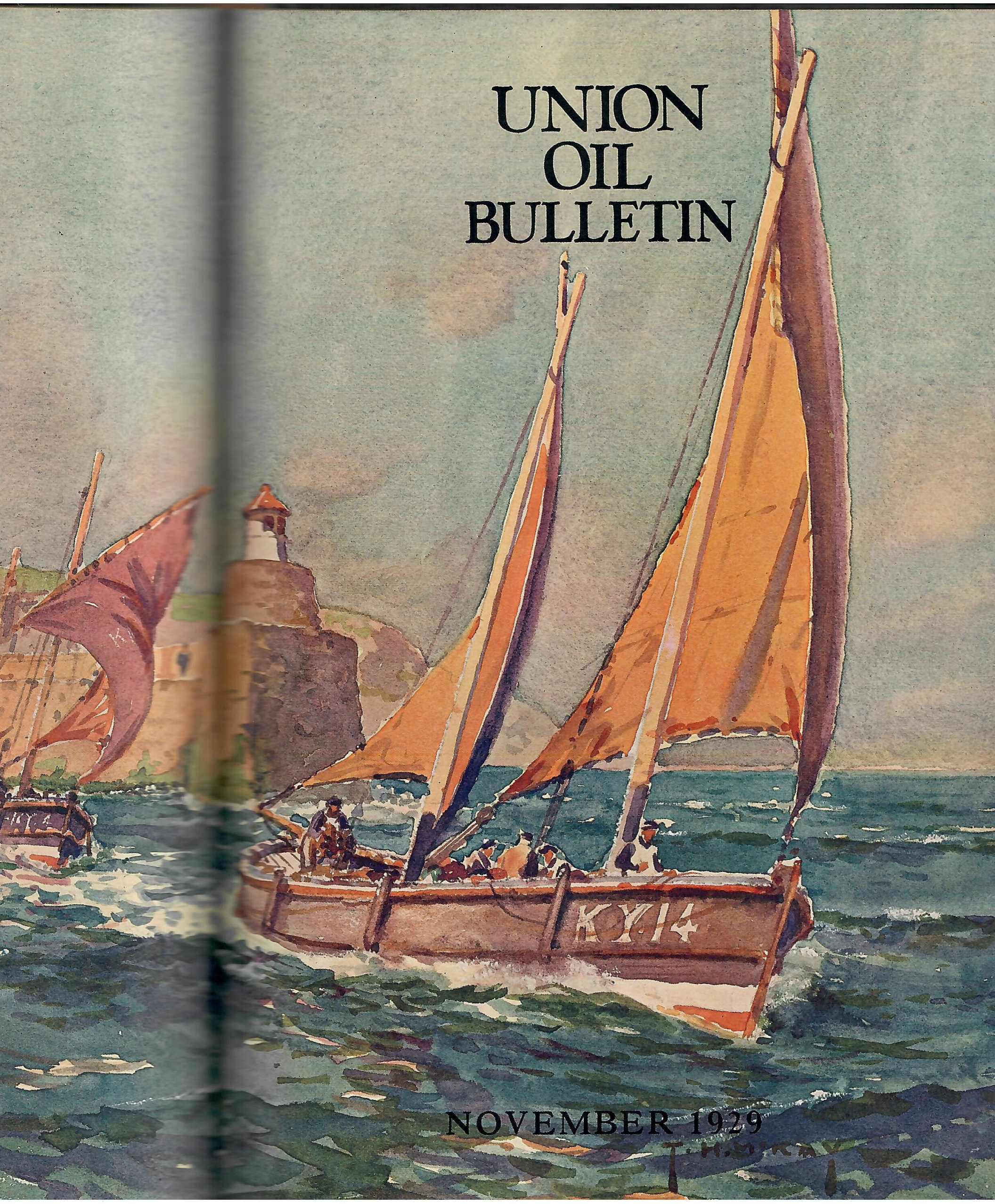
UNION OIL BULLETIN



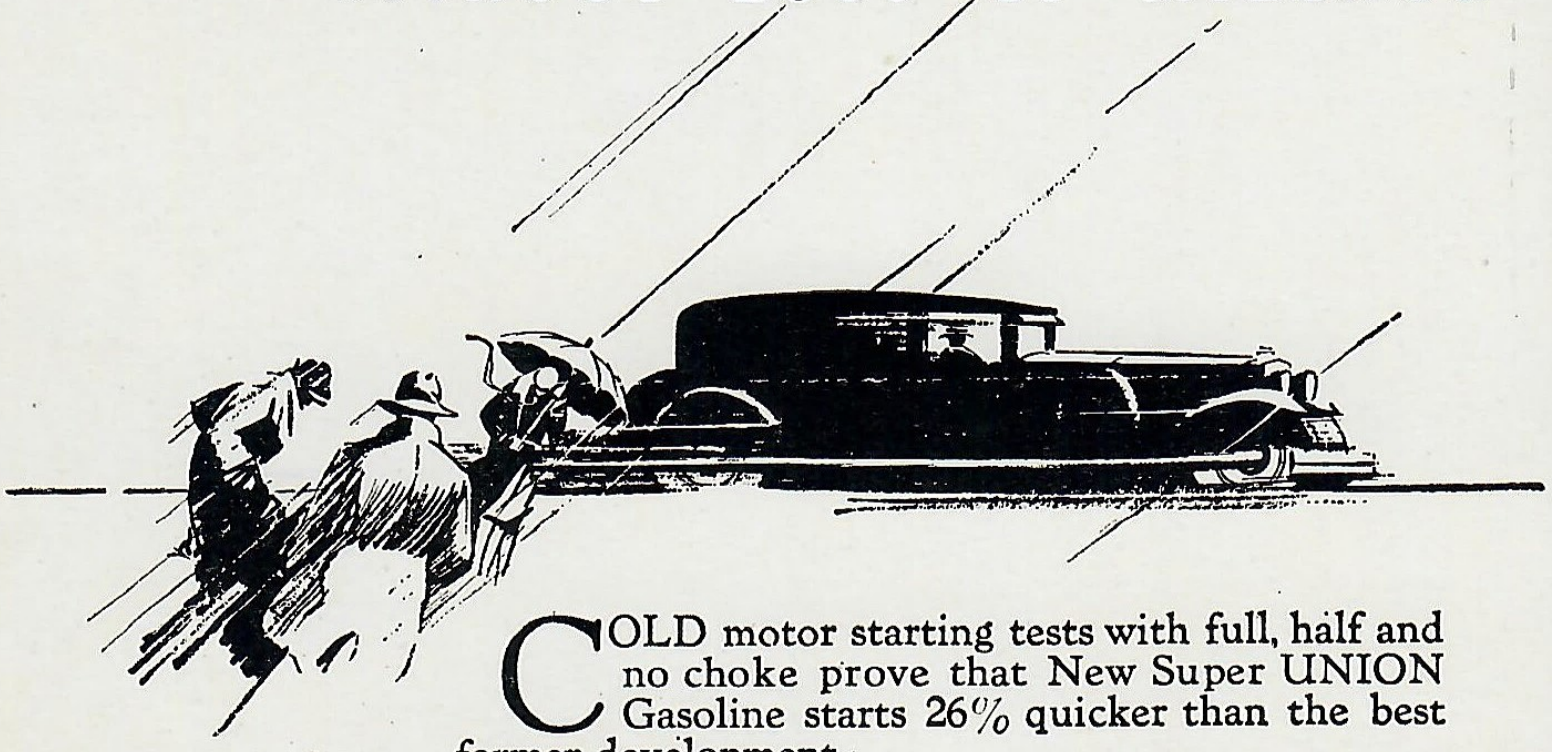
NOVEMBER 1929

FOR WINTER

*NEW Super UNION GASOLINE

26% Quicker Starting

*WITHOUT LOSS OF MILEAGE



COLD motor starting tests with full, half and no choke prove that New Super UNION Gasoline starts 26% quicker than the best former development.

Acceleration tests from 5 miles an hour to 60, show marked improvement of performance in the entire driving range.

And the *mileage* of regular Union Gasoline on which has been built an outstanding reputation for economy over a period of years, is fully retained.

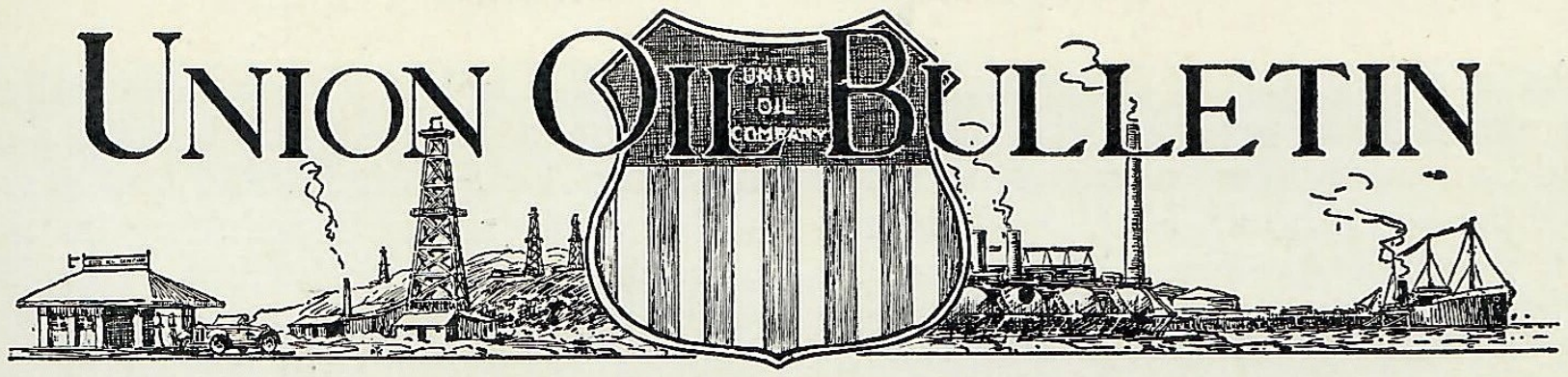
Try this better winter gasoline, now available at all blue and white Union Pumps. Test it in comparison. Its improvements are noticeable in all makes of cars, large and small.

Note: Now Union Ethyl is composed of this new gasoline plus the recognized anti-knock qualities of Ethyl.

"It's success tested"

NEW Super UNION
GASOLINE
UNION OIL COMPANY

UNION OIL BULLETIN



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VOLUME X NOVEMBER BULLETIN No. 11

Operators Cut Crude Production

WITH operators in virtually all of the flush fields in Southern California shutting in production under a ninety-day agreement, the output of crude oil for the state has been reduced below 700,000 barrels a day, and is likely to reach the level of a year ago by the time the present curtailment program has been completed.

The operators at Santa Fe Springs initiated the production cut Nov. 1, when they began shutting in their wells. They were followed by the operators at Signal Hill and Seal Beach on Nov. 4, and Ventura Avenue and Ellwood a few days later.

The reduction at Santa Fe Springs will approximate 125,000 barrels a day and at Signal Hill, 65,000. The curtailment in the other fields will be considerably smaller. On Nov. 10 the fields were within a few thousand barrels of their reduction quotas as the following comparison of the production on Nov. 2, the day after Santa Fe Springs operators began shutting in their wells, and Nov. 10, indicates:

District—	Nov. 10 1929	No. of Wells	Nov. 2 1929
Santa Fe Springs	160,000	520	260,000
Long Beach	120,000	988	167,000
Midway-Sunset	73,500	2,144	73,000
Ventura Avenue	56,000	184	61,500
Seal Beach	25,000	156	37,000
Huntington Beach	42,000	549	42,000
Ellwood	28,000	15	30,500
Inglewood	22,500	228	22,500
Dominguez	8,000	57	8,000
Rosecrans	7,000	104	7,000
Balance of State	153,000	5,741	152,000
Total for State	695,000	10,686	860,500

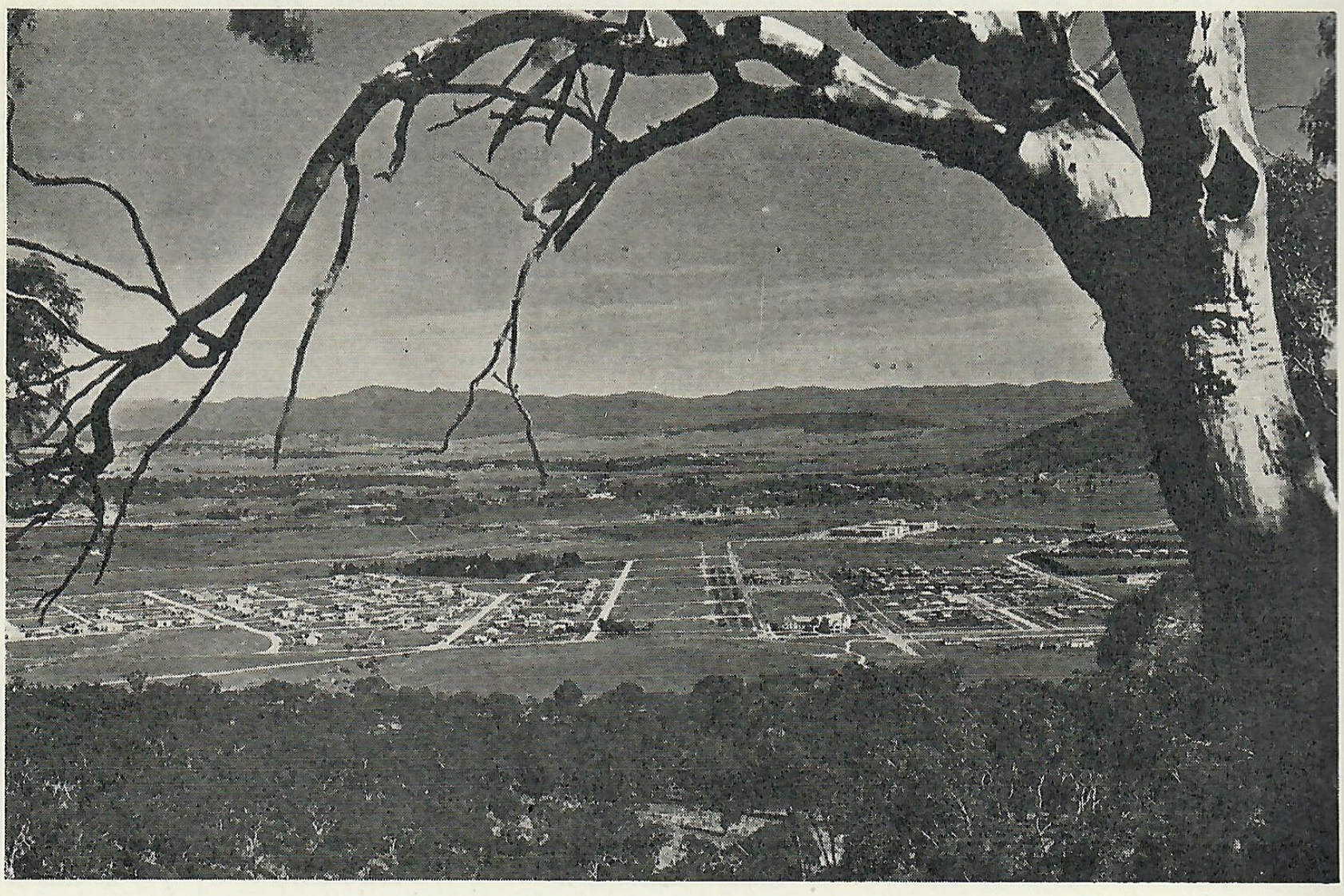
As a result of the inauguration of the curtailment program the prices of crude oil have been restored in Santa Fe Springs, Signal Hill, Seal Beach and Ventura Avenue to the schedule which prevailed prior to the drastic cut on Oct. 21, which established 60 cents as the top price for high gravity oil and 40 cents as the price for oil of intermediate gravity. This reduction in crude oil prices was instituted by the major companies when virtually all available storage had been filled and some means had to be resorted to to discourage the further unbridled production of oil.

The Union Oil Company, which has been among the leaders in an attempt to bring about a curtailment of over-production and wastage of natural gas, will shut-in about 23,000 barrels a day at Santa Fe Springs and 2,000 barrels a day at Signal Hill, reducing its total production to slightly more than 50,000 barrels a day, and increasing its shut-in production to approximately 39,000 barrels a day. The company is not affected by a cut in production at Seal Beach, Ventura Avenue or Ellwood as it is not drilling in those fields.

The agreements reached so far among the operators in Southern California will curb production until the constitutionality of the new gas law, which was to have gone into effect Sept. 1 and is now under attack in the courts, can be passed on.

Canberra, Australia's Unique City

CANBERRA, the federal capital of the Commonwealth of Australia, located among the rolling hills of New South Wales, far removed from the centers of dense population, is one of the unique cities of the world. Though it has today only a few thousand residents, it has been planned to provide room for several hundred thousand. Such growth as takes place will be guid-



View of Canberra from Mount Ainslie.

Hotel Canberra and Albert Hall above, and the new Parliament House below. Note how the parkway and lawns have been planted with shrubbery.

ed along very orderly lines, which will eliminate congestion and crowding, the twin evils of virtually every major city in the Occident or Orient.

As its name signifies, it is "The City Beautiful." Of the 576,000 acres assigned to the city, 100,000 acres have been set aside for parks, roads, military college and other purposes, 7,680 acres for the city proper, and the balance for residential and farming.

Canberra came into being as the result of the federation of the several Australian states in 1900. The location of Canberra, like Washington, D. C.,

was selected after years of argument, and it was not until eight years after federation that its present site was agreed upon. The construction of the city is of recent date.

Canberra was first visited by white men in 1820. It was then called New Country—a sort of Promised Land. Unlike some parts of Australia, it has four seasons. There is one glory of spring, and another of autumn, and the glories of summer and winter are each their own.

It is 204 miles from Sydney—429 miles from Melbourne—912 miles from Adelaide and 929 miles from Brisbane. It has an access to the sea by a practical route for a railroad 123 miles long.

"The City Beautiful" lies in a comparatively level plain or valley between rolling hills at an elevation of about 2,000 feet. The (Molonglo) river flows through the middle of the city in such a sluggish manner that two lakes are to be formed, called Eastlake and Westlake. The design by Walter Burley Griffin of Chicago, U. S. A., has taken into consideration all the natural beauties and advantages of the region.

Capitol Centre on Kurrajong Hill is reached from all parts of the city by main radial streets such as Commonwealth Avenue, Federal Avenue, Brisbane Avenue, Sydney Avenue, Wellington Avenue, Hobart Avenue, Melbourne Avenue and Adelaide Avenue. Commonwealth Avenue leads to the Civic Centre, and here radiates other main arterial streets such as Capital Terrace, Ainslie Avenue, Northbourne Avenue, and Terrace Avenue.

Every street leading from Capitol and Civic Centres, terminates in a center with other radial streets. Circumferential streets are around each center in ever widening circles. This makes for ease of access to all parts of the city. Beautiful vistas are to be had from each center in every direction.

The streets are wide and those that have been completed are well paved and properly laid out with due thought given to grading of curbs, parkways and sidewalks. The parkways are set out with shrubs and trees.

Parliament House is a temporary building, but it is majestic in its simple whiteness. It is located facing Capitol Centre.

The hotels are numerous and maintained by the government. They are well designed and furnished. Hotel Canberra is a modern hostelry. Connecting the main buildings are corridors, around a patio, leading to six one-story and four two-story buildings, which contain bedrooms and baths. It is of brick construction finished with stucco.

Churches of all denominations are well represented and are located near the various centers.

The water supply is ample for a city of 700,000 people, and is furnished by the Cotter River, which is a tributary of the Murrumbidgee River and the Murray.

However, the height of the dam across the Cotter River at present only provides a supply for 70,000 people at 100 gallons each per day. Other rivers in the territory will be available for water supply when needed.

To one who hails from Southern California it will seem like going home to visit Canberra. Its stucco brick houses, tiled roofs, lovely lawns (other Australian cities hide their beautiful lawns and gardens behind forbidding hedges and fences), concrete sidewalks, and its city parks make it most attractive.

Company Building Fuel Oil Barge

Driving First Rivet in New Union Barge

Actual construction of the new 3000-barrel fuel oil barge was formally begun October 30 when the first rivet was driven in the keel plate, shown above, at a ceremony attended by representatives of the marine and sales department of the company and members of the Los Angeles Shipbuilding and Drydock Company, builders of the barge. Below, William Groundwater, left, manager of transportation, Union Oil Company, and Milo A. Baker, right, president of the shipbuilding concern, watching E. J. Munn, assistant manager sales, Los Angeles District, drive the first rivet.

CONSTRUCTION of a new 3000-barrel fuel oil barge, contracted for some time ago by the Union Oil Company, to be used exclusively in San Pedro harbor for serving passenger and freight boats, was begun last month and is expected to be completed by the middle of December. The new barge will supplement barge No. 1927, also used for fuel oil deliveries, which has a capacity of 7000 barrels, and will greatly increase the company's facilities for both trans-oceanic as well as coastwise boats, enabling the ships to receive 10,000 barrels of fuel oil in less than five hours. The No. 1927 delivers her supply in 3½ hours and the new barge will be capable of discharging in 1½ hours.

Building specifications for the barge, under construction by the Los Angeles Shipbuilding and Drydock Company at San Pedro, call for an overall length of 110 feet, a 36-foot beam, and a moulded depth of 8 feet 6 inches. It is to be a single-deck craft, designed to carry only fuel in bulk, and will be of the very latest type with pump rooms located aft and equipped with two independent pumping units capable of discharging 2000 barrels per hour.

This addition to the bunkering fleet of the company brings the number of barges operated at San Pedro to four and raises the total number in fuel oil, gasoline, refined oil, and asphalt delivery service on the Pacific Coast to fourteen.

Young America Spreading its Wings

Editor's Note:—The Bulletin is indebted to Maj. C. C. Moseley, vice president and general manager of the Curtiss-Wright Flying Service in the far western states, for the facts from which this article was written. The major's company is one of many leading aviation firms in the West using Union products.

THE average man, though he may never in this world or in the next, expect to fly, will join with the optimistic booster of aerial transportation —during an evening of forecasting— in predicting that the future will see the sky filled with planes and the now earth-bound populace very much up in the air. The future, of course, is a nebulous something or other, that to the aviation optimist may mean some time within the next decade, and to the average ground-gripper any time within the next century or two.

In their predictions they reflect the prevalent belief, based on the progress made in aerial transportation within the past year or two, that the men of science, who have already accomplished so many miracles, will solve the problems that now confront the builders and pilots of aircraft.

However, it is safe to say that neither the average layman nor the aviation enthusiast, are really aware how rapidly we are as a nation taking up flying, or how insistent is becoming the urge of the youth of the country to spread their wings. The growth of transcontinental and local air travel since 1927 has been remarkable, but more outstanding than this has been the nationwide enrollment of young men and women in flying schools.

Quite unnoticed by the general public they have been enrolling by the thousands in privately operated schools throughout the country. And equally unobserved has been the passing of the "Learn to Fly for $5" variety of schools, and the substitution therefor of flying institutions with the latest equipment and crews of thoroughly trained and competent instructors.

It is estimated that by the close of

At Curtiss-Wright's Mines Field School

Upper left — Student buckling on his 'chute' in the corridor of training school building. Center—Maj. C. C. Moseley, vice president of Curtiss-Wright Flying Service and general manager of the far western division, and right, Capt. Peyton Gibson, chief pilot, checking instrument readings with girl student. Lower left—A group of training planes on the line in front of the school hangars, and right, students ready to take off on trial flight.

1929 fully 40,000 students will have received instruction in commercial schools and in those operated by the Army, Navy and Marine Corps. This is considerably more than double the number who attended flying schools the year before. At this rate of increase, there should be within the next five years more than a quarter of a million young men and women winging their way about the United States. It is rather staggering when one contemplates the future with these figures as a basis. Two hundred and fifty thousand pilots in the United States in five years; 500,000 or more in ten! Apparently, without the people of this country being aware of it, aviation has been gathering momentum that is destined to carry it forward unchecked and with startling swiftness to its ultimate destination, which at this moment is beyond the feeble prophesy of a landsman.

"The day is not yet at hand when the young man feels that it is as essential that he learn to pilot an airplane as it is that he learn to drive an automobile," Maj. C. C. Moseley, vice president of the Curtiss-Wright Flying Service and general manager for the far western states, declared the

other day, "but it is not as distant as a great many are now prone to think."

When Major Moseley made the above statement he had just concluded reading a report of the activities of the flying schools being operated in the United States, including a summary of the year's enrollment in the forty schools being conducted by the Curtiss-Wright Flying Service, the oldest flying organization in the world. He also spoke from a wealth of personal experiences that date back to the war days when he was flying in France.

Major Moseley has watched the growth of aviation in the past decade from a vantage point in the air and has caught the spirit of youthful enthusiasm behind it. Since his first solo flight during the war he has not stopped flying and has been in the midst of pioneering achievements. He won the first Pulitzer airplane speed trophy in 1919 in a "souped up" plane which no flyer today would dream of taking off the ground. He was in the Army then, and as he looks back on the event says he should have been court martialed instead of praised. He was the first commander of Clover Field and helped plan the now historic 'round-the-world flight. He commanded the 115th California National Guard Observation Squadron, was one of the organizers of Western Air Express, and as its vice president in charge of operations inaugurated the air mail and passenger service between Los Angeles and Salt Lake City, the Coast's first aerial link with the East. Last February he allied himself with the Curtiss-Wright Flying Service.

"The fact that an organization like the Curtiss-Wright Flying Service, backed by the Curtiss-Wright Aeronautical Group, which controls five or six manufacturing companies, the National Air Transport, Transcontinental Air Transport and Curtiss Airports, saw fit to establish forty schools in the United States indicated to me," he said, "that the men in close touch with the aerial progress of the country were cognizant of the urge of the youth of the land to try out their wings."

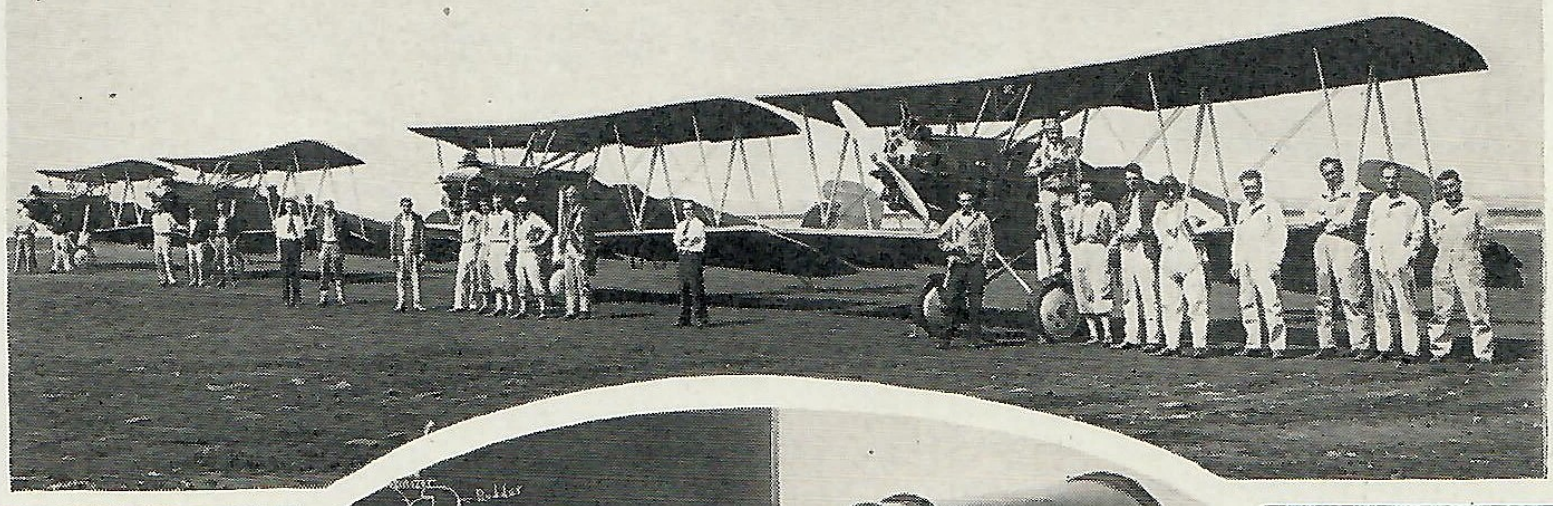
In pointing out that his company had not prematurely anticipated the need for adequately equipped flying schools, offering thorough courses in primary and advanced flying, Major Moseley pointed out that by the close of 1929 nearly 4,000 students will have received instruction in Curtiss-Wright schools, the first of which was not opened until early in this year. During the month of September alone the Curtiss-Wright students flying 343 planes put in 5321 hours in the air.

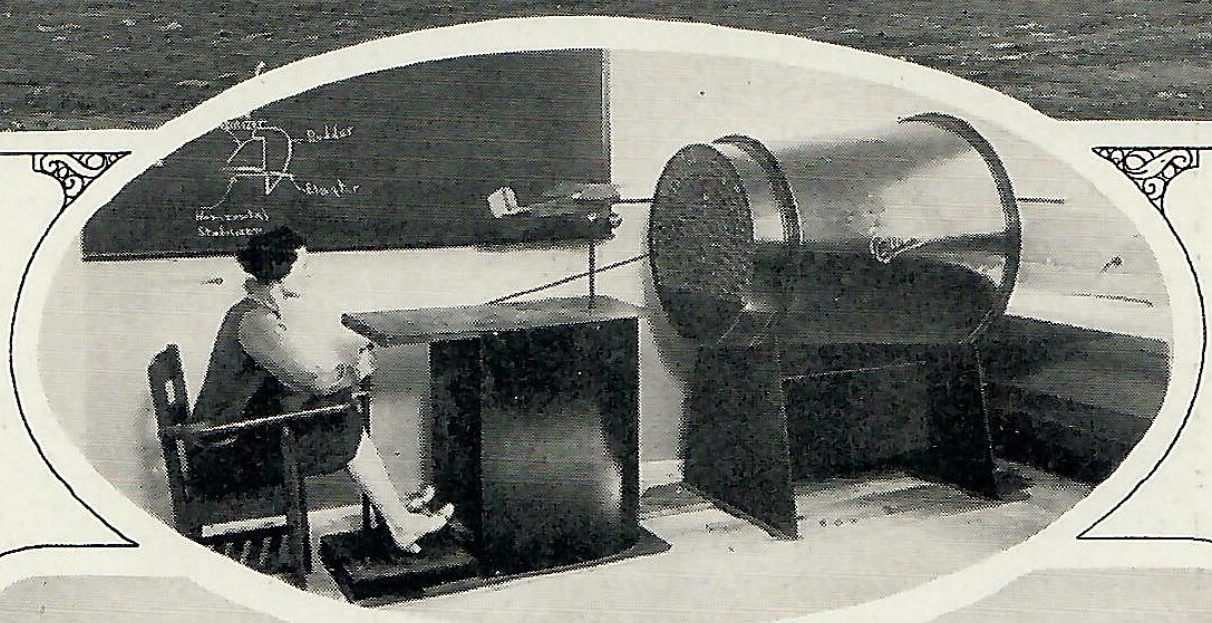
While an accurate census of flying schools of the country has not been taken, it was estimated during the course of the National Air Races at Cleveland, from figures obtained from a number of independent sources, that at that time there were 35,000 students in training in various parts of the United States, which would seem to make the estimate of 40,000 for the entire year rather conservative.

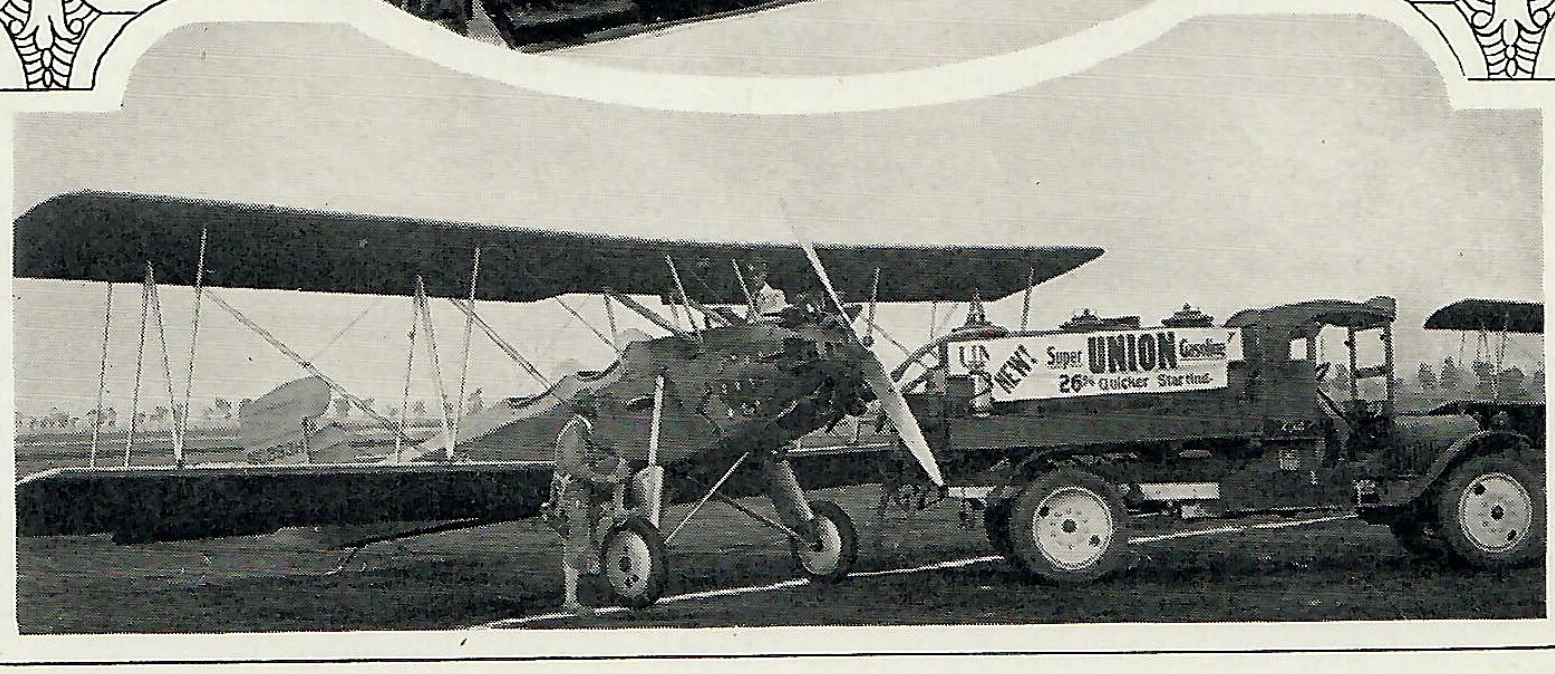
A report on the enrollment of students in flying schools in Los Angeles County at the present time, received by Major Moseley, places the figure at 2,000.

"While admitting that Los Angeles County is the center of aviation activities in the state," declared the major, "I believe we are entirely safe in saying that fully 3000 students are receiving instruction at this time in California, particularly if we include the Army school at March Field and the Army and Navy Reserve Corps instruction centers."

The two Curtiss-Wright schools in California are just now getting under way. The first unit of the $2,000,000 school at Mines Field, Los Angeles, was not completed until September 1, and the school did not open for enrollment until the middle of the month. The school in Northern California, which is to be located at a newly purchased field at San Mateo, is being conducted temporarily at Alameda airport, with two ground schools in Oakland and San Francisco. When com-







With The Fledglings at Mines Field

The Curtiss-Wright school at Mines Field is a scene of activity from sun up to sun down. Upper left—View of first of eight hangar units to be built at field, taken from municipal airport's administration building. Upper right—Students just in from their instruction flights watching another fledgling try his wings. Center—Four of the training planes on the line ready for the morning flight. In the oval one of the girl students is demonstrating how miniature plane is kept on even keel in front of wind blower. Bottom—Student standing by while plane is fueled from Union Oil truck.

pleted the school at San Mateo will be almost on a par with the Mines Field school. The plans for the latter institution call for the construction within the next two years of eight hangars, similar to the first unit, administration buildings, dormitories to house 400 students, laboratories, shops, class rooms, and a meteorological department, which in addition to providing instruction for the students in interpreting weather reports, will furnish weather bulletins for planes operating from Mines Field.

Not all of the Curtiss-Wright schools will be as pretentious as the Los Angeles school. In fact, there are few in the country that will approach it in size.

It is the belief of Major Moseley that the new type of flying schools will accomplish more than anything else in making the public air-minded.

"The thousands of students receiving instructions in these schools now are assisting materially," he said, "in blasting the belief, which has prevailed heretofore, that a person to fly must possess certain superior physical qualities and a special mysterious something or other not common in the prevailing species of homo sapiens."

"Any average healthy person, with good eyesight and a normal amount of self-confidence and courage, can learn to fly," he continued. "Conditions are different now than they were during the war when we were just learning how to use and how to build planes. They are even considerably altered over what they were five years ago.

"Safety was not a factor then," declared the major, "but it is today. We have learned that aerial transportation can be made as safe as any other means of transportation; that it is no longer part of the game to risk one's neck to fly, any more than it is necessary for one to jeopardize his life every time he steps into an automobile."

In this connection he pointed out that the "Curtiss Fledgling," the training plane used for student instruction, is specially designed for safety. Its cruising speed is about 85 miles an hour and its landing speed under forty. It is perhaps an exaggeration to say that it will fly itself, but it is so constructed that it will maintain its equilibrium unless the student jams the controls. The cost of building a plane of this kind is considerably more than the cost of the ordinary two-place ship.

"But we find it is money well spent," said Major Moseley. "In providing the maximum amount of safety we give the student confidence while in the air, and this confidence aids materially in his final mastery of the ship."

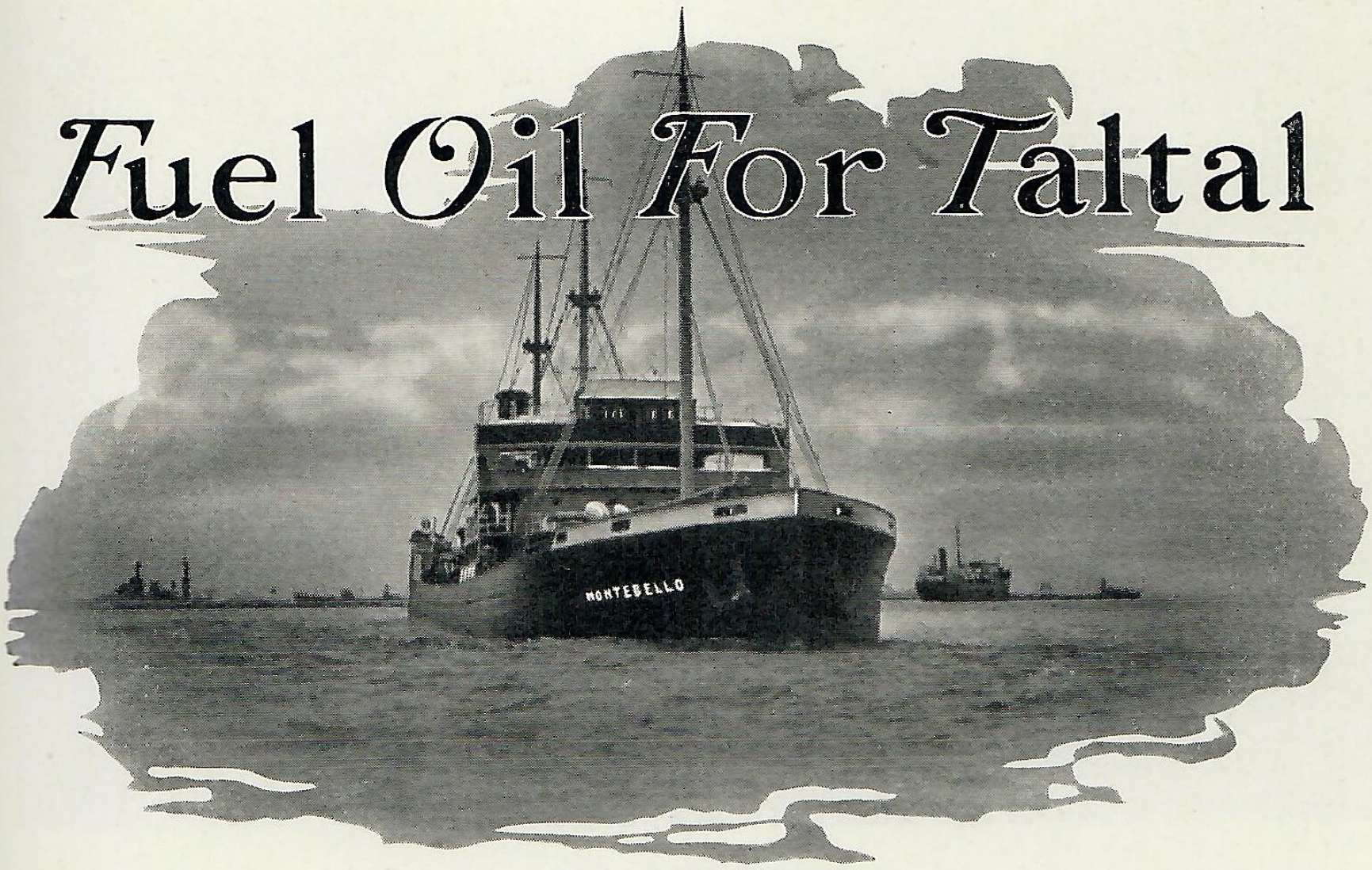
The same care is exercised by the Curtiss-Wright Flying Service in selecting its instructor personnel that is shown in the selection of its training planes. Virtually every instructor is an army or navy trained flyer. In addition every instructor is put through a special course at Detroit, where instruction methods are standardized. In developing its fledgling and advanced courses the Curtiss service has taken the best from the Army and Navy and foreign flying schools.

Capt. Peyton Gibson, chief of the corps of instructors at Mines Field, is a former Army flyer and an ex-air mail pilot. He learned to fly during the war and was an instructor for a time at Taylor Field, Montgomery, Ala. In 1927 he flew the night air mail run between Cheyenne, Wyo., and Pueblo, Colo., for the Western Air Express. This latter job is considered one of the toughest air mail assignments in the country.

Members of the faculty include Capt. Frank Jansen, former professor of nautical astronomy at U.S.C.; Lieut. W. A. Hammond, motors, rigging and aero-dynamics expert, and Frank Miller, Guggenheim Foundation meteorological technician.

There is no opportunity here for haphazard instruction. The skill and thoroughness of the instructors and the system under which they work will be passed on to the students and the result should be the development of thousands of skillful and reliable pilots.

Fuel Oil For Taltal



San Pedro breakwater fades in distance as tanker Montebello sets southward course with 90,000-barrel oil cargo.

TO THOMAS A. CURRAN, assistant superintendent of the San Francisco sewerage system, the Union Oil Company recently extended the privilege of a journey aboard the tanker Montebello from San Francisco to Taltal, Chile, and return. For a period of six weeks, from June 5 to July 16, Mr. Curran roamed the decks of the spacious tanker, chronicling impressions of the sea, its creatures, and the naive colloquialisms of the natives of Taltal. He has written a resumé of his trip down the coast, which follows:

"'Stand by, fore and aft,' in short metallic rhythm the sonorous voice of the mate resounded on the night air over the quiet waters of Suisun Bay, San Francisco.

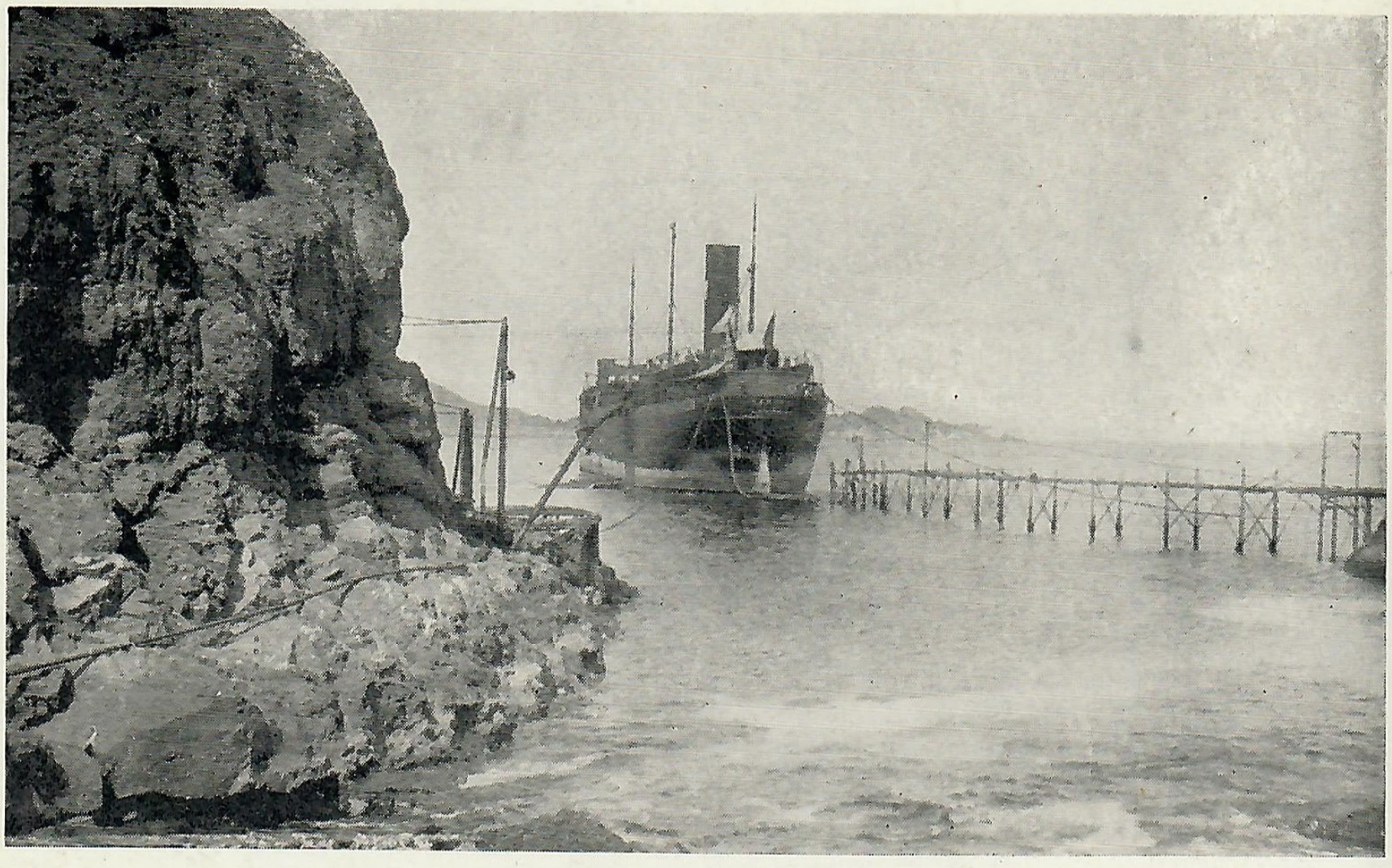
"'Let go everything, fore and aft.' 'Everything fore and aft,' echoed the second mate, in curt staccato, to the sailors moving about on the deck.

"There was a momentary pause, then the giant Montebello, her engines pulsing gently, swung about and pointed her bow down the bay. In darkness, we rounded Point Lobos, then headed southward into the Pacific, leaving only a disappearing legacy of foam in our wake.

"By noon the next day we sighted the breakwater of Port San Luis, where we were to take on our cargo of fuel oil for the Chilean port of Taltal. As we neared the shallow inlet, the maneuvering was a masterpiece of sea-craft. The five hundred-foot steel vessel, pivoting about on her anchor, swung gently against the frail wharf with no more impact than a fostering caress, manifesting the perfect coordination of master and chief. Simultaneously, with the echoing orders for securing the vessel, the process of purging the salt water ballast and loading began.

"The great ship sucked up her cargo of 90,000 barrels of oil and within eighteen hours was underway.

"Down the coast we pounded, passing the islands of Santa Barbara and then on to Santa Catalina. It was here we encountered our first flying fish, those interesting freaks of creation that rise from the water like a flock



Riding at Anchor

Union tanker securely anchored and tied in narrow inlet, where she discharges fuel oil for power house consumption.

of startled gulls, skim the surface with the speed of a rocket for a short distance, and then drop plummet-like into the water.

"A momentary pause at San Pedro for documents, and then we set our course seaward to catch the current and southwest trade winds. As the last that was America blended with the gray of the horizon, we were alone on the bosom of the deep, free to conjure with our own thought, to meditate upon this riddle of creation, this trackless, restless mystery; to dwell upon the lines of Byron: 'Ten thousand fleets sweep over thee in vain.'

"There was no monotony. As the days became weeks, each brought its compensations. The clowning antics of passing porpoises, the sinster dorsal of a curious shark, his black sail cleaving the water in a widening V; now a steamer along the horizon, and in the evening an ever-changing astral display. Then the thrill of crossing the equator for the first time. At last it arrived, the day, the hour, the second, and we were on the great imaginary divider, in the latitude of the Galapagos Islands, graveyard of many a sea wanderer, and the rendezvous of the bold corsair of another day. This isolated group is the habitat of the great turtle. We saw hundreds of them listlessly drifting about on the surface of the smooth water with sea birds perched upon their backs like 'Jarbo on a raft.'

"But it was not all calm and ere we left his sovereign domain, King Neptune 'did make the sea to rise,' and test the strength of the Montebello. As the great steel prow plunged forward, the protesting seas surged over the deck and, spending their wrath in turquoise rolls that feathered their edges with white, lacy spray, rushed madly to the scuppers. But as it came it departed, with the suddenness of all tropic storms, and again we were given our freedom to enjoy the new world opening before us.

" 'Below the line the murmuring trades
are calling,
The Southern Cross adorns the western sky.'

"Night after night we watched 'The Southern Cross,' the mariners' deity, that brilliant constellation of four stars

Port of Taltal

Rock-bound anchorage site at discharging pier. Note oil lines leading to pump house ashore.

that has held its spot in romance and story since men first went down to the sea in ships, descend into the Western horizon. The great ship piled the miles between us and the equator, till the warning winds, the messengers of the Cape, closed the deck dormitory and we returned to the comforts of our quarters.

"With the cooling of the air came the Cape Horn pigeons, an indescribably beautiful bird, created in black and white, a filigree of silver on a field of ebony. On their outstretched wings are delicate etchings like a design in rare embroidery. But it is a wasted beauty, for the birds are isolated creatures and are never seen near shore. With their departure came the pelicans and that greatest of all sea wanderers, the southern albatross.

"Our last night at sea was one of anticipation. In the fast failing light, we strained our eyes and our imagination for the first sight of land. It came in a flash, the flash of 'baja luce' far to the east. But night enveloped all else.

"June 27 dawned with clouds hanging over the eastern horizon like a curtain rolled back. Mt. Mijillones, with her sloping sides in vivid contour, broke from the haze, and at her side, Venus, more like a sun than a star, rose majestically in her solitary brilliance. Before us, nestling in a small crescent of the shore, lay our destination, the quaint little city of Taltal.

"Slowly and with caution we headed landward, pausing to take aboard the harbor pilot, a most grizzled and venerable patriarch, in the full attire of his race and station. Through a megaphone, in the vernacular of the sea, he directed the jockeying of the giant craft into the dockless and dangerous port.

"The anchors plunged to their depth and the vessel began maneuvering for position. Over the side, boats were lowered with hawsers to make fast ashore. These taut, the engines took up the slack and slowly we began to back shoreward while the anchor chains were paid out until all were as rigid as harp strings and the Montebello was secure.

"Through a cleft in the fortress-like cliff, a series of pontoons carried the

eight-inch hose line over the surf from the power house ashore to the ship's discharging pipe astern. The pumps started and the business of disgorging was begun.

"Our visit ashore was an agreeable surprise. Taltal is a veritable oasis in the desert. Yet, with a population of only 8000, it boasts of a large and modern hospital in the midst of its ancient surroundings, and schools surprisingly in keeping with the march of education. The characteristic plaza of beautiful flowers and palms, nourished with soil and water carried many miles, grows in the center of the city. In the evening, the elegantly uniformed Spanish band rendered beautiful, droning melodies of Chile. The pretty little city seemed secure in her confinement, surrounded as she is by a natural rampart of boulder-formed barren hills and sentineled by sombre condors that planed and swooped or perched on a pinnacle of rock, alert, vigilant.

"It is a land of allurement, of beauty, and progress, a boon for the Argonaut, this Chile."

Improved Equipment for New Wells

THE campaign for deeper and straighter holes has kept the designers of drilling equipment guessing for the past several years. Each new piece of equipment had to fit in with the older conglomerate of machinery, thus putting a curb on the more radical ideas. During the last month, however, Union Oil Company has inaugurated a layout for its new Santa Fe Springs wells that definitely discards much of the equipment which has held over from the days of cable tool drilling, and at the same time materially reduces machinery costs. As one man put it, "this layout marks the passing of the old 'standard end'. From now on our wells in this field will be 100 per cent rotary rigs."

However, in doing away with the standard end, the newly designed equipment makes use of the old three-speed draw works that was growing obsolete and about to be discarded. The old draw works have been cut down in size materially and reduced to two speeds—low and high—one to carry a heavy load out of the hole and the other for bailing or swabbing.

E. P. Tallant, standardization engineer, is credited with working out the new design. This modernized machinery, with the strengthening of the rig and the tool joints, will greatly facilitate deep drilling. It will be used in the fourteen wells now being started at Santa Fe Springs which are destined for the Hathaway sand, reached at a depth of approximately 8 000 feet. With this new equipment the field department is prepared to carry its quest for deeper oil sands to 10,000 feet, if need be.

The concrete foundations being put in for the new rigs resemble the groundwork for a height limit building and the excavations for the "cellars" look adequate for bargain basements in our uptown merchandizing emporiums.

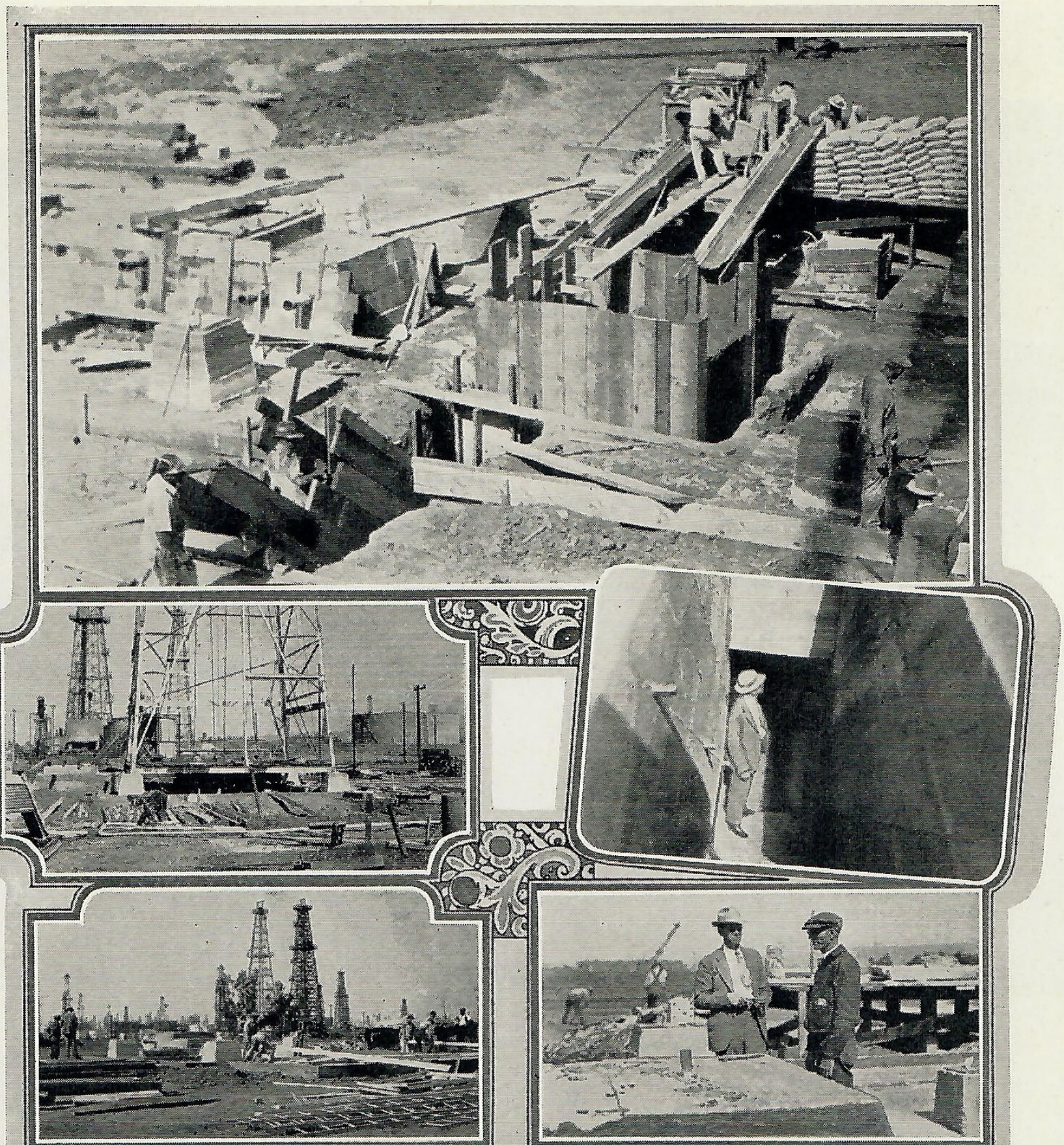
The other day at the "Springs," while we were standing beside a steel derrick which was growing rapidly upward under the guidance of a small crew of skillful rig builders, our host, Mr. Tallant, began pointing out the changes that are being wrought in the new drilling equipment.

"Here," he said, "is the concrete foundation for the heavy duty twin engine. Between it and the rig and projecting under the edge of the derrick floor is the foundation for the four-speed draw works. Nothing very radical there, just heavier foundations to cut down maintenance of machinery. Directly opposite is something new. That concrete slab will be the base for a small twin engine and one of the old three-speed draw works, converted to two speeds. That will take the place of the calf wheel, bull wheel, sand reel and standard engine that formerly made necessary the construction of the old standard end for every derrick.

"This slab to one side of the main engine base is for the two mud pumps. They will be set side by side with the mud ends right next to the mud pit. That cuts down lift and vibration from 'short-stroking'.

"Over on the other side is the pipe rack, with the walkway in the middle, where the boys can get at it without laying skids over the driveway. Pipe can be loaded onto the rack from either side.

"The whole layout is on concrete—about 800 sacks of cement go into the foundations, cellar walls and stairway. We will make it all back in better operation and less wear and tear on men and machinery."



Preparations That Precede The Drill

Foundations for wells at Santa Fe Springs to be drilled to deep sands look like excavations for skyscrapers. At top—Pouring concrete for "cellar" and steps leading to it. Center, left—This is the way the concreted stairway to "cellar" looks when completed. Center, right—Rig rising on new compact concrete foundation. Bottom, left—E. P. Tallant, right, engineer in drilling division at Santa Fe, showing George Prussing, left, safety engineer, foundation used for four-speed draw works. Bottom, right—Rig crew laying first pieces for steel derrick.

Alert Bay on Aviation Map

ALERT Bay, British Columbia, has gone air-minded. While the tiny body of water may not be shown on a geographical map, it is listed on the United States Navy charts as a safe anchorage for seaplanes and among commercial pilots is tabulated as a half-way point and safe fueling location on flights from Washington to Alaska.

The sheltered bay is situated sufficiently close to the northeast side of Vancouver Island to find release from the ocean's varied moods, and, due to its southwesterly location along the land, is protected from severe winds.

Navy Amphibians Visit British Columbia City

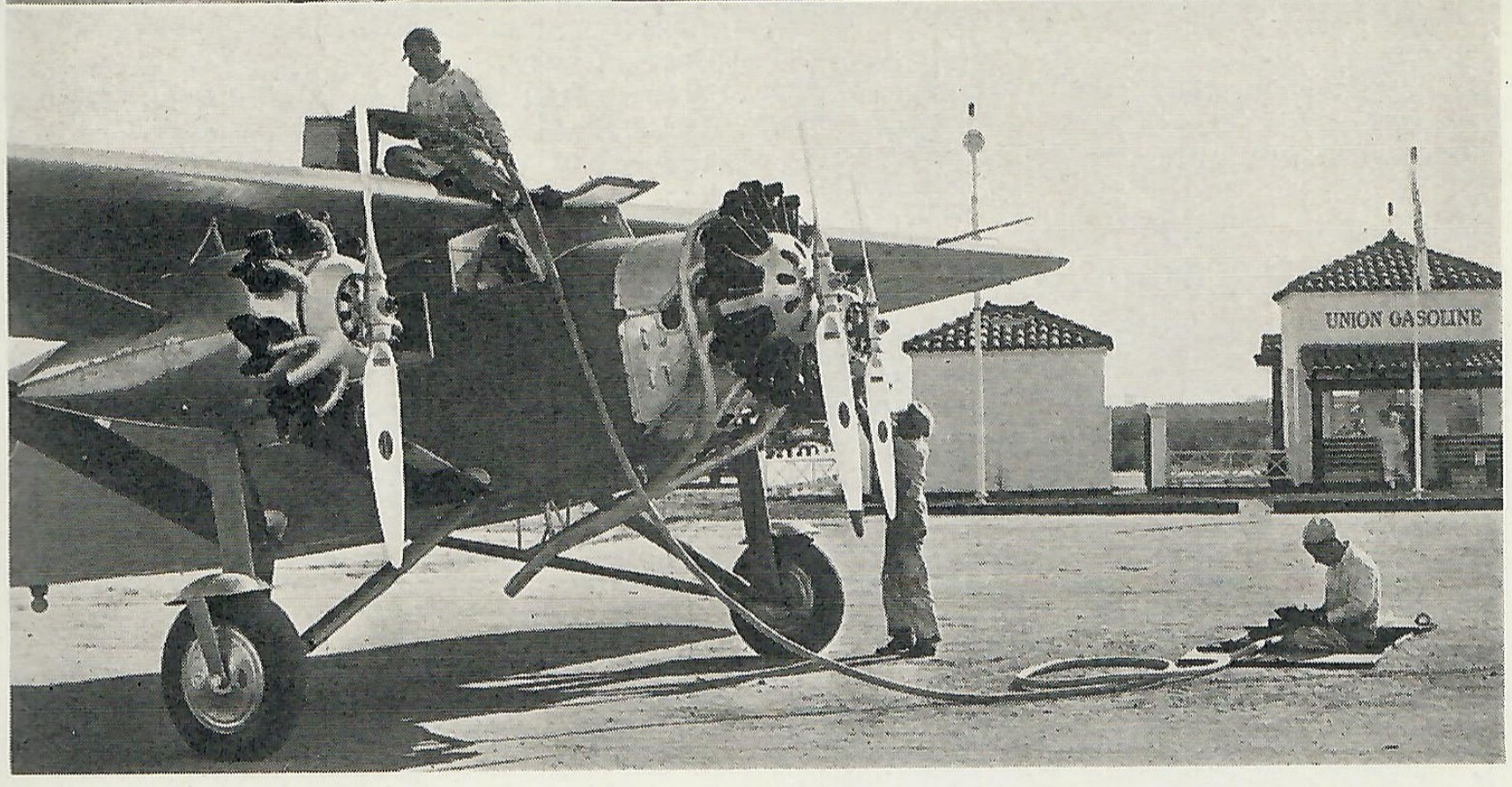
In the upper left, fueling transport plane of the Alaska-Washington Airways, Inc., at Union Oil wharf, and at right, one of the airways' planes, Queen of the Yukon, taking off from Alert Bay for Ketchikan, Alaska. Below, a detachment of United States Navy Amphibian planes, enroute from Alaska to the States, beached to undergo minor adjustments and to take on a supply of Union gasoline.

Hence it is ideally situated for planes flying between United States and Alaskan points.

It has become the port of call, speaking in nautical terms, for the transport and mail planes of the Alaska-Washington Airways, Incorporated, which inaugurated its service between Seattle and Ketchikan in April of this year. Since that time, Chief Pilot Anscel C. Eckmann has flown 65,000 miles across the north country. Frank Hatcher, mechanic for the airline, specifies Union Aero Ultra Heavy as a lubricant for the planes, and insists on it being stocked in Alaska for their use.

The Alaskan Aerial Survey detachment of the United States Navy stopped at Alert Bay for fuel and oil on their trip north last May, and again in September when they returned to the States after having completed the survey of southeastern Alaska. The detachment of amphibians created quite a stir among the natives when it swooped down in close formation and taxied up on the beach where it was fueled by James Ward, Union Oil agent at Alert Bay.

Service For Auto and Aircraft



Metropolitan Airport Site of Southwest's First Combination Station

Dedication ceremonies of the automobile-airplane station, opened October 5 for the Union Oil Company by Sanders Air Service, Inc., at Metropolitan Airport, Van Nuys, Calif., attracted virtually every type and size of aircraft to the field, including the Goodyear Rubber Company's blimp, shown at the top, which delivered tires to the station and took on a supply of fuel. Some idea of the crowds that thronged the airport during the two-day aerial program can be obtained from the middle picture. Below, fueling latest model Bach tri-motored plane at the service pit on the landing field side of the station.

NEWS OF THE MONTH

R. B. WALLACE DIES

R. B. Wallace, for more than twenty years an employee of the Union Oil Company, died at his home in Pasadena, November 7, after a brief illness.

Mr. Wallace was a native of Canada, coming to California thirty years ago. Previous to his service with the company, he was employed by Sherwin-Williams Company in San Francisco and later served the same concern in Los Angeles. He came into the employ of the company in October, 1909. At the time of his death he was in charge of accounting in the general sales department of the head office. He leaves a wife and three daughters, and a host of friends among the employees of the company.

UNION TEAM TAKES HOCKEY LEAGUE LEAD

With a three-to-two victory over the Sunfreeze Bears to their credit and a win chalked up for them over the Gilmore Lions by an identical score, the Union Oil Pirates are sitting on top of the Southern California Amateur Ice Hockey League.

The opening game of the league was staged before a large crowd at the Winter Garden Ice Palace. The session was fast and furious and required an extra period before the winner could be decided. Both the Pirates and the Lions held decisions over the Bears when they met November 9, and the battle for league leadership was a torrid session until the final whistle blew.

AD CAMPAIGN WIDESPREAD

The most extensive advertising campaign undertaken by the company this year was launched behind the new super Union gasoline when it was placed on the market on the Pacific Coast last month.

Every means of reaching the public was used, the campaign opening with a Pacific Coast broadcast October 4, which was immediately followed by the appearance of large ads in all the leading daily newspapers on the Coast. Motoring and society magazines and trade publications were utilized in reaching every possible motorist. During November the first billboard display advertising the company has used in two years will further amplify the story of the new winter fuel.

According to statistics compiled from circulation figures released by the Audit Bureau of Circulation, approximately 5 000,000 subscribers were reached through the newspaper and magazine advertising campaign.

LAND DEPARTMENT CHANGES

All matters pertaining to the acquisition of new oil leases, oil lands and oil properties in California will in the future be handled by the Geological Department, instead of by the Land Department, according to a bulletin issued Oct. 29 by Chester W. Brown, director of exploration and production. Under the new arrangement the Geological Department will have a free hand in negotiating and closing deals on promising oil property, and upon its acquisition it will be turned over to the Land Department.

To complete the organization, John S. Schalk has been placed in charge of oil land leasing under D. B. Myers, chief geologist. The following personnel has also being transferred to the Geological Department under Mr. Schalk, D. C. Ingersoll, George H. McCarthy, Albert S. Sales and Bessie Mohan.

The Land Department will be in charge of John L. Church as manager, and will continue to handle all matters pertaining to company owned lands and oil leases (excepting Sales Department properties) and all new oil lands and leases acquired by the Geological Department. The Land Department will also handle matters pertaining to citrus lands, holdings in Mexico, Venezuela, Colombia, properties of the Southwestern Ore Company, out of state matters, and damage claims connected with the field operations of the company.

In connection with the Geological and Land Department changes Hubert C. Ferry, supervisor of franchises and rights-of-way has been transferred to the Legal Department, and H. H. Hart, as supervisor of franchises and rights-of-way will report to William Groundwater, manager of transportation.

W. P. NO. 1 ON PRODUCTION

The Union Oil Company's Western Pacific No. 1, drilled on a section of land under a government permit in the Midway-Sunset field, has been placed on production with a daily output of approximately 30 barrels of 17 gravity oil. The well is about a half mile southwest of the nearest production in the old field. It was originally drilled to a depth of 4958 feet and then plugged back to 2200 feet, with 8⅝ inch casing set at 2110 feet. During preliminary tests the well produced about 45 barrels of oil a day and a considerable amount of water. To shut off the water it was found necessary to cement off some of the oil formation.

The company's Williams No. 1, drilled a mile or so northwest of the W. P. well, is being tested for production, and gives promise of becoming a producer.

POLY STUDENTS BUILD PLANE

Utilize Clark Field

Above, "Miss Polytechnic," four-place cabin plane designed and built by students of the state's trade school at San Luis Obispo, and H. G. Warren, head of the aeronautical department.

Clark Field, Union Oil Company airport at San Luis Obispo, in the past two months has been the scene of many flights by "Miss Polytechnic," four-place cabin monoplane designed and built by aviation students at California Polytechnic, state trade school at San Luis Obispo.

The initial flight of the trim little ship, which is the second students at the school have constructed, was made early in September. Powered with a Comet 150 horsepower motor and equipped with dual controls, the ship carried two men to 4000 feet with ease and performed like a veteran in a series of banks, turns, slips and stalls. The plane has a wing spread of only 38 feet. Its maximum speed is 110 miles per hour; it cruises at 90, and can land under 40 miles per hour. Recently the ship was flown to Sacramento and exhibited at the state fair, where it was awarded a cup and two ribbons for the best domestic aeronautical display.

Bert Bundy and Harold Cole, Union Oil employees, are enrolled in the school, and are gaining practical experience in the building and flying of aircraft. H. G. Warren is head of the aeronautics department of the school. Clark Field has been thrown open to the school and its students and "Miss Polytechnic" is being furnished with Union aviation gasoline and aero oils for her flights.

FOUR NEW PRODUCERS

Four wells, with a total initial production of 5108 barrels, were completed by the Union Oil Company during the month of October. Three of the wells were brought in at Santa Fe Springs and one on the Houchin lease in the Maricopa district.

The completions were as follows:

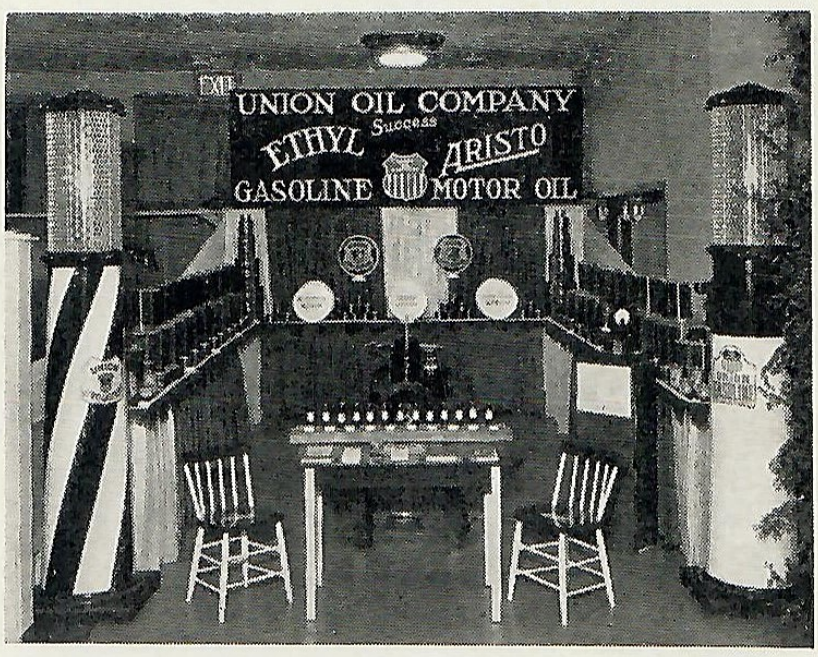
Bell No. 36, Oct. 4, 6850 feet deep, 2037 barrels, 33.6 gravity, 7 per cent cut; Bell No. 45, Oct. 21, 6983 feet deep, 2123 barrels, 33.5 gravity, 2 per cent cut; Bell No. 46, Oct. 22, 6845 feet deep, 863 barrels, 33.1 gravity, 9.2 per cent cut; Houchin No. 4, 5555 feet deep, 85 barrels, 16 per cent water.

FLOAT IN MARDI GRAS PARADE

Union Oil Company's float in the third annual San Bernardino Mardi Gras parade staged November 1, created much favorable comment among the more than 30,000 people who witnessed the event. A large truck decked out in Union Oil colors, with Miss Union Ethyl dressed in red, sitting on an improvised throne, comprised the float. The designing and decorating was done by employees of the San Bernardino plant.

The Mardi Gras this year was the most successful to date. There were 150 floats in the parade, which was more than two miles in length.

ETHYL BOOTH AT FORD SHOW



The Union Oil Company maintained an Ethyl demonstration booth at the Ford Motor Show, held in Seattle from Oct. 14 *to* 18, *with W. F. Cooper, Ethyl demonstrator, in charge.*

CALIFORNIA OIL STATISTICS, SEPTEMBER, 1929

Prepared by American Petroleum Institute, Pacific Coast Office.

PRODUCTION

(Figures of production and stocks are in barrels of 42 gals.

DISTRICT	BARRELS PER MONTH	DAILY AVERAGE Sept., 1929	Aug., 1929	Sept., 1928
Kern River	505,198	16,840	15,338	5,833
Mount Poso	214,618	7,154	5,276	286
Fruitvale	56,553	1,885	1,948	348
Round Mountain	34,162	1,139	730	112
McKittrick	136,053	4,535	4,650	4,937
Midway-Sunset	2,041,086	68,036	66,436	72,858
Elk Hills	523,199	17,440	17,436	21,054
Lost Hills-Belridge	128,688	4,290	4,070	4,035
Coalinga	287,110	9,570	10,014	10,476
Kettleman Hills	185,804	6,193	4,042	.....
Wheeler Ridge	19,868	662	650	907
Watsonville	1,875	63	63	61
Santa Maria	118,110	3,937	4,286	4,983
Summerland	12,792	426	385	115
Elwood-Goleta	618,988	20,633	21,723	2,520
Santa Barbara	500	17	27	.....
Rincon	89,881	2,996	3,140	4,115
Ventura Avenue	1,849,034	61,634	62,040	54,313
Ventura-Newhall	149,212	4,974	4,906	5,695
Los Angeles-Salt Lake	44,764	1,492	1,557	1,482
Whittier	45,895	1,530	1,562	1,636
Fullerton (Brea Olinda)	384,354	12,812	12,386	17,057
Coyote	331,398	11,047	11,409	12,976
Santa Fe Springs	8,426,817	280,894	281,501	37,360
Montebello	281,580	9,386	9,822	11,535
Richfield	452,554	15,085	15,209	17,036
Huntington Beach	1,279,255	42,642	43,654	52,240
Long Beach	5,096,292	169,876	175,044	197,999
Torrance	392,147	13,072	13,349	16,543
Dominguez	249,306	8,310	9,390	10,682
Rosecrans	220,055	7,335	6,979	6,112
Inglewood	684,705	22,824	23,522	28,367
Newport	1,200	40	40	16
Seal Beach	1,188,755	39,625	43,876	26,244
Potrero	25,333	844	624	339
Lawndale	27,123	904	1,411	.....
TOTAL	26,104,264	870,142	878,495	630,272
August	27,233,353	878,495		
Decrease	1,129,089	8,353		

STOCKS

	Sept. 30, 1929	Aug. 31, 1929	Sept. Stock Increases	Sept. 30, 1928
Heavy Crude, heavier than 20° A.P.I., including all grades of fuel	110,812,803	109,213,315	1,599,488	97,690,674
Refinable Crude, 20° A.P.I., and lighter	40,711,584	37,776,164	2,935,420	17,730,034
Gasoline	15,223,742	14,990,912	232,830	11,351,695
Naphtha Distillates	3,287,087	2,877,322	409,765	1,255,309
All Other Stocks	10,149,606	10,193,955	*44,349	10,079,930
TOTAL ALL STOCKS	180,184,822	175,051,668	5,133,154	138,107,642

*Decrease

DEVELOPMENT

DISTRICT	New Rigs Up	Active Drilling	Completed	Daily Initial Output	Active Producing	Abandoned Wells Drillers	Abandoned Wells Producers
Kern River	3	7	5	1,090	1,118	....	....
Mount Poso	5	5	10	1,890	37	1	2
Fruitvale	1	4	1	125	8	....	....
Round Mountain	....	3	1	200	7	....	....
McKittrick	....	2	....	....	281	....	....
Midway-Sunset	9	33	5	3,875	2,138	....	....
Elk Hills	....	1	....	....	210	....	....
Lost Hills-Belridge	....	2	....	....	306	....	....
Coalinga	....	4	....	....	753	....	....
Kettleman Hills	2	31	....	....	3	....	....
Wheeler Ridge	....	....	....	....	33	....	....
Watsonville	....	....	....	....	6	....	....
Santa Maria	....	5	....	....	228	....	1
Summerland	5	4	1	150	92	....	....
Elwood-Goleta	3	7	1	3,750	12	....	....
Santa Barbara	....	1	....	....	2	6	....
Rincon	....	5	....	....	29	....	....
Ventura Avenue	2	29	5	7,956	182	....	....
Ventura-Newhall	3	17	2	285	512	2	2
Los Angeles-Salt Lake	....	....	....	....	316	....	....
Whittier	....	....	....	....	166	....	....
Fullerton	....	....	1	175	370	....	....
Coyote	....	2	....	....	205	....	....
Santa Fe Springs	10	175	28	78,510	490	....	1
Montebello	....	4	....	....	174	....	....
Richfield	4	9	3	532	280	....	....
Huntington Beach	....	9	2	260	546	2	2
Long Beach	18	76	17	11,398	974	....	1
Torrance	....	....	....	....	601	....	....
Dominguez	1	1	....	....	56	....	....
Rosecrans	....	....	1	275	104	....	....
Inglewood	1	....	1	180	227	....	....
Newport	1	2	....	....	3	1	2
Seal Beach	....	6	2	1,740	154	....	....
Potrero	3	4	2	2,600	5	....	....
Lawndale	....	....	....	....	7	5	....
Miscellaneous Drilling	11	142	....	....	....	11	....
September	82	590	88	114,991	10,635	28	11
August	118	598	64	106,710	10,489	28	14
Increase	36*	8*	24	8,281	146	....	3*

*Decrease

With Users of Union Products

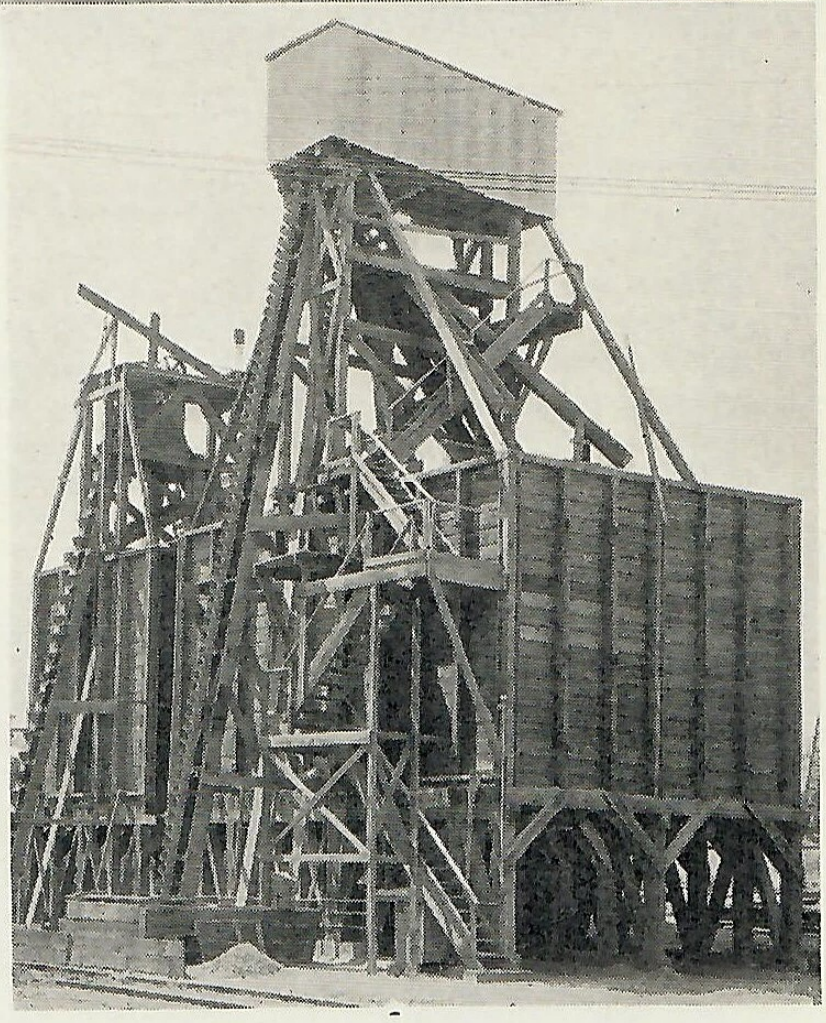
TAFT CONTRACTOR TESTS METTLE OF ETHYL

Union Ethyl gasoline is used exclusively in all the equipment, a portion of which is shown above, operated by the Fred C. Macomber Company, excavating contractor. At the right is shown one of the three large bunkers which the company utilizes for storage of rock and sand.

The F. C. Macomber Company, in the excavating contracting business in Taft, Calif., within the past five months has subjected Union Ethyl gasoline to tests in all its equipment, which comprises five automobiles, five trucks, one 60 horsepower Holt caterpillar tractor, and one crane operated by a four-cylinder, 60 horsepower engine. Fred C. Macomber has been so well pleased with results obtained from the premium fuel that he has specified it for exclusive use in the future.

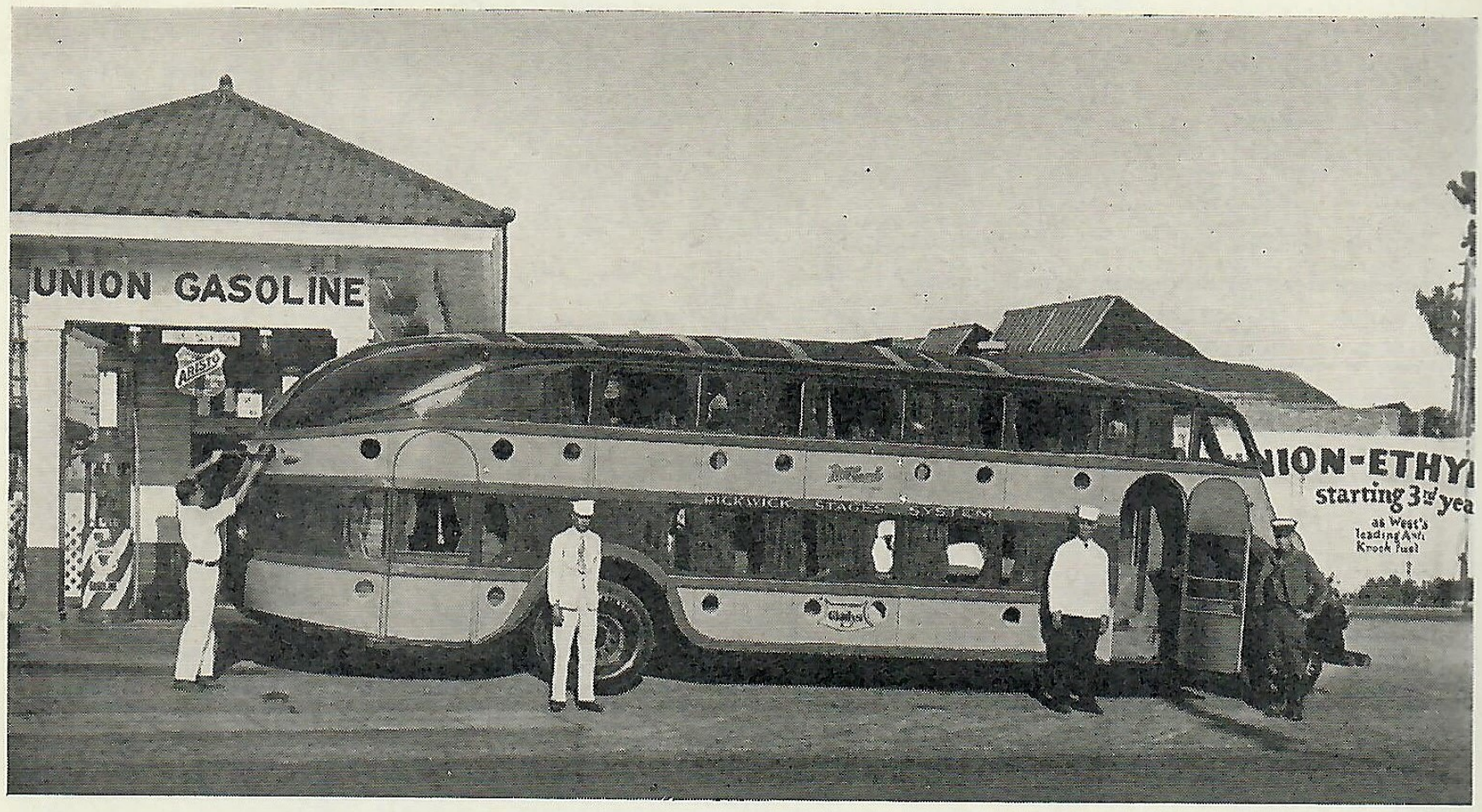
He stated his records show that throughout the equipment, more work had been done per day since starting to use Union Ethyl than at any previous time, and that operating costs per mile on automotive equipment had materially decreased.

In 1921 Macomber opened his business with a small plant consisting of one storage bunker with a minimum capacity of five cars, one truck and one automobile. His output for the first year was twelve cars of rock, twelve cars of sand, and six cars of cement. His plant today embraces three



large storage bunkers with a total capacity of forty-four cars of rock and sand, and a warehouse with a capacity of ten cars of cement. He is now handling as much as fifty cars of rock and sand and nineteen cars of cement each month.

PICKWICK PICKS UNION FOR NITE COACH SERVICE



For more than four months the Pickwick Corporation has been operating pullman coach service between San Francisco and Los Angeles with their Nite Coaches, one of which is shown above fueling at an Union Oil station. The huge busses have accommodations for 26 passengers, either night or day travel. They cover the 460 mile trip between the northern and southern California cities in 14½ hours. In addition to using Union gasoline, Pickwick is a supporter of other Union products, chief among them being Ballroll grease, which the maintenance department has found especially adaptable for wheel bearing use. With Ballroll grease in the wheels the busses are now being run 5,000 miles before being repacked, while with other roller bearing lubricants it is necessary to repack the wheels every 500 miles.

SINGAPORE SIGNS INCREASE FAR EAST SALES

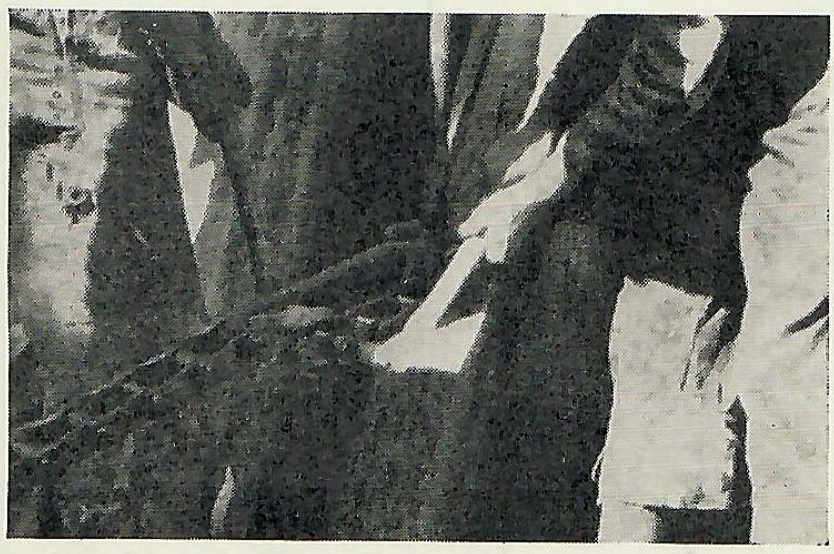
Sime Darby and Company, sole agents in Malaya and British North Borneo for Union Oil products, use modern occidental methods for catching the oriental motorists' eyes. To the right is billboard at Wall 153 Orchard Road, Singapore, and below, another sign telling the story of Union. This one is located at Wall 77 Kallang Road.

SAFETY *IN THE* UNION

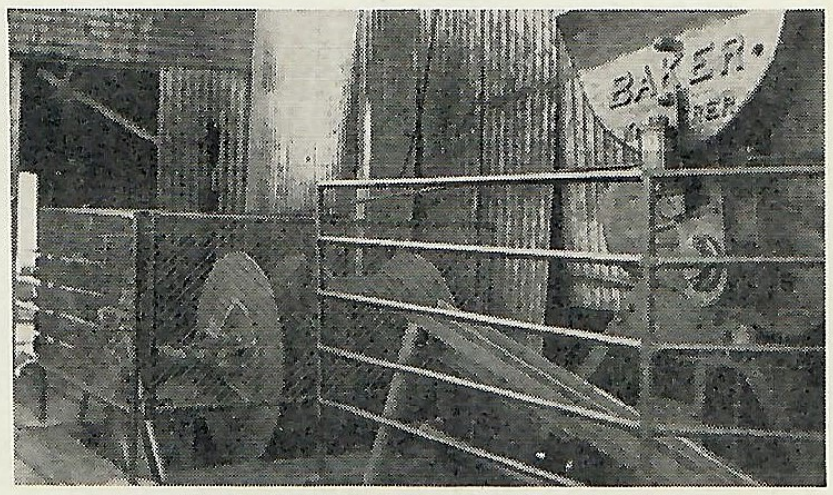
THE SOUTHERN DIVISION

The major operators have for years taken the safety of their employees seriously. They have willingly spent money for the mechanical guards over the heavy machinery used in drilling and pumping. But that stopped only the terrible, maiming injuries. The thousand and one daily injuries that sent men to the emergency hospitals were not the result of machinery accidents. Analysis showed clearly that they came through lack of training on the part of men who had rushed to the oil fields, led on by stories of high wages. Slips and falls, the improper use of tools and often the apparent disregard of the most elementary rules of caution for self or fellow worker were the reasons assigned. True enough, under the workmen's compensation laws, the operators were responsible for medical care and "compensation" in the form of money payments. But for years little or nothing was done to stop the accidents.

Then came the field-trained safety supervisors, men taken from the ranks of the drillers and foremen, men whose training made possible the most intimate sort of contact with those who were actually having the accidents. They had little by way of theory to work on but they knew that some drillers had few if any accidents among their crews, whereas others had little control over their men. On that one observation these men have built a really remarkable record. But let Si Delaney tell how they do it. Twenty years of drilling in West Virginia, Oklahoma and California have given Si a standing among oil men that is apparent whenever he is seen among them. He has that almost uncanny sense of knowing what is going on at the bottom of a drilling well which comes only from years of experience.



A rig hatchet is a poor tool to use on chain pins.



Sand reel and pitman guards on a pumping well.

"The start came when we made the drillers responsible for their men," said Si. "When it got around that a driller who let his men stand where they could get hurt or do stunts in the rig when they were supposed to be working, would be set back to rough-necking, some of the fellows began to watch their men closer . Then we had a mean accident one night and everyone in the field watched to see what was going to happen. The driller and the superintendent talked it over, man to man, and the driller left. It has never happened again. Instead, we now have drillers and foremen who welcome us safety men whenever we come onto the job. They have learned that we are there to help them and they listen to advice. Not only that, they pull up off bottom and shut down so that the roughnecks can go over the rigs with us to see that everything is shipshape. It only takes a few minutes, but think of what it means to those young lads to see safety made a matter of importance instead of a joke!

"You know there is a right and a wrong way of doing everything. Let's stop here at Bell 53 and have Jack Kewish show us how to mend a broken drive chain." We walked into the engine house to be greeted by a volley of 'Howdy, Si!' from the whole crew. Half the drill pipe was still standing in the derrick, so we made no bones about asking Jack to 'shut 'er down'.

"We used to have a lot of men hurt from flying steel when mending these heavy chains," the driller said, when we had explained our errand. "The pins in the chain are hard as glass and when you try to drive them in or out of the links with a rig-hatchet, which is also hard, something lets go and many a man has had a piece of steel driven into his body as a result. One man in this very field lost an eye that way. All shop men know that you should use a

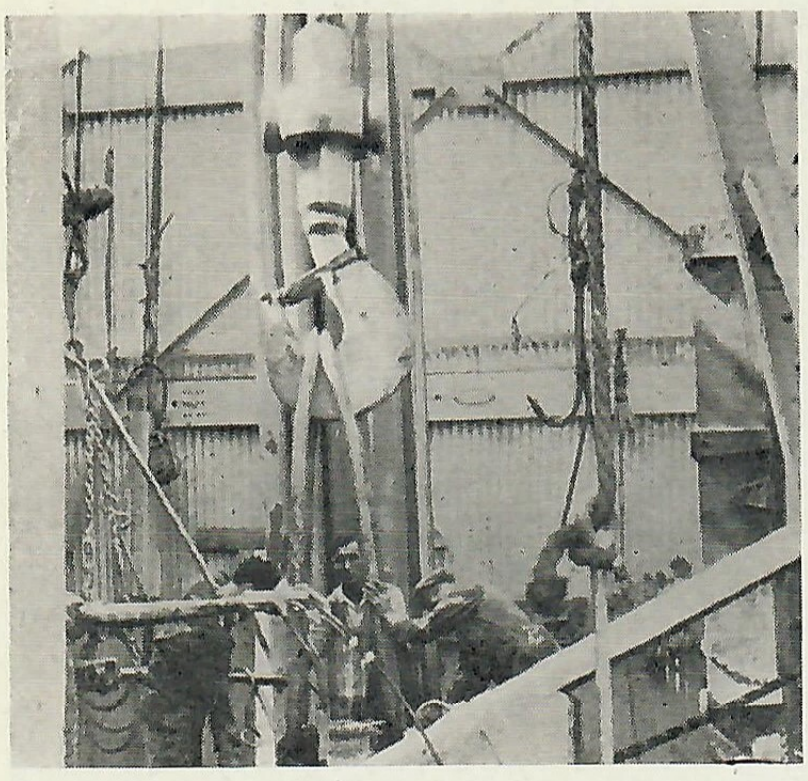
Si Delaney, Jack Kewish and Ray Judy.

soft hammer on hard steel and that is what we do. This ball-peen hammer has had the temper drawn. You can dent it but it won't chip. Just horse sense, but go around and look at the rig hatchets on most rigs and see how many of them have the heads chipped."

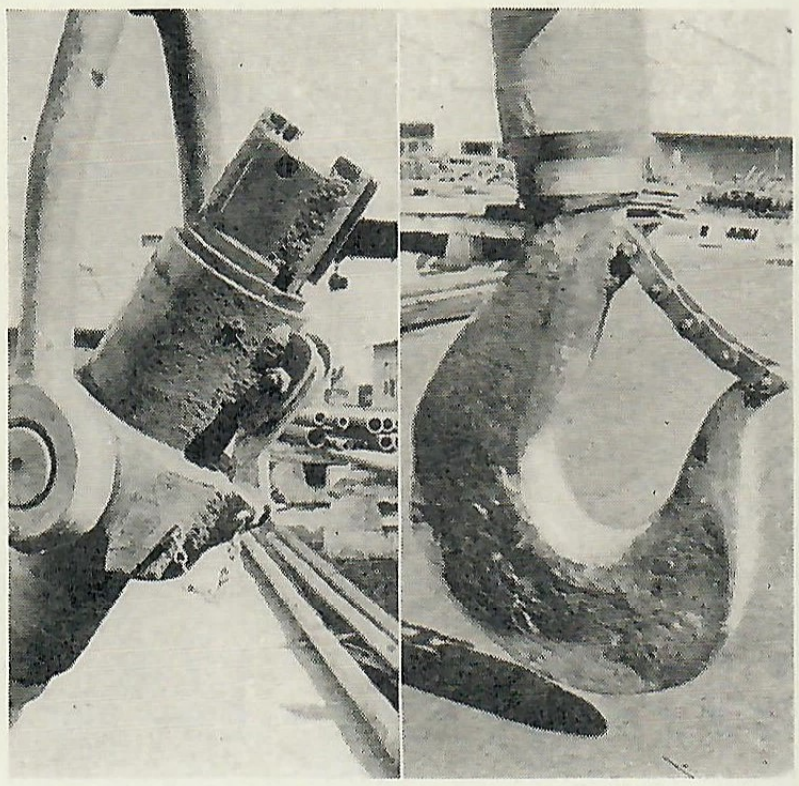
"Now that," said Si, as we were again on our way, "that looks like a little thing. But when we get up in our monthly meeting of drillers and tool pushers and one man tells of a little thing that he has found to stop these repeating accidents, it is multiplied by the number of men who hear about it and then again by the number of men each driller has under him and the little thing becomes mighty important.

"I told you the start was made when we made the drillers and foremen responsible. The next big step was making it possible for them to get together and talk over their problems. Right here in the Southern Division we are now holding monthly meetings in the Gas Department, the Construction Division, and on the Pipeline as well as among the drilling forces and the production men. Only the foremen, drillers, and other leaders can come to these meetings because there isn't room enough to bring in the crews, but Hilsinger brings all his truck drivers and shop men to his meetings. The superintendents run the meetings and when a good idea is sprung by anyone there, it can be put into immediate effect. There is no red tape about it. And if the idea is not so good, the man who made it is told what is wrong about it right then and there.

"What makes this job interesting is the fact that everyone is for safety. The superintendents are keeping us on our toes all the time. There isn't one of them that isn't sold. Bill Hay has shown that pipe liners can go a whole year without a lost time accident."



The steel strap bridle keeps the elevator links on the hook.



New wrinkles. Hobble for the big hook, in free position (left.) Latch for hook, made of chain (right).

REFINED AND CRUDE

Everyone has noticed that the Scotch are invariably good golfers, but to Wm. Groundwater goes the credit for the first satisfactory explanation of the fact. It's quite simple —the fewer times the ball is hit, the longer it lasts.

* * *

Brown (struggling with wire netting): "I say, Jones, do you know how to make a chicken-run?"

Jones: "Yes, clap your hands and say 'Shoo!!'"

Orcadian

* * *

Don Tatman, who handles the cablegrams in the Transportation Department, complains constantly of a code in his head.

* * *

Then there was the Scotchman who ordered asparagus, and actually left a tip.

* * *

From the Texas Ranger we reprint the following beautiful little poem, which we are sure will prove an inspiration to our readers:

Little Benny had a fit,
Mother didn't notice it,
It didn't hurt the child a bit,
In fact it was a benefit.

* * *

When you see a crowd watching two men working on an excavation, don't conclude that they are just a bunch of idlers. They are probably the bosses of the two men.

* * *

And don't forget that the word "judicious" has no reference to Hebrew chinaware.

* * *

According to Bill Standard—once a golfer always a golfer. Then he goes on to tell of a pill chaser who was sentenced to be hanged. True to his creed he requested a few trial swings before the job was started.

* * *

Vaudeville Singer: "And for Bonnie Annie Laurie I'd lay me down and die."
Listener (rising): "Is Miss Laurie in the audience?"

Boston Transcript

* * *

Dave Cain says "First impressions are the most lasting." Apparently someone mashed Dave's fenders too.

* * *

Our next door neighbor is building a new home. He went off all excited this morning to be measured for the breakfast nook.

"DAT WILL BE HELL"

A newly-appointed pastor of a negro church faced a packed audience when he arose to deliver his sermon on this burning question:

"Is There a Hell?"

"Bredern," he said, "de Lord made the world to go around on, and He put one axel at the north pole and one axel at the south pole."

"Amen!" agreed the congregation.

"And the Lord put a lot of oil and grease in de center ob de world so as to keep the axels well greased and oiled."

"Amen!" agreed the congregation.

"And then a lot of sinners dig wells in California, and steal de Lord's oil and grease. And they dig wells in Kentucky, Louisiana and Texas and Mexico and Russia, and steal the Lord's grease.

"And some day dey will have all of the Lord's oil and grease, and dem axels is gonna get hot. And then dat will be hell, bredern, dat will be hell!"

* * *

All choking aside, the starting qualities of the new "Super" Union Gasoline gives us an extra ten minutes in bed every morning.

* * *

Grace—"Are you in town for good?"
Percival—"No, I'm in the navy."

Judge.

* * *

The proper handling of a gauge tape is a matter that is not easily acquired—it has to be taut.

* * *

In these hectic times, the only real rest we get is while we are waiting for the red light to change to green.

* * *

And now, another poem, this time from College Humor, entitled "The Poet's Love":

My love is pure as the morning dew,
She doth trust me as I doth trust her,
And no wild storms of jealousy
Need ever in my bosom stir.
My love is like a fragrant flower—
P. S.—I got to stop. I just seen her going down the street with that—Joe Ward.

* * *

In conclusion we would beseech you to emulate the example of the young lawyer and work with a will.

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