jackson, first man employed on the project, and A. E. Robinson, field superintendent.



U. S. Forest Service Asks Public Co-operation

With the seasonal precipitation only 69 per cent of normal and spring temperatures the highest on record, California faces serious forest fire conditions this summer, according to U. S. Forest Service officials. Forest fires have occurred for the past two months, both in northern and southern parts of the State, and special protection rules have gone into effect on the national forests from one month to six weeks earlier than usual.

General orders issued by Regional Forester S. B. Show, effective last May 15, have to do with smoking, discharging fireworks, campfire permits, closure of areas to public use, and shovel and axe requirement in the Federal forests. These rules were placed in effect on June 1 in all the national forests of California. Since restrictions differ with hazard conditions, forest officers request that travelers and campers in the national forests inform themselves of these regulations at the nearest ranger stations.

This summer California will have available as fire fighters only one-third the number of C. C. C. boys whose effective work in 1933 was largely responsible for less than one-half of the average acreage burned in the national forests, and the reduction of fire fighting cost to about one-tenth of the normal. Weather records reveal that 1933 was, in general, favorable to fire protection, although it was one of a cycle of 15 years with deficient precipitation. A cold spring delayed the fire season, and wind movements were only three-fourths of normal.

Highway Builders

WITH more than 50 miles of California state highway now under construction, the aggregate cost of which exceeds several million dollars, Basich Brothers, Torrance, Calif., has become, within the past few years, one of the outstanding road building and general contracting concerns in the West.

Basich Brothers, the sole ownership and operation of which is in the hands of N. L. "Nick," and R. L. "Chris," Basich, has over a period of more than 25 years progressed to its present place in the Western construction world. The initial venture of the brothers into the construction business was as labor contractors. Their success in this field soon enabled them to expand and include miscellaneous jobs which required both men and equipment. In 1924 they secured their first state contract, consisting of seven miles of highway near Beaumont, California. Since that year state and municipal jobs have constituted the major portion of the work done by the company.

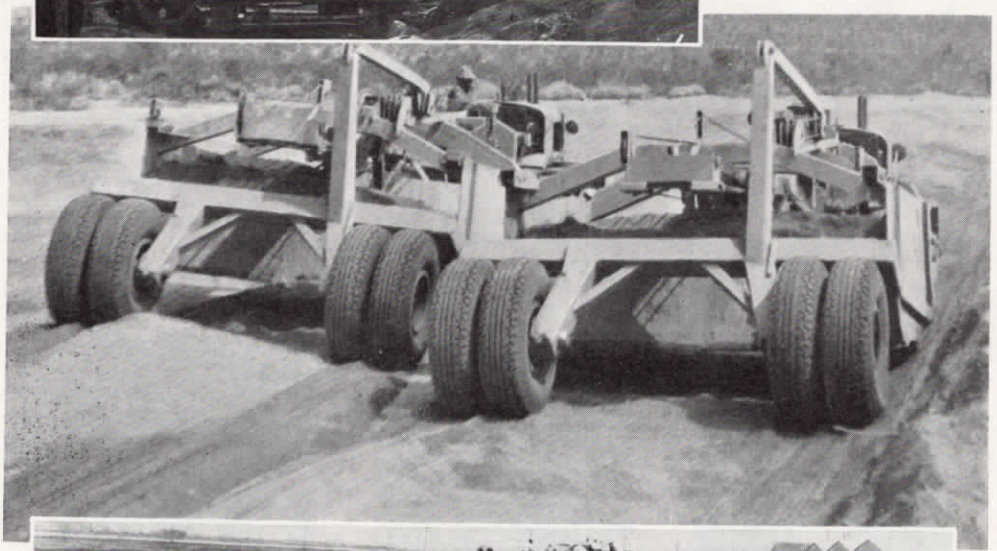
The largest single job upon which they are now at work is the Bayshore Highway extending from San Francisco to San Jose —40 miles of paving 40 feet wide, with 10 foot shoulders extending on either side. The contracts for the entire stretch were divided up into sections to be let as the job progressed southward. The Basich Brothers secured the first contract on the job in 1930. Since that time they have been awarded ten consecutive contracts on the Bayshore highway. This marks the first time a single highway builder has repeatedly been granted concurrent jobs on so large a project. The total cost of the 40-mile ribbon will exceed $3,000,000. It will be completed before 1935.

The company now has in service 35 trucks of varying capacity, 13 tractors, 4 concrete pavers, 2 asphalt plants—one portable, the other stationary, 1 Diesel generating plant of 200 horsepower, 5 shovels, 2 highway maintainers, 5 Le Tourneau 9-yard scrapers, and numerous compressors, blades, and scrapers. Jesse S. Smith, who for the past ten years has been affiliated with Basich Brothers in its various enterprises, is manager of the concern.

N. L. "Nick" Basich is shown at the left with his brother, R. L. "Chris" in the circle at the right. A portion of the Basich Brothers fleet of trucks lined up for the picture below.

114-ton per day asphalt batch mixing plant operated by Basich Brothers is shown at left, and below, 220 horsepower Diesel generator which supplies power to operate mix plant.

Jesse S. Smith, Manager, Basich Brothers



Center photograph shows giant Le Tourneau scrapers in the service of Basich Brothers at work on stretch of desert highway near Mecca, Calif. Below, section of the new Bayshore highway joining San Francisco and San Jose. The 40-mile stretch has all been built by Basich Brothers.

R. W. Landreth

30 Years

W. H. Wallin

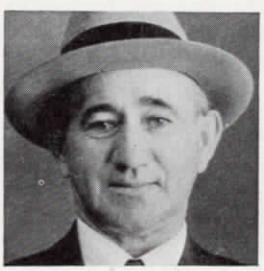
Service Emblem Awards

25 Years

Clarence Hudson

J. B. Williams

J. B. Arthur



J. E. Brownfield

H. M. Cameron

F. A. Del Monte

FURTHER service pin recognition was given to twenty-three employees during the past three months when each completed a specific span of years in the service of the company. During the three-month period two members rounded out thirty years of service, six completed a quarter-century, and 15 entered the select group boasting of twenty-year tenures.

J. B. Williams, assistant manager refined oil sales, heads the group which completed a quarter-century of service with the company during the past three months. He joined forces with the company in Pasadena in 1909, and spent the first few months of his service holding rein on a three-horse team with which he made fuel oil deliveries in the Pasadena area, at that time a separate district, its eastern limitations extending to the border of the state. Following a brief service on the horse-drawn equipment, Williams became yardman at Pasadena and was then elevated to salesman. He was one of the first to canvass the sparsely settled eastern portion of the state for the company. In 1919 when Pasadena became a special agency, he was promoted to agent, where he remained until transferred to Los Angeles as assistant district sales manager. His next advancement in the sales ranks came in April, 1928, when he was made sales manager of the Los Angeles district. In the fall of that year he was placed in charge of the Southern division. His appointment as assistant manager refined oil sales, his present post, came in February, 1931. He is prominently identified with civic and social affairs in Pasadena, where he has made his home since first joining with the company.

On April 15, 1904, R. W. Landreth was first employed by the company on the Stearns lease, near Brea, as boilermaker's helper, but within a month was transferred to Orcutt in the same capacity, where he remained for three years. Returning to the Stearns lease, he served for eight years as tool dresser, became a driller and worked in that position until 1929, when he was shifted to Santa Fe Springs as construction department foreman. He remained in this capacity until 1931 when he was returned to the Brea district, where he has since worked in the production department.

Old Purissima No. 2, near Lompoc, was the first well upon which W. H. "Bill" Wallin worked for the company. He remained on the lease 13 years and 13 days and then was transferred to the Newlove lease near Orcutt. There he remained until 1922, when he was moved to the Richfield district, southern division, where he is now employed. F. F. Hill and Wallin were the first to cement wells for the Union Oil Company, performing this operation on Hill No. 2, Lompoc, in 1904. Wallin recalls that in the "old days" Hill came out and staked out the locations for them and the crews did all the rest, grading locations, building rigs, drilling holes, building tanks, and putting wells on the pump. Wallin did some grading work for the company in the old Los Angeles field in 1897 and 1898, prior to taking a permanent position.

J. B. Arthur, now manager of fuel oil and asphalt sales, started as a stenographer in the field department 25 years ago. He was shortly transferred to San Francisco in the office of the manager of the fuel oil department, and later advanced to the assistant managership of the department in San Francisco. His next move was to Los Angeles as acting manager of the fuel oil department. Later he was made manager. December, 1929, his responsibilities were broadened to include supervision of crude, gas, road and Diesel oil sales. In March, 1931, he was appointed to his present capacity, that of manager of fuel oil and asphalt sales.

Drilling, production, and pipe line work have occupied the attention of J. E. Brownfield during the 25 years he has spent with the company. Brownfield was first employed at Brea in the field department as roustabout. He remained there in general development work until 1919 when he was transferred to Richfield as a pumper, at which place he remained until 1929. Since that year he has served as station operator at the Chapman pump station on the Los Angeles Pipe Line.

Today at 44 years of age, Frank A. Del Monte is one of the youngest 25-year employees on the company rolls. He was first employed at Oleum refinery as a solderer. He later worked in the tinsmith trade and in 1920 became tinsmith foreman, the position which he now holds. Known as "Sharkey" at Oleum, Del Monte is actively interested in all plant sport activities. His shop holds a record of no lost time accidents in the eleven years he has been tinsmith foreman. He's probably the fastest cap solderer on the Coast, and has a record of 4068 caps in eight hours.

Clarence Hudson went to work for the Field department in the Santa Maria field April 22, 1909. During the span of years in which he has served the company he has worked as tool dresser, well puller, and pumper on many of the wells in the Santa Maria field.

Chief clerk at the Wilmington refinery is the position which H. M. Cameron now holds. Entering the service of the company in a clerical capacity in 1909 at Port San Luis refinery, Cameron went with A. Roy Heise to Avila when the refinery there was placed in operation. Five years later he was transferred to the fuel oil and asphalt sales department in San Francisco, and returned south to Los Angeles when the department was moved to the head office. For a time he served in the crude oil division and in 1920 went to Wilmington refinery in his present capacity.

L. A. Bentley's mail address in 1914 was Union Oil Company, Long Beach sales. He drove a team, making deliveries in the San Pedro-Long Beach area at that time. He drove one of the first tank trucks commissioned by the company. In 1929 he was transferred to the shiploading plant, Wilmington, as bargeman, and was listed on the Los Angeles refinery payroll when the shiploading plant became a function of the Manufacturing department.

Painter in the engineering department was the first job C. B. Herbert had with the company. He refinished tanks and wagons in the Northern and Central divisions. In May, 1928, he was transferred to the jurisdiction of the Central division garage as trucking equipment painter,

20 Years

F. E. Lee

W. F. Lewis

E. G. Hayes

A. B. Mason

J. J. Roach

P. J. Schmitz

C. B. Herbert

J. J. Fladung

L. A. Bentley

E. J. Munn

C. E. Correll

A. N. White

C. C. Penrose

and is now employed as traveling painter.

W. F. Lewis, southern division operating sales manager, completed 20 years of service with the company in March. During his service with the company he has held a wide variety of positions on the sales force, the more prominent among which have been manager of refined oil sales, manager service station distribution, special representative, and just prior to appointment to his present post, was assistant manager of operations, Los Angeles district.

Entering the service of the company as order clerk at Pasadena in 1914, C. C. Penrose three years later was shifted to Pomona as agent, in which capacity he remained until 1924. He has since worked as salesman in Pasadena and Los Angeles, agent at Hollywood, and at the present time is a corporation salesman in the Los Angeles district.

P. J. Schmitz' 20 years under the Union banner has been with the Field department. He first went to work for the Pinal Dome Oil Company. The job was to last two weeks and Schmitz says it was the longest two weeks he ever knew. He's still at it. In 1925 was transferred to Dominguez field as mechanic at the Dominguez absorption plant.

While his first service was in 1911 at Orcutt, C. E. Correll's record begins in 1914 when he went to work at the Summit pump station on Lompoc Pipe Line. He later served as fireman at Port San Luis, engineer at Purissima station, gauger in the Lompoc fields, and at present is tester in the Orcutt laboratory.

E. G. Hayes, sr., started his service with the Union Oil Company April 23, 1914, as foreman at the Los Angeles lubricating division. In the twenty-year period he has served in a wide variety of capacities in the Los Angeles lubricating division.

James J. Roach worked for the company in 1912, but quit, later to return in 1914 as fireman on the asphalt stills at Oleum refinery. In 1916 he became re-run stillman, then returned to the asphalt stills. From 1918 to 1932 he worked on the lube stills, then returned to the asphalt battery as head asphalt stillman.

On April 24, 1914, Steven B. Spencer began his service with the company in the field department at Santa Maria. He has served in many field capacities — roustabout, teamster, well puller and pumper.

A. H. Brown was superintendent and "Dad" Varner lease foreman of production, when A. N. White went to work on the G. and L. lease. White stayed on that lease for 16 years, gaining experience in all phases of production work. In 1929 he was transferred to the Chapman

lease, where he is now occupied in the production department.

For the first nine months of his employment, Frank E. Lee, now general credit manager of the company, worked in the San Francisco sales department. He then went to Oakland as cashier and credit manager combined, holding the two positions until expansion of business forced a division of duties, with Lee selecting the credit work. He remained in Oakland as credit manager until 1928, at which time he was transferred to Los Angeles as chief supervisor of the credit department. November, 1928, he was appointed assistant general credit manager and succeeded to the post of general credit manager in July, 1929.

Prior to his service with the company, which began May 1, 1914, A. B. Mason, assistant comptroller, was in the service of Price, Waterhouse and Company, C. P. A., first in its New York office and later in Los Angeles. He came to the company as chief traveling auditor, covering principally the marketing stations. After a year of traveling he was transferred to head office and placed in charge of station accounts division. He later served as auditor of refining and marketing accounts, and April 26, 1926, was made assistant comptroller, the position which he now holds.

John J. Fladung also worked under "Dad" Varner on the G. and L. lease. He has spent virtually all his 20 years on the G. and L. properties, and is at present there in the capacity of pumper. Fladung has never suffered an "on duty" accident during the entire period of his employment.

Salesman in Los Angeles was the first job E. J. Munn had with the company. He has served successively as salesman at Santa Barbara, agent at Redlands, salesman at Riverside and Nevada, special agent at Santa Barbara, assistant district sales manager, Los Angeles; and district sales manager, Los Angeles. On the 15th of this month he was assigned to the Southern division as personnel supervisor.

Fifteen Years—March

Caldwell, F., Mfg., Avila Refinery.
Costa, Manuel C., Mfg., Oleum Refinery.
Fitzgerald, Westley, Mfg., Los Angeles Ref.
Irwin, Ole O., Field, Northern Division.
Leonard, G. D., Mfg., Los Angeles Ref.
Lorimor, L. L., Sales, Central Division.
McCauley, Mary H., Sales, Central Division.
Murray. J. W., Field, Southern Division.
Ness, Sigurd, Gas, Northern Division.
Quinn, John M., Mfg., Oleum Refinery.
Sacco, Manuel, Mfg., Oleum Refinery.
Whalen, Edw. J., Transp., Northern Div.
White, Don G., U. S. S. I., Head Office.

Ten Years—March

Benner, Irvin G., Field, Southern Division.
Boness, Harry E., Field, Northern Division.
Burke, Robt. A., Field, Southern Division.
Campbell, T. O., Marine, "Montebello."
Carew, T. A. C., Sales, Vancouver.
Colby, Glen V., U. S. S. I., Northern Div.
Graves, D., Sr., Mfg., Oleum Refinery.
Jobson, Flem V., Sales, Southern Division.
Lockwood, W. H., Transp., Northern Division.
Malcolm, S. D., Sales, Central Division.
Marion, H. J., Sales, Northern Division.
Raymond, Jess R., Field, Southern Division.
Ruggles, H. C., Transp., Northern Division.
Shelly, A. E., Sales, Northern Division.
Smith, M. F., Field, Northern Division.
Spillman, E. C., Field, Northern Division.
Thomas, Neill B. Field, Northern Division.
Trimble, Harry A., Sales, Northern Division.
Warner, Howard D., Sales, Central Division.
Anderson, L. J., Compt., Crude Oil Div.

Fifteen Years—April

Dahllof, Herman L., Marine, "Warwick."
Burge, Edw. J., Sales, Southern Division.
Crawford, Adolph, Field. Southern Division.
Decker, Leon E. Sales, Northern Division.
Goodwin, Earl M., Field, Northern Division.
Greenough, A. W. F., Field, Southern Div.
Hickey, Patrick J., Mfg., Los Angeles Ref.
Keans, R. A., Gas, Southern Division.
Tolle, Chas., Transp., Northern Division.
Westberg, Fred, Mfg., Los Angeles Ref.
Williams, F. B., Mfg., Oleum Refinery.
Williams, J. T., Mfg., Los Angeles Ref.
Schindler, Bernard. Marine, "La Purisima."
Hadley, R. D., H. O., Disbursements.

Ten Years—April

Brambley, E. H., U. S. S., Central Division.
Campbell, Hobart, Field, Southern Division.
Carpenter, Emil, Sales, Northern Division.
Collar, Rufus W., Field, Southern Division.
Comstock, Ward M., Mfg., Los Angeles Ref.
Dooley, John E., Field, Southern Division.
Emerson, E. E., Mfg., Oleum Refinery.
Garman, Trella B., Compt., Southern Div.
Hartop, H. B., Field, Southern Division.
Hopson, G. B., Field, Southern Division.
Hosman, Harvey L., H. O., Auditors.
Kernan, Walter P.. Transp., Southern Div.
Leeson, Hubert H., Gas, Southern Division.
Leonesio, Frank, Sales, Central Division.
Madding, L. B., Field, Southern Division.
Mason, Gilbert W., Field, Southern Division.
Nicholls, L. H., Compt., Southern Division.
Munro, Fred C.. Mfg. Los Angeles Ref.
McGrath, Frank J., Mfg., Los Angeles Ref.
Owens, John E., Sales, Central Division.
Peterson, Albert J., Sales, Northern Division.
Popoulia, James, H. O., Union Oil Bldg.
Ramsey, H. I., Sales, Northern Division.
Sather, Edwin L., Sales, Northern Division.
Swarts, S. E.. H. O., Union Oil Bldg.
Van Kleek, W. R., Sales, Northern Division.
Wensel, Gottlieb, Field, Southern Division.
Kolar, William T., U. S. S. I., Southern Div.
Hardie, Jessie R., Sales, Vancouver.

Fifteen Years—May

Bessonett, Wm. E., Field, Southern Division.
Collins, R. A., Sales, Central Division.
Cox, Wm. S., Sales, Southern Division.
Danieley, Howard, Gas Southern Division.

Gill, Jesse, Field, Southern Division.
Grimstad, Peter, Marine, S. S. "Los Angeles."
Haller, Wm. S.. Mfg., Los Angeles Ref.
Hayes, P. L., Mfg., Los Angeles Ref.
McCullough, J. M., Dr., Mfg. Oleum Refinery.
Insco, Jesse H., Field, Southern Division.
Messer B. W., Field, Southern Division.
Northrop, Cyrus P., Gas, Northern Division.
Queen, Walter A., Mfg., Maltha Refinery.
Stone, Leslie W., Field, Southern Division.
Warner, H. W., Mfg., Oleum Refinery.
Watson, C. R., Const., Northern Sales.
Weigelt, Robt. P., Field, Northern Division.
Weir, Wm. M., Sales, Southern Division.

Ten Years—May

Beck John L., Sales, Northern Division.
Brosey, Albert, Sales, Northern Division.
Brown, Odie, Field, Southern Division.
Burford, Sam R., U. S. S. I., Southern Region.
Carroll, L. J., Mfg., Oleum Refinery
Cissna, W M., U. S. S. I., Central Region.
Crow, Roy F., Sales, Central Division.
Gluyas, E. L., Pipe Line, Northern Division.
Goodell, P. W., Mfg., Los Angeles Ref.
Granberg, J. P., Sales, Northern Division.
Hanscom, Wm. A., Mfg., Oleum Refinery.
Inman, Jay H., Mfg., Oleum Refinery.
Jones, Harley A. Field, Southern Division.
Langley, Evelyn, Sales, Vancouver.
Magill, Earl J., Sales, No. Div. Garage.
Myers, Ace, Sales, Northern Division.
Peabody, Chas. A., Mfg., Oleum Refinery.
Pereira, A. A., Mfg., Oleum Refinery.
Pomeroy, Geo. S., Jr., Mfg. Oleum Refinery.
Reinbold, Fred W., Sales, Northern Division.
Rhodabarger, R. W., Field, Southern Division.
Riley, Wm. J., Mfg., Los Angeles Ref.
Smith, Henry W., Const., No. Div. Sales.
Swicegood, C. L., Pipe Line, Southern Div.
Wanee, Victor, Field, Southern Division.
Wilcox V. M. Sales, Northern Division.
Zebel, Will D., Gas., Southern Division.

In New Sales Post

R. C. Ingram, for the past thirteen years employee of the company, was recently appointed to the post of central division export and marine sales supervisor, with headquarters in San Francisco.

Ingram began his service in the field department at Orange, Calif. He worked through various positions into personnel clerk at Santa Fe Springs, then personnel representative at Wilmington, and in July, 1930 entered the sales department as district personnel supervisor, San Francisco. For several months he served as special agent at Santa Rosa, came to the Head Office fuel oil department in 1932, and December 1, 1933, was made Southern division fuel oil supervisor. This latter position he held until advanced to his present post.

Oleum Wins Bowling Trophy

LITERALLY knocking the pins out from under all competition, the Oleum refinery's bowling team recently won the Eighth Annual Telegraphic Bowling Championship with an all-time high score of 2,891 for the three-game series. As a result of its win, the team has become custodian of the Major R. R. Burnham Trophy for 1934. Union Service Stations, Inc., Los Angeles, placed second with a score of 2,803, while the Los Angeles refinery placed third.

Individual honors went to J. F. Westman, of the Oleum refinery, who bowled the highest individual series by knocking down 618 pins, thereby winning the bowling ball donated by W. L. Stewart, Jr. W. Kolar, Union Service Stations, Inc., Los Angeles, was second, with a 614 series. The highest individual score for one game was made by Lawrence Voorhees, who tallied 234.

Following is a list of teams which participated in the tournament, and their respective scores:

Oleum Refinery	964	973	954	2,891
U.S.S.I., L.A.	939	888	976	2,803
L. A. Refinery	855	965	894	2,714
Head Office	833	938	818	2,589
Santa Fe Springs	875	834	843	2,552
Spokane	816	881	850	2,547
Southern Divn. Sales	805	834	863	2,502
Dominguez	808	826	864	2,498
Seattle	768	793	731	2,292

The Company's different divisions have established an annual bowling championship team since 1927. Two Burnham trophies have been put up as the prize, the present one having been presented by its donor last year because the Dominguez team won the original trophy in three different years—1928, 1931 and 1932—and the right to permanent ownership.

Oleum refinery team, left to right, Leno Olivotti, A. A. Smith, C. C. Pavao, J. F. Westman, captain, and A. Micoli

Pipe Liner Passes

Jack Holland, pipe line foreman of the Midway-Sunset district, Union Oil Company, died unexpectedly May 28, following a heart attack. Employees and friends paid last tribute at the funeral services held in Santa Maria May 31.

Transfer Technical Group to New Oil Plant

To operate the dewaxing unit, which when completed will be a part of the $1,500,000 addition to the Oleum refinery for the manufacture of Union's new motor oil, the 14 men shown below at the right were recently transferred from the Los Angeles refinery to Oleum. Training in experimental dewaxing work and in handling compressors occasioned the shift for the entire group. In the circle, left to right, R. E. Haylett, director of manufacturing; A. R. Heise, manager, Oleum refinery, and L. G. Metcalf, manager refineries, on an inspection of the new oil plant. A barbecue June 3 brought together the group shown at the top and provided opportunity for the men from Los Angeles to become acquainted with the Oleum crew.

Muzzall 1934 Golf Champ

WINNING the 1934 Annual Company Golf tournament with the same score with which he won the 1933 tournament, Jack Muzzall, of the Field department, retained his championship this year, receiving a permanent cup, and the right to keep the perpetual trophy for another year. Muzzall's score was a 77 and an 80 for 157 for 36 holes, played on the par 71 Palos Verdes golf course.

William ("Bill") Macpherson, of the Insurance and Personnel department, again repeated as runner up, scoring an 84 and a 79 to total 163 for the 36 holes. His award was a permanent cup and retention of the perpetual trophy for second place for another year.

The special 18-hole tournament was won by W. F. Lewis, southern division operating manager, with an 89. J. B. Arthur, manager of the fuel oil and export sales department, was second with a 93.

The perpetual championship cup was given by our late President W. L. Stewart, Sr., and the perpetual cup for second place. by our late Chairman E. W. Clark. Replicas were given this year by President L. P. St. Clair and Executive Vice-President R. D. Matthews as permanent awards.

Those who placed in the first ten, in the 36-hole tournament were:

Name	*Handicap*	*Gross Score*
Jack Muzzall	6	157
Wm. Macpherson	6	163
R. D. Gibbs	8	164
Earl Fields	6	166
R. R. Wilkes	15	170
John Gaffney	21	170
T. H. Luckham	22	171
R. Spawr	10	171
L. Morgan	9	171
G. White	9	172

Those placing among the first five in the special 18-hole tournament were:

Name	*Handicap*	*Gross Score*
W. F. Lewis	17	89
J. B. Arthur	20	93
L. V. Shepherd	17	94
L. Wolff	20	96
J. B. Williams	23	98

Chico Sales District Holds Picnic

More than seventy employees of the Chico sales district recently participated in a company picnic held at Richardson Springs. Competition was provided for both men and women. E. S. Ward, rotund agent at Oroville, winner of the pie-eating contest, is shown at the right assisted by Mrs. H. Isham.

Long Service Records for Union Served Tractors

A Best tractor for the past fourteen years has been in continuous service at Montelena Orchards, Calistoga, Calif., during all of which it has been exclusively serviced with Union fuels and lubricants. So adequate have been the Union lubricants that it has not been necessary to remove a single shim from motor bearings. This picture is of a new 28 Caterpillar, with F. W. Williams, superintendent of the ranch, in the operator's seat. The Caterpillar was recently added to equipment at Montelena Orchards.

Bennett Brothers, extensive operators in the Natomas district near Sacramento, are the users of these two tractors. The one on the left, a Best 30, is thirteen years old and during the entire period of its service has been serviced only with Union products. The tractor at the right is a new Best Diesel 35 which has just been impressed into Bennett Brothers' work. Bennett Brothers will also service the new Diesel with Union Oil products. The Best 30, despite its thirteen years' service, was not turned in and is expected to continue to turn out work for several more seasons.

Studios' Rolling Equipment Lubricated with Union Products

From equipment trucks to Jack Warner's Rolls Royces, the rolling stock of Warner Brothers-First National Studios is lubricated 100 per cent with Union lubricants. The man responsible for getting equipment, stars, cameramen, and extras on location in time is Arthur (Art) Kline, superintendent of transportation, a World War flyer and one of the foremost automobile race drivers of a decade or so ago. He is shown at the extreme right in the top picture. In the lower photograph are some of the cars used in transporting the actors to and from locations.

76 Team Winner in Canadian Hockey League

Pictured here is the 76 Hockey Team in the Okanagan Valley, winner in the Vernon City league, British Columbia. The team played 12 games, winning 10, and with some of its members representing the Vernon All Star team, won the Provincial play-off. E. Bradley, shown at the extreme right, is company agent at Vernon and manager of the team.

REFINED AND CRUDE

By RICHARD SNEDDON

As an outstanding example of infant precocity we refer our readers to the Irishman, who cursed the day he was born. It takes most of us years to learn.

And, incidentally, all this hokum about man being the highest form of animal life is just hokum. What about the giraffe?

Nor is a person necessarily an artist just because he makes a scene.

The following classic was culled from the "Lost and Found" column of a Scotch newspaper: "Found — A ten pound note. Owners please form a line at 1405 McSwaddle Street tomorrow morning."

On the sporting page of the same periodical is to be found an item to the effect that a party by the name of Jones ran his mother-in-law down with an automobile.

And speaking of sport, these new checkered suits for men are far and away the best looking garments we've seen in a long time. Yes-sir, far and away.

Continuing on the subject of sport, three clubmen recently feeling the need of some liquid refreshment, summoned a waiter. Brown stood a round; Smith stood a round; and McGregor stood around.

Which merely shows that a Scotchman is never stuck for an answer—to a telegram.

By the way, since Junior put our wrist watch under the hammer, we have definitely decided that the boy is cut out for an auctioneer.

But we can find no excuse whatever for this sort of thing:
Junior—"Mom, why did you marry dad?"
Mom—"So you've begun to wonder, too?"

Yeah, and that story about the new born baby weighing forty-seven pounds, was absolutely untrue. The kid was inadvertently weighed on his daddy's fish scales.

It's no idle rumor, however, that a well known Hollywood actor has had a sandwich named after him—the ham sandwich.

And it's really to things of this sort rather than to the Kleig lights that we may attribute the prevalence of "I" strain among the movie folks.

Whereat, the seventh floor stenographer remarked to the company doctor, "And do you really think this medicine is good for a cold?" "Certainly," replied the doc, "I cad recobbed id as a dudfailig rebedy."

Which reminds us: It looks as if our periodical struggle with the dentist is again destined to end in a draw.

Business is improving all right, but there are still lots of people eating oleomargarine who have seen butter days.

And we know a confirmed vegetarian who frequently goes out after big stakes.

The American Numismatic Society held another convention some time ago, but we understand the boys just sat around and talked over old dimes.

Also, believe it or not. we saw one of the Union Oil basket-ballers just after a recent game, and he was sporting a beautiful black eye. In fact at the moment we met him, he was on his way to the Greek's to get a biff-steak on it.

Another Ripley case that has just come to our attention concerns an Eastern man who lost 140 pounds in one day. It seems that his wife ran away with a traveling salesman.

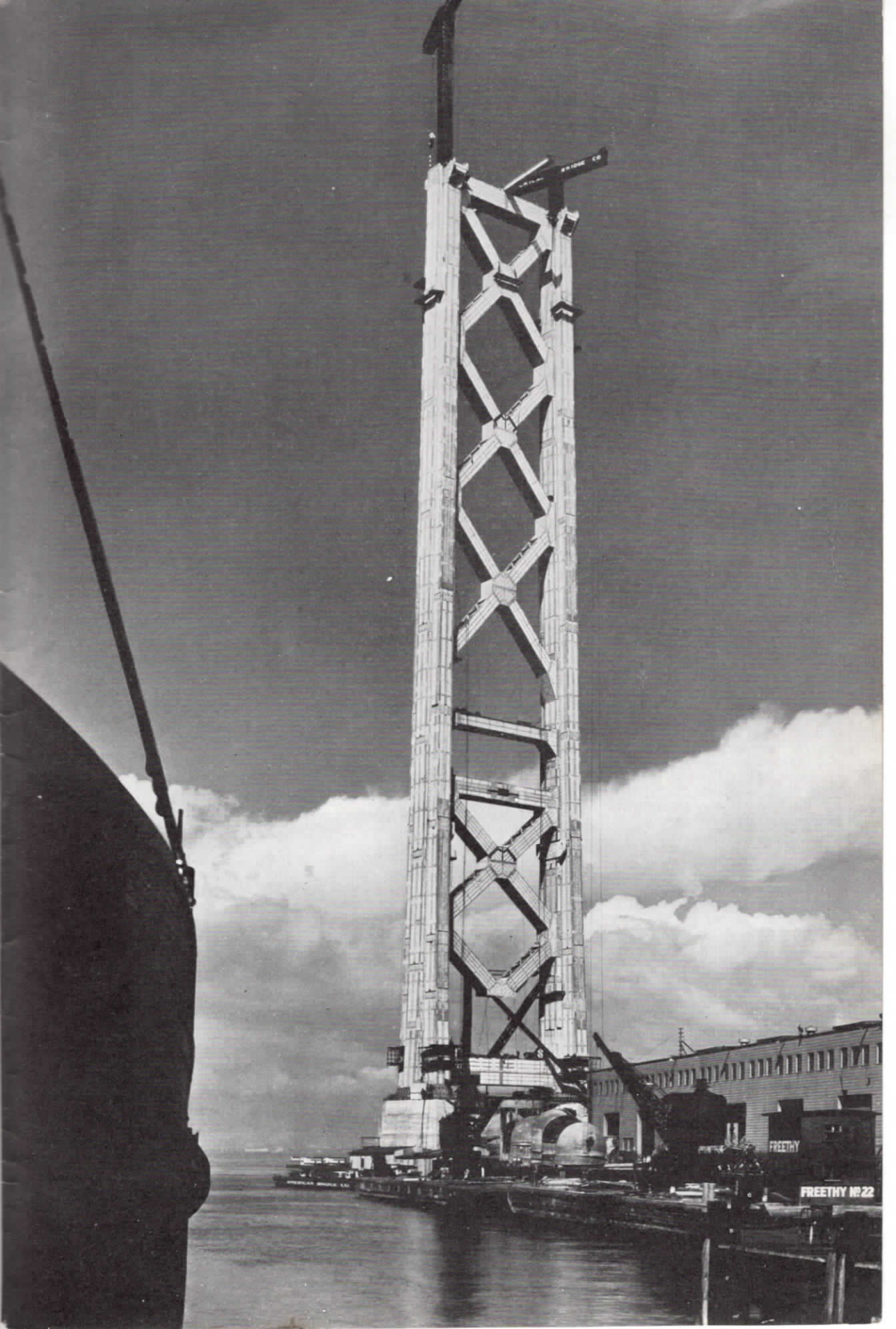
And said the irate individual to his cringing victim: "You're nothing but a low down spineless jelly fish, and I've a good mind to break every bone in your body.

Arithomania, according to medical science, is a strange new disease that afflicts people with an uncontrollable desire to count things. The disease itself is not such a serious affair as we see it, but there is an ever present danger that the victims may start laying the things end to end, and then we'll have another flock of statisticians on our hands.

But please remember, in conclusion, that backbone will not get you anywhere, if the nob on top is made of the same material.

The towering bridge pier, pictured on the opposite page, overlooks the San Francisco water front. It is one of four from which the Westbay spans of the San Francisco-Oakland Bay bridge will be suspended. Its completed height will be 465 feet above the surface of the bay. This photograph, as well as the one on the inside front cover, is by Gabriel Moulin of San Francisco.

PRINTED IN U. S. A. WOLFER PRINTING CO., LOS ANGELES


FREETHY
FREETHY №22