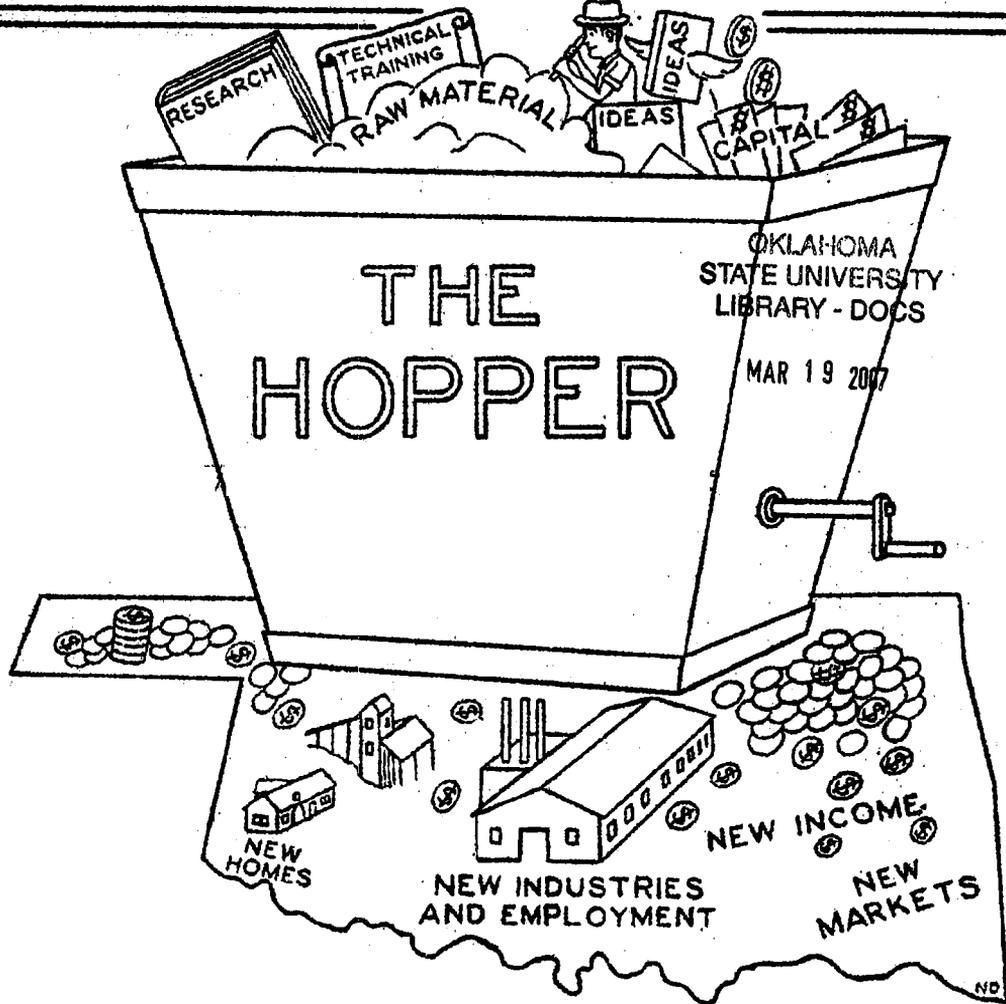


OKLAHOMA MINERAL INDUSTRIES CONFERENCE



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HOPPERATOR'S PAGE

"AS ADVERTISED....."

'Situations Wanted:

'Chemist-Engineer. 20 years industrial experience. Oil, fats, solvents, resins, soap, plastics, ester, synthetic organic field. Technical production research development executive",

and many more. It should be easy to hire the "know-how."

"Chemical Plant--All Unused Equipment"

Partial list of equipment, all unused, includes indirect rotary dryer, vacuum evaporators, classifiers, recovery columns, electric precipitators, extrusion presses, extractors, etc.,

and several pages of equipment, used and unused, offered by numerous firms. Equipment can be obtained, evidently.

A survey of the advertising matter in the technical and trade journals might possibly develop some tangible ideas on how to put industries into Oklahoma. Of course, an idea must be activated or it is worthless.

"AS ADVERTISED....."

There's an old saying "There's nothing new under the sun." Whoever said it didn't have the benefit of modern science and technology, for through science and technology, there is much that is new under the sun.

A serious study of advertising in newspapers and magazines, particularly current technical and trade journals, can be very revealing to one interested in industrial trends. An old printer friend gained a reputation as a sage and prophet. His opinions on general economic conditions and probable trends, which were highly respected, were based wholly on a study of the classified advertising sections.

Oklahomans can take a leaf from the old printer's book, for in current journals are many advertisements that offer clues to opportunity, particularly for a state seeking new industries, and having the fuels and raw materials to supply them. There are clues to new products that may loom big in the future. There are open apologies by manufacturers, regretting their inability to supply all their customers' needs for old, staple products. These clues indicate big demand, a seller's market--room for more plants. They are clues to follow in trying to attract established industries into the state.

Believing the new industrial-consciousness of our people should be nurtured, THE HOPPER in this issue presents food for thought in the form of quotations from some of the advertising that is appearing in trade journals, technical magazines, and manufacturers' house organs, annotated with some thoughts these advertisements provoked in our minds, with special reference and application to Oklahoma.

"AS ADVERTISED....."

"Calls for Caustic Soda Keep Us Buzzing"

This is the caption of current advertising copy of an important alkali manufacturer. They state that with their facilities operating at capacity they are allocating all their production to old customers, and meanwhile making every effort to increase production.

This advertiser calls attention to the huge quantities of caustic soda demanded by the soap industry. The rayon industry requires other vast amounts and "because of it the fabrics are finer and stronger of texture." "Caustic soda is of benefit in the manufacture of materials used in rugs, draperies, automobile upholstery and tire cord."

Caustic soda enters, directly or indirectly, into the manufacture of paper and pulp, petroleum products, and many industrial chemicals.

The basic raw material for caustic soda is salt--common salt--with which Oklahoma is abundantly supplied by nature. Thick beds of rock salt underlie most of western Oklahoma. Tremendous quantities of brine containing up to 55 pounds of salt per barrel underlie much of the balance of the state. What other raw materials are necessary for the production of caustic soda depends upon the method employed. One method requires limestone and fuel in addition to salt; another, fuel and electric energy. The operation of either method in Oklahoma would not be handicapped by lack of essentials.

Recollect, please, that chlorine and hydrogen are also produced with caustic soda in the electrolysis of salt. Would the Oklahoma refiner of petroleum make use of chlorine and caustic soda, if available in Oklahoma?

"AS ADVERTISED....."

"To Assure a Steady Flow of --- Products for Industry"

"Soda Ash, Caustic Soda, Bicarbonate of Soda, Silicate of Soda, Liquid Chlorine, Calcium Carbonate, Carbon Tetrachloride, Special Alkalies."

"10,000 Ton Boatloads of Limestone Constantly Replenish ----- Stockpiles"

"Huge freighters bring 10,000 ton loads of limestone from company quarries in Northern Michigan to -----'s main plants at -----, Ohio. These great stocks of limestone, along with thousands of tons of coal and salt and millions of gallons of water are continually being processed into ----- alkalies and chemicals to meet ever-increasing needs of industry for these quality products."

Ohio does not possess the high-calcium limestone so necessary to the alkali manufacturer, although she does have enormous deposits of dolomite, the double carbonate of magnesium and lime. This accounts for the long-haul on limestone from northern Michigan, economically possible only because of water transportation.

In Oklahoma both high-calcium limestone and high-quality dolomite are available for the manufacturer of chemicals with plants located within the state.

Oklahoma Geological Survey Mineral Report No. 16 describes the geology and composition of the St. Clair limestone near Marble City, Oklahoma.

A report is in preparation on high-grade dolomite of a portion of the Arbuckle Mountain area.

"AS ADVERTISED....."

"Original Producers of Magnesium Salts
from Sea Water"

A manufacturer uses the above phrase at the top of his page of advertising in which he lists his products as:

"Magnesium Salts, U.S.P., technical and special grades of carbonates, hydroxides, and oxides for the pharmaceutical, cosmetic, food, rubber, printing ink, paint and varnish, and chemical" trades.

This particular industry is in the San Francisco area of California where common salt is produced to meet most of the requirements of the Pacific Coast by solar evaporation of sea water, which process leaves a residual mother-liquor or bittern heavy in magnesium salts. This bittern is the raw material from which is obtained the products listed by this advertiser.

The ad also lists the distributors for their products. Their distributors are located at New York, Chicago, Cleveland, Toronto, and St. Louis. We assume that the location of distributors is determined on the basis of markets. Apparently distance from markets and transportation costs are not a serious obstacle in the calculations of this California manufacturer.

May we call your attention to the April 1947 issue of THE HOPPER wherein a process is outlined for the production of magnesium compounds from oil-field brine and dolomite, both of which are available in any amount desired in Oklahoma.

Oklahoma has the raw materials; we offer a process and can suggest several others for your consideration; and the above advertising indicates that markets are within reach from Oklahoma points.

"AS ADVERTISED....."

"CALCIUM CARBONATE - The long and short of it"

"For years, the paper industry has been using---- Precipitated Calcium Carbonate as an essential ingredient of high-grade coating, giving whiteness and brightness to the product. In the paint and varnish industry,----- Precipitated Calcium Carbonate is an extender of superior quality. It is the best reinforcing agent known for many rubber products--lending tensile strength and tear resistance to gloves, hot-water bottles, hospital sheeting and inner tubes. Now industry is finding many NEW uses such as calcium enrichment of food products ... All these new demands ... --coming on top of increasingly heavy demands for old uses-- have taxed our production facilities."

"Meanwhile we are doing everything possible to increase production of ----- Precipitated Calcium Carbonate. We are putting up THREE NEW CALCIUM CARBONATE UNITS. And we look forward to the day when we shall be able to supply every user of quality Calcium Carbonate with all he wants of this versatile chemical."

Again we would refer you to the April 1947 issue of THE HOPPER in which Precipitated Calcium Carbonate is listed as one of the products obtained from the process outlined for utilization of oil-field brines and dolomite. In our experimental work we used Oklahoma oil-field brine, Oklahoma dolomite from the Arbuckle Mountain area, and Oklahoma natural gas as fuel. The other products of the process are salt and magnesium salts. We could have used other dolomites, and other fuels with which Oklahoma is so abundantly supplied.

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"AS ADVERTISED....."

"More Water than the Millions of Gallons used by the City of Pittsburgh is Consumed in the Daily Production of ----- Products."

"Water--one of the basic raw materials used in processing alkalis and chemicals pours in (our) plants by more than a hundred million gallons daily. This is greater than the water needed to supply the homes and industries of a city the size of Pittsburgh."

"Access to this vital fluid is a prime factor in the location of every steel mill; more important, in fact, than transportation."

"One plant, by itself, requires 500,000,000 gallons of water on a hot summer day; another of the nation's steel mills consumes 350,000,000 gallons every 24 hours."

"One coke plant uses as much as 50,000,000 gallons a day."

A chemical company advertise that they:

"manufacture 400 chemicals in 500 buildings, requiring daily disposal of some 200,000,000 gallons of waste water, 70 tons of refuse, and millions of cubic feet of vented air."

Manufacturers recognize the importance of water. In considering plant location they specify not only the volume required but also its composition and even its temperature.

It would be well for city officials, civic organizations, and others to recognize these facts; to learn something of the water resources of their community, and where it is found advisable, to take such measures as needed to insure a proper supply to meet future domestic and industrial demands.

Your community may be asked not only to supply water but also to later dispose of it.

In both eventualities the question is the same --where and how?

In Oklahoma the Oklahoma Geological Survey, in cooperation with the U. S. Geological Survey, investigates and reports on ground water. Surface water comes in the province of the Oklahoma Planning and Resources Board, in cooperation with the same Federal agency. Both state agencies will cooperate with your community and advise on the situation.

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"AS ADVERTISED....."

"Know Your Driers"

This advertisement calls attention to a line of low viscosity, permanently soluble NAPHTHENATE driers: Lead Naphthenate, Cobalt Naphthenate, Manganese Naphthenate, Zinc Naphthenate, Calcium Naphthenate.

These materials are important raw materials for the paint and varnish industry. They should arouse interest in the minds of Oklahomans working for industrial expansion in their state, because NAPHTHENIC ACID from which these driers are produced is a PETROLEUM product found in all naphthenic and intermediate class crude oils.

Another ad tells of the advantages of Copper Naphthenate as an ingredient of anti-fouling paint and as a wood preservative.

The naphthenates are firmly established raw materials for use as fungicides.

"AS ADVERTISED....."

"The list of synthetic organic chemicals (we manufacture) now includes more than 150 members and is still growing. Approximately half of these are in commercial production; the remainder are in various stages of active development, together with a large number of others which have been prepared only in the laboratory."

The advertiser was a pioneer in the manufacture of chemicals from petroleum products. Several years ago as a new organization it ventured into the chemical field with the chlorination of pentanes which are among the lower-boiling components of gasoline. The long list of products now offered are derivatives for the most part from the original chlorinated pentanes. Truly, a giant oak tree from a little acorn grew. No one can foresee the number of consumer materials that can and will be derived from a single mineral raw material.

Turning through the pages this greets our eyes: "Announcing the New Emulsifiable Waxes ideally suited for self-polishing floor waxes." The ad goes on to say: "These waxes are 100 percent petroleum derivatives, not blends: are easily emulsified; emulsions are stable and translucent, non-tacky, high gloss, and economical." At the bottom of the ad is the name of the advertiser with the disclosure, "refinery located at Kilgore, Texas."

Then we see a news item: Phthalic anhydride, a basic material to the makers of alkyl resins, plasticisers and vat dyes, has traditionally been made from naphthalene, a coal-tar derivative. Now production of phthalic anhydride from o-xylene is on the increase due to the actual offerings of o-xylene from petroleum by two major oil companies.

"AS ADVERTISED....."

"..... the first step toward petroleum-chemical profits" lies in this advertiser's wide experience in designing and building plants based upon:

".... a low-cost source material, petroleum, offers opportunities for profits from production of ethylene, solvents, styrene, butadiene, phenol, alcohols, ketones, esters, resins, and other intermediates. Already large, the markets for these chemicals are still expanding rapidly."

In the same journal the War Assets Administration carries an ad offering "plants and parts of plants" ... "suitable for dismantling and erection elsewhere." Of course, we know that many of these plants were improperly and illogically located at places which did not offer the raw material inducements to be found in Oklahoma. Is it now too late?

* * * * *

"Ammonia Rolls to Market from New Dixie Plant"

"More than a thousand tons per week of anhydrous ammonia is now rolling" out of a Louisiana plant, and going to many process industries including fertilizer manufacturers "on the Gulf Coast." Why the Gulf Coast?

Another producer of ammonia in Kansas calls attention to their ability to take care of increasing demands, and does it in an ad displaying photographs of their plant and facilities.

* * * * *

Both plants utilize natural gas as a basic raw material.

We learn from Chemical & Engineering News, issue of June 2nd:

In an address entitled "Is it too Late for Leaders in Petroleum to Lead in Chemicals", Bradley Dewey, president of Dewey & Almy Chemical Co. and past-president of the American Chemical Society, speaking before the Fifth Joint Technical Meeting of the Standard Oil Co. (Indiana) stressed the importance of realization of differences in management and actions in the two fields and pointed out some advantages which petroleum men might have from knowledge gained in their field, provided they are alert to the necessity for taking a new and rejuvenated view on certain phases.

"The oil companies hold the advantage in availability of raw materials and supplies, in their buying power, geographical distribution, knowledge of crudes, processes, byproducts and trends, as well as in freedom of action over some, but not all, chemical companies. As for production and operating ability, Mr. Dewey places oil and chemical companies on a par. Chemical companies on the other hand have more flexible philosophies, move faster, will take much longer risks in developing new products and markets for them. They have a distinct edge in their ability to judge markets for products made from materials they plan to sell."

To men of an industry which has been pictured as "the greatest gamble on earth" it may come as something of a shock to find that men of another industry "move faster" and will "take longer risks" but Mr. Dewey is a keen analyst of economic conditions, and calls the strikes as he sees them.

Oklahoma should be in the forward ranks in products from petroleum. Should we attempt to interest the petroleum men or the chemical men in our desires and aspirations?