

countless relatives. Members of the well-known Hydrocarbon Family, they actively roam the subterranean sands and porous rocks. Spaces between sand grains are their paths; faults and fissures in the earth's crust are their highways, rocky caverns their parking places.

STARTS ON HIS

EXCITING

JOURNEY





expense.



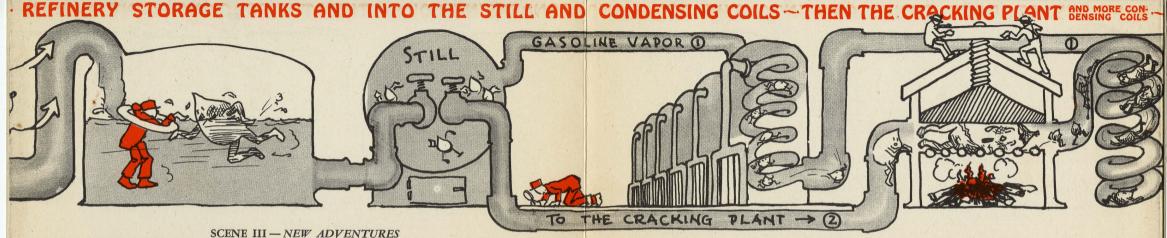
they guide the flowing oil into pipes and tanks. Occasionally the oil, lacking natural gas pressure,

flows slowly from the well. From some wells it

has to be pumped to the surface, increasing the

\$100,000 or up. Yet sometimes Pete's family is missed entirely.

The lucky driller who opens wide the front door of Pete's home, however, finds a boisterous crowd rushing up to meet him. Exuberantly they travel



Crude are Pete's folk upon reaching the surface, lacking in refinements essential to usefulness. A pump boosts them along a pipe into a separator, there to be rid of natural gas and salt water. Another boost by a pump, and into a field storage tank they go. The salt water has proved to be the source of certain products, such as table salt and

chemicals; the natural gas is used for heating.

lighting, and as the source of hundreds of products.

Their stay in the tank is brief, for the civilized world needs vast amounts of oil. So on they go, across the seas in tank ships, across the land in tank cars, and even underground in the safer, faster pipe lines. Eventually, and it may be days and weeks later, they are emptied into a refinery storage tank.

SCENE IV — MORE TRAVELS

This stay also is brief, for people can't use crude oil. They want refined products—gasoline for their motor vehicles, lubricating oil for machinery, frees water vap

fuel oil for ships, and thousands of other products.
So out of the tank and into a still goes Pete.
Skimming, topping, removing the lighter frac-

tions, oil men call this initial distillation. Heating oil releases petroleum vapor, just as boiling water frees water vapor. Pete sees many of his relatives going up and out, headed for the condensers, where cooling changes them from vapor into gasoline, kerosene, and other liquids.





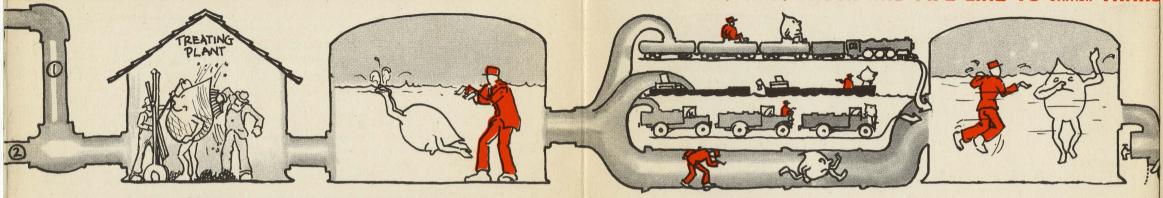








INTO TREATING PLANT AND GASOLINE STORAGE TANKS - BY TANK CAR. SHIP. TRUCK AND PIPE LINE TO STATION TANKS

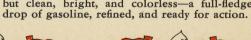


SCENE V — ACQUIRING REFINEMENTS

The more solid, stodgy members of the family remain. These "heavier fractions" are pumped along to a cracking plant. This, Pete finds, is all that the name implies. Between intense heat and extreme pressure he does indeed crack, breaks down, becomes a particle of vapor. Then he passes through condensing coils, cools, regains the sem-

blance of a drop, and emerges raw gasoline. Through more pipe, in and out of storage tanks,

Pete travels to the treating plant. But this is worse even than the Saturday night scrubbing back home, although the purpose is much the same - cleanliness. Pete is tossed up, cast down, whirled, shaken, agitated, buffetted, scrubbed, polished, mixed with chemicals, sprayed with water, settled, and strained. He comes out dizzy, but clean, bright, and colorless-a full-fledged



SCENE VI - PETE FINDS A JOB Pete now embarks upon more travels by pipe line, tank ship, tank car, or motor tank truck to a bulk storage plant near a city. This stay, like those in other tanks, is brief—and Pete soon is travelling again. This time he rides in a motor tank truck, halts suddenly at a filling station, and goes down a big hose into an underground tank.

It is dark there, but still he can realize that every moment some of his relatives are leaving him. His turn finally comes. Up a pipe he goes, up and up and up, through a rotary pump, whirls around on a tiny propeller in a little glass sun-lit cage, and then dives down a hose into the fuel tank of an automobile.













BY TRUCK TO THE SERVICE STATION AND INTO YOUR CAR!



SCENE VII — PETE'S WORK

You know the rest of Pete's life story. He is potential power, he and innumerable millions of other drops that once were crude oil. Thousands of miles they were transported, many and varied treatments they were given to make then clean and refined, and then they were placed within easy reach of the motorist—all in preparation for that brief moment when, mixed with air, they were

exploded and their power used to move a vehicle for pleasure or for business. Producing, transporting, refining, and marketing Pete's family were expensive undertakings—much more so than delivering milk to the family doorstep, for instance, and yet Pete rendered his service to humanity at far less cost, a triumph of enterprise, industry, science, and the desire to serve.







THE FADE-OUT



SCENE VIII — THE MYSTERIOUS STRANGER

From the time Pete left his underground home until he found his job in that automobile, he encountered many strange persons enroute. At every turn they met him, all in uniform and remarkably alike in that always they had one hand out and one word to say, "Gimme!" Pete quickly learned that these were tax collectors. He paid toll to 116 of them in the course of his travels. Some 27 more were on that automobile in which he took his

last ride! Not only were they numerous, but Pete found them decidedly expensive. Sometimes, especially after he became gasoline, taxes actually cost more than did Pete himself!

Once he tried to learn why. "Why tax me so heavily," he asked, plaintively, "when you don't tax the other fellows, too?" For once the tax collector had disappeared. In his place was an echo. And echo answered, "GIMME!"







A SHORT STORY OF THE PETROLEUM INDUSTRY

PETROLEUM, the only liquid mineral, enters so many fields of utilization that it has become a basic necessity of our industrial civilization. It has been an important factor in the development of that civilization, for petroleum gave man his first satisfactory illuminant, kerosene, lengthening his day. It gave man his first satisfactory lubricant, oil, making possible the continuous operation of the machine and freeing him from the bondage of hand labor. And it gave man his first satisfactory fuel, gasoline, enabling him to operate machines that conquer time and space.

THESE represent only an infinitesimal few among the thousands of ways in which petroleum and its derivatives, either alone or compounded, daily are used in some form by every person in the civilized world. Whenever, wherever, and for whatever purpose man depends upon a machine, he depends upon petroleum.

CRUDE OIL, the petroleum of commerce, is found deep in the sedimentary rock areas of 25 countries. Production is greatest, however, just as its use is largest, in the United States. In the United States also the petroleum industry has had its most rapid growth. American developments in the technique of oil drilling, production, refining, transportation, and marketing have influenced the whole world. The world comes to our door for oil machinery, oil engineering,

and oil products. Thus it may be said that while petroleum is one of the oldest natural products used by man, the industry created within three-quarters of a century is youthfully American.

COLONEL Edwin L. Drake, generally regarded as the founder of the American petroleum industry, brought in this country's first commercially productive oil well near Titusville, Pa., on August 27, 1859. Ignoring earlier methods of digging for oil, he successfully adapted to oil recovery the drilling methods used in the production of salt.

TODAY, 350,000 oil wells, some more than a mile deep, are producing from beneath the surface of 19 states more than 2,000,000 barrels of oil every 24 hours. Drake's 69½-foot well produced only a few barrels. Weeks and months were required to complete the Drake well. Now 20,000 wells are drilled yearly and completed at a cost normally exceeding \$500,000,000. Not all, however, are productive of oil. Some yield natural gas, others salt water. Still others are merely "dry holes."

FOUR hundred refineries, operating in 30 states, represent 85 per cent of the world's oil refining capacity. They are the manufacturing plants which transform the crude oil into usable products. The first pipe line, built in 1865, has become a vast underground system. Its 100,000 miles are augmented by thousands more miles of pipe line transporting gasoline and natural gas.

MORE than 150,000 railroad tank cars, 95 per cent of them owned or leased within the industry; enough tank ships to comprise nearly 20 per cent of the U. S. Merchant Marine; and thousands of tank trucks and oil barges also transport oil products. Three hundred and fifty thousand filling stations meet the demands of automotive transportation, with its 25,000,000 motor vehicles, for fuels, lubricants, and service. Additional outlets service aircraft and small watercraft. Bunkering stations provide fueling facilities for the world's merchant shipping, most of which, like virtually all vessels of war, use oil fuel.

THE United States, consuming three-fourths of the world's oil, itself produces roundly two-thirds of it. Production in this country ordinarily reaches nearly one billion barrels a year, the largest of any country in the world. In fact, Texas, Oklahoma, California, and Kansas, the largest oil-producing states, have given the world more oil than all foreign countries combined. From this enormous yield of the raw material are manufactured yearly some 16 billion gallons of gasoline, 60 million barrels of kerosene, 400 million barrels of gas and fuel oil, 34 million barrels of lubricants, and millions of barrels, tons, and pounds of other refined petroleum products.

IN its scope of operations, the American petroleum industry probably is second only to agriculture, for the work of producing, refining, storing, distributing, and marketing oil products represents a substantial proportion of the business of every state. Few realize that, although demand for oil has multiplied many

times within a generation, and sometimes has shifted almost overnight from one product to another, the wells, refineries, and transportation, storage, and marketing facilities have maintained an adequate service and supply. This country never—even for a day—has experienced a shortage.

THE PETROLEUM industry vitally influences every other industry, not only through their dependence upon its essential products, but through its consumption of their products. Its purchases of tank cars, tank ships, motor vehicles, steel, iron, lumber, paint, rubber, pipe, rope, wire, brass, tin, chemicals, tanks, engines and other goods is enormous. And despite its own extensive transportation system, it ships by rail the largest tonnage of manufactured goods.

AS ONE of the largest employers in the world, this industry provides remunerative activity for the brains of virtually all the professions and the brawn of every type of labor. Its huge family of workers probably numbers above 2,500,000. It is estimated that nearly one-quarter of the entire population of the United States, either directly or indirectly, financially is benefited by its operations. Among them are thousands of farmers to whom oil, as a sub-surface crop, pays millions of dollars annually for royalties and land rentals. The industry is a large employer also of capital, some 2,250,000 stockholders having invested around \$12,000,000,000 in the undertakings of its thousands of companies.

NO PICTURE of the petroleum industry could be complete without depicting it as one of the nation's heaviest taxpayers. In all, it pays 116 classes of taxes,

24 to the federal government, 68 to state governments, five to county governments, and 19 to municipalities. Every operation and every product is taxed, in one form or another, from raw material to finished goods.

FROM 1921 through 1930 the industry's average annual tax bill amounted to \$350,000,000. Its earnings averaged \$265,000,000, or less than three per cent upon its investment. During this decade the industry earned \$2,650,000,000 and paid in taxes \$3,500,000,000! Since 1930 it would have undoubtedly been better off financially had it surrendered to government all its net earnings in lieu of tax payments.

NATURALLY, such heavy taxation offsets any possible saving to the public through improvement in methods, efficiency of operation, and other economies. Taxation of gasoline is an instance. Gasoline prices have pursued a definite and drastic downward trend since 1920, yet taxes levied by federal, state, county and municipal governments have offset the price reduction. State gasoline taxes alone exceed \$500,000,000 a year. Federal levies increase this tax bill to above \$600,000,000. And these are only two out of 27 taxes paid by motorists!

THE ORIGINAL purpose of gasoline taxation, inaugurated by Oregon in 1919, was to finance highway construction, improvement, and maintenance. In recent years, however, millions of dollars of road funds have been diverted to other purposes. The consumers of gasoline, one-fourth of them farmers, are put in the

position of paying these special additional taxes for the support of government, although otherwise taxed for that purpose.

CURRENT levies upon gasoline represent sales taxes of 30 to more than 100 per cent of the retail price. Figure out how many gallons of gasoline you use in a year, calculate the tax bill, and see for yourself if taxes do not cost you as much, if not more, than the gasoline itself!

EXCESSIVE taxes upon gasoline already have discouraged the use of motor vehicles, the largest source of tax revenue for most states, encouraged extravagance through diversion, and created a racket, tax evasion. These evils menace the financial security of the states and the welfare of the public.

OPINION is growing that gasoline taxes should be reduced to reasonable rates, revenues fully collected, and income efficiently expended for highway purposes alone. If the gasoline tax is used as a yardstick by which to measure road expenditures, every state can have all the good roads it can afford. And isn't that what public interest demands? Neither the motorists, the petroleum industry, nor gasoline long can bear so unduly heavy a proportion of the tax burden.

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THE END

