

STANDARD OIL BULLETIN



PUBLISHED MONTHLY BY THE STANDARD OIL COMPANY (CALIFORNIA)
OCTOBER

1923



“TWAS A DARK AND STORMY NIGHT”

AND Oh! how welcome Pearl Oil's comfy warmth! Pearl Oil — because it keeps the air sweet and clean—heat by the roomful—and no one need to budge to keep up the cheerful, efficient, little flame. Ready at the touch of a match to go all day, all night—sure warmth for living-room, bath, hall—anywhere steady, cheering warmth is wanted!

To insure best results, use only Pearl Oil—the clean-burning, uniform kerosene—refined and re-refined by the Standard Oil Company's special process. “Coal oil” or “kerosene” may mean any kind of kerosene—say “PEARL OIL”—copyrighted for your protection.



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PUBLISHED MONTHLY BY

THE STANDARD OIL COMPANY (CALIFORNIA)

PUBLICATION OFFICE AND PRINCIPAL PLACE OF BUSINESS
STANDARD OIL BUILDING, SAN FRANCISCO

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The aim of the STANDARD OIL BULLETIN is to furnish first hand and authoritatively to the Company stockholders, employees, and patrons, as well as the general public, facts concerning the Company's business and its methods.

Address all communications to STANDARD OIL BULLETIN, Standard Oil Building, San Francisco, California.

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VOLUME XI

OCTOBER, 1923

No. 6

A FINE RESULT FROM ADVERTISING

THE season of summer travel and recreation on the Pacific Coast is passing with the advent of autumn, the flight of the summer tourist is ending. Soon will come the winter visitors.

It has been a great tourist year on the Pacific Coast, from Canada to Mexico. The national parks have never been so well patronized. Hotels and resorts have been filled. The railroads have brought more people to the great playgrounds of the Far West than ever before. Never have there been so many motor-cars from the East, while the interstate travel up and down the coast has been much greater than in years gone by. Final estimates of travel have not been made, but we hear of increases of thirty, forty, and fifty per cent or more in the number of visitors to various points of interest over the number of last year. There is no reason to doubt that next year will be greater than this, for it is well known that one satisfied tourist creates another.

The principal reason for the increase of tourists is advertising. Never before have the Pacific Coast and its attractions been so alluringly set before the rest of the nation, in advertisements in magazines and newspapers, in photographs, and in motion pictures. Organizations devoted to the development of the several states have carried on extensive campaigns, while the railroads

which come to the Pacific Coast from the East have made great expenditures in attractive and effective advertising.

There is real gain to the Pacific Coast in all this. But not merely in the sums of money the tourists spend, although the aggregate of such expenditures is considerable, and adds to our prosperous condition. The real and lasting gain is in the direction of increasing the permanent population of the Pacific Coast states, ultimately leading to the settlement of the great, empty, but fertile and valuable, areas which are crying for people. For it is experience that the tourist is a potential settler, and the tourist who is financially able to come to the Pacific Coast on pleasure bent, or as one who is looking over the field for a new home, is probably the caliber of citizen the coast needs. Having great numbers of people more familiar with opportunities for business expansion in the Far West will also lead to the establishment of new industries.

Of course, of the tens of thousands of tourists who come from the East, a very large proportion will never leave their present residences or businesses to come this way, but there is an appreciable percentage who can be induced to do so.

The experience of the year has proved the great worth of community advertising properly done.



Richmond Refinery was one of the points visited by the Congressional party during its recent inspection tour conducted under the auspices of the American Petroleum Institute. This is the party; the background is our cafeteria at this refinery, where the visitors were luncheon guests

DISTINGUISHED VISITORS

IN full accord with a certain plan of the American Petroleum Institute, ten members of the California Congressional delegation and one Representative from Virginia, a member of the Naval Affairs committee of the House of Representatives, recently toured the oil-fields of California. Besides the Congressmen and members of their families, the party included officials of several of the big oil companies operating in this state. The official host was President Thomas A. O'Donnell, of the American Petroleum Institute, the organization that conducted the tour.

The American Petroleum Institute is a national organization composed of leading oilmen, representing all phases of the industry. California is the leading oil-producing state of the Union. It occurred to the Institute that it would be an excellent plan to afford the state's Congressional Representatives an opportunity to gain first-hand information concerning this great industry of the state. The plan met with the Congressmen's hearty approval, and the inspec-

tion tour, which began in the southern California fields and ended four days later at Richmond Refinery, on San Francisco Bay, was the result.

In all there were over forty members in the party. The Congressional guests were: Congressman and Mrs. Walter F. Lineberger, of Long Beach; Congressman and Mrs. James H. McLafferty, of Oakland; Congressman Phil D. Swing, of El Centro; Congressman Charles F. Curry, of Sacramento; Congressman and Mrs. H. E. Barbour, of Fresno; Congressman and Mrs. A. M. Free, of San Jose; Congressman and Mrs. Clarence Lea, of Santa Rosa; Congressman John D. Frederick, of Los Angeles; and Congressman P. H. Drewry, of Petersburg, Va.

German Beggar (pocketing marks): It used to be that when you asked for money you would only get some food; now when you ask for food you only get some money.—*Simplicissimus (Munich)*.

"I'm getting old." "Having rheumatism?" "Worse than that. I'm having reminiscences."—*Cincinnati Tribune*.

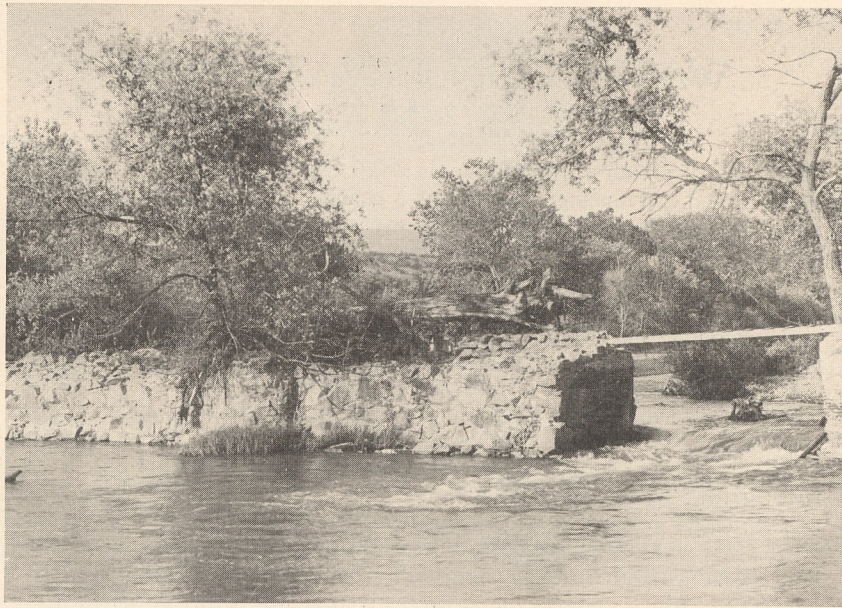
WATER CONSERVATION IN CALIFORNIA

BY way of preamble, permission is asked here to mention a certain un-honored and unsung educator of a generation ago. She is to remain anonymous. It is not known that she ever was rewarded with any other title than the modest one by which she was known to her pupils, who were of the grammar-school grades. Whether death or matrimony eventually robbed the California public school system of her invaluable services this chronicler does not know. This, however, is recalled of her: it was her practice, when she desired to emphasize the importance of something, to ask her class to imagine that something as non-existent. "Children," she would say, "if there wasn't a bit of water in the whole world, what would happen?"

This might call forth answers to the effect that the flowers would wilt; that the little birds would die of thirst; that one wouldn't be able to take a bath, or go swimming; that there wouldn't be any rivers, or lakes, or ocean; that windmills, locomotives, and ships wouldn't be of any use; and that vegetables and fruit trees wouldn't grow. Eventually, through adroit questioning which inspired the answers given, it was firmly established in the minds of all in the class that without water there could be no life of any sort, and that, therefore, water was a most vital thing, and not to be wasted—which very thing someone had done by leaving a school faucet turned on.

In frank imitation of the foregoing method, the BULLETIN now puts the question: "What would California be—especially southern California—without irrigation?" It is not necessary to draw on the imagination for the picture, for it stands out hideously in the memory of many an old-time resident of this fruitful southland. Many of them can recall when irrigation was little practiced here, and that without much understanding. They can recall seasons when expected rainfall failed to materialize and the periods of drought that resulted; when stock by the thousands perished of starvation or were shot down because there was no feed. There were years when the season of tillage was not followed by one of harvest; southern California's famous asset, *sunshine*, threatened at times to ruin it, or at least to forestall all agricultural development, in those non-irrigating days.

Those days are past when the success of agriculture in southern California is left to nature's distribution of water, and they never will come back. Our question should have been put thus: "What will southern California be—especially San Diego County—with more irrigation?" For that is the prospect with which this BULLETIN is concerned, and in this issue will be found data relative to two outstanding projects in the several that make up San Diego County's present water conservation program. Also in this issue, for what interest they may have, are notes bearing on an irrigation system which antedated by more than half a century any other real attempt at irrigation in California.



The masonry dam built a century and a half ago by the neophytes from Mission San Diego de Alcalá, working under the direction of the padres. It served to impound waters from the San Diego River's flood discharges for use at the Mission

CALIFORNIA'S FIRST IRRIGATION SYSTEM

TO Padre Juan Garte belongs the credit and honor of being the first irrigation engineer to design and construct permanent works for the conservation and delivery of water in California, according to the city of San Diego's hydraulic engineer, H. N. Savage, who notes this fact in an article recently appearing in *California Southland*. This pioneer irrigation project dates back approximately to 1769, the year Mission San Diego de Alcalá was founded, and antedates by more than half a century any similar work in this state. The system included a strong masonry dam, eight to ten feet high, and several miles of conduit lined with hand-made cement slabs. Considerable portions of the dam in a good state of preservation and still in place, having withstood the winter floods of almost a century and a half, are mute testimony as to the quality of the work. Also remnants of conduits are to be seen, as shown in the accompanying photographs. Here, in part, is Engineer Savage's description of this pioneer irrigation system:

"The Mission Fathers assigned to San

Diego, with their remarkable comprehensive knowledge and abilities, began the construc-



Here the structure of the conduit is shown. Many of the flat units now serve as flooring in "Ramona's Home," Old Town, San Diego



Olive and palm trees may be seen making their last stand where once were the fruitful gardens of Mission San Diego de Alcalá. Sunshine alone won't make a garden

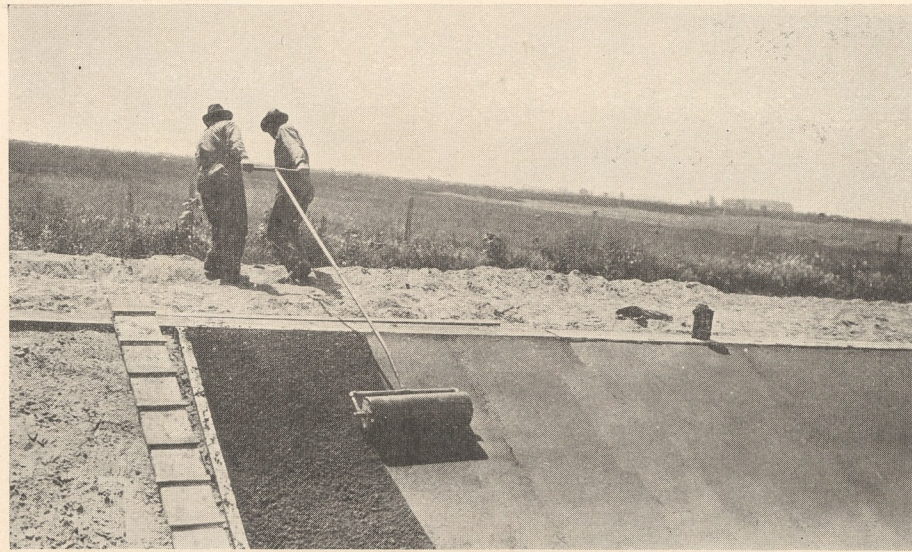


This conduit, about five miles in length, conducted the water from the dam to the site of the Mission

tion of a masonry dam across the San Diego River at the outlet of a natural reservoir basin, located about ten miles up the river from the Bay of San Diego. The dam was evidently intended for diversion and was obviously located where, by the smallest relative expenditure, water could be impounded from the river's flood discharges, and continue to be available throughout the summer season for domestic and irrigation use on the lands about the Mission.

"The missionaries burned the native lime-rock and produced a hydraulic cement which they used in constructing both the dam and the conduit, the latter five miles in length from the dam to the site of the old Mission, where the water was delivered for the many hundred neophytes' domestic requirements and for the irrigation of the gardens and vineyards and olive groves."

Mistress—You seem to have a good deal of company, Mary. *Maid*—Yas'm. Dey's what I call my rainbeaux. Seven different colored gentlemen. Yas'm.—*Princeton Tiger*.



The mixture was rich enough in asphalt to seal up thoroughly under the compression afforded by a light hand-roller

LINING FOR IRRIGATION CANALS

IN the various irrigation districts of California are about thirty thousand miles of main canals and main laterals. It is estimated that only about two per cent of these waterways are lined, the remaining ninety-eight per cent being plain unlined earthen canals.

No one has ever questioned the fact that a lined canal possesses many decided advantages over one that is not lined. Constant seepage from the canals year after year has resulted in raising the underground water-level until in many localities the water so closely approaches the surface that the conditions have become serious. Crops will not grow in water-logged land, and the danger of increasing the alkali content is great.

There are two methods of remedying this condition. One is to install large and expensive pumping equipment and pump the water from the land by means of deep-well pumps, which is costly, and usually is only partially successful, for often this does no more than relieve the situation in the immediate vicinity of the well.

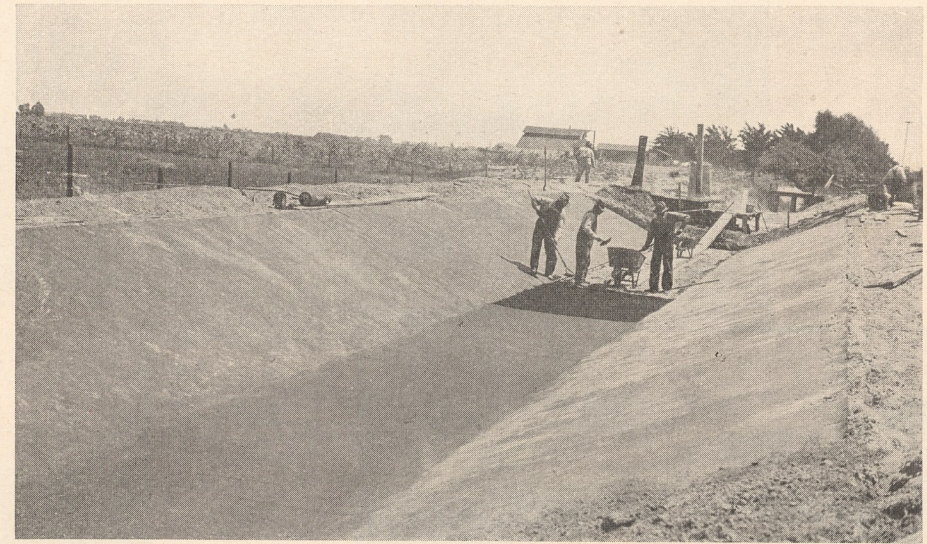
The logical solution is obviously to prevent the leakage from the canals—to line

them so that the water cannot escape and cause the land to become water-logged. This also prevents the loss of a large volume of water through seepage, which is highly important in districts where water is scarce, and therefore valuable. In many cases the value of water saved by lining would be sufficient to pay the cost of lining in a relatively short time. It is estimated that there is enough water in the State of California to irrigate all agricultural lands within her borders. However, unless proper methods of conservation are undertaken, water will not be available for more than half the total acreage.

When a canal is lined the hazard of breaks is greatly reduced, which does away to a large extent with the necessity and expense of patrolling. Also, a lined canal can be built materially smaller than an unlined one, and yet carry the same amount of water.

With the obvious advantages of the lined irrigation canal over the unlined one, one may wonder why the percentage of unlined ones is so great.

It is the cost. The most successful linings heretofore available are most expensive of construction. To build them necessitates



This experiment in canal-lining was made by the South San Joaquin Irrigation District, on a lateral canal paralleling the Hogan Road, about four miles north of Manteca, California

heavy and burdensome bonds. Farmers as well as irrigation engineers have realized the need of lining canals, and, despite the heavy expenditures attendant on their construction, the mileage is increasing each year. And the plea of both farmers and engineers has been for a less costly lining.

As a result, asphalt linings have been suggested, and are being tested, and there is every reason to believe that the experiments will prove that herein lies the solution to this outstanding problem confronting agriculture in California.

It is estimated that asphaltic-concrete linings from one inch to two and a half inches in thickness can be constructed for from six to ten cents per square foot, depending on the availability of aggregates, the location of the work, labor conditions, and other factors.

In the experimental work here in California, as depicted in the two accompanying photographs, sand, limestone dust, and asphalt, thoroughly heated, were mixed and spread over the graded earthen canal and rolled and compacted to a dense waterproof lining. It has been demonstrated that the high percentage of asphalt used not only seals the canal, but also reduces to a minimum the danger of cracking.

Present indications are that the demand of

the California irrigation districts for a cheaper canal lining will be met by asphaltic lining.

Sales Force Changes

MR. H. B. FAIRCHILD, formerly Assistant District Sales Manager at Portland, has been appointed District Sales Manager at Sacramento, succeeding Mr. C. M. Harris, Jr.; the appointment effective October 1, 1923.

Mr. J. H. MacGaregill, formerly Assistant District Sales Manager at Fresno, has been appointed Assistant District Sales Manager at Portland, succeeding Mr. H. B. Fairchild; the appointment effective October 1, 1923.

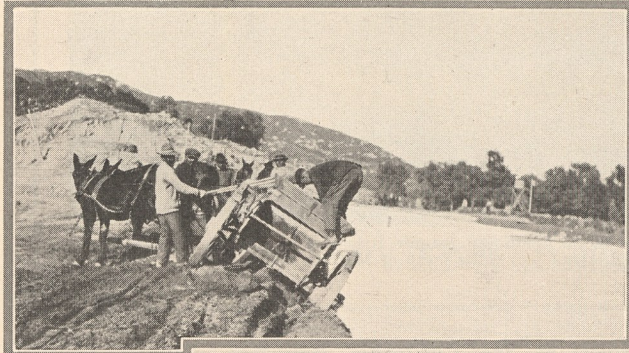
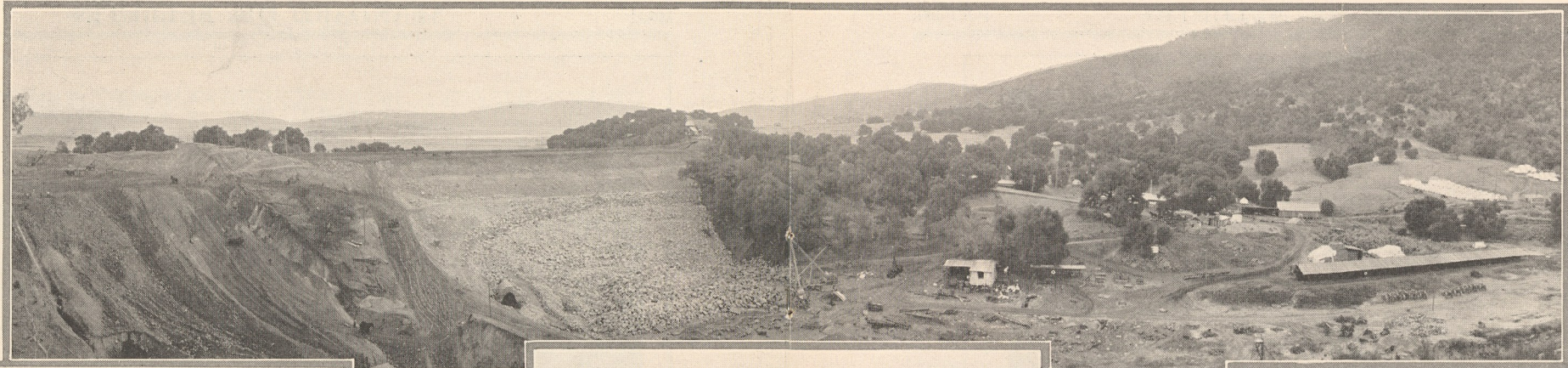
Mr. E. H. Todd, formerly Substation Superintendent, Los Angeles, has been appointed Assistant District Sales Manager at Fresno, succeeding Mr. J. H. MacGaregill; the appointment effective October 1, 1923.

Mr. E. M. Burnham, formerly Assistant District Sales Manager at San Francisco, has been appointed District Sales Manager at San Jose, succeeding Mr. C. O. Van Valer; the appointment effective September 24, 1923.

Mr. L. L. Campbell, formerly Assistant District Sales Manager at Sacramento, has been appointed Assistant District Sales Manager at San Francisco, succeeding Mr. E. M. Burnham; the appointment effective October 1, 1923.

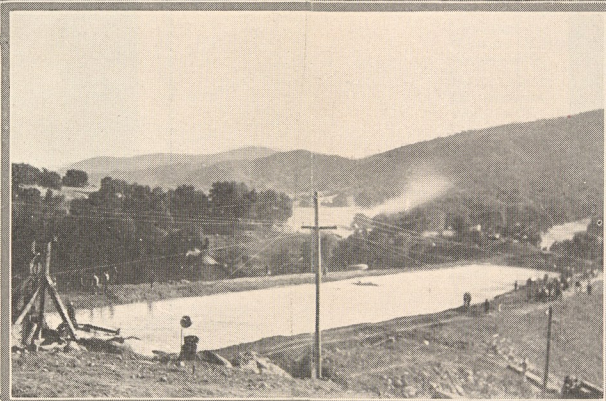
Mr. A. A. Cobb, formerly Assistant District Sales Manager at Spokane, has been appointed Assistant District Sales Manager at Sacramento, succeeding Mr. L. L. Campbell; the appointment effective October 1, 1923.

Mr. T. G. Travis, formerly Substation Superintendent at Los Angeles, has been appointed Assistant District Sales Manager at Spokane, succeeding Mr. A. A. Cobb; the appointment effective October 1, 1923.



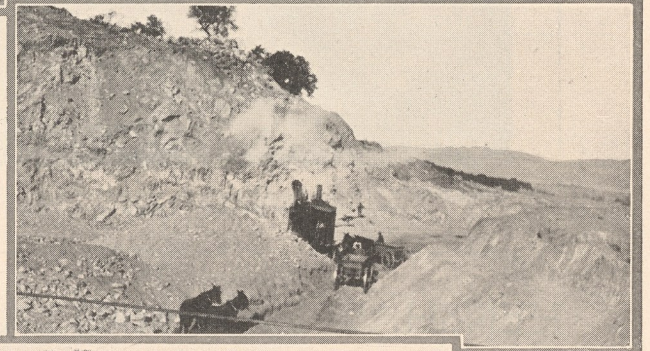
At times both wagon and mules threatened to become part of the dam

Henshaw Dam was created by making a "dry fill" on either side and a "hydraulic fill" in the center

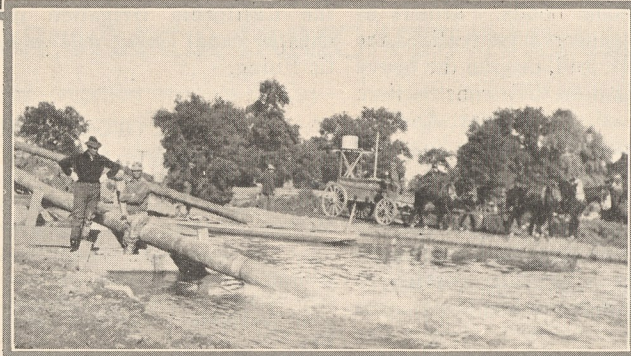


This is the settling-basin on top of the dam into which the mud was pumped

In six months' time 235,000 cubic yards of "dry fill" and 200,000 of "hydraulic fill" were moved into the canyon



Here is shown excavation work attendant on the construction of the Henshaw Dam spillway



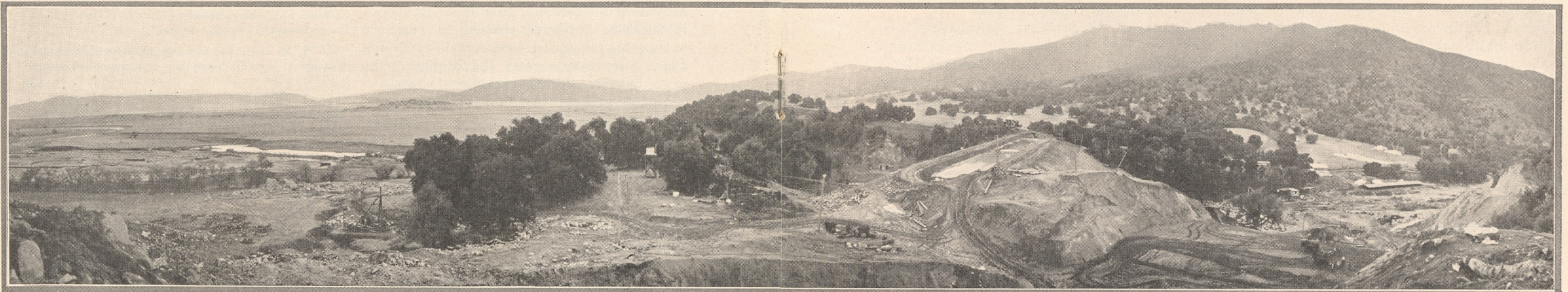
Transporting "hydraulic fill"; water was the vehicle in which earth was moved by pump up to the settling-basin

HENSHAW DAM IN THE MAKING

THIS great earthen dam, located on the western edge of the historic Warner Ranch, in San Diego County, California, is now hastening toward completion. The inland sea it will form will supply water for several towns and place under irrigation over 30,000 acres of dry-farming and grazing lands. For further details see text on following page.

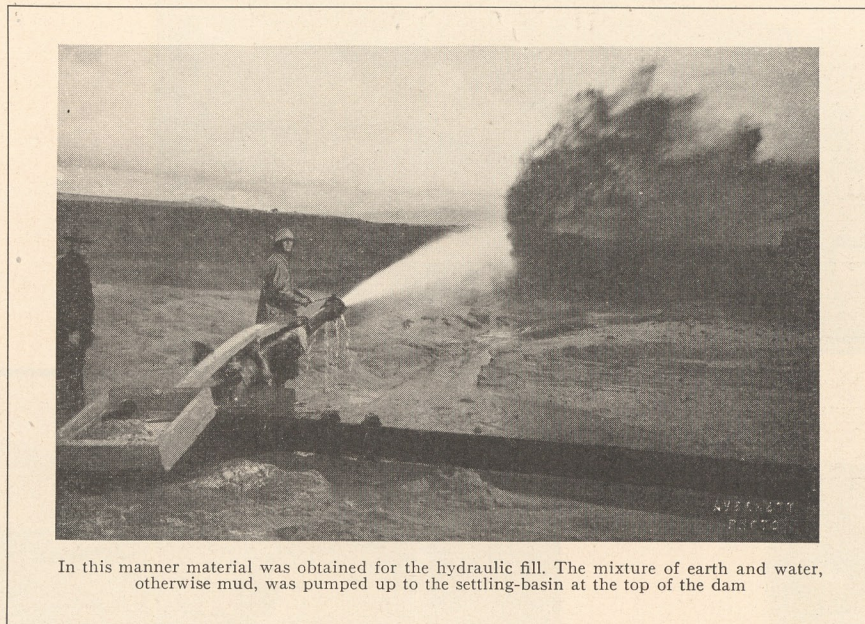


This is the lower end of the tunnel through which Lake Henshaw will discharge. The iron barrels are evidence of Standard Oil participation in this great work



Above (the left half of the photo) is shown the valley which Henshaw Dam will transform into an inland sea. The high ground in the center will become an island far from land

This section of the photograph affords an excellent pictorial explanation of the methods of construction employed, showing the settling-basin into which the mud was pumped, and the dry fills on either side of it



In this manner material was obtained for the hydraulic fill. The mixture of earth and water, otherwise mud, was pumped up to the settling-basin at the top of the dam

HENSHAW DAM AND LAKE HENSHAW

FOLLOWING in the wake of the development of Rancho Santa Fé, described elsewhere in this BULLETIN, another great irrigation project is now hastening toward completion in San Diego County, California. As the first step in this development, Henshaw Dam has been constructed. This huge barrier, which is located at the western edge of the famous Warner Ranch, at the mouth of a great mountain valley, creates an immense storage reservoir, known as Lake Henshaw.

Water from this inland sea will irrigate lands adjacent to and above Rancho Santa Fé and northward in the vicinity of Escondido, Fallbrook, Oceanside, and Vista. Henshaw Dam will impound 165,000 acre-feet, or 66,000,000,000 gallons, of water—almost as much as the combined capacity of all the other dams in San Diego County, of which there are many. It will place under irrigation and make adaptable for intensive cultivation from 30,000 to 35,000 acres of dry-farming land and grazing area, and furnish water to several municipalities. Also, the development of hydro-electric power to the extent of 4000 H.P. is incidental to this construction program.

Henshaw Dam is of dirt construction, 600

feet through at its base and 117 feet high, with a crest line extending 1600 feet across the canyon's mouth. During the period of its construction, 235,000 cubic yards of dry fill and 200,000 of hydraulic fill were moved into the canyon in the space of six months. The site of the dam, with its 400 workmen, its uncanny mechanical giants, the steam-shovels, tractors, motor-trucks, rock-crushers, cranes, pumps, and never-ending stream of wagons carrying earth to the heightening crest, presented a scene of ant-like activity which attracted many a sight-seeing motorist from the regular routes of travel.

Standard Oil products, lubricating oils and fuels, have been factors in the construction and development of both the Lake Henshaw and Lake Hodges projects, and are still doing their part toward bringing them to successful completion. The magnitude of these two projects may be better realized when one learns that their full development will add approximately 70,000 acres to San Diego County's area of irrigated lands. That Standard Products and Standard Service are taking part in these splendid undertakings is a fact highly gratifying to the Company, distinct and apart from the business angles of the service.

OIL FIELD NEWS*

ACCORDING to figures collected by the American Petroleum Institute, Pacific Coast Office, the total production of crude oil in California for August amounted to 26,440,005 barrels, an average of 852,903 barrels per day—an increase of 37,997 barrels per day over July production. Stocks increased during the month 4,468,231 barrels. The total stocks at the end of the month were 83,123,835 barrels. The total stock increase for 1923, up to August 31st, was

21,938,907 barrels. Indicated consumption for August was 21,971,774 barrels, an average of 708,767 barrels per day. This is an increase of 88,005 barrels per day over July consumption.

Sixty-one wells were completed during the month, with an initial daily production of 118,433 barrels, compared with 95 wells completed during July, with an initial daily production of 161,599 barrels.

DISTRICT	PRODUCTION		New Rigs Up	Active Drilling	DEVELOPMENT			
	Barrels (42 gals.) Per Month	Daily Average			Completed	Daily Initial Output	Active Producing	Abandoned
Kern River	600,899	19,384	1	1	..	..	2,189	..
McKittrick	184,305	5,945	..	3	..	..	279	..
Midway-Sunset	2,296,565	74,083	8	44	11	1,040	2,130	3
Elk Hills	686,195	22,135	1	9	..	..	84	..
Lost Hills-Belridge.....	115,575	3,728	1	2	..	..	251	..
Coalinga	446,586	14,406	..	12	..	..	681	2
Wheeler Ridge.....	13,009	420	2	7	2	275	4	..
Watsonville	1,783	58	..	..	..	..	6	..
Santa Maria.....	266,679	8,603	..	3	..	..	327	2
Summerland	4,516	146	..	..	..	..	135	..
Ventura-Newhall	319,096	10,293	..	34	1	500	539	2
Los Angeles-Salt Lake.....	100,906	3,255	..	..	..	..	635	..
Whittier	52,653	1,698	..	..	..	..	175	..
Fullerton	359,921	11,610	..	5	..	..	384	..
Coyote	67,881	2,190	..	4	..	..	103	1
Santa Fe Springs.....	9,998,160	322,522	16	196	21	64,578	193	3
Montebello	332,268	10,718	..	7	..	..	123	..
Richfield	508,509	16,404	1	10	1	100	177	..
Huntington Beach.....	3,242,053	104,582	3	96	7	6,197	212	..
Long Beach.....	6,659,351	214,818	11	264	18	45,743	227	2
Torrance (Redondo).....	183,086	5,906	20	35	..	..	28	..
Compton .....	..	..	5	7	..	..	..	..
Miscellaneous Drilling.....	..	..	6	64	..	..	..	1
Total (August).....	26,440,005	852,903	75	803	61	118,433	8,882	16
July.....	25,262,082	814,906	121	812	95	161,599	8,808	29
Increase.....	1,177,923	37,997	..	..	..	..	74	..
Decrease.....	..	..	46	9	34	43,166	..	13
Average for Year 1922.....	..	..	115	605	67	43,700	9,410	17
Average for Year 1921.....	..	..	90	536	57	15,631	9,425	14
Average for Year 1920.....	..	..	77	403	49	14,125	9,299	13
Average for Year 1919.....	..	..	58	340	47	9,572	8,774	18
Average for Year 1918.....	..	..	50	362	50	10,577	8,210	13

FIELD, REFINERY, PIPE-LINE AND TANK-FARM STOCKS OF CRUDE, RESIDUUM AND TOPS

	Aug. 31, 1923	July 31, 1923	Aug. Stock Increases	Aug. 31, 1922
	Heavy Crude, heavier than 20° A. P. I., including Residuum..	43,696,865	41,669,822	2,027,043	39,124,761
Refinable Crude, 20° A. P. I., and lighter.....	29,029,198	27,576,263	1,452,935	† 15,147,433
Tops.....	10,397,772	9,409,519	988,253	.....
Total.....	83,123,835	78,655,604	4,468,231	54,272,194
Total quantity of above products held at refineries.....	..	21,953,777	20,254,683	9,194,678
Total quantity of above products held in Fields, Pipe-Lines and Tank-Farms	..	61,170,058	58,400,921	45,077,516
Total Stocks, as above.....	83,123,835	78,655,604	4,468,231	54,272,194

*Compiled by American Petroleum Institute.

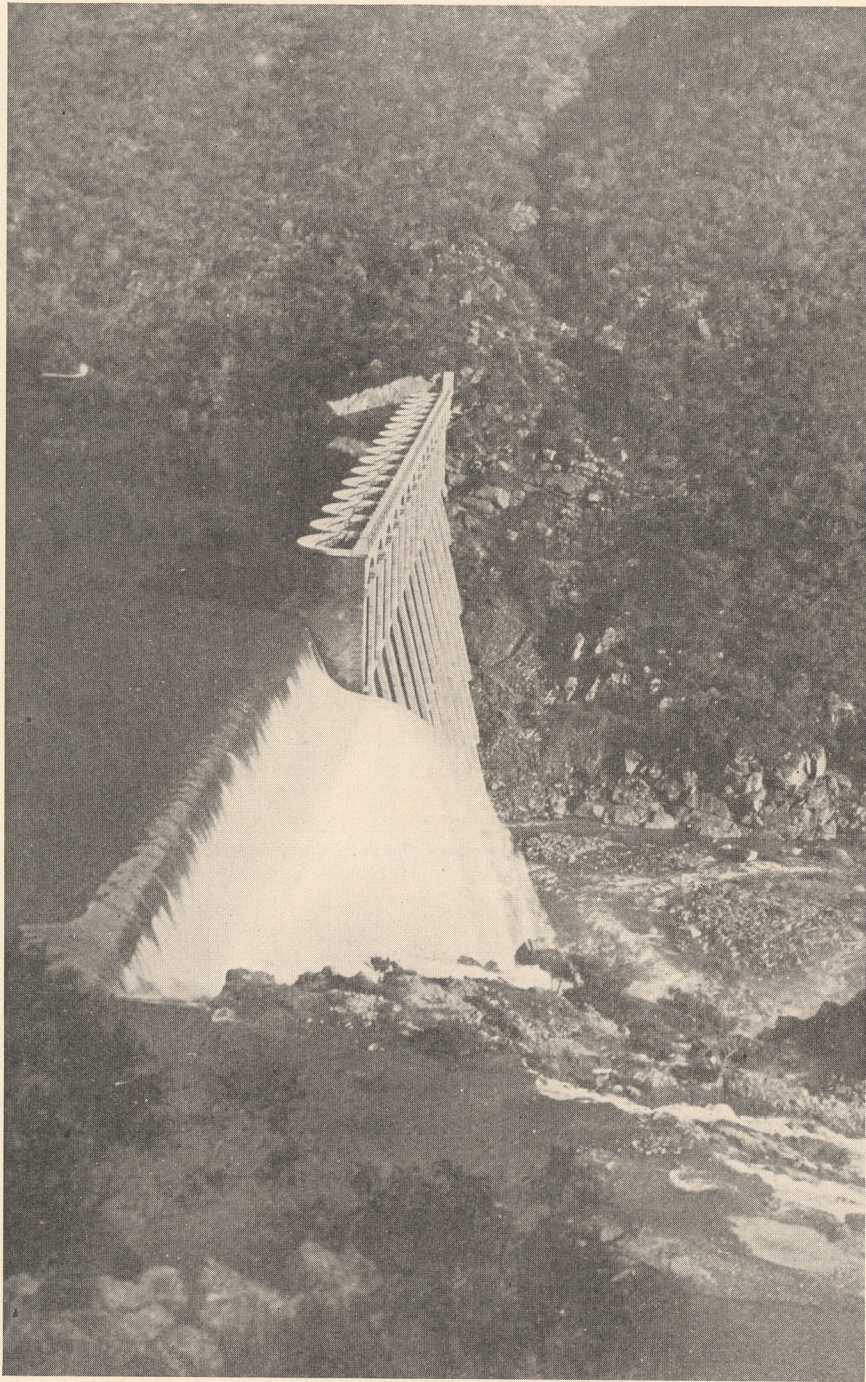
†Includes Tops.

CRUDE OIL PRICES AT THE WELL

SAN FRANCISCO, October 9, 1923

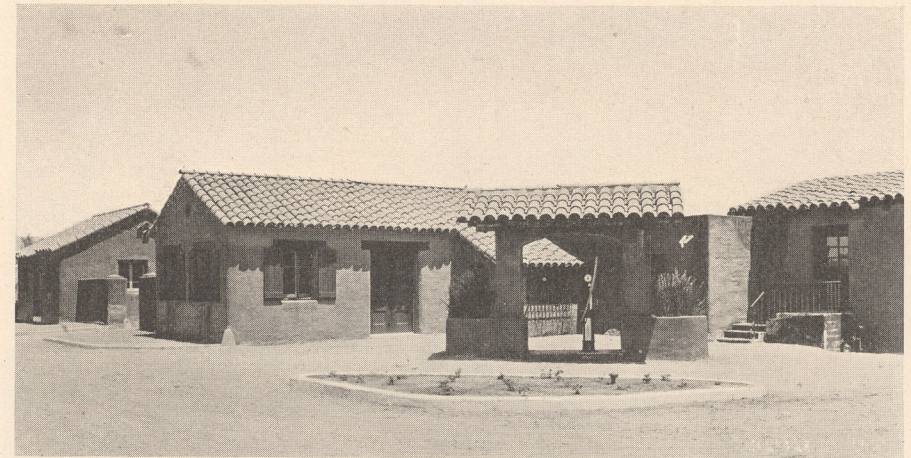
Effective October 9, 1923, the following are the current prices offered by Standard Oil Company for crude oil at the well: San Joaquin Valley, Los Angeles and Orange County Fields

14° to and including 19.9° gravity.....	Per bbl., \$.60
20° to and including 20.9° gravity.....	“ “ .61
21° to and including 21.9° gravity.....	“ “ .62
22° to and including 22.9° gravity.....	“ “ .63
23° to and including 23.9° gravity.....	“ “ .64
24° to and including 24.9° gravity.....	“ “ .65
25° to and including 25.9° gravity.....	“ “ .66
26° to and including 26.9° gravity.....	“ “ .67
27° to and including 27.9° gravity.....	“ “ .68
28° to and including 28.9° gravity.....	“ “ .69
29° to and including 29.9° gravity.....	“ “ .70
30° to and including 30.9° gravity.....	“ “ .71
31° to and including 31.9° gravity.....	“ “ .72
32° to and including 32.9° gravity.....	“ “ .73
33° to and including 33.9° gravity.....	“ “ .74
34° to and including 34.9° gravity.....	“ “ .75
35° gravity and above.....	Per bbl., .76



LAKE HODGES DAM, SAN DIEGO COUNTY, CALIFORNIA

Of the multiple-arch type, this dam is a most imposing structure when viewed from the front. What is of vastly greater importance, however, is that it forms Lake Hodges, a reservoir seven and a half miles in length, which supplies water for Rancho Santa Fé



A glimpse of Rancho Santa Fé's civic center, keynote of the colony architecture. Garage, shops, and all other commercial buildings are built along the same lines. If home-builders have ideas of their own, their plans are submitted to the colony architects for approval—in accord with a clause in the deed that makes one a landholder here

RANCHO SANTA FÉ DEVELOPMENT

TIME was when mere mention of climate in connection with southern California was more than likely to provoke a smile. Alive to this fact, newspaper humorists, vaudeville entertainers, lecturers, and after-dinner speakers narrated California-climate jokes for national consumption. This did not hurt the climate any, nor the state, though it did perturb highly sensitive southland residents who didn't like to be laughed at, and many in consequence developed a habit of talking about "the sunshine here," instead of "our climate." A rose by any other name is just as sweet, and climate, or sunshine, whichever you prefer, continues to be southern California's most valuable asset. Indeed, the passing of the years has seen it enhance in value, due to man's development of what the region most lacked—water.

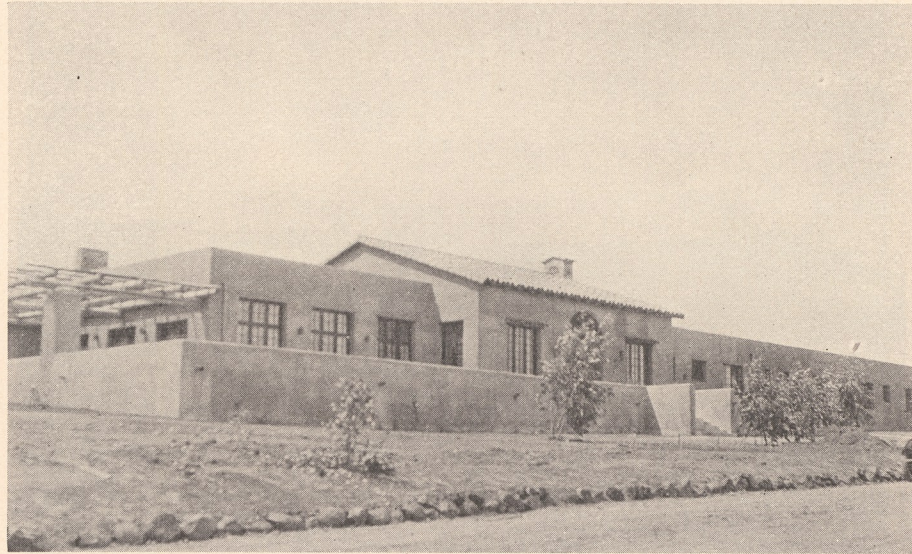
Sunshine combined with water—that is what has made possible southern California's amazing agricultural development, and all else that has come because of it. Men of vision are now devoting their financial resources toward making one vast winter garden of the mesa-lands along the seacoast in San Diego County, from the Mexican border north to the old Mission town of San Juan

Capistrano. Outstanding among these projects is the Rancho Santa Fé—one more example of development based on highly favorable climate and an irrigation system.

Rancho Santa Fé was originally known as Rancho San Dieguito, a famous land grant whose history dates back to the earliest Spanish occupancy of California with its wealth of romantic associations. Here, amid remnants of old adobe buildings, relics of that colorful past, is developing a colony that promises to become famous as a community of country homes.

To provide the life-giving water for this great expanse of fertile soil, a million and a half dollars were spent to build Lake Hodges Dam, a magnificent structure towering more than 150 feet above its bedrock base, forming a lake seven and a half miles in length, where 37,700 acre-feet of water are held in storage. This immense reservoir, also a subsidiary lake known as San Dieguito Reservoir, and an elaborate system of conduits, both surface and underground, make possible the conversion of the arid lands into orchard and garden.

Rancho Santa Fé's modern irrigation system stands in sharp contrast to the primitive



La Mirada, Rancho Santa Fé's new hotel, recently opened. Here names as well as architecture are pleasing echoes of the California that was a province of Spain

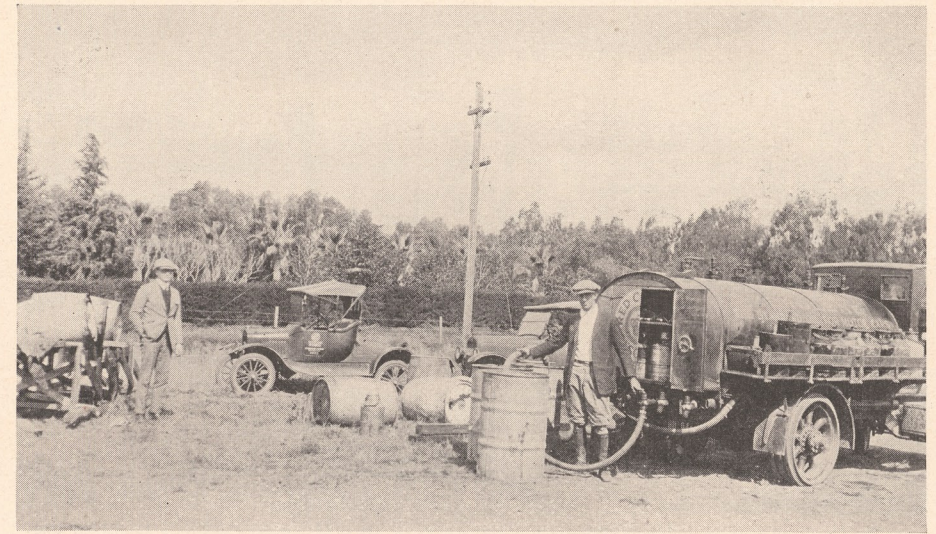
efforts of the Mission padres, described elsewhere in this issue, yet the two have much in common.

Viewing either, one's thoughts are apt to fly back to the California that was once a province of Spain; and when one enters Rancho Santa Fé's civic center they are certain to do so. Thick-walled, with deeply recessed windows and iron-studded doors, this group of adobe buildings is unmistak-

ably of Spanish-Californian descent. But if your thoughts have flown back into the past because of this quaint and beautiful architectural display, just as quickly do they return to the present when you discover that what you might have mistaken for the town well or town pump is a gasoline-filling station; these town-builders have not overlooked the importance of the motor-car as a factor in American life today.



A few acres of winter peppers under way at Rancho Santa Fé. Citrus fruits and alligator-pears are to be specialties—but they don't come in a season



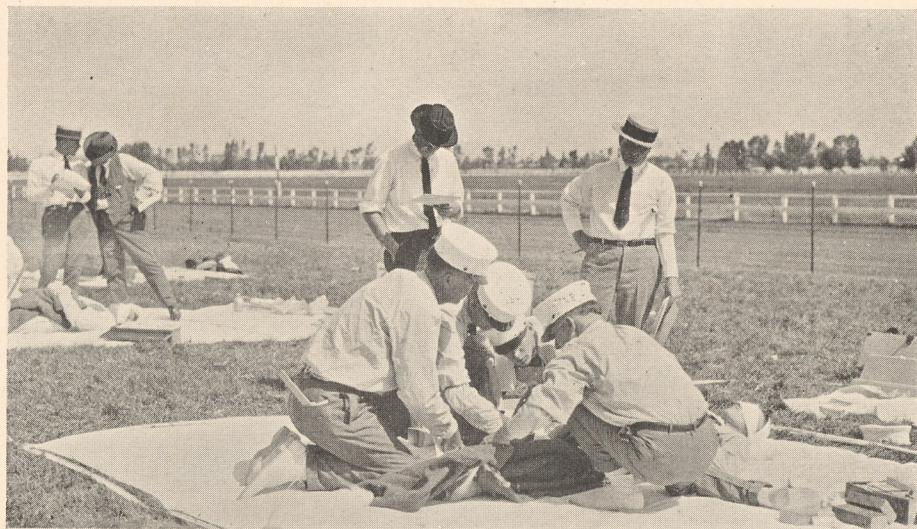
A tractor supply-point. Frequent deliveries of Standard Oil Products are made from our Oceanside substation to various points of activity on Rancho Santa Fé

The growth of the Rancho Santa Fé colony will be guided by technically trained men—soil experts, architects, and engineers of judgment and experience—to take full advantage of what nature has contributed, and to create what is lacking; that is the plan of the colony's sponsors. With plenty of sun-

shine, otherwise climate, and plenty of water, things grow amazingly fast. It will be interesting to see what the passing seasons bring, agriculturally and otherwise, at Rancho Santa Fé, even if circumstances or inclination preclude one's becoming party to the development.



In the foreground is evidence of activities conducted by men working with mattock and axe; in the background the first plowing is in progress. Had nature supplied much water here, this would have been a jungle



The Standard Oil boys in action. This team was the winner of the first annual California industrial first-aid contest, held in Sacramento last Labor Day

A STATE FAIR CONTEST

AT the recent California State Fair, held at Sacramento, the biggest pumpkin was awarded a prize for being bigger and handsomer than all other pumpkins shown in competition with it; and the fastest horses likewise won awards for showing their heels to others who proved less speedy. The fair, in fact, is built around contests and competitive exhibits, the idea being to afford opportunity for displays and demonstrations exemplifying human progress in California, through mediums that may vary in their nature as greatly as do silkworms and tractors.

Thus it happened that the California State Fair this year was the scene of the "First Annual California Industrial First-Aid Contest," conducted under the auspices of the Society of Safety Engineers of California. And it was won by "the boys from Standard Oil."

Ten teams competed, representing five industries, a police force, and a fire department. The Fresno Fire Department took second place, and the Empire Mines Company, of Grass Valley, third. The meet was hotly contested, the three highest scores being close, the Standard Oil Company's team receiving 99 per cent.

To the Standard Oil team goes, besides the championship of the state, the Perpetual

Cup, presented by E. D. Bullard Company, of San Francisco, and a silver trophy offered by our own Company for first prize. Each of the five members of the winning team received a silver medal from the National Safety Council, a bronze medal from the American Red Cross, and a twenty-dollar gold piece and a five-dollar gold piece.

The Standard team was chosen from employees at the Wait Pump Station because these men had had the advantage of two periods of training from the Bureau of Mines in the last two years, besides practice work among themselves between times. The team was composed of M. A. Nee (captain), S. R. Bauman, A. L. McGinnis, M. P. Shea, and A. Nelson (patient). Martin Thu and Charlie Garing were substitutes.

To date over one thousand Company employees have been trained in first-aid work conducted under the direction of the Bureau of Mines. The Company considers this training a most valuable safety carrier; the men trained appreciate safety measures and do much toward furthering the Company's efforts to make *safety-first* a habit in the organization. First-aid training has enabled employees to give assistance to injured persons outside as well as within the Company.

THERE IS A DIFFERENCE IN GASOLINES

GASOLINES—good, fair and poor—are on the market. They give good, fair and poor results. However, it is not difficult to choose among them.

This Company's high-quality RED CROWN GASOLINE will give you all that you desire—easy starting with no sacrifice of power in the cool of the day or night, the full power and flexibility of your engine always, and protection against the difficulties, dangers and repair expenses attendant upon the use of inferior gasolines.

The experience of motorists shows that it *pays to fill the tank with "Red Crown" and nothing else.* Fill at Standard Oil Service Stations, or at garages or other dealers displaying the Red Crown sign.

STANDARD OIL COMPANY
(CALIFORNIA)

THE
GASOLINE OF
QUALITY

*Easy starting
with no sacrifice
of power*





CONSERVING THE WEALTH IN MACHINES

ZEROLENE oils and greases are more than high-quality petroleum products made from the world-famous Western Naphthenic Base Crude Oil; they are scientific achievements of this Company, worked for and attained to reduce friction and wear to the very lowest degree in automobiles, tractors, pumping and other engines and machines. They make available for useful work the maximum power of these mechanisms, and conserve the wealth represented in them by keeping them fit for the longest possible time. You can buy no better lubricants than Zerolene oils and greases—even if they do cost less.

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COMPANY
(CALIFORNIA)

