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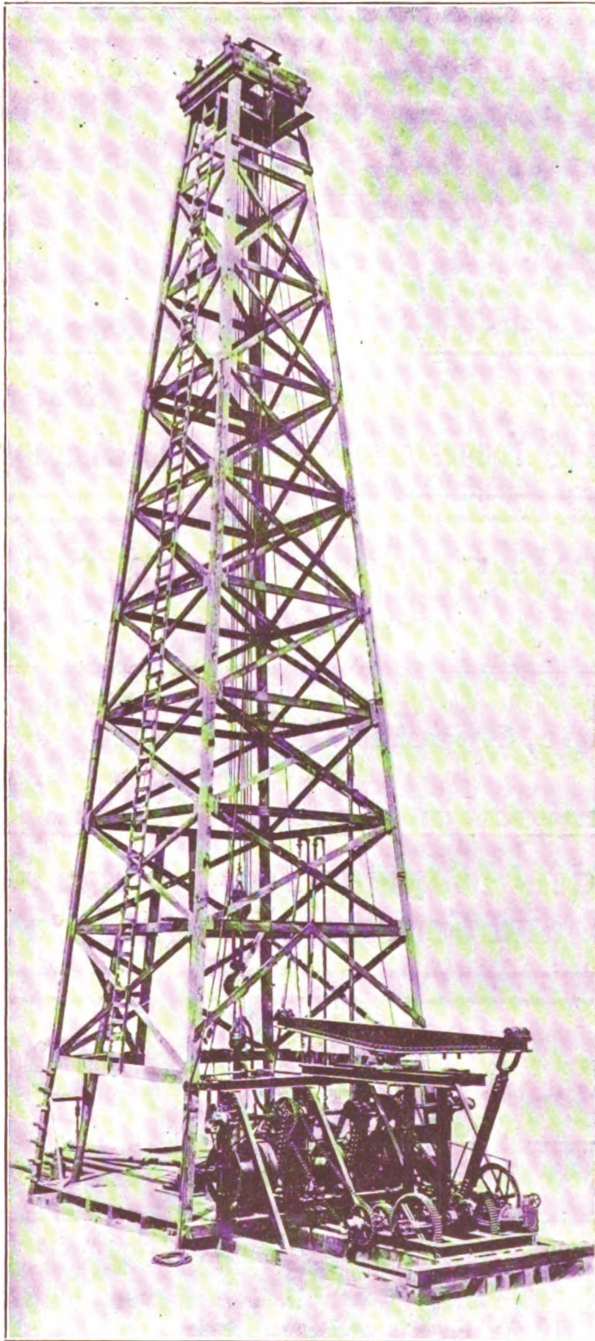
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VOL. 3

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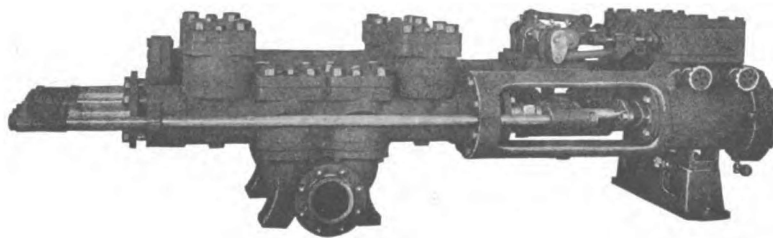
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545 Mateo Street

Los Angeles, Cal.

THE OIL AGE

Vol. 3

April, 7, 1911.

NO. 11.

CALIFORNIA OIL OUTLOOK FROM AN ENGLISH VIEWPOINT.

Mr. Clarence B. Wisner, until recently the California manager of the British Consolidated Oil Corporation Limited, and other English interests in the Coalinga and Midway fields, has given an opinion of the outlook for California oil to the Petroleum Review, and we are glad to give our contemporary credit for Mr. Wisner's statement, as follows:

"The attention of the world has been drawn to California's great petroleum fields and the wonderful production of wells in the Midway field. New capital has come from all parts of the world to share in the game, for such it became early in the year 1910. The Lakeview well, with its production of 5,000,000 barrels in nine months, turned a legitimate industry into a game of chance, which threatened the demoralization of markets and the bankrupting of many individual companies. The year 1911 opens with an increase of 13,000,000 barrels of oil in storage over January, 1910, nearly all of which increase is held by the Independent Producers' Agency, to which Agency the credit is due of steadying the market and preventing the throwing on the market of the surplus at any price, perhaps 10 cents per barrel. The Agency is composed of about 150 producers of fuel oil in the San Joaquin Valley, taking in the Midway, Kern River and Coalinga fields. The Agency oil is marketed jointly by the Associated Oil Company and the Union Oil Company, which interests allied together control 85 per cent of the fuel oil of the state.

"The great increase in storage oil led to a united effort of these interests to broaden the fuel oil market, and every large consumer west of the Rocky Mountains was solicited to adopt liquid fuel. Now was the opportunity; low prices could be made for a term of years as an inducement to railroads to change their equipment, build tank stations, provide tank cars and arrange for the

change; the seller, backed by the ample storage, to guarantee deliveries, obtained a ready audience from buyers who, a year before, were afraid of a possible shortage. The result of the summer's work was sales of approximately 15,000,000 barrels, deliveries extending over a three-year term. The pendulum is now swinging back to normal position, consumption is increasing, and production slowly decreasing, and if no more abnormal wells are brought in the market has passed the crisis with the outlook ahead to the Agency member based on sales already made to net him around 40 cents to 50 cents per barrel at the well for the years 1911 and 1912, with a possible increase from new business.

"The business of producing petroleum in California may be carried on conservatively and profitably, and while for the moment consumption is not quite equal to production, it is probable that the surplus will be drawn upon freely before the end of the present year. The consumption of the railroads will steadily increase. The Southern Pacific and Santa Fe railways are double tracking their lines from Chicago to San Francisco, Los Angeles and Portland, and \$20,000,000 will be spent in San Francisco in the next four years on the Panama Exposition. This all means increased consumption. Then with the completion of the Panama Canal in 1914, the greatest single foreign market will be opened, viz: the marine service of the world. On the whole, the outlook for the producer is good.

MILEY & GRAHAM AMALGAMATE INTERESTS.

Under date of March 3, 1911, there was incorporated under the laws of California, the State Consolidated Oil Company, with an authorized capitalization of \$1,250,000, divided into 1,250,000 shares of a par value of \$1.00 each. The object of the incorporation was to amalgamate the interest of the E. J. Miley, David J. Graham and their associates into one company, the properties taken in by the new company being 20 acres owned by the State Oil Company in

section 19-30-22, McKittrick field, upon which are eight producing wells, giving a production of something like 16,000 barrels per month; 40 acres in section 16-29-21, in a district known as the McKittrick Front, and being about three miles north-east of Temblor (both of these properties being owned in fee); the mineral locations on 120 acres in section 22-30-22, near the town of McKittrick; a one-eighth royalty lease on 40 acres consisting of the southeast quarter of the southeast quarter of section 17-31-32, north Midway, which was operated in the name of King Alban Oil Company, and has one well on it drilled to a depth of about 1380 feet, with complete equipment of standard drilling rig, tools and camp, etc., and the ownership of 20 acres in section 26-31-22 north Midway field.

For all these properties, equipment, etc., the company paid 484,000 shares of the capital stock, leaving in the treasury 766,000 shares, and it is figured that from the present income alone, from the property in section 19-30-22, the company will be able to pay dividends at the rate of 8 per cent per annum, if the funds were devoted to this purpose. The company has a contract with the Associated Oil Company for a total of something over 1,000,000 barrels of oil at the rate of 50 cents per barrel net, and something like 200,000 barrels have been delivered on account of this contract. Well No. 9, on section 16, has been spudded in and is expected to be completed in six weeks.

The directorate of the company consists of E. J. Miley, president; David J. Graham, secretary and treasurer; C. B. Barnes, J. D. Johnston and J. F. Nadon. The main office of the company is in the new Los Angeles Trust & Savings Building, Los Angeles. Mr. Johnston is a builder and contractor of Newport, Rhode Island, and Mr. Nadon is a resident of Vancouver, British Columbia.

GUARANTY ACQUIRES ANOTHER PROPERTY.

A few days ago the Guaranty Oil Company definitely closed a deal whereby it acquires a lease on 80 acres of land in section 7-11-23, Maricopa field. This lease was formerly held by the Canadian Queen and California King Oil Companies, 40 acres each, and upon one of the 40-acre tracts there was a well drilled to a depth of about 1250 feet. This well and all the personal property, which is said to invoice something like \$11,000, was taken over by the Guaranty on favorable terms. The description of the property is the west half of the northeast quarter of the section, and an entirely new lease was made with the Yellowstone Oil Company which controls the property.

This is the fourth property taken over by the Guaranty since its organization, the first being the Lucky Boy, 120 acres, in Midway; the second being the St. Elmo, 60 acres in Coalinga; the third being the Manhattan Midway, 40 acres in Midway; and finally this 80 acres in Maricopa.

Good work is being done in the fixing up of the Coalinga wells, and we understand the production has been practically doubled in the past month or six weeks. Five of the wells are already in producing shape.

On the Manhattan Midway property, we are informed that in the well which is going down for the deep sand, the hot salt water has been shut off by mudded walls by means of Texas circulator, and that as soon as the shell lying above the oil zone is reached, it is the intention to land the 3-inch casing.

It is the intention to prosecute work immediately on the new property in section 7, and two wells will be drilling on leases on the Lucky Boy property within a short time.

STANDARD DENIES RUMOR.

So much publicity has been given to the insistent rumor that the Standard Oil Company had purchased the controlling interest of the Associated Oil Company from the Southern Pacific Company that D. G. Scofield, vice-president of the company, has issued an official denial, as follows:

"We desire to state in the most positive manner possible that both the article and statement mentioned are without the least foundation in fact and that the Standard Oil Company, neither directly or indirectly, has any option on any of the stock of the Associated Oil Company, or any of the property owned or controlled by it, or any interest whatever in any negotiation leading to same."

AUBURY SUBMITS FIGURES

In his campaign for the use of oil fuel by the United States Navy on all government vessels plying on the Pacific, State Mineralogist, Lewis E. Aubury has just sent a strong memorial to the Secretary of the Navy, in which the claims for fuel oil in preference to coal are urged. In this memorial Mr. Aubury submits statistics to prove that a saving of over \$1,000,000 would have resulted from the use of oil instead of coal, on the Pacific Ocean alone, for the fiscal year 1910, if all government vessels had used this class of fuel.

After a general introduction, in which the sources of information are quoted, Mr. Aubury gives the following four reasons why oil should be substituted for coal. Mr. Aubury has the backing of many of the prominent oil men in California in his campaign:

1. The supply of fuel oil is vast. The United States Geological Survey has estimated the contents of the probable oil lands of the United States in barrels of 42 gallons each and has come to the conclusion that the minimum supply is 10,000,000,000 barrels, and that California has a minimum supply of 5,000,000,000 barrels and a maximum supply of 8,500,000,000. That is that California has one-half of the estimated minimum and one-third of the estimated maximum of the entire country. The discoveries of oil measures in several localities in California in the past few years, where the presence of petroleum had not been suspected, leads to the safe and reasonable conclusion that the actual supply in California greatly exceeds the estimate herewith quoted on the authority of the U. S. Geological Survey.

2. The supply of California petroleum is accessible by means of pipe lines from the various fields. It can be made splendidly convenient by the establishment of stations for the uses of the Navy of the United States at the seaports of the Pacific Coast, to which the oil can be piped without interruption and without danger of seizure, which naturally threatens coal supplies that are brought across the ocean by ships.

3. Fuel oil is much cheaper than coal for the uses of the Navy. Referring to the annual report of the Paymaster General of the Navy for the fiscal year 1910, I find that the coal supplied to the Navy on the Pacific Ocean averaged a cost including

transportation in foreign bottoms, of \$7.95 per ton at Puget Sound; \$7.70 at Honolulu; \$8.04 at Mare Island Navy Yard; \$6.49 at California City Point. The cost averaged, including transportation in American bottoms as follows, per ton, according to the statement made officially by the Paymaster General of the Navy: When laid down at Puget Sound, \$9.95; Honolulu, \$8.62; Mare Island, \$9.74; California City Point, \$9.42. The cost per barrel of California fuel oil laid down at Puget Sound, including freights and handling is carefully estimated at 90 cents; laid down at Mare Island, 80 cents a barrel under large contracts; California City, 80 cents a barrel under large contracts; Honolulu, \$1.20 a barrel under large contracts.

It has been calculated that three and one-half barrels of California fuel oil contain as much steam-making capacity as one ton of steam coal, on the average. Assuming this to be correct the cost of oil laid down in sufficient quantity to take the place of a ton of steam coal, at each of the points mentioned would have been as follows: Puget Sound, \$3.15; Mare Island, \$2.80; California City Point, \$2.80; Honolulu, \$4.20. The enormous saving is obvious when the figures are compared.

Taking the official figures for the coal laid down at Pacific coast yards for the uses of the navy in the fiscal year 1910, as an example, I find that the saving in that one year would have been \$1,027,556.10 if oil had been used for fuel instead of coal. The total cost of coal at each yard and the number of tons delivered at each are given in the first of the following tables and the number of barrels of fuel oil that would be required to take the place of the coal and the cost of such oil are included in the second table as follows:

COAL.		
	Tons	Cost
Puget Sound ..	68,732.00	\$440,478.48
Mare Island	51,132.28	367,756.12
Calif. City	55,016.00	385,190.52
Honolulu	101,599.60	726,937.18
		<hr/>
		\$1,920,362.30
FUEL OIL.		
	Bbls.	Cost
Puget Sound ...	240,562	\$204,477.70
Mare Island ...	178,962	134,971.50
Calif. City	192,556	144,417.00
Honolulu	355,600	408,940.00
		<hr/>
		\$892,806.20
Saving, \$1,027,556.10.		

(4) In addition I have to urge the following reasons that were adduced by Rear Admiral Cone in his Los Angeles address regarding the advantages, other than economy, that will arise because of the substitution of fuel oil for coal in the Pacific Naval fleet: "The advantages of oil over coal are—that a smaller weight of oil is necessary to produce the same power; it can be taken on board ship without manual labor and without interruption to the routine of the ship; the problem of fueling at sea is solved; oil can be burned smokeless, which is an important tactical consideration; a considerable reduction in personnel is possible; coal and ash handling gear is eliminated; the storage and handling of oil is much easier than that of coal and will result in a cleaner ship with consequent increase of time available for training and drills."

LUCEY GETS BIG ORDER.

The supply firm of J. F. Lucey Company, with headquarters in the various fields of California, as well as maintaining an office in Chicago and doing business in the eastern fields, has just succeeded in closing a contract for a large amount of supplies to be shipped to the Burmah Oil Company, at Rangoon, India. The local office is not yet informed of the details of the order nor a complete list of the material going forward, but it includes both rotary and cable outfits, casing, etc., and will amount to several hundred thousand dollars. The greater part of the material will be shipped from the East, but such material as is manufactured here in California will be shipped from this coast direct.

The Burmah Oil Company seems determined to thoroughly Americanize its operations in the Indian fields, having recently employed a large number of California drillers who sailed for India several weeks ago. This is a British organization with headquarters in Glasgow, Scotland.

THE GEOLOGY OF PETROLEUM

Origin and Distribution of Oil and the Great Epochs of its Formation;
Organic Sources May Be Influenced by Distillation Caused by
Solfataric Heat.

By Arthur Lakes in Mining Science.

To understand the geology of petroleum and before prospecting for it we must know something of its origin and distribution.

Deposits of oil are widely distributed over the world. They occur in the rocks of nearly all the geological ages, particularly those of a marine origin. Vast areas of the earth's surface are underlaid by oil-bearing strata which have never been as yet tested, and still vaster ones lie beneath the bed of the ocean. Along the coast of California masses of bitumen are constantly being thrown on shore by the waves from tar springs or natural oil wells out at sea and numerous productive wells are put down in the sea by means of trestle breakwaters or piers run out from the shore, whilst a line of other oil derricks continue far up on the land.

The principal oil horizons of the United States and North America are all of marine origin. They are as follows:

Pennsylvania and Kentucky—Upper Devonian.

Canada—Lower Devonian.

West Virginia—Sub-Carboniferous.

Ohio—Carboniferous, Upper Devonian, Lower Silurian, Trenton limestone.

Colorado and Wyoming—Cretaceous.

California and Gulf Region—Miocene Tertiary in Coast Range from Los Angeles to Cape Mendocina and in the Coastal Plains bordering the Gulf of Mexico.

There may be two or three "oil horizons," or so-called "oil sands," in the same field at various intervals below one another. In a whole country several geological horizons at varying depths may be represented which carry oil.

Organic matter, both vegetable and animal, such as seaweeds and shellfish and microscopic diatoms usually of marine origin, decomposed and undergoing spontaneous distillation at low temperatures, with or without pressure, appear to have originated the oil. When we consider the vast bodies of unctuous, fatty, cellular sea

weed such as those of the famed Sargasso sea, with which the ocean and its coast abound, together with its teeming animal life, including its microscopic life in the form of diatoms, we appear to have a living example of the fossilized organisms found in the marine strata that yielded, under certain conditions, the petroleum of our oil fields. Oil from such sources was conveyed to and stored up in the rocks by aid of hydrostatic pressure, by water contained in the adjacent rocks, whilst gas commonly associated with petroleum also aided in its distribution.

Limestones and sandstones of marine origin are the great oil-bearing rocks and in some regions even shale in its sandier zones or in lenses of porous sandstone interbedded with or included in its mass. The same rocks that are porous and water-bearing and yield artesian water are also the kind that are oil-bearing; but all water-bearing or porous rocks do not necessarily carry oil. Dry shales may in some regions yield on distillation considerable oil, but shales between oil-bearing rocks are commonly barren. Locally, oil is sometimes found in porous volcanic rocks, filling their cavities and crevices derived by capillary attraction or distillation from adjacent oil or bituminous sedimentary formations, but not indigenous to the igneous rocks.

Oil in limestone has been attributed to animal origin; that in sandstone to a vegetable one. Some have even claimed limestone to be the parent rock of oil.

Petroleum is a hydrocarbon, consisting of carbon and hydrogen with oxygen and, sometimes, nitrogen and sulphur. The last mostly from animal organisms in limestone. Nitrogen is a residue of imperfect distillation.

Oil-bearing organisms grew and still grow in shallow seas, streams or swamps, but particularly in the sea.

Diatoms or microscopic organisms on the border line between animal and vegetable life have been found to contain oil in their substance. These organisms exist both in fresh and salt water and on the bottom of the

ocean. In the Arctic ocean, and in the sea around the Shetland islands, living diatoms sometimes form vast floating banks of a yellowish, slimy, mass, which impedes the prosecution of the herring fisheries. The frustules of these plants accumulate at depths of from 1260 to 1975 fathoms as a pale, straw-colored deposit. Such are among the copious resources for oil in the present ocean, whilst the siliceous remains of these from prehistoric seas form beds over 50 feet which in various parts of the world cover many square miles, particularly on the California, Texas, Gulf and Pacific coasts, and combined, perhaps, with the remains of seaweeds, were the original sources of oil found in those regions. Nummities, or little round, flat shells resembling a coin (nummus, Latin for money), are characteristic of the old marine Tertiary formations and oil-bearing limestone which is widely distributed over Asia Minor, North Africa, China and Japan, attaining a thickness of several thousand feet. In the Himalayas these marine beds are lifted 16,000 feet above the present sea level. Some of the pyramids are ummulitic limestone. Such molluscs could readily have supplied the oil found in those limestones.

The Caucasian oil of Baku is attributed to molluscs, and the remains of fishes which abound in its oil-bearing strata. California oil has been attributed both to seaweed, like those abounding at present on its coast, and to marine diatoms contained in its marine oil-bearing Tertiary strata. Oil is forming now from decomposition of seaweeds on the coasts of Sardinia and Sweden, and gas issues from many parts of the sea.

Asphalt is derived from the congealing or oxidation of petroleum, as for example in the great asphalt lake of the island of Trinidad. Masses of bituminous or asphaltic matter are frequently thrown ashore by the waves along the coast of Southern California, no doubt from some tar springs out at sea coming to the surface of the ocean from fissures in the sea bottom.

Oil shale, common in Scotland and New Zealand and in the Bookcliffs of Colorado, owes its peculiarity to vegetable and animal matter in its constituents, and may pass on one side into cannel coal and on the other into common shale. This bituminous element was derived, according to Geikie, from a pulp mass of decaying vegetation such as algae and other simple forms mingled with animal remains, which contributed to the carbonate constituents of the original

mud. Oil shale in the Lothians of Scotland distills as much as 30 to 60 gallons of oil to the ton, whilst the oil shales of Colorado readily burn with a match and in places exude oil or bituminous matter.

Coal and petroleum, though both of organic origin, have no relation to one another. Coal is formed from terrestrial vascular plants in the presence of fresh water; petroleum and bitumen from marine plants and animals in the presence of sea water. Coal was formed in fresh water peat marshes; petroleum in the bed of the sea. As an example of modern petro-

found in the Tertiary from the underlying Cretaceous limestones. Both Europe and California have their oil wells in marine Tertiary formations, and I. Wilbur thinks it not improbable that oil may be found underlying all the Tertiary lake or sea beds in North America, as these extend over New Jersey, Florida, the Coastal Gulf plains, up the Mississippi valley into Missouri and to the Ohio river; and the Tertiary sea extended over the site of California, depositing the Tejon and Miocene oil-bearing series. The oil-bearing area of this period alone, from a geo-



IN THE WHITE OIL DISTRICT, NEWHALL

leum, coral reefs are not unfrequently charged with recent petroleum derived from the swarming organisms occupying the shallow pools of the reef and exposed to the heat of those tropical regions.

The marine Tertiary, especially its Miocene division, is the principal oil-bearing zone of the Texas-Louisiana Gulf region and of the Pacific slope in California; much of these beds still lies beneath the sea. The Tertiary period was one of great volcanic activity, and volcanic gases may in some instances have distilled oil

logical point of view, is very extensive in North America. But oil is by no means confined to the rocks of the Tertiary, but is found throughout the Paleozoic period in the East, and, in Colorado and Wyoming, occurs in rocks of Mesozoic age. Geologically speaking, therefore, the possibilities for oil are very great on this continent. Mr. Wilbur thinks that in any part of this country that has ever been covered by the sea or shallow lakes of salt water we may reasonably expect to find accumulations of oil.

(Continued on page 7.)

News of the Fields

Concise Notes of Late Developments

WEST SIDE FIELDS.

Much attention is still being riveted on the Elk Hills district, where a number of companies are operating, most of them, however, doing only a nominal amount of work pending the outcome of the operations of the Associated Oil Company, in section 26-30-23. The well of the Associated is reported to have been put on the pump last week and about 50 barrels of light oil produced in ten hours. This was pumped from a depth of 3000 feet, while the entire depth of the hole is about 3500 feet. The oil is said to test between 33 and 34 degrees gravity, which indicates that the theory long held that light oil exists in this territory is correct, but it has not yet been demonstrated whether or not the wells will be profitable. We understand that the Associated is going to drill deeper, but we have received no positive confirmation of the report to this effect.

Mammoth Oil Company, section 31-31-23. Well No. 1 is still flowing. An effort was made a few days ago to deflect the oil into the sump hole by means of a boiler-plate placed over the top of the well, in the same manner as that over the well of the Midway Premier some months ago. The oil soon cut through this, however, and a much heavier plate was ordered, but we have not learned the result of the new effort to prevent the oil from going over the top of the derrick. The flow is still about 10,000 barrels per day.

Combination Midway Oil Company, section 22-32-23, Midway field is down a little over 2500 feet with 6¼ inch casing, and is still experiencing a great deal of trouble with the sand, which is forced up into the casing upon cleaning out to the bottom, making progress extremely slow and difficult.

Olig Crude Oil Company, section 32-31-23, Midway field, is building a derrick for well No. 2. Well No. 1 is still producing at the same old rate of about 500 barrels per day.

Victor Oil Company, section 35-32-23, Midway field is now deepening well No. 2. The No. 1 well which we reported last week as having been deepened and put on the pump is still giving much sand

trouble. The rate at which the oil is pumping is still something like 250 barrels, about 100 feet off the bottom of the well, it having filled up to this extent with sand.

California Midway Oil Company, section 32-31-23, Midway field, has brought in well No. 3 at a depth of 3120 feet, after passing through an oil sand at 3040 feet. The lower sand is thought to be the same as that from which the Buick No. 1 well is producing, and it is now the intention of the company to deepen wells Nos. 2 and 4 to this lower sand, both of them producing a small quantity of oil from the first sand at the present time. No. 3 started off with a production of several thousand barrels per day before sanding up. After cleaning out, it again started flowing and since that time it has been doing about 1500 barrels per day with considerable sand. Well No. 5, which is located between Nos. 1 and 4, is now down about 669 feet, with 16-inch stovepipe casing and the derrick is being erected for well No. 6, to be located about 150 feet from the west line of the property, opposite of the Buick well. It is the intention to begin drilling on this well as soon as the work of deepening well No. 4 is completed. The deliveries of oil, under contract to the Standard Oil Company for ten months, ending March 1st, was 98,828 barrels, or an average of nearly 10,000 barrels per month.

State Consolidated Oil Company, section 16-29-21, McKittrick district, has re-drilled well No. 6, which is now pumping, giving a production of something like 200 barrels per day.

Midway Union Oil Company, section 28-32-24,, Midway field, has taken out the rotary after reaching a depth of 2403 feet and is now putting in 10-inch casing.

Midway Pacific Oil Company, section 32-30-20, Elk Hills, is drilling along in good shape, having reached a depth of 1785 feet with 8-inch casing, after landing the 10-inch at 1755 feet. The formation is still blue shale, 300 feet of this having been encountered thus far.

Rock Oil Company, section 23-31-22, North Midway, is in the sand with well No. 3, at 1977 feet, with 8-inch perforated casing. The well is giving some trouble with

sand, but is gradually being brought under control. No. 4 has reached a depth of 1640 feet with 10-inch casing. This depth has been attained since February 23d, when drilling was started. Material is going in for well No. 5.

Midway Five Oil Company, section 5-32-23, Midway field, is down about 1800 feet in well No. 2. No. 1 has been flowing steadily for about a month and is producing 6000 barrels or more per day. In section 4-32-23, the 18-inch stovepipe casing has been landed at little less than 800 feet; 15½-inch screw casing is now being put in.

Buick Oil Company, section 32-31-23, Midway field, is negotiating for the best combination rotary and standard rig in the market with which to start well No. 2. The derrick has been ordered, and it is expected to start drilling this well as soon as the material can be assembled and installed. Well No. 1 maintains the steady rate of production of 1500 to 2000 barrels per day.

Hale-McLeod Oil Company, section 5-32-23, is drilling two wells, No. 7 being down something like 1500 feet and No. 8 about 600 feet.

Midway Premier Oil Company, section 5-32-23, is down something over 1800 feet in well No. 2, and about 1700 feet in well No. 10.

United Oil Company reports well No. 9 as still producing something like 2800 barrels per day, and the entire production of the property in section 6-32-23 is now something like 4000 barrels per day. In section 24-31-22, well No. 17 is now 2060 feet deep with 10¼-inch casing. Well No. 24 is about 1200 feet deep, with 12½-inch casing. In section 20-31-23, well No. 21 is a little over 1900 feet deep and a combination rotary and standard rig is being installed. It is expected to resume drilling in a few days. Nos. 22 and 23, both in this section, are respectively 1500 feet and 200 feet deep, the former with 8¼-inch casing, while the latter is open hole. The company has arranged for a 2000-barrel gauge tank and a 55,000-barrel steel storage tank to be erected in section 24. The production from section 6 during the month of March aggregated 75,312 barrels from the

five wells that were in commission. The first three days of April showed a production of 17,000 barrels, which it will be noticed is an average of more than 5000 barrels per day.

SANTA MARIA LOMPOC

(Special Correspondence.)

Palmer Union Oil Company, adjoining the Palmer Blochman, in Cat Canyon, is laying out roads to the site for No. 4, which is to be drilled directly north of No. 3. Drilling will commence within a few weeks.

Santa Maria Midway Oil Company, in the Tepusquet, is again drilling, after a delay of several weeks, caused by washout of the bridge at Gary. The well is down 340 feet, with stovepipe casing.

Union Oil Company, on the Bell Ranch in Cat Canyon, has successfully installed an air compressor in No. 1, with the result that this well is now producing about 1300 barrels daily. A year has been spent in trying to get a consistent production from the Bell wells, but on account of heaving sands it has been impossible to use ordinary methods. The advent of No. 1 will establish a precedent for handling this difficulty and the other wells on the property are to be treated in like manner.

New Pennsylvania Pet Company, in the eastern Cat Canyon district, is cleaning out its well preparatory to putting it on the beam. A volume of oil was heaved up through the casing to the top of the derrick, indicating an enormous gas pressure, which should put the well on a flowing basis as soon as it is thoroughly cleaned out. The hole is in perfect condition since the pipe trouble has been corrected, and a big producer is expected.

Pinal Oil Company, on the Fleisher tract, is completing the second cement job at 2240 feet in a fine oil sand. The intention is to shut off the top water and put the well on the pump to test at this depth. A body of oil sand has been drilled through and there is a good prospect for a shallow well.

Palmer Oil Company shows no change in the production from its big wells on the Blochman tract. No. 1 is producing around the 1700 barrel mark with unvaried consistency, which it has kept up for the past two years. The oil from this well has now reached the 1,300,000 barrel mark. No. 2, the big

gusher, is doing over 8000 barrels and has been at this figure for some weeks. Nos. 3 and 4 are still shut in, awaiting more storage. No. 5 has been tested for water after having entered the oil sands at 2800 feet. The formation was free from water and the well will be finished up with the 8-inch pipe, now being put back into the hole. No. 6 is drilling out a block of cement at 800 feet which failed to shut off the water and the 10-inch string will be carried down some distance farther. Deliveries to the Union are to be resumed this week. The Union's pipe-line over the Santa Maria River is in repair, and the Palmer oil will be shipped to Port Hartford as fast as possible. Owing to delay in repairing the Associated line at Gaviota, all Palmer oil will be shipped via the Union line for several weeks.

Purissima Hills Oil Company, on the Lompoc side, is down 2800 feet. A parted casing is causing some trouble at the present, but as soon as possible this will be put back into the well and cemented off before drilling deeper.

Dome Oil Company is constructing a topping plant near Betteravia, to handle a portion of the production from the main field from the Dome and Pinal properties.

COALINGA-DEVIL'S DEN.

The Producers' Transportation Company is again taking oil from Coalinga, but is choosing the higher gravity oil in order to clean out the pipe line, which gave a great deal of trouble during the cold, wet weather, when a great deal of difficulty was experienced in pumping the heavier oil. By use of the higher gravity oil, the pipe line can be cleaned out, and it is hoped within a short time that the line will be again running at full capacity.

A new galvanized iron building is being erected by the Oil Well Supply Company. After the completion of the new building, the office, which is now on the main floor of the shop, will be removed to the new addition, part of the latter being used also for a storeroom for fishing and drilling tools.

Esperanza Oil and Land Company, section 30-21-15, has cemented well No. 1 at about 3450 feet, with 6¼-inch casing. A showing of gas and oil was reported at a depth of 3489 feet before cementing, and the sand that was encountered at this depth

will be tested out as soon as the water is securely shut off.

Pluto Oil Company, operating in the Devil's Den district, reports a successful cementing job in 10-inch casing at 2020 feet; 8-inch casing has been shipped and it is expected to resume operations as soon as this is on the ground.

VENTURA-NEWHALL,

Operations in the Upper Ojai are proceeding rather slowly at this time because of the inability to ship the oil, but as stated in our issue of last week, a pipe line is to be constructed by the Bard Oil and Asphalt Company, and within a few months it is likely that this territory will have good transportation facilities for all the oil that can be produced.

Gates Oil Company, operating in the Upper Ojai, is now awaiting the arrival of some 6¼-inch casing. Well No. 1 is carried down to 1385 feet in brown sandy shale, with this size pipe, and it is expected to resume drilling in a short time. The bad condition of the road occasioned considerable delay in getting the pipe to the property.

Big Sespe Oil Company, operating in the Big Sespe field in drilling well No. 6 encountered a pocket of gas a few days ago at something over 1000 feet, necessitating the putting in of 7½-inch casing. This pipe has now been shipped to the property and drilling will be resumed as soon as the pipe arrives and can be put in.

Cosmopolitan Oil Company, operating in the Little Sespe district, is drilling well No. 4, which has reached a depth of about 800 feet. The other three wells are pumping.

Mutual Oil Company, Little Sespe district, is down something over 2600 feet, and is held up temporarily by a fishing job. The cable and a string of tools were lost in the well, but the cable has been recovered, and efforts are now being made to get the tools out.

White Star Oil Company, Little Sespe district, is drilling two wells, No. 7 being down about 2530 feet, and No. 8 is down about 1650 feet, and it is expected that the former will be completed in the near future.

Ojai Oil Company, operating in the Upper Ojai, Santa Paula field, is drilling well No. 4. All the tanks are full, and pending the completion of the pipe line, work will

not be actively pushed, because of the inability to move the oil.

Santa Maria Crude Oil Company also operating in the Upper Ojai, and being under the same management as the Ojai Oil Company, is not doing any development, being in the same fix as the Ojai, namely, unable to move the oil from well No. 1.

BIG WATER PROJECT FOR WEST SIDE.

A report from Bakersfield, which we have not had confirmed, is to the effect that a syndicate of Bakersfield men, of which C. B. Colby is a member, are backing a project to furnish water for domestic and drilling purposes to the West Side oil

on be increased as is found possible. Two main pumping plants are to be erected, one at Rio Bravo and the other near Taft, and it is hoped to have the complete plant in operation by the middle of September.

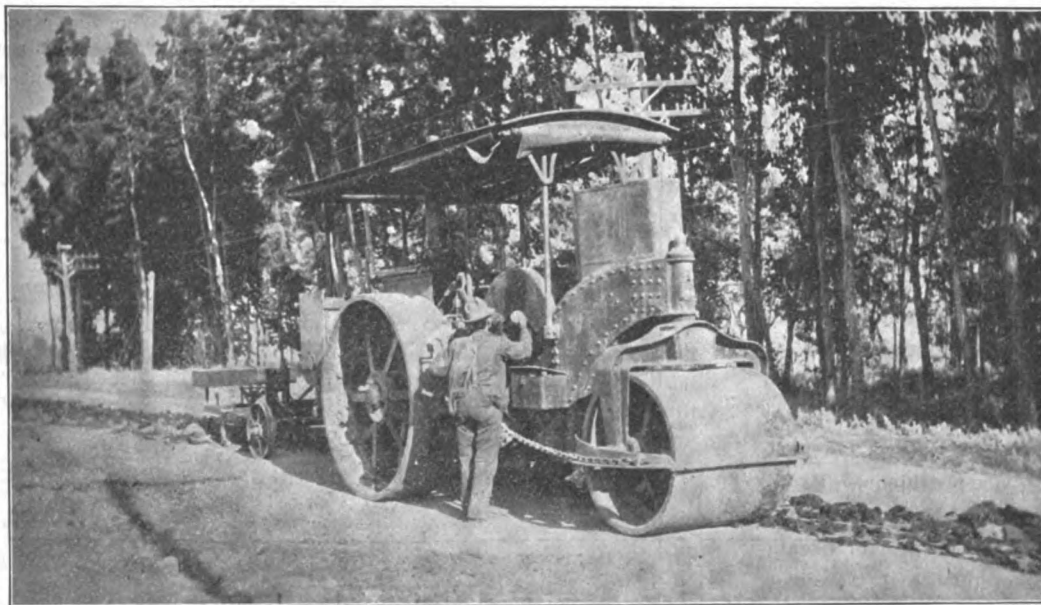
The principal effect of the new company coming into the field will be to lower the rate now charged for water. On some of the leases it is necessary to pay as high as seven or eight cents per barrel for water, while the new company is making contracts on a graduated scale running over five years, at a maximum price of three cents per barrel and a minimum charge of one and three-quarters cents per barrel.

Inasmuch as practically all the water used for domestic purposes is

John M. Keith, vice-president; and W. D. K. Gibson, secretary and treasurer. The office of the company is at San Francisco, and the specific property which is to be operated is in the northwest quarter of the northwest quarter of section 32, township 32 south, range 24 east, lying between the Lakeview and Standard Oil Company's section 30 property.

SUIT FOR INFRINGEMENT.

Edwin A. Hardison, Wallace L. Hardison and J. J. Deuel, operating in Bakersfield and the various oil fields of the state as the E. A. Hardison Perforating Company, have filed



AN OIL BURNING TRACTION ENGINE.

fields and to the towns of Taft, Fellow and Maricopa, from wells drilled near Rio Bravo. It is planned to lay a 12-inch pipe line from the water plant to a station to be erected in the hills overlooking Taft, at which point the large steel storage tank is to be erected. From this distributing station a small line will carry the water to various points of consumption throughout the Midway and Maricopa fields.

The company is to be known as the Western Water Company, and has an authorized capitalization of \$2,000,000, divided into 200 shares of a par value of \$1000 each. One water well is already producing on the property, and it is planned to drill others at once. It is expected to supply at least 40,000 barrels of water per day for the present, and the capacity will later

now hauled from Bakersfield, if this water proves suitable for domestic as well as field consumption, it will readily be seen that the project has a big future and should pay handsome returns on the investment.

ANOTHER COMPANY STARTING NEAR LAKEVIEW.

The Spreckels' interests of San Francisco have just organized a new company to operate in territory close to the Lakeview gusher. This company is called the Knickerbocker Oil Company, and has an authorized capitalization of \$400,000, divided into 400,000 shares of a par value of \$1.00 each. The company was organized under the laws of California, March 7, 1911, and the directorate consists of John D. Spreckels, Jr., president;

a suit against the Bakersfield Iron Works, A. E. Raine, and certain oil companies to recover damages for alleged infringement of the Hardison Perforator patent and for an injunction restraining the defendants from manufacturing or using the machine which is claimed to be an infringement upon the Hardison machine.

About a year ago, A. E. Raine, manager of the Bakersfield Iron Works, applied for a patent for a perforator which he claimed to have invented, and a patent for this was issued by the United States Patent Office a short time ago. This is the perforator that is involved in the controversy, and which is claimed to be an infringement upon the Hardison patent that was issued some years ago, and is now in general use throughout the state.

NEW COMBINATION RIG.

An Outfit That Gives Promise of Lowering Cost of Drilling.

The pictures presented herewith show the new Zierath Combination Drilling Rig, which is now manufactured in the City of Los Angeles, having been built and fully demonstrated at the company's plant at Ninth street and Santa Fe avenue by the Zierath Combination Drill Company, a California corporation. It is along the lines of an ideal drilling outfit that the oil men of the country have been attempting to obtain for many years; and certainly seems to be nearing the acme of perfection in drilling machinery, if one may judge by preliminary trials.

Augustus C. Zierath, the inventor, has been constantly identified with the oil business for the past thirty years, and is recognized as an expert of wide reputation in that line, he having brought in a great many of the important wells in the Texas oil-fields. Mr. Zierath is president and general manager of the company; John G. Bullock, of Bullock's department store, vice-president; P. W. Croake and W. F. McCann, of the well-known real estate firm of Croake & McCann, secretary and treasurer, respectively, and with J. L. Amlin, Southern California field manager of the American Beet Sugar Company, constitute the directors of the company.

One of the most important claims for the new machine is that it will better work in less than one-half the time required to do the same amount of work with either of the other two old-style rigs now in use—the Standard and Rotary. The Zierath Rig certainly has all of the requirements of a perfect piece of modern machinery. The frame is built entirely of structural steel, thereby insuring great stability; so that the initial expense will be the only expense, as it is next to impossible for anything or any part to break or get out of order.

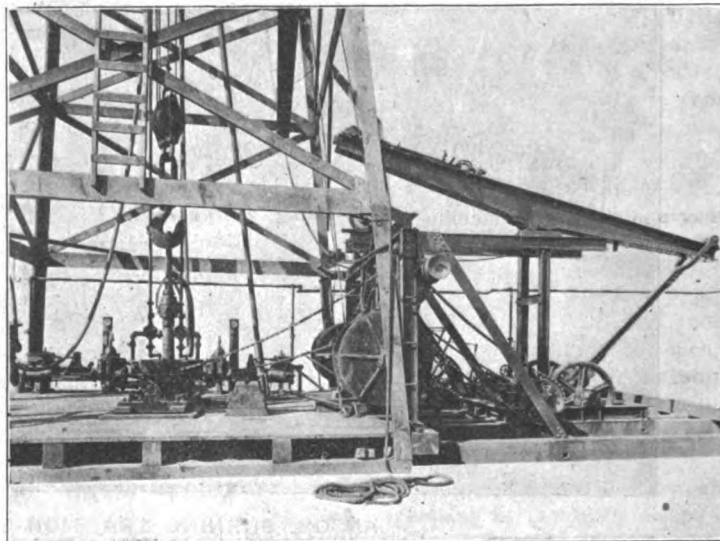
The bearing boxes, gears, sprockets

and shafts are of the best steel and iron—no leather belting whatever being used; the sprocket chains are of the very best. The derrick used with the rig is 24x24x106 feet, large enough for handling four joints of casing in one string, and at the same time leaving ample floor space in which to work.

Any one at all familiar with oil-well drilling will agree that a practical combination of the Standard and Rotary rigs has been the great desideratum in oil-well machinery; and all who have seen the Zierath ma-

stated above, the driller continues to go down with the Rotary through the soft formations until a hard stratum is struck, whereupon he immediately draws the drill stem from the hole, sets the stem to one side, picks up the Rotary table and places it out of the way, brings the walking beam into position, tips over the temper screw, drops his Standard tools into the well and proceeds at once with the Zierath patented string of Standard tools to drill through the hard formation. The entire change from the Rotary to the Standard is accomplished in less than thirty minutes' time—seems quite incredible, nevertheless it is a fact being proven every day during the public demonstrations at the company's plant.

After the driller has gone through the hard formation, and is satisfied that better progress can be made with the Rotary, he at once discon-



ZIERATH RIG AT CLOSE RANGE.

chine in operation agree that it gives every promise of filling this long-felt want and is the coming rig. A description of its advantages may emphasize this claim.

Being ready to commence the hole the driller proceeds with the Rotary, fully equipped, thereby avoiding the necessity to do any spudding in and thus dispensing entirely with the tools required for spudding. But should it ever become necessary at any time to use the Standard rig to start the hole by spudding in, a very ingenious contrivance is arranged under the floor of the derrick so that the spudding can be readily and easily done to perfection if so desired. If, however, the Rotary is used as

nects the string of tools from the patented temper screw, slides the walking beam out of position, draws the Standard tools from the hole, picks up the Rotary table and places it in position again, and within thirty minutes is again drilling through the second soft formation with the Rotary, and so on, changing back and forth from Standard to Rotary as the necessity arises and thus effecting a great saving of time and labor and the consequent expense. The time required for changing, of course, does not include the time necessary to pull out or put in long strings of drill pipe, covering only the actual work of changing the surface machinery.

Another important feature claimed for the Combination Rig is this:

Should a well-drilling company find it impossible, temporarily, at least, to secure a sufficient quantity of water or the kind of mud required with which to operate the Rotary, no delay whatever is occasioned thereby, inasmuch as it can proceed at once with the hole by using the Standard section of the Combination Rig entirely.

Still another advantage is, that three drums are used on the Combination Rig—one handling the Rotary, one handling the Standard tools and the third the bailing line. The three cables are always in position for immediate work, being suspended from a six-sheave patented adjustable Crown Block, which can be arranged so as to strike the hole dead center with whichever cable is being operated at the time. The cables are wound automatically upon the drums with a guide in such a manner as to prevent their being crossed—thus adding to the life of the cable and at the same time reducing one of the principal items of expense.

The Zierath Rig is neatly put together. The old-fashioned band-wheel, cable-wheel and calf-wheel are conspicuous by their absence, and it is the most compact piece of machinery ever made for drilling purposes. The cables are always strung up ready for immediate use; the walking beam, which is constructed entirely of steel, is, even when not in use, always connected with the pitman rod and sectional crank; while the temper screw on the other end is folded back out of the way on top of the beam, always attached and easily brought into immediate action when desired. The engine is located close to the derrick and is worked entirely with a set of levers, the handles of which are conveniently placed close to each of the other drums. The patented sectional crank, which governs the stroke of the walking beam, can be readily adjusted to administer a stroke of from nine inches to four feet—light or heavy, as desired. This is the only rig which is equipped with four cat-heads—two on the Standard and two on the Rotary—which is in itself a great convenience. The moving of the Rotary table requires only five minutes' time, and is accomplished by one man. The crew required for a Combination is the same as the old-style rigs require and the mechanism is very simple.

The entire machine works in an exceedingly easy manner, and at the

same time can be put under tremendous speed. The rig now being demonstrated is capable of going down six thousand feet, and should be seen by every man interested in the production of oil.

The company intends to manufacture three sizes in oil-well rigs and two sizes of portable water rigs. The string of Zierath patented standard tools, which includes a rock bit of new and original design, are all equipped with joints which make it absolutely impossible to lose any tool in the well—thus dispensing altogether with the costly "fishing" jobs familiar to every oil-well man. The manufacture of these patented tools will be an important adjunct of the drill company's business, and the tools and rigs will be made in Los Angeles, the company having secured a long term lease of its present quarters and having ample switching facilities.

It is claimed that companies using this rig will be enabled to drill many holes with the same machine, moving it to new locations after a well is completed, and then installing in its place only a light engine and drum with which to clean the hole, or draw the casing, as required.

A combination along the lines of this has been demanded for many years; and if in actual practice it will do all that is claimed for it and demonstrates that it has staying qualities, it seems destined to supersede most other rigs in the field. Drillers and oil men should, therefore, make an honest effort to become familiar with the Zierath Rig and its advantages, and thereby place themselves in position to do their companies the best possible service. The features of this rig indicate that it will save many thousands of dollars in the drilling of deep wells in which it is used, at the same time providing the workmen with a cleaner line of work.

The Zierath Company is getting out a catalogue describing fully the many advantages of its rig, and this book will soon be ready for distribution. In the meantime it will well repay those interested to make a personal inspection of the machine, now in operation at the company's plant.

30 PER CENT EARNED.

The net earnings of the OIL AGE PUBLISHING COMPANY for the month of February were at the rate of 30 per cent, and plans now being worked out seem to insure an earning capacity of from 50 to 100 per

cent, within a few months, on the outstanding capital stock. In order to carry out our plans we need a little more working capital, and for this purpose still have about 1000 shares of stock for sale at \$1.00 per share, in lots of \$25.00 and up.

If any of our readers desire an investment that will net anywhere from 20 per cent to 100 per cent per annum on the amount invested, we advise quick action, as it is not likely this block of stock will be available many days. Eastern investors are requested to telegraph their reservations at our expense and let draft or money order follow by mail. Make remittances payable to Oil Age Publishing Company and address to 609 Lissner Building, Los Angeles.

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350 Guaranty46
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2,000 Kalispell Midway bid
1,000 Lady Washington09
10,000 Maricopa Oil12
2,000 Merchants and Bankers	.11
500 Midway Five46
1,000 Midway Northern36½
1,000 Midway Provident08
5,000 Midway Southern bid
3,000 Midway Union13
5,000 Midway View16
200 Mohawk Sunset18
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TO INVESTORS.

The acceptance of displayed stock advertisements for publication in this journal DOES NOT constitute a guarantee of their reliability, nor lessen the desirability of thorough investigation. Our news columns are free from advertising in the form of reading matter except that which is marked "Adv." and that enclosed within borders.

LOOKS LIKE OUR FINISH.

The campaign of exposure of fake oil companies and those that smack of promotion concerns for the exclusive benefit of the promoters, which has been started by "The Oil Age," (but not finished), has begun to make itself felt if the howls of rage and criticism of those who come within the scope of our exposures may be taken as a criterion.

While "The Oil Age" is not specifically mentioned, for the obvious reason that it would be free advertising for us, the following advertisement

in some of the Los Angeles papers seems to sound our death knell:

"Oils & Metals Press: B. A. Stephens, veteran newspaperman and broker, will start a publication of above name to thoroughly weed out knockers in local market. Send today for free prospectus. Address Oils & Metals Press, 230 Franklin Court, Los Angeles, Cal. Phone A-5069."

Now be it known that said B. A. Stephens is shown in the prospectuses of the respective companies to be the president of the La Fortuna Oil Company, and the treasurer of the Magneto Oil Company. We have not yet learned what the capitalization of the Oils & Metals Press is going to be, nor have we learned the price at which the stock is to be sold. We have, however, sent for a free prospectus and hope to have this in our possession in a few days, and may then know our fate. In the meantime, we naturally tremble at the thought of such a formidable contemporary coming into the field.

From an entirely different quarter comes the following:

"Pennsylvania oil publications are after the promoter hard and fast; particularly after the California oil promoter. As a matter of fact, there were a considerable number of so-called "fake" promotions during the boom times of last year, many and many a company being formed for the exclusive purpose of benefitting the promoter. But all the incorporations were by no means for this purpose, and continual knocking is bound to harm us. What with the policy pursued by a certain small Los Angeles publication, and by the Oil City Derrick, and any number of California newspapers, the values of our proven excellent stocks have sunk away down on the exchange without any reason at all. It is a shame that this knocking should go on as the small owner of good stocks almost invariably sells out at a time like the present, losing to the big operator; and the newspapers and magazines which induce him to do so, through wrong and depressing reports, are directly in collusion with those who desire his stocks, and are responsible for his losses. We do not advocate 'boosting' irresponsibly; but general 'knocking' is as inexcusable as it is wrong. It ought to be stopped."

We do not know exactly to what stocks the California Derrick refers in the phrase "our proven excellent

stocks" unless it be to Ventura Oil & Development Company, Lady Washington, Madison, California Consolidated, Templor McKittrick and other as yet unsuccessful promotions of the Lincoln Mortgage and Loan Company. We are sorry the California Derrick was not frank enough to boldly state the name of the "certain small Los Angeles publication," which is credited with the power of depressing the prices (not "values," the word used in the article in question) of "our stocks," notwithstanding the glowing accounts of development and dividends to be paid, (at some indefinite time in the future) published in "our" house organs, because if the name of "The Oil Age" had been used in this connection, it would have been a magnificent free advertisement for us among the fifty (?) paid subscribers of the California Derrick. It will be noticed that we do not hesitate to give the California Derrick free advertising because we recognize as contemporaries only those publications that are recognized by the postoffice department, and in this connection the California Derrick lost its second class postal privileges a great many moons ago, possibly because it was known by the government to be the house organ of the Lincoln Mortgage and Loan Company, as it was generally thought to be by the few individual readers in California, and possibly other states in the Union, said readers also doubtless being stockholders in some of the promotions of the Lincoln Mortgage and Loan Company. We wish it distinctly understood that we do not claim the Lincoln Mortgage and Loan Company to be the present owner of this publication, nor do we claim that this fiscal agency supplies the money each month to pay the printing bill, but judging from the class of news it carries and its boost in its news columns of the Lincoln Mortgage and Loan Company promotions, the probability is that the connection is more than a sentimental one, especially in view of the fact that the advertisers, who have been, by some unaccountable means, cajoled into furnishing copy for all of an aggregate of four pages of advertising, do not contribute enough money to keep the sheet alive. Pardon,—we wish to amend that last statement, as we have no evidence that the advertisers actually furnish the copy or pay for it.

We are afraid we will have to plead guilty to the charge of knocking a certain class of promotion schemes even though it is "as inexcusable as it is wrong"—to the poor fellows who fail to make sales of worthless stocks as a result of such "knocking." Sure, "it ought to be stopped."

MORE ABOUT MAKING GASOLINE FROM GAS.

The manufacture of high grade gasoline from natural gas is a subject which is being widely advertised, and has become, to quite an extent, successful and remunerative.

From a standpoint of experience it is safe to assert that any gas from a sand, from which oil is produced, will yield a profitable amount of gasoline, ranging in gravity of 82 to 96 degrees. The gravity depends on the density of the gas and the extent to which it must be compressed to obtain best results.

The gas from Bradford sand oil wells is known to produce, under present stage of development, from 2½ to 3½ gallons per 1,000 cubic feet under compression of 275 to 350 pounds. The gravity of this product is 86 to 94. Gas from the second, or what is known as the Watsonville, Kinzua or Tiona sand, yields a greater percentage of gasoline under lower pressure. This is due, so far as pressure is concerned, to the normal or natural rock pressure, which in this particular sand does not exceed 300 pounds, while the initial pressure of the Bradford sand runs as high as 600 pounds. The gravity of the oil in the different sands has some effect on the gas.

The second sand oil being lighter, more of its qualities that are rich in the hydrocarbons are absorbed and carried away in the gas. This may be fully demonstrated by letting the gas from a dry gas sand circulate through oil on its way to the point of consumption, where careful rotation will show, in increased efficiency, what the oils of different gravity contribute in heat units toward enrichment of the gas. Care must be observed in such tests to admit a proper amount of air to secure the best results in combustion.

Gas from the deep gas sands, where the initial pressure would reach 800 to 1,000 pounds, does not yield, under any known system, an appreciable quantity of gasoline. Possibly, under pressure nearly equaling that of the original rock pressure, an excessive volatile product would result, but inability to confine and to hold it would make its manufacture impracticable.

The best results are secured from gas from oil wells that are located in what is known as gas pump territory. On these wells a vacuum ranging from 10 to 22 inches, mercury column, is maintained.

This vacuum draws not only the gas from the sand, but converts some of the lighter qualities of the oil into a vapor which assimilates with the gas. This gas, under compression of 85 pounds, yields 4½ to 5 gallons of 92 gravity gasoline per 1,000 cubic feet. Increased pressure proportionately decreases the quantity of gasoline and raises the gravity. Under 165 pounds of pressure 1,000 cubic feet of gas produced 3 to 3½ gallons of gasoline, the gravity of which was above 100. The gravity of the gasoline may be lowered to 78 degrees by proper treatment of the gas before it is put under pressure. It is a fact also that any gas which comes from an oil-bearing sand can be made to yield its product of gasoline under pressure not exceeding 150 pounds. There is an increasing demand for this high test product. For high speed gasoline engines and for the gas lighting machines it has no equal. The belief that the volume of gas is not diminished, and that there is no deterioration is, in our experience, incorrect.

The decrease in the volume of gas is in proportion to the amount of gasoline extracted—varying from 10 to 25 per cent.

Assuming that in the process of compression the water and other foreign substances are removed from the gas, and that no heat units are needed to eradicate this waste—there must still be deductions made from its former efficiency in proportion to impoverished condition. It is true that a cleaner, brighter light is made from gas from which the gasoline has been taken, and it is true, also, that for gas engines this gas is superior, there being no danger of carbonization, but an additional 5 per cent of the impoverished gas will be required.

The process of making gasoline is

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simple and comparatively inexpensive. There are several different systems—no two are exactly alike—but each is claimed to be the original, get-rich-quick gasoline scheme.

Don't be too sanguine about big dividends in gasoline. Careful investigation may save an obituary notice for either the investigator or his bank account.—Bradford, Pa., Era.

SAN FRANCISCANS BUY CONTROL OF LOST HILLS COMPANY.

For a reported consideration of \$5 per share, the controlling interest in the Lost Hills Mining Company, represented by 34,800 shares of the outstanding capital stock, has been sold to San Francisco parties, headed by George T. Cameron and Wellington Gregg, Jr. The money represented in the transaction is \$174,000, if the reported basis of \$5 per share is correct, this not having been confirmed.

The Lost Hills Mining Company

was organized some time ago to hold mineral claims in the Lost Hills District, consisting of several hundred acres in sections 18, 30 and 32 township 26 south, range 21 east. It is on part of this land that the Lakeshore well, known as the Discovery well, was drilled by Martin & Dudley, under a lease or arrangement with the Lost Hills Mining Company. A number of assessments have been levied on the stock of the Lost Hills Mining Company, but if the reported deal is true in detail, the stockholders netted big returns on their investment. Among the prominent stockholders and former directors of the company are many Visalia and Hanford men, including James McCord, John Anderson, H. J. Light, J. H. Butts, Judge W. B. Wallace, O. D. Barton, A. R. Orr, R. C. Hardin, Hugh McPhall, D. G. Overall, T. E. Clark, J. F. Jordan and A. Lewis. The officers of the company before the change of the control were F. R. Hight, president; W. F. Hall, vice-president; William Lindemann, secretary; R. V. Hall, treasurer; and J. H. Butts, J. W. McCord, John Anderson, Judge W. B. Wallace and O. D. Barton.

After securing control of the company, the San Francisco people elected new members to the board of directors as follows: George T. Cameron, president; Wellington Gregg, Jr., vice-president; J. H. Cameron, secretary; W. C. Webb, John Daniels and C. F. Ladd.

HALE-MCLEOD PAYS FIRST DIVIDEND.

The Hale-McLeod Oil Company, operating in sections 5 and 8, township 32 south, range 23 east, Midway field, under date of the first instant, paid its first dividend of 1 per cent per share on the outstanding capitalization, making a disbursement of nearly \$15,000. The company was organized in September, 1909, to operate 160 acres in each of the sections mentioned above, and two half sections of government land in prospective parts of the field. The latter two properties are now being operated by the Union Oil Company and Mays Oil Company, and companies affiliated with the Mays, but no production has yet been obtained on either of these properties, although at this time the prospects are excellent. On the section 5 and 8 properties, however, a good production

has been developed, mainly by the Midway Five, Midway Premier and the Kalispell Midway Oil Companies, all of which lease from the Hale-McLeod. The Hale-McLeod itself has developed some good wells, and now has four of these on the pump, producing 10,000 to 15,000 barrels per month, and two others are down in the neighborhood of 1650 and 600 feet, respectively. The Midway Five is down nearly 1800 feet in well No. 2 and the Midway Premier is down an almost equal depth in two other wells, while the Kalispell Midway well is just about completed, it having been in the oil sand for some time, but is troubled by sanding up. The royalty oil received from the Midway Premier and Midway Five Companies has been about 2,000 to 4,000 barrels per month.

Hon. Nathan W. Hale, former congressman from Tennessee, is now giving practically all his time to his oil interests, he being president and general manager of the Hale-McLeod Oil Company.

The company is delivering oil to the Standard Oil Company under a 400,000 barrel contract at fifty cents per barrel, and has delivered against this contract about 100,000 barrels.

HILLMAN INTERESTED IN LA COSTA.

C. D. Hillman, the multi-millionaire real estate dealer, recently convicted in Seattle for using the mails with intent to defraud, is said to own a good deal of land in San Diego County, or along the coast south of Los Angeles. In this connection, it may be remembered by some oil men that Mr. Hillman was one of the original promoters of the La Costa Oil Company, organized to operate near Encinitas in San Diego County. He was supposed to be backing the enterprise, but we later were informed that he did not put up much money and that his name was not publicly associated with the company. At the time of the organization of the company it was generally understood that the principal object in drilling for oil in this district was to boost the prices of property along this part of the coast. As the La Costa Oil Company was not able to raise sufficient money to start development work, nothing of importance was done on the property at that time, but it is nearby that the Panama-American Oil Company is now

drilling, and is said to have encountered showings of oil.

It seems that Hillman's scheme in the north was to purchase cheap uncleared land on Puget Sound, dividing into townsites and selling it on installments at high prices to home-seekers. He is said to have made 27,000 such sales, a great number of which were never completed, and in this way he amassed a fortune said to be in the neighborhood of \$7,000,000. Evidence was given at the trial showing that a number of the tracts were sold and resold several times.

Gusher Territory

That's where we expect to secure a lease that will constitute property No. 2. The lease we are negotiating for has flowing wells nearby on two sides and is looked upon as proven land.

The company is already organized and preparing to begin operations on Property No. 1, which is patented land in a field producing highest grade of oil in California, worth at least \$2.00 per barrel. No over-production of this quality of oil.

Director Wanted

To a man in good standing who will buy preferred stock at 25c per share to the amount of \$5000 or more will be given a place on the Board of Directors.

Investors

Who investigate will learn of the squarest oil proposition in California, where they are guaranteed a return on their money before the organizers get anything.

For full particulars address, Investment, Box 15, Oil Age Office,

609 Lissner Building

LOS ANGELES, CAL.

Financial Department

TRANSACTIONS ON LOS ANGELES AND SAN FRANCISCO STOCK EXCHANGES FOR THE WEEK ENDING APRIL 4, 1711. REVIEW OF THE STOCK MARKET.

The following table gives the quotations and sales on the two exchanges combined. Where stocks are listed on both exchanges, the closing prices on the Los Angeles Stock Exchange are given.

*Listed only on San Francisco Exchange.
xListed only on Los Angeles Exchange.

Name of Stock	Par	High Sales	Low Sales	Closing		Shares Sold
				Bid	Asked	
*Alma	1.00	.....	.....	.....	.95	.....
Amalgamated	100.00	57.00	57.00	.....	60.00	10
xAmer. Crude	1.00	.....	.....	.....	.63	.....
Am. Pet. Com.	100.00	39.00	39.00	38.50	.....	10
Am. Pet. Pfd.	100.00	.....	.....	.....	78.00	.....
*Amy	1.00	.....	.....	.....	.75	.....
*Apollo	2.50	.....	.....	.....	.10	.....
Associated	100.00	58.50	48.75	54.50	56.00	1546
*Bay City	5.00	.....	.....	.45	.....	.....
xBear Creek O. & M.	1.00	.....	.....	.42	.....	.....
Blue Moon	1.00	.....	.....	.....	.05	.....
Brookshire	1.00	.....	.....	1.50	2.25	.....
Cal. Midway	1.00	.52%	.50	.52%	.52%	50000
*Cal. Oil & Gas	1.00	.....	.....	.....	.....	.....
*Caribou	1.00	1.20	1.20	1.32 1/2	.....	100
xCentral	1.00	2.00	1.98 1/2	2.00	2.02	1600
*Claremont	1.00	.....	.....	1.22 1/2	.....	.....
Coal. Central	1.00	.....	.....	.....	.55	.....
xCoal. Crude	1.00	.....	.....	.....	.31	.....
*Coal. Mohawk	1.00	.....	.....	.....	.89	.....
*Coal. National Pet.	1.00	.....	.....	.20	.21	.....
*Coal. Pacific	1.00	.....	.....	.....	.....	.....
Columbia	1.00	.....	.....	1.10	1.25	.....
Cons. Midway	1.00	.15 1/4	.13 3/4	.15 1/4	.15 1/4	102800
xContinental	1.00	.....	.....	.....	.85	.....
*Cresceus	1.00	.....	.....	.40	.48	.....
*Dabney	1.00	.....	.....	.....	.10	.....
*Del Rey	1.00	.....	.....	.14	.....	.....
*Dominion	1.00	.....	.....	.....	.80	.....
*DeLuxe	1.00	.....	.....	1.20	1.25	.....
*Eldorado	1.00	.....	.....	.....	.....	.....
*Empire	1.00	.....	.....	1.60	.....	.....
Enos	1.00	.....	.....	.45	.....	.....
*Esperanza	1.00	.....	.....	.....	2.40	.....
Euclid	1.00	.....	.....	.....	.55	.....
*Four Oil	1.00	.....	.....	.....	.....	.....
xFullerton	1.00	.....	.....	.....	5.00	.....
*Fulton	1.00	.25	.25	.22	.....	100
Globe	1.00	.....	.....	.05	.15	.....
*Graciosa	1.00	.....	.....	.....	.50	.....
*Gypsy	1.00	.....	.....	.....	.45	.....
*Home (Coalinga)	1.00	.....	.....	.....	.....	.....
*Homestake	10.00	.....	.....	.....	5.00	.....
*Ill. Crude	1.00	.25	.25	.....	.30	300
*Imperial	5.00	.....	.....	.....	22.50	.....
Jade	1.00	.39%	.36 1/4	.39%	.40	10000
*Junction	1.00	.....	.....	.27	.....	.....
*Kern River	5.00	.....	.....	.....	8.00	.....
*Linda Vista	.50	.....	.....	.....	.35	.....
*Lucille	1.00	.....	.....	.....	12.50	.....
*M. & M.	1.00	.....	.....	.....	.....	.....
*Maricopa 36	5.00	.....	.....	1.50	2.00	.....
*Maricopa Nat'l Pet.	1.00	.25	.25	.....	.....	500
Mascot	1.00	.....	.....	.....	2.25	.....
*McKittrick	1.00	.....	.....	.15	.....	.....
*Mecca	1.00	.....	.....	.....	6.00	.....
Mexican Pet.	1.00	.....	.....	.....	.....	.....
*Mex. Pet. Com.	100.00	29.75	26.87 1/2	29.75	29.87 1/2	1795
xMex. Pet. Pfd.	100.00	67.00	64.00	67.00	.....	50
*Midway of Oregon	1.00	.....	.....	.....	.....	.....
*Monte Cristo	1.00	.....	.....	2.25	.....	.....
*Mountain Girl	1.00	.....	.....	.15	.....	.....
*Nevada County	1.00	.....	.....	.10	.....	.....
Nevada Midway	1.00	.....	.....	.15	.....	.....
New Penn. Pet.	1.00	.65	.65	.56	.....	600
*Occidental	1.00	.....	.....	.15	.....	.....
xOleum	1.00	.06 1/4	.05 1/2	.05 3/4	.06 1/4	41000

Considerable activity was manifested on both the Los Angeles and San Francisco Stock Exchanges during the week ending Tuesday. The bulk of the trading was in Associated, Mexican Petroleum, Consolidated Midway and California Midway. Associated sold to a higher point than any reached in the last couple of years when it touched 58.50, a net advance from last week's closing of about ten points. The price jumped suddenly as a result of activity on the New York Stock Exchange, where the issue was bid up, advancing in one day from 48.00 to over 52.00. As this stock is now traded in to considerable extent on the New York Stock Exchange, the transactions on the Eastern board of course dominate the market and make the quotations here. The total sales on the Los Angeles and San Francisco boards were 1546 shares, at prices ranging from 48.75 to 58.50. The price reacted slightly at the close, being 54.50 bid, 56.00 asked. The activity was due to the holding of the annual meeting at Oil Center on the 4th, as it seemed to be expected that some action looking toward a change of control or the declaration of a dividend would be taken, but these hopes have not materialized.

Mexican Petroleum common sold to the extent of 1795 shares on an advancing market, the high figure and the point at which it closed being 29.75, representing a net advance of about 3 points for the week; 50 shares of the preferred sold at 64.00 to 67.00.

Consolidated Midway also was unusually strong, selling up from 13 3/4 to 15 1/4 on transactions of 102,800 shares. The closing quotation was at the top.

California Midway was also strong and sold to the extent of 50,000 shares at 50 to 52 1/2, closing at the top.

United Oil shared in the general strength of the market and sold up from 65 to 71 on transactions of 7275 shares. The closing quotation was 72 bid, none offered.

The Union issues were steady, Union Oil selling from 101 1/2 to 102 1/2, on transactions of 212 shares. Union Provident sold at 100% to 101, and 20

xOlinda Land	1.00	.52	.50	.50½	.52	2000
*Orcutt Oil	1.00	....	....	....	....	....
*Pac. States Pet.....	1.00	.26	.26	.26	....	500
Palmer	1.00	1.40	1.40	1.39½	1.41	4200
Palmer Union	1.00	.56	.56	.56	....	800
*Paraffine	1.00	....	....	....	.85	....
*Patricia	1.00	....	....	....	.50	....
*Peerless	10.00	....	....	....	4.00	....
xPenn. Midway	1.00	....	....	.20	....	....
xPerseus	1.00	....	....	....	.20	....
*Piedmont	1.00	....	....	....	.15	....
Pinal	1.00	....	....	4.75	....	....
xPiru Oil & Land....	1.00	....	....	....	.20	....
*Premier	1.00	.62	.62	.62	....	1000
*Producers	5.00	....	....	....	....	....
xProv. Midway	1.00	....	....	....	....	....
*Radium	1.00	....	....	....	....	....
*Record	2.00	....	....	5.50	8.00	....
*Republic	1.00	.54	.52	.55	....	150
Rice Ranch	1.00	....	....	....	.65	....
*Rico	1.00	....	....	....	1.80	....
*Sacramento	1.00	....	....	1.00	....	....
*Sauer Dough .....	.50	....	....	....	1.60	....
xSection Six	1.00	....	....	....	.18	....
*S. F. & McKitt.....	10.00	....	....	12.50	14.00	....
*Section 25	10.00	....	....	30.00	....	....
*Section Seven	1.00	....	....	....	....	....
*Senon	1.00	....	....	8.00	....	....
*Shawmut	1.00	....	....	....	.50	....
*Silver Tip	1.00	....	....	1.00	1.05	....
*Sovereign	1.00	....	....	....	.18	....
*State .....	....	....	....	....	....	....
*Sterling	1.00	1.90	1.80	2.00	....	350
*Sunset Monarch	1.00	....	....	.50	....	....
*Superior	1.00	....	....	.15	....	....
*S. W. & B.	1.00	.25	.25	.23	....	5500
*Thirty-three	5.00	....	....	....	....	....
Tracers	100.00	....	....	75.00	100.00	....
*Turner	1.00	1.25	1.25	1.15	....	700
Union	100.00	102.50	101.50	101.75	102.00	212
xUnion Prov.	100.00	101.00	100.62½	100.75	101.00	42
United Oil	1.00	.71	.65	.72	....	7275
United Pet.	100.00	101.50	101.25	101.00	102.00	20
West Coast Com....	100.00	....	....	....	....	....
West Coast Pfd....	100.00	....	....	....	....	....
*West Shore	1.00	....	....	....	....	....
Western Union....	100.00	....	....	80.00	95.00	....
*W. K.	1.00	2.40	2.35	2.50	2.60	300
*Wolverine	1.00	....	....	.40	....	....
Yellowstone	1.00	....	....	....	.25	....

R. P. Scherwin, J. C. Kirkpatrick, Guy V. Shoup (displacing Paul Shoup), F. H. Buck, E. T. Dumble and Rudolph Spreckels.

The fact that there was no change in the directorate would indicate that as yet there has been no actual change in control of the company, but it is generally thought that there is some negotiation pending.

The stockholders of the Amalgamated Company, which is a subsidiary of the Associated, also held their annual meeting at the same time and the retiring officers and directors were re-elected for the ensuing year. The annual reports of the two companies were considered, but these have not yet been given to the public.

THE CLEVELAND STOCKHOLDERS' MEETING.

The following notice has just been sent to the known stockholders of Cleveland Oil Company:

A meeting of the stockholders of the Cleveland Oil Company, a corporation, will be held in Hall Two, No. 517 South Broadway, Los Angeles, California, on Tuesday afternoon, April 11th, 1911, at three o'clock. It is the earnest desire of the members of the Stockholders' Committee, that all stockholders of the above named corporation will be present at that meeting. Matters of considerable importance to each stockholder will be presented, and the advice and assistance of all stockholders of the corporation is earnestly desired at said time. Please notify all other stockholders.

STOCKHOLDERS' COMMITTEE,
Per R. B. Dickinson, Chairman.

shares of United Petroleum changed hands at 101¼ to 101½.

Oleum showed a great deal of strength and sold as high as 6½, the low point of the week being 5½, with the close at about 6. Sales of 41,000 shares were recorded.

There was trading in Jade to the extent of 10,000 shares on a stronger market from 36¼, to 39¼, the quotations at the close being near the top. There was a sale of 10 shares of Amalgamated at 57.00, with 60.00 asked at the close.

The other issues in which trading was recorded to the extent of 1000 shares or more, are Central, 1600 shares at 1.98½ to 2.00; Olinda, 2000 shares at 50 to 52; Palmer, 4200 shares at 1.40; Premier, 1000 shares at 62 and S. W. and B., 5500 shares at 25.

ASSOCIATED ANNUAL MEETING

The annual meeting of the Associated Oil Company, which in the minds of the stock speculators was fraught with a great deal of importance, was held at Oil Center on the 4th, but nothing of particular importance transpired, the retiring directors were re-elected, these being: W. F. Herrin, W. S. Porter, O. Scribner, J. A. Chanslor, Burton E. Green,

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UNLISTED OIL STOCKS.

The bid and asked prices of unlisted oil stocks published below are the latest authentic quotations, but there is no guaranty or assurance that stocks can be bought or sold at the prices given, because unlisted oil stocks are subject to sudden and extensive fluctuation from day to day. This table is as nearly up to date as possible, and corrected each week.

These quotations are furnished by Morris H. Shell Company, Oil Stock Specialists, Lissner Building, Los Angeles, California.

	Bid.	Ask.		
Adeline Con. Road Oil	.80	1.00	Maricopa Queen	.55
Alaska Pet. & Coal	.08	.09	Mays	.75
Allisal	.05	.05	Mephisto	.08
Amazon Midway	.19 1/2	.25	Merchants & Bankers	.07 1/2 .09
American Canadian	.45	.45	Midway Basin	.10
American Midway	.04 1/2	.06	Midway Chief	.05
American Oilfields		21.00	Midway Flve (Dividend)	.37
Amer. Oilfields (bonds)	54.00	56.00	Midway Maricopa Crude	.00 3/4 .02 1/4
Arizona Petroleum	.55	.55	Midway Northern	.34
August	.29	.30	Midway Pacific	.24
Aztec	.10	.10	Midway Premier	.53
Baird (Assess Paid)	.02	.02 1/2	Midway Provident	.06
Best-Yet	.08	.08	Midway Security	.25
Big Sespe	.10	.10	Midway Southern	.07
Blair (Assess Paid)	.17	.17	Midway Union	.08
Bohemian	.18	.20	Midway View	.19
Boston-Pacific	.25	.25	Miners Oil	.08
Boychester	.10	.10	M. J. and M. M. Cons.	.25
Brad	.49	.49	Mohawk Sunset	.15
Brownson	.10	.10	Mt. Diablo (Div 36 pct.)	2.00 2.35
Bulck	.28	.30	Mt. Nebo	.29
Burks	.30	.30	Netherlands	.45
Cal. Coalinga	.25	.25	Newport Bay (Ass Pd)	.00 1/2
Cal. Consolidated	.27 1/2	.27 1/2	New York Coalinga	.01
California Oil	.05	.05	North Pole	.75
Cal. Seaboard	.25	.25	Obispo	.05 1/2
Canadian Pacific	.20	.20	Occident	25.00
Canadian Queen	.35	.35	Ojai Oil	.22
Canadian Sunset	.95	.95	Ojai Valley Pet	53.00
Carbo Petroleum	.60	.60	Olig Crude	2.75 4.25
Cat Canyon	.25	.25	Oppurtune	.10
Coal Homestake	1.02 1/2	1.02 1/2	Overland	.08
Coal Lakeview	.10	.10	Pacific Midway	2.00
Coalinga Monterey	.12	.12	Palmer Annex	.80
Coalinga North Pole	1.00	1.00	Pantheon	.60
Coalinga Security	.11	.11	Paula	.65
Combination Midway	.19	.19	Pinnacle	.08
Cosmo	.20	.20	Pluto Ass Pd	.08
Crete Petroleum	.21	.29	Progress	.07 1/2
Crown	.01 1/2	.02	Purissima Hills	.25
Dawson	.16	.16 1/2	Puritan	.08
Devil's Den Cons.	.80	.80	Pyramid	.58
Echo	.15	.15	Ramona Home	.25
El Cerrito	.06	.07	Range 16	.22
Federal	.09 1/2	.09 1/2	Revenue (dividend)	.65
Fox Tail	.04	.04	Rex Midway	.25
Granite	.10	.10	Rock	.30 1/2
Great Western (Ass Pd)	.06	.06 3/4	San Diego Coalinga	.18
Guaranty	.48	.48	San Emidio	.25
Hale-McLeod	.50	.50	San Juan	.70
Hanford-Sanger	.30	.30	Santa Maria Crude	.12 1/2
High Gravity	.10	.10	Santa Maria Midway	.15
Hub	.13 1/2	.13 1/2	Seneca	.50
Humauma	.35	.35	Shell Petroleum pfd	.25
January	.22	.22	Shell Petroleum com	.05
Jewell	.10	.10	Six Acres	.05
John Kern	.24	.24	South Kern	.95
Kallispell Midway	.70	.70	South Midway	.30
Kern Central	.50	.50	South Pole	.10
Kern Midway	.23	.23	State Consolidated	.70
Kern River Drillers	.06	.06	Templor-McKittrick	.00 1/4 .01 1/4
Kern West Side	.16	.16		
Knob Hill	10.00	10.00		
Kramer Consolidated	.09	.09		
K. O. Dev	.20	.20		
LaBlanc	.19	.21		
Lady Washington	.07	.07 1/2		
Lakeshore (Lost Hills)	1.00	1.00		
Lakeview	1.00	1.00		
Liberty	.08	.08		
Los Angeles Kern	.11	.11		
Los Angeles Coalinga	.22	.22		
Los Angeles Midway	.15	.15		
Madison	.07	.07		
Mammoth	.37 1/2	.75		
Manchuria Midway	.25	.25		
Marian	.22	.22		
Maricopa	.10	.11 1/2		
Maricopa Northern	.19 1/2	.19 1/2		
Maricopa Nat'l.	.24	.24 1/2		

Templor Ranch	.13
Thirty Thirty-Two	.32
Three-Twenty	.08 1/2
Twenty-Two	.01
Valley	.66
Ventura Oil & Dev	.04
Visalia Midway	.69
Visalia Non-Assess	.45
Ward	2.00
Western O. & Dev	.10
White Star (Dividend)	.31
Whittier Des Molnes	.17
Whittier Consolidated	.04 1/4

STORAGE CERTIFICATE SALES.

During the past week there were sales on the San Francisco Stock Exchange of nine Independent Oil Producers' Agency Storage certificates at 34. The closing quotation was .33 1/2 bid.

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Limited amount of stock offered at **25c per share**

Only one paid officer in the company. No wasteful expenses. Communicate direct with the company

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HOW MUCH OIL PER LIZARD?

If there has been any lurking suspicion in the minds of geologists regarding the origin and accumulation of oil they may as well forget their troubles and turn their attention to more weighty subjects. "Col." S. G. Isett, of Chanute, Kan., fame, has doped out the situation—although he has not succeeded in settling the most important point of the argument. The following from the Chanute Tribune sets the "colonel" aright:

"Editor Tribune: I notice an extract in your paper of the 14th, taken from the Fredonia Herald, in which it made the statement that in my experience in the oil business I had discovered that the Wilson county oil was from great lizards, who at some remote period inhabited this country, and that some of them would produce from 300 to 1000 barrels of oil per lizard.

"I am at a loss to understand how Editor Hudson arrives at the number of barrels each lizard would produce, for I am certainly not prepared to answer the question myself, and I certainly did not make the statement.

"At some prehistoric age the great plains lying between the Allegheny cliffs on the east and the Rocky chains of the west were covered by a great inland sea, inhabited by vast numbers of amphibious animals, fishes and reptilian creatures, all living in one homogeneous mass. The skeletons of many of these are yet to be found in the chalk cliffs of Kansas and Oklahoma, namely: The great lizards that ranged in length from 40 to 80 feet, and weighed many tons each, much more than Brother Hudson gives them credit for.

"The composition of these creatures was largely fat. When the upheaval took place that threw the plains above the water and the waters began to recede, the fishes, reptiles and all the amphibious world necessarily congregated in the pools that were left. As this water was evaporated under the influence of the hot tropical sun, their lives would be sacrificed as the result. The fatty matter contained in their bodies would be boiled out of them and float upon the surface of the water, the fat being lighter, as the earth dried up, sand and dust would be blown upon the water and the oil would be absorbed. When sufficient weight was acquired it would sink to the bottom, and other layers be

formed and follow the first. This, to me, accounts for the different oil-bearing sands found in oil-producing pools.

"As an illustration, two and one-half miles west of Chanute is the Chapple oil pool, covering about 240 acres in a perfect basin with a discharge to the north. In drilling, as soon as you pass beyond the basin, you get dry holes, while within its boundaries you get good oil wells.

"At a very ancient period in the world's history there was a current running from the southwest to the

northeast, along the 45th parallel, from Mexico to New York, through Texas, Oklahoma, Kansas, Missouri, Illinois, Indiana, Ohio, West Virginia, Pennsylvania and New York. Along the entire distance of this basin oil and gas are to be found in pools, some small, others large, and in my judgment the oil developments on this continent are in their incipency. S. G. ISETT."

Now that the source of oil and gas is definitely accounted for, it is up to some genius more familiar with the situation than the Fredonia edi-

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1911 will be greater than the year just past and will be the best year the oil industry of California has ever known from a profit point of view.

CALIFORNIA OIL BULLETIN

For the information of our clients we issue semi-monthly the "California Oil Bulletin," which tells of the best investment opportunities in California Oil and gives the news of the companies operating in all the fields of the State.

Write today for the "California Oil Bulletin" and secure a portion of this year's millions of profits by taking advantage of some of the best money making opportunities of the present generation. It will be sent to you during the coming year **absolutely free** upon request.

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tor to determine just how much oil one of the big lizards should produce. With this information in hand, we shall be compelled to rearrange our well-reports and estimate production per lizard pound. A lizard is, popularly supposed to have a moderately long body ending in a tapering tail, and when some wild-catter strikes a small showing of oil he will wire us a report something like this: "Tapped the lizard's tail. If he turned into oil while lying northeast by southwest will hit him in the middle by drilling on our lease in section 7,11-7." We shall have to designate a good producer as a "fat lizard," while the light pumpers will be said to have tapped one who was affected by the high cost of living. But woe to the man who taps that "homogeneous mass!" He will go broke providing storage.—Oil and Gas Journal.

PUBLICATIONS OF THE UNITED STATES GEOLOGICAL SURVEY.

A new list of publications of the United States Geological Survey, just issued, contains the titles of more than a thousand books and pamphlets. These reports cover a wide range of subjects. They include not only papers on geology and topography but reports on water resources and on technology. The Geological Survey was the nursery of the United States Reclamation Service and the Bureau of Mines, which now in full growth are carrying along successfully work begun by the Survey years ago. The Survey, however, still continues its work on water resources and includes discussions of technology in its annual volume "Mineral Resources of the United States."

A glance at this list will show the great diversity of the subjects considered and the manifold future of the science of geology. The reports include discussions of geologic chemistry, mineralogy, petrography, and paleontology, as well as ore deposition and other matters of very practical importance. Much of the Survey's late work has been directed to the study of mineral deposits of economic value. The work done in land classification has not yet found detailed expression in the Survey's reports, but some papers prepared as a result of land-classification surveys have been printed annually in

bulletins entitled "Contributions to economic geology."

The list may be obtained by applying to the Director of the Survey at Washington, D. C.

NEW OIL COMPANY INCORPORATIONS.

The following oil companies have filed certificates of incorporation with the Secretary of State of California since our last report. This information is furnished exclusively for the Oil Age.

Rosario Oil Company, San Francisco; incorporated March 25; capital \$25,000; directors, E. T. Cunningham, G. Sheridan, E. Stauf, San Francisco, California.

Engineers Oil Company, Los Angeles; incorporated March 28; capital, \$220,000; directors, H. P. Taylor, J. C. Niven, T. M. Preston, Lytleton Price, Los Angeles; R. J. Powell, Ridgway, Pa.

Saxon Oil Company, Los Angeles; incorporated March 28; capital, \$500,000; directors, Louis E. Nash, London, England; Thomas Daly, Clara Venables, M. E. Daly, W. T. Holden, Los Angeles.

15 PER CENT RATE EARNED.

An industrial company, thoroughly established in Los Angeles, earned at the rate of 15 per cent. on the outstanding capital last month. In its line it has an enormous field for expansion and with a little more working capital the earnings can be doubled if not trebled. For further particulars address Mr. Brown, 115 North Broadway, Los Angeles, Cal.

—Adv.

INCORPORATE

your companies under Arizona laws. Most liberal in United States. No franchise or annual tax. Members exempt from all corporate debts. No public statements required. Hold meetings and do business anywhere. Amount of capitalization does not affect cost. COST very small. Charters cannot be repealed by subsequent laws. Stock can be made non-assessable and paid up for anything of value. Corporate management, record and by-laws furnished each company. Write for our free 40-page "Book of Information" on Arizona corporation laws, blanks, etc.

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The Texas Strainer Company of Beaumont, Texas, is now building a Wire Wrapping Machine that is wrapping both round and keystone wire, on all size pipes to as small as 3-1000 of an inch opening and making the screen absolutely the same opening from end to end.

For the present they are leasing with state rights and solicit correspondence with those wishing and prepared to properly handle your state.

Sample strainer sent on your request.

OIL STOCK ASSESSMENTS.

The following oil companies have levied assessments against their outstanding capitalization:

Alaska Pioneer Oil Company, San Francisco; 5 cents per share; delinquent April 17th; sale date May 5th.

Anaconda Oil Company, San Francisco; 5 cents per share; delinquent April 24th; sale date May 12th.

Azores Oil Company, Hanford, California; 10 cents per share; delinquent April 18th; sale date May 8th.

Coalinga Crown, Fresno; 2 cents per share; delinquent April 29th; sale date May 20th.

Gates Oil Company, Los Angeles; 1 cent per share; delinquent April 26th; sale date May 15th.

Hillcrest Oil Company, Santa Barbara; 1 cent per share; delinquent April 11th; sale date May 2nd.

Lady Washington Oil Company; San Francisco; 2 cents per share; delinquent April 15th; sale date May 1st.

New Center Oil Company, San Francisco; 10 cents per share; delinquent April 7th; sale date April 19th.

New Light Oil Company, San Francisco; ½ cent per share; delinquent April 4th; sale date April 25th.

Oakland Oil and Asphaltum Company, Oakland; 2 cents per share; delinquent April 24th; sale date May 24th.

Rose-McCourt Oil and Land Company, Fresno; 1½ cents per share; delinquent March 20th; sale date April 20th.

South Midway Oil Company; Los Angeles; 1 cent per share; delinquent April 14th; sale date May 8th.

Tumbador Oil Company, San Francisco; 20 cents per share; delinquent March 24th; sale date April 15th.

LEGAL NOTICES.

Notice of Meeting of Stockholders of the Midway Basin Oil Company.

Notice is hereby given that the Annual Meeting of the stockholders of the Midway Basin Oil Company, will be held at the office of the company, room 315 Currier building, 212 W. Third street, Los Angeles, Cal., at 9 o'clock A. M. on the morning of the 8th day of April, 1911, for the election of a Board of Directors to serve for the ensuing year and the transaction of such other business as may properly come before the meeting.

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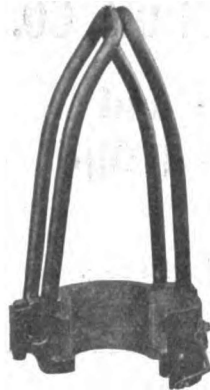
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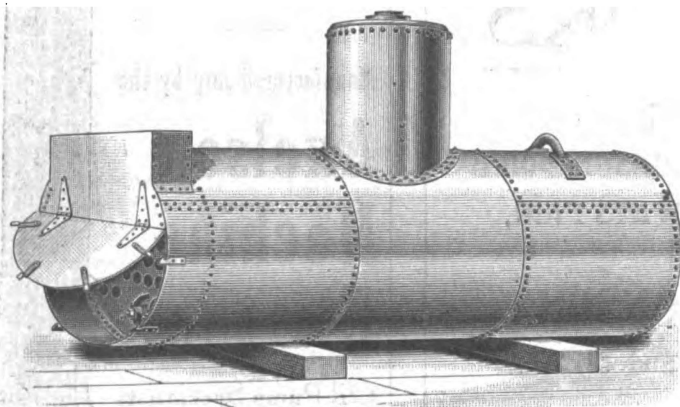
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Oil Field Maps & Photographs

The following Maps and Photographs are for sale at the office of The Oil Age. Cash should accompany all orders.

OIL FIELD MAPS

COALINGA—Blue line on cloth, size 28x46 inches, scale 2 inches to the mile; corrected to August 15th. Price \$6.00.

SUNSET-MIDWAY—Lithographed in colors, showing surface and sand contours and logs of typical wells, 54x40 inches, scale 2 inches to the mile. This is probably the most useful and accurate map ever published of the Sunset and Midway fields. Price \$10.00.

SAN JOAQUIN VALLEY—Showing location of all oil fields, covers territory 300 by 100 miles; scale, 4 miles to the inch, size 3x7 feet. Blue line on cloth. Price \$15.00.

DEVILS DEN—Covering Kreyenhagen, El Cerito and Devils Den prospective oil districts. Blue line on cloth; size 34x60 inches; scale 2 inches to the mile. Price \$8.00.

KERN RIVER—Scale 5 inches to the mile, size 40x50 inches. Blue line on cloth, \$3.00; blue line on paper, \$2.50.

SALT LAKE-SHERMAN—Covers all the productive territory between Los Angeles and the Pacific Ocean. Size 40x24 inches. Blue line on cloth, \$2.00; blue print, \$1.00.

ALL VALLEY FIELDS—The Barlow and Hill map book contains individual maps, on 1-inch scale, of Kern River, Sunset, Midway, McKittrick, Elk Hills, Devils Den (small scale) and Coalinga. Ownerships indexed. Price \$1.00.

SANTA MARIA-LOMPOC—Covers all of Santa Maria and Lompoc fields and adjacent territory, showing ownerships, wells, etc.; scale 1 5-16 inches to the mile, size 52x36 inches. Blue line on cloth, price \$5.00. Also in pocket form, one-fourth size, price \$1.00.

PANORAMIC PHOTOGRAPHS

The following panoramic photographs are probably the finest ever made of the oil fields. They are not enlargements, the dimensions shown being the actual size of the negative.

No.	Title	Price
550	Salt Lake-Sherman—old field, 9x63	\$2.50
551	Salt Lake-Sherman—near Beverly, 9x59	2.35
552	Brea Canyon field, 9x61	2.45
553	Fullerton-Olinda field, 9x64	2.50
554	Olinda field—looking southeast, 9x50	2.25
554	Kern River field—from south of river, 9x55	2.20
555	Petroleum Dev. property, Kern River field—beautiful reflection picture, 9x36	1.45
556	Central Point, Kern River field—looking northwest, 9x32	1.00

557	Central Point, Kern River field—looking northeast, 9x45	1.00
558	Jap Hill, Kern River field—showing many derricks, 9x42	1.70
559	Oil Center, Kern River field—looking east, 9x41	1.65
560	Oil Tanks and Reservoirs—Kern River field, 9x35	1.00
561	McKittrick—town and field, 9x47	1.90
562	Group of Associated Oil Co. employees at Oil Center, 9x44	1.75
563	Taft—the town, 9x50	2.00
587	Same as 589 at closer range without reflection—25 Hill in the distance, 9x32	1.50
589	Lakeview Gusher, shooting oil 300 feet in the air—reflected in sump hole, 9x22	1.50
590	Similar to No. 589, 9x22	1.50
653	Lakeview Gusher, taken at the age of 75 days, 9x31	1.50
593	Maricopa Field—showing Lakeview gusher in action, 9x68	2.50
600	North Midway, showing many new wells, 9x44	1.75
601	Midland, looking east and southeast, 9x60	2.50
637	Midway Field—looking northeast to southeast from section 22-32-23, showing "25 Hill," 9x56	2.50
1001	Bell lease, Santa Maria field, 9x56	2.25
1002	Fox lease, Santa Maria field, 9x62	2.50
1012	McKittrick field—north end, 9x47	1.90
1013	McKittrick field—another view, 9x45	1.80
596	North McKittrick—showing East Puente and other wells, 9x47	1.90
1014	Maricopa field, 9x69	2.50
688	Maricopa field—same as No. 1014, but shorter and covering less ground; 9x40	1.60
1015	Midway, looking southeast from 25 Hill, 9x42	1.70
1016	Midway, looking west from 25 Hill, 9x49	1.95
1018	Coalinga—West Side field, 9x69	2.50
1019	Coalinga-California Oilfields, Limited, property, 9x49	1.95
1020	Coalinga—the town, 9x68	2.50
655	Coalinga—West Side, looking east, showing hundreds of derricks; an unusually fine picture, 9x60	2.50
713	San Emidio—showing scattered derricks south of Hazelton, 9x44	1.75

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