

Winners will need the best gasoline

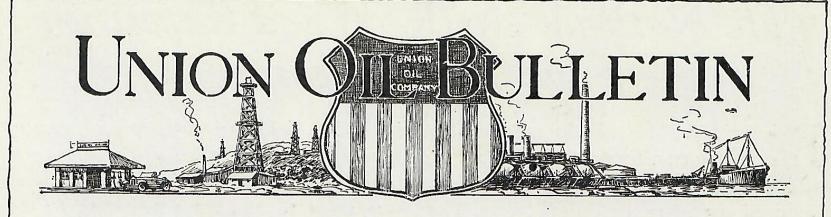


SUCCESS in the National Air Races—as in other flights where the utmost is demanded—hinges on the right combination of courage, skill and modern equipment. On These same three things went hand in hand to bring magnificent success to Kingsford-Smith and Ulm in the America-to-Australia flight of the Southern Cross, the longest ocean hop in history. On Kingsford-Smith and Ulm spent one year in actual preparation for the take-off, exerting every possible precaution against failure. When it came to the selection of their fuel, they chose Union Aviation Gasoline—an eloquent tribute to its efficiency and dependability. On You, too, will prefer it

UNION Aviation Gasoline



UNION OIL COMPANY



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Address all communications to the "Bulletin," 802 Union Oil Building, Los Angeles, Calif.

VOLUME VIII

SEPTEMBER, 1928

Bulletin No. 7

### PRESENT PREPARATION

THE National Air Races and Aeronautical Exposition, which are L being staged in Los Angeles this month, offer the most spectacular pageant of aeronautic showmanship which has yet been on display. The pageantry, however, is the least important phase of the project, except that it serves as a medium for bringing to public attention, the present status of aviation as an every-day transportation and communication factor. Those organizations and industries which are endorsing and participating in the project are concerned less with showmanship than in bringing together all the products of the aircraft industry as a demonstration of commercial aviation having come into its own.

The petroleum industry, apart from the fact that it sees in aviation the greatest present field for its product and believes that preparation for intensive competition in the field is essential, realizes that no industry can afford to hesitate in entering whole-heartedly into the present air-age. Aviation, with a demand already far exceeding its supply, is not exhibiting with a view to a future universal use of its product, but is showing that universal use to be a present fact. Other industry can do no less than accept this proof and apply it to its own policy for the immediate present—not for some uncertain or indefinite future.

-E. W. CLARK.

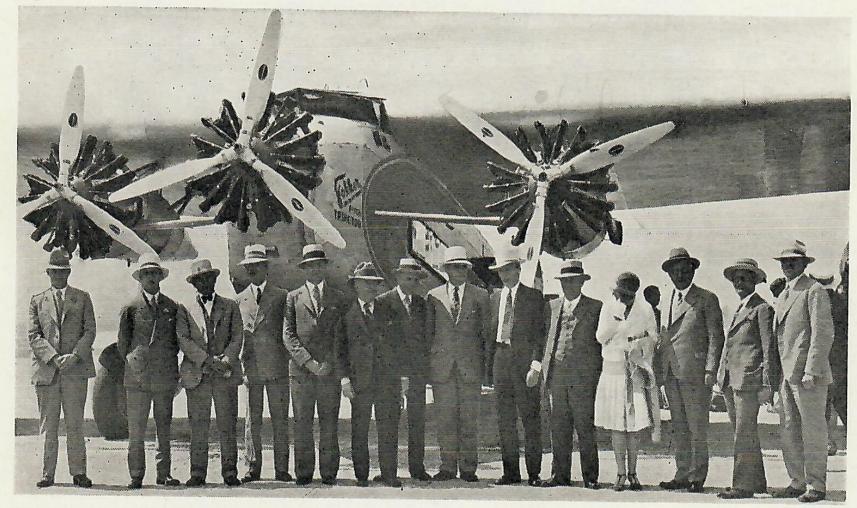
# The National Air Races and Exposition and Their Forecast

In sixty days, Mines Field underwent a change that transformed it from a barley field to the most up-to-date, completely equipped airport in the United States. The immediacy of this change was occasioned by the awarding to Los Angeles of the National Air Races and Exposition. Now, the almost magical speed with which this initial project was accomplished, bids fair to be repeated, particularly on the Pacific Coast, in industrial development which cannot fail to tread on the heels of the aeronautic pageant.

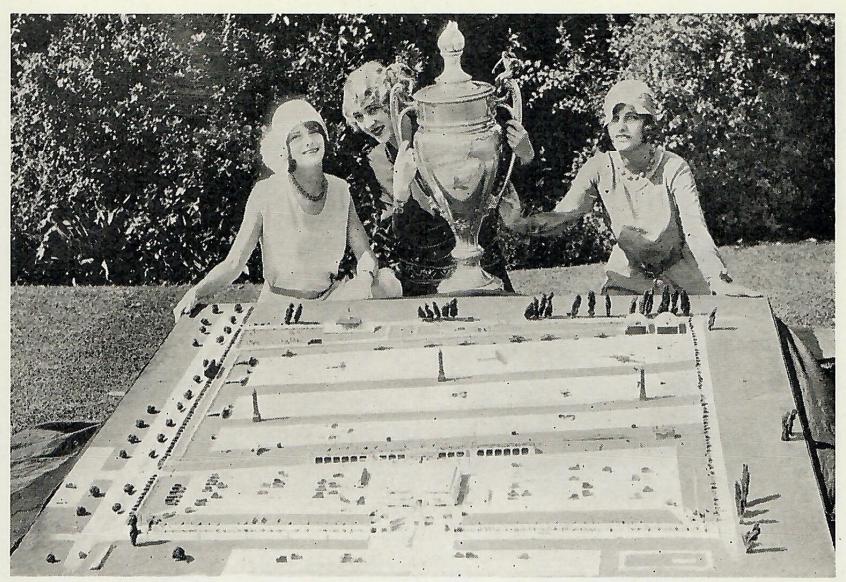
Ten thousand people saw the original ground-breaking ceremonies. Thirty thousand turned out at the time of the National Air Tour. One million at least is the estimate of those who will see the history of commercial aviation in the making this month. One million people to see what has been advertised as the greatest aeronautic spectacle ever to be, or which ever can be, staged: transcontinental and international

air races: field events to afford greater novelty and thrills than automobile races once offered: a nine-days' continuous circus warranted to awaken any public to the facts of flying—the publicizing of the event as a magnificent spectacle is indubitably justified: but the deeper purpose and effect behind the races alone might be stressed with even greater superlatives, without undue exaggeration.

Fokkers and Fords, Bachs and Bellancas, Travelairs, Boeings, Ryans, Lockheed Vegas and countless numbers of other makes of craft will be in the air, not for the purpose of spectacular and stunt flights, but as a demonstration of the inevitable popular acceptance of the plane as an agency of transportation and as the dominant factor of present and future commerce. The very planning of the routes over which some of these races are to be run, proves the National Air events to be no mere spectacular gathering of planes. For ex-



The first Civic Air Tour, which visited San Diego and San Bernardino to advance the National Air Races and Exposition.



Model of Mines Field, as it will appear for the Races and Exposition.

The cup is the World Flight Memorial Trophy.

ample, seventeen control cities on the route of a derby race between New York City and Los Angeles, and eight control cities on the route of a proposed Canadian derby, while planning for the reception of race planes will also be preparing for inter-city communication to follow. The races are but the forerunners of established air lines.

As a mass demonstration of the reduction of inter-city, inter-state, and international boundaries, the races will have had no previous equal. They will again stress, however, the salient fact brought out by such flights as that of the "Southern Cross," that certain air communication between this country and other distant parts of the world, or between hitherto widely separated or isolated points in the United States, is no longer problematic. The future commences to expand, even at the present time, to South America, to Hawaii, and the Orient, as well as Australia. This lastnamed country, to which the trail from California has been blazed, now has more than 160 landing fields, and its entire coastal

region is paralleled with aerial service, one of the last connecting links of the British Empire chain. With what international lines, then, may the Pacific Coast not become fused? China now has its own commercial air transportation to be contacted.

But, as aforementioned, long distance routes and flights are not the only prospect which the National Air Races have in view. In addition to the transcontinental and international races—non-stop and derby, New York to Los Angeles, and derby from Windsor, Canada, to Los Angeles—the California races, one from San Francisco and one from Oakland, will call to greater public attention the regular air service between these points. Hence it may be realized how, in businesses which have realized the possibilities of aviation, personal relations between executives are taking the place of the old correspondence, while commercial methods are being reorganized because of the new saving of time in the transaction of business.

Behind every event of the Races may be



Even the typewriter has its place in the cabin of the modern plane. Business need not be interrupted by the flight.

found prospects of some future aeronautic development. Fourteen air events in all constitute the program, which is completed by the participation of Army and Navy in five military race events and a parachute jumping contest for accuracy. The speed and efficiency test for civilians, the closed course races, the airline and endurance contests, and the model building and flyingthe remainder of the program—will all lead to a definite end. In the longer civilian races, also, the preparation of a pre-race log, and the combined experience of the hundreds of entrants over the different routes, will add immeasurably to knowledge of flying conditions.

So much for the races. It is the Exposition, however, which offers a surer indication of the future of commercial aviation, representing the manifold business interests allied to the air industry. Not only aircraft and their accessories and instruments are represented in exhibit, but insurance companies, finance corporations, the oil industry, electrical products, optical and metal products, tools, paints, aero sportwear, aeronautic publications—all imme-

diately linked to commercial aviation and its future; and the list of industries which are becoming more and more bound up in the future of aviation is ever growing.

The lay mind at the Exposition will begin to appreciate these facts. The very size of the spectacle, all organized to one end, cannot fail to elicit a very definite response. But apart from the general public, there will be present airport managers, for example, whose concern will not be so much for exhibits of new types of aircraft, their accessories, etc., as for authoritative information on field equipment, apparatus, and the planning of aviation "on the ground." Foreign pilots will be on hand, alert to be able to report American progress, initiative, and plans to their own countries. Future executives of an industry destined to play, within a matter of months, a greater part in communication and transportation than any previous industry, may be indebted to the Exposition for the nuclei of their organization ideas.

Recognizing this situation, officials of the Races and Exposition have planned to make the air meet the scene of more than a score of conventions. In addition to a proposed first annual convention of airport managers, the national convention of the National Aeronautic Association will be held, bringing more than 500 delegates to Los Angeles, including members of the Federation Aeronautique International, abroad, with which the National Association is affiliated. The National Association of Air Mail Pilots, the Professional Pilots Association, the Society of Automotive Engineers, and other leading aero clubs and sales organizations will also meet in assembly, each for the purpose of furthering some phase of the aero industry.

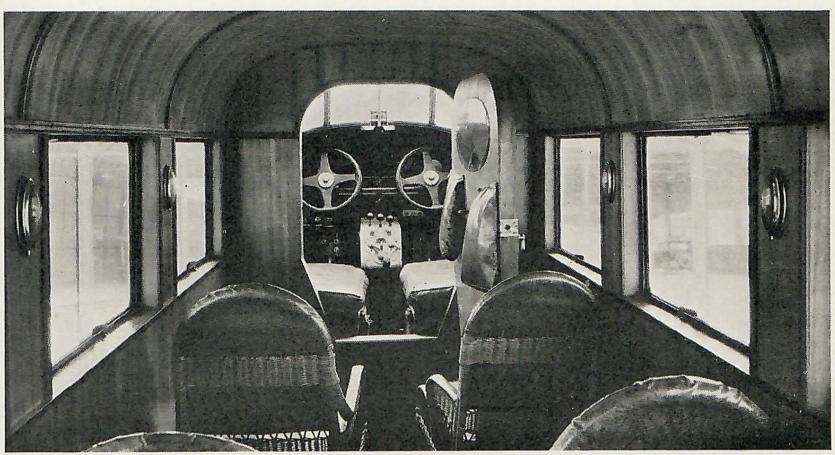
To all who witness the Exposition, however, the evidence will be presented that aviation is more than a mere matter of the construction of machines and training of pilots, as may popularly have been supposed. It involves, for instance, motor development, airports and buildings, radio communication and beacons and other safety devices, mapping and lighting airways, meteorological service, the collecting of all manner of aeronautic data and conducting of research, making of regulations for flying, and building up of the industry from a multitude of angles, all of which are being considered and observed in making commercial aviation as common a means of transportation and communication as the railroad, or ocean liners, or the automobile.

In the conducting both of the Races and of the Exposition, a great responsibility has been realized. The Pacific Coast has been spoken of with assurance as the future air center of the world. The possibility of this hope becoming fact will be determined largely by the response of the Coast this month. The successful staging of the Air Races and Exposition can itself sell the idea of Los Angeles becoming to the plane what Detroit is to the automobile. Manufacturers, seeking factory and sales locations, and planning dealer organizations, will be attracted not only by climatic and working conditions, but by general awareness on the coast of the aeronautic situation.

With Los Angeles, or the Coast, as the

home of an aero industry, the real opportunities will begin to be seen here—not in piloting and learning to fly, hitherto the popular conception—but in aviation engineering, advertising, sales management, designing of airports and laying out of air routes. Trained traffic managers, advertising men, men who can promote, produce, and sell air transportation will be in demand, in addition to mechanical labor. The immediate development of aviation truly lies on the ground rather than in the air. Not half the problems of aviation have been solved, and there are and will be plenty of manufacturers eager to pay for men who can help solve them.

Coast educational institutions have already been preparing for this future. California School of Technology has its Guggenheim Graduate School of Aeronautics and exchange professors on aeronautic subjects; Stanford University has its Guggenheim Aeronautic Laboratory; the University of Southern California has just completed its first course in Air Law, sponsored by the Union Oil Company, thus adding to the knowledge of essentials for the effective conduct of aeronautics. All these institutions are anticipating a future air center in the West.



Cabin interior of the "Air Yacht."

Returning to the Exposition itself, some suggestion of the status of air travel in the future can be obtained from the exhibits of the equipment now in use: individual wheel brakes, automatic starters, electric heaters, lighting equipment, luxurious upholstery, baggage compartments. The luxury of all other forms of transportation is being steadily adapted to plane use. Radical changes in engine development loom as the next step, with possibilities of Diesel engines affording power in the future. Then comes the prospect of passengers being carried in the wings of giant air liners, plans for the construction of which are already under way on the Continent, and are under consideration in the Ford plant at the present time.

What may be the ultimate future of aviation, for the Pacific Coast or for any other part of the world, can scarcely be advanced even as hypothesis, when one considers the progress made since the birth of aviation twenty-five years ago. In an equal length of time, the automobile grew from infancy to first place in value of finished products in American industry. In its growth the inventor, designer, and the consumer were handicapped by unsolved mechanical problems and retarded by lack of good roads

and servicing equipment along the roads. Today aviation is enjoying the benefit of the vast store of mechanical knowledge and equipment laid up by the automobile industry, while it is rightly asserted that there is more technical data available to aeronautics than to any other field of engineering.

Nineteen twenty-eight is the year in which the aviation industry faces a demand exceeding the possibilities of supply. Perhaps no other national enterprise faces this unusual situation. As a mere money and time-saving factor, the airplane is recognized as indispensable to business enterprise of any size, while the old remark of "Aren't you afraid?" —the query of one thrill-seeking passenger to another-has given place to the more pertinent question: "How many hours have you had?" The mileage flown, the number of passengers and the amount of freight carried by the main transport companies increases daily. Civilization has truly taken wings.

These facts and a thousand others will be visibly demonstrated at the Air Races and Exposition. The epochal episode of the history of aeronautics—truly a fitting twenty-fifth birthday celebration for aviation!



The indispensable adjunct to modern business.

# Union Oil Aviation Activities

N MAY of this year the first Union Oil Company plane was purchased and put into service, as the nucleus of a future fleet. This was the first time that the Company has been an actual operator of aircraft, but its interest in promoting aviation from many angles had dated back long previous to the purchase of its own plane.

The development of aviation as a means of human progress; more efficient transaction of business through the use of planes; the production of the finest aero-motor fuels and lubricants for the greatest prospective market for its products; this was and still is the threefold interest of the Company in aeronautics. In the first days of air mail service, a point was made to patronize this greatest opportunity in communication facilities. Such is a single example of the attempt made to further public use and appreciation of air transport.

In its own work, the Company had made use of aircraft in geologic survey previous to the acquisition of its own plane. Aircraft had also been used occasionally for emergency transportation of field equipment. With the first Company-owned bi-

plane, many further uses were found. During the preparation for the flight of the "Southern Cross," C. F. Lienesch, manager of technical relations and head of the aviation division, maintained contact between the Australian-bound ship and the Oakland and San Francisco airports, and also escorted the giant Fokker out of the Golden Gate at the start of its journey. Following this service, a tour was made of California airports, and the Company plane participated in the dedication of new airports at Flagstaff and Prescott, Arizona, after joining an air convoy at Phoenix. Immediately after the successful culmination of the "Southern Cross" flight, the plane was again used in emergency advertising work throughout the sales districts of Central California. This emergency work was one of the surest indications of the place of the ship in the Company's business organization, for work was accomplished in less than ten hours' flying time, which would have taken more than thirty hours of continuous automobile driving.

It was in its part in the flight of the "Southern Cross" that the Company en-



Servicing with Union aero-products.



C. F. Lienesch, pilot, and W. L. Stewart, Jr., and Gurney E. Newlin, passengers, try out one of the new Company planes.

joyed, perhaps, its greatest share in the advancement of air knowledge. Union Aviation gasoline, which was used as fuel for the Fokker's three engines throughout the flight, was pronounced eminently satisfactory by the co-pilots, but a greater accomplishment than that of Union products was found in the part played in linking

this Pacific Coast to another coast in Australia, where air transport development has been equally keen.

Since that time, many developments have taken place. In addition to Union fuels and lubricants being used in air meets and in other celebrated flights such as that of Major Fierro of the Mexican Air Service from Mexicali to Mexico City, an aviation sales service has been built up which includes such accounts as the following: Aero Corporation of California, Galt School of Aviation, Ingvald's School of Aviation, Lodi Municipal Airport, Mayse Airport at Tucson, Mexicali Municipal Airport, Scenic Air Tours, Inc., Standard Air Lines, Stoody Air Lines, Visalia Municipal Airport, Woodson Field at Corning, and the West Coast Air Transport Company.

On its Miahuapam lease, State of Vera Cruz, Mexico, the Company has built an air field, particularly for transportation use from Tampico during the rainy season, when other method of reaching the lease than by air, is almost impossible.

A second field, at San Luis Obispo, California, has been provided on the Union tank farm there, this to serve as temporary airport for San Luis Obispo County until



Landing on the Miahuapam field.

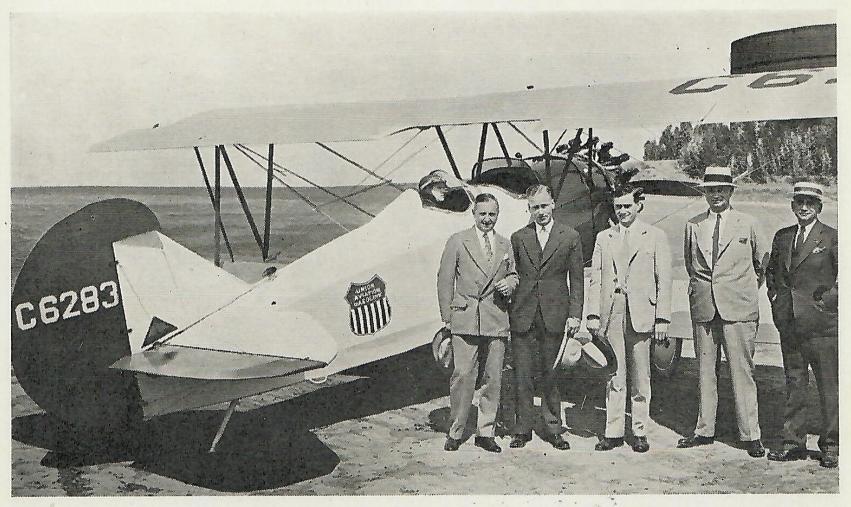
such time as the County Board of Supervisors decides on the purchase of a permanent site. Work on clearing and leveling this tract commenced August fifteenth and was scheduled for completion about the twenty-fifth. Plans called for the establishment of a 2,000-foot runway along the entire length of the field, with the possibility of a second being added later. The field, about two miles south of the town of San Luis Obispo, and some 2,000 feet east of the Coast Highway, covers an area of about sixty acres, admirably suited to airport facilities by the drop of the land and by the available clear space to the west of the tank farm, which could be utilized in case of emergency landings.

For the above project, the cost of grading and leveling has been borne by the Company, the County furnishing tractors and grading equipment. The policy of sponsoring aviation activity wherever possible on the Coast will doubtless call for further future cooperation with municipal, county, and state officials.

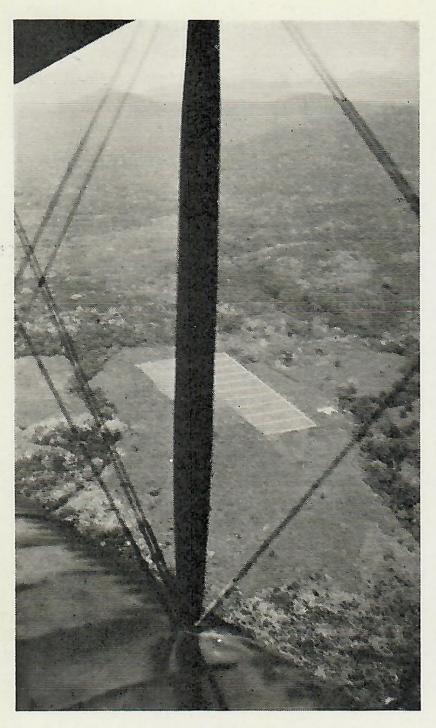
September first saw the completion of

the Air Law course at the summer session of the University of Southern California Law School, this course sponsored by the Union Oil Company. This was the first time that a course in Air Law had been offered in the United States, Dr. Otto H. Schreiber of Koenigsberg University, Germany, an international authority, being secured as professor. His special lectures on "Legal Problems of Governmental Control of Aircraft" received such large attendance by city and county officers all over the coast as to give promise of repetitions in other law schools of the country, standardized legal regulation of air traffic being recognized as one of the most important phases of aeronautics at the present time. The immediate result of the course was to establish an exchange professorship between Koenigsberg University and the University of Southern California, and to establish also a fellowship for Foreign Research in Air Law here.

Supplementing its own use of aircraft, the Company has purchased during August, three more planes, making a fleet of four



The group associated with the Air Law course at U. S. C., about to leave for San Diego for the opening of Lindbergh Field. From left to right: C. F. Lienesch, in the pilot's seat, Gurney E. Newlin, W. L. Stewart, Jr., Dean Justin Miller, Dr. Otto H. Schreiber, and Col. Jefferson Davis.

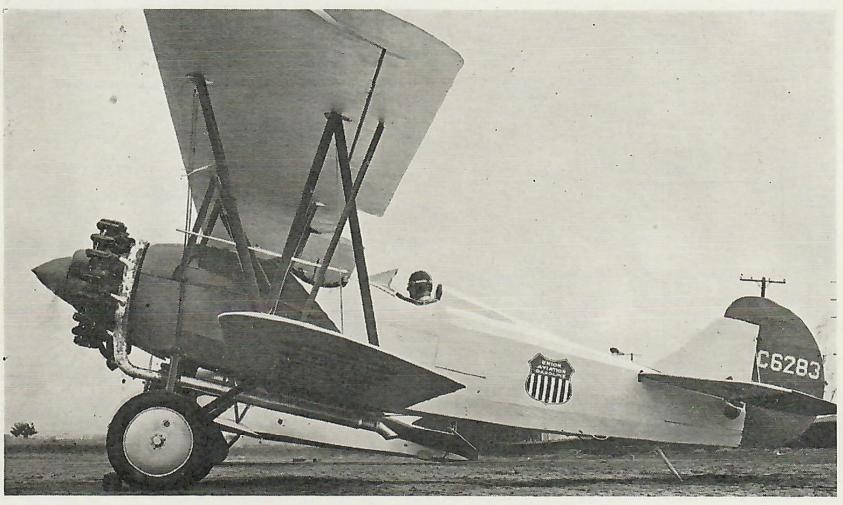


The Miahuapam field from the air.

ships to be used as utility equipment in the general conducting of business, especially the contacting of the ever-increasing aviation trade on the Pacific Coast. The planes will be operated in separate sections of the marketing territory: one stationed at Seattle, to cover Washington and Oregon; a second maintaining headquarters at San Francisco to contact the trade in Northern and Central California; while a third will operate out of Los Angeles, its territory covering Southern California and Arizona. The fourth plane, equipped with a more powerful motor, will be used for general utility in covering the entire Pacific Coast.

Acquisition of the fleet was decided upon after various tests had been conducted for operating costs, mileage, etc., a complete and detailed report showing the plane to be not only an economical means of transportation but an essential factor in conducting business.

Meanwhile, the sponsoring of laboratory research, and of scientific experimentation in aero motors, fuels, lubricants, and flying conditions, continues, that every possible furtherance of commercial aviation may be maintained.



One of the latest additions to the Company fleet.

# Across the Isthmus of Panama

By LIEUT. R. E. CATTERMOLE, U.S.N.R.

If Vasco Nunez de Balboa, when he mounted on that peak in Darien and gazed upon the Pacific for the first time, could have envisioned another time when man should mount still higher, and see both Atlantic and Pacific oceans at once, he might not have felt so justly proud of his own achievement. But Balboa had just completed a forced march across country and through jungle for many weary days, and had cause to think well of what he had accomplished. We took an easier route, and went Vasco one better.

Twelve days and a few hours of fine weather and smooth seas brought us into Balboa roadstead, the Pacific terminus of the Panama Canal. The extreme greenery of the abundant vegetation was a pretty sight after coasting along the bleak, barren, and sunbaked shores of Mexico, Guatemala, Salvador, and Nicaragua.

In the early morning of our arrival our

attention was drawn to the numerous Army and Navy planes continuously in the air and maneuvering overhead as the vessel was proceeding to dock. The activities of bombers, observation and pursuit planes is highly developed at the crossroads of the Atlantic and Pacific. For the present, however, we forgot the planes and went on a tour of inspection. We were shown about the port and through the Canal Zone terminal with its magnificent buildings and beautiful grounds. Then over to the City of Panama (which is within the Zone, although under Panamanian jurisdiction) with its narrow streets and queer architecture, and, of course, its Bull Ring. The ruins of the old city of Panama, about five miles from the present site and city, were visited, and found to be in an excellent state of preservation.

After returning to the Tivoli Hotel at Ancon in the Zone, a pleasant evening was



In the Gaillard Cut.



Hooking Up.

spent, taking in the night life of the tropics. Blonde Panamanians were not an unusual sight, although some extremely potent dye must be used on the hair, for the dominating color of the skin is closely related to the color of crude oil.

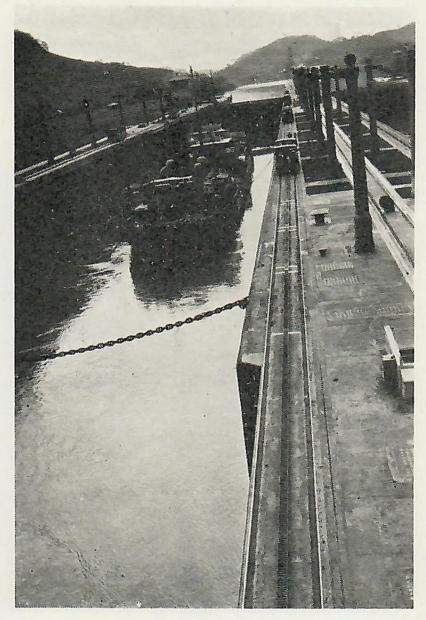
The following day I was instructed to report to Albrook Field (Army airport Pacific side) at 1:30 p.m. to take in the view of the Canal from the air.

Upon arrival at the field we were informed that Lieut. Zane had taken off from France Field (Army airport Atlantic side) at 1:15 p.m., and was then reported over Darien. At 1:40 p.m. the familiar orangewinged Army DH plane appeared in the north, soon landing and taxiing up to the hangar—twenty-five minutes from the Atlantic to the Pacific.

In the meantime I was handed a large Kopok-filled coat (for floating purposes in the event of a drop into the water) which was donned, as well as the regulation military 'chute, wearing of which is compulsory when flying in Government craft. Feeling like a victim of elephantitis with all of this paraphernalia, I was lifted, shoved, and crammed into the after cock-

pit, after the essential helmet and goggles had been affixed. Hooking up the safety belt we taxied out on the field and took off at 1:45 p.m.

Due to the severe rains and the natural mushy condition of the terrain, we bumped into the air, circled the field twice, and wiggled the wings as adieu to the ground boys. Heading over the broad Pacific we soon reached Tortola Island, several miles off the coast. Swinging over the Island at about 1500 feet, we returned toward Balboa and Panama, both of which we circled. Proceeding from Panama we made figure eights over Miraflores locks, then Pedro Miguel locks and the famous Culebra Cut, now known as Gaillard Cut. We then struck out over the jungle at about 2500 feet and were soon over the Rio Chagres, then back over the great fresh water lake— Gatun—where numerous vessels appeared to be barely moving, in opposite directions. Flying over the jungle looks sufficiently forbidding to the aviator (let alone the



In Gatun Locks



The "old swimmin' hole," in the Canal.

passenger) should a forced landing be necessary.

Over Gatun locks we swung several times to watch the ships of the sea—toys as they appeared—await lock transit. Freighters, tankers, passenger boats of all sizes and shapes and flags, waiting only a short while to be lowered in three stages to the level of the Atlantic, through this wonderful and stupendous feat of engineering. After leaving Gatun locks we stood off for Colon breakwater, the Atlantic terminus of the Canal, which is, contrary to general opinion, north and west of the Pacific terminal. After passing the breakwater we circled Cristobal, the pretty and well-laidout city of the Zone, planned and built by the eminent engineer, General Goethals. We then passed over Colon, the Panamanian city inside the Canal Zone; a city of totally different aspect, however, from Cristobal.

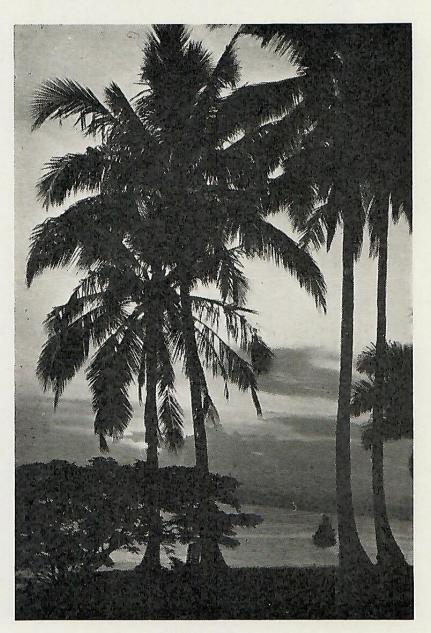
Soon the motor was cut, and we dived for what appeared to be a tiny ship lying alongside the dock, but which, upon closer inspection proved to be the Union Oil tanker "Utacarbon" of 11,000 tons, discharging at the Government oil dock and into the storage of the United Fruit Company. About the time I figured that we were going to take the ship's radio antennae off with our landing gear, we zoomed

and circled to try it again. This time we dived more perpendicularly at the good ship, and about the time I was ready to jump and take a chance on pulling the 'chute ring, we zoomed again, the pilot looking around with a huge grin, thoroughly enjoying the fun. I grinned sickly back.

After gaining about 5500 feet altitude we were able to see the entire Canal and the Atlantic and Pacific oceans at one time—shades of our friend, Balboa!

Descending, we ran through a small rain squall, which was a bit damp for us, though we soon dried off in the wind and tropical sun. We landed at France Field one hour and ten minutes after taking off from Albrook Field, and taxied into the hangar.

Next day we joined the "Utacarbon," and transited the 48 miles of the Canal in eleven hours and a half—a difference between aerial and water transportation of ten hours and twenty minutes.



Adios Panana.

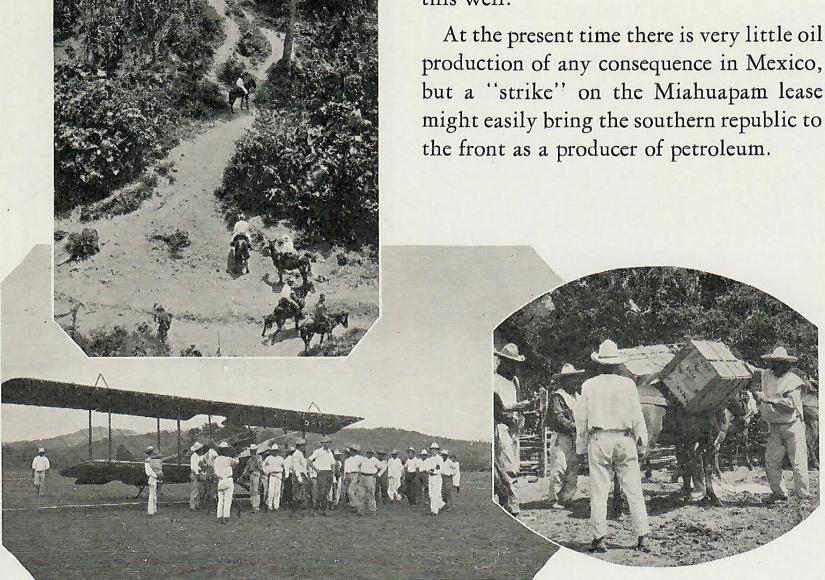
# Problems of the Mexican Field

FROM Tampico on the Mexican Gulf to the Company's Hacienda Miahuapam lease some hundred miles inland, the air route has had to be resorted to for emergency transportation, for in this way alone could delay at starting the new test well on the lease be overcome. Roads became impassable in the rainy season, trucks, horses, and burros being unable to get through.

This month, however, work commenced, with the rig up and in readiness for actual drilling. A crew was assigned to the well, under John T. Savage, Company driller,

who left for the lease in the early part of August; H. R. Scheffler, drilling foreman, being already on the ground.

The Miahuapam lease comprises some 25,000 acres south of the Tuxpam River, about 100 miles southwest of Tampico, and is located in territory which is considered favorable to the production of light oil. The test well is expected to be carried to a depth of from 3,600 to 4,000 feet, at which depth a well on property located south of the Union lease was brought in some months ago with an estimated production of 60,000 barrels a day, the estimate being based on the pressure built up, since the well was shut in. The oil was sweet crude of 28 gravity. It is reported that 1,200 barrels per day are now being taken from this well.



More ways than one of reaching the Miahuapam field.



The rig nearing completion.

The geologists' quarters.

### MR. FRANK C. BOLT

IN THE death of Frank C. Bolt, who passed away at his home in South Pasadena, August 10th, the Union Oil Company loses one of its esteemed directors.

Until some six months ago, when he was

confined to his home by ill health, Mr. Bolt was a familiar figure in banking and civic affairs of Pasadena, known by all who came into contact with him for both his ability and his geniality.

His career has been one of responsibility throughout many varied experiences. Born in Knowlesville, Orleans County, New York State, in 1846, his schooling was interrupted by the call to the Colors in 1861. Though not yet seventeen years old he was made a messenger between the Army of the Potomac and Washing-

ton, D. C., serving for three years, during the latter part of which time he carried the dispatches of General Grant.

At the conclusion of the war Mr. Bolt made his first westward move, to Boone, Iowa, where he had his first business experience, in retail grocery. In 1872 he returned to his home state, entering the wholesale trade in Buffalo. This venture was most successful and for the next fifteen years claimed his entire attention.

In 1887 Mr. Bolt came to Pasadena, then a village with a population of about five thousand. For the first few years there, his business interests were varied, until he turned to the banking profession, with which he has since been

which he has since been identified. He was one of the founders and first Vice-President of the San Gabriel Valley Bank, being elected President and Manager six months thereafter. He continued in this executive capacity until 1911, when the bank was merged with the Union National of Pasadena, Mr. Bolt assuming chairmanship of the Board of Directors. At the time of his death he was Chairman of the Executive Board of the Pasadena branch, Los Angeles First National Trust and Savings Bank.

His association with

the oil industry dates back to 1901, when he became interested in the Union Oil Company. In 1904 he was elected to the Board of Directors, and following re-election in the next year, served continuously until his death.

The constant fairness and consideration which he combined with his untiring ability, makes the loss of his passing keenly felt by all those who have been associated with him.



Mr. Frank C. Bolt

# NEWS OF THE MONTH



#### FINAL BROADCAST CLOSES BOWL SEASON

September 1st marked the close of the seventh season of the Hollywood Bowl, with the last of eight Saturday night programs broadcast by the Union Oil Company over the Pacific Coast Network.

Eugene Goossens, noted Belgian-English conductor, directed the farewell concerts, the last of which was featured by the playing of the Bruch Concerto for violin by Harry Ben Gronsky, the Southland's fifteen-year-old virtuoso. The Tschaikowsky Symphony No. 5, and Liszt's "Les Preludes" completed this last program.

Goossens also directed during the seventh week of the series, the Saturday night program of that week being marked by the appearance of Milton Sills at the microphone during the intermission.

The remaining directors for the month of August were Henri Verbrugghen of the Minneapolis Symphony Orchestra; Percy Grainger, composer, pianist, conductor, who presented four of his own numbers on the fifth broadcast; and Alfredo Casella, composer-conductor, who also directed one of his own compositions for the radio audience.

Proof that the Bowl concerts were by no means an exclusively Southern California musical institution was conclusively found in the Visitors' Register installed at the Bowl by the Company. This register bears signatures from London, Paris, Vienna, and many others of the European capitals and smaller cities of England and the Continent; Buenos Ayres, Mexico City, Yokohama, New South Wales, New Zealand, the Hawaiian Islands; almost all the larger cities of the East and Middle West; and many points in Canada, and the Pacific Coast outside of California. Letters were received from every part of the Pacific Coast by the National Broadcast Company, commending the making possible of "Symphonies Over the Air."

#### WINNERS AT THE LONG BEACH REGATTA

Amassing a total of 450 points in competition for the International Rudder Trophy, emblematic of the international speed boat championship, Dick Loynes of Long Beach successfully defended his right to possession of the trophy for a second year, in the eighth annual regatta of the Southern California Yachting Association, held at Long Beach during the first two weeks of August. Loynes, recognized to be the world's premier hydroplane driver, defended the trophy with Miss California, the boat with which he won the cup for America last year. Union Ethyl powered his craft, as it had the previous year.

In the opening day's racing, Loynes made a clean sweep of the 151 limited class, winning firsts in both heats. The following day, in the first heat of the unlimited class, he got away to a poor start, but caught up almost a quarter mile lead of his competitors, to finish in third place. In the second and final heat, Loynes jumped into the lead early in the race and was never headed. This second consecutive victory of Loynes gives the cup to America for the third time, France and Italy each having one victory to its credit.

The Union Oil trophy for 510 class hydroplanes in the same regatta was won by the Miss Houston IV of Frank H. Robertson, Houston, Texas. The Miss Ferncreek II of R. G. Jones, Louisville, Kentucky, took second place, with the Miss Kemah of Henry Falk, Houston, Texas, third. All three boats used Union Ethyl.

#### PROMOTIONS

C. A. DeFrance has been appointed Acting Coast Division Foreman, filling the vacancy caused by the resignation of T. F. Travers.



Miss California, with champion Dick Loynes at the wheel.



The Avery Building at Fort Collins, Colorado, as decorated for the Union Pacific Athletic Meet held there July 30 and 31. Fort Collins and the Union Oil Company welcomed some 2,500 Union Pacific employees who attended the meet.

#### MARINE BUREAU RE-ELECTS GROUNDWATER

William Groundwater, manager of transportation, has been re-elected a member of the executive committee of the Marine Service Bureau of San Pedro, an affiliated organization of the Shipowners' Association of the Pacific Coast. The office is for the year begin-

ning August 9th, 1928.

The executive committee is made up of five members from the Shipowners' Association, five from the Pacific American Steamship Association, of which Mr. Groundwater is one, and five from the local San Pedro Steamship Association. The work of the bureau consists of the employment of crews, contact with government officials and the City Board of Harbor Commissioners, and the general protection of Steamship Company interests.



The Union float which participated in the Fourth of July parade at San Luis Obispo. This float was put together through the combined efforts of the San Luis Obispo Sales and Pipe Line Departments.

#### INVESTMENTS OF THE PROVIDENT FUND

Approximately one and one-half million dollars in Union Oil stock now represents the collective investment of some 5,000 employees through the Provident Fund. The investment in Union Oil, however, represents but a portion of the resources, for in the five years that the fund has been in operation, the assets have passed the \$5,000,000 mark with securities valued below current market quotations. The accumulated reserve is approximately \$1,000,000.

In addition to the one and one-half million invested in Company stock, the resources consist of stocks and bonds of industrials, public utilities, railroads, banks, and foreign bonds. The railroads and public utilities absorb \$1,500,000. The investment in industrials is in excess of \$800,000, with another \$300,000 in mortgages and loans. The fund is also carrying a cash

balance of \$475,000.

Over 79 per cent of the 6,345 eligible employees have been attracted to membership by the Fund.

#### NEW DISTRIBUTING STATIONS

During August, new distributing stations were opened as follows: Mono Lake, August 2nd, and Mojave, August 6th, operating as Los Angeles District sub-stations; Walnut Creek, August 14th, operating as Oakland District sub-station.

#### THIS MONTH'S COVER

In keeping with the aviation note which is dominant in this issue, George Brandriff's canvas presents the new monarch of the sky. The eagle, once undisputed king, now watches a greater air-bird soar above it.

#### DOMINGUEZ ANNUAL OUTING

The fourth annual employees' barbecue of the Dominguez District has been planned for September 9th, to be held in the Callender Grove, Dominguez Field. About 1200 of the employees and their families are expected at the barbecue dinner to be served at noon. Watermelon, ice cream, and soft drinks will be served free of charge during the afternoon.

Five classes of events have been planned for entertainment: a tug-of-war between the Dominguez District and the Santa Fe District for the Company championship; competitive trap-shooting for all who care to enter; golf "driving" contest, open; First Aid Team Competition for selected teams; also races and

other contests open to all.

In addition to prizes for the winners in all events, there is to be a general drawing for prizes on ticket number, two for ladies and two for men. Tickets to the picnic are to be had from Personnel representatives in the various districts.



Resumption of operations at Santa Fe Springs during August brings much new help to the field.

#### SPOKANE CHAMPIONSHIP BASEBALL TEAM

For the second consecutive year, the Union Oil Company team won the championship of the Industrial Twilight League of Spokane, and for the second consecutive year also, won the City championship. Spokane had seven industrial leagues, each containing from six to eight teams. The champions of each league played for the City Championship.

During the season, the Company team lost but two games, both of these to the same team, the Home Telephone and Telegraph. This was made up for, however, by winning three games from that squad, thus reducing it to runner-up for the championship.

Three runs were the most scored against the Union in any one game during the season, this success being attributed mostly to the pitching of Eddie Gosselman and the catching of George Guter, these two boys making up the strongest battery in the City of Spokane.

Carith Hansen, Assistant Credit Man, at shortstop; Ted Williams, city salesman, at first; and "Stuffy" McInnis, order clerk, in centerfield, were greatly responsible for holding down the scores of the opposition. Hansen led the City League in hitting and had a high average in fielding, while Williams and McInnis were the class of the league in their respective positions.

By winning the City Championship twice in succession, the team becomes permanent possessor of the Hat Freeman trophy, awarded each year. It has been played for since 1922.

After winning the City Championship, the Union squad was challenged by an All-Star squad, picked from all the other teams of the City League. This game was played July 31, the Company again winning, 6 to 1, with eleven hits to the opponent's four.

Reading from left to right, the picture shows the personnel of the squad, as follows: McInnis cf., Ireland rf., Drexel 3b., Haynes 2b., mascot Jack Ireland, Williams 1b., Guter c., Webb rf., Gosselman p., Hansen ss., Babcock lf.

#### JULY CRUDE PRODUCTION

According to figures collected by the American Petroleum Institute, Pacific Coast Office, the total production of Crude Oil in California for July amounted to 19,754,458 barrels, an average of 637,241 barrels per day. This is a decrease of 1,567 barrels per day under June production.

Total stocks of crude and all products in Pacific Coast territory decreased during the month 352,254 barrels. The total stocks at the end of the month were 139,753,307 barrels. The total stock increase for 1928, up to July 31st, was 412,957 barrels. Compara-



The Company exhibit at the Pacific Southwest Exposition at Long Beach. An entirely new aviation display will be seen at the National Aeronautic Exposition at Mines Field this month.

tive figures as of July 31, 1928, June 30, 1928, and July 31, 1927, are shown in detail on page 23.

Fifty-seven wells were completed during the month with an initial daily production of 65,278 barrels. compared with 54 wells completed during June with an initial production of 41,866 barrels.

#### **NEW PRODUCTION**

During the month of August, the following new wells were brought in: in the Richfield district, Morse No. 1, 85 barrels daily average; Morse No. 8, 258 barrels; in Brea Canyon, Stearns No. 71, 191 barrels; at Santa Fe Springs, Bell No. 28, 246 barrels; at Dominguez, Callender Nos. 22 and 23, 457 and 244 barrels, respectively.



The "Ethyl," as seen on the San Joaquin river. "Ethyl" is also a frequent visitor at Bass Lake, Shaver Lake, and Huntington Lake.



The Champions

# The Easy Road To Success

(Though the hole in a large round doughnut is suggested as the prize to be awarded for the idea herein contained, the application of the idea is recommended for producing not the hole, but the doughnuts—and plenty of them.—Editor)

Bill: "Hello, Rod!"

Rod: "Hello, Bill! You old highbinder! Now just how much is this important part of your valuable time to cost me?"

Bill: "Not a cent. You see, a bunch of us were sitting around a table today at lunch, and the question came up as to what was really and truly the basic thing that brought success to some people and didn't seem to bring it to others. After a long discussion and much murdering of the King's English we decided that none of us really knew but we'd start a competition, the prize to be the hole in a large round doughnut to the man who turned in the best answer in a few words. Now do you hear the knocking at the door?"

Rod: "O.K. I'll send it up to you in half an hour, for that's certainly a prize worth shooting for, and who knows, the Examiner may start a subscription to send the winner to Matteawan."

Bill: "Fine. Shoot the works while I go dig up some more contestants; but say, before I go, give me the dope. I want to see how serious you are in this thing."

Rod: "All right, this is the way I feel about it: Take one thousand successful men. Now, I don't mean captains of industry or Mussolinis, or any of those fellows, for you can see how they succeeded by reading the American Magazine—they all started as newsboys from poor but honest parents—but I mean just the ordinary fellow who gets along to a position of responsibility, whether great or small is merely relative, and I claim there is only one out of that thousand who rose to his present job by sheer brain power. The other 999 got to their jobs through friends. Now, I don't mean pull through friends, for although that sometimes gets them there, their seats usually get so awfully hot and uncomfortable that they give it up to someone else and thereafter become 'straphangers.' To put it in the form of advice, it's this:

"Take your first job, no matter what it is (even a horse-shoer in the Aviation Corps, if necessary) and give it all you've got with both hands and both feet and what little you have in your head, but while you're doing that keep on everlastingly getting acquainted with everybody around you, black, white, red, yellow or brown. I don't care which, you will learn something from all of them. Get to know your immediate associates, then don't quit there. Keep on going outside your own particular 'ballywhackle' and get acquainted some more. Give up a little of yourself. Grin at 'em and with 'em. You may not get much in return at first but pretty soon you will, and probably the ones who seemed a dead loss at first will prove to be the best. Be human —they all are if you scratch below the veneer, and remember that the biggest compliment anyone can pay you is to come to you with their troubles. Help 'em out, even if it does upset some of your own heavy dates and changes your plans entirely, for if you don't give something of yourself, the other fellow, as sure as Union Oil, won't give any of himself. And best of all get firmly fixed in your head that your success is made up of Not One Big Thing THAT YOU DO BUT THE MILLION LITTLE THINGS, and you can't do a million little things without the help of your friends, and if you make a lot of them they're like interest on your money, they work while you sleep.

"Now, you see my story has doubled back on itself, for if you can make a million friends and they work while you sleep, you can loaf along to success. There you are! That's my story. That's my answer. Quod erat demonstrandum. Think it over."

## SAFETY IN THE UNION



#### FIRST AID

So well known has industrial first aid become among those who devote their time to the promotion of accident prevention in our great industrial organizations, that to question its utility seems rather startling. Yet it is fair to question what good can come from spending time and effort—which means money—in teaching "first aid to the injured," when doctors and hospitals

are almost everywhere available.

The answer is partly found in the first part of the Bureau of Mines course as given by the Company's first aid instructor, A. J. Martinson. "This course is not intended to make doctors of you nor are the splints and bandages which you will learn to apply intended to take the place of those which in serious cases will be put on in the hospital. The primary purpose of first aid is to make it possible for an injured man to reach the doctor no worse off than immediately after his injury. You will be taught to control arterial bleeding, to bandage wounds so that they will be kept clean, to support and splint broken bones so that suffering and length of hospitalization will be reduced to a minimum. You will learn to recognize and treat nervous shock, which occurs in every injury and is frequently the real cause of tragic consequences. You will be given practice in resuscitation by artificial respiration, which to be successful, must be given promptly, not after a ride in an ambulance. And with it all, you will learn something of how your bodies are made and function, so that you can take care of the minor cuts and bruises, without infection.'

As given in the oil fields the first aid course is a very practical affair, consisting of five classes of two hours, during which the instructor demonstrates and the members of the class repeat the application of splints, burn dressings, tourniquets. Classes usually consist of twenty-five men, who divide into small groups, in which each man takes his turn as patient. Unlike some efforts at education, the appeal of first aid is almost universal among men who have spent any time in the oil fields. At Dominguez, for example, there were many who came to class even after they had completed the course, merely to increase their proficiency. At Fort Collins, in spite of the fact that most men were working twelve hours a day and seven days each week, there was scarcely a man who did not

receive a certificate.

How much do these men learn in one such short course? Enough to actually reduce the number of accidents, solely through the psychological effect of knowing the consequences of physical injury. That is always the first and perhaps the strangest effect of teaching first aid. The second can best be brought out by interviewing some of the surgeons who devote themselves to the care of the industrially injured.

"I have seen one broken back case and one man with a multiple fracture of the pelvis in the last year; in both cases ultimate recovery was unquestionably due to the intelligent way in which the first aid work is handled at your refinery."

"This man would undoubtedly have been beyond

aid by the time he was brought to me if the two truck drivers who found him had not known artificial

respiration.'

The work your first aid instructor is doing is making it possible for us to get results far different than in former years when it was common practice to throw an injured man into the back seat of a Ford and drive like mad over oil field roads to the nearest doctor. Weeks and months of suffering and idleness on the part of the injured are sometimes saved by thus preventing complications. The course in first aid ought to be repeated in every field every year."

The experience of our own medical staff is by no means unique, as is attested by the fact that this same instruction is compulsory in the largest mines in the country and in those of Mexico where American methods are employed. Some ten years ago the oil companies took it up and now on the Pacific Coast most of the larger operators spend thousands of dollars each year in teaching their men and in contests among drill teams. Public utilities have not been slow in recognizing the value of this form of education, with the result that the great gas, electric and telephone corporations have become the most enthusiastic supporters of the first aid movement. Recently the greatest railway system in Canada undertook the really tremendous task of training every man in its employ.

With such a history, it is perhaps not strange that those who are constantly in touch with the consequences of industrial injuries are so thoroughly sold on such a practical method of relief. Accidents are not merely cases that bear numbers and fill envelopes in a filing case with reports, bills and correspondence. Each one is a family tragedy, a man taken from his work, a wife and children reduced to want. Unless one has that viewpoint one cannot appreciate how much a knowledge of first aid is accomplishing in the oil fields.

#### ARIZONA FIRE

A fire which caused the partial destruction of the Company marketing station at Kingman, Arizona, on July 24th, resulted in fatal burns to three Union Oil Company employees. Harry Rogers, traveling mechanic of the Engineering Department was attempting to change a valve on the gasoline tank, without emptying the tank. It is not known why he did not wait for the tank cars which had been ordered to Kingman for the purpose of storing the gasoline while the valve was being changed. William St. Charles, warehouseman and acting agent, and Harold Davis, tank truck salesman, were lending a hand to Rogers and his helper, E. E. Putnam. All four were drenched with gasoline, of which so much escaped that it flowed onto the nearby railroad right-of-way and flashed, presumably from a lighted switch lantern. Rogers and Davis were caught in the first flash. St. Charles lost his life when he courageously sought to strip the burning garments from his fellow worker. Putnam escaped with minor burns, by first tearing off his oil-soaked clothing.

#### SANTA FE SPRINGS AWAKENS

The present hectic re-drilling of the Santa Fe Springs field, a few miles east of Los Angeles, illustrates the tremendous progress that has been made in the past five years in the mechanical equipment of rotary drilling wells. More than a hundred permits to drill have already been issued and this number will perhaps be doubled if the extent of the newly discovered deep sand is as broad as it is now believed. On its great leases in the heart of the field, Union Oil Company is obligated only to drill relatively few wells to the deep sand, but already ten locations have been staked out



"Temptation—to start up, whether the rigging-up is complete or not."

and activity about Superintendent Whitten's headquarters remind one of the discovery days.

There is a difference, though. One sees totally enclosed drilling engines, draw-works come from the manufacturer equipped with guards that fit (the gentleman in the back of the house who snorted will please leave. Most of them do fit). Derrick floors are of three-inch planking, rat-holes are drilled for the kelly and weird-looking hard-faced bits are used in place of the old fish-tails. The attitude of superintendents and foremen is just as different as are the tools they work with, for they are interested in making a safety record as they never were before.

We ran across Si Delaney out there the other day. He was starting where safety work must start, if it is to be effective, with the new men. "We are putting a lot of new men to work and I am trying to see to it that they get scattered around among the older men. As soon as we have a few crews organized and permanently placed we want Martinson out here to teach these young fellows first aid. We have had one bad accident already."

Si is spending most of his waking hours at the Springs these days, making sure that guards are in place and all is ship-shape and safe before operations start. "You know what a temptation it is to start up, whether the rigging-up is complete or not. And once the drilling crew is on the floor it takes weeks to finish up what could have been done in half a day. So I am camping out here seeing that every new rig is complete."

"And one thing more," Si called after us as we started home, "don't forget that the Engineering boys have been working out here for a month laying pipe lines and wiring up these rigs, pouring concrete foundations and a lot more dangerous work and they have got by without a single lost time accident. Write that down where you won't forget it. It's Herb Dalton and his boys that are doing it. They are flying a green flag over their office and they have earned it."

#### FIRE DRILLS PROVE EFFECTIVE

A year ago problem fire drills were instituted in the Company refineries and gasoline plants. These drills were in every case based on fires that had actually occurred in similar plants. Actual experience in handling the fire fighting apparatus was given all shift men, until the possible sources of fire had been pretty well exhausted. In the gasoline plants, one of the interesting developments was the testing of the steam smothering system on which reliance had been placed for years. In an actual fire, built for the purpose, it was found that steam was not the effective agent it was supposed to be. As a result the gasoline plants have been equipped with foam apparatus and the men trained in its use.

A few days ago at Richfield Absorption plant a stuck valve caused an overflow of absorption oil which took fire and for a few minutes created considerable diversion. The most interesting feature of the fire, however, was the methodical way in which it was smothered by the plant operators, using their foam equipment and going through the routine which they had practiced so often during the past year. There was no great excitement, certainly no hysteria or lost motion and the resulting damage was practically nil. Again, training for the emergency proved its value.

#### SOCIETY NOTE

Luther Weeks, well-known superintendent of the Los Angeles Lubricating Division was recently made fire chief of the Los Angeles Main Station, where some five separate departments of the Company have facilities. So conscientious is Mr. Weeks that he is spending his entire vacation learning the fine points of his new position. He is among those fighting the Cajon Canyon fire in the San Bernardino Mountains as a guest of the United States Forestry Department. Some vacation!

# California Oil Statistics, July, 1928 Prepared by American Petroleum Institute, Pacific Coast Office PRODUCTION (Figures of production and stocks are in barrels of 42 Gals.)

OISTRICT	res of production	B	ARRELS R MONTH	July, 1928	DAILY AVERA June, 1928		ly, 1927
Kern River			190,091	6,132	6,651	, jui	16,176
Mount Poso			12,061	389	136		34
Fruitvale			10,628 1,548	343 50	442		16
McKittrick			149,855	4,834	4,902		5,001
Midway-Sunset	• • • • • • • • • • • • • • • • • • • •	2,	227,911 670,291	71,868 21,622	70,846 23,563		86,272 25,809
ost Hills-Belridge			132,993	4,290	4,140		3,696
Vheeler Ridge			326,584 28,476	10,535 918	10,630		19,646
Vatsonville			1,982	64	930 59		1,009
anta Maria			162,082	5,228	5,417		5,74
SummerlandElwood-Goleta			3,767 $12,705$	$\frac{121}{410}$	123 84		130 323
Rincon			111,207	3,587	4,061		
Ventura AvenueVentura-Newhall	• • • • • • • • • • • • • • • • • • • •	1,0	662,998 179,007	53,645 5,774	48,646 5,619		38,14 6,11
Los Angeles-Salt Lake			48,286	1,557	1,550		1,71
Vhittier Fullerton (Brea Olinda	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	51,085 456,932	1,648 14,740	1,723 15,698		1,72
Coyote			416.584	13,438	13,435		17,85 13,52
anta Fe Springs		1,		36,672	37,213		41,31
Intebello			367,722 573,120	11,862 18,488	12,150 19,112		14,45 $22,76$
Iuntington Beach		1,0	640,090	52,906	53,414		69,56
ong Beach	• • • • • • • • • • • • • • • • • • • •	6,0	078,332 560,564	196,075 18,083	194,356 17,567		92,50 $22,78$
Dominguez			359,289	11,590	12,211		15,95
Rosecransnglewood			189,670 928,916	6,118	6,569 30,202		8,77
Newport			2,580	29,965 83	29		34,30
seal Beach		1,0	046,939	33,772	36,834		57,76
COTAT	• • • • • • • • • • • • • • • • • • • •	10.	13,334	430	496		
OTALune		19,	754,458 164,244	637,241 638,808	638,808		623,19
ncrease			590,214	*1,567			
*Decrease					T-1 Ct 1		
		STOCK July 3	The second of th	une 30, 1928	July Stock Decreases	July 3	1, 192
leavy Crude, heavier than 20° A. P	. I., including al	l grades					
of fuel		96,4	418,224	95,284,117	*1,134,107		390,140
Refinable Crude 200 A D I and lie			041 504			25.0	639,883
Refinable Crude, 20° A. P. I., and lig Sasoline		12.9	041,594 908.549	19,955,030 13,626,875	913,436 718,326	12.8	883.18
Refinable Crude, 20° A. P. I., and lig Sasoline		12,9	041,594 908,549 429,410	13,626,875 1,595,566	718,326 166,156	12,8 3,4	883,181 $413,614$
Refinable Crude, 20° A. P. I., and lig SasolineVaphtha DistillatesVaphtha Distillates		$egin{array}{lll} \dots & 12,9 \ \dots & 1,4 \ \dots & 9,9 \end{array}$	041,594 908,549 429,410 955,530	13,626,875 1,595,566 9,643,973	718,326 166,156 *311,557	12,8 3,4 9,9	413,614 943,52
Refinable Crude, 20° A. P. I., and lig Sasoline			041,594 908,549 429,410 955,530 753,307	13,626,875 1,595,566 9,643,973 140,105,561	718,326 166,156	12,8 3,4 9,9	413,61 943,52
Refinable Crude, 20° A. P. I., and lig Sasoline	DE		041,594 908,549 429,410 955,530 753,307	13,626,875 1,595,566 9,643,973 140,105,561 Daily	718,326 166,156 *311,557 352,254	12,8 3,4 9,9 146,2	413,614 943,52 270,34
Refinable Crude, 20° A. P. I., and lights assoline	DE New Rigs Up		041,594 908,549 429,410 955,530 753,307	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial	718,326 166,156 *311,557 352,254 Active Ab	12,8 3,4 9,9	413,61 943,52 270,34 d Well
Refinable Crude, 20° A. P. I., and light assoline	DE New Rigs Up	12,9 1,4 9,6 139,7 EVELOPME Active Drilling	041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial Output	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171	12,8 3,4 9,6 146,2 andone	413,614 943,52 270,343 d Wells
Refinable Crude, 20° A. P. I., and light assoline	DE New Rigs Up		041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial	718,326 166,156 *311,557 352,254 Active Ab Producing Dril	12,8 3,4 9,6 146,2 andone	413,61 943,52 270,34 d Well oducer
asoline	DE New Rigs Up	12,9 1,2 1,3 1,3 1,3 1,4 1,4	041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial Output	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 2	12,8 3,4 9,6 146,2 andone	413,61 943,52 270,34 d Well oducer
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Refinable Crude, 20° A. P. I., and light a Distillates In Aphtha Distillates Il Other Stocks  TOTAL ALL STOCKS  *Increase  Kern River  Mount Poso  Cruitvale  Round Mountain  McKittrick  Midway-Sunset  Elk Hills	DE New Rigs Up	12,9 1,2 1,3 1,3 1,3 1,4 1,4	041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial Output	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 2 290 2,533	12,8 3,9,9 146,5 andoned lers Pro	413,61 943,52 270,34 d Well oducer
Total All Stocks.  Total All Stocks.  Total All Stocks.  Total All Stocks.  *Increase  Kern River.  Jount Poso.  ruitvale.  Lound Mountain.  Jokittrick.  Jidway-Sunset.  Lik Hills.  Jost Hills-Belridge.	DE New Rigs Up	12,0 1,0 1,0 139,7 2VELOPME Active Drilling 4 8 1 4 2 14 1 2	041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561 Daily Initial Output 1,475 120	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301	12,8 3,9,6 146,5 andoned lers Pro	413,61 943,52 270,34 d Well
Total All Stocks.  Total All Stocks.  Total All Stocks.  *Increase	DE New Rigs Up		041,594 908,549 429,410 955,530 753,307 NT Completed  5  1  6 	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 2 290 2,533 223 301 797	12,8 3,9,9 146,5 andoned lers Pro	413,61 943,52 270,34 d Well oducer
Total All Stocks.  Total All Stocks.  Total All Stocks.  Total All Stocks.  *Increase  Ten River.  Iount Poso.  ruitvale.  cound Mountain. IcKittrick. Iidway-Sunset.  lik Hills. ost Hills-Belridge. coalinga.  Theeler Ridge.	DE New Rigs Up	12,0 1,0 1,0 139,7 2VELOPME Active Drilling 4 8 1 4 2 14 1 2	041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973 140,105,561  Daily Initial Output  1,475 120 2,653 70	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301	12,8 3,9,6 146,5 andoned lers Pro	413,61 943,52 270,34 d Well oducer
Total All Stocks.  Total All Stocks.  Total All Stocks.  Total All Stocks.  *Increase  Total All Stocks.  *Increase  Total All Stocks.  *Increase  Count Poso  ruitvale  cound Mountain  IcKittrick  Iidway-Sunset  lik Hills  ost Hills-Belridge  value oalinga  Vheeler Ridge  Vatsonville  anta Maria	DE New Rigs Up		041,594 908,549 429,410 955,530 753,307 NT Completed	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225	12,8 3,9,9 146,2 andoned lers Pro 1 1 1  3	413,61 943,52 270,34 d Well oducer
Refinable Crude, 20° A. P. I., and lights asoline.  Naphtha Distillates. All Other Stocks.  TOTAL ALL STOCKS.  *Increase  Kern River.  Mount Poso.  Pruitvale.  Round Mountain.  McKittrick.  Midway-Sunset.  Clk Hills.  Sost Hills-Belridge.  Soalinga.  Wheeler Ridge.  Vatsonville.  anta Maria.  ummerland.  Clwood-Goleta.	DE New Rigs Up	VELOPME Active Drilling  4 8 1 4 2 14 1 2 3 1	041,594 908,549 429,410 955,530 753,307 NT Completed  6  1  1	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225 89	12,8 3,9,9 146,2 andoned lers Pro 1 1 1  3	413,61 943,52 270,34 d Well oducer
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Total All Stocks.  Total All Stocks.  Total All Stocks.  Total All Stocks.  *Increase  *Increase	DE New Rigs Up	12,0 1,0 1,0 1,0 1,0 1,0 1,0 1,0 1	041,594 908,549 429,410 955,530 753,307 NT Completed  6  1  1  1  2 3 1 	13,626,875 1,595,566 9,643,973 140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375	12,8 3,9,6 146,5 andoneolers Pro  1 1 1 1 1 1 1	413,61 943,52 270,34 d Well oducer
Total All Stocks.  Total ALL Stocks.  Total ALL Stocks.  Total ALL Stocks.  *Increase  *Incr	DE New Rigs Up	2 14 1 2 3 1 1	041,594 908,549 429,410 955,530 753,307 INT Completed       	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303	12,8 3,9,6 146,5 andoneolers Pro  1 1 1 1 1 1 1 1	413,61 943,52 270,34 d Well oducer
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Total All Stocks.  *Increase  *Increase	DE New Rigs Up	12,9	041,594 908,549 429,410 955,530 753,307 NT Completed  1	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90 165 130	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303	12,8 3,9,6 146,5 andoneolers Pro  1 1 1 1 1 1	413,61 943,52 270,34 d Well oducer
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Assoline  Japhtha Distillates July Other Stocks  TOTAL ALL STOCKS  *Increase  *Increase  Total All STOCKS  *Increase  *I	DE New Rigs Up	VELOPME Active Drilling  4 8 1 4 2 14 1 2 3 1 5 14 29 22 5 1 2 9 9 169 3 2 127	041,594 908,549 429,410 955,530 753,307 INT Completed       	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90 165 130 41,984 200 50 1,425 1,425 1,425	718,326 166,156 *311,557 352,254  Active Ab Producing Dril  1,171 5 2 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303 167 266 568 760 626 72 108 218 218 2137 1	12,8 3,9,6 146,5  andoneolers Pro  1 1 1 3 1 1	413,61 943,52 270,34 d Well oducer
Assoline.  Japhtha Distillates.  Japhtha Dis	DE New Rigs Up  1 6 1 1 5 5 2 3 2 2 5 27 7 76		041,594 908,549 429,410 955,530 753,307 INT Completed  6  1	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90 165 130 41,984 200 50 1,425 65,278	718,326 166,156 *311,557 352,254 Active Ab Producing Dril 1,171 5 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303 167 266 568 760 626 72 108 218 2137 1	12,8 3,9,6 146,5  andoneolers Pro  1 1 1 3 1 1	413,61 943,52 270,34 d Well oducer
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Refinable Crude, 20° A. P. I., and lights assoline. Taphtha Distillates	DE New Rigs Up  1 6  1 1  5  2 3  2 2  3 2  7  76  78  2*  97	12,5	041,594 908,549 429,410 955,530 753,307  INT  Completed  1	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90 165 165 130 41,984 200 50 1,425 65,278 41,866 23,412 39,992	718,326 166,156 *311,557 352,254  Active Ab Producing Dril  1,171 5 2 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303 167 266 568 760 626 72 108 218 2 137 1 1 10,643 10,624 19 11,276	12,8 3,9,6 146,5  andoneolers Pro  1 .	413,61 943,52 270,34 d Well oducer
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Actinable Crude, 20° A. P. I., and lights asoline.  Japhtha Distillates	DE New Rigs Up  1 6  1 1  5  2 3 2  7  76 78 27  95 105 103	12,5	041,594 908,549 429,410 955,530 753,307  INT  Completed  1	13,626,875 1,595,566 9,643,973  140,105,561  Daily Initial Output  1,475 120 2,653 70 21 225 2,500 520 13,650 90 165 165 130 41,984 200 50 1,425 65,278 41,866 23,412 39,992	718,326 166,156 *311,557 352,254  Active Ab Producing Dril  1,171 5 2 2 290 2,533 223 301 797 33 7 225 89 4 18 122 511 322 174 375 211 303 167 266 568 760 626 72 108 218 2 137 1 1 10,643 10,624 19 11,276	12,8 3,9,6 146,5  andoneolers Pro  1 1 1 3 1	413,61 943,52 270,34 d Well oducer

## REFINED AND CRUDE



In these hectic times public opinion and taste are as changeable as the color of a chameleon.

Yesterday we lauded the indolent flag-pole sitters in their efforts to establish the ultimate in uselessness.

Today we cheer the plodding marathoners who wear their legs off to the knees in a demonstration of the futility of perpetual motion.

Some years ago we were quite satisfied that no human could withstand a speed of twenty-five miles an hour.

Now aeroplanes whizz through space at a speed of three hundred miles an hour, and the end is not in sight.

A comparatively short time since we thought we had reached the absolute in enjoyment when the persistence and enthusiasm of genius gave us the radio.

Already we stamp impatiently as we wait for the advent into our homes of television and the movie broadcast.

And it won't be long before we are clamoring for movietone receiving sets.

Ambition and sustained effort seem to be limitless in their accomplishment and he is a foolish man indeed who dares to say in these times, "It can't be done."

Every once in a while we whip our poor addled brains into a froth as we try to visualize future developments along certain lines, but we merely succeed in becoming the more bewildered.

However, we have this advice to offer. If you have an idea, don't stifle it because you are afraid of being dubbed a "crank," for it is now recognized that the crank of yesterday is the genius of today.

Remember this: Every invention that has ever contributed to the relief of a humdrum existence was once nothing more than a crazy idea.

And we now listen attentively to the harebrained schemes of wild-eyed dreamers, whom we would formerly have consigned to the psychopathic ward for observation.

But, remember, also—you can be fired with enthusiasm in more ways than one.

For a Company is known by the men it keeps.

The recent six-day week innovation is simply a recognition of the ancient adage "Oil work and no play makes Jack a dull boy."

It is a curious fact that bank tellers as a class are not rich, and yet they all make piles and piles of money.

On the other hand they are an optimistic bunch, although they are handed many checks.

When we think of the mad scramble for oil that now goes on around us, it is amusing to read M. E. Lombardi's nonchalant statement in the August "Oil Bulletin" to the effect that in 1904 his company—the Southern Pacific—was "bothered" with oil on its adjacent territories.

It is expected that 1,500 planes will be entered in the various events at the National Air Races, and at least 5,000 pilots and technicians will take part.

We have gone through the stone age, the iron age, the bronze age, and a number of other ages, and it appears that we are now in the fuselage.

Although the cigar-lighter is now almost an essential part of the accourrement of a well-dressed young man, it can never completely take the place of the old-fashioned match, for the very simple reason that you can't pick your teeth with a cigar-lighter.

Which brings us, in conclusion, to that much abused and highly tolerant individual—the Scotchman. Latest reports state that he is about to build himself a home, and has written the Masonic Lodge to furnish him with two free masons.

## Night on a Western Hill

20

Climb tonight to a hill where eucalypti
Grow serried closely, leaning from the wind;
Let us cut poles and build a fragrant shelter
Of pungent-scented branches intertwined.

If it be chill, before our woodland tepee
Build us a fire of bark but newly peeled;
Stripped from tall trunks which, gleaming palely,
Are smooth Greek columns by our fire revealed.

The perfume of our eucalyptus branches
Rising like incense through the quiet air,
Will reach that western God, whose altars, hidden,
Are shrined among the eucalypti everywhere.

-ANNE ZUKER

