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FLIGHT ABOVE DAYLIGHT

NUMBER THREE was squirming again. She had fidgeted the last two hours, all the way from San Francisco to Cheyenne, as a matter of fact. The hostess left her seat at the rear of the plane.

"May I get you something, madam?" she inquired. "Maybe a little tea, or some coffee—"

"Tea! I don't need tea! I want to see where we're going!"

"I'm afraid that's impossible just now—you see, we're flying at an altitude of 30,000 feet, in the perpetual dusk zone, and even if there were no fog bank below us I'm afraid you couldn't see the ground. But don't worry, you'll be in New York in another four hours."

"Well, all right—but I don't want any tea!"

With an assuring smile the hostess retired again to her corner. That was always the way with new passengers. Taking an air trip for speed and then expecting to see everything on earth when they were in the sub-stratosphere. "Oh, well—" she returned to her magazine.

Four hours later the plane landed at New York, just six hours out of San Francisco.

Impossible? Not if present experiments being conducted by numerous agencies are as successful as they promise to be. If all goes well, within the next few years passengers on one coast will be able to have breakfast, wash the dishes, catch a sub-stratosphere plane, and be on the other coast in time for a tea dance.

But the only way that this will be possible is by navigation through the upper reaches of the atmosphere, or, more correctly, the sub-stratosphere, at altitudes of 12,000 to 30,000 feet above the earth. In this section of the "air" the atmosphere thins out until it reaches

the stratosphere proper, where there are no clouds, no moisture, no dust, and where the sky darkens even in broad daylight.

Higher speeds may be attained in the sub-stratosphere because of the thinner air, and less resistance to the airplane. Then, too, there are no atmospheric conditions which would tend to retard the plane, such as the high winds and gusts which are frequent in the lower regions. The darkness of the sky is caused by the absence of particles which reflect the light in our lower air stratum. Light is visible only because of its reflection on other objects, and at the high levels there is little or nothing which would throw back the rays. Hence, the sky darkens.

It is in this area, where there is a gradual thinning out of the air, that the next step in air navigation is to be undertaken. At the very outset of the conquest the aircraft industry is confronted with a physiological problem which it must overcome if it is to extend its commercial domain above the 12,000-foot level. Actual case studies prove that flying above this altitude produces ill effects in many cases; in fact, in a majority of instances passengers become ill, and at higher altitudes even lapse into unconsciousness as a result of breathing the rarefied atmosphere.

And so some means must be devised to protect the passengers from feeling the effects of breathing rarefied air, and also to protect the motors during their flights in the thinned atmosphere.

Speed—and more speed—is, of course, the big incentive to flying in the sub-stratosphere. But what are other advantages? In the first place, we may learn something of what it is expected to accomplish by scrutinizing the meaning of the word "stratosphere" itself. The stratosphere, we find, is "a region of constant conditions," and in this area there is naturally less air turbulence to create the bumps or gusts so distressing to the average traveler in the lower regions. So that this "region of constant conditions" not only offers to the passenger greater speed and comfort, but also tends to a greater all-round operating efficiency.

Since 1920 the U. S. Army, Auguste Picard, Wiley Post, and, more recently, the Lockheed Aircraft Corporation, have been conducting experiments which are designed to make navigation of the sub-stratosphere possible. By these experiments certain more or less definite plans of action have been determined, all of which are based on the same problem—furnishing the personnel and passengers of the plane with sufficient available oxygen during their excursion into the upper regions.

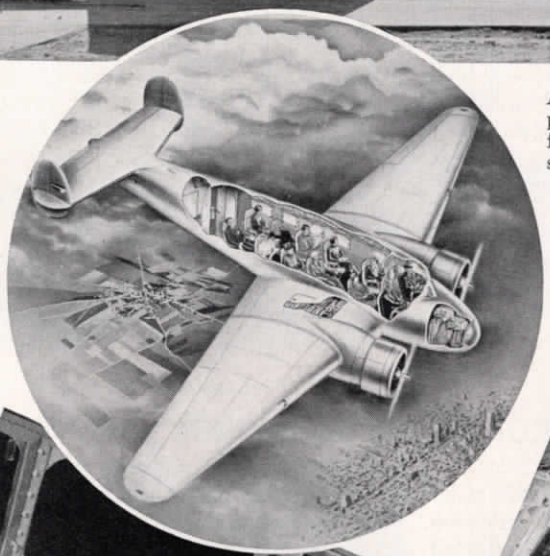
Why, you ask, is the term sufficient "available" oxygen used? Well, in that term is explained the important physiological problem now under consideration. The proportion of oxygen present in the atmosphere of the sub-stratosphere is exactly the same as is present in the air at sea-level, but it is not available to the human body, because of the low air pressure at such a height—insufficient pressure, in fact, to overcome the internal pressure of the human respiratory system. At sea-level the external pressure is as great as the force within the body, so that the air may be easily induced to enter the lungs. At high altitudes, however, the internal pressure is much greater than that which is being exerted from the outside, and so it is hard for the air to enter the body, hence the descriptive word "unavailable." This accounts for the ill effects on the passengers, none of whom can long stand the gradual diminishing of the oxygen supply.

Working from this physiological basis experimenters have concluded that there are three ways in which this oxygen may be increased at high altitudes and so become available. First, the atmosphere may be compressed; second, the oxygen percentage may be increased so that, even with the pressure differential, the passenger would be able to secure enough to fulfill the needs of the body, and, third, a combination of both methods may be used.

These conclusions have divided exponents of sub-stratospheric flight into two schools, one which believes that only the amount of oxygen must be controlled, and the other which holds that both the pressure and the oxygen must be supervised. Experiments following both trends of thought have been conducted, and as a result the second theory has now attained principal acceptance.

The first school, however, is not without its achievements. In fact, flights at high altitudes have been made successfully by injecting an amount of liquid oxygen into the cabin of the plane, and, according to doctors' reports, the passengers suffered no ill effects on their test flights. No sustained tests were made, however, and, as the air in the cabin tends to become more and more saturated with carbon dioxide as it is used, the final proving of the theory remains in some doubt.

Above: One of the new Lockheed experimental planes similar to that built for testing flight conditions in the sub-stratosphere—at altitudes of from 12,000 to 30,000 feet.



Circle: A diagrammatic sketch of the projected airplane to be used in zones above the present commercial air lanes.

Below: The luxurious interior of a cabin transport. In the sub-stratosphere plane this cabin will be entirely pressure sealed for the comfort of passengers in high altitudes.

Above: Just a few of the things to which the pilot must pay attention.

Right: Construction on the hull of a new plane proceeds rapidly.

Above: One of Lockheed's regular transports makes a pretty picture poised for the take-off.

Photos Courtesy Lockheed Aircraft Corporation.

So in our plane of the future we shall probably find that inside the cabin will be air pressure, equal to that below 12,000 feet altitude, while outside the rarified air will be of such low oxygen availability as to preclude comfortable existence. But this will place a great outward strain on the plane. To accommodate this strain—the internal pressure forcing the walls outward—the new planes will be designed with a safety factor of three, which means that the walls will be built to withstand at least three times the stress for which they ordinarily are designed.

When will this become possible—this safe flight through the stratosphere? It is already possible, and, with further improvements and tests, should soon emerge from the experimental stage into the realm of commercial feasibility.

The Lockheed Aircraft Corporation recently delivered to the U. S. Army the first plane of the new type—the XC-35. After rigorous tests this machine will be improved and, as soon as possible will be utilized for passenger transportation.

Only about a month ago the big silver ship, cruising at an altitude of 28,000 feet, released a nation-wide broadcast from the smooth upper air, while an atmospheric haze and bumpy gusts prevailed in the lower strata. And it may be but a short while before we can walk into the regular air terminal, board the sub-stratosphere special for New York, and, after the pressure-sealed door has been closed behind, settle down comfortably for a five or six-hour trip across the continent via the new airlanes, soaring at high altitudes to our destination, pioneers of a new airlane.

METROPOLITAN AQUEDUCT

SLASHING its way across the 242 miles between its headwater and its distribution point, the Metropolitan Aqueduct, started in 1932, is fast nearing completion. From the main supply reservoir at Parker, Arizona, the water will be pushed by pumps into siphons, across flatlands through an open canal and concrete-covered conduits, and under mountains through huge tunnels to its distribution point at Cajalco, near Riverside.

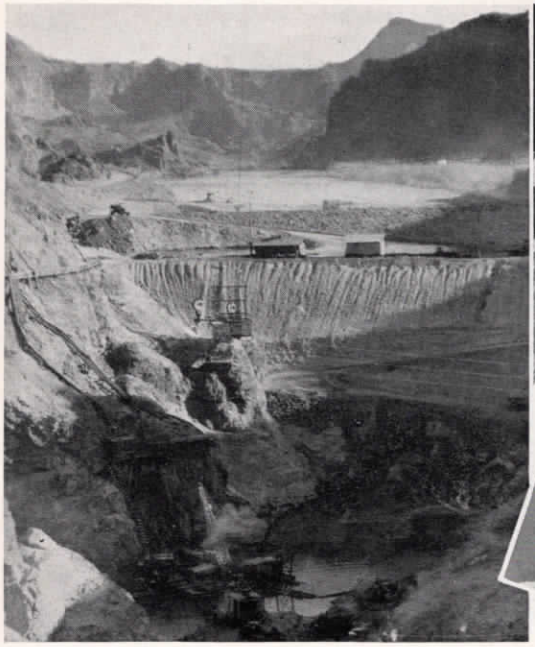
The canal is designed to supply enough water so that the supply in the huge underground reservoir that underlies the coastal plain may be maintained at a normal level. At present, more water is being taken from the general area of the metropolitan basin than is being returned through rainfall and other natural means. In fact, 200,000,000 gallons more than is returned to the supply is being used daily. This means that at least that amount must be brought through the aqueduct every day if the supply is to remain normal. Actually, the project is designed to furnish, if necessary, one billion gallons daily to users on the coastal plain.

Within this coastal plain, or metropolitan area, there are 2,200 square miles of first-class habitable lands upon which citrus fruits and semi-tropical vegetation grow luxuriantly. But picture that area without water. Imagine the effect that this continual overdrawing of nature's resources would have on lands that are now covered with pleasing and profitable vegetation.

Against this eventuality the aqueduct is designed. Augmenting the present supply from a practically inexhaustible source, the Colorado River, the aqueduct will provide sufficient flow to guard against all exceptional future demands.

At the present time only twenty miles of the waterway which winds across the territory remain to be completed. Excavation for Parker Dam on the Colorado River has started, and actual construction work will begin early in October. Work has already started on Cajalco Reservoir, from which distribution lines will carry the water to the thirteen cities comprising the Metropolitan Water District. Other cities are expected to be added to the district if they so desire and if necessity so warrants.

The need for the Colorado River Aqueduct, according to municipal engineers, has been a vital one for some years, but when an ever-increasing amount continued to be drawn from the available supply, the necessity of obtaining an additional source became so urgent that thirteen cities on the coastal plain banded together to attempt to bring water to the coastal basin. These cities, Anaheim, Beverly Hills, Burbank, Compton, Fullerton, Glendale, Long Beach, Los Angeles, Pasadena, San Marino, Santa Ana, Santa Monica, and Torrance, formed the Metropolitan Water District

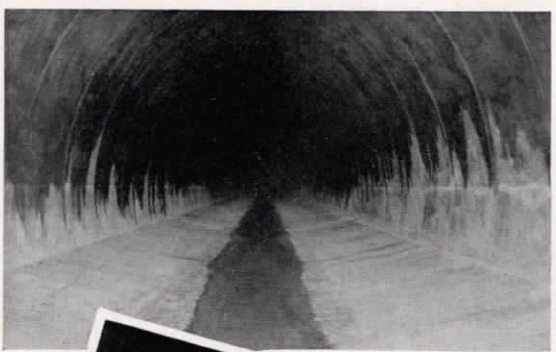


Above: The south cofferdam under construction.

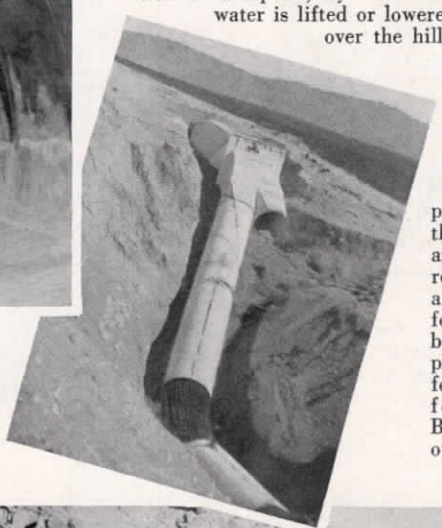
Left: Frank Crow, chief engineer for the Aqueduct. Crow was in charge of the building of Boulder Dam.

Above: The north cofferdam.

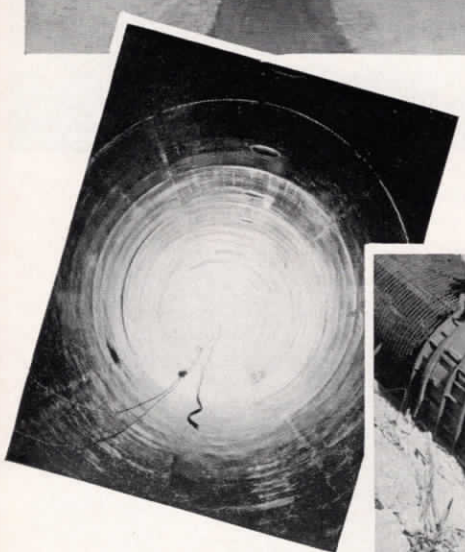
Below: Interior view of completed conduit.



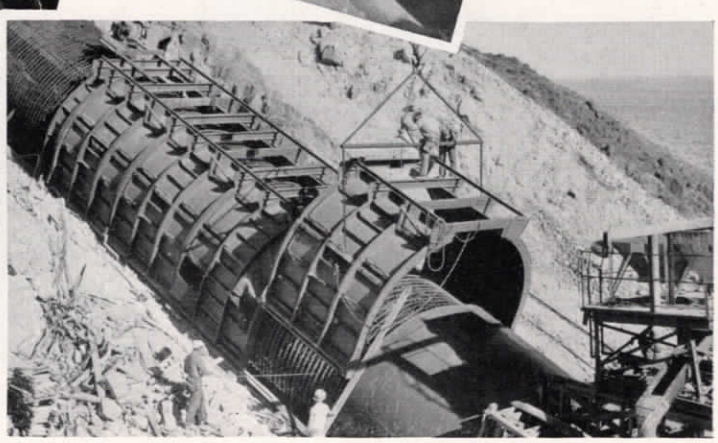
Below: Partially completed section of a siphon, by which the water is lifted or lowered over the hills.



Below: A difficult section of siphon. Note that the inside forms are set under the reinforcing steel and an outside form is ready to be dropped into place. Then the forms are ready for concrete. Both inner and outer forms have been oiled.

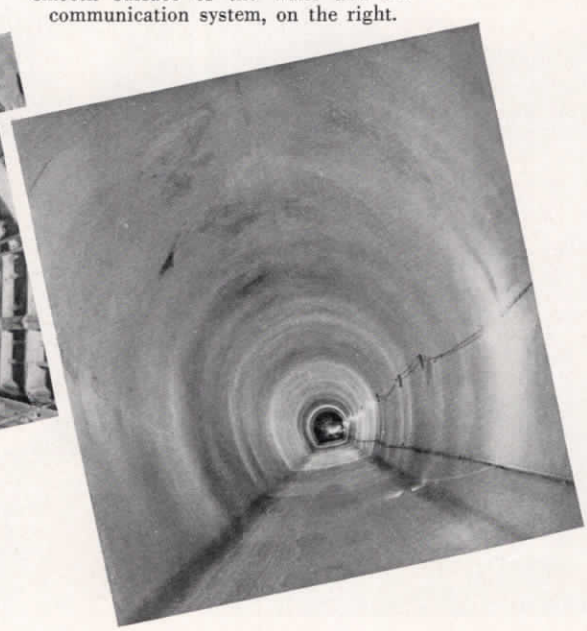


Above: Looking downward through a completed siphon.



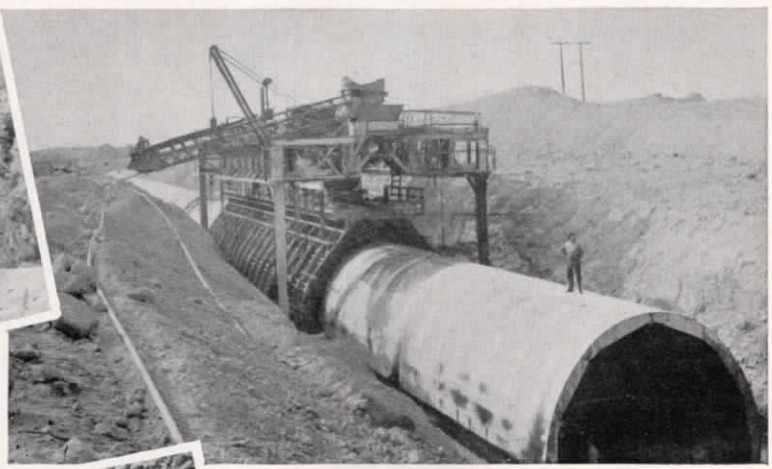
Below: Completed tunnel. Note the smooth surface of the walls and the communication system, on the right.

Above: Forms set and ready for the cement to be poured over them.

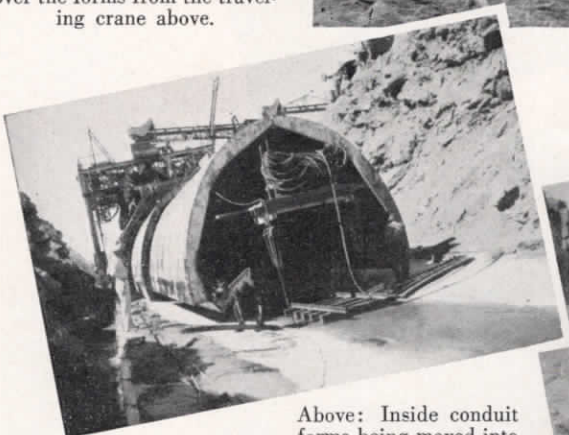


Below: The inside forms are set and the outside ones are ready to move into position.

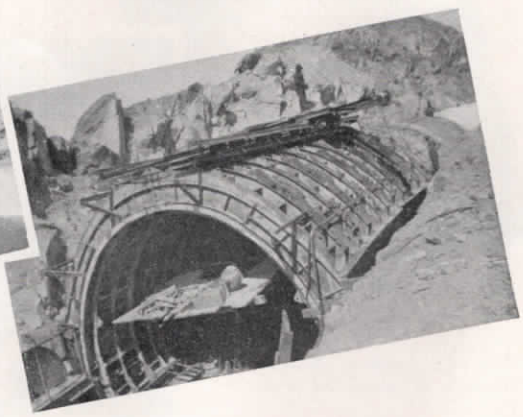
Above: This picture shows how the concrete is poured over the forms from the traveling crane above.



Below: Another type of conduit form.



Above: Inside conduit forms being moved into position to have concrete poured over them. These forms must be thoroughly oiled before the cement is shaped on them.



because it was realized that a project of such magnitude could not be financed by any one city alone. The district is governed by a board of directors, composed of at least one director from each member city, with voting power being distributed on the basis of one vote for each ten million dollars assessed valuation—no one city to have more than fifty per cent of the voting strength of the board.

All construction work must be done by the government, because Parker Dam, which will impound the water for the use of these cities, is situated on an interstate boundary. The financing of the project, however, is being done by the Metropolitan Water District. Frank Crow, of the Reclamation Service of the Department of Interior, who was in charge of the building of Boulder Dam, is general superintendent for the project.

No level floor was available for the aqueduct path, and there are constant sharp deviations in elevation along the route finally chosen as the most suitable and economical. These differences in elevation have necessitated ninety-two miles of tunnels, and, because in some portions of the pathway it would not be advisable to allow the water to flow through an open canal, approximately eighty-five miles of cut-and-cover conduit, or large covered canal, has been built. From an elevation of 450 feet at the river the water is first raised through siphons to an altitude of 1,000 feet, from whence it flows through the first of a series of tunnels. Farther along the route the water is raised to an elevation of 1,807 feet before it starts its gradual downward course. The final resting place of the water from the Colorado River is at an altitude of 375 feet at the end of one of the local distribution canals.

Tunnels and canals along the main route are 16 feet in diameter, and the siphons vary not only in size but in shape. There are three general types of these, rectangular, double-barrel cylindrical, and single barrel round. Six years was estimated as the time necessary to finish the aqueduct, and the delivery of water is scheduled to begin early in 1939. Work on the 175 miles of local distribution facilities is being undertaken by the individual communities, and is expected to be completed by the time the main aqueduct reaches completion.

An interesting fact in connection with the project is that thousands of gallons of a new-type oil are being used in its construction. This product, known as Unimold Oil, was developed in the laboratories of Union Oil Company at the instigation of H. E. Bramston-Cook, industrial specialist, and is made at the refineries in a number of grades, especially adapted to meet varying climatic conditions.

The use of oil becomes necessary in the casting of the concrete, which must have a smooth inner surface so that the resistance to the flow of water is reduced to a minimum, thereby increasing the effective capacity of the system and reducing operating costs. If the forms are allowed to stick to the concrete, they tear jagged chunks from the wall as they are collapsed for moving to their next position, and these holes must be filled and glazed—an expensive process—before the section is ready for the flow of water.

When construction first started on the aqueduct it was thought that some one of the regularly manufactured oils would be satisfactory, but, because of the extremes in climate and the rigors of construction in the project, it was found that the forms continually stuck to the concrete.

Of the 242 miles comprising the aqueduct proper, 175 miles require the use of form oil. Because of the large quantity involved, and the particular characteristics required to accomplish the purposes of the product, it was deemed advisable to develop a special commodity. An intensive study of the requirements led to the eventual manufacture and use of the new form oil—Unimold.

The tunnel forms are in 24-foot sections, so constructed that they fold inward, away from the set concrete and can be moved forward when collapsed through the other forms by means of a form-carrier, resembling a small railroad handcar, to be reset in a new location. They are made of steel, and the outside surface must be slick, as the concrete is poured over it to form the conduits and line the tunnels. Enough sections of forms are used so that the pouring of concrete can be a continuous process, and, as the concrete pump machine fills up behind one form a new one can be slid forward to provide for the next section. The concrete is allowed to set for about eight hours before the forms are moved.

Several methods of applying the oil to the forms have been used: airsprays, mops, and application with a rag by hand. The last means, almost without exception, has proved

most efficacious, because it results in a more thorough job of oiling. In the conduit and siphons two sets of forms, an outer and an inner arch are used, and, in these instances it is necessary to oil only the inner form. The average amount of oil used in the tunnels is 53 gallons for each 350 to 450 feet of lining. Conduits use about 53 gallons per 150 feet.

Housed in villages constructed especially for their temporary residence, eight to ten thousand men are now employed on this gigantic project, which is designed to free residents of the coastal plain from the fear that they might at any time have insufficient water to maintain their position as one of the great supply centers of the world.

MISSION LA PURISIMA

THE warm California sun beat lazily upon the remains of old Mission La Purisima as the swift winds of the Lompoc Valley bent the bright heads of the wildflowers about the wistful ruins. Little of the original mission was left—only the walls of one building, several foundation structures, and the old well-house. This was all that remained to mark the spot which was once the home of 1,500 Indians, who, under the guidance of the padres of old Spain, practiced their simple crafts in piety and comfort. Nothing further revealed that here there once existed a small but important settlement—the home of the governor of all the Southern California missions.

For almost 100 years the buildings had been battered by the elements, and vandalized by tourists and curiosity seekers. Occasionally someone pointed out the historical value of the mission, with the suggestion that someone else do something about it. Some honest attempts had been made to restore the site to its former beauty, but money for the project was never forthcoming.

Let us see just what is left of the mission. In this way perhaps we can gain a better understanding of the decay and destruction which have brought one of the proudest showplaces along the trail of the padres to its present state.

George Wharton James, in his book "In and Out of the Old Missions of California," tells this story: "Ever since its abandonment it has been desecrated and damaged by the public. Its visitors apparently did not scruple to deface it in every possible way and what could not be stolen was ruthlessly destroyed. It apparently was a pleasure to them to pry the massive roof-beams loose, in order to enjoy the crash occasioned by the breaking of the valuable tile."

And Helen Hunt Jackson, in one of her articles, describes the scene thus: "The doors stand open, the roof is falling in; it has been so often used as a stable and sheepfold that even the grasses are killed around it. The painted pulpit hangs half falling on the wall, its stairs are gone and its sounding board is slantingly awry. Inside the broken altar rail is a pile of stones, earth and rubbish, thrown up by seekers after buried treasures; in another corner another pile and hole, the home of a badger . . . "

Small wonder that at last steps are being taken to rebuild the mission. But let us imagine it as it was at the height of its splendor!

The buildings of the mission threw back the sun's rays from the adobe brick as the Indians went to and fro in the streets. Here and there children were absorbed in their games, and at the end of the street a group of the native women busily washed their bright-colored clothes. In the gardens about the compound many were industriously tending the grapes, vegetables, wheat and barley fields which had, in the past few years, produced enough so that La Purisima not only could supply its own needs but also those of Missions Santa Barbara and Santa Inez, some sixty miles away. Off to the south a huge cloud of dust told where others of the inhabitants were tending the herd of 20,000 cattle which belonged to the mission.

Above: Mission La Purisima today. Much of the restoration of this building has been completed, as may be seen from the photograph at the right, taken before work at the site was started.

Left: These battered columns tell a mute story of the ravaging of La Purisima by time and the tourist.

Above: One of La Purisima's beauty spots, to be renovated after its long period of deterioration.

Left: The padres builded well—as these foundations still outlining the mission after a hundred years of mutilation, prove.

Photos by I. J. Hancock, Auditor of General Accounts.

Into the midst of this busy scene Father Payeras stepped from his church on his daily round of inspection. A smile of satisfaction never failed to light his serene old face as he saw his people engaged in their workaday tasks, and now, with that same smile playing across his tired lips, he passed down the hollyhock-lined walk to the street.

"Twenty years!" he mused. "It doesn't seem possible—and during that time we have done much, but there is still much to do. I wish—almost—that I were not governor for all the missions, there is so much good to be done here . . . "

Inside one of the buildings one of his assistants was delivering a lecture on the history of the mission to a group of neophytes.

"Mission La Purisima," Father Payeras heard him say, "was founded in 1787 and was blessed with immediate prosperity. The people learned quickly the lessons of the scripture, and the practice of agriculture, and all went smoothly until the great earthquake shattered their tranquil village life in 1812. When this happened the Indians became alarmed, and threats were made against the padres, causing the removal of the mission to this spot from across the river where it formerly stood. Now, sixty miles north and west of the Mission Santa Barbara, La Purisima again took up its place in the scheme of things, and again prospered. But in 1816 came the drought, followed shortly thereafter by fire which swept away many of the neophyte's homes. But much has been regained since then, and La Purisima again is able to supply the other missions with the fruits of its fields and gardens.

"Much of the success of the mission has been due to the efforts of Father Payeras—" Here the padre interrupted:

"That's fine, my son. But enough of me. Tell more of the mission. That is the important thing. It will live long after I am gone . . . "

Father Payeras spoke the truth: The next day he died.

But what of his prophecy in regard to the mission? Did it live and continue to be a vitalizing force in the life of California? Let us see.

For a time the affairs of the little village went on, much as they had when Father Payeras lived. Then developed periods of protracted bickering. Frequent quarrels marked the passing days, as Mexico won her independence from Spain—and the entire mission system was endangered. Then a La Purisima neophyte was flogged at Mission Santa Inez, and the civil authorities could no longer keep the Indians in check. Fierce uprisings harassed the region and further hampered the work of the padres, who finally were no longer able to exercise their influence upon the natives. Missions Santa Barbara and Santa Inez resisted the attacks, but La Purisima fell before an enraged horde of Indians.

For an entire month the Indians held the mission, beating off weak attacks by the civil government, but their lack of knowledge of the firearms in the arsenal eventually told against them, and they were subdued by a troop of cavalry sent by the new governor. Many were arraigned for inciting to revolt, and seven were condemned to death for murder of white men during the first part of the skirmish. Four others were sentenced to ten years hard labor at the Presidio, to be followed by exile, and eight more received terms of eight years at hard labor.

When these sentences were pronounced the padres protested that they were much too harsh. But their pleas were of no avail. The governor not only upheld the judgment, but insisted that the sentences were too lenient. This marked the beginning of the end for La Purisima Mission.

The little village struggled along heroically for a time after the uprising, but the population gradually dwindled. Where once there had been 1,500 residents there were now only a thousand, then seven hundred. After the secularization of the clergy by the new government in 1843 the number dropped to two hundred, for at this time there was no resident priest in the village. The next year most of the remaining Indians were wiped out by smallpox, and in 1845 the padres disposed of the property and buildings to John Temple, who paid $1,100 for the entire mission. Since that time no record has been kept of the village—other than that which may be found upon its walls and the vestments of the chapel, a grim record of destruction.

Today La Purisima is being rebuilt, to take its place among the ever-increasing number of historical shrines which are slowly rising again to recall the colorful past of the State of California. From plans and sketches discovered in a vault of the chapel, it is hoped that an exact restoration may be made, but work progresses slowly—the vandalism of 100 years

has established a social debit which cannot be balanced by a few weeks' work.

It was thirty years ago that the mission first became the property of Union Oil Company, as a part of its leases in the Lompoc Valley. From that time dates the interest in its rehabilitation, for F. F. Hill, then superintendent in the district, realized something of the historical value of the remains. He gathered together and stored all the loose tile from the roof, put up sheeting to guard the mission from the wind and the rain and opened negotiations with the California Landmarks Club in an attempt to restore the monument entirely.

The upshot was that various pieces of the property were deeded to the club on condition that it furnish $1,500 to put the buildings in shape so far as possible. Time went by, and the club was unable to raise the money necessary for the project, so the land reverted to the Union Oil Company. For some time no progress was made other than an attempt to halt the further disintegration of the buildings.

Then, in 1934, the property and structures were deeded to Santa Barbara County to be restored as far as was possible. The work was to be done through the joint efforts of R. M. Adam, supervisor of the fourth district, Santa Barbara County, and the Native Sons of the Golden West. Later the National Park Service became interested and took over the project.

Today the site of La Purisima Mission hums with activity as it did in the days of the Indians over 100 years ago. Civilian Conservation Corps workers are busy making adobe bricks of the same type and in exactly the same manner as those first used. Other workers are laying them in foundations and walls for the "new" buildings, or completions of former ones. About the mission buildings flowers and vines are being planted. Grapevines from the original vineyard have taken root, pear trees are planted, and rose bushes and hollyhocks show above the ground. Olive trees, a characteristic part of every mission garden, and a score of varieties of native herbs and shrubs will recreate the former surroundings of La Purisima. Over 15,000 shrubs and plants have been transplanted to the new gardens.

In the days when the mission was active and alive with life, one of the great events of the year was the return of the swallows. Clouds of the birds would circle over the buildings, then nest in the eaves. But when the mission died the swallows no longer inhabited it, for these birds congregate where there is life. San Juan Capistrano Mission became their home.

But today, as a sign that the mission actually is risen again, the swallows again are beginning to nest about it. Following their scouts, the birds have begun to arrive again at their former home, and soon, perhaps, may again make the mission their nesting place. No surer sign is needed to tell that the mission is returning to its former state.

And somewhere we can imagine Father Payeras smiling—happy in the thought that Mission La Purisima, his mission, will live again.

FROM DESERT TO VINEYARD

ROW after row of stubby bushes toss back greenish-brown reflections to the San Joaquin Valley sun. Stretching away as far as the eye can see through the waves of heat that shimmer above the ground, the ragged growth undulates across the slightly rolling lands. In the distance a few tiny figures move methodically among the plants, carrying on one of the most active industries in the central section of the state: the growing of wine grapes.

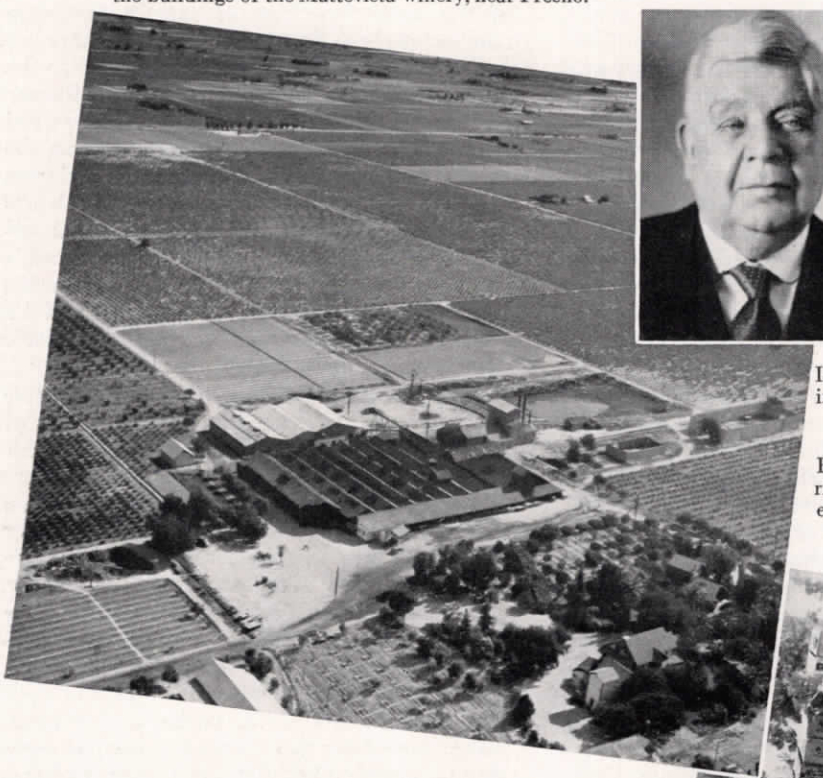
But there was a time, not so long ago, that this land was desert—held unfit for any sort of cultivation; usable only as pasture lands. Who ever heard of grapes growing in the midst of the San Joaquin Valley. No one. Who could imagine vineyards springing from the soil of this hot land?

Andrew Mattei.

Mattei was born on a small farm in Canton Ticino, Switzerland, in 1855, and migrated to the United States when he was eighteen. That was in 1873. He lived and worked in Los Angeles until 1887, before he was able to amass enough capital to bring one of his dreams to reality. His dream of vineyards in the valley, wine grapes at Fresno!

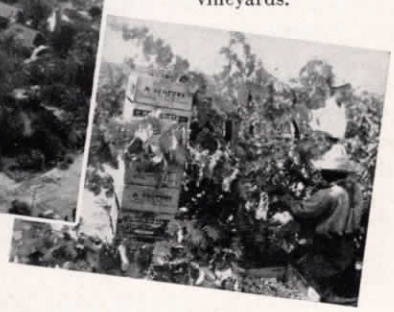
Fourteen years after he landed in America,

Below: Vast stretches of grape lands surround the buildings of the Mattevista winery, near Fresno.



Inset: A. Mattei, Swiss immigrant, who founded the winery.

Below: As the grapes ripen hundreds of workers such as these are kept busy in the vineyards.



Mattei purchased the nucleus of the present winery lands. That nucleus—320 acres—today is the center of the 1,200-acre vineyard that encircles the Mattevista Winery. Within five years he was producing wines commercially. The grapes were crushed on a small hand press, and the wine produced and aged according to formulae used by the Mattei's in Switzerland.

But now the winery has grown from the first single tank and hand press to a battery of tanks and many power crushers. Today it has a storage capacity of two and a half million gallons, can ferment 800,000 gallons of crushed grapes at one time, and uses between 500 and 600 tons of grapes daily.

Sweet wines are the only ones produced by the Mattevista winery. Other types of wines could be produced, but, it is explained, they would be of an inferior quality. With the sweet wines, it is a different story. The climate and constituent elements of the soil combine to produce a wine grape that has all the necessary qualities for the sweeter beverage, and the area has become famous throughout the world for the "vintage" quality of its fruit.

Even with the huge production of the winery lands themselves, it is impossible for the Mattevista to raise enough grapes to keep its winery machinery busy at all times, or to satisfy the needs of production. So the produce from other lands is bought to keep the wheels turning. Throughout the years the winery has built up a clientele that furnishes only the type and quality of grapes desired, but these must undergo a thorough inspection before they are purchased. At Mattevista the last word in crushing and fermenting is found—and the first formula still in use. The strange combination of modernity and antiquity produces the wine which won twenty prizes for Mattevista at the Panama Pacific International Exposition in San Francisco in 1915.

Below: Frank Dreyer, Microscopist, Paleontology Laboratory, Santa Maria.

Right: Howard Thompson, Foreman, Kettleman Hills Compressor Plant.

Below: Walt Heathman, Valuation Engineer, Geological Department.

Left: T. R. "Tink" Tinker, Production Foreman, Kettleman Hills.

Below: Phil Jones, Research Supervisor, making a mud study at the Santa Maria Inn.

Above: Stanley Martin, Paleontology Laboratory, Orcutt.

Volume Eighteen AUGUST, 1937 Bulletin No. 8

CAN any honest, sympathetic human being be sincerely happy knowing that somewhere near him there is unhappiness and grief that by a small sacrifice he might dissipate or assuage? And is there any need to point out that such unhappiness and grief do actually exist around us and that the transient joy we experience now is only possible because, for the moment, we can forget the fact —not surely because we are callous enough to disregard it permanently?

The Community Chest is our annual reminder of the distress that surrounds us even in the best of times, and is our annual opportunity to do the thing that we must do to assure the happiness of thousands of unfortunates, and, incidentally, assure our own. Literally, we must give until it hurts. That is a trite phrase, that has been the subject of many a wisecrack, but seriously considered, it is a profoundly serious demand.

It has often been said that money won't buy happiness. That is all nonsense. It will buy happiness if unselfishly spent. Your donation to the Community Chest buys medical aid for cripples and chronic sufferers who have no other possibility of relief. Wouldn't you feel that you had purchased happiness if you knew that some little gaffer had thrown away his crutches and was playing baseball out on the sand lot because of your donation? Then wouldn't you want to raise your donation if you knew that by so doing you would enable some more little gaffers to do the same thing? Suppose you had definite knowledge of the fact that your donation would positively enable some poor blind person to see for the first time in his life. Would you withhold it? Surely not. And yet, these are just the things the Community Chest is doing, and that is just the part your contribution plays in one of the most humanitarian altruistic projects in our country.

It may sometimes be hard to realize the needs that the Chest exposes. We employees of Union Oil Company have been very fortunate. It is true that we had to curtail our entertainment a trifle during the depression era, but most of us didn't suffer any real hardship even when the depression was at its worst. There are, however, many people who are still in the utmost depths of depression and whose only possibility of prosperity and happiness lies in our hands, and we may be assured that insofar as we raise these people up from their suffering and from their distress, in so far will we ourselves be raised up in spirit and happiness.

There is no better way in which we can give thanks for our own fortunate situations than to relieve the misfortunes of others, and when the Community Chest is opened for our contributions this year, we should remember the splendid purpose to which it is devoted and give generously. We can't give until it hurts, because the more we give, the more we shall receive in dividends of pleasure.

In a little old English churchyard there is the grave of a famous philanthropist, and inscribed on his tombstone are these words:

What I spent I had.
What I saved I lost.
What I gave—that I still have.

OLEUM REFINERY NEWS

OVER one thousand employees of Oleum Refinery, with their families and friends, circled majestic Mount Diablo Saturday, July 31, to attend the biggest social event of the refinery year—the annual picnic, held this year at Marsh Creek Springs. From the time the party left Oleum, at 10 a.m., until they returned late in the evening the sparkling clear day, the excellence of the location, and the splendid work of the committee in charge of the program combined to make the picnic a full twelve hours of glorious fun and amusement for everyone.

The program started with the children's races, and the scramble for places, good starts, and winning positions presaged the activity that was to follow. A large, interested, and somewhat apprehensive group of husbands watched the line-up of entries in the rolling-pin-throwing contest, but breathed a sigh of relief when they found that only a few of the entrants actually had such outstanding control that they were able to hit the dummy figure which represented friend husband in the competition.

Loudness, clarity, and harmony were the three standards used in judging the next feature attraction—the husband-and-wife-calling contest. George Soby, evidently well trained in this specialty number, walked away with the prize for wife-calling with little difficulty, and Mrs. Dailey, after a hard tussle, turned on the heat to win the husband-calling prize. It is said that when she released her prize-winning call, husbands literally flocked from the slopes of Mount Diablo. In self-defense the husbands claim that they only thought it was lunch time.

The tug-of-war between twelve husky men of the lube oil division and the pipe shop was a beauty and wagering reached a high pitch as the contestants wavered now one way, now another. George Soby's lube oil men looked like a cinch to win, when they had pulled Mike Del Monte's gang nine of the ten necessary feet but Mike gave his team an "everyday" look and yelled "Let's go, fellows!" After that the Lube Oilers never had a chance.

Entrants in the "hot-air" contest expected to have an easy time. The idea was to pump enough air into an "old" inner tube so that it would burst. It was that word "old" that got them. It's easy to burst an ancient tube, but N. F. Myers, J. N. Holden, and W. C. Stevenson were near exhaustion when Stevenson finally shoved enough atmosphere into the rubber doughnut to cause it to explode. It is rumored, but has never been proved, that Myers' pump was tampered with before the start of the contest, but it's just another one of those things that can't be ascertained definitely. Anyway, Norval didn't seem to make much progress.

Then came lunch, and the groups scattered to shady nooks to open their baskets which were soon emptied. Coffee, lemonade, and ice cream served by Roy Harris and his committee topped off the other edibles handsomely as tables were cleared and the crowd gathered for the feature baseball game for the 1937 softball championship of the refinery.

The contenders in this classic were the Lube Oil team and the Laboratory division. Assisted by the pitching of Washington University's football star, Elmer Logg, Ed Wilde's lab boys took the title from the well-balanced, scrappy, lube oil group after a fast game. And still the fans weren't satisfied. They yelled for more baseball, so the Oleum Refinery Girls' Club challenged their bosses to a contest which proved to be chock full of thrills, spills and comedy. Proving that they were not the weaker sex, but rather the stronger nine, the girls won in a game featured by a three-base home run by Pederson, Holden's slide, and Mrs. N. F. Myers' base-running.

"Thrills"—even the name was sufficient to pack the camp-fire bowl, although the talent shown was outstanding. With Lee Carroll as master of ceremonies and the parade of talent and impersonations by Jim Tulloch and Paul Fryar, this "radio" hour was one of the highlights of the day. Mr. Remington and his songs were outstanding, and the quality of Louis Fouchet's melodies was far above the average.

The hot dogs and coffee served by the committee together with the lunch-box left-overs, satisfied everyone's appetite at the evening meal, after which some of the family men with

Right: The start of the hot-air contest. Bill Stevenson pumps, and pumps, and —

Below: pumps. Here is Bill at the finish — well, almost the finish. The inner tube burst on the next stroke.

Below: This is the lube oil departm — and failing — to outpull the pipe- shop men. Give up, boys?

Above: Mrs. Dailey opens up in the husband-calling contest while Jerry Woods protects the microphone. Oh, yes, Mrs. Dailey won.

Right: Newt Holden scores as the Girls win from the Bosses. Try this type of slide your self sometime—you'll never forget it!

Above: Duck, everybody! That's Mrs. N. F. Myers throwing the rolling pin.

Right: The laboratory team, Oleum Refinery softball champions for 1937. Captain Byron Nisson holds the cup while the rest of the team watches the birdie. Left to right are Herman Lange, Ed Armstrong, Charles Thompson, Guy Stull, Elmer Logg, William Nultemeier, Harry Rike, and Stanley Hollander.

Above: Norv finery manag head office Rube Harris Newt Holden

S TO A PICNIC

rtment trying
pe-

Above: While daddy, at the extreme left of the page, amused himself with an inner tube, the youngsters go back to nature in a balloon-bursting contest.

Above: Just interested spectators at the baseball game.

orval Myers, Oleum re-
nager; W. K. Hopkins,
e personnel manager;
ris, Jerry Woods, and
len watch the ball game.

Left: The girls' softball team poses with its manager, Newt Holden, after trouncing their bosses. From left to right they are Ann McComas, Agnes Hogan, Eleanor Crofut, Catherine Cox, Rosamond Brusatory, Josephine Smith, Frances Pink, Catherine Havely and Holden.

tired, somewhat dirty, but happy children left for home.

But community singing and dancing continued well into the night, and when the party finally broke up all those who attended were unanimous in demanding "another one next year." Much of the success of the affair was due to the work of the management, G. A. Woods, and the numerous committees in charge of the picnic. W. K. Hopkins, manager of industrial relations and personnel, was a head office visitor at the celebration.

GIRLS HOLD BEACH PARTY

About sixty members of the head office Union Oil Girls' Club held a beach party July 24 at the Surf and Sand Club at Hermosa, with installation of new officers as the only item of routine business in an otherwise full day of relaxation.

Starting early in the forenoon the girls enjoyed the freedom of the entire club for the day and forgot their working-day habits in the plunge, the beach, the dining room, and the lounges. It was the first party of the new year.

New officers of the club, who were invested at the affair, are Annette Frinier, president; Dorothy Landry, vice-president; Dorothy Sawyers, recording secretary; Kathleen Brodie, corresponding secretary; and Ann Watson, treasurer.

Mildred Radonovich, who has been president of the club for the past two years, was presented with a lovely gift upon her retirement.

Mabel Brown was chairman of the beach party and, with her committee of second, third and fourth floor girls, successfully carried out a Hawaiian motif, with varicolored leis in abundance and Island decorations everywhere.

The next social event planned by the club is a Fun-House party for September 23 at the fun house on Venice Pier. Exclusive use of the building will be available for all Union Oil Company employees and their friends.

Right: No names, please, but every member of this group works for Union Oil Company.

Below—Kathleen Brodie, Gene Clay, Marian Davie, and Adaline Faucet look interested, dreamy, non-committal and happy, respectively, as they face the camera.

Circle: Elizabeth Rudy and Dorothy Landry contracting a finishing coat of sun-tan.

Warren E. Carey, aviation sales representative, stands proudly beside the new Stinson Reliant monoplane that went to work for Union Oil Company last month.

COMPANY PURCHASES NEW PLANE

A new Stinson Reliant monoplane, equipped with the latest improvements in aviation development, went to work last month for the Union Oil Company when Warren E. Carey, aviation sales representative, flew the plane to Los Angeles from Stinson's Detroit plant.

Carey made the trip in 14 hours, making three stops en route.

The new plane has a cruising speed of 178 miles per hour, a range of more than 850 miles, and is equipped with blind flying instruments, a two-way radio, and other modern devices. It has a sloping cabin cover, designed to give greater visibility, streamlined "pants" over the wheels, and an airstream cowl which cuts down wind resistance over the nine-cylinder, air-cooled motor.

The plane's first job began soon after its purchase when Carey managed the annual sportsmen-pilots' navigation tour in Oregon, which was won by George Armistead of Brentwood, Calif., who made 99.976 points out of a possible 100 on the last lap of the tour. This event is held as part of the Oregon Air Show each year, and is sponsored by the Union Oil Company which presents a trophy to the best pilot-navigator. It is hoped in this way to stimulate safety in flying. Carey also managed the Ruth Chatterton transcontinental navigation contest for sportsmen-pilots at the air races the last two years.

The $20,000 executive type plane will be used in good-will tours in the interest of Western aviation, and, incidentally, in sales promotion for Union Oil Company. Since taking the job of aviation sales representative, Carey has flown more than a half-million miles in the company's service, and has an unparalleled record for air safety, never having had a serious accident. He saw aviation service in the war, holds the rank of captain in the air reserve, and is a member of numerous aviation clubs in Southern California.

Marshall Honored at Luncheon

Members of the management of the Los Angeles refinery and those who have received their twenty-five-year service emblems at the plant met July 27 at the refinery cafeteria in honor of Jesse G. Marshall, distillation foreman, who last month received his award for a quarter-century of meritorious service.

Those present were L. G. Metcalf, manager of refineries; John Salmond, D. R. Merrill, R. G. Bray, L. W. Voorhees, J. C. Reeder, H. M. Cameron, Dumont Kimmell, J. C. Beck, A. O. Pegg, H. P. Kinghorn, F. W. Bayley, F. S. Noble, and J. G. Marshall.

Bif! Up Go Sales!

Something new in sales technique was caught by the candid camera this month in Salem, Oregon. J. E. Eichendorf, Union Oil Company agent at Salem, watches C. L. Brown, district sales manager, demonstrate how James McNesby, division fuel oil representative from Portland, could sell more fuel oil.

"Why," Brown tells McNesby, "if they resisted I'd turn to my valet, say 'Hand me the Bif, James,' and mow 'em down."

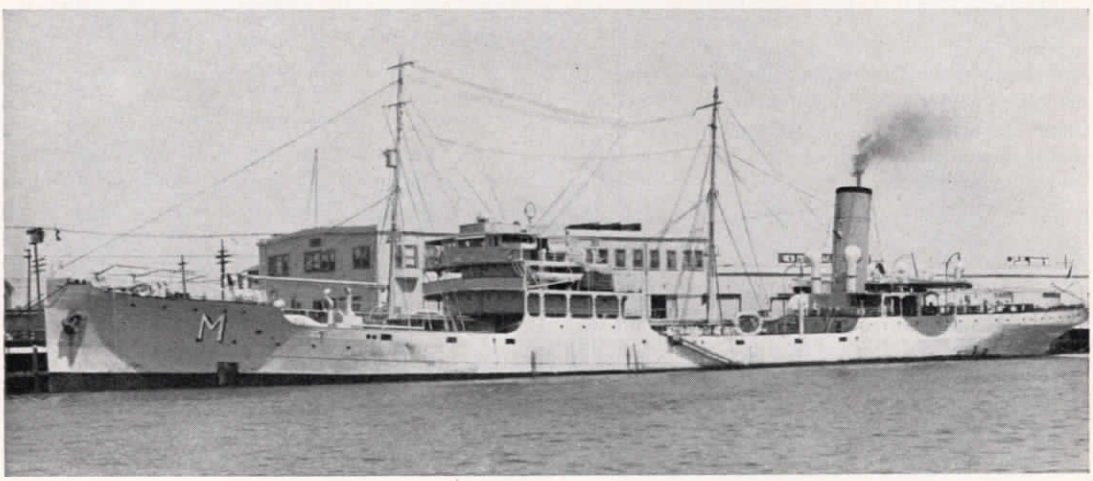
The demonstration was snapped at the corner of Church and State streets in Salem.

Chilean Naval Vessel Visits Here

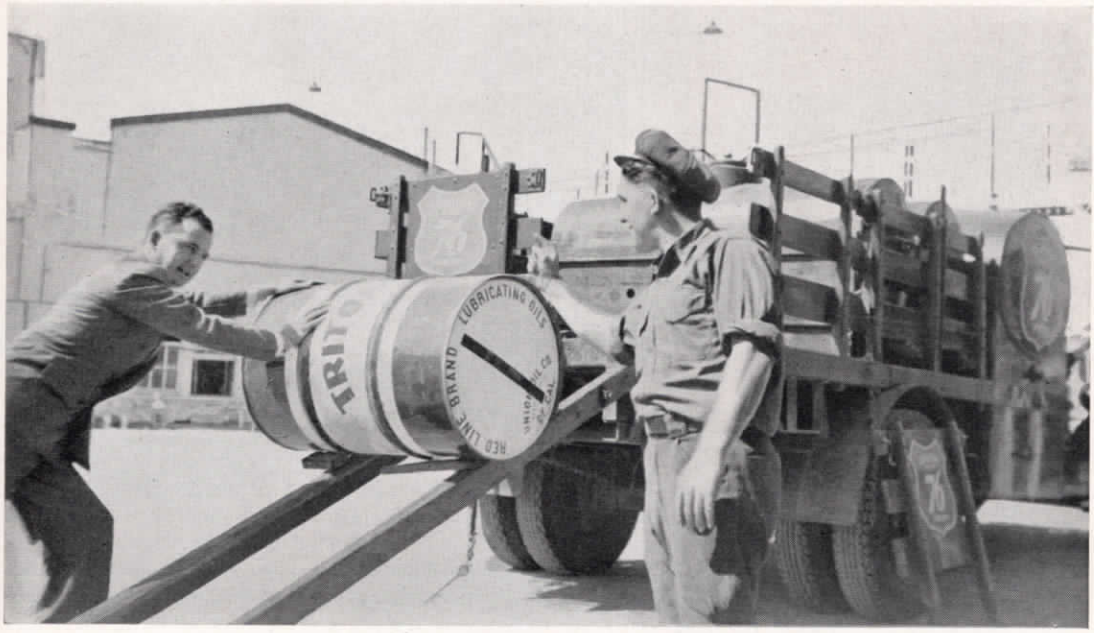
For the third successive year Chile's naval force filled its oil requirements with Union Oil products when the Chilean navy tanker "Maipo" steamed into Los Angeles harbor last month and took aboard 25,000 barrels of fuel oil, Diesol, and lubricating oils. The remaining 57,000 barrels of the 82,000-barrel order were shipped on the Union Oil tanker, "Santa Maria."

The Maipo, carrying a complement of 18 officers, 20 midshipmen, and a crew of 73, came here on a combined naval training cruise, good-will tour, and naval supply survey. After leaving its home port the ship first visited historic Easter Island to make the annual delivery of supplies to the leper colony which Chile maintains there. Then the ship sailed for San Diego, San Francisco, and ended its tour with five days in Los Angeles Harbor.

The principal concern of the Chilean naval officers was to assure their navy's oil supplies, both as to quantity and quality, to meet the strict specifications laid down by their technical experts. The $109,000 shipment of Union Oil products was taken to the Chilean naval base at Talcahueno, south of Valparaiso.



The Chilean naval tanker, Maipo, as she lay in Los Angeles Harbor while arrangements for Chile's navy's oil supply were being completed.



"Pat" Padula, Stockton district delivery salesman, instructs P. H. Goodwin, district sales manager, in the gentle art of loading barrels of Triton on his truck.

SALES MANAGER BECOMES TRUCK DRIVER

When a tank truck salesman delivers Triton, it's part of his every-day work, but when a district sales manager takes over a truck driver's duty—well, that IS news!

It happened like this: During the feverish Triton sales campaign at Stockton in May, P. H. Goodwin, district sales manager for the area, volunteered to deliver personally every gallon of Triton sold in excess of truck driver Pat Padula's 1,000-gallon quota. Padula sold 1,235 gallons which put Goodwin on the truck for a full day.

In the meantime, the position of district sales manager was filled by Padula, who greatly enjoyed showing the Stockton district employees his idea of how a sales manager should perform his duties.

The Stockton district showed an increase of 433% in its May Triton Campaign, thereby taking a $50 second prize award.

DISPATCHER HONORED

Horace E. Cattermole, ship dispatcher of Union Oil Company's fleet of tankers, this month was made an associate member of the United States Naval Institute in recognition of his outstanding marine achievements and his interest in naval activities.

Cattermole, holder of a lieutenant's commission in the naval reserve, has for some years assisted the activities of that group. In addition to his live interest in its affairs, he has conducted classes for new members. Recognition of this kind is considered a great honor for a civilian, as only graduates of the Naval Academy at Annapolis are eligible for regular membership. Horace is also a member of the National Geographic Society.

C. W. Eckles

CONSTRUCTION SUPERINTENDENT DIES

Death closed one of the most interesting and colorful careers that the oil industry has ever known when C. W. Eckles, superintendent of construction for the Union Oil Company, passed away July 26 at the Good Samaritan Hospital in Los Angeles.

Eckles, who had been with the company since March, 1922, was a man of boundless energy, well known throughout the western branch of the petroleum world. He was 58 years of age at the time of his death.

"Eck" never knew a moment of inactivity, speeding here, there, and everywhere about the Southern California oil fields directing the laying of a foundation for a new well, or supervising the construction of a new pump station, and the next instant dashing off to some new location to take charge of laying a pipe line. Under his supervision construction work not only in this country, but also in many foreign nations, had been completed.

When Bellview Oil Syndicate's spectacular well fire was raging at Santa Fe Springs in November of 1928, Eckles was borrowed from the company to take charge of the fire fighters. Under his direction workmen in asbestos suits were sprayed with water, and further protected from the searing heat by wind machines as they tried strenuously to bring the blaze under control. Tunnels were dug underground to the casing, so that it might be perforated to release the pressure, but this was found unnecessary as the fire fighters finally succeeded in capping the well, extinguishing the blaze, and bringing the whole project under control.

Although seemingly eternally busy at one project or another, Eckles still found time through his outstanding ability and winning personality to annex a large circle of friends in all departments of the company, all of whom were deeply moved when they learned that such a vital career had been cut short so suddenly.

SALES ORGANIZATION

The following changes in the northern and central divisions sales department organization were announced by V. H. Kelly, director of sales, in a bulletin issued August 4:

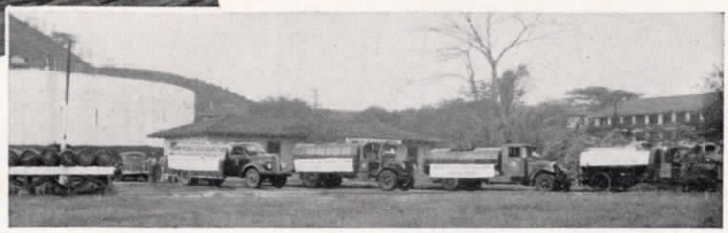
Effective August 1, 1937, Central Division: E. A. Cox, District Credit Supervisor, Fresno.

Effective August 15, 1937, Northern Division: P. H. Schnell, District Sales Manager, Spokane. C. B. Mallory, District Sales Manager, Kelso. G. W. Keith, District Sales Manager, Tacoma.

Left: The first gasoline delivery truck to be used on the isthmus.

Above: "Tank truck especially for crude oil," incidentally the largest truck in Panama.

Above: "The last word in gasoline trucks, continues bringing its clients the best products and service."



Above: The company's fleet of trucks lines up for a "Progress Parade."

PANAMA PARADE

The first tank truck, the largest one, and the latest model for gasoline deliveries in Panama combined last month in a parade showing that the Panamanians are contributing their share to the industrial progress of the petroleum industry.

The first truck for the delivery of "aceite crudo" arrived at the Union Oil headquarters in Panama in January, 1915. This truck is still in use but is to be retired shortly. Some time later the largest truck ever brought to the Isthmus was put into service, and is still continuing deliveries at its full 1,700-gallon capacity, with no sign whatever of weakening.

And finally, in the latter part of April of this year, the latest model gasoline delivery truck arrived in Panama. In honor of the occasion the trucks staged a parade typical of the development of Panama and the company there.

Other "firsts" for Union in the Isthmus include the only oil pipe line system on the docks in the southern country and the construction of a modern 25,000-gallon barge for transporting gasoline, fuel oil and lubricants to interior ports.

This Month's Cover

When R. M. Byrne of the advertising department, at the head office, sighted through his miniature camera at this squadron of U. S. Navy Grumman F2F-1 fighters at the National Air Races in Los Angeles last year, he caught the scene shown in the small picture above. In fact, the finished photograph was exactly the size of the reproduction at the left.

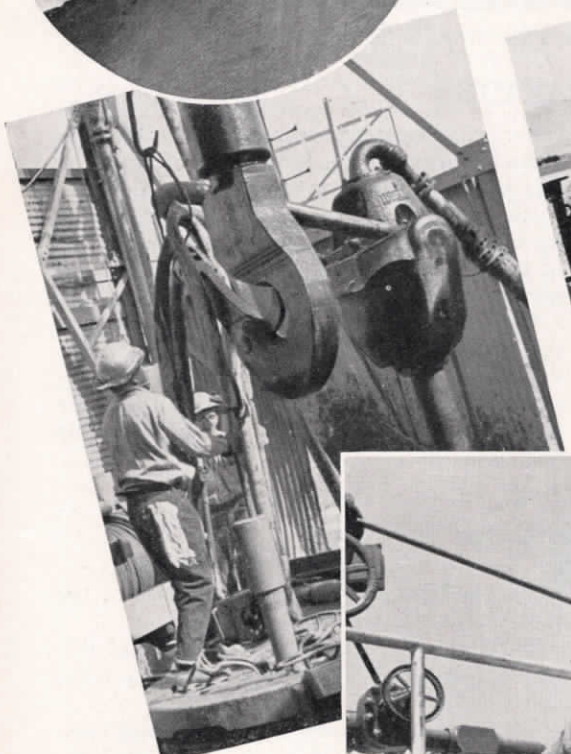
But since that time it has grown, and this month occupies in its enlarged state the front and back covers of The Bulletin.

The inside front cover shows a loading crew at the Grand Central Airport transferring the mail to one of the huge Douglas liners for its transcontinental trip. The picture was taken by a member of the Douglas Aircraft Corporation's advertising department.

At left is Elmer Hutchins, driller at Bakersfield, and below is Al Ball at the brakes on Cook No. 1, Santa Maria Valley.

Left: Kettleman Hills Compressor Plant, and an artistic cloud effect.

Above: Crew on Cook No. 1, Santa Maria Valley, emptying core barrel.



Above: Just an impression of the dainty equipment that is required to drill a deep well.

Left: Les Gluyas and Paul Martens, welders, Orcutt, inspect their handiwork on Adams No. 1.

Right: Work starts on San Francisco's new mint. You can't see it here but—

Below is Union Service Station No. 1002 at the corner of Herman and Market streets in the bay city.

Right: Take the other two pictures above, do a little excavation and construction, and this is the result.

THE U. S. MINT? ONE FLIGHT UP—

"There's gold in that thar hill," said E. C. Engen, pointing to the solid mass of rock behind him, "but Uncle Sam has already staked his claim!"

Engen, manager of Union Service Station No. 1002 at the corner of Market and Herman streets in San Francisco, looked upward slightly to bring the new U. S. mint resting on the bluff into view. "And," he might have added, "so has the Union Oil Company."

If you look closely at the lower of the three pictures above, you might think that the service station was part of the new mint, but such is not the case. They are alike, however, in that they dispense their products with the same facility. The mint releases thousands of dollars in pennies, nickels, and all silver coins daily, and Engen, at Station No. 1002, puts into circulation gallon after gallon of 76, and Triton. And Engen has one advantage over Uncle Sam—he was on the location first.

San Francisco's new mint is one of the largest in the United States. It is five stories high, and approximately 190 feet square. Construction started in August, 1935, and the building was occupied in May of this year with P. J. Haggerty, head of the old mint, as superintendent. No paper currency is turned out, production being limited solely to coinage.

It is the only mint in the United States which carries on the entire process of making money in one building, having facilities for assaying, smelting, and coining all kinds of exchange.

So, with the untold wealth of the mint behind Station No. 1002, there's no one who can say that Engen doesn't have a sound financial background.

Twenty-Five Years

J. J. Van Harreveld
Transp., Avila

C. W. Peck
Compt., So. Div.

Service Emblem Awards

EACH month in this section of The Bulletin is a new list of names. Just names—to those of you who do not know the individuals, but actually they are much more than that. Behind each name is a career, and behind each career is a story; a story many times longer than it is possible to tell here. These men and women, who receive service awards for periods of employment with the company, are engaged in all fields of endeavour, and the awards mark the end of a chapter in their story, a chapter in which you may see mirrored the finest in achievement, loyalty and service, and through which each has added a definite part to the corporation which they have builded, and which we know as Union Oil Company.

Two men lead this month's list with twenty-five-year periods of employment. Sixteen others have completed a meritorious twenty years, and forty-eight more are well under way to a like amount of service.

C. W. PECK

When C. W. Peck first came to work for the Union Oil Company back in 1912 his first duty was to sweep the boss' office. Actually, he was a stenographer, but in those days on the Stearns lease everybody had to pitch in and do any number of things to keep the wheels turning. This month he receives the pin emblematic of his completion of the silver cycle of years with the company.

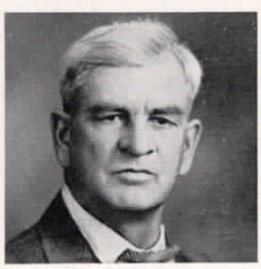
The new broom evidently swept clean, and continued to do so, for in 1922 Peck was put in charge of the first accounting office, opened at Santa Fe Springs.

Later that same year he was transferred to Maricopa, and in 1925 again moved, this time to the Orcutt office. In 1930 he returned to Santa Fe Springs and aided in the consolidation of all field offices which took place at that time there. Since 1932 he has been division accountant in charge of all production and transportation accounts in the southern division.

All week he works with figures, putting them in their proper places on the company's books, and in his leisure time over the week-ends can still make them do tricks on the golf course. In fact he has them so well trained that he

R. D. Roberts
Sales, Cent. Div.

H. A. Murphy
Const., No. Div.



C. Brown
Field, So. Div.

W. T. Botts
Mfg., Santa Paula

can go over the course in the low eighties almost every time. Then, when he's not on the golf course he may be found playing his violin, in which pursuit he is very talented.

Oh, yes—in addition to all this he still finds time to be a prominent member of numerous Whittier civic and fraternal organizations. And that's what may be called stretching a Peck into a full bushel!

JOE J. VAN HARREVELD

Holder of the Croix de Guerre for conspicuous bravery in the Battle of the Argonne, Joe J. Van Harreveld this month receives another honor, his twenty-five-year service emblem.

Van Harreveld first started to work with the company as a boiler washer at Antelope Station in 1912. He was later transferred to Shandon and Santa Margarita as fireman. During this time he was studying industriously, and, on becoming an engineer, was moved to the tank farm in San Luis Obispo.

Joe saw much service in many varied places after he went to San Luis Obispo. He was transferred in succession to Port San Luis, Avila, Dudley, Junction, Coalinga, Middlewater, Santa Margarita, Junction, and then to Santa Margarita again.

In September, 1917, Van Harreveld entered the army and was attached to the 91st Division of the 316th Regiment at Camp Lewis. He was sergeant in his unit when the regiment went into action in 1918, and saw active service in the battles of the Argonne and St. Mihiel in France and Prys Schelve in Belgium. He returned to the United States in June, 1919.

Upon his return he reported back to the company and was assigned to the Junction station as senior engineer. He was later transferred to Avila, where he is now relief engineer.

When not on duty Van Harreveld fills his time with the problems of his community. He has been a school trustee and trustee of the fire board at Avila for the past eighteen years and at present is also commander of the San Luis Obispo Commandery.

WILLIAM MERCER

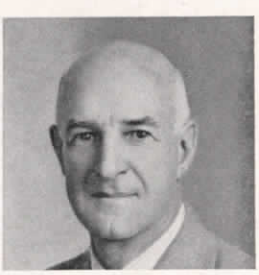
In 1917 William Mercer started to work for the Union Oil Company as an inspector at Oleum, and this month, now in charge of all laboratory work at the Avila plant, he receives his twenty-year service emblem.

It was only a year after Mercer started at the Oleum plant that he was transferred to Avila, and immediately put in charge of the

M. L. G. Hosburgh
Sales, So. Div.

C. Young
Sales, Cent. Div.

B. T. Dinnes
Gas, No. Div.



W. C. Hambly
Sales, No. Div.

W. McAllister
Const., No. Div.

A. E. Chambers
Sales, No. Div.

W. Mercer
Mfg., Avila

laboratory there. His work in this field has brought him many friends, especially in the pipe line and marine departments.

A profound student of mathematics, Mercer has applied the knowledge gained in the study of his hobby to his favorite relaxation, bridge. Practically a wizard at figuring mathematical probabilities, he can look at his hand and figure pretty definitely his chances if the other players play their hands as the rules of good bridge dictate. Another subject on which he is very vehement concerns after-dinner speaking. To Bill it is not the appetizer that makes the dinner worth while, but the quality of the speeches afterward. To further his interests in this field he and a group of his friends have organized a speaker's club to develop latent talent along this line.

WILLIAM McALLISTER

If William McAllister, sales construction foreman for Union Oil Company at Seattle, ever realizes his biggest ambition, trapshooters in Southern California are in for some stiff competition, for McAllister, who this month receives his emblem for twenty years' service in the company, is one of the outstanding trapshooters in the Northwest, as well as a more than competent constuction foreman.

Bill's first job was in Seattle, joining the old stables to the new truck garage, which was quite an inovation in those days. In 1918 he was made foreman of construction for marketing stations in Washington and Oregon, and in 1922 was sent to British Columbia in charge of construction of new sales developments in the interior, as well as the coast marketing stations. Some time later he was placed in charge of sales construction for the Northwest.

Practically all of McAllister's spare time is given to his hobby, trapshooting, and in 1936 he won the Washington State Class "C" championship with a score of 97 out of 100 possible points. He is always near the top in all of the meets in which he competes, and is just champing at the bit, or rather, at the trigger, until he does get into action with some of the company's Southern California experts.

HARRY A. MURPHY

If you were to follow the employment trail of Harry A. Murphy, who this month receives his twenty-year service emblem, it would lead you from Bakersfield to Vancouver and then halfway around the world to Chile, ending at Seattle, where Murphy is now pipe-fitter foreman.

Harry was first employed with the company in 1907, but because of an interruption in service his employment record actually dates from 1917. His first job was in construction of the Bakersfield plant, followed by transfers to Astoria, Oregon, Seattle, Washington, and Vancouver, Canada, where he worked on the construction of other company plants.

From Vancouver he was sent to Chile, to aid in the installation of the company tanks and pipe lines in that country, and, while there, was married, returning to San Francisco after four and one-half years.

Murphy's next job with the company took him to Seattle, where he was transferred some time after his return from South America, following which he was named pipe-fitter foreman there, the title he still holds.

ARTHUR E. CHAMBERS

Whenever Arthur E. Chambers filled a new kerosene contract back in the days when he first started to work with the company, it was delivered in an old horse-drawn tank wagon. That was twenty years ago, and today, as Chambers receives his fourth service award, the speed and efficiency with which the orders are filled has increased almost as rapidly as the number of new contracts which he has landed.

Chambers has spent his entire twenty years of service in the Seattle offices of the company,

E. G. E. Belin
Master, La Purisima

Joseph Rogers
Compt., Head Office

and, through hard work and long association, he has built up a circle of friends and business contacts that have proved of great benefit both to himself and to the Union Oil Company. His activities have been concentrated largely in the north end of the city, where he is known for his ability and personality whenever his name is mentioned.

Arthur has few interests outside the company, and is proud that his two main hobbies are hard work and getting new kerosene contracts, in which field he is better, he feels, than he would be in golf or fishing or any other seemingly less essential activity.

CHARLES YOUNG

The open sea breaks into the service emblem list this month as Charles Young, now relief master of the M.S. Redline, receives his twenty-year service emblem award.

Young was first employed by the Union Oil Company in 1917 as mate and pilot on the M.S. Kern, which position he held until 1925 when he became master of the M.S. Piru. Between that year and the present he has served on numerous ships in the bay fleet in positions as mate and pilot or master, and this year was named relief pilot of the Redline.

Large, jovial, and good-natured, Young has two major hobbies: his machine shop and his interest in radio. In the former he turns out many finished pieces of work, and uses it to advantage in his other hobby, radio. In this field he not only turns to actual practice to learn more concerning the instrument, but builds his own sets and reads everything that he can get his hands on concerning radio. However, our informant tells us, Young far outdistances any records he may claim in either of these two fields when he sits down at the table. There his records begin where other men's leave off.

W. C. HAMBLY

If you ever want to know anything about the politics of the states of Washington or Oregon, and are around Seattle, drop in on W. C. "Bill" Hambly, who this month receives his twenty-year service emblem.

Bill gained his knowledge of the ins and outs of political theory and practice through his handling of all governmental contracts for the northern division. So far he hasn't actually thrown his own hat into the arena, but his genial personality and ready smile have won him a host of friends in political circles, as well as in other walks of life.

Before coming to his present job, Bill was for many years THE traffic department of the Seattle district. As if he couldn't get around enough in this capacity, he was sent further afield to become refined oil sales representative for the division.

Bill's two main diversions, when he is not putting on the pressure for refined oil sales, are talking politics and golfing. He readily admits that he is not a champion at golf—yet—but says nothing about his achievements in the former field.

HOWARD M. SMITH

Just one month before he became 17 years old, Howard M. Smith started to work for the company as a roustabout in the field department on the Stearns lease. He is almost 37 now, and this month receives his twenty-year service award, never having changed employers since that day when he first started to work on a man-sized job.

Shortly after his first job he was transferred to a well-pulling crew, and in 1921 became a derrick man and tool dresser. In 1923 he was made driller, and was active in the deep-drilling campaign at Santa Fe Springs in 1928 and 1929. As is the case with many of the

company's drillers, he is equally adept at running both the rotary type and cable tool drilling outfits. At present he is running cable tools, reconditioning old wells that have stopped producing, plugging off water, and numerous other operations in the Santa Fe field.

The Smith's are strictly an oil family, as four of Howard's five brothers are now actively engaged in the industry. Howard, when not engaged in any of his many duties, takes time off to indulge his weakness—an ever-driving one—hunting and camping. He is an all-'round outdoor man, and never misses an opportunity to pack the old tent into the car for a good strenuous outing.

JOSEPH ROGERS

Still another bit of old England reveals itself in the service emblem list this month as Joseph Rogers, custodian of old records for the Union Oil Company, becomes eligible for his twenty-year service award.

Rogers first worked for the company in the drums and barrels division of the comptroller's department. In 1918 he was transferred to the crude oil division where he remained for fourteen years, and in 1932 went to the station accounts division.

He was named to his present post when the job of caring for old company records in a systematic manner was first created and a special room set aside for the operation.

Before coming to this country Rogers was employed for over twenty-six years by a Liverpool, England, firm of shipowners and shipbrokers. Admitting that he is not quite as energetic as he once was, Rogers has allowed his hobbies to lapse, but in England and later in America was an ardent golfer, this interest being surpassed only by his enthusiasm concerning military marksmanship. He once captained a team which won first prize at the King's Prize Shoot at Bisley, the premier rifle meet of all England. In addition to these accomplishments, Rogers is also a musician and played for over ten years in his regimental band.

WILLIAM L. F. STOCK

When William L. F. Stock first came to North America from Gloucestershire, England, it was with the prime purpose of raising fruit in the Okanagan district of British Columbia, but after four years of it he decided that it was not at all in his line, so he joined the Union Oil Company at Vancouver in 1917 and for the last twenty years has been associated with the fortunes of the company there.

Bill's first job was pumpman, and after handling this position successfully for a time he was put in charge of the first automotive delivery truck to be used in the Vancouver district. In this position it was his duty to deliver fuel oil and diesol to apartment houses, schools, and hospitals, but since that time the ever-sales-minded Stock has increased his range and now handles a good number of the Vancouver contracts for these Union Oil products. During his entire career he has never had an accident, and has never presented a bill for repairs occasioned by negligent driving. While keeping the company's property safe, however, Bill managed to contract a case of pneumonia which has kept him pretty well laid up for the past four weeks.

Until he came to Canada, Bill was an ardent polo player, but since arriving here he has taken up the next best thing, golf. Also very fond of fishing, he finds ample opportunity to indulge his taste in pursuing the finny denizen of the water at any of the numerous mountain streams which honeycomb the territory about Vancouver.

BERT T. DINNES

Now employed as district inspector with his headquarters at Orcutt, Bert T. Dinnes this month is able to look back on twenty years of profitable and happy employment with the company, and see that he has done right well for himself. After all, not every common laborer has the ambition to advance himself as far as Bert has.

For when Dinnes first started at the Orcutt Absorption plant in 1917, it was as a laborer. In a very short time he had become watchman, and from this post was promoted, in 1920, to gas gauger. 1923 brought another advancement—gas tester, and in 1925 Bert was named to his present position, district inspector.

And outside his company life Dinnes has improved himself, and aided his community. As chairman of the Orcutt school board for many years, he has been an active leader in civic affairs, and has also been prominent in fraternal organizations, at one time holding the highest post in one of his orders.

Often, however, he is placed in a quandary. Which should he do—go to a school board meeting, or enjoy himself in his well-equipped machine shop? And almost always civic duty wins, but after any meeting Bert returns to construct more outstanding examples of fine cabinet work in his hobby house.

WILLIAM T. BOTTS

One of the finest safety records in the history of the company is held by Bill Botts, crude stillman at the Santa Paula refinery, who this month receives his twenty-year service emblem. During the entire two decades of his employment he has never had an accident injury, and it was back in 1923—fourteen years ago—that he had his last authorization for medical attention of any kind.

Botts migrated to California from Missouri in 1917, and, discovering a colony of Missourians at Santa Paula, settled down there as a boiler fireman for the Union Oil Company. In 1918 he was promoted to crude stillman, and in this capacity since that time has constantly been improving his abilities and the company's products.

That Bill is a careful and conscientious worker is shown by his remarkable safety record, but he fondly recalls a time when not only the record was endangered but his own life jeopardized. During one of his night shifts a separating tower blew up. Baffle bricks rose into the air only to hurtle down again, scattering about him like hail. But Bill put his utmost into dodging hither and yon and miraculously escaped being hit.

Deer hunting and trout fishing give him no end of enjoyment and he greatly appreciates one of the moves for the better that has come during his period of service—the four and one-half day week. Quite a change from the old days, when he was first employed—he worked a twelve-hour day and a seven-day week then.

MARY L. G. HOSBURGH

Mary L. G. Hosburgh, who this month adds a jewel to her service pin for twenty years' service, has absorbed such an amount of knowledge concerning the company and its operations that she may be called a real "oil man"—and that is a commendation for a woman.

Miss Hosburgh has spent the most of her career in the stock and drum and barrels departments, but at present, after deciding to take up a new field, is ledger clerk in the head office sales department.

Miss Hosburgh was first employed in the stock department at Fresno, and has held so many different positions that even she has trouble remembering them all. She was at Fresno from 1917 to 1926, and when she left was stock clerk, a position seldom held by a woman. On coming to Los Angeles she spent some time in the drums and barrels offices then decided to get out of the department.

Toward this end she studied bookkeeping during her lunch hours and secured her present position.

Ordinary feminine avocations hold no especial lure for Miss Hosburgh, although she can perform any of them to her own satisfaction.

She has as her hobby the study of parliamentary law, and knows it so thoroughly that she is now able to rise to a point of order without thinking when the chairman fails to perform his duties. She was born and raised in Los Angeles, and lives there at the present time with her mother.

ERIK G. E. BELIN

Now a permanent master in the Union Oil Company fleet, Captain Erik G. E. Belin entered the company's service twenty years ago as third mate on the S. S. Argyll and, after working in various capacities until 1924, became master of the S. S. La Purisima, which ship he still commands.

Belin's position is unique in that he is the master of the only ship in the company's major fleet which visits every navigable port on the Pacific Coast. He is reputedly one of the most dependable and able men in the marine force.

Noted for his fine sense of humor, tangy with the salt of ocean air, Captain Belin has as hobbies fishing—either deep-sea or fresh water—swimming, likewise in both kinds of water, hot or cold—and a keen appreciation of music.

But these are minor things compared to the enjoyment he receives when he visits his home on the Russian River. In fact, he is so enthusiastic about the locality which he has chosen for his permanent address that he has been accused of being the president, press agent, and advertising manager for the Russian River Chamber of Commerce, and, knowing even the little we do about that section of the country, it is easy to see why Captain Belin should be so enthusiastic about it.

ROBERT D. ROBERTS

Employed as a clerk in the credit department in the San Francisco offices in 1917, Robert D. Roberts this month receives his twenty-year service emblem, and is now division credit manager at San Francisco.

Roberts was in the San Francisco offices until 1928, when he was made assistant credit manager at San Jose. In April of 1929 he

became assistant credit manager at San Francisco and, in September of the same year, became credit manager of the Oakland district.

He was appointed division credit manager in September of 1936, which position he now holds.

Competitive athletics engross Roberts when he is not attending to company business. He enjoys all sports, but devotes most of his attention to soccer, a carryover from his definitely English background. During the soccer season he is manager of the highly successful Olympic Club team in San Francisco and, out of season, wields a mean golf club. In other words, he plays an excellent game of pedestrian polo.

CHRIS BROWN

Thoroughly satisfied after twenty years with the Union Oil Company, Chris Brown this month receives his second ruby for his service emblem. Chris was first employed by the company in 1917 as a roustabout in the Santa Fe field.

In 1918 Chris was transferred to the drilling department as a rotary helper and until 1930 held the positions of derrickman, tooldresser and driller in succession. In 1930 he was transferred again to the production department, and since that time has worked in the well-pulling crews at Santa Fe Springs.

Chris has lived in Fullerton for the last twenty-five years and owns his home there and an avocado orchard on the outskirts of the town. Horseshoe pitching takes up a good part of the time when he is not tending the alligator pear trees, and a good number of his pitches bite the dust as ringers.

With twenty years of meritorious service to his credit, a home, an avocado orchard, and a unique ability to pitch horseshoes, Chris seems pretty well fixed to enjoy life to its fullest.

The complete service emblem list for August follows:

Twenty-five Years—August, 1937

Peck, C. W., Compt., So. Div.
Van Harreveld, J. J., Transp., Prod. P. L.

Twenty Years—August, 1937

Belin, E. G. E., Marine, La Purisima.
Botts, W. T., Mfg., Santa Paula Refy.
Brown, C., Field, So. Div.
Chambers, A. E., Sales, No. Div.
Dinnes, B. T., Gas, No. Div. (Coast).
Hambly, W. C., Sales, No. Div.
Hosburgh, M. L. G., Sales, So. Div.
McAllister, W., Constr., No. Sales.
Mercer, W., Mfg., Avila Refy.
Murphy, H. A., Constr., No. Sales.
Roberts, R. D., Sales, Centl. Div.
Rogers, J., Compt., Head Office.
Sherman, C., Field, Texas.
Smith, H. M., Field, So. Div.
Stock, W. L. F., Sales, Vancouver.
Young, C., Sales, Centl. Div.

Fifteen Years—August, 1937

Alt, H. L., Mfg., Oleum Refy.
Angell, R. F., Mfg., L. A. Refy.
Avrit, J. A., Field, So. Div.
Belden, G. L., Sales, No. Div.
Belloni, T. C., Sales, Centl. Div.
Douglass, B. K., Field, Coast Div. (Orcutt).
Hathcock, H. C., Sr., Transp., So. Div. P. L.
Henley, L. H., Sales, No. Div.
Hopkins, W. K., Ind. Rel. & Pers., Head Office.
Jameson, O. H., Sales, No. Div.
Kaye, T., Sales, Vancouver.
Larson, T. E., Mfg., Oleum Refy.
Moitoza, J. B., Mfg., Oleum Refy.
Mosier, N. A., Field, So. Div.
Olsen, C. C., Mfg., Oleum Refy.
Reeder, J. C., Mfg., L. A. Refy.
Rogers, J., Mfg., Oleum Refy.
Rushton, A. G., Field, So. Div.
Salmond, J. T., Sales, So. Div.
Somerville, C. L., Gas, So. Div.
Vance, F., Field, So. Div.
Young, L. H., Transp., Head Office.
Zumwalt, W. B., Gas, No. Div. (Valley).

Ten Years—August, 1937

Alexander, A., Mfg., Oleum Refy.
Anderson, L. F., Transp., Prod. P. L.
Buzan, C. L., Sales, So. Div.
Carpenter, O., Sales, So. Div.
Champlin, W. A., Compt., Head Office.
Compton, C. F., Jr., USS, Centl. Region.
Fanshier, R. A., Mfg., L. A. Refy.
Fletcher, M. R., Mfg., L. A. Refy.
Foster, P. T., Jr., Sales, Centl. Div.
Garner, J. T., Transp., Prod. P. L.
Guffey, J. W., Sales, Centl. Div.
Haskins, Z. R., Field, So. Div.
Hines, C. J., Mfg., L. A. Refy.
Kageyama, S., Sales, Japan.
Kenck, W. C., Auto. Div., So. Div. Garage.
Maduro, H. L., Sales, Panama.
McKay, E. R., Constr., No. Sales.
Naylor, C. B., Jr., Mfg., Oleum Refy.
Painter, H. L., Sales, No. Div.
Reese, M. A., Mfg., L. A. Refy.
Sellers, H. M., Field, So. Div.
Shepherd, G. C., Jr., Mfg., Research.
Steiner, C. A., Field, Valley Div.
Weir, C. J., Jr., Transp., Prod. P. L.
Williams, L. M., Mfg., Oleum Refy.

REFINED AND CRUDE

By Richard Sneddon

Now that the vacation season is over, how about having a kill-the-guy-who-slaps-your-sunburned-back-week?

And just by way of a suggestion for the people who take their vacations late in the season to avoid the rush of people who take their vacations early in the season to avoid the rush of people who take their vacations late in the season, we might mention that while Montana may not have the nicest summers, it always has Great Falls.

Also for those who haven't yet earned a full vacation, it will console them to know that half a loaf is better than no time off.

Now to diverge for a minute, while a certain employee, who shall be nameless, was being photographed for the service emblem page, the photographer politely requested, "Look pleasant, please." Immediately after came the click of the camera shutter, and dismissal of the subject with, "Now you may resume your natural expression."

After all, there is nothing to this photographic business. You merely point your candid camera at the victim and the rest is a snap.

And even if you are dead sure some big man is a liar, it is better to hire another big man to break the news to him.

It is also worth remembering at this particular point that while egotism and mumps are very similar, they can be easily distinguished from each other by the fact that each produces a swelling in a different place.

On the other hand, many a man goes through life looking for a soft job, never realizing that the kind of a man he is, can find it right under his hat.

Now diverging atrociously, we venture to remark that the Community Chest is a worthy project in many ways, and the one thing we like most about it is that it puts all our begs in one ask it.

But we positively refuse to name the Scotchman whose donation to the Chest was a package of moth balls.

And here let us once more reiterate, a ripe old age is nothing to boast about. Consider the egg!

Which reminds us of the old fellow who cured his asthma with high voltage electricity, but died as a result of the shock.

By the way, twenty years from now the average girl will be about six years older.

And then there was the man who had a heart of gold—yellow and hard.

About whom the local newspaper reported, "His health has taken a turn for the worse, and fears are entertained for his recovery."

That great American institution, the home, which is a small, seldom-used building standing on the same lot as the garage, still has certain advantages, in spite of the automobile.

For instance, it gives us a place to wish we were when we are away from home.

And it is about the only place where a man doesn't need to suffer in silence when he yearns to use a toothpick.

Incidentally, some of these busy people who are behind every movement that springs up, are also behind with their rent.

Personally, we have always rented a home, not because of any definite aversion to ownership, but it's just so nice to be able to scratch matches on the sitting room wall.

And perhaps we have already told you about the renter who received notice to vacate, and wrote to the landlord as follows: "I remain. Yours truly. O. Hicks."

"Are you a safe driver?" Sam Malcolm asked the applicant, and the hopeful one replied, "Oh sure! Every accident I have ever been in, it was the other fellow's fault."

All of which shows the futility of waking an insomniac to give him sleeping tablets.

In conclusion, remember that a man with a slender salary should always marry a girl with a small waste.

And what this country really needs is a dollar that will buy plenty of everything except what we sell.

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