

ETHYL NEWS
1946

ETC 23667

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ETHIOPIA NEWS



JANUARY ★ 1946

ETC 23670

Now appointments in the Ethyl Sales Department are those of George P. Rosser as Assistant Manager of the Kansas City Division and Gerald A. Lofquist as Assistant Manager of the Chicago Division.



Mr. Rosser, who has been on military leave with the U. S. Army, succeeds Donald S. Flynn, who was named Manager of the Kansas City Division

when Harold R. Berg was promoted to the new post of Southern Area Sales Manager in a recent reorganization of Ethyl Sales. Mr. Rosser joined the War Department in 1942 with the reserve rank of captain and received his training as an Ordnance officer at Aberdeen Proving Ground, Holabird Ordnance Depot, and the Tank Automotive Center in Detroit. He served in Washington, D. C., as executive officer of the Maintenance Division, Headquarters of the Army Service Forces, with the rank of lieutenant colonel. Mr. Rosser, who joined Ethyl in 1930 as a field representative, was Assistant Manager of the Atlanta Division when he entered military service. He is a graduate of Georgia Tech.

Mr. Lofquist, a graduate of the University of Illinois, was associated with Western Precipitation Company, Ford, Bacon and Davis, Inc., and General Motors (Truck and Motor Division) before coming to Ethyl in 1939 as a field engineer in Illinois. For the past three years, he has been Safety Engineer with the Chicago Division. Mr. Lofquist succeeds Malcolm P. Murdock who was transferred to the Ethyl Specialties Corporation to assist in plans for marketing Ethyl Cleaner.



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ETHYL NEWS

JANUARY 1946

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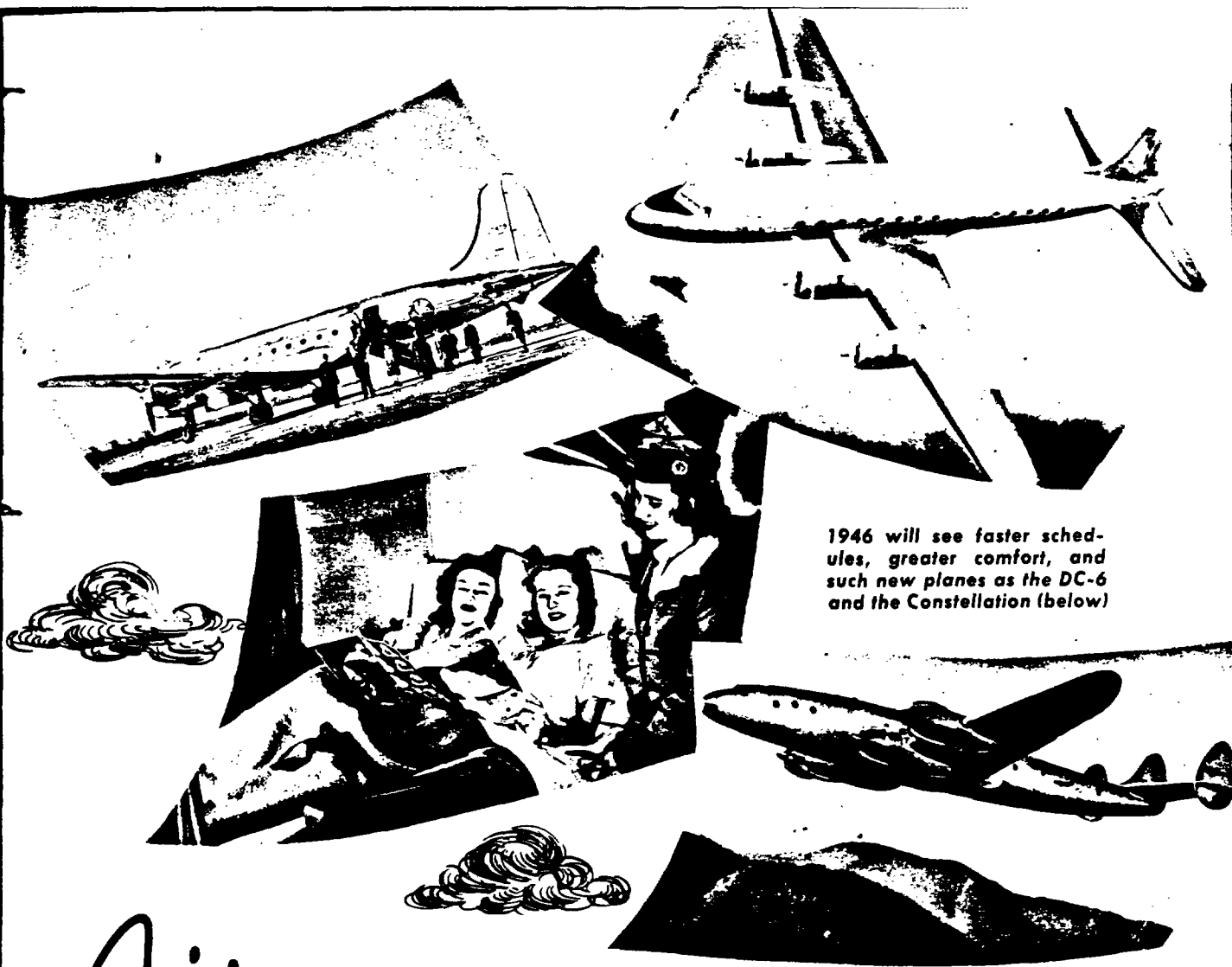
In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23671



1946 will see faster schedules, greater comfort, and such new planes as the DC-6 and the Constellation (below)

Air Travel in 1946

By Richard P. Cooke

THE YEAR 1946 will see the country's airlines in the throes of the greatest growing pains in their colorful history.

At first — which means the first six months, at least — the air traveller will not find it very much easier to make a reservation than during the travel-glutted days of 1945. But he will begin to notice a different

More available seats, at the lowest rates in history, are what the airlines will offer the flying public this year

"look" to air service, and by next fall there should be enough seats to go around.

No longer will the man who has to get somewhere in a hurry have to phone a friend in an airline — only to be told nothing can be done for him anyway — or go out to the air-

port and wait until a "no show" (passenger who fails to turn up) vacates a seat for him.

The different "look" to air travel this year will be in the growing number of four-engined planes on regular schedules.

Through last year, TWA's five

Boeing Stratoliners were the only four-engined craft in domestic service (although the Army and Navy have been flying hundreds of four-engined transports all over the world).

But by next June, there should be over 200 Douglas DC-4's (similar to the C-54 military transport) flying, which are 220-mile-an-hour craft, each capable of carrying 45 to 60 passengers. There should also be between 20 and 30 modern 300-mile-an-hour Lockheed Constellations, carrying more than 60 passengers each. About midyear, the first deliveries of the fast Douglas DC-6 — another 300-mile, 60-plus passenger plane — will be forthcoming, and by the end of the year a number of these craft should be in regular service. These planes, some of which will go into overseas service, will be 20% to 60% faster than the familiar DC-3's.

The DC-4's are frankly an "interim" airplane. They are designed to fill the gap until the full quotas of newer, faster planes can be delivered. But they will nevertheless cut flying time, coast-to-coast, from the present 16 to 18 hours to under 13

hours. The Constellations and DC-6's will cut that time further — to ten hours. Comparable savings in time will be available between intermediate points.

All told, the nation's airlines are spending an estimated \$250 million on new equipment, on the basis of presently announced commitments.

The great bulk of 1946 domestic passenger traffic — for the first half year at least — will still travel in the familiar DC-3's. There are now some 400 of these craft in service — 40 more than before the war — and they will probably continue in service, along with the newer four-engined craft, until brand-new twin-engined types, such as the Consolidated Vultee Model 240, come along.

More Seats Being Added

A few of the present DC-3's may have extra seats installed (three planes already have 28 seats instead of the traditional 21), and altogether this twin-engined fleet will have about 8,000 seats to offer air travellers, at any one time, as compared with only some 6,000 seats in 1941. The new four-engined craft, assum-

ing there are 250 of them in use at the end of the year, will provide roughly another 15,000 seats, making 23,000 in all. And those 15,000 seats will mean even more service than indicated by mere arithmetic, due to the greater speed at which the new planes travel as compared with pre-war aircraft.

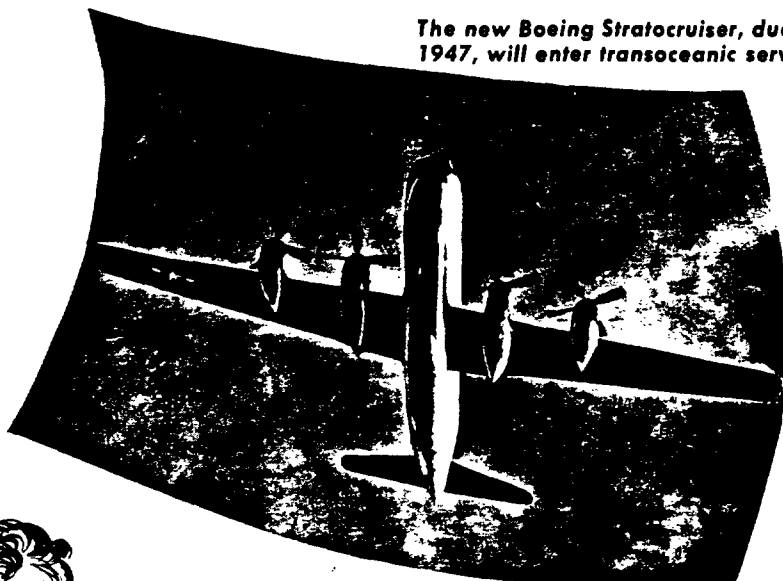
As to gasoline, 91-octane fuel will continue to be the principal grade used, on the basis of present indications, although there is a growing trend to better grades. The newly developed four-engined planes, which will be entering regular service, are expected to be run on 100-octane gasoline.

Air travel this year will be made available to the public at the lowest fares in airline history. If anyone wants to make a rough estimate of what it will cost him to fly between any two cities, all he has to do is to take out a ruler and measure the distance on the map as the crow flies. Multiplying the number of miles indicated, by $4\frac{1}{2}$ cents, will give him the answer. There are some minor variations, but that is essentially what his ticket will cost. Before the war, fares were about $5\frac{1}{2}$ cents a mile; 15 years ago, they were more than double that latter figure.

As a matter of fact, it now costs less to travel between major cities by air than it does by first-class Pullman. New York to Los Angeles or San Francisco costs only \$118.30, compared with a current first-class Pullman fare of \$125.87 and a pre-war air fare of \$149.95 (round trips get a 10% discount). New York-Chicago air fare now is \$32.85 compared with \$36.93 for first-class railroad passage and \$44.95 by air before the war.

But this is about as cheap as air travel is likely to get this year. The airlines are engaged in a gigantic

The new Boeing Stratocruiser, due in 1947, will enter transoceanic service



expansion, both at home and abroad. They have added several thousand miles of new routes in the past two years, and there are more new routes to come. Moreover, new personnel must be trained, new ground facilities installed, new equipment tested. All this takes a great deal of money and energy, and until this difficult expansion period is passed it is unlikely that the air carriers can move appreciably nearer their ultimate



The Republic Rainbow (above), the Martin 2-O-2 (left), and the Consolidated Vultee Model 240 (below) are other awaited planes



move in and out of airports than now is possible.

When the sky is clear and pilots can fly by contact, the difficulties today are not too great. But when the weather closes in, many flights have to be cancelled. This is not because airlines and pilots do not know how to make landings by instruments, using radar aids available for the past several years, but because adequate over-all systems for control of plane movements under "instrument" conditions have not yet been worked out. At present, the airlines are endeavoring to convince the Civil Aeronautics Administration of the need for certain kinds of traffic controls, and this year should see a good deal of progress in this direction.

Radar, although widely and successfully used in military operations, will not appear as a major factor in 1946 airline operations — and probably not even in 1947.

Some airline operators feel that the radio devices now in use are adequate, if traffic control is fully

(Continued on Page 20)

goal of 3 cents a passenger-mile. That will take a number of years and a big advance in operating technique, plus new and more efficient aircraft.

Bad weather, the bugaboo which today prevents airlines from flying all trips, especially in winter months,

will not be completely beaten this year. But important gains will be made. Weather and traffic control are closely related, and one of the biggest problems facing the airlines today is to inaugurate a comprehensive traffic control system which will permit a lot more planes to

INTRODUCING ETHYL CLEANER

New Ethyl product, a multi-purpose household cleaner and car wash, to be marketed in northeastern states

ETHYL CORPORATION has a new product which, after two years of testing, will now be put on the market.

The new product is Ethyl Cleaner, a multi-purpose household cleaner and car wash.

It will be introduced to the public, during the next several months, through gasoline service stations, drug and grocery stores, department and specialty stores, hardware stores, and automotive accessory stores.

The initial marketing area will embrace roughly the northeastern quarter of the United States. It includes New England, the Atlantic Coast states (with the exception of metropolitan New York City) as far south as Tennessee, and the mid-western states as far west as Illinois. Plans for its introduction elsewhere are being developed.

As a multi-purpose cleaning agent, Ethyl Cleaner has many varied uses.

For example, it can be used on windows, refrigerators, stoves and tile. It can be used on all parts of an

automobile: body, glass, upholstery, canvas tops, tires, on upholstered furniture, rugs, and painted and enamelled surfaces. It can be used to wash fine woolens and blankets, without causing them to shrink or harming their colors. While removing dirt, grease and grime, it will not attack a surface or irritate the skin. And after it has done its job of cleaning and is rinsed off, it leaves no objectionable residue.



A concentrated product, only $1\frac{1}{2}$ tablespoonsful of Ethyl Cleaner ordinarily need to be added to a gallon of water. Thus, the 32-ounce bottle will make over 40 gallons of cleaning solution.

Ethyl Cleaner is a synthetic deter-



32 oz. bottle of Ethyl Cleaner

gent made from petroleum. It has the ability to work in hot water or cold water, hard water or soft water, or even in sea water, and it will lather under all conditions. This has been one of the basic aims in the development of the new product — to overcome the limitations, in washing and cleaning, sometimes imposed by the water.

For example, consider the temperature of the water.

When laundering a fabric, it is washed in the water at the temperature of the water—which, almost always, must be warm or hot. But when washing a car, a person is washing it, as a practical matter, at the colder temperature of the car's surface. That is why it is advantageous to use a cleaning agent which is equally effective in hot or cold water.

Similarly, the kind of water avail-

able in a community is another important consideration.

Surprisingly enough, most of the population live in hard-water areas. Only the eastern and western seaboard of the United States are relatively blessed with soft water. Due to the calcium and magnesium salts it contains, hard water causes ordinary soap to throw out sticky precipitates which defeat the purpose of washing. Cities and citizens together spend many millions of dollars annually on various ways of softening the water for industrial and household purposes.

Hard water is no obstacle for Ethyl's new product. The cleaner readily mixes with it, lathers quickly, and goes to work. And instead of combatting the lime and magnesium salts, the cleaner permits their natural cleansing powers to aid in the cleaning task.

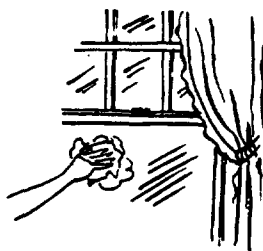
Ethyl Cleaner, moreover, is effective in lowering surface tension—which is highly important in cleaning. While surface tension may sound extremely technical to a layman, all it means is the resistance of a surface against releasing particles attached to it, say, of dirt or of grease. Surface tension is what holds drops of water to windshields or window panes. It is, too, what keeps dishes greasy, after they've been washed improperly.

Because of its effectiveness in lowering surface tension, Ethyl Cleaner will quickly loosen grease and dirt particles and float them away. That is why windows washed with it will have a lustre—because all the water on the panes readily drains away, leaving no streaks.

Due to its chemical composition, Ethyl Cleaner contains no abrasives or caustics. And being chemically neutral, it will not attack painted or enamelled surfaces, nor remove their

gloss. Neither does it have any harmful effect upon the skin. And after a cleaned surface has been rinsed with clear water, the cleaner leaves no residue that can become rancid.

Ethyl Cleaner was developed during the war, with the last two years spent in laboratory testing and market research.



When this synthetic detergent was first suggested as a new product, it marked the start of a long period of experimentation and research. Tests showed that it had an unusual combination of desirable cleaning properties. That is to say, it had the ability to "wet-out" and penetrate surfaces and materials, to emulsify and disperse particles of dirt, grease and grime, and above all, to clean in a manner, and under conditions, virtually impossible for previous cleaning agents.

Nevertheless, continuing tests into its chemical composition, and alternate formulas, were performed at our chemical research laboratories in Detroit, and elsewhere. Investigations were made of its cleansing abilities upon different surfaces and under widely varying conditions. Consumer surveys were taken of the need for a synthetic detergent of this type, in order to determine its best

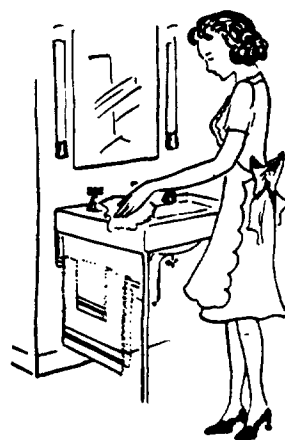


applications in everyday household washing and cleaning tasks.

As a result of these studies, Ethyl Cleaner was put on public sale in six test cities. This was in 1944. The cities chosen were Utica, New York; Springfield, Ohio; Saginaw and Grand Rapids, Michigan; St. Joseph, Missouri; and Tulsa, Oklahoma. They were selected for their differences in water supply (whether hard or soft), the nature of their industrial environment, and their economic circumstances, among other factors.

The cleaner was sold through selected retail outlets in each of these cities, and consumer reaction to the new product was carefully noted. Meanwhile, the nucleus of a sales staff had been started, and pilot plant production of the cleaner obtained.

Market surveys in the test cities revealed a warm public response for the product. Consumer reaction proved that this was a product that filled a need.



And so, the new Ethyl Cleaner will be marketed in the entire north-eastern section of the country within the next few months. A further description of Ethyl's plans for its new multi-purpose cleaner, together with an outline of the organization that is being formed around the product, will be told in a forthcoming issue of the Ethyl News.



These random scenes tell the tale of the housing shortage. Unable to find a home, an ex-Marine and his family (top left) pitch a tent. War-time Quonset huts and trailers (center left and lower left) are being used to ease the pinch, while returned veterans (above) apply for scarce living quarters in Metropolitan New York

Where find it!

OVER THE NEXT decade, housing officials foresee a building boom of unprecedented proportions. During that time, they say, contractors will have to build over a million new homes a year, every year, to meet the public's need. And if that comes to pass, it will mean that about one out of every four families in the land will be moving to a new address.

The immediate outlook is for a two- to three-year housing shortage that is going to get worse before it gets better. In fact, the long and short of the housing shortage is that it promises to be the longest shortage on record.

When the war broke out it caused a vast migration of people to cities. Some six million people left the farm to live in town. Besides this, there was a general influx of city and farm folk into war centers, aggravating the housing shortage in those localities. And finally, as husbands and fathers went off to war, their wives and children frequently moved in with the old folks.

One reason is that married war veterans are coming home in droves — and most of them want to start out in their own homes or apartments. Furthermore, there are nearly four million additional families, all told, than in 1940. Meanwhile, the stork has been hanging up new delivery records during the war. And to cap matters, the majority of people who migrated to cities during the war don't want to go home.

The Cold-Water Flat

All in all, we are going through the same kind of housing shortage such as followed World War I.

Reflecting the swollen demand for living space, rents jumped 43% from 1919 through mid-1921, despite the adoption of rent control laws by 13 states. Speculation in rented properties was rampant. Superintendents, landlords and speculators gouged tenants out of exorbitant fees and rentals. Outraged tenants in turn precipitated rent strikes, formed protective associations to curb the profiteering and halt the wholesale evictions that were taking place.

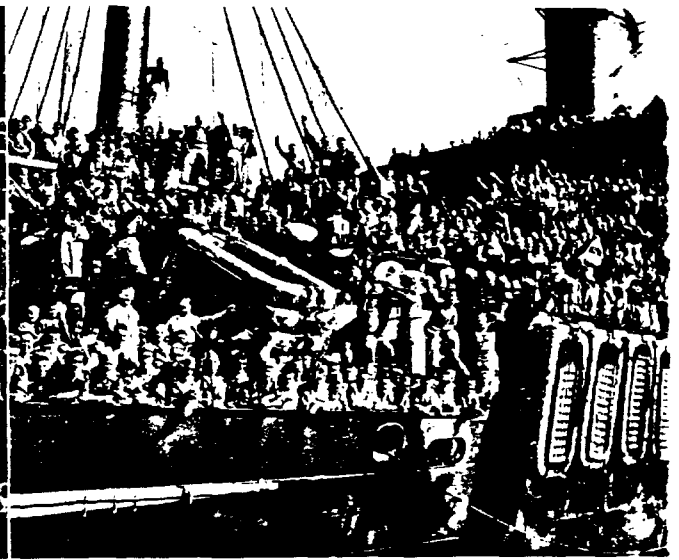
Meanwhile, new construction was six months in getting started, took nearly two years to hit its postwar stride. In 1919, the first postwar year, building materials prices were 72% above their pre-war levels. Lumber, brick and tile had tripled their 1914 figures. Paint had risen three-and-a-half times. Union wage scales advanced a third in the year ended April 1920, paralleling the four-year rise of the war.

Looking back, it was not until 1925 — when 937,000 single-dwelling units, an all-time record, were built — that the postwar housing shortage really spent itself.

By any test, the present postwar housing shortage is much bigger, more serious, than the last. Instead of a one-year deferred demand for housing, there's at least a four-year pentup demand. Instead of two million veterans, there are eleven million. Instead of a one-year population increase, there has been a much larger one, spread over four years. The principal distinguishing features of the present shortage are (1) rents have been largely held in check (they are only 8% higher now than in 1939) and (2) war emergency housing has been better planned.



Lumber is the No. 1 shortage in building, due to the scarcity of lumberjacks



Returning veterans, seeking homes, are the big victims of the housing shortage

The present shortage is so severe that people are still living in trailers, as they did during the war, others are holding on to their war-built homes, Army and Navy barracks are being converted into living quarters for veterans' families. Conditions being what they are, this is no time to pick a fight with the mother-in-law with whom you may be living, to tell off that autocratic superintendent in your apartment house, to make any demands upon your landlord. Alternative living quarters just ain't. The Census Bureau figures

that less than one out of a hundred dwelling units are vacant — and those "vacancies" take in some pretty rundown dwellings.

Why, then, is the shortage destined to get even tighter this year? Simply because the number of dwelling units to be built (between 350,000 and 500,000, at the most) will fail to match the increased demand for homes and apartments, much less put a dent in the over-all demand.

Allowing for the fact that new construction, for the most part, can't

get underway before this spring, what are the present handicaps? Briefly, they include a shortage of building materials, a shortage of skilled labor — and a reluctance on the part of the public to pay \$7,000 for a \$5,000 house.

Take a look at building materials.

Lumber is the No. 1 shortage commodity, with brick a leading contender for the title. Cast-iron soil pipe is next, followed by cast-iron radiators, plumbing and electric fixtures, and builder's hardware. Even the 8-penny nail, most commonly used in residential construction, is hard to find.

Lumber, in fact, has been short during the whole war, because loggers left the lumber camps for better-paying jobs in shipyards and aircraft factories. The shipyards, among others, welcomed them with open arms. Tree toppers made admirable riggers, because dizzy heights did not faze them. Others of the husky lot filled the need for pilebucks to build shipways. And the loggers, in turn, found their new war jobs to their liking — because they gave them more time for social and family life. Now that the war's over and their jobs ended, the loggers have been only slowly drifting back to their peacetime calling.

Prefabricated homes may help ease the housing shortage. A number of department stores have placed them on sale



The same is true of other building supply industries. Those making such materials as brick, tile, cement, cinder block and cast-iron soil pipe employ a large number of unskilled workers in relation to their total labor force. Consequently, they are recognized as low-pay industries. As a result, when war plants offered their workers attractive wage inducements, these fields suffered the same fate as the lumber industry.

Now take a look at the building contractors themselves.

Contrary to popular impression, there are not many large firms in the industry. The majority, instead, are small, local contractors — building 10 to 25 homes a year, each —

and they must rely on many subcontractors for each building operation.

Back in 1941, there were roughly 500,000 contractors. By 1945, they had dwindled to fewer than 150,000. And now, besides the need for reviving their own businesses and resuming contacts with their subcontractors, they have to recruit their labor forces all over again.

When the war broke out, construction workers ran off in all directions at once. Deserting what were, at best, only seasonally high-paying occupations, they took war jobs which gave them year-round employment. And now, they are slow in coming back. Men who have

served with the Seabees or Army Engineers may partly fill the gap. But the big need is for skilled workers with experience in the trowel trades. Those trades take in bricklayers and tile layers and other masonry workers, and they definitely require long apprenticeships.

But even assuming that building materials will in time be forthcoming in volume, assuming too that the labor shortage will be eased, there's a final hurdle in the postwar housing handicap. That hurdle is price.

The trouble is, millions of people have been planning to build or buy a postwar home — at pre-war prices. Meanwhile, building mate-

(Continued on Page 22)

Short Short Story

Oh Henry Legler

Back Seat Driver

The drizzling rain froze on my windshield despite the clickety-clack of the wiper — so that occasionally I had to thaw it off with the warmth of my palm.

Through the blur of the headlights I saw a lonely figure standing at the bus-stop. She looked so desolate and forlorn that I swerved over to the side of the road and said:

"Can I give you a lift?"

For a moment I thought she was going to snub my invitation. She appraised me suspiciously and said:

"I don't take rides with no strangers, thank you."

"Oh, I'm sorry, it's such a nasty night . . ."

She hesitated for a moment; then opened the rear door of my sedan and climbed in.

"I'll sit back here, if you don't mind," she said.

My sense of gallantry was somewhat injured at her obvious mistrust. The least I could do was prove my good intentions by pleasant conversation.

"How far are you going?" I asked.

"Newark."

"Pretty bad night to be travelling!"

No answer.

"I've been driving all the way from Washington."

Evidently she wasn't impressed by my travels, for again there was no response.

Not discouraged, I made one last attempt: "Do you live in Newark?"

"No, I'm going to visit my mother."

"That's queer — your saying that. Reminds me of a story. Maybe you've heard it."

Here, at last, was an opening for conversation — if only one-sided.

"Strange, too, your getting in the back seat. So did the girl in the story — It was a blizzard night — Christmas Eve. Fellow was driving along in his car alone. Came to a crossing.

Girl was standing there in the storm. He said: 'Can I give you a lift?' She got in the back seat.

"He asked her where she was going. She said: 'To visit my mother.' And she told him the address. Then she wouldn't say another word — so they just drove along together in silence through the howling snow storm.

"Well, when he reached the address, he got out and opened the rear door. *The girl was gone!*"

I looked back over my shoulder to make sure that the dramatic impact of my story was fully appreciated. There was no response, so I continued:

"You can imagine how scared this chap was. Something about the girl had given him a spooky feeling. He looked up at the house where her mother was supposed to live and decided to ring the bell. There was a dim light burning in the window.

"A little old lady opened the door and before the fellow had a chance to speak, she said in a tired voice: 'You want to tell me about my daughter, don't you? Poor dear, every Christmas Eve she tries to come home. You see, she was killed five years ago at that same crossing where you saw her tonight.'"

It was an old story — one I had read years ago in the New Yorker — and I was rather pleased at the skillful manner in which I had retold it. Still there was no sign of appreciation from the rear seat. Nothing but icy silence.

Just then a red traffic light appeared through the sleet-blurred windshield and my passenger said:

"Say, mister, I've changed my mind. I'm gettin' out at this bus-stop."

She slammed the door without thanking me for the ride and as she bent into the storm, I heard her muttering:

"A wolf I can handle — but a guy that's off his nut — not for me!"

DURING the last century of rapid industrial development in this country, the importance of agriculture to our economy has been largely overlooked. Many people believe that industry is the foundation of our economy, and some even that prosperity begins with the pay-check at the factory window. The fact that more than 50% of our population derives the main source of its income from agriculture has either never been known or has been overlooked — all the population directly engaged in agriculture, virtually the whole number of our small towns and villages and many cities as large as Des Moines, Iowa, plus the whole of the packing, milling and agricultural machinery industries and large segments of the steel, oil and gasoline, automobile and other businesses. It has been overlooked as well that all of this segment of the population, more than half, represents the bulk market for the goods manufactured by industry — a vast market. When

Look to the Soil

By Louis Bromfield

The noted author, in an exclusive article for Ethyl News, tells what is needed for American agriculture

agriculture is sick, there can be no prosperity. Factories shut down and men are unemployed by the hundreds of thousands.

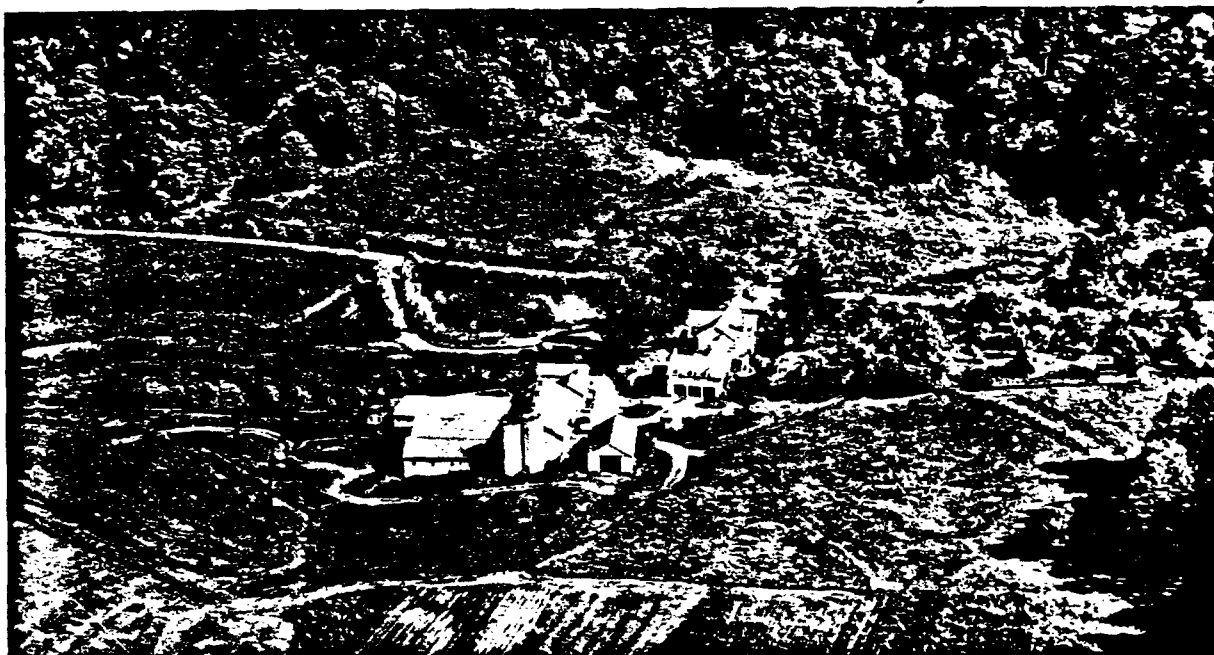
It is only lately that we have begun to realize once more the truth of that statement made long ago by Liberty Hyde Bailey, the great old man of American agriculture—"The farmer was the first man and he will be the last man." I think it also necessary to quote Dr. Hugh Bennett, head of the Soil Conservation Service. "The economy and the civilization of this nation were built

upon nine inches of top soil. When that is gone there will be no more economy and no more civilization." That is a statement which I believe is beyond challenge and it might be well to add that within a little over a hundred years three inches of soil have already disappeared. The wealth and power of this nation have been built solely upon the foundation of its once fabulously rich natural resources — its farmland, forests, mines, water power and oil wells. All these provided the opportunities for the industrialist, the banker and men in other fields of private enterprise. Many of these resources are already exhausted. Many are reaching the danger point. When they are gone this country will cease to be an important nation. Its currency will not be worth much, and all the gold buried at Fort Knox will not make much difference.

Of all of these resources, agricultural land and perhaps forests are the most important. No one can *invent* iron ore or copper ore or replenish exhausted wells of mineral oil, but soil and forests are to a large extent renewable—an eternal source of natural and real wealth. In the future it is inevitable that we shall have to draw more and more upon them for those substitutes with which to replace our non-renewable natural resources. From them we

Louis Bromfield on his farm. Famous as a novelist, he is also known for his insight into farming problems





The author's beautiful Malabar Farm in Ohio. Mr. Bromfield's experiences as a farmer have been the inspiration for his latest book, Pleasant Valley

shall have to draw the materials for plastics, for vegetable oils, for alcohol, for food, clothing and shelter and countless other commodities essential to our complex economy and civilization.

With all these things in mind it becomes evident, I think, that a better agriculture and the preservation and restoration of our agricultural land become matters of the first importance to all of us, the industrial worker and the white-collar worker most of all, for with them the cost of food is the most serious item in the cost of living.

The answer to many of our economic and labor problems is that of abundance with low production costs rather than scarcity with high costs of production. This is so of both industrial and agricultural commodities, but especially so of the latter. On the whole we practice in this country an agriculture of lower profits at lower production per acre (despite war production figures) at

a higher and higher cost, instead of a greater or equally great production on a reduced acreage at lowered production costs. This is so because of a poor and inefficient agriculture and because of the immense losses of top soil through floods and erosion. Each year we farm more and more land to produce less and less corn or beef or milk per acre.

Farmland Is Real Wealth

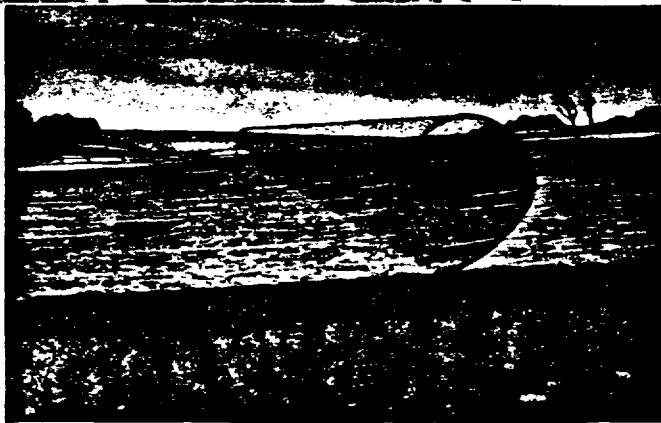
Agricultural land is real wealth and it is upon real wealth (natural resources) that our economy and our wealth and power as a nation are founded. It becomes imperative therefore that if our wealth and power are not to decline along with our standards of living, we should undertake a vast campaign to guard and renew, if possible, these resources. In this campaign soil conservation practices and a better agriculture — mechanized, efficient, intensive — certainly take first place. A fourth of our good agricultural

land is virtually destroyed, and another fourth is half gone. The rest, fairly flat land, is subject to slow erosive destruction under existing farming methods; and it is always subject to the gradual but devastating depletion for which the shortsighted, greedy or cheating farmer is responsible — the farmer who puts back less than he takes off.

One of the curses of American agriculture is the long-established habit of horizontal rather than vertical agricultural expansion. In other words, a farmer, when prices are high, goes out and buys more acreage to increase his total production, rather than farm his own land better and produce the 30% to 60% more it could produce if he farmed it properly and intensively and well. The result is that with his increased acreage he produces less at a higher cost per acre or per bushel — in terms of fertilizer, seed, labor, taxes and interest — and actually reduces his production per acre (which is



The country's welfare vitally depends upon a healthy agriculture, Mr. Bromfield points out. Over half the population derives the main source of its income from it; the same number constitute the biggest single market for industry's products. Thus, when agriculture is sick, there can be no prosperity



One third of our top soil — the basis of our agriculture — has been lost due to unwise farming methods and erosion. Pictured above and to the right are several of the ways erosion ravages the soil. Seen at the upper right are erosion's worst effects: a dead farm



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the true basis of profits) and increases the cost of production.

Under an ideal agriculture, we should be producing in this country the same amount of agricultural commodities on half the present acreage under cultivation and at half the present costs. Under such an agriculture the cost of food could be reduced at least 30% and the farmer would still have greater profits than he is making today. The fundamental solutions of economic and labor problems in this country are not scarcity, high wage increases and higher prices, but abundance with high production and low production costs, or in other words, not to increase perpetually the number of dollars a worker receives but to increase the purchasing value of the dollars he is already receiving. The first method leads only to senseless inflation; the second represents a *real* raise in wages with a stabilized rather than an inflated economy.

The Way Out

In this direction agriculture, which produces the food that is the basic item in the cost of living, is the obvious place to make a beginning. In order to do this we must stop the destruction of our fundamental source of real wealth and increase its fertility by a better agriculture. Subsidies and parity prices only serve to preserve and encourage a poor agriculture and to check improvement. The answer lies in the soil itself and how wisely and how well it is treated. The prosperity of the farmer largely lies not in subsidies and parity prices but in his own hands. In countries like Denmark, Holland, Belgium and France, where good agriculture is the rule, there is no such thing as a poor farmer. To be a farmer is to be a solid, well-off citizen.



Soil conservation practices and modern farming methods are needed to replenish the soil



As part of this, modern powered farm machinery can contribute to a better, more prosperous agriculture



Planting revitalizing crops is one way in which farmers are restoring fertility to depleted farmland



TESTING TOMORROW'S FUELS

Experimental motor fuels — never before used in an automobile engine — were road-tested in a research program recently sponsored by Ethyl Corp.

RESEARCH IN THE OIL industry is continuous. It is not something that starts or stops with a war, is limited to one line of endeavor, is satisfied with any given accomplishment. It represents a ceaseless effort in many directions, an important part of which is to promote the best utilization of fuels in engines.

So it was that, fresh from its tremendous achievement in the war, the industry immediately plunged into the task of adapting its wartime progress to peacetime pursuits.

During the war, of course, the industry's efforts were concentrated almost entirely in aeronautical channels. Then, to give our planes their decisive superiority in the air, it greatly expanded its refinery capacity and developed innumerable new refining processes to produce aviation superfuels that were years ahead of their time.

And now, the industry has set about adopting this progress in aviation gasoline to civilian motor fuels. Already, motorists are enjoying gasolines of improved quality. As the oil industry's wartime strides in refining technology are more fully adapted to motor fuels, still greater gains in automotive power, performance and fuel economy will be seen.

As part of this general research endeavor, within a month after the end of the war with Japan, the Ethyl Corporation sponsored a series of experimental road tests, fuels for which were furnished by a number of oil companies. The tests were held in the beautiful lake country of northern Michigan. In passenger cars, on the road, were tested gasolines which never before had been used in an automobile engine. They were experimental motor fuel base stocks produced by adaptation of the refining units up till recently employed 100% in the manufacture of combat grade aviation fuels.

The purposes of these road tests were several.

They were not simply to find out how the test fuels themselves per-

formed in an automobile. They were also to learn how they might be used to best advantage in automotive grades of gasoline. For the most part, the test fuels came from ultra-modern refineries which were built during the war. It is this new catalytic cracking capacity, having fulfilled its wartime task of supplying aviation gasoline, which is now available to make motor fuels, to a large degree.

The average motorist may not readily understand why such road-testing is carried on. Familiar with the facts that these superior aviation gasolines have been developed, it is easy for him to suppose that they can automatically be used in his car to best advantage.

What he doesn't realize is that a B-29 and a Buick are two different animals—and they don't have the same appetite for fuels. An airplane engine, basically, is what engineers call a highly stressed engine, one that must run continually at a high percentage of its rated power, essentially at constant speed, and it must be able to produce that power at all altitudes ranging from sea level to at least 30,000 feet. It requires, in con-

sequence, a tailor-made fuel with special characteristics.

Automobiles, too, require tailor-made fuels—but with a different line of tailoring. This is because an automobile engine is, of necessity, extremely flexible—able to go in high gear from 5 to 100 miles an hour—and it therefore needs fuels which fit that particular purpose, among others.

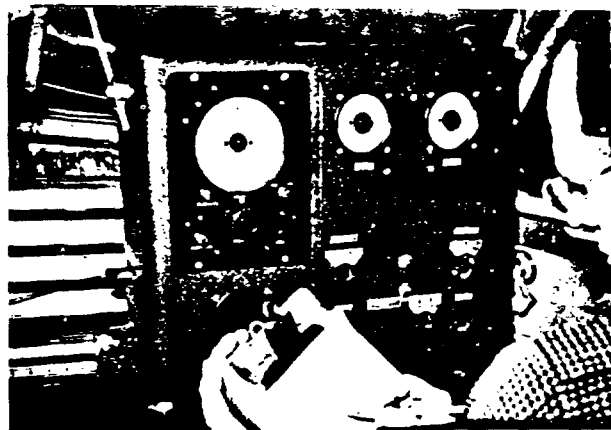
That is why oil companies continually road-test the motor fuels they put on sale. That is why the new base stocks—which were “aviation components” during the war—are being tested and adapted for their use in motor fuel. In each case, the underlying purpose is the same: to make and market gasolines that will bring out the best in car performance.

Twenty Gasolines Tested

In the Michigan road tests sponsored by Ethyl, some 20 different gasolines were put through their paces. They were tested clear and with 0.5, 1.5 and 3.0 ccs. of Ethyl fluid per gallon, making a total of 80 samples. The test samples included products made by all of the new catalytic cracking processes which came into extensive use during the war. Eleven oil companies furnished test fuels for the program. They included the Atlantic Refining Company, Cities Service Company, Gulf Research and Development Company, Phillips Petroleum Company, Pure Oil Company, Sinclair Refining Company, Socony-Vacuum Oil Company, Standard Oil Company (Indiana), Standard Oil Company of New Jersey, Standard Oil Company (Ohio), and the Texas Company.

The following men from the foregoing companies were present during the road test program:

A road-test engineer recording a knock-die-out point for a fuel by the Borderline Knock Test Method. This method indicates antiknock performance by means of a curve



Frank C. Burk (Atlantic Refining), H. C. Hunter and J. E. Taylor (Gulf Research), Raymond Rhode and Lawrence O. Meyer (Phillips Petroleum), William J. Backoff and Fred L. Mueller (Pure Oil), Lynn E. Baker and Andy Lenz (Sinclair), Leonard Raymond (Socony-Vacuum), J. O. Eisinger and George Moore (Standard of Indiana), Herman Thwaites (Jersey Standard), Raymond I. Potter, Robert E. Witter and M. L. Campbell (SOHIO), and George B. Wheeler, Jr. (Texas Company).

Under the direction of Tom Risk, of Ethyl's Technical Service Department, the tests were held over a period of four weeks, beginning in September.

Gathering at Ethyl's Research

Laboratories in Detroit, the initial party motored some 200 miles north to Houghton Lake, Michigan. The resort is a sportsman's paradise; thousands throng to it during the vacation season. But for the group of oil company representatives, it had another special attraction. That consisted of long stretches of flat level road—far removed from city traffic—which are ideal for this kind of road testing.

The test samples, in five-gallon cans, were taken up in an Army-type six-by-six truck. Parked at a junction of Route 29 near Houghton Lake, where the tests were run off, the truck served as an impromptu service station for the test cars that were used in the program.

Two of Ethyl's fleet of test cars

**Taking on a gasoline sample for a road test.
Some 20 different gasolines were thus tested**

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were used on these road tests. One was a 1942 Chrysler for which an 8.5 to 1 and a 9.4 to 1 compression ratio head were provided. The other was a special model Buick equipped with two heads of 8.0 to 1 and 9.0 to 1 compression ratio, respectively. The high compression ratio heads were used so that the fuels could develop their inherent power and performance to the fullest, and could be "rated" without resorting to excessive spark advance.

The test cars, of course, were fitted with special equipment, used by the two-man team to each car. Over the steering post of each was mounted an engine tachometer—to tell the driver, at a glance, the speed of the engine in rpm's. Beneath the dashboard was a gear for adjusting the spark setting during the test run. Over on the right side of the dashboard was an electronic control unit—the pride and joy of the test engineers using it.

Electronic Control Unit

This unit, operated by the "observer" during the test, is an ingenious instrument that tells many important engine conditions—as they take place. One part of the panel board contains a tachometer which is synchronized electrically with the one mounted over the steering post. Another indicator reveals the degrees of spark advance as the engine is accelerated. Still another dial reports engine temperatures at several critical points. All of this information, gleaned from a reading of the electronic panel board, is highly important to the engineers testing a fuel.

In running the test fuels, an auxiliary fuel line is used, which is readily inserted into each of the cans containing the test samples. Between each test, the fuel line is permitted to run dry, until each sample has

worked its way completely through the engine. Then the auxiliary fuel line is inserted into the next sample of gasoline, the motor is permitted to "warm" to the fuel now to be tested and the actual road test begins.

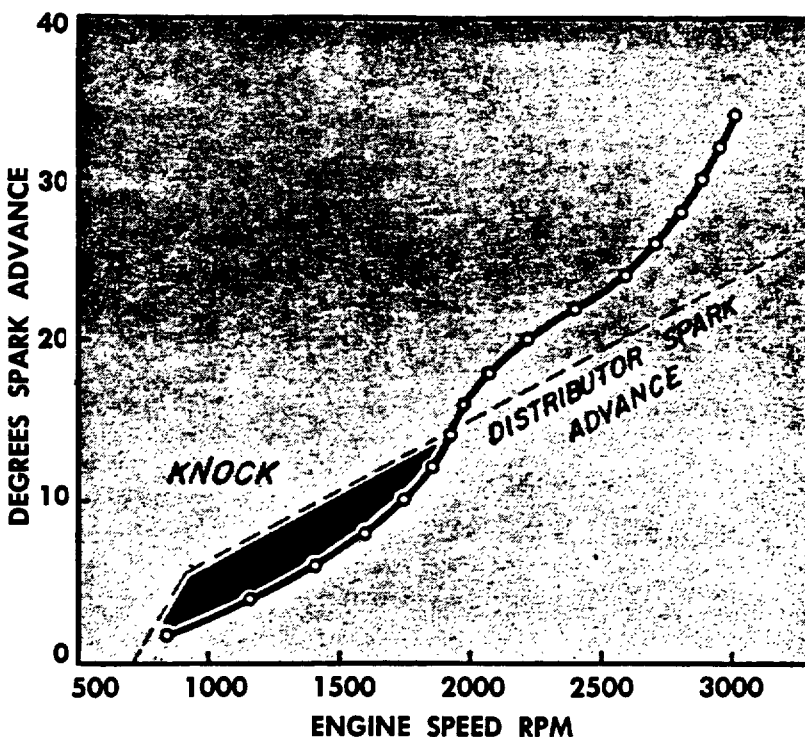
If an ordinary motorist were participating in this road test, he would probably think it should be run like

ance in an engine.

To understand the meaning of such tests, you have to know certain things. Particularly about octane numbers and antiknock performance.

In the laboratory, gasolines are assigned a given octane number by one of several test methods. But in

Here's how a borderline knock curve is constructed, from the series of individual knock-die-out points



the Indianapolis races. He would want to see, most naturally, how fast the gasolines would make the test car run.

Actually, when testing the anti-knock quality of fuels, the test engineers aren't interested merely in speed. They are more concerned with the performance of the gasoline at each driving level; with the "road antiknock ratings" of the fuel at low, medium and high speeds; with the amount of spark advance a fuel will tolerate without knocking at a given speed, high or low. These are what measure gasoline perform-

a car on the road, the same gasoline may show a much different anti-knock value than indicated by its laboratory octane number. Further to complicate matters, cars themselves have different octane requirements at different speeds (usually higher at low than at high speeds).

Accordingly, what the road test engineers want to know is how the road antiknock performance of a gasoline—or its effective road octane rating—compares with the octane rating assigned in the laboratory. For no matter what the laboratory octane ratings show, to them—and to

the motorist—the payoff's on the road. And only by road testing can they be sure of the gasoline's real performance.

In the road tests at Houghton Lake, they used a method of test which indicates antiknock performance by means of a curve instead of an octane number. That method is called the Borderline Knock Method, and it was developed by the Coordinating Research Council. A borderline knock curve shows graphically a fuel's ability to tolerate spark advance throughout the entire engine speed range. As its name implies, it represents the dividing line between knocking and non-knocking operation.

For testing by this method, a test car is equipped with a fixed or non-automatic distributor that can be varied manually by the driver, a suitable spark advance indicator, and an engine tachometer. With the spark set manually to a low advance, the car is slowed down to a relatively low speed in high gear, and then accelerated with wide open throttle. As the engine picks up speed after beginning to knock, the knock intensity lessens—and the speed at which the knock dies out is noted. This gives one point on the border-

line curve. The spark is then advanced two degrees, and the entire procedure repeated to obtain a second point on the curve. This process is continued until a complete curve has been established for the entire spark advance and speed range under consideration.

How a Test Is Made

In an actual road test, with the spark at a given setting, the driver accelerates with full throttle and meanwhile listens to the knocking of the engine. At the same time, the observer at his right, with data sheet in hand, has his eyes glued to the electronic control panel. When the knock dies out in the engine, the driver calls out the rpm's at which this was noted. The observer checks this reading against his own tachometer, and at the same time notes the degree of spark advance shown on the indicator. Then, the spark is advanced two degrees, and the entire process is repeated. Data for a borderline curve usually require in the neighborhood of eleven separate tests in this fashion. These data are then transferred to a graph on which the actual borderline knock curve is plotted.

This gives the test engineer a

wealth of information—even though it may sound like Greek to a layman.

By interpolating between this curve and similar data on "reference fuels" of known laboratory octane numbers, an engineer is able to determine the equivalent road octane value of the test fuel at any given speed. Similar interpolation between the distributor spark advance curve and the reference fuel pattern permits determination of the octane requirements of the engine throughout its entire speed range. This type of information helps the refiner to develop fuels that will bring out the best in car performance every step of the way.

This has been the purpose of Ethyl's road tests at Houghton Lake. By this actual road testing of aviation gasoline base stocks, it is believed, refiners will be given information which will be of material assistance to them in their development work. And the benefits of such cooperative research work will eventually be seen in new heights of automotive performance. Already, pre-war limits to the maximum efficiency of an automobile engine have been completely swept away by the wartime developments in fuels. It is only the beginning.



World's Richest Prexy

College professors are rarely rated among the wealthy. Yet the richest man in the world is Chancellor of a University and a famous scholar. He is also the founder and head of a huge modern hospital, where along with penicillin and other modern drugs, the patient who wishes can get real pearl cocktails for tonic, essence of genuine emeralds for liver and kidney complaints, ruby juice for heart ailments, and diamond rubs for anything.

The Nizam of Hyderabad, in India, owns outright more than a billion dollars worth at current market prices of emeralds, diamonds, rubies, and gold. He receives from the British large sums of money for leases. In addition, he can tax his subjects up to \$150 million a year. His state is the richest yet most sparsely populated in all India.

A Moslem himself, most of the Nizam's subjects are Hindus. Therefore, he lets them practice the ancient Unani medicine in the modern hospital. This historic practice is based on the belief that jewels provide the inorganic chemicals in their purest form. The Unanis pulverize precious stones and mix them with fruit, herbs, honey, and water. Ashes of pearl produce calcium in its best form — hence its use as a tonic.

The jewels are so diluted by the time they reach the patient that even if they do no good they do no harm. But if the Nizam's stock were ever thrown on the market it would wreck the price structure of precious stones with worldwide economic repercussions. That's why it pays to keep the Nizam rich.



The new luxury ships like the Stratocruiser will have pressurized cabins and spacious interiors

AIR TRAVEL IN 1946

(Continued from Page 5)

established. On the other hand, radar apparatus of useful range, developed during the war, is heavy, and would cut down payload. However, ground installations of radar may come along relatively soon, permitting control tower operators at airports to observe incoming planes and direct them, regardless of weather. Radar may also be used for air beacons to relay information concerning the location of aircraft.

What will be installed this year are more aids to blind landings, airport runway lights which can pierce any fog, and improved communications equipment. The latter will include very high frequency ("VHF") radio, which is very little distorted by static, and which already is installed in a number of domestic aircraft. All these things will make flying more comfortable and accurate for the pilot and passenger.

Airport changes will begin to show up in 1946, although the full development of new airports will take considerably more than a year. At Chicago and Detroit the sites may be shifted entirely, and at

Charleston, W. Va., a big new field will be ready. The Boston airport is being enlarged, and at Washington, D. C., new buildings will be erected soon. The Newark, N. J., airport has just been reopened. Idlewild Airport, the vast project undertaken by New York City, may be used by several lines; but not until late in the year, or even until 1947, will its huge network of runways be sufficiently advanced for large-scale operations, leaving La Guardia Airport as the principal landing field for some months to come. The national airport program contemplates increasing airports of all kinds — for private flying as well as scheduled airlines — to 6,000 or more, from about 3,000 at present. This program will just be getting underway this year.

Perhaps the biggest change to be noticed by air travellers this year — with the possible exception of the four-engined planes flying domestic routes — will be the new services to Europe.

New names will become familiar to the American public. Three U.S. flag-carriers — American Overseas Airlines, Transcontinental & West-

ern Air (using the name Trans-World Airline) and Pan American Airways — already have made the newspaper headlines with their announced projects. But the European air carriers are going to come here, too, and before 1946 is out, the Dutch, French, Scandinavians, and possibly the Swiss and Belgians will be flying, although on relatively limited schedules. British Overseas Airways, already established before the war, plans to increase schedules as fast as it can get equipment, and Cuba has plans for service from Havana as soon as agreements can be reached. The Russians, at this writing, have announced no plans.

The entry of our air carriers into Europe has raised the question of reciprocal rights with all countries we serve, and eventually, even the Balkan nations, and those of the Middle and Far East, may want to fly their own planes here. Their plans, however, are just in the formative stage. But our own carriers are ready to go and already have inaugurated service. TWA recently made a record-breaking flight to Paris from New York, flying a Constellation in less than 16 hours, and 12-hour service to London will become a commonplace. Several flights a day across the North Atlantic, plus augmented schedules to Latin America, will be in full swing before 1946 is very old.

Transoceanic travel is going to cost more, for a time, than domestic flights. At the moment, the fares to London are \$375 — or more than 10 cents a mile — but they probably will come down soon. Pan American Airways temporarily offered a \$275 fare to London, but later raised it back to \$375, the pre-war figure, under pressure from the British Government. Wartime rates to London were \$572. When the DC-6's, Constellations and other new planes

are fully installed, a fare of around \$225 may be expected. Eventually, fares will come down to around \$150 — but this tariff awaits even more advanced aircraft.

The more advanced planes are just around the corner, so far as initial models are concerned, but it will take a year or so to get them in quantity production. Most promising for long-distance flights is the big Boeing Stratocruiser, which can cruise at 340 miles an hour and carry 80 people across the ocean nonstop. This will be a real luxury plane, with pressurized cabin (something which will not appear immediately on domestic routes) for flying in the stratosphere above the weather. These planes will be flying on regular schedules in 1947, possibly quite early in the year.

Another new and spectacular ship due a little later will be the Republic Rainbow, an extremely fast plane rated at more than 400 miles an hour. It will bring Los Angeles within six hours, and London within less than nine hours, flying

time from New York. This plane may command a premium fare, however, because of its super-speed.

Sleeper planes will not be available in quantity for domestic flights until late 1946. Some authorities feel that the great increase in speed — requiring only 8 to 10 hours from coast to coast and 12 hours to London, with Constellations or DC-6's — will tend to minimize the demand for sleeper aircraft, although some sleeping facilities will be provided.

New Planes for Shorter Runs

The "local" runs of domestic airlines, those requiring nonstop flights of only 200 to 400 miles, will be served in 1947 by the really new Martin twin-engined Model 202 and comparable planes. One of these new types is the Consolidated Vultee Model 240, a hundred of which American Airlines recently ordered at a cost of \$18 million. The new planes, each of which will carry 40 passengers at a cruising speed of 300 miles per hour, will probably start entering service sometime late in

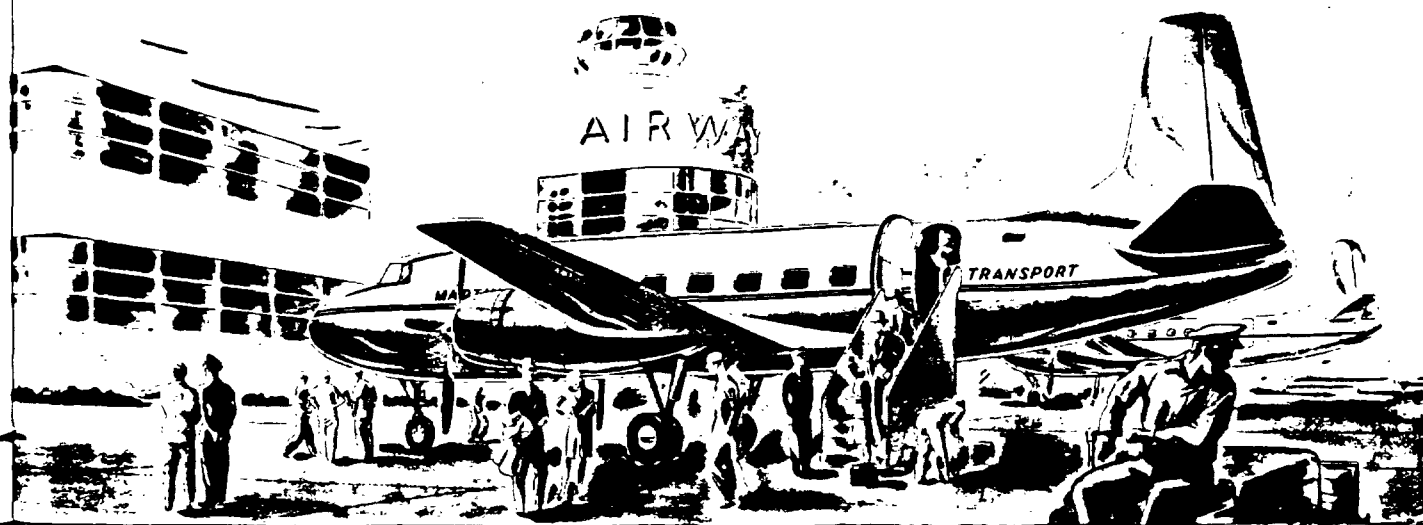
1947. Then the old faithful DC-3's will be retired, just as the DC-4's will be replaced by the Constellations, DC-6's, and larger Boeing and Republic ships, as they are delivered.

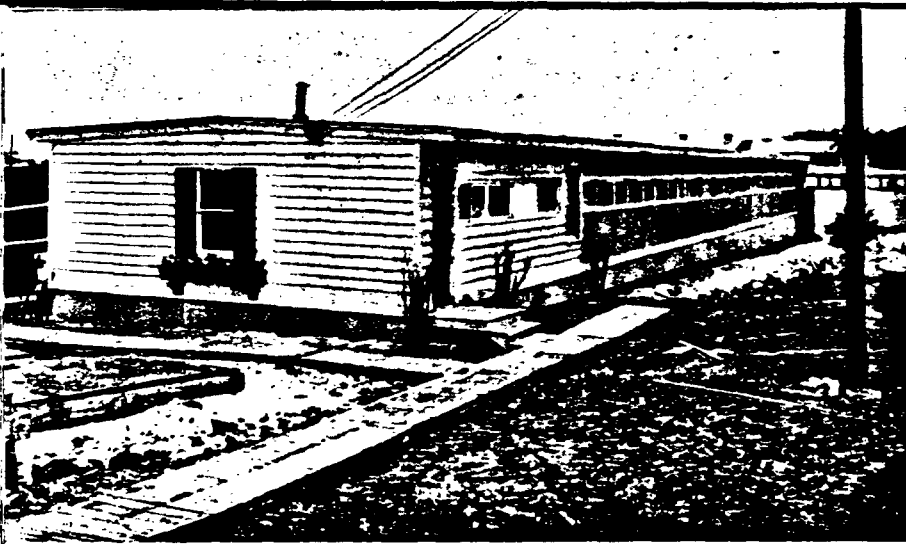
The impetus of air travel is so great that the highest authorities predict that by 1955 our air carriers will be carrying 20 million passengers annually at about 3 cents a passenger mile (only about \$75 from coast to coast), compared with 3.5 million passengers before the war. These airlines will be using 510 million gallons of aviation gasoline annually, compared with about 46.5 million gallons before the war. Moreover, there will be 110,000 people working in commercial airlines against some 15,000 before the war. Annual passenger revenues will rise to \$345 million or more annually, compared with less than \$100 million before the war.

These goals may seem a long way off, but the strides taken in 1946 alone may show that these estimates are not too high, but too conservative.

An artist's conception of the Martin 2-O-2. Besides new planes, the nation's airports are scheduled to be enlarged and increased

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Former war workers' homes, transplanted from one state to another, are helping out in the present emergency

HOME IS WHERE YOU FIND IT

(Continued from Page 11)

rials' prices have gone up between 30% and 50%. The total cost of building a home has gone up even more, after allowing for the building contractor's increased costs of doing business. Under these circumstances, it is costing about \$8,400 to build a house that cost only \$6,000 before the war.

At face value, the prospective homeowner has two alternatives. Pay the higher price. Buy a house of fewer rooms. But human nature being what it is, many a would-be home owner has simply decided to defer his postwar purchase. That is why the start of the postwar building boom is now generally conceded to be still two years away.

Simple arithmetic is behind the logic of those who are putting off buying a home.

Take a house selling for \$8,000. Under Federal Housing Administration terms, a person can buy a home for 10% down, with the FHA guaranteeing the mortgage for the rest. But the FHA insures mortgages up to 90% of the appraisal value, not 90% of the selling price. Thus, if it figures that the \$8,000 house is worth only \$6,000, it will guarantee only a \$5,400 mortgage. That means the buyer would have to pay \$2,600

as a down payment, not the \$800 he originally planned.

The problem, basically, is that builders and buyers alike are caught in the vise of rising prices, builders being squeezed from the bottom, buyers being squeezed from the top.

\$5,000 Homes Wanted Most

The average family usually spends for a home a sum equal to twice its annual income. Thus, if a family has \$2,500 a year coming in, it is normally in the market for a \$5,000 house. Economists estimate that the bulk of the postwar housing demand is for houses costing \$5,000 and less. But in view of the price increases that have taken place, very few people can buy the home they want at that figure, and therefore are prevented from buying.

Contractors, on the other hand, are faced with greatly increased

wage and material costs. They can't, they aver, build for the mass market at that figure today. Consequently, they have been planning to concentrate on the higher priced homes, and a year or so later work their way down as costs and prices settle.

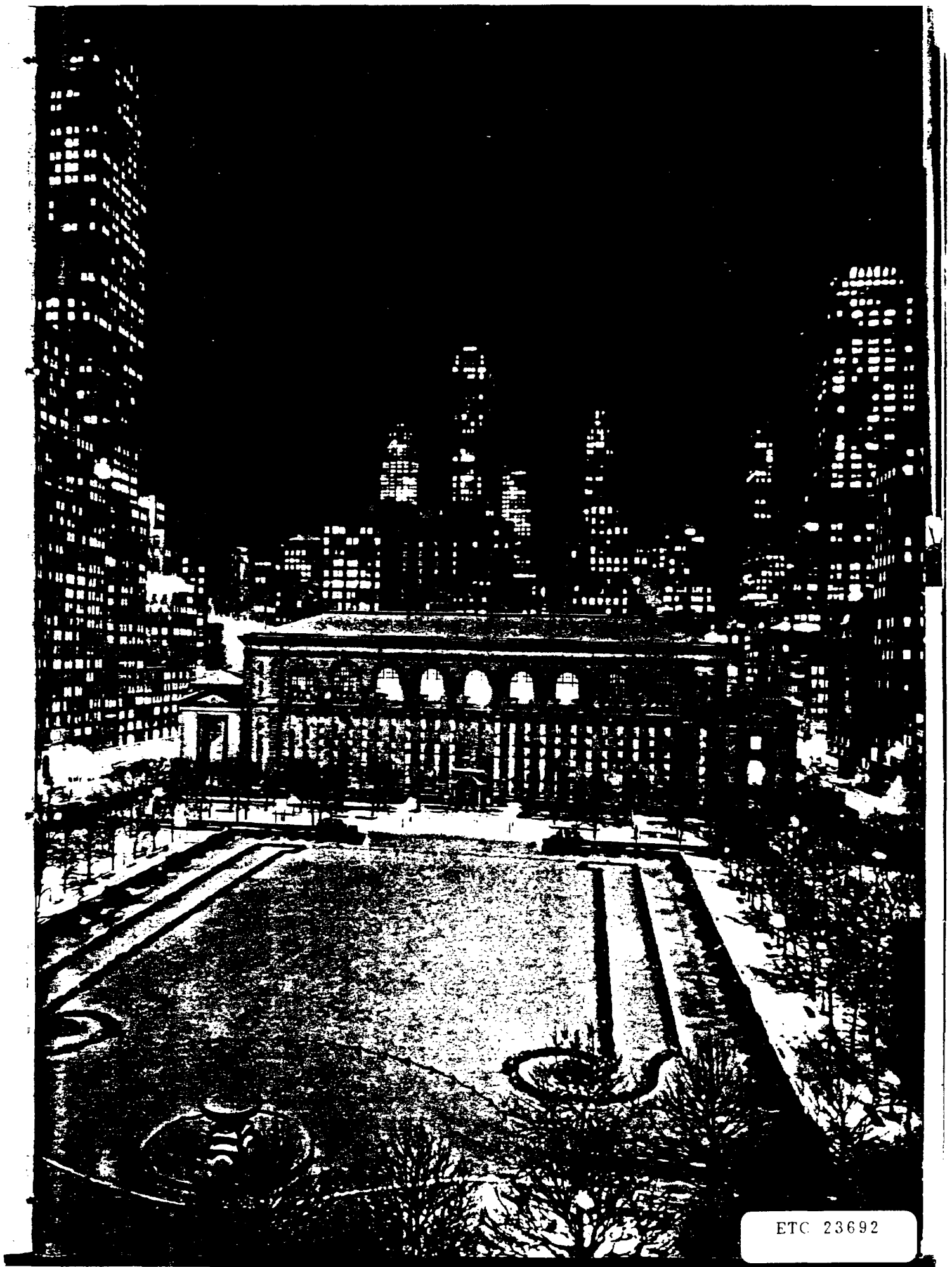
To break the log jam in construction, President Truman last month unfolded a three-point program. As a first step, he ordered the release of surplus housing and building materials held by the Government. Secondly, he ordered the revival of wartime priorities over building materials — to funnel 50% of all supplies into projects costing \$10,000 and less. And third, he asked for legislation that would set a price ceiling on all homes, old and new, offered for sale.

At the same time, another bill has been introduced in Congress which would help people to buy homes costing \$5,000 and less, for as little as 5% down, with the Government guaranteeing the rest.

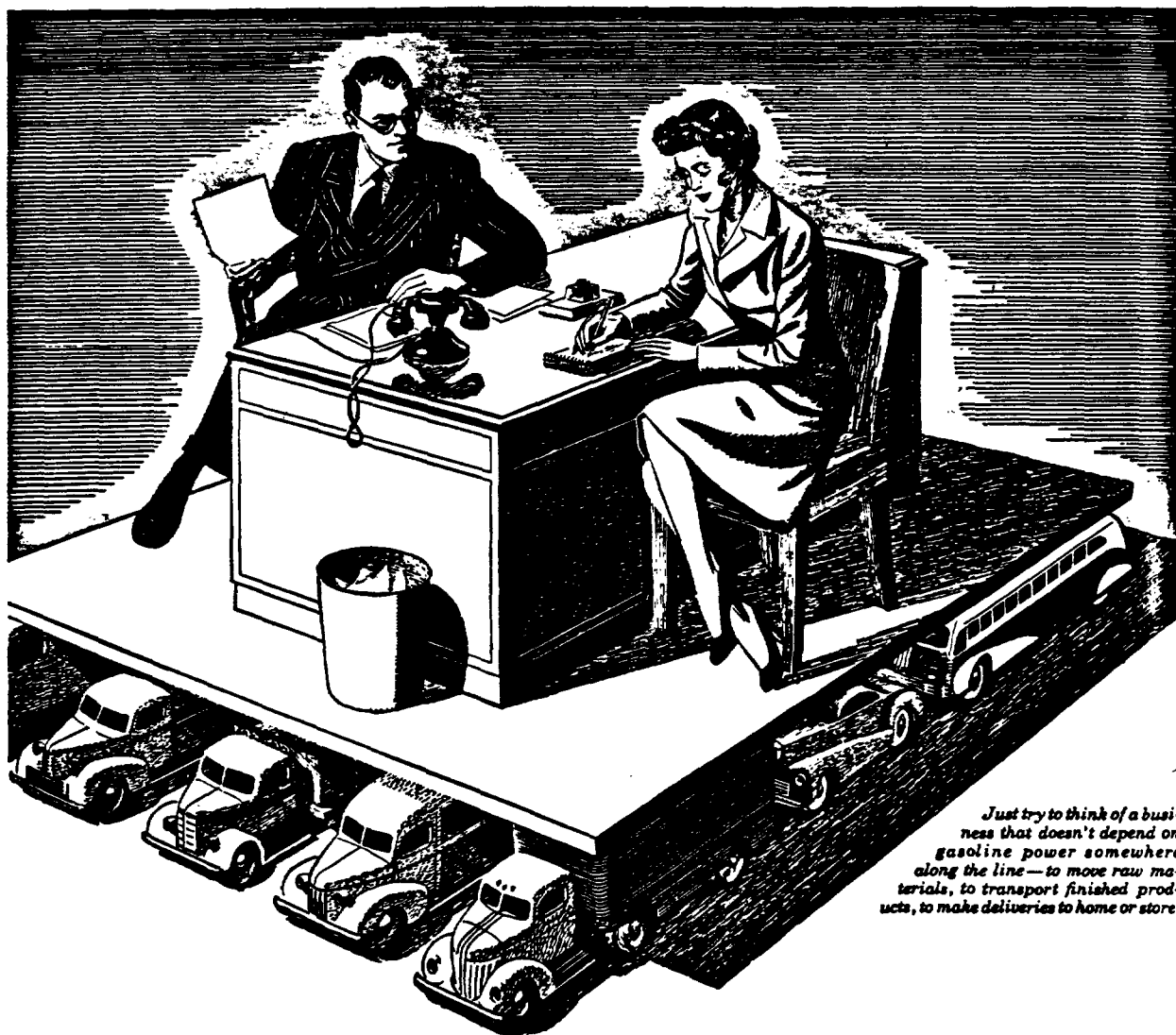
No matter what measures are taken, it will not be before this fall that any improvement in the housing shortage can be seen. This is because the homes that are going up, starting this spring, by and large won't be ready for occupancy before then. On this basis, it will not be before 1947 that residential construction can really hit its stride.

From there on out, a million new homes a year may be built. But until then, millions of people, by choice or necessity, are going to stay put.

OUR PICTURES . . . Cover by Julius J. Fanta; Page 3 (upper left) and Page 5 (bottom), courtesy American Airlines System; Page 3 (upper right), courtesy Douglas Aircraft Co.; Page 3 (lower left) and Page 4, courtesy Boeing Aircraft Co.; Page 3 (lower right), courtesy Lockheed Aircraft Corp.; Page 5 (top), courtesy Republic Aviation Corp.; Page 5 (center) and Page 21, courtesy the Glenn L. Martin Co.; Page 8 (except center left) and Page 10 (upper right), Acme Newspictures, Inc.; Page 8 (center left) and third cover, Press Association; Page 10 (upper left and lower left) and Page 22, Wide World; Page 14, all except inset and lower left, Soil Conservation Service; Page 14, inset from Gendreau; Page 15, Soil Conservation Service.



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Just try to think of a business that doesn't depend on gasoline power somewhere along the line—to move raw materials, to transport finished products, to make deliveries to home or store.

Your business runs on gasoline

COUNT, if you can, the gasoline engines that help to keep your own business running. Five? Ten? A hundred? No matter how many or how few, when those engines are made more efficient, more powerful, more durable, you are bound to benefit.

The product we make—Ethyl brand of anti-knock fluid—helps petroleum refiners produce higher antiknock gasoline. This in turn permits engine builders to design engines which provide better transportation at lower cost.

Since improvements in engines, fuels and lubricants must go hand in hand, the Ethyl Corporation has for the past twenty years worked closely with

automotive and petroleum companies. In the years of progress which lie ahead, we plan to continue and to expand the research and service facilities we offer in the field of automotive transportation. Ethyl Corporation, Chrysler Building, New York 17, N.Y.

*More power from every gallon
of gasoline through*

ETHYL



Research · Service · Products



ETHYL NEWS

ETC 23694

FEBRUARY * 1948



A comprehensive training and refresher program for Ethyl men who return to their peacetime work with the Corporation after military service will be underway this month at our Research Laboratories in Detroit.

The program will be directed by Raymond R. Faller, who has been returned to inactive duty in the U. S. Navy after service as a lieutenant commander, and has been appointed Manager of Employee Relations at the Detroit Research Laboratories.

In part, the series of refresher courses, of two weeks' duration each, will be conducted for those who have been released from military or government service, and in part for other members of the Sales and Technical Service Staffs. The curriculum in both cases will be the same, with the objective of equipping all engineers in Ethyl Sales and Service work to be of greater assistance to customer companies, and to automotive fleet and farm equipment groups. The courses will include a review of Ethyl's services during the war, an outline of current sales and research activities, definitions of future plans, and discussions of new processes and developments resulting from technical advances by the petroleum and automotive industries.

As soon as candidates are available, the training program will revert to its pre-war function of giving special training courses to new Ethyl employees to be selected from graduates of outstanding engineering colleges and universities and trained for positions in research, technical service, and sales.

IN THE

ETHYL NEWS

FEBRUARY 1946

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In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

Published by ETHYL CORPORATION, 405 Lexington Avenue, New York 17, N. Y.

Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23695



Window display material for Ethyl's new product

MARKETING PLANS FOR ETHYL CLEANER

Introductory sales campaign laid out for northeastern United States. Retail distribution expected in most cities within a month

THE CORPORATION's new product, Ethyl Cleaner, will go on sale in nearly all towns and cities throughout the northeastern section of the United States in the spring of this year. It will be marketed by Ethyl Specialties Corporation, a subsidiary.

The new product, a multipurpose household cleaner and car wash made from petroleum, will be sold through oil companies for sale at their service stations, and through wholesale jobbers serving grocery, drug and hardware stores, department, specialty and chain stores, and automobile accessories dealers.

The sales effort will be supported

Ethyl Cleaner will be packaged in five sizes: 6, 16, 24 and 32 ounce bottles and a one-gallon jug





Thomas R. Sterck



William M. Turnley



Malcolm P. Murdock

A concentrated advertising campaign has been planned for Ethyl Cleaner, embracing newspaper and radio, supplemented with point-of-sale displays. Below is a newspaper ad

Now! Amazing New ETHYL CLEANER

It's better, faster, milder than soap!
Makes light work of housework!

Ethyl Cleaner was first introduced as a revolutionary new cleaner for washing all parts of a car body. Housewives soon discovered it was faster for dozens of household uses, too!

So speedy—so thorough—and yet so gentle Ethyl Cleaner completely outdistances ordinary cleaning methods. This amazing cleaner made in cold water—zips through grease and dirt. No scrubbing, no wiping dry!

Ethyl Cleaner dries without streaks—leaves surface sparkling clean. Safe to use too! Contains no caustics or abrasives to reddens hands or injure surfaces. Not inflammable. Try it yourself! Get a bottle of Ethyl Cleaner today!

LOOK FOR THE ETHYL TRADEMARK

ETHYL CLEANER
CONCENTRATED
ONE BOTTLE MAKES MORE THAN 30 GALLONS
OF CLEANING SOLUTION

Better, Faster Than Soap!

ONE! IT'S A CRUNCH TO WASH A CAR WITH ETHYL CLEANER

AT LAST A CLEANER THAT MAKES WINDOWS SPARKLE, NO STREAKS!

AND IT REALLY CUTS THROUGH GREASE AND DIRT!—KIND TO YOUR HANDS, TOO!

CLEANS RUSS WITHOUT HARD SCRUBBING! PERFECTLY SAFE, NOT INFLAMMABLE!

TAKES SPOTS OFF PAINT AND WOODWORK QUICK AND EASY!

**5¢ Bottle makes more than 20 uses.
75¢ Bottle makes more than 200 uses.
35¢ Bottle makes more than 100 uses.**

A PRODUCT OF ETHYL CORPORATION CHRYSLER BLDG. N. Y.

by vigorous advertising in newspapers, specialty magazines and on the radio, supplemented by window displays, counter displays and other sales helps.

Marketing plans for Ethyl Cleaner have been developed under the direction of Thomas R. Sterck, General Sales Manager, and William M. Turnley, Assistant General Sales Manager, of Ethyl Specialties Corporation. During the past six months a sales staff has been organized and assigned to the four marketing areas in the territory to be covered in the introductory sales campaign.

Malcolm P. Murdock, former Assistant Manager of the Chicago Division of Ethyl Corporation, is Special Sales Representative in charge of marketing plans for Ethyl Cleaner among the oil companies for sales at service stations.

Acting District Sales Managers appointed to direct sales in four districts already laid out are as follows:

Ralph N. Munro, District I: Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island.

Albert B. Erichson, District II: New York (except metropolitan area), New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, District of Columbia.

Paul O. Sprague, District III: Northern Ohio, Northern Indiana, Michigan.

Harold C. Ashcraft, District IV: Southern Ohio, Southern Indiana, Southern Illinois, Kentucky, Tennessee and parts of Missouri, Kansas, Nebraska, and Iowa.

The decision to market Ethyl Cleaner on a large scale was made after two years of testing in six cities where favorable acceptance was indicated by repeat sales to customers and rising demands for the product from jobbers and dealers.

Although sales plans for the present are laid out only for the northeastern section of the country, a marketing program to cover other parts of the nation may be anticipated as soon as practicable.

Ethyl Cleaner was first introduced as a new and better cleaner for all parts of an automobile — paint, chrome, glass, upholstery—but housewives soon became the chief purchasers because of the fact that it saves time and work in cleaning on comparable surfaces and fabrics in the home. Soon many varied uses

were reported for it in the household. For example, it can be used on windows, refrigerators, stoves and tile, fine upholstered furniture, rugs, and painted and enameled surfaces. Many women have used it in washing fine woolens since it lathers freely in cold water, avoiding shrinkage, and colors remain fast. It removes dirt, grease and grime easily and quickly and yet does not attack any surface or irritate the skin.

Works in Any Water

A synthetic detergent, Ethyl Cleaner works as effectively in cold water as in hot water, in hard water as in soft water, and will lather freely even in sea water.

Because of its chemical composition, there are no abrasives or caustics in Ethyl Cleaner. Being chemically inert, it does not dull the gloss finish on painted or enameled surfaces.

Developed during the war, Ethyl Cleaner has been thoroughly tested over a two-year period for market possibilities and cleansing properties. Laboratory tests and practical usage

reveal an unusual combination of cleaning properties without the disadvantages of many chemicals previously used in cleaning preparations.

Ethyl Cleaner is a concentrated product, only about 2 teaspoonsful being needed usually to add to a gallon of water. For example, a 32-ounce bottle of Ethyl Cleaner will make more than 40 gallons of cleaning solution.

In the introductory period, Ethyl Cleaner will be sold in five sizes of containers: 32 ounce, 24 ounce, 16 ounce, and 6 ounce bottles and one gallon jugs.

For the present, headquarters of Ethyl Specialties Corporation will be maintained in the Chrysler Building, New York City.

Mr. Sterck, who will supervise sales of Ethyl Cleaner, joined Ethyl after a long career in advertising and selling that included positions with Westinghouse, the Jam Handy Organization and several advertising agencies. Immediately prior to joining Ethyl, he was associated with the Polaroid Corporation, for which, as a Special Representative, he was Manager of the Subcontracting Department and Manager of Vectograph Film sales. A native of Pittsburgh, Mr. Sterck is an alumnus of Washington and Jefferson College.

Mr. Turnley, who will assist Mr. Sterck, has been with Ethyl since 1932. During most of these years, he has served as a special representative in the Sales Department, both in Canada and parts of the United States, but since 1944 has been associated with the development and initial marketing plans for Ethyl Cleaner. Prior to joining Ethyl, he was engaged in the manufacture and sale of batteries and electrical equipment in Canada and the United States.





Bob Hope and Bing Crosby about to make a recording. Crosby's "White Christmas" is the all-time best seller

IT'S A SORT of miraculous book. It has neither pages nor letters."

So did Cyrano de Bergerac, some 300 years ago, mysteriously describe his latest idea. But the long-nosed cavalier, now forgotten save as the hero of Rostand's comedy, had a reputation for tall tales about trips to the moon and like implausible projects. His contemporaries were inclined to shrug their shoulders about this "talking machine."

Nowadays, perhaps the only miraculous thing about the phonograph is its perennial popularity. Despite the competition of radio and the

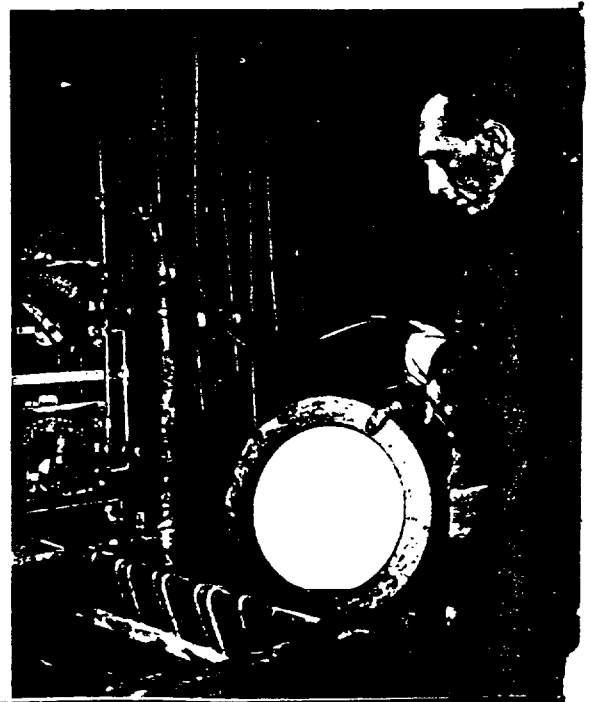
The studio recording is made on a wax disc, which is then plated preparatory to making a "master" impression

The Record

movies, recorded entertainment more than holds its own. In 1945, one firm alone (RCA-Victor) sold around 60 million records — and the company's spokesmen say twice that number could have been sold if they had been able to press the discs.

The record business hasn't always been on Easy Street. When the gramophone first appeared commercially at the turn of the century, it was already the result of more than 40 years of trial-and-error experimentation, and even since its launching it has had a painful history of ups and downs in the business world.

The story of the modern phonograph really began with the "phonautograph," produced in 1857 by a French inventor named Leon Scott. This was a device consisting of a simple diaphragm hitched to a pointed indicator which transcribed sound vibrations onto a soot-covered, rotating cylinder. Operating on Scott's principle, Thomas A. Edison and his assistants developed in 1877 a revolving brass drum, which not only inscribed sound waves but could actually be used to reproduce



d Speaks for Itself

by Walter Osborne

Phonograph records, once counted out as an entertainment medium, are riding the crest of a new wave of popularity

the sound itself. Edison coined the word "phonograph" for his machine.

About ten years later, another inventor, Emil Berliner, discovered that the cylinder used by Scott and Edison could be replaced by a flat disc. To distinguish his invention from Edison's, Berliner called it the "gramophone." By 1897-98, Berliner's first platters — scarcely recognizable versions of such pieces as "I Guess I'll Telegraph My Baby" — appeared on the market.

Berliner's genius, however, appears to have lain more in the inventive than the business field, for his company soon went bankrupt. His ideas were taken over by his ex-partner, Eldridge L. Johnson, who dug up enough capital to found the Victor Talking Machine Company, commercial ancestor of the modern RCA-Victor.

Until 1905, it was difficult to secure talent to make records. In that year Enrico Caruso, immortal tenor

of the Metropolitan Opera, was signed up, and other operatic luminaries were not long in following. Soon, the familiar sound box with the gaping red horn became standard parlor equipment. In 1919, 2,737,596 machines and 106,996,510 records were sold. Until very recently, 1921 stood as the largest "money year" in the history of the business, and by 1925 Johnson found himself the possessor of a \$75 million fortune.

This first "golden age" of the phonograph lasted through 1927. Sales that year amounted to 2,137,569 sets and 105,701,302 records. The era saw the heyday of such still-famous discs as Alma Gluck's "Carry Me Back to Old Virginny," and Mme. Schumann-Heink's German version of "Silent Night." The jazz-crazy younger generation snapped up offerings by "Zez" Confrey, Paul Whiteman, and the ever-popular "Duke" Ellington. Leading all favorites, incidentally, were the first two

records of the "Two Black Crows," a series of minstrel-show dialogues, which sold over a million pressings. On the technical side, the era saw the introduction, in 1926, of the electrical recording process, one of the greatest steps ever taken in the improvement of tone production.

After 1927, the recording business was struck by two quick jabs that very nearly finished it.

The first of these was the rapid rise of the radio in the late twenties. The easy money of the times enabled many an average American



buyer to put an expensive radio set in his home. Radio was something new, and the old-fashioned phonographs began to disappear into attics.

If the prosperity of the twenties contributed to radio's encroachments against the phonograph, the depression of the early thirties did nothing to even the score. New records became expensive luxuries, whereas radio entertainment could be had for a few cents' worth of electrical current. By 1933, record sales had dropped to practically nothing.

During these lean years, however, advances were made that had a lot to do with the big record revival that got underway once the dollars

Cutting the "stamper."
This is a second negative from which the final records, sold to the public, are made



started to flow again. Important among these were the developments made in electronic reproduction and the perfection of the radio-phonograph combination set.

In 1937, 62,000 combinations were sold; the following year, nearly six times as many. Records hit 37 million pressings as the industry struggled back to its feet. By 1940, plants were producing at peak capacity. Dealers' surveys show that 1941 and 1942 established all-time records in unit sales, and that 1944 topped the old mark set by 1921 as the biggest money year. This increase is all the more remarkable in view of wartime manufacturing restrictions.

Tastes in Records

Modern tastes in records run heavily to the so-called "pops," trade name for dance music and "hot" recordings. These make up an estimated 60% of all sales. Classics, which during the depression years made a strong comeback with radio and concert audiences, now account for about 20% of total sales. In between classical and popular music

there is a relatively new class of records, the "show albums," which are transcriptions of hit tunes from current operettas and musical comedies. A survey of dealers in Eastern cities covering the 21-month period following the release of "Oklahoma!" shows that these albums account for 10% of all sales. The remaining 10% comprises dramatic and literary readings, instructional records and the like.

Among artists, the top-place attraction in the business is unquestionably that versatile gentleman of song, Bing Crosby, whose "White Christmas" alone is claimed as the heaviest seller in the history of the industry (over 2 million). A recent Crosby album called "Merry Christmas," featuring such numbers as "Silent Night," "Adeste Fidelis," and of course "White Christmas," received an initial printing of 250,000 copies and sold out in a few short months.

Before the big comeback, the record industry was pretty much the property of Victor. Now there are three major concerns vying for the

public's trade. RCA-Victor is still the largest, followed next by Decca, with Columbia in third place. Boasting both the Boston and NBC symphony orchestras, conducted by maestros Koussevitzky and Toscanini, respectively, Victor leads in the classic field. Columbia's contract with Artur Rodzinski and the New York Philharmonic, however, gives that firm considerable drawing power in the world of symphonic fans. Decca relies almost entirely upon its "pop" artists, headed up by the 14-karat Bing, and it has been a pioneer of the show album.

Phonograph Manufacturers

RCA and Philco have always been big names in phonograph manufacture, but there was always plenty of hot competition from a large number of important concerns ranging from the makers of popularly priced table sets like Emerson to those of consoles in the four-figure class such as Capehart. Then there were literally scores of smaller manufacturers turning out a wide variety of equipment for department stores, athletic goods shops, and cut-rate bargain counters. Most record manufacturers express no particular choices in the phonograph field but recommend that consumers buy one of the recognized brands. It is interesting to note in connection with phonograph sets that it has been reliably predicted there will be double or more the number of brands sold in pre-war times once production starts moving.

In the early days of recording, the performers were grouped around the mouth of a huge horn which gathered in the sound and transcribed it mechanically on a wax blank. As there was no means of volume control in the recording apparatus, the artists had to compensate by jumping quickly away from





Latest development in records is RCA Victor's new non-breakable plastic record, shown being made in the picture at the left. Picture below shows the record's flexibility

Crosby wears his hat. A good deal of friendly banter goes on during the "breaks," but when the red light is on over the control room, discipline is rigid. No studio recording is okayed until the sound technicians and artistic directors are satisfied they have the best possible performance.

After it leaves the transcription chamber, the original impression of the recorded rendition is sent to the

the horn every time they hit a particularly loud note.

Modern recording methods are a far cry from those days, but something of the pioneering informality still persists.

Recording sessions are usually held in spacious halls picked out for their acoustic qualities. Old rugs and felt pads are used to muffle the footsteps of performers and technicians. Cables from several microphones wind through the jumble of battered music stands and uncertain-looking folding chairs. A bridge table, complete with a deck or two of cards and a stack of magazines, seems to be a part of the normal appointments.

The artists are in thorough keeping with this tradition. The recording session is usually a very informal affair even among the big name stars. Toscanini, for example, affects a black smoking jacket. Bing



factory for reproduction. Here the first step is to make a "master." The wax disc from the studio is given a light coating of silver or gold to make it a conductor of electricity and is then heavily plated with copper. After about seventeen hours, the copper shell thus formed is split from the wax, and, after cleaning and polishing, is returned to the electroplating baths where it is used to make a "mother." (It must be remembered here that the "master," receiving its impression from the original recording, is a "negative," i.e., its surface represents in raised lines the grooves in the face of the studio transcription. The "mother," being cast from the "master," is a "positive" and identical with the original.)

The "mother" is employed to make a "stamper," or second negative, which is the actual die from which the records are made. When they reach the printing room, the stampers are mounted in pairs in hydraulic record presses — one for each side of the record. The operator

scoops in a hot cake of black compound from a griddle at his elbow, inserts labels, and brings the two "stampers" together by closing the press. This completes the cycle of record manufacture and nothing remains but to trim the edges and package the finished product for the market.

Composition of Records

Records sold today are made of a combination of copal, shellac, gum-sun, cotton-flock, clay, and lamp-black — a mixture which, though brittle, still produces a faithful and long-wearing disc. Recording companies recently experimented with several newer systems of recording, notably the magnetic reproduction method by which a 30-minute program can be transcribed onto a wire or a metal tape. But in the view of most manufacturers such devices will be suitable for specialized purposes only, and the conventional flat

platter will remain the most practical means of bringing recorded entertainment into the average home.

Recently, RCA-Victor distributed to a thousand music critics a recording of Richard Strauss' "Till Eulenspiegel" in a box labelled "May Be Dropped." The disc they found inside was made of a vinyl resin plastic, a product of long research to find a shatter-proof record substance. The skeptical critics found it could be bent nearly double without breaking.

With such technical strides as this, and with a wide-awake attitude toward securing the best in stage, screen and radio talent to make records, the disc-makers have earned themselves a permanent place in the entertainment world. At least, they have made it axiomatic that when there is money to be spent, records will sell. For perfected as they are, the movies and radio have yet to find an answer to the phonograph's most convincing talking point: "It gives you what you want — when you want it!"



Hearing by Sight

For many centuries it has been known that sound has three dimensions — pitch, intensity and time. Everybody knows that it can be picked up electrically, transmitted and reproduced, as in the telephone, telegraph and talking pictures. It is also common knowledge that a phonograph record in reality is a picture of sound, though the words or musical notes are so small that they cannot be distinguished by the unaided eye.

Now the Bell Telephone Laboratories have developed a Visible Speech Machine with which pictures of words may be thrown on a screen to enable even the totally deaf to hear with their eyes. Anyone can master the art of reading the symbols in about the same time it takes to learn shorthand. Even a foreign language the reader does not understand can be repeated with perfect pronunciation.

Normal children, learning by imitation, pick up about 3,000 words in their first school year. The child who is

born deaf gets only six because of the difficulty in conveying to his mind the patterns of words. With the Visible Speech Machine this is done through the eyes. Every word pronounced normally has a different intensity or volume, a different pitch or set of vibration frequencies, and a different duration. The company plans eventually to install the equipment in all of its exchanges, with screens at central points so that even the stone deaf may use the telephone.

The machine is also expected to be of use in the teaching of languages. It may even bring about some day the automatic typewriter, on which the Bell Laboratory technicians experimented about twenty years ago. The Visible Speech Machine is a product of those experiments, and of others started much earlier by Alexander Graham Bell when he devised a system of written symbols for teaching the deaf.

CRIME

Convinced that a postwar crime wave is inevitable, authorities look for unexpected new angles to it

makes a comeback

By William A. McGarry

SOON AFTER the end of the war, newspapers all over the United States suddenly began to discover that criminality was on the increase. The shooting war that had taken most of the front page space for more than five years, and virtually all of it since Pearl Harbor, was over. Crime stories began to get more attention. Some critics even accused the press of manufacturing a crime wave for lack of other headline material.

The simple fact is that history was repeating. J. Edgar Hoover, Director of the Federal Bureau of Investigation and the man who ought to know, made this clear in a recent address. Speaking before the International Association of Chiefs of Police, he did more than take up the cudgels for the newspapers. He also presented the facts.

"Lawlessness," said the FBI chief, "has taken on such proportions as to startle the imagination. The crime waves proclaimed in the daily press are not imaginary. They are real. They are bloody. If anything, the press is guilty of understatement rather than overstatement. Let me be specific.

"In October of this year, serious crimes increased 19% over the same month last year. Of the more serious crimes, the increases reflect 32% more murders, 38% more auto thefts, 38% more robberies, 11% more larcenies, and 26% more burglaries. Crime rates are continuing to rise rapidly throughout the entire nation."

"After every great war or period of acute national emergency," Mr. Hoover continued, "there has been a

recession of moral fortitude. This one will be no exception. I hope that the racketeers, the overlords, the desperadoes and the criminal scum who characterized the roaring twenties will not come back to the American scene. I fear, however, that this is wishful thinking."

Postwar Crime Wave Not New

Basically there is nothing new in the crime wave now sweeping this country — nor in those being seen in Germany and, to a lesser extent, in Russia and England. The cause is the same as that which led to the rise of the organized gangsters, after World War I to a position of power unprecedented in human history. It was the same after the Civil War and others all the way back to Armageddon. What is this underlying cause? Disruption of the normal way of life, with consequent displace-

ment of large elements of the population, particularly in the younger generations.

Crime waves are all alike also in that each one develops what the underworld calls new "angles." There are two obvious reasons. When the criminal uprising gets to the point where it is recognized as a national menace, the forces of law and order eventually suppress it, thereby perfecting established techniques of both prevention and capture. But then, with the old runways blockaded, the criminals find new ones, taking advantage of every improvement in transportation and communication to facilitate the all-important getaway.

For centuries prior to the American Revolution, and for some decades thereafter, organized crime was largely limited to piracy on the high seas. What schoolboy has not read

One of the biggest instances of widespread lawlessness in recent years was the riot that swept Harlem in 1943



of the Barbary Pirates who, a century and a half ago, preyed upon American commerce? "Millions for defense but not one cent for tribute!" became our battle cry. The birth of the American Navy eventually put an end to this sea-borne thievery, but following the close of the Civil War, a new criminal figure came into national notoriety. This was the bandit on horseback.

Jesse James, the Younger Brothers and scores of others made what is now a romantic page in American history, but it was no joke to their victims. They robbed banks at first, then the pony express riders, and finally went too far by developing the new "angle" of holding up trains. The hardy pioneers had been too busy to bother much about an occasional stagecoach holdup. Not enough people were affected. But when entire trains were robbed so-

ciety organized and the two-gun sheriffs ironed out the bandits, precisely as the Vigilantes took care of the stick-up men who preyed on the gold holdings of the Forty-Niners.

Prohibition is regarded by many as the cause of the crime wave after World War I. But criminologists who look at what happened then in the long perspective of history say it was only a springboard.

The underlying cause was dislocation. If it hadn't been Prohibition, it would have been something else. Of far more importance as a new implement of crime was the motor car. It gave the getaway a new

tempo, made new forms of old crimes possible.

The James boys and their hard-riding colleagues left little more than a collection of dime novels. But with high-speed cars and machine guns the Dillingers, the Diamonds, the Pretty Boy Floyds and their ilk gave the moving pictures a gold mine, inspired an entirely new school of serious sociological literature in addition to the gangster fact and fiction books, moved in successfully for a time on large groups of little businessmen, and even tried to "muscle in" on big business by counterfeiting its products and its labels.

There was no difference fundamentally between the hi-jacking of a truck laden with liquor and the looting of a Spanish galleon laden with gold. There was nothing new in kidnapping. The "snatchers" of the twenties simply tried to systematize it. They started with their own kind. Every gang sought to grab key men or the leader in every other gang — or "take him for a ride." Nobody cared much while this was confined to the gangs. But the Lindbergh kidnapping and a baby-killing in New York aroused the nation to the fact that the organized gangs constituted a peril to the entire government and social structure.

J. Edgar Hoover had foreseen this in the early days of the crime wave, when he was a young special assistant to the Attorney General. At that time the Secret Service of the Department of Justice had few operatives and no very concrete program. Hoover was assigned in 1924 to reorganize the service, and he set up the FBI as a separate Bureau in the Department. He cleaned out the drones, made law enforcement a profession, and for some years endured a flood of ridicule for his ideas on scientific crime detection.

The gangs were finally either cap-

Bullets ended the spectacular careers of Jesse James and John Dillinger. Each was the leading outlaw of his day



tured or killed off trying to shoot it out with the FBI and the police and by their own inter-gang wars. This did not happen, however, until new Federal legislation such as the Lindbergh and automobile theft laws provided the FBI with power to act on what had previously been strictly local or state matters. Nor, significantly, did it take place until money became scarce when the depression struck the country.

This served to point up the fact that crime waves, as distinct from the usual run of law breaking, are always the product of lush rather than of hard times. People are more careless about protecting their funds when money is easy. Payrolls are fatter. So when the competition in rum-running got too hot the gunmen of the twenties became payroll bandits. Then they invented the "protection" racket as a new angle.

Individual merchants were the initial victims — owners of laundries, dry cleaning shops and flower stores. That gave the gangsters the idea of setting themselves up in a legitimate business as a front. Dion O'Banion of Chicago became a florist. Everybody knew he was also head of the O'Banion gang, one of the most powerful rivals of Capone, but nothing was done about it. Then a brace of gunmen caught his trigger men by surprise one day — or bought them off — walked into the shop and riddled him.

With a certain sardonic humor the rest of the underworld promptly chipped in to give Dion the \$50,000 funeral that made headlines all over the world and stopped traffic for several hours. The funeral set the fashion for many others that followed it, until gang killings became so numerous that gang leaders got worried. In one of the most bizarre revelations of the criminal mind in history, they actually arranged for a



Each era seems to have spawned its own new fashions in crime. Prohibition led to bootlegging and rum-running

"convention" in Atlantic City.

Unhappily, before the first session, one of the Philadelphia big shots was wiped out in his suite in a fashionable hotel by some unidentified men with tommy-guns. The "lowdown" was that his own bodyguards turned the trick after selling out to a rival gang leader. In any event the overlords of the underworld had to scatter. One of the big boys from Chicago got picked up in Philadelphia with a gun in his pocket. The police had nothing else on him, but he got nine months on the concealed deadly weapon charge.

The story of how all the forces of the Federal Government finally were brought to bear — to jail the gangsters on whom the FBI and state or city police couldn't get evidence — is too recent to need repeating. Internal revenue agents got some. Postal inspectors nabbed

others. Law and order finally triumphed by finding solutions to all the new "angles" of the post-World War I crime wave. The gangs which had made crime spectacular disappeared. This doesn't mean, though, that there has been much over-all reduction in the chronic crime area.

Today, the problem disturbing the FBI and other law-enforcement agencies is what new angles will develop in the current crime wave. Defenses have been set up against the old techniques. They cannot be established against the young criminals of what many believe will be known as the fat fifties until they reveal which way they are going to jump. These criminals are being recruited from the same age groups that supplied the gang leaders and trigger men of the twenties. Mr. Hoover has pointed out that virtually all of the latter were too young for service in World War I.

The corresponding group is tremendously larger today for the simple reason that more families were broken up. But that isn't the only complication. In the latter part of the last crime wave the "gun moll" was introduced. The participation of women in actual violence then was exceptional. It may be commonplace in the next few years. FBI figures

(Continued on Page 22)

CRIME NOTE

Don't worry about the current crime wave. The Society for Apprehending Horse Thieves in Dedham, Massachusetts, has just issued its 135th annual report. It shows that no horses were stolen in Dedham during the year.

—Public Relations News

What do you know about GASOLINE?



EVERYBODY loves quiz games. Radio quiz programs are immensely popular because millions of people can join in a favorite national pastime. People like John T. Kieran have become nationally known because, to millions of ardent radio quiz fans, they "know all the answers." The success of one radio program alone has added a new phrase to our vocabulary: the \$64 question.

Here, for the entertainment of our readers, we present a series of puzzlers on gasoline. For many of our readers, the questions should be a walk-in. But there are sure to be one or two questions that may stymie even the best of us. See for yourself how you make out. The quiz, written by Robert F. Bahl, originally appeared in the *COMMERCIAL CAR JOURNAL*. We are indebted to the editors of the *COMMERCIAL CAR JOURNAL* for permission to reprint the material here.

♦♦♦

Knock, knock! Who's there? It's the professor again, but he's not trying to revive that game of a few years back. He's just got 10 ques-

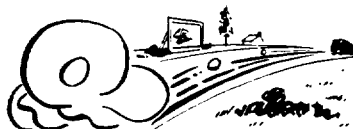


tions and all of them are about anti-knock fuel. Each question counts 10 points. Seventy is fair; 80 is good; 90 is a knockdown and 100 is a knockout. Answers are on the following page.

1.

The first question is short and to the point. What is knocking?

- a. The spontaneous explosion in the cylinder of part of the unburned fuel ahead of the flame
- b. A detonating effect produced by water vapor in gasoline
- c. The boiling of gasoline in a fuel system



2.

If you wanted anti-knock gasoline

back in 1923, the attendant gave you tetraethyl lead . . .

- a. in the form of pellets the size of an aspirin tablet
- b. by turning a pet-cock that allowed drops of tetraethyl lead to flow into the gas as it was pumped into the tank
- c. with a medicine dropper . . . 5 drops to the gallon

3.

The reddish color of gasoline containing tetraethyl lead is . . .

- a. due to minute particles of lead in the solution
- b. due to the refraction of light from oversize molecules
- c. for the purpose of identification only

4.

For six months, in his quest for an anti-knock ingredient, Dr. Midgley experimented with tellurium. Why did he abandon this even

though it showed signs of promise?

a. Because it cost only \$25 an ounce

b. Because it corroded pistons

c. Because it smelled like garlic

5.

So far, our questions have been on increasing the anti-knock value of a gas by the use of additives. In recent years, though, more and more high octane gas is being produced by . . .

a. berginization

b. catalytic cracking

c. homogenization

6.

Back in the "show me" days, demonstrators used to prove the potency of tetraethyl lead in stopping knocking by . . .

a. sprinkling a few drops of tetraethyl lead on their neckties and waving them before the intakes of engines

b. using terribly knocking kerosene in the engine and then adding tetraethyl lead to make the engine run smoothly

c. pouring a pound or more of lead shot into gas tanks

7.

At the very bottom of the octane scale with the unhappy rating of zero is a fuel called . . .

a. iso-octane

b. normal heptane

c. kerosene

8.

Will our readers pardon us just once for getting away from trucks and into the field of aviation? It is possible for a pilot to increase momentarily the octane rating of the gas by injecting into his fuel mixture . . .

a. a few drops of 500-octane gas

b. U-235 Uranium

c. plain, ordinary water

9.

And at the top of the scale right now is a new and mighty fuel, far

more powerful even than 100-octane gas, and it is called . . .

a. triptane

b. ziptane

c. radium blend

d. diethyl selenide

10.

Each of these men has earned fame in the development of high-octane fuel. For each name that you can match up with his particular

field, you get a credit of two points.

a. Carbon Petroleum Dubbs

b. T. A. Boyd

c. Carl Breer

d. Eugene Houdry

e. Graham Edgar

1. catalytic cracking of oil

2. thermal cracking of oil

3. the octane scale

4. tetraethyl lead

5. the "Red Head" motor

ANSWERS

1. a. When an engine knocks, it is because the part of the fuel farthest away from the spark plug is under pressure and explodes before the flame ever reaches it.

2. b. Tetraethyl lead was first offered to the public at a Dayton, Ohio, service station in February, 1923. It was mixed with regular gas by opening a pet-cock while the gas was being pumped.

3. c. Tetraethyl lead is a liquid which looks like water. The red color is merely for identification.

4. c. Tellurium, although it looked promising, had a violent garlic odor that clung to everything.

5. b. By the use of catalysts — substances that produce a chemical change without undergoing any change themselves — refiners have been able to rearrange molecules so as to convert low-grade oils into high-octane gas.

6. a. The mere presence of tetraethyl lead before the intake of a knocking engine was sufficient to silence the knock. Demonstrators dramatized this by putting a few drops of fluid on their neckties and waving them over the engine.

7. b. In setting up the octane scale, normal heptane, because it gave the poorest performance of all fuels tested, was rated zero. Iso-octane, which was the least knocking

fuel at the time, was given the perfect mark of 100. Any fuel then was given a rating according to how it compared in anti-knock value to a mixture of iso-octane and heptane.

8. c. The Pratt and Whitney Aircraft Co. has developed a method whereby a pilot in a tight spot can get a momentary burst of extra power by turning a control which sends a tiny jet of water into the fuel mixture. This cools the engine and temporarily increases the octane rating of the gas.

9. a. Triptane, a fuel with a higher anti-knock value than any substance ever produced. A few years ago it cost \$3000 per gallon, but now it can be had for less than \$1 a gallon.

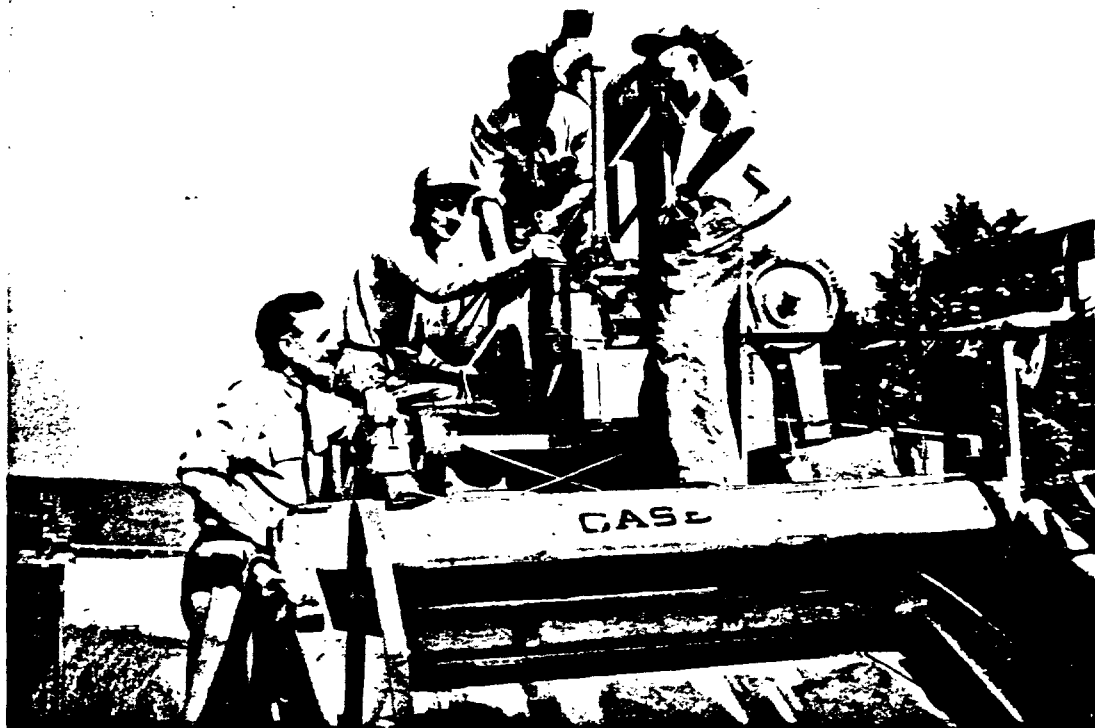
10. a-2 Carbon Petroleum Dubbs — developer of a thermal process for converting residual oil into gasoline.

b-4 T. A. Boyd — co-worker with Dr. Thomas Midgley in the discovery of tetraethyl lead.

c-5 Carl Breer — engineer on Chrysler's "Red Head" motor, first optional motor designed for Ethyl gas.

d-1 Eugene Houdry — inventor of the "cat cracker."

e-3 Graham Edgar — originator of the "octane scale" for measuring the anti-knock quality of gasolines.



Members of the Canby, Oregon chapter, Future Farmers of America, go over a combine, while Harry Manning, Ethyl tractor engineer (left), looks on

They Learn By Doing

Oregon youngsters acquire a know-how of successful farm practices through a unique, practical farming project

Completing the purchase of a new Farmall tractor. In all, the Canby chapter owns over \$5,000 worth of farm machinery



ONE OF THE FINER things that has come out of the war is a better sense of accomplishment by the youth of America. Take the boys of the Canby, Oregon, chapter of the Future Farmers of America. They not only raised food during the war; they also learned a lot about farming in the process.

The idea started back in 1939, when George Pope, instructor of Agriculture at the Canby High School, got together with some of his students and outlined a farm project. The plan met with the boys' wholehearted approval. To start the

project, the local school board turned over 16 acres of stump land which the school district owned.

Renting the necessary mechanical equipment, the boys pulled the stumps out in a hurry. Then they scoured the surrounding area to beg, borrow, and rent additional implements to plow the land and plant a crop of corn and Hannchen barley. The boys did quite well with the first crop, securing a yield of 20,000 pounds of shelled corn and 10,000 pounds of barley. Sale of their initial crop netted a profit of \$114 for the club treasury. The following year they did even better, earning a profit of \$700.

But then the oncoming war started to close in on the boys' farming project, threatened to shut it down for good. Unable to continue renting their implements, in the face of the developing farm machinery shortage, the boys decided on a bold move. They bought a tractor. Pooling their treasury's resources, they acquired a high compression Ford-Ferguson tractor, together with plows, a power controlled disc, and a machinery trailer. This was in 1941.

Feeling that they were in a position to take on more land, the boys rented an additional 44 acres, giving them a total of 60 acres under cultivation. Their harvest of potatoes, peas, barley, oats, and fiber flax that year netted nearly \$1,000.

As time went on the youths continued to work their land and to buy more farm machinery as needed. Meanwhile the older members were going off to war, while younger members were coming along to take their places. A new instructor, Jack

Jack Koch, instructor for the Canby Future Farmers, aboard his homemade garden tractor dubbed "The Gopher"

17

THIS MONTH'S COVER

Shown on this month's cover is a view of the Mt. Rushmore Memorial in the Black Hills of South Dakota. Hewn out of solid granite are the figures of four of our greatest presidents — George Washington, Thomas Jefferson, Theodore Roosevelt and Abraham Lincoln. The birthdays of two of these national heroes, Lincoln and Washington, are observed this month.

The Mt. Rushmore Memorial, which took 15 years to complete, has been called the largest piece of sculpture ever wrought in the Christian era. The head of each figure is 60 feet high; the entire busts are each proportionate to men 465 feet tall. Some 400,000 tons of granite had to be cut out of the 6,200-foot mountain to execute the figures.

The noted sculptor, Gutzon Borglum, spent nearly a quarter of his life at work on the memorial. Starting in 1927, he superintended the ambitious project that required cable lines to hoist the men and supplies to the sites of the figures, and the use of dynamite, steam shovels and compressed air drills to carve out the busts. Borglum died in March, 1941, but his son and chief assistant, Lincoln, completed the sculpture in November of that year.

Of his work of art, Borglum once said, "There is something in sheer volume that awes and terrifies, lifts us out of ourselves, something that relates us to God and to what is greatest in our evolving universe." No more fitting description could be made of this great and enduring monument. Geologists estimate that the memorial will wear away less than 1/16th of an inch a century. At this rate, it will long outlast other similar works of art.

Every year, thousands of tourists from the Midwest and other parts of the country come to view the monument. For them, and for anyone viewing the breathtaking proportions of the memorial for the first time, some of the greatness of the figures the memorial represents has been captured here in stone.

Koch, was appointed as the vocational agricultural instructor for the group. Mr. Koch, no mean mechanic, needed a small tractor to plow his garden. Out of odds and

ends he built one which Harry Manning, Ethyl tractor engineer, who has worked with the Canby Future Farmers since 1942, dubbed "The Gopher."



ETC 23710

In 1943, the young Oregonians made a net profit of \$1,500 on their land. The following year the weather was bad, and planting was held up. Still, by taking advantage of a break in the weather, the boys were able quickly to get their planting done.

Again last year, the weather was unfavorable, but at harvest time the youths found that they had come out as well financially as in the previous two years. The boys attribute this to the fact that with their high compression tractors they can quickly take advantage of breaks

in the weather by doing a great deal of plowing in a short length of time. The future farmers replaced their original Ford-Ferguson tractor with a later model and also purchased a new International Harvester Farm-all H tractor.

Own \$18,000 Equipment

Not only Canby, but all the other Oregon chapters which have bought tractors and tillage equipment have found their purchases profitable. Among these are Lakeview, McMinnville, Silverton, Albany, Molalla, and Woodburn. Together,

these eight Oregon FFA chapters own and operate over \$18,000 worth of farm machinery. No small part of their success was due to the intelligent direction of the late Earl R. Cooley, State Supervisor of Agricultural Education, who encouraged the groups to take advantage of modern power farming methods.

Although the boys have made money on their farming projects, that is not the only gain they have made. By doing, they have learned good farming practices that will be of inestimable value to them in later years.

Short Short Story



Oh Henry Legler

THE MAN IN THE GRAY FEDORA

"Any guy's a sucker," says Les, "that tries to beat the horses.

"Them races," he says, "are all fixed. You can study the forms till you're cock-eyed — and it don't mean a thing."

Les gives me that superior smile. "Unless you know somebody in the mob, kid," he says, "lay off the naga. Because you can't win!"

I poke into my pocket and haul out a handful of colored pasteboards — tens, fives, twos and a couple of six-dollar combinations.

"You said it, Les!" And I tear 'em into little pieces. "I haven't looked into that cashier's beautiful puss all afternoon."

A little while later the clubhouse P.A. system booms out: "They're on the track for the Eighth Race!" and I hot-foot it for the Seller's Window. Les takes out a quill toothpick and starts jabbin' away at his gold teeth. "They never learn," he grunts.

The place is jammed like the subway at rush hour. I peel a twenty-dollar bill off my roll and take a last hopeful look at the little green card that lists "Annie Laurie's Selections."

I'm all set to put my dough on Bounding Boy, a 3-to-2 favorite, when I see a couple of mugs go into a whisper routine.

I point my ear like a radar and catch the following: "... that's the one ... Gay Theodora ... it's a cinch ... like takin' candy from a baby."

I look at the entry chart. There it is! Gay Theodora — Number Seven — a 3-year-old filly. Record: 16 starts — zero — zero — zero! An 80-to-1 shot!

Like taking candy from a baby? I reach for my roll and strip off another twenty.

The crowd is jostling me from behind.

"Get goin', mister!"

"Hey, quit shovin'!"

"Gimme Gay Theodora! Forty bucks on the nose!"

Four brown tickets jump out of the slot into my hand.

Down at the rail, Les joins me. "Kid, you're a born sucker," he says.

"O.K., so I'm a sucker," and I throw him a mysterious look — very smug. "This one I got straight from the mob!"

Just then, forty thousand guys yell "They're off!" and a row of horses comes pounding down the turf.

Through the dust I see the numbers flash by ... 3 ... 1 ... 4 ... 2 ... 6 ... 5 and where the devil is Number 7? Trailing at the turn — a dozen lengths behind!

They reach the half-way mark — and I begin to think Les is right. When they hit the stretch I'm no longer interested.

As we start for the parking lot, a squad car sirens up to a stop — and Les says "Lookit — a pinch. Them two guys are handcuffed to the cops!"

It's the same two characters that give me the tip-off on Gay Theodora, so I ask one of the coppers: "What did they do?"

"Just a couple of pickpockets," he says. "I saw one of 'em snatch a roll from a guy's pocket. Fella with a gray fedora."

"A gray fedora? ... A gray — for cryin' out loud — that's really funny ... Hey, Les! Listen to this! Gray fedora! Oh boy, what a sucker! What a laugh!"

The police car roars off and Les gives me a queer look. "Are you goin' nuts?" he says.

"Listen Les, this is a very funny story ..."

"What's funny about it," he says. Then he gapes at my hat. "That fella with the gray fedora might be you ..."

I stop laughing quick and reach into my pants' pocket. My roll is gone!

THERE MAY NOT appear to be any connection between clunking your head on a low-hanging beam in your own basement, and industry's newest production tool. But there is. This new tool isn't a new kind of turret lathe, or conveyor system, or even an efficient labor-management committee, although it's easily as important as all of these.

It's color.

The prime purpose of the scientific use of functional color is to improve seeing conditions. And as corollaries, it has been found that the proper use of color can stimulate production, lower accident rates, and increase worker morale in industry. So there's nothing astonishing any more in finding cheerful shades of several colors replacing the dirty whites and greasy grays formerly common to so many industrial plants. Pleasant browns and yellows, greens and blues cover walls and ceilings. Even machines are painted in softly contrasting hues. Floors come in for a share of attention, too. And it's all done with a purpose, by purposeful men (and women) called color engineers.

Progressive management has learned, as a matter of fact, that the color engineer ranks as the equal of the design and process and production engineers. Headaches and mental depression are only two of the morale- and production-destroying problems that color has solved, for these are very often the results of simple eyestrain. And where eyestrain is eliminated, accidents occur with less frequency, too.

Here's what Faber Birren, an industrial color consultant, has to say about it:

"Subject the worker to inadequate or insufficient light, glare, prolonged convergence on near subjects or fine details, distractions caused by excessive brightness and motion on

COLOR HAS A PURPOSE

By Hiram K. Smith, Jr.

The scientific use of planned color is resulting in many important benefits to home and industry

the boundaries of vision, and your man may have more than a bad disposition.

"Fatigue, nausea, physical debility, nervousness and psychological irritability are direct results of eyestrain. Any of (these) may lead to carelessness and thence to accidents.

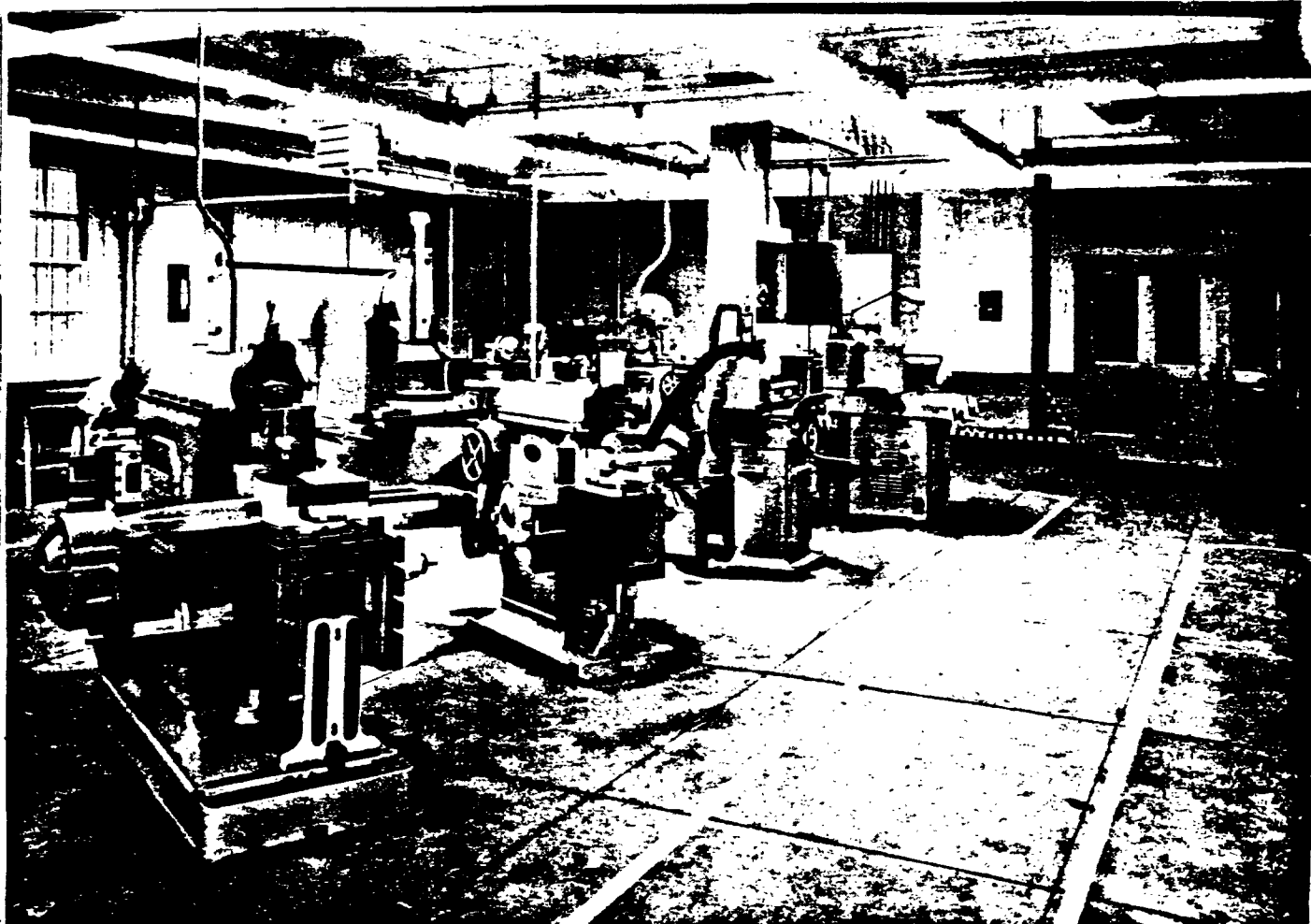
"The intelligent use of color can improve most adverse conditions that bring about eyestrain. Working

with a white object on a black ground, visibility may be high, but the extreme of light and dark may cause trying visual adjustments and rapid fatigue. A moderate contrast offers the best solution."

The upshot of industry's application of new color principles is that we now have an entirely new approach to the use of color in decorating our homes, offices and shops

The hazards of obstructions in aisles can be overcome by painting them with high-visibility yellow striping





In this modern color-conditioned shop, the machinery is painted along three-dimensional seeing principles. Hazards and protective equipment are readily spotted. A uniform seeing environment now replaces former extreme contrasts

as well as our factories and institutions.

Looking over some of the improvements made in color planning and lighting, it's not hard to visualize amazing changes in harnessing color's power for the benefit of the private citizen. Just as factories have been changed from dull, gray, grimy, gloomy workrooms, so cellars and laundries, kitchens, shops — in fact any work or rest area — can be made more pleasant and at the same time more functional. For color does more than decorate; it works actively on our conscious and subconscious minds, has power and energy, even functions dynamically in our everyday lives.

One Detroit factory reported a 25% increase in production after

planned color was adopted. A new painting program in a Tulsa plant brought about a 20% decrease in accidents.

Another factory faced a crisis in war production, because of excessive eye fatigue. Its workers refused to work overtime even though their rate of pay was excellent. But after the plant was done over according to a planned color scheme, employees insisted they found twelve hours' work less tiring than eight had been before. Raising their eyes from their machines, they found the walls painted in restful tones, and lighting was both soft and adequate without glare.

Investigating the causes of excessive eye fatigue among workers in a citrus fruit packing plant, a color

engineer solved the problem by changing the color of the grading belts. The contrasting color, besides being effective, was restful to the workers' eyes, instead of tiring.

Color has been used in industry before, of course. A worker whose mind is wandering might stumble, trip, walk into a traffic lane, or fall into an unguarded open pit or off the edge of a loading dock. So industry long ago learned to mark these hazards in such a way that the worker is alerted to possible danger before harm befalls him. But the new color principles have even changed traditional safety colors.

That's the connection between your clunk on the head and the new idea of color engineering. Developed by Mr. Birren in collaboration

with the Du Pont Company and other industrial safety authorities, a new uniform safety color code has been adopted in the past two years and is today in wide use — and it uses orange instead of red as the warning-danger color.

This new safety color code uses only five simple colors, all of which are easily recognized under all lighting conditions. Good old fire protection red is used for fire protection equipment and nothing more. Justification for this break with tradition is scientific. Since red is commonly used to indicate fire equipment it should not, in the opinion of these experts, at the same time be used to indicate hazards.

So orange, which has the highest attention-value of any hue in the spectrum, was called the danger color, and used to mark the insides of machinery guards and such dangerous moving parts as pulleys, gears and so forth.

Yellow, with the highest visibility of any color, under practically all lighting conditions, was chosen to indicate strike-against, tripping, stumbling or falling hazards — overhead obstructions, curbing, low beams, stairway approaches and stair risers, and the edges of loading

platforms and unguarded open pits. Red is used solely to mark the location of fire protection equipment — hydrants, alarm stations and so forth — in factories; green is given the job of indicating first aid and safety equipment. All these hues, of course, were selected — among other reasons — for their psychological impact.

Blue for Deliberation

Thus blue, which tends subconsciously to lead the mind to deliberation, thoughtfulness, caution, is used to mark objects — valves, starting and stopping levers, switches and switch boxes, for example — whose manipulation should be deliberate and careful. Finally, white and grays are used to brighten corners, to indicate traffic lanes, and so on.

So, whether you choose to stick with red-for-danger, or prefer the newer idea of orange as the warning color, you can apply industry-proved safety colors in a code for your own home.

Exposed hot water or steam pipes in the basement can be painted orange, for example — called “alert orange” by some color experts. Another place for this warning

color might be the inside of the cover of the house power line fuse box, thus giving notice that the box should be closed. Low hanging pipes, beams and other parts of housing structure in gloomy surroundings can be painted with stripes of “high-visibility yellow” alternating with black or white stripes. And the position of your household fire extinguishers can be clearly indicated with a square of red paint. Electric outlets and switches, hot water connections and valves can be painted “precaution blue” as a warning.

The so-called “Traffic white” (or “black”) commonly used in industry to mark aisles and traffic lanes could be used on the family garage floor and extended up the end wall to assist in driving a car into the garage without fender-crushing accidents.

These are only a few basic suggestions for transportation of tried and true industrial uses of color to homes. More elaborate color engineering for “color conditioning” in the home, and use of new systems of lighting are two related fields in which the private citizen can apply industry-proved lessons in color planning.

Beauty for Men

For fifteen dollars, any man with enough hair left may now get a permanent wave in certain New York, Hollywood, Florida and Chicago beauty shops. If his hair is thinning out he can get a new type of wig made of individual hairs fastened to a sheet of gauze and glued to the head. The glue is waterproof and will stand up under a shower or a shampoo, but the wig must be pried loose every now and then to be dry cleaned and oiled.

Manufacturers say men are now buying \$50,000,000 worth of toiletries and cosmetics — about one tenth as much as women. Cosmetics were in common use by men in ancient times and as recently as the 18th century in France and England. This included pomades to make the

hair curly and glistening, rouge, powder and perfume. Even the early American dandies used them to some extent.

About 175 different cosmetic items for men are now on the market — but there'll be many more. A chain of stores formerly devoted to the exclusive sale of hats is now handling toilet articles for men with “rugged” scents — at least the names are masculine in that they smack of the great outdoors. Beauty shops are plucking male eyebrows, curling lashes, and applying a sun-tan lotion that makes one look as if he had just come from Florida. There's even a balm for lips — chapped, of course — with just a hint of pink in it. Beauty care for men is beginning to attract the male population at large.

CRIME MAKES A COMEBACK

(Continued from Page 13)

from 392 cities show an increase of 198% in the arrests of girls under 18 years of age.

"The fingerprint files of the FBI," says Mr. Hoover, "reveal a criminal army of six million individuals who have been arrested and fingerprinted — one out of every 23 inhabitants in the United States." In the first six months of 1945 the finger-printing of females under 21 for robbery went up 60.3% over the corresponding period of 1944. Other increases in this group were assault, 10.6%; burglary 1.9%; larceny 6.4%; auto theft 23.9% and drunkenness and driving while intoxicated, 16.5%.

The above reference to chronic crime is of interest in connection with the FBI estimate of one out of every 23 inhabitants being a criminal. In 1938, the Law Enforcement Committee of the American Bar Association put the figure at 38. It did not have the advantage of the uniform crime reports since developed under the FBI's direction. But it did have even better access to court records through a nationwide organization of lawyers.

Analysis of those records in a year when there was no crime wave, the committee said, revealed that 200,000 residents of this country will commit a murder before they die. A major crime is committed every 22 seconds, and the United States had at that time the greatest per capita prison population in the world. It added that the annual cost of crime in this country is fifteen billion dollars, and that it is increasing every year.

This is an over-all estimate, made in a year when there was no crime wave or epidemic. It covers only what might be called endemic or continuing crime. No one in authority will venture an opinion on what



War veterans being sworn in as New York City policemen. Veterans are being enlisted to help fight postwar crime

the post-World War I crime wave cost. But all are agreed that after a wave has been blotted out the endemic level is always higher. Young men who go into a racket at first chiefly for adventure, intending to make a quick stake and then go straight, become professional criminals. Few ever really reform.

Public Misconceptions

One of the strange things about postwar crime waves is that the general public always expects them, and also believes that the criminals will be recruited from the ranks of veterans. It is true that some of the post-Civil War bandits were recruited from the ranks of the guerrillas. But even they were the exceptions. The chief of the FBI has strong opinions on this point.

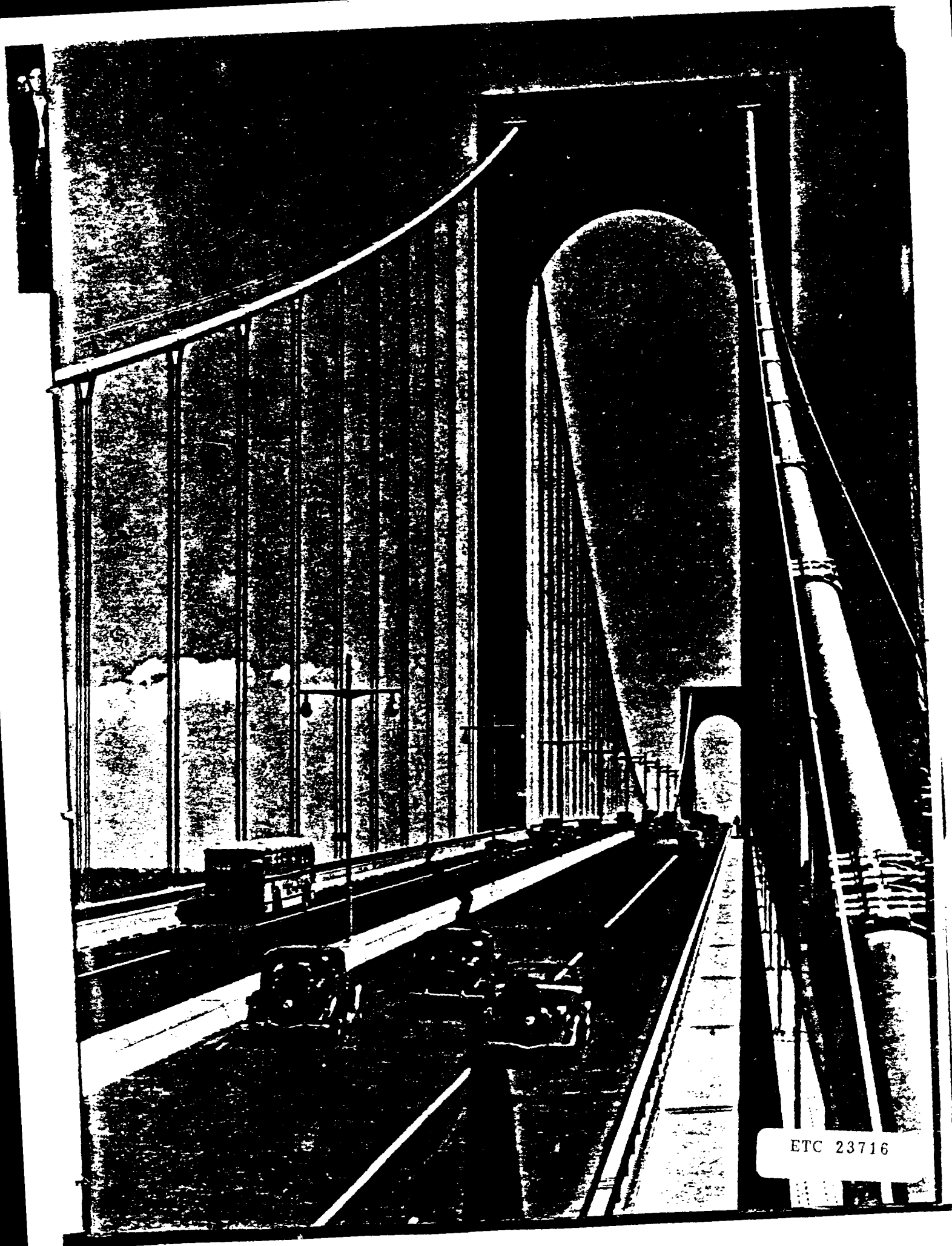
"I resent the libel that has been placed on the returning veteran by those who would lay the postwar crime waves at his doorstep. We have a potent ally in the returning veterans. The average veteran will come home a better citizen. He knows what America means. He has

fought and sacrificed the best years of his life in order that democracy might survive."

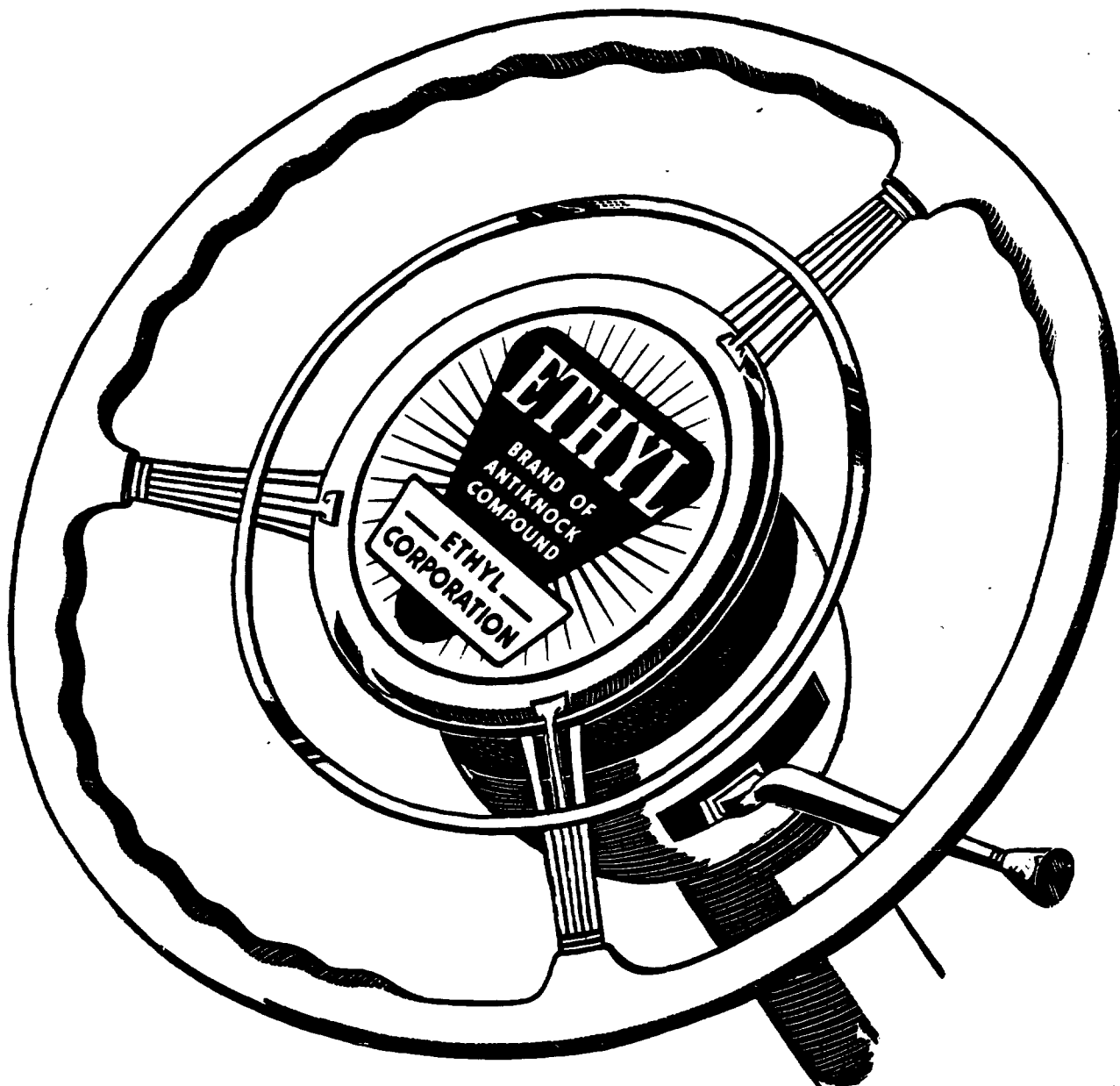
The startling suggestion has also been made by Mr. Hoover that parents should be held responsible to society for juvenile delinquency. It does not occur, he says, until adults first become delinquent. "I am convinced," he adds, "that the fault lies directly in the home. Parental responsibility is no longer in style. A new approach is necessary. Law enforcement must find a way to do more to alleviate this problem."

Women have been used as lures to intended victims by criminals ever since crime began. One thing certain about the current crime wave is that this practice will continue on an expanded scale. What is worrying police, however, is what new angles the underworld will think up now that women are becoming robbers and car thieves on their own. Also how far the underworld may go in the use of airplanes, and particularly helicopters. Some sky banditry is regarded as a foregone conclusion.

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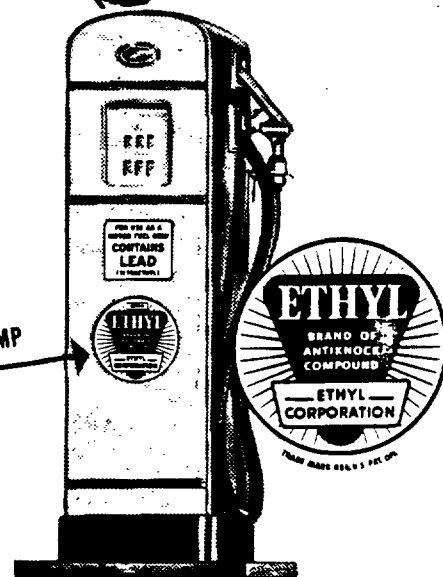


ETC 23716



Car owners steer right to the pump with the Ethyl emblem when they want the best gasoline . . . the best performance from their cars. And, judging from the record-breaking demand for Ethyl, that's what millions of them want. The Ethyl emblem on your premium pump is a point-of-sale advertisement that says, "Here it is, folks—today's *quality* gasoline."

THEY'RE LOOKING FOR THE ETHYL EMBLEM ON YOUR PREMIUM PUMP



ETHYL NEWS



ETC 23718



IN THE

ETHYL NEWS

MARCH 1946

After more than three years with the U. S. Army, Lester B. Roberts has rejoined the Ethyl Corporation and has been named Manager of the recently formed General Research Services Section of the Engineering Laboratories. Services pertaining to equipment design, instrumentation, experimental machining, photography, fuel handling and storage have been placed under Mr. Roberts' management as part of the reorganization plan to handle the expanded programs for research on engines, fuels, and lubricants.

Soon after graduating as a petroleum engineer from the University of Wyoming in 1928, Mr. Roberts joined the Ethyl Corporation. He was assigned to the Rocky Mountain Sales Division as a field representative, and two years later was appointed Manager of the Gasoline Testing Department of the Yonkers Laboratories.

As a representative of Ethyl Export, he was stationed in Buenos Aires in 1935 to handle South American business. Upon returning to the United States he joined the Kettering Laboratory of Applied Physiology at the University of Cincinnati in 1941, as liaison between the Medical and Safety Departments of Ethyl.

Entering the Army in the summer of 1942, Mr. Roberts was stationed at Fort Knox in charge of engineering at the Armored Force Medical Research Laboratories. Attaining the rank of major, he received his discharge in January, 1946.

THIS WAY TO ALASKA

3

Alaska has moved! The growth of air travel, together with other wartime developments, has brought Alaska nearer to the United States. As a result, Alaskans now see new trade and tourist possibilities for their land.

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Not since the roaring twenties has Wall Street bubbled with such activity as in recent months. The reason? The public is back in Wall Street — again.

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The war has swelled the treasure trove in Davy Jones's locker, bringing a new appeal to an old lure: hunting for buried treasure.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary



On the far side of the Inside Passage channel lies Juneau, the capital of Alaska. In the foreground is Douglas, Alaska



THIS WAY TO ALASKA

By Burt M. McConnell

**The war has opened up new horizons for Alaska
— both as a center for trade and for tourists**

THE WAR DID two things for Alaska. It put the Territory on the map; and it abolished her splendid isolation. Even before the war, Alaskans had more airplanes serving them per capita than any other people in the world. In 1941, for example, Alaska's airlines and "bush" pilots carried almost five million pounds of freight, half a million pounds of air mail, and 41,000 passengers. Today, one can have breakfast in Seattle and dinner in Fairbanks. Air transportation has brought the entire Territory within 24 hours of any point in the United States.

The war wrought a profound change in America's last frontier. It brought the importance of Alaska — and some of its possibilities — home to the American people. Approximately 100,000 members of the armed forces have been stationed in

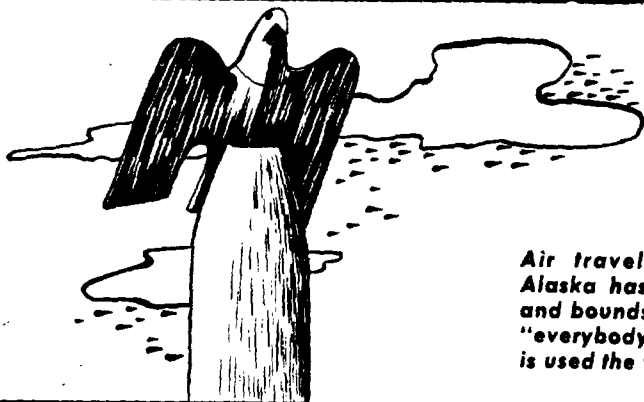
the Territory, at one time or another, since 1940. They helped to build the roads, docks, hangars, air strips, warehouses, cold-storage facilities, oil pipe-lines, hospitals, cantonments, and radio stations that converted this peaceful land of mineral wealth and great forests into a modern bastion of defense. Incidentally, our armed forces drove the Japanese invader from the Aleutians.

Many of these improvements will be of permanent value. For example, the Army and the Civil Aeronautics Administration have built 50 airports. Half of them are equipped with hangars and control towers; more than 30 have paved runways, and at least 40 have runways approximately a mile in length. Heretofore, Alaska has suffered from remoteness of one section from another — and remoteness of the entire country from the United States.

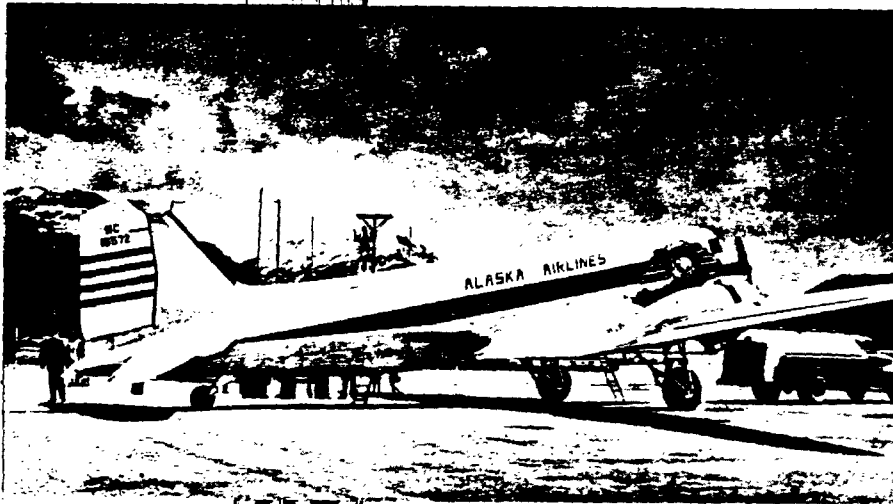
Now, any city, town, or outpost can be reached by air. More than 50 radio beacons guide the pilots who fly through or above the overcast.

All these improvements are tangible assets. The most important asset, however, intangible though it may be, is the interest in the Territory that was aroused during the war by letters from members of the armed forces stationed from Attu to Fairbanks, from Annette Island to Pt. Barrow.

When superimposed upon a map of the United States, these points would touch the states of California, Michigan, South Carolina, and North Dakota. That indicates how Alaska sprawls all over the map; it is our largest territorial possession. Five years ago, the census report gave Alaska a population of 72,524 — and nearly half of these were Indians, Aleuts, and Eskimos. As a re-



Air travel to and within Alaska has grown by leaps and bounds. In a land where "everybody flies," air travel is used the whole year 'round



Now that the war is over, the new 1500-mile highway to Alaska is being turned over to Canada and to Alaska



sult of the construction boom during the war, the population rose to approximately 90,000.

Construction of the Alaska Highway in 1942 called for the importation of 6,000 civilians and several regiments of white and Negro troops. The building of this 1,592-mile link between Edmonton and Fairbanks was achieved with all the drama which accompanied the construction of our first transcontinental railroads. The highway was begun at six different points, cut through at dazzling speed, and opened within six months from the time construction began; but parts of it had to be rebuilt later. It was not planned as a route for troops or heavy supplies; its chief function was to furnish oil, gasoline, food, aviation equipment, and other necessities to the airports that dotted the route. Along the highway, the Signal Corps built a telephone system; thus Alaska, for the first time in history, was connected by a telephone line with the United States.

Despite such formidable barriers as 200 streams and rivers, forests, swamps, muskeg, and spurs of the Rocky Mountains, the highway was cut through two months ahead of schedule. Caterpillars, bulldozers, power shovels, road graders, trucks, ditchers, cranes, and other modern machinery roared over the primeval land. The average rate of progress was eight miles a day. The main objective was an auxiliary along which bombing planes and single-engined fighters could be ferried to Russia, by way of Edmonton, Whitehorse, Fairbanks, and Nome. It was also expected, of course, that the highway would bind Canada and the United States more closely in a postwar world; that it would attract automobile tourists, bring settlers to Alaska

ETC 23721



and Yukon Territory, and aid in their development.

Under the terms of our agreement with Canada, the Canadian portion of the highway reverts to the Dominion, now that the war is over. The problem facing our northern neighbor is the cost of maintaining the road through a wild and sparsely populated region. So far, maintenance costs have been very high, particularly at stream crossings. In fact, it is estimated that the figure might run as high as a million dollars a year. Furthermore, in order to make the highway of practical value for tourists, the construction of a wide variety of facilities, such as hotels, tourist cabins, gasoline service stations, and garages would be necessary. At present, these do not exist. Finally, the highway must be integrated with the Canadian system of roads.

But the tourist, the hunter, and the fisherman have two other kinds of transportation — the steamship and the airplane. Alaska is served by five steamship companies, and half a dozen major American airlines are seeking permission to establish routes from the United States to Asia, by way of Alaska.

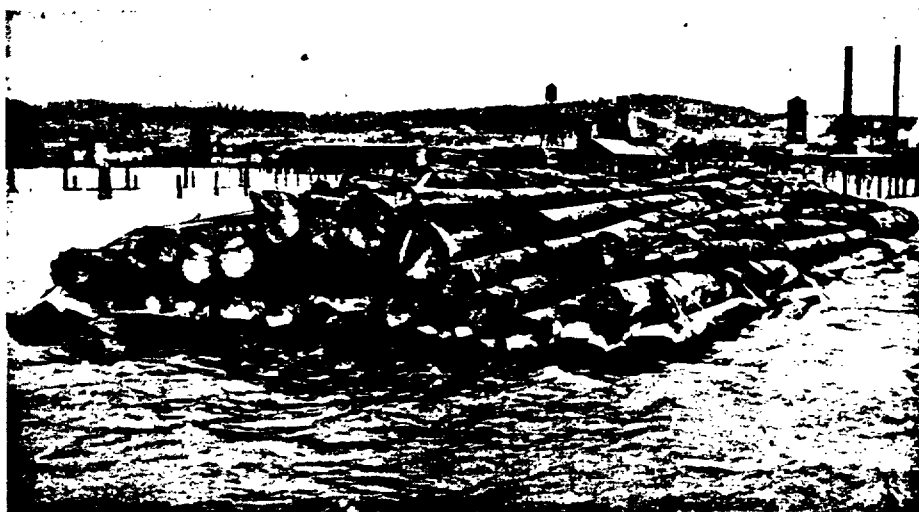
The reason is obvious.

The distance from Chicago to Chungking, by the northern route, is 4,300 miles shorter than by the trans-Pacific route. A cargo plane could be loaded at Shanghai with Chinese silk, and flown to the silk mills in New Jersey, by way of Alaska, in three days. In the Territory itself, there are vast stretches of barren and mountainous country that can be negotiated only by airplane.

Alaska offers the best unspoiled recreation land in the world, particularly for the nature lover and

those who hunt with rifle, rod, or camera. While comparatively few highways have been built in the Territory, it is possible to drive over the Richardson Highway from Valdez to Fairbanks, a distance of 370 miles. One can also make bus and automobile tours, and short fishing and

and is the outfitting point; and a sportsman must be accompanied by a registered guide.) The Russian river is noted for its big rainbow trout; the largest ever measured and recorded (before the war) was 33 inches long. The really big ones, it seems, always got away.



A huge boom of Sitka spruce logs is shown on its way to the mill. Alaska has an immense stand of virgin timber

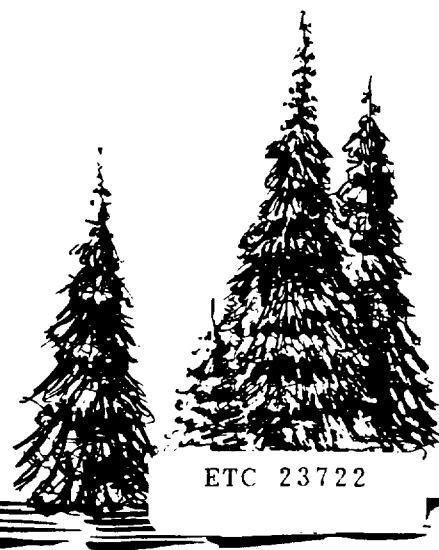
hunting trips by chartered plane or automobile. According to Governor Ernest Gruening, "Alaska is a land where you can catch the biggest fish, hunt the biggest game, and explore to your heart's content."

The inland waterway between Seattle and Ketchikan is one of breathtaking beauty, and tourists travel thousands of miles each year to see the midnight sun, the glaciers, and the fjords. The sheltered channels of southeastern Alaska provide opportunities for power boats which can not be surpassed anywhere in the world.

Almost every variety of game fish can be found in the waters of the Territory. Mountain sheep and goats, the largest moose in the world, and three kinds of bears may be found on Kenai Peninsula. (Sew-

Mt. McKinley Park, between Anchorage and Fairbanks, consists of approximately 3,000 square miles of the finest part of the Alaskan Range. Toward the western end of the Park, Mt. McKinley rises to an altitude of 20,300 feet above sea level — the highest mountain on the North American continent. This national park is accessible the year around. Winter sports are becoming increas-

(Continued on Page 22)



ETC 23722

What's the MARKET Doing?

Rising volume of securities transactions in recent months keynotes the fact that the public is back in Wall Street—again



NOT SINCE the dead - and - gone "era of wonderful nonsense" has Wall Street bubbled with such activity as recent months have seen.

Brokerage offices have been as filled with eager customers as a Broadway playhouse with a Hammerstein hit. Chattering stock tickers have fumed and sputtered trying to keep abreast of the ebb and flow of securities prices. The two- and three-million-share days of the 1920's have once again become commonplace in the stock market.

By last month, even the corner bootblack knew the stock market was boiling. And by last month, too, more informed market observers were making significant comparisons with 1929.

The easiest sign that the public was back in Wall Street — for better or for worse — was the rising volume of sales on the New York Stock Exchange.

The "Big Board" is far and away the country's biggest marketplace for securities, accounting for more than four-fifths of all transactions on registered exchanges. And through the middle of last month, the volume of stock sales on the Big Board was running 19% ahead of 1945, 140% ahead of 1944. For the full year 1945, the volume of stock transactions (378 million shares) was the heaviest since 1937.

Sign of the Times

• Reflecting the better times in Wall Street, a Stock Exchange seat last month sold for \$97,000, the highest since 1937. As recently as 1942, an Exchange membership changed hands for as little as \$17,000. But back in the "good old days" of 1929, a seat sold for as much as \$625,000.

But the biggest news about Wall Street lay in where stock prices themselves were going.

Early in the month, market followers trumpeted their rise to the highest levels in 15 years. A few weeks later, a sharp reaction served to take some of the steam out of the rise. What happened both ways is readily seen in the action of the Dow-Jones industrial stock average, probably the most representative of the entire list of securities.

First take a look at the rise.

From its wartime low of \$92.92 in April 1942, the average price of these 30 common stocks reached a high of \$206.97 on February 2nd last, for a clear rise of 122%. And, significantly, two-fifths of the rise occurred in the preceding six months alone. Taken as a whole, the value of all stocks listed on the New York Stock Exchange rose from a total of \$39.8 billion on April 1, 1942 to \$78.5 billion, as of February 1st last.

Oil and automotive shares figured in the general market advance.

Barron's group stock average of seven oil companies rose from an average price of \$24.80 in April 1942 to a peak of \$50.21 in December 1945.

The average price of six automobile company stocks did even better, rising from \$18.02 in April 1942 to \$53.02 early last month.

But against a mere doubling in value for the general run of stocks, some individual shares turned in really spectacular performances, spurting anywhere from 1200% to 6200% in some cases.

Spectacular Advances

A railroad company stock, which in 1942 sold for around 56 cents a share, at the recent peak sold as high as \$8.25 a share — an advance of 1300%. The stock of one independent auto producer soared more than 2700% in the last four years, while that of another went up more than 3500%. A public utility stock went up nearly 4000%, while that of a publishing company advanced more than 6200%. Investors who climbed onto the bandwagons of these stocks back in 1942 — and jumped off at the recent peak — really hit the jackpot in the four-year-long bull market.

But at the very time when stock prices generally were soaring to their highest levels in 15 years, an undercurrent of concern was rippling to the surface. At least one Government official took occasion to point a warning finger, while the Federal Reserve Board hoisted a storm signal when it lifted margin requirements to a full 100%. The Reserve Board's action had little immediate effect because, in contrast with 1929, the present market has been largely on a cash basis for a long time. Yet the end to speculation on margin removed from the present situation one of the big factors that contributed to the 1929 debacle.

Meanwhile Chester Bowles, an outspoken critic of rising stock prices and at present the nation's stabilization director, contended that the degree of inflation in the market was "up to 30%." Answering such charges as this, Emil Schram, president of the New York Stock Exchange, labelled "erroneous" the belief "that the stock market is a primary source of inflation." Whatever inflation existed in the stock market, he said, was a reflection, not a cause, of inflationary pressures generally. Said he, "The advance in stock prices and the activity in the market are no more than symptoms of the disease."

Several weeks later, in a statement to a Congressional committee, Mr. Bowles again warned, "It would be difficult to exaggerate the gravity of the inflation crisis we face. An expectancy of higher and still higher prices is sweeping the country. The speculative fever is reminiscent of 1929. We can see it in the stock market, in the real estate market . . . in almost every commodity market."

Throwing down the gauntlet, Mr. Bowles said, "To those people who

are betting on inflation in the stock market and in the commodity markets, let me say, 'You are betting on the wrong horse. There isn't going to be any inflation.'"

The next day, the market, which had been giving ground for more than a week, broke wide open in the sharpest single day's decline in six years. By the end of the month, after suffering several more sinking spells, the market had relinquished more than a third of its entire advance since mid-August. To careful observers, there were many good reasons why a decline should take place at that time, coming as it did after an uninterrupted rise of almost six months. But to others, it was simply a case that, for the time being at least, Mr. Bowles had bowled over the market.

But while stock prices continued their unpredictable course — and as the debate over the market likewise continued — there was one disturbing element in the present situation about which there could be no argument. This was the return to Wall Street of the small, and frequently uninformed, investor.

The two- and three-million share days of the 1920's have again become a commonplace on the New York Stock Exchange



Particularly since the war's end, but even long before, investors of limited means have been coming into the market in increasing numbers. During the war, the market was an understandable outlet for their surplus funds. With war-swollen earnings, and few tangible things to spend them on, it was natural for them to put their money into stocks.

The extent of their participation in the market could be traced in the mounting volume of security transactions. The initial consequences could be seen in the run-up of many low-priced stocks (among them what the Street calls "cats and dogs") to surprising levels. To discourage such speculation, the Federal Reserve Board a year ago banned margin purchases on stocks selling for \$10 a share and less. Until the Reserve Board a month and a half ago ended margin dealings completely, many of these stocks, sell-

ing for less than \$10 a share, were run up to the point where they could be bought on margin.

The small investors who have been coming into the market include people who got their fingers burned back in the 1929 crash, but now were willing to take another fling. But by and large they represent a whole new generation of investors — inexperienced, uninformed and gullible.

Flush with their wartime savings, they have been ready purchasers of securities. But the difficulty is that in many cases they've been buying without the slightest appreciation of intrinsic values. Instead, they've been buying on rumor, tip and conjecture. Sometimes their luck has confounded the experts, but eventually they manage to lose their shirts.

Addressing itself to those who would get rich quick in the market, the New York Stock Exchange last

month took newspaper advertising space to warn:

"1. Hold on to your U. S. War Bonds. Don't let anyone talk you into cashing them for any reinvestment purpose.

"2. Buy U. S. Savings Bonds. They are identical with U. S. War Bonds, and both are the world's best investments.

"3. Get the facts about any security you buy.

"4. Beware of tips, rumors, impulses, 'get-rich-quick' schemes.

"5. Unless you can afford to take risks, and unless you will go to the trouble to get facts, you should stay out of the market."

Whether such investors would take the Exchange's own advice — and put their money elsewhere — by this month was still a moot point. Meanwhile there wasn't any doubt but that the lambs were back in Wall Street.

Short Short Story

Oh Henry Legler

Ferry Tale

The sharp prow of the destroyer knifed through the choppy waters of the Channel, sending a sheet of salt spray stinging into the face of Chief Gunner's Mate Elmer Widley. With both hands he gripped the rail, his eyes straining into the blackness. Suddenly, almost dead ahead, loomed a long, dark hulk. "Wh-e-e-e—oooooooo!" screamed the signal tube. "Gun turret Number 3 reporting, sir! Submarine two points off the port bow . . ." "Hold your fire, Chief," barked the Commander, "and we'll ram her!" The destroyer lurched to port and a mountain of green water washed her bow. . . .

"You'll catch your death of cold out here!" said Mrs. Widley. "Why don't you come inside!" . . . "Yes dear," said Elmer Widley. Reluctantly he followed his wife along the deck toward the cabin marked "PASSENGERS."

The marine melodrama flickered and faded from the silver screen of his mind. "You're soaking wet from the spray," she said. "It's silly to stand out there in that cold wind!" They passed an open door leading to the engine room and Elmer Widley paused for a moment, leaning over the hatchway to watch the pistons going.

. . . "Stoke her up, men! Burst her damn boilers! Steam — you bums — steam! There's a wolf pack of subs ahead!" The glare of the open boilers cast weird shadows in the ship's belly. The heat was searing to the half-naked bodies that bent, heaved, shoveled without pause. Chief Engineer Widley

cursed under his breath. "Damn the brass hats," he said, "for giving me this old coal burner. . . ."

"Hey, mister," said the ferry boat attendant, "you can't stand there . . ." "Yes sir," muttered Widley apologetically, "I was just watching the machinery." "Well, get inside, we're comin' in to Staten Island." Mr. Widley sidled up to his wife. "Where on earth have you been," she said, "I thought you were right behind me. Here dear, you hold the Pekingese and I'll take the hat box. Let's get near the exit, so we'll be the first on the bus!"

The ferry chuffed into its slip. Chains rattled, horns honked and self-starters woo-woo-wooded as Mr. and Mrs. Elmer Widley were swept along the pedestrian passage to the street. Widley gently twitched the ear of the Pekingese that nestled in the nook of his arm. With eager interest, he looked at the sea of faces waiting to swarm onto the ferry boat. . . .

"Most cosmopolitan city in the world — Shanghai," he muttered. . . .

"What did you say, dear?" said his wife.

"Er — I said Staten Island's an interesting city."

"Well, I hate it," said Mrs. Widley. "I don't see why we can't move to Flushing where Cousin Agnes lives. I just can't stand that ferry ride."

"Really, dear?" said Elmer Widley. "I sort of like it."

Everybody loves to play games—but what games? The game manufacturers themselves play a guessing game, trying to anticipate what will be popular



IT'S ALL IN FUN

By Martin Sheridan

ANY EVENING after the table is cleared and the dishes washed, many an American family sits itself down and plays games. It may be the old standby of checkers, or perhaps one currently popular. Whatever it is, the public's appetite for games adds up to big business for the game makers.

As the public's interest is whetted, game "rages" are born, game names become bywords. But behind each new crop of games is the greatest game of all — guessing what games will be successful.

It's a fallacy that you can tell what people are thinking by the games they buy during wartime and the postwar period. Game experts agree that it is relatively simple to

sell the public something that is uppermost in their minds — except at the present time.

At the outbreak of World War II, several war games such as "Conflict," "Blockade" and "Strategy" caught on with armchair admirals and generals and enjoyed enormous popularity. But as soon as the United States entered the conflict, the public made an about-face and began to buy games of skill and entertainment.

John Q. Public had been reading war, discussing it and living it. He was so fed up with battles and bloodshed that when he turned to recreation he wanted something utterly different, something of the "escape" variety.

As recently as 20 years ago, new games were bought only at Christmas. After the 1929 market crash, however, people had more leisure with less money to spend on it. The market for games boomed and new ones appeared throughout the year. War brought on gas rationing and a shortage of tires which forced the public to remain at home and further enhanced the game craze.

Today, games of the light-hearted variety, favorites of the gay nineties era rank among the top favorites. Card games like "Pit," "Flinch" and "Rook," for example, have been resurrected, along with "Bonanza,"



Parker Bros. employees counting out play money for "Monopoly," the all-time best seller among games

which is played like Michigan rummy, only backwards with a few variations.

Checkers and chess and backgammon are still popular in homes and aboard returning troop transports. Gin rummy, a great revival number, is of uncertain age, but of very certain popularity. Screen stars play it between sets; night club patrons hold gin rummy tournaments; and others play it whenever and wherever they can.

Some folks believe that gin rummy originated in Hollywood, but the fact remains that the game originated in Brooklyn anywhere from 1885 to 1905. It was called poker gin in those days and was played by so many people that it was described in Hoyle's book of rules as early as 1914.

"Parcheesi" is still going strong, but the all-time best seller is "Monopoly" which has sold over 9,000,000 copies. The latter was introduced nationally when business was at its depression-low in 1933 and everyone was striving to make both ends meet. "Monopoly" enabled the American public to enjoy the psychological lift of making money and transacting business — even though it was only in fun. Its amazing success can be attributed to the fact

that people can play with money, swap hotels, houses and lots, and feel like the big shots they've always wanted to emulate.

The magic carpet which whisks a \$25-a-week clerk from the world of reality into a dream world is only play money but that increases the enjoyment. Taking a loss with the make-believe greenbacks is painless compared with the engraved currency.

How "Monopoly" Began

"Monopoly" is the outgrowth of a game called "Business," introduced more than 20 years ago by Mrs. Elizabeth Magie Phillips to propagandize Henry George's single tax theory. She revised her creation twice and patented it in 1924. Under the new title of "The Landlord's Game" it had a modicum of success until Charles B. Darrow of Philadelphia heard the game described at a lecture.

Darrow, then an unemployed heating engineer, made further improvements and sold patented experimental games named "Monopoly" in 1933. Mrs. Phillips, meanwhile, sold her patent to Parker Brothers who had published several of her games. Darrow, unable to cope with the brisk demand for

"Monopoly" in Philadelphia, offered his patent to the Massachusetts firm for national exploitation.

The game was difficult to comprehend in those days. Hours were required to play a complete game, but although it broke nearly every rule in the book, the Parker staff labored day and night for weeks to whip the game into shape and make it playable. The rest is history.

Millions of persons play games. To the game manufacturers it seems that most mortals, including the great and near-great, believe they can invent them. It's surprising how closely most of the prominent persons stick to their specialties.

The inventor of the Maxim gun silencer once sent Parker Brothers a large game he had evolved. It was an elaborate affair based on war, clever but so complex they couldn't accept it. The late John Hays Hammond sent another war game, brilliantly worked out but far above the grasp of the average man.

Roger W. Babson, the business statistician, submitted a game based on statistics. It was interesting enough, but the average player wants diversion rather than data. Many famous men, including Hendrik Van Loon, Lowell Thomas, Eddie Cantor and Admiral Richard E. Byrd, have invented games that have appealed to the public.

Experts disclose that there are only six basic game ideas: the pathway or track game, the checker or chess type of play, lotto, the human interest game, the target and mechanical games requiring skill and dexterity, and cards.

Naturally a good game must be simple. Any strenuous mental labor should be completed by the designer beforehand. The actual presentation and play of the finished product should be understood after a moment's study.

The diversion must be interesting, for without player appeal and play value a game cannot become a national best-seller. The average game dad brings home for junior is a group game for two, three, four or more persons. These extra players, if they've had an entertaining evening, are the best re-order customers. Advertising, publicity and ingenious promotion will not sell a game as well as word-of-mouth recommendation.

Ninety per cent of the submissions at Parker Brothers are eliminated after a glance at the board or the directions proves them to be uninteresting or duplicates of published games.

When the author of a game offers it for publication, it is submitted to a board of six experts, who sit right down and play it. If it is too complicated, takes too long to play, has little general appeal or is much like another game already on the market, they reject it.

Games Can't Be Seasonal

Football and baseball games are rejected too, because there is little interest in seasonal ones based on sport. Canadians submit many built around ice hockey, and during every election year, hundreds based on politics are submitted.

When a game is accepted, it is sold to the public at a price ranging between 25 cents and \$25.00 and the author's royalty may be anything from 2 to 20 per cent. Records reveal that best-selling games sell far more copies and for much longer than best-selling books.

Seven years ago America suffered its first shortage of marbles because of a drain on the market by manufacturers of Chinese Checkers, which was played with a bagful of agates, glassies and the ordinary garden variety of marbles. This

game was a new version of checkers, second oldest pastime and played in Egypt some 4,000 years ago.

Table tennis started as "Ping Pong" after a juvenile period as "Pillow Dex," in which the players on opposite sides of a table batted rubber balloons about. There was an intermediary stage in which the balloons gave way to a worsted ball, before the fast celluloid ball was developed.

Mah-jongg came in in 1923, and went all around the globe. It is not a Chinese game, as is generally believed, but an occidental adaptation of a number of Chinese games.

Developing Trends

Today, game manufacturers are beset with more bottlenecks than they had during the entire war, although restrictions on board have been lifted. There just isn't any stock available, they explain. That's why packages have become smaller and smaller. By mid-year they hope the availability of materials will improve enough to permit the introduction of new games now being withheld.

One thing is certain, however — many games with world travel and

economics as their themes will be introduced. One is a South American game of travel and trading developed in conjunction with Pan American Airways. Designed to instruct North Americans about the crops and natural resources of their south-of-the-border neighbors, the game is based on present and future airplane routes.

No one can guess tomorrow's popular games. Not even the experts. "Pit" was the rage back in 1904. Jigsaw puzzles swept the country in 1910. Ping Pong starred in 1920. All have had healthy revivals since then. But with them have been the newer games, which in turn may have later revivals. The players are the judges and this is the season.

One expert mentioned the fact that two of the most widely known games in the world can be played by two people. "I've noticed that when a couple gets together alone," he pointed out, "they don't seem to care for games out of a box. Post-office and Spin the Bottle can be played in dark rooms without any special equipment. And they can be more fun than a barrel of ale and a tin of potato chips."

Before a game is offered to the public, a group of experts first play it. The game must be quickly understandable, easy to play, and have a wide public interest





NEW YORK: Times Square, the heart of Gotham, is an eternal magnet for throngs of people

Crossroads

It may be the Loop, Times Square, Woodward Avenue or the Triangle — it's the heart of some big city

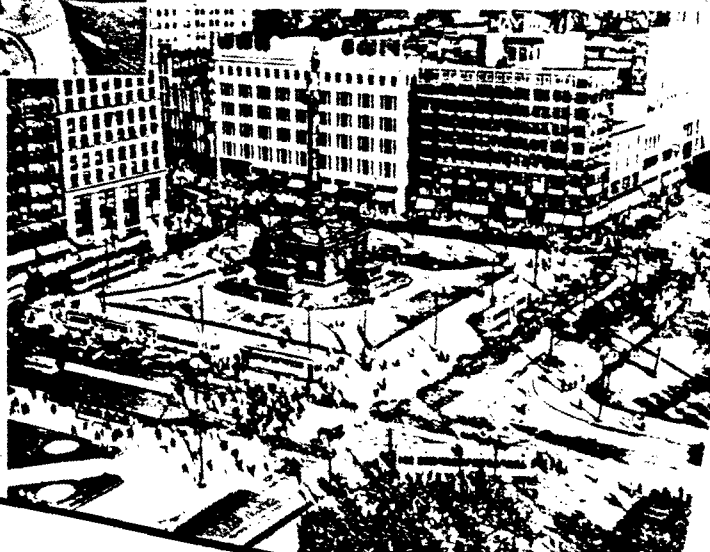
WASHINGTON: Famous Pennsylvania Avenue connects the White House with the Capitol in the background



PITTSBURGH: Fifth Avenue and Smithfield Street, in the Golden Triangle, where a clock (right) is a famous meeting place



CLEVELAND: The Public Square, framing the Soldiers' and Sailors' Monument, is the hub of the city



ETC 23729

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WHAT MAIN STREET is to the small town, the main stem is to the big city. Here, thousands of people daily mill along — window shopping, hurrying to and from work, stopping off at a restaurant or theatre. Out-of-town visitors add to the sidewalk throngs, while on the streets vehicular traffic vies with the pedestrians for movement along the main thoroughfare.

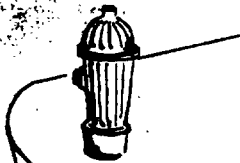
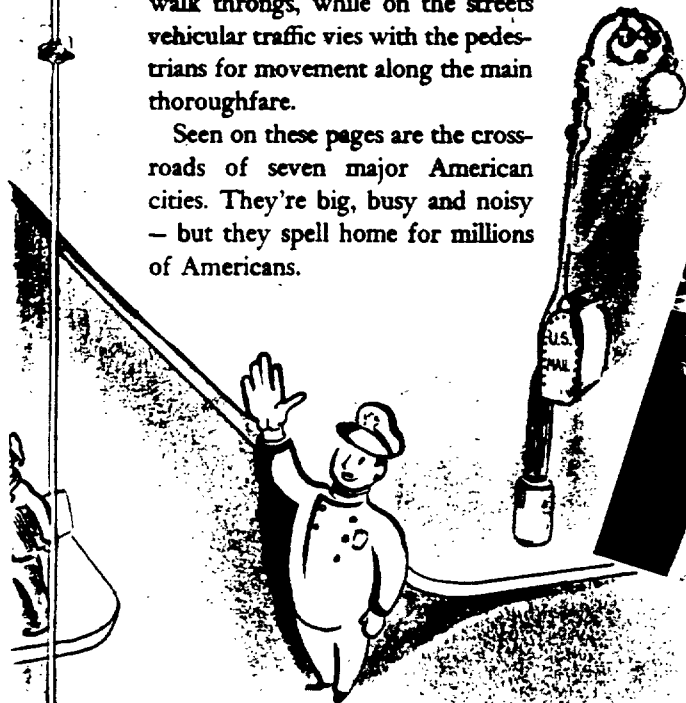
Seen on these pages are the crossroads of seven major American cities. They're big, busy and noisy — but they spell home for millions of Americans.



DETROIT: Looking down on Woodward Avenue at a corner of the downtown shopping district

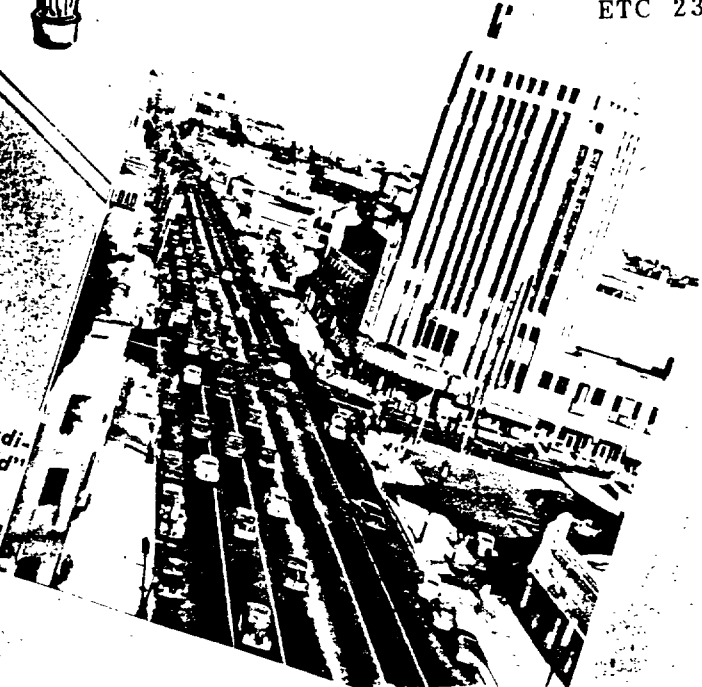


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CHICAGO: Natives call State and Madison the "busiest corner in the world"

LOS ANGELES: Peak of traffic flow on Wilshire at the intersection of Western



ARMY TRUCKS for Civilian Use?

By T/3 Bernard L. Miller

**Military vehicles served their intended purpose in the war, but
are they readily adaptable to civilian needs? Here's an appraisal**

♦♦♦♦♦
EDITOR'S NOTE: *Military trucks have proved their worth the world over in the mechanized war just ended. Designed to fill special needs, these trucks have more than served their purpose — they gave our forces the mobility, speed and stamina which so greatly helped to win the war.*

But now that the war is over — and surplus military vehicles are being offered for sale — the question arises whether these vehicles are in all cases adaptable to civilian uses. Costs of operation, for example, which are of no consideration in wartime, are an important factor now. In the belief that it would be of interest to our readers, the following critical appraisal of military trucks for civilian purposes is presented. The views expressed, of course, are those of the author. The article originally appeared in the magazine "Firepower," published by the Army Ordnance Association. We are indebted to the Army Ordnance Association for permission to reprint the article here.

♦♦♦♦♦

IF I COULD pick up a couple of six-by-sixes, I could set myself up in the hauling business in Chicago."

"With a little fleet of jeeps, I could start a little city-delivery service in Philadelphia."

"I'm gonna get me one of them closed-body maintenance trucks, paint a sign reading 'Mr. Fixit' on it, and just travel around the West Virginia hills fixin' washing machines, vacuum cleaners — anything the lady's got that needs fixin'."

Today, many a GI dreaming of independence and a cozy livelihood wanders mentally through the rich waste of machinery left high and dry by the tides of war — generating units, metal-working tools, trucks, tractors and trailers glitter in the sun as far as the mind's eye can see.

Most GI dreams center about the Army's excess motor transport, where the surpluses are greatest and the opportunities seem the ripest. But the answer to how practical are the dreams depends on how well adapted to commercial use military trucks are.

How economically can a jeep be operated? Does the tandem axle

make the 2½-ton 6x6 too expensive for commercial operation? What can you do with a Diamond T Wrecker? Find the answers and win a fortune.

Basically, it makes plenty of sense to consider military trucks in a commercial light. Army trucks and civilian trucks are sisters under the tin; practically every Army truck is an adaptation of a commercial model; if not in whole then at least in component parts. You never saw a jeep before the "emergency," but the jeep engine, axles, gear boxes and controls are all thoroughly civilian. We have few if any military freaks.

The only thing left to consider is whether the details of military design hang too big a handicap on the Army truck in the keen competition of commercial life. But even so, in many cases such handicaps may be turned into advantages by clever operators who can think of novel ways of converting military features to profitable use.

For instance, the jeep has been damned as too expensive to operate for the load it will carry; it is geared down too far, they claim. But the

jeep is cute, it has won the hearts of the country — and therein lies an advertising value. Paint it red, put the name of your meat market on it in big white letters and every time you deliver two pounds of chops to Mrs. Clancy the whole neighborhood will be reminded that you are in the flesh and fowl business. The advertising value more than offsets the slightly higher cost of operation.



1/4-ton Jeep

Accentuating the positive of jeep design, the small size of the vehicle makes it easy to maneuver in heavy city traffic, and easy to park. Time being money in business life, the jeep can thus also be a profit-saver. With the jeep, as with practically every other Army truck, city and highway work demands one major alteration: removal of the live front axle. Where there's any kind of road at all, there's no use for the added traction provided by front-wheel drive. Simply operating in rear-wheel drive alone and forgetting the front-wheel drive is not enough; power is wasted just by turning the ring gear and pinion, differential and propeller shaft, not to mention maintenance and lubrication that have to be expended on the rotating but useless appendage.

On the other hand, in all off-the-road operations, front-wheel drive is an asset. Surveyors, geologists searching for oil and mineral deposits, and timber prospectors would find front-wheel drive invaluable.

The Army's 1/4-ton truck, such as the weapons carrier or command car, steps into a fast class in commercial life — it must compete with the 1/2-ton pickup in small deliveries and

light hauling. And the 3/4-ton has some very serious disadvantages for ordinary commercial work — the body styles for one. The command car has a truck engine and chassis, and a touring car body. There seems little to do with this combination except remove the body and put on something more suited to hauling. The weapons carrier has a "soft" (tarp and bows) body that might be all right for hauling such things as garden produce, but your driver would never forgive you if you presented him with the soft top to work in. Especially if he's wearing a little gold button in his lapel. The carryall might do as a panel-delivery, but it still steers like a truck.



3/4-ton Weapons Carrier

In a nutshell, the 3/4-ton is just too much truck for the work it can do in civilian life. Its 230-cubic-inch engine is a fuel-eater compared to the 216-cubic-inch engine of the usual 1/2-ton; engineered for a rougher existence, its replacement parts are heavier and much more expensive than the 1/2-ton's. A replacement engine would cost you \$316.99 compared to about \$159 for the 1/2-ton, a replacement steering gear is \$17.25 compared to \$11.25 for the 1/2-ton.

On all ex-Army trucks, this same high-cost-of-replacement stares you in the face. It's something to think of when the man with the hammer asks for your bid.

Using the 1 1/2-ton weapons carrier for general hauling has all the disadvantages of the 3/4-ton and one of its own: the tandem rear axle — it has just that many more tires to wear out. There is, of course, the

faint possibility that you are in the business of hauling heavy-things-in-small-packages like metal ingots, sheet steel, or bricks, and in this case the extra brawn in the two rear axles will give you service. But like all Army trucks featuring extraordinary tractive ability, the 3/4-ton and the 1 1/2-ton seem best suited for the farm and the tall timber. In this connection, a northwestern truck distributor pointed out one special advantage of the 1 1/2-ton that comes, strangely enough, from its low silhouette. "That low silhouette would be fine for work in orchards under the low trees, especially in combination with the load-carrying ability which you need in harvesting fruit."

The 2 1/2-ton 6x6 has been called by many GI's "the best-engineered military truck in the world," and one middlewestern commercial hauler expressed the opinion that it would be a good truck for local heavy hauling.



2 1/2-ton Cargo Truck

But the 6x6 suffers the same disadvantage as the 1 1/2-ton — it's got too many feet. Tire expense would be needlessly high in long-haul operation, considering that commercial fleets commonly average 150,000 miles a year. And again, the soft cab is a disadvantage in bad weather.



2 1/2-ton Dump Truck

Such trucks as the 2 1/2-ton dump can jump right into civilian life without even a change of uniform. Working under a power shovel,

dump trucks are normally given all the load that can be piled on. When such loads consist of broken brick and similar heavy rubble, clay or wet earth, the tandem rear axles are in their element.



2 1/2-ton Tank Truck

The dream of some GI's is to start in with a little service station in a small or medium-sized town and build up a number of allied services on the side. One of these would be delivering fuel oil; the 2 1/2-ton, 750-gallon tank truck sounds right for the job. But it must be remembered that at least twice that load is normally carried on commercial tankers in the 2 1/2-ton class without a tandem rear axle. And here it is not simply a matter of obtaining economy by overloading; the capacity of the tank is fixed.

The usual recommendation in cases like this where the Army truck doesn't quite fit, is "modify it." But the business-wise GI will tot up the cost of all these modifications, add them to the initial cost of the truck and decide whether he's still getting a bargain. It's easy enough to say, "Knock out the front-wheel drive and put on a new body," but it's all hand-tailoring and likely to run into important money.



2 1/2-ton Tractor Truck

In the 2 1/2-ton and 4- or 5-ton truck tractor department, especially the 4x2's, the prospective vet will be buying right into a truck that is already a commercial standby. No

guesswork about it; the same goes for the semi-trailers they pull.



4-ton Wrecker Truck

When it comes to wreckers, the opportunities are much whittled down. In the MAM company the wrecker was good for any and everything, but a sawed-off old Cadillac with a superstructure can be seen doing the same thing on smooth streets and highways. However, in rough occupations like lumbering, the wrecker may find a home.



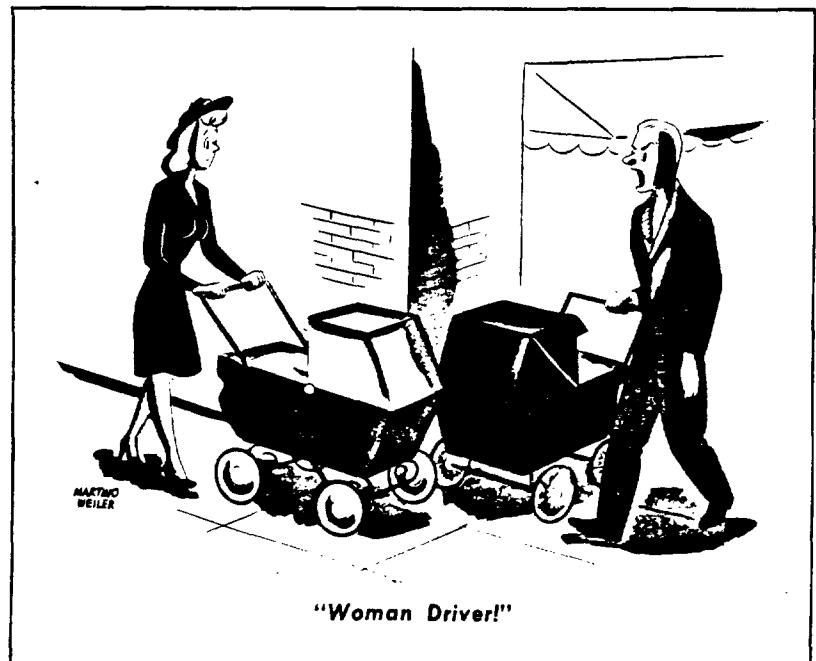
7 1/2-ton Prime Mover Truck

For trucks above four tons, the field is even smaller. As a matter of

fact, it gets so small that maybe it disappears altogether. A 6-ton, 7 1/2-ton, or 10-ton prime mover is no trifling matter. A lot of truck, and unless the prospective businessman has some very clearcut ideas on what he's going to do with it, he'll find himself with a white elephant in O.D. paint on his hands. For one thing, state weight laws put a very definite kibosh on operating these behemoths over their nice clean roads.

In the beginning, Uncle Sam designed his trucks with an eye to angle of approach and departure, flotation on soft terrain, heavy-duty pulling and carrying ability. Did all this make Army motor transport too musclebound for life in the smooth-roaded civilian world? The answer is yes . . . no . . . and maybe. It all depends on what you're going to do, how you are going to do it and where.

Do your dreaming with paper and pencil.



"Woman Driver!"

WHICH is WHICH?

Here's a Quiz to Test Your Memory of Famous Names and Places

Names sometimes fool you. Leading characters in famous books, plays and movies are frequently confused; looking back, people often mistake the hero for the villain, and vice versa. See how many of the following you can identify correctly. Answers below:

- 1 The original title character of "The Thin Man" on the screen was: (a) William Powell (b) his detective pal (c) a murderer
- 2 "Frankenstein" was: (a) a monster (b) the monster's creator (c) castle where he was made
- 3 "Rebecca" was: (a) the heroine (b) housekeeper (c) dead character
- 4 "The Vagabond King" was: (a) King Louis of France, who patronized the vagabonds (b) Dennis King, who played the title role (c) Francois Villon
- 5 "The Gold Rush" was written by: (a) Rex Beach (b) Jack London (c) Charlie Chaplin
- 6 "The Crisis" was written by: (a) Winston Churchill, the statesman (b) Winston Churchill, the American author (c) William Lloyd Garrison, slavery agitator
- 7 "Lady in the Dark" was: (a) a mystery play (b) study in psychoanalysis (c) bedroom farce
- 8 R. L. Stevenson's last story, "St. Ives," was completed by: (a) Quiller-Couch (b) G. K. Chesterton (c) James M. Barrie
- 9 Mr. Moto in the early J. P. Marquand stories was (a) hero (b) villain (c) helpful detective
- 10 "The Virginian" was written by: (a) Owen Wister (b) Thackeray (c) David Belasco
- 11 "Vanity Fair" originally referred to: (a) a town fair (b) the fair sex (c) a magazine
- 12 "Venus and Adonis" by Shakespeare was: (a) a play (b) long poem (c) sonnet sequence
- 13 "The Court of Boyville" was written by: (a) Booth Tarkington

- (b) Mark Twain (c) William Allen White
- 14 The title character of "The Lady Vanishes" was: (a) the heroine (b) governess (c) heroine's friend
- 15 "Potash and Perlmutter" were separated once in (a) a short story (b) play (c) picture
- 16 The first name in Washington Irving's "Knickerbocker History of New York" refers to: (a) a family (b) the period (c) trousers worn.
- 17 "The Fair God" in Lew Wallace's story was (a) the hero (b) an Aztec god (c) Cortez
- 18 The baptismal incident in the play occurs originally in the stories: (a) "Life with Father" (b) "God and My Father" (c) "Life with Mother"
- 19 Falstaff appears first in (a) a play of that name (b) "The Merry Wives of Windsor" (c) "Henry IV"
- 20 The name in "The Prisoner of Zenda" refers to: (a) a castle (b) principality (c) person
- 21 "The Shooting of Dan McGrew" was written by (a) Edgar Guest (b) Bret Harte (c) Robert W. Service
- 22 "The Cisco Kid" is a character in: (a) Frederic Remington's drawings (b) an O. Henry story (c) a saga of real life in the West
- 23 Robert Louis Stevenson collaborated with Lloyd Osbourne on: (a) "Treasure Island" (b) "Dr. Jekyll and Mr. Hyde" (c) "Ebb Tide"
- 24 "Soldiers Three" was written by: (a) Alexandre Dumas (b) Rudyard Kipling (c) Victor Hugo
- 25 The newspaper story "Gallegher" was written by: (a) Sinclair Lewis (b) Irvin S. Cobb (c) Richard Harding Davis
- 26 "A Tramp Abroad" is: (a) a travel book (b) hobo adventure

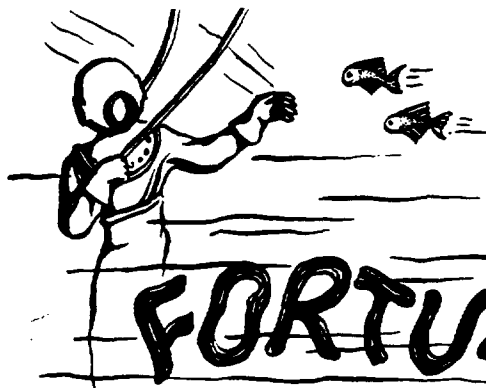
yarn by Jim Tully (c) vagabond poem by Harry Kemp

- 27 Thorne Smith wrote: (a) "The Darling of the Gods" (b) "Moonlight on Olympus" (c) "Night Life of the Gods"
- 28 "National Velvet" refers to: (a) a horse race (b) a thoroughbred (c) easy money from betting
- 29 Rudyard Kipling collaborated on: (a) "Captains Courageous" (b) "Stalky & Co." (c) "The Naulahka"
- 30 "My Friend Flicka" refers to: (a) a girl (b) a horse (c) a dog



ANSWERS

- 1 (c) murderer
- 2 (b) monster's creator
- 3 (c) dead character
- 4 (c) Francois Villon
- 5 (c) Charlie Chaplin
- 6 (b) American author
- 7 (b) psychoanalysis
- 8 (a) Quiller-Couch
- 9 (b) villain
- 10 (a) Owen Wister
- 11 (a) town fair in "Pilgrim's Progress"
- 12 (b) long poem
- 13 (c) William Allen White
- 14 (b) governess
- 15 (b) play
- 16 (a) family
- 17 (c) Cortez
- 18 (b) "God and My Father"
- 19 (c) "Henry IV"
- 20 (a) castle
- 21 (c) Robert W. Service
- 22 (b) O. Henry story
- 23 (c) "Ebb Tide"
- 24 (b) Rudyard Kipling
- 25 (c) Richard Harding Davis
- 26 (a) travel book
- 27 (c) "Night Life of the Gods"
- 28 (b) thoroughbred
- 29 (c) "The Naulahka"
- 30 (b) horse



Want a cool million or two? Wartime ship sinkings have swelled the treasure trove lying in Davy Jones's locker

FORTUNES IN THE DEEP

By William A. McGarry

A TREASURE HUNT planned long before the last shot was fired in the war is gradually getting under way. For obvious reasons every effort is being made to shroud it in secrecy. The news is leaking out, nevertheless, just as it did in the Klondike and California gold rushes and after World War I. The news is about buried treasure — cargoes sunk with their ships during the war.

Under international maritime law, it is finders-keepers when a sunken ship or any part of its cargo is salvaged. Davy Jones's locker has been getting itself paved with richly laden ships for centuries. A lot of fortunes have been made in salvaging and a lot have been lost in the attempt. Now, as a result of the war, the ocean deeps have more wrecks in their clutches than ever before, many within the 500-foot level at which divers can work.

As a consequence, syndicates are being formed all over the world to go after the gold, jewels, currency and expensive machinery and equipment known to be in their holds or strong boxes. One has been reported operating off Atlantic City from headquarters at the Avon Fishing Pier two miles south of Asbury Park. A couple of others have been re-

ported as "scientific expeditions" in the Bahamas. Salvage ships are at a premium, and any diver can get a job — particularly if he is willing to gamble his time for maintenance and a cut of the potential profits.

Just how much recoverable treasure there is on the sea bottom is a matter of conjecture in so far as the more ancient wrecks are concerned. But the U. S. Navy tipped off the possibilities not long ago when it published an over-all summary of the merchant ships under the U. S. flag sunk by all causes, but chiefly enemy action, during World War II. The list revealed a total of 1,554 vessels of 6,277,000 deadweight tons.

Figures for the loss of ships under other than the American flag are not as exact. But it is a known fact that the combined merchant fleets of Britain, France, Norway, Denmark, Finland, Belgium and the Netherlands were many times larger than the U. S. merchant tonnage at the outset of the war. It is also well known that they suffered terrific losses before and for a year after this country got into the struggle, when the U-boats and German raiders came perilously close to starving out the British for the second time in history.

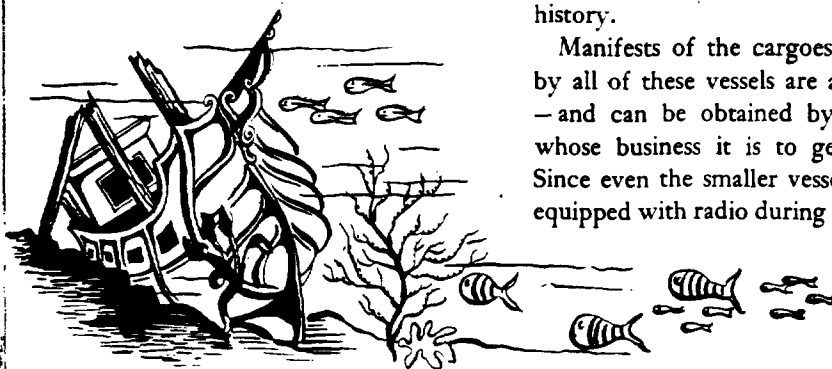
Manifests of the cargoes carried by all of these vessels are available — and can be obtained by people whose business it is to get them. Since even the smaller vessels were equipped with radio during the war,

virtually all of them were able to send out SOS calls giving their exact position when the torpedoes struck. Locating them is a simple matter with radar and other modern deep-sea sounding devices.

For all of these reasons, plus the fact that tremendous improvements have been made in ship salvage methods and equipment and in diving apparatus, a great deal of the gamble has been taken out of the ancient business of treasure hunting. It follows that the relatively large amounts of capital required to back such ventures are more readily obtainable. Accordingly the hunt is now taking on the proportions of an international big business.

The first operation to get into the news was started by the Diamond Salvage Company of Washington over the Netherlands freighter *Arundo* last November. The vessel lies in 150 feet of water, off Atlantic City. A salvage auxiliary and a larger vessel are in position overhead. The ship is 612 feet long, of 5,163 tons, and it may be possible to cover the hole in her hull, seal all openings, pump her full of air and with the aid of pontoons get her completely afloat.

If that can't be done there is a quantity of valuable cargo which may be brought up. This includes two Diesel-engined locomotives, motor trucks and tires worth several million dollars. There is also a shipment of unidentified valuable instruments, possibly radar equipment, which may be worth more than all

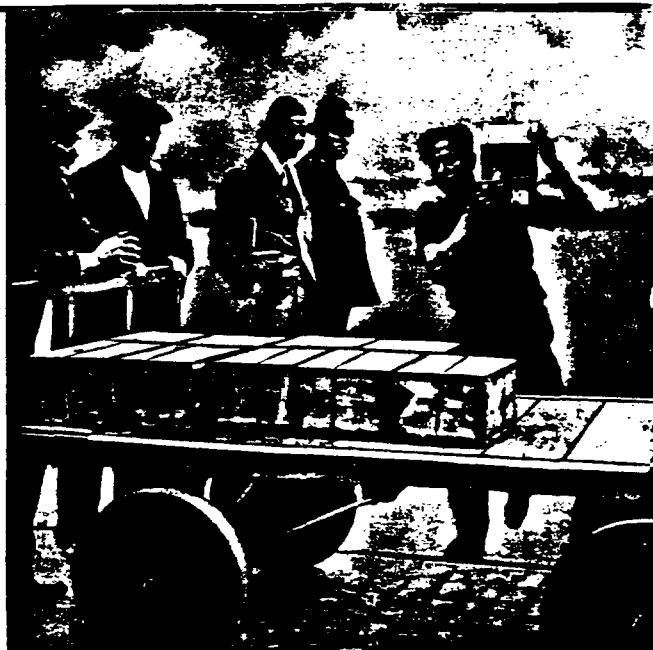


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the rest of the cargo. The *Arundo* sailed from New York late in April, 1942, with a crew of 43 men. A torpedo hit her. Six men were lost, but a naval search vessel picked up 37 survivors.

A year or so before Pearl Harbor some ambitious plans were being made to renew the search for a fleet of 15 Spanish galleons that went down in a hurricane off Silver Shoals, near Haiti, in 1643 with \$21 million in gold and silver from the Spanish Main. At that time a national magazine computed the sunken gold and silver in known wrecks and known locations at \$834,926,100. Sir Basil Zaharoff, so-called "Mystery man of Europe," was reported to have a list of 17 sunken ships containing more than half a billion dollars.

Part of the gold bullion that was recovered from the sunken British liner *Egypt*, which went down in the Bay of Biscay back in 1922



This list was published in 1944 by Capt. Charles Courtney, the internationally famous lock wizard of Manhattan, in his book entitled "Unlocking Adventure." It included H.M.S. *Hampshire*, the British cruiser on

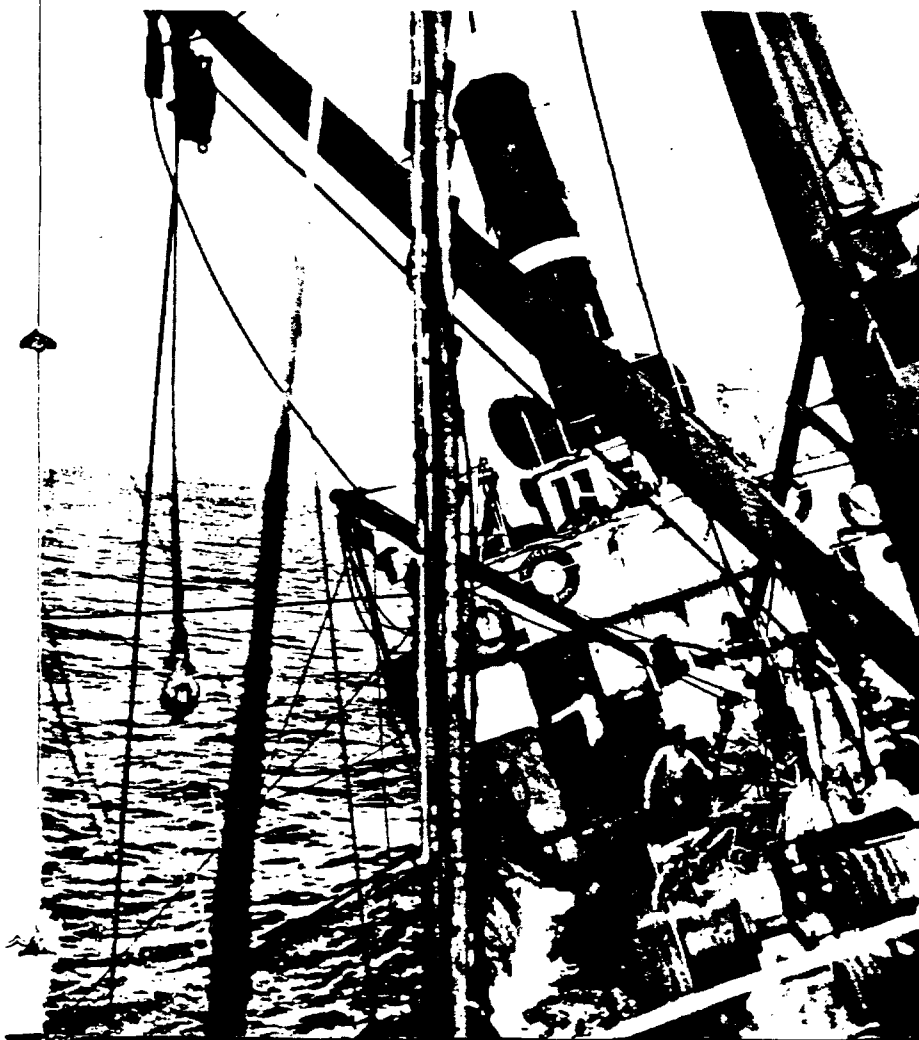
which Kitchener of Khartoum went to his death off the Orkney Islands in the early years of World War I. The *Hampshire* carried \$10 million in gold, destined to bolster the fading Czarist forces.

Courtney and some 50 other divers were employed by an international syndicate headed by Zaharoff to recover the *Hampshire's* gold in 1932. Previously, an expedition directed by Courtney had recovered most of the \$5 million that went down in the Bay of Biscay in the British liner *Egypt*. Here he worked for the first time in a newly invented German diving suit, armored to resist the pressure of the water and requiring no decompression on returning to the surface.

The work on the *Egypt* was a thrilling adventure, but in comparison Courtney's account of the repeated attempts to get at the gold on the *Hampshire* is an epic of the sea. The weather off the Orkneys is unpredictable. Repeatedly, after the suction pumps had cleared tons of sand and wreckage from the decks of the cruiser, storms forced the salvage ships to run for port. Nevertheless the divers finally got into one strong room and recovered \$300,000 in gold.

On the final attempt, Courtney

The salvage ship *Artiglio* heeling over while hauling up part of the superstructure of the sunken liner *Egypt*





Charles Courtney, the famous lock wizard and diver

and three other divers were filling sacks with golden coins from what looked like a countless collection of chests in another strong room. They had been in the room two hours. They knew it was dangerous to stay down that long, but the excitement got into their blood and made them forget caution. The bags had been passing back along the line from one diver to another and going up to the salvage ship in a steady stream with no untoward incident, when a subterranean current suddenly slammed the door of the vault.

Three of the men were caught in the vault, one was jammed in the

doorway. He died, but his body saved the lives of the others by preventing the cutting off of their air lines. The three divers inside were unable to open the door, and they remained entombed for another hour. But finally, aided by other divers who were sent down, they were at last able to swing the steel door open. By that time all three men were almost unconscious. Courtney's last remembered act was to cut his weights so that he would shoot to the surface.

Picked up by a crew in a lifeboat, Courtney became conscious three days later in an English hospital, looked in a mirror and found his hair had turned white. He vowed, as he had often before, that he would never dive again. But World War II found him in the uniform of a Captain in the Army Special Services, directing other divers and going down himself when necessary. Courtney, incidentally, is a grandnephew of Jules Verne, author of "Twenty Thousand Leagues Under the Sea" and other imaginative books of thrilling adventure.

The Zaharoff expedition was probably the best equipped undersea treasure hunt in history. It paid a profit, too. But it was by no means the most successful. Capt. William Phips of New England won that honor away back in Colonial days. He invented a diving tub that looked like an oversized, inverted lard tub, located one of the Spanish galleons in only ten feet of water in the Caribbean, and sold King James II of England on the idea of financing him for a quarter of what he recovered.

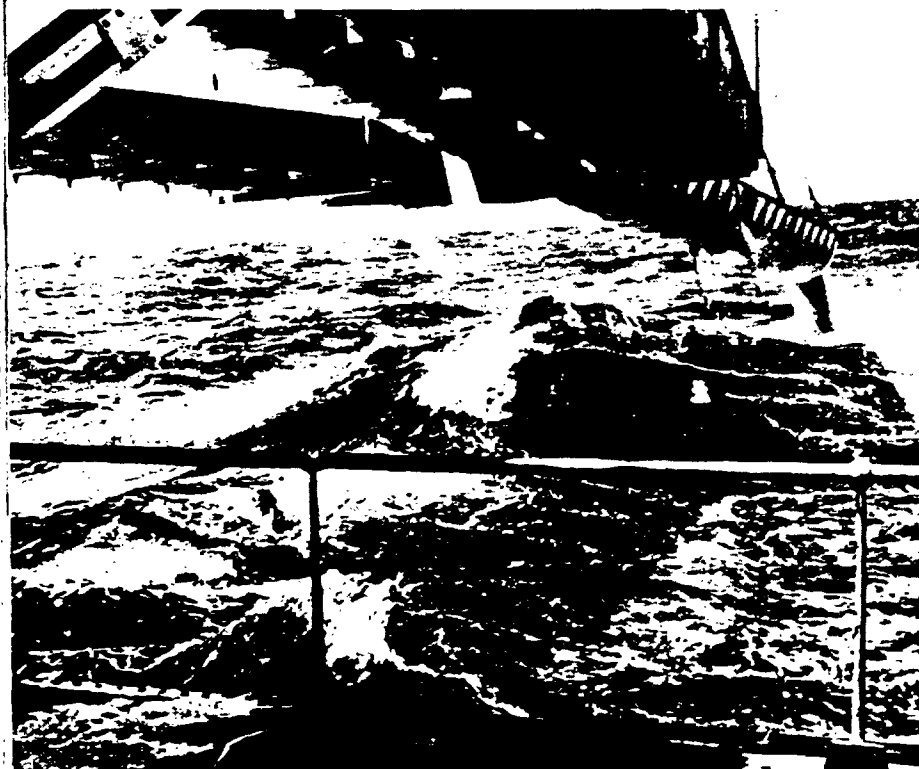
Then he dug up more than \$2 million in treasure, and after settling with the King was appointed Governor of the Massachusetts Colony.

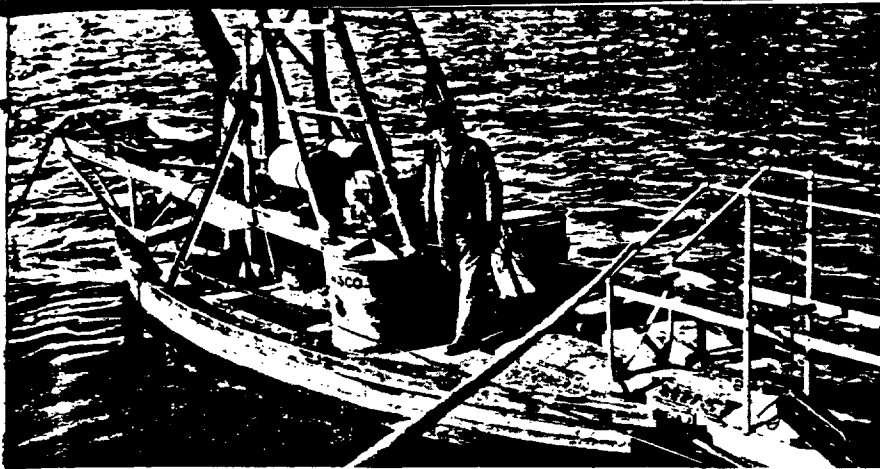
Lt. Harry E. Reiseberg, inventor of a diving suit capable of going down 1,500 feet, and of a pontoon system for raising sunken ships, in 1940 made a survey of the Caribbean area in which the fleet of high-sterned galleons was lost. He is convinced that much of the gold and silver can be recovered. Most of them, if not all, were destroyed in relatively shallow water when a hurricane drove them on the reefs.

The original diving bell came into existence about the same time as the diving suit, in 1800. It was used in repeated attempts to recover the gold from the lost flotilla. Salvage men say now that the toughest problem of the pioneers was to locate the wreck, and that is no problem at all today. Therefore a lot of them are looking over that Zaharoff list. The richest potential bonanza in it is the single galleon *San Fernando*. She went down off Martinique in about 600 feet of water with a reported \$130 million aboard. Another fleet, sunk in the Bay of Vigo, Spain, was carrying \$250,000.

Back in 1938, the Dominican Government financed an expedition to locate galleons believed sunk along its shores with a total of \$70 million.

Scooping out sand and silt in one of the many salvage attempts on the Lutine, sunk in the Zuyder Zee since 1799





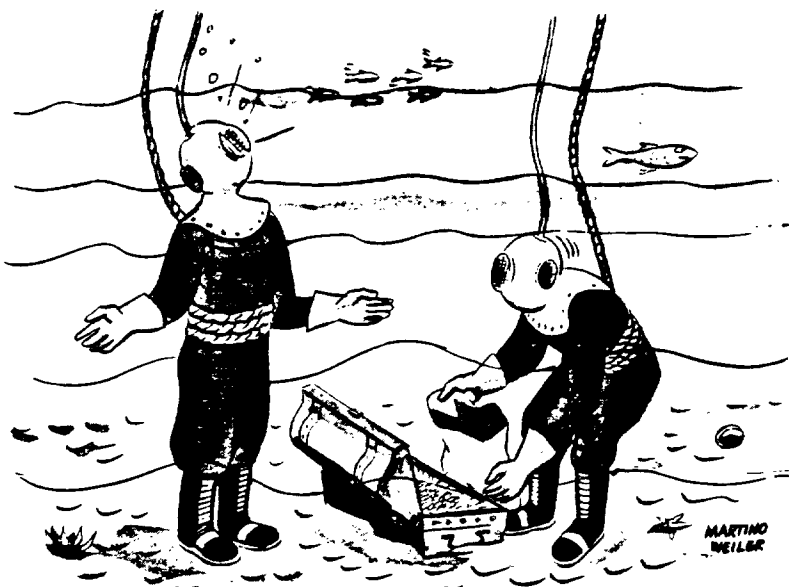
The late Simon Lake, of submarine fame, on the deck of a salvage craft he invented

lakes, and some have paid off handsomely.

Another prize lies in the Spanish galleon *Santa Rosa*, which sank in the Caribbean, carrying \$30 million in gold, back in 1768. An explorer, claiming to have located the galleon between Key West, Fla. and Cuba, is about to make his fifth try for the treasure.

A buried treasure myth exploded when these ruins of a French river boat were salvaged

These figures may sound fantastic today, but there is historic evidence that the Spaniards, who invaded Central America centuries ago, actually obtained billions which the Mayans and the Aztecs had been collecting for centuries. One account of an Aztec king, held for ransom by Cortez, describes a golden chain used as a fence around a palace. It was so heavy that 100 men were required to carry it. On the way to the conqueror they learned their king had been slain and threw the chain into a lake. Numerous expeditions have operated in Central America, largely with British capital, to look for sunken treasure in the inland



"I believe it's starting to rain"

Much nearer home, the British frigate *Hussar* sank near Hell Gate Channel in New York's East River in 1780, with somewhere between \$1.8 million and \$8 million aboard to meet the payroll of British troops in this country. At least half a hundred attempts have been made to salvage this treasure, but only 19 gold guineas have been recovered. The late Simon Lake of submarine fame had a contract with the U. S. Treasury to hunt for the gold. It expired when he died on June 23, 1945. Capt. Courtney believes the treasure will be found under some householder's cellar in Astoria, Long Island, where land was filled in by silt and dumping operations.



Salmon fishing, important in Alaska, requires a large fleet

THIS WAY TO ALASKA

(Continued from Page 5)

ingly popular, with the construction of ski trails and courses, shelter cabins, and skating facilities. At Mt. McKinley Park, there is an air strip and a tourist hotel.

While Governor Gruening — and the airlines and steamship companies — welcome the tourist to Alaska, the Governor also looks forward to an influx of colonists. He has visited every community of any size in the Territory, by one means of transportation or another. And he seldom overlooks an opportunity to remind the general public — and Congress — that, while the United States paid Russia \$7 million for Alaska in 1867, the Territory has produced in the last 50 years gold, silver, copper, platinum, tin, coal, furs, timber and other natural resources valued at a hundred times the original purchase price. The value of her fishery products alone averages at least \$60 million a year. The Territory has the largest virgin stands of spruce and hemlock on the North American continent.

There also may be oil in Alaska. If the exploration of the Umiat (Pt. Barrow) region comes up to the expectations of geologists, it may prove to be one of the largest untapped oil reserves in North America. (This, incidentally, is not the much-maligned Canol Project; the

Umiat site is near the shores of the Arctic Ocean, in Alaska. And the drilling is being done under the supervision of our Navy.) Alaska has still another asset in the government railroad. The route lies between Seward and Fairbanks, a distance of 467 miles. The total income in 1944 in excess of expenses was more than \$5 million.

As for the Territory's farming potentialities, they have scarcely been touched, according to the Governor. The Matanuska colonization project, which was begun in 1935 with 200 refugees from our midwestern "dust bowl," now markets potatoes, wheat, barley, peas, hay, and a variety of meat and dairy products valued, on the average, at \$1 million a year. And it is estimated that there are about 1,000,000 acres on the western slope of the Kenai Peninsula that are suitable for livestock grazing. These would support sheep very well, thus supplying two of Alaska's needs — meat and wool. A precedent has been created on Umnak Island, in the Aleutians, where a Utah rancher found the environment suitable for sheep — and plenty of grass. He also found that the sheep grew wool that was much longer and heavier than the average.

To say that Alaska is a great agricultural country, however, would

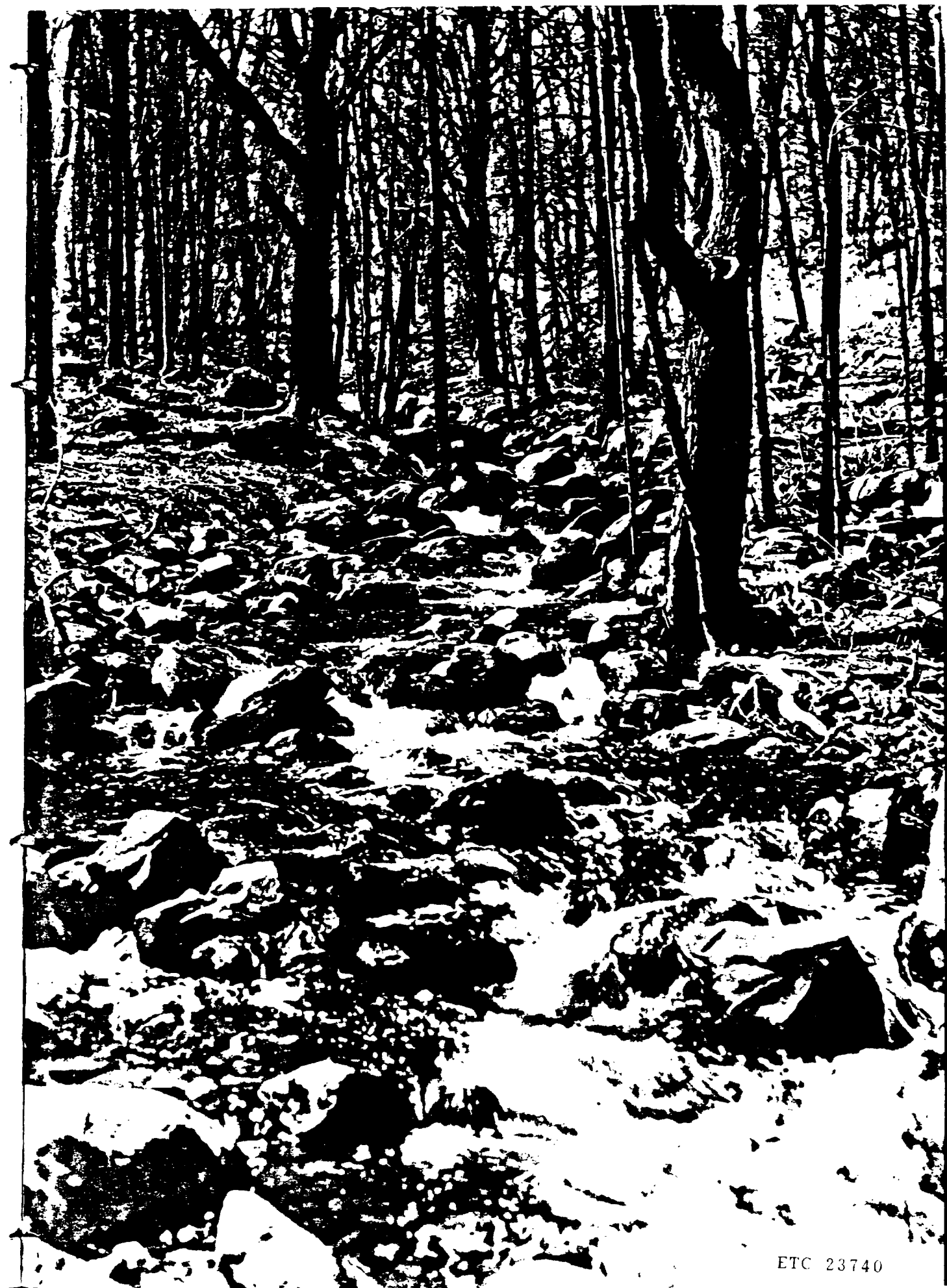
be misleading.

It is true that the hardier varieties of vegetables can be grown; Alaska potatoes once took first prize at a Minnesota state fair. The farmers in the Fairbanks district raise wheat, oats, barley, and all root crops that can be grown in the southerly Matanuska, Kodiak, and Cook Inlet districts. But before any district can make a business of farming, or raising cattle and sheep, it must have roads, cold-storage plants, regular boat service for shipping out the products, packing houses, canneries, quick-frosting apparatus, creameries, farm laborers, and an organized system of distribution. At present the Territory does not have a stable, year-round economy; the two chief industries, mining and fishing, are seasonal. Farm markets are distant and uncertain.

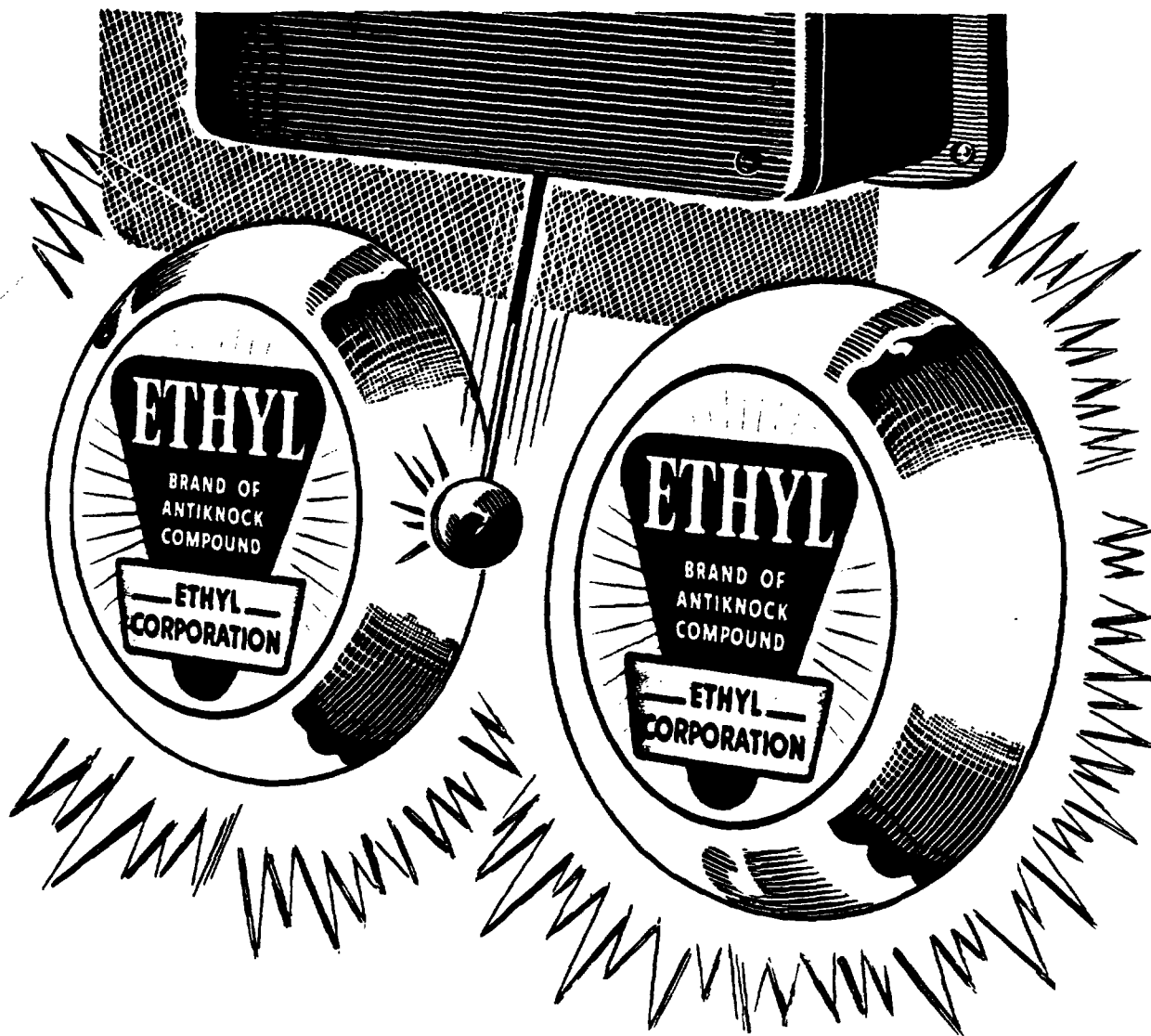
Alaska needs better transportation facilities, better roads, hotels, streets, and modern sanitary improvements. Lastly, it needs what the Scandinavian countries (in the same general latitude) already have: nearby markets for its timber and farm and dairy products, and industry and agriculture to support its inhabitants.

OUR PICTURES

Cover by Julius J. Fanta; Page 3, Ordway-Alaska Steamship Co. and Pan American World Airways; Page 4 (top), courtesy Alaska Airlines; Page 4 (bottom), 5, 6, 12, 13, 20 and 21 (top), Wide World; Page 7, 19 and 21 (center), Acme Newspictures, Inc.; Page 9, illustrations courtesy Toy Manufacturers Association of the U. S.; Pages 12-13, illustrations by Ruth Jennings; Pages 14-15, illustrations courtesy Army Ordnance Association; Page 22, courtesy Pan American World Airways; Third Cover, Philip Gendreau, N. Y.

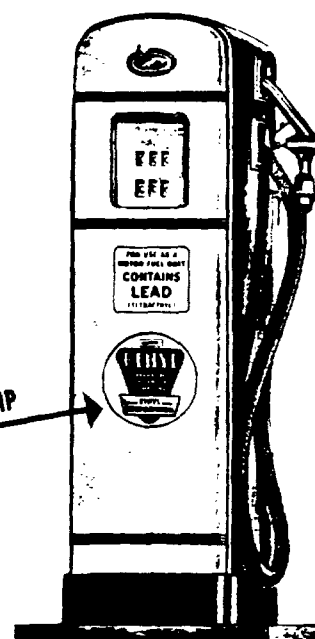


ETC 23740



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THEY'RE LOOKING FOR THE ETHYL EMBLEM ON YOUR PREMIUM PUMP



ETHYL AMERICAN NEWS



APRIL ★ 1946

ETC 23742



IN THE

ETHYL NEWS

APRIL 1946

George Krieger, well-known farm marketing expert of Ethyl's sales department, has been named chairman of the newly formed Agricultural Development Committee of the American Petroleum Institute.

The Committee, appointed by William R. Boyd, Jr., president of the API, will undertake a comprehensive program designed to be of mutual benefit to both petroleum and agriculture. Its major objectives will be: (1) Continued and expanded research into products that combine those of the farm and the oil field, and new uses for them; (2) Study of efficient and profitable farm mechanization; (3) Furtherance of soil conservation and fertility maintenance programs; (4) Study of insecticides, fungicides, weed destroyers, fruit ripeners, liquid fertilizers, and similar petroleum products.

Mr. Boyd, in announcing Mr. Krieger's appointment, said, "The industry is particularly fortunate in having George Krieger to head up this important work. Almost his entire business career has been spent in this field, and he is one of the nation's outstanding authorities on agricultural engineering."

Mr. Krieger, who has been with Ethyl since 1929, was one of the pioneers in the development of the modern high-compression gasoline burning tractor. During the war he was director of the Farm Machinery and Equipment Division of the WPB and, later, special assistant on farm problems to former WPB Chairman Donald M. Nelson. He is at present Special Assistant to the General Sales Manager of Ethyl.

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Although presently stymied by the ban on new construction, the postwar service stations that will in time be built will offer motorists more and better service than ever before.

THE OUTBOARDS ARE IN AGAIN 6

Civilian enthusiasts will thrill to new and improved outboard motors — thanks to their surprising wartime feats.

THIS WAY TO THE BIG SHOW 10

The circus, one of the first signs of Spring, is here again — with all its wonderful trappings of peacetime years.

ANY TIME IS BLOSSOMTIME 13

Florists look forward to one of the biggest Easter seasons on record — but they have also made good progress in making people flower-conscious the year around.

CAR WASHING HABITS 16

How many car owners wash their own cars — like to do it — are satisfied with results? Here is a survey, published some time ago in Ethyl News, which is being reprinted now in response to numerous requests.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23743

POSTWAR SERVICE STATIONS: *A Preview*

**Postwar service stations will feature many changes.
Larger and designed for more efficient operation, they
will handle an expanded line of goods and services**

THIS MONTH marks the start of the first peacetime touring season in five years. The lingering wartime shortages in tires, batteries, and other equipment, coupled with the continuing obsolescence of cars in service, may serve to some extent to hold down tourist travel. Yet, as motorists take to the open road, with unrationed supplies of gasoline to be had, they may see here and there the first of the new postwar service stations.

The new stations, present and prospective, are the result of much study and careful planning. The war, of course, took a big toll among pre-war stations generally. But it also gave oil marketers an opportunity to step back, take stock of their stations, and plan for improvements and heightened efficiency. Thus, as these new units are built and go into operation, motorists will begin to appreciate the added facilities, services, and accommodations that have been developed for them.

Although over-all estimates are lacking, it is a foregone conclusion that oil companies and the owners

and lessors of service stations will be spending many millions of dollars building new stations, remodelling old ones, whenever building material shortages ease and present governmental restrictions on construction are lifted. The need for this program of construction and modernization is highlighted by a number of important developments.

New Highways

For one, a three billion dollar highway construction program is getting underway which, along with the new roads, will entail the construction of many service stations. At the same time, a good number of pre-war highway stations were closed down during the war and now need to be rebuilt in order to serve normal peacetime highway traffic.

Second, there have been broad population shifts during the war which will have a marked effect on regional gasoline demand postwar. These shifts, both regional and intra-state, have brought a big influx of population to many areas. In many

cases, a majority of the wartime transients is expected to remain, creating a larger demand for gasoline and oil than existed before the war. This, too, will create a demand for new station outlets.

And finally, the war caused a marked deterioration in many stations which managed to stay in business for the duration. The physical appearance of many stations declined as it became more and more difficult to maintain them properly. At the same time, many improvements and a desired expansion of facilities had to be deferred until the war was over. Only last month, however, the Civilian Production Administration ordered a halt, for the time being at least, to virtually all construction except housing for war veterans, which among other things will have the effect of further deferring the construction of new stations.

When conditions permit, a large-scale program of construction is indicated. Before the present restrictive order went into effect, only a small number of really brand-new



Pure Oil stations are retaining their distinctive cottage style. They will have more space in both salesrooms and service departments. Entrance to the salesroom from the outside will be through wide double doors. There will be a fixed spot for a beverage box and a wide outside walk for sidewalk display

stations had been built. And so far only a few companies have announced their plans. But as reconversion progresses, and materials and equipment are eventually released for construction, the stations that were talked, planned, and dreamed about during the war will actually appear.

During the war, there was much speculation as to what the postwar service stations would look like. Imagination ran riot as the air-brush school of design went to town. But now that the new stations are actually coming out from under the wraps, the simple fact of the matter is that they are not radically different from pre-war stations. This emphasizes the evolutionary process that has characterized the past development of the service stations, and which, one can be sure, will be carried into the future.

But the new postwar stations will incorporate many substantial improvements and refinements. The first noticeable change that will impress many motorists will be the exterior appearance of some of the

new stations.

Most companies plan to give their stations a different appearance from pre-war units by using, both inside and out, impervious materials such as glazed brick, tile, smooth plastic,

glass blocks, and perhaps even pressed blocks. Shell Oil Company, among others, plans to use these construction materials.

These new types of materials will not only contribute to durability,

The new Shell station is of a strictly functional design. The pump is 54 inches high, with a hose 18 feet long



but — more important — will make tomorrow's service station cleaner and easier to keep clean than ever before.

Sinclair Refining Company plans to build its new station of brick or concrete block masonry with the exterior surfaces veneered with porcelain-enameled steel. The design is adaptable to the use of stucco or painted brick.

For purposes of uniformity, economy in construction, and the desire to erect stations rapidly to serve the public better, some of the companies are contemplating prefabrication of several important parts of their stations.

The trend in the construction of new stations will be to build larger stations with more glass frontage and larger show windows.

Before the war the average-size service station contained about 1,000 to 1,200 square feet of floor space. Stations to be constructed will be from 15% to 50% larger than before.

The reason for the increased size of the average station is that it will be more and more a service center and store than merely an outlet for gasoline and oil. Any number of oil companies, and the owners and lessors of service stations, are planning to increase the services a station can offer motorists, to add new equipment, to expand its line of merchandise. While this holds true particularly for the super type of station, there is an unmistakable trend toward increased diversification of sales down the line — even to those stations which heretofore have depended almost entirely on sales at the pump.

Although the trend is definitely toward a larger type of service station, most oil companies will construct the size station a lessee needs and desires. Standard Oil Company of New Jersey, for example, is offer-

ing to build three sizes of stations — each permitting a number of construction variations depending upon location, climate, and size of the ground plot.

Types of Stations

The three new modern-design stations are a small station, a medium sized station, and a large station. However, all three types offer the same basic plan, which includes a salesroom, a lubritorium, an auto laundry, storage and heating space, and rest rooms. The large station may be built to include a workroom, an office addition to the salesroom, a separate facility for the public telephone, a boiler room separated from the storage space, and commodious rest rooms.

Better light and greater visibility are achieved in the Esso stations by the liberal use of glass on the outside wall areas of each of the three station fronts. This gives the station salesroom an appearance of an open-air area. It also makes it possible for the first time to utilize the neat, businesslike interior of the sales-

room as a permanent window display in itself, as eye-arresting in daytime as at night.

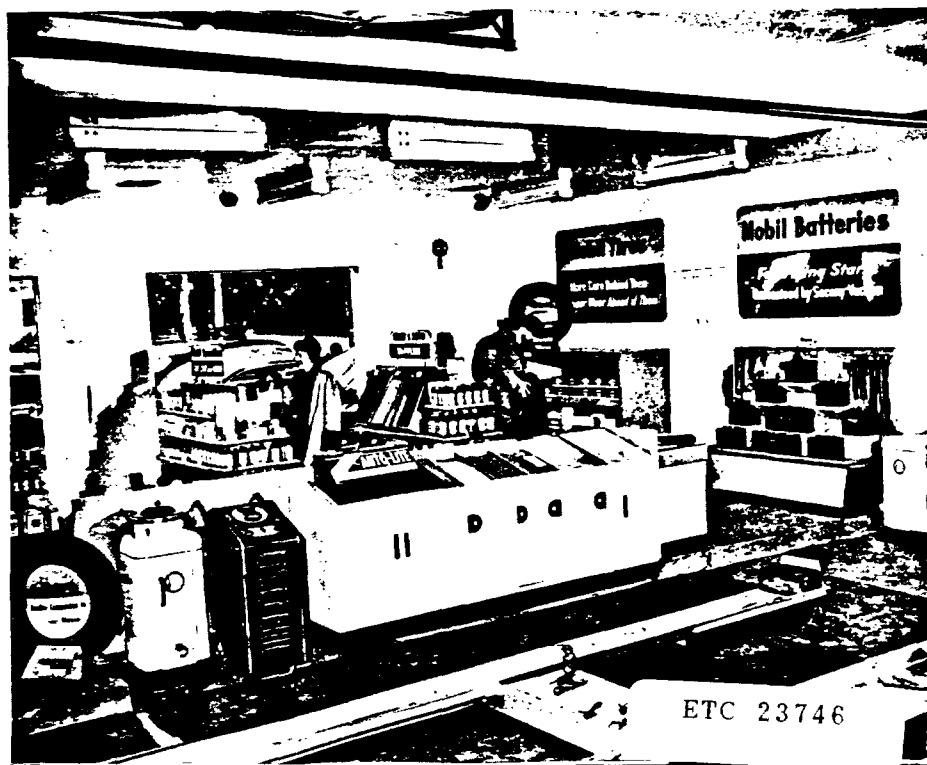
Most companies plan to have a low bulkhead for the salesroom window. This will make for improved visibility from the street and driveway. Brilliant lighting will make the salesroom a showcase in itself without the necessity of displaying products in the window.

Nearly all oil companies are planning to have larger salesrooms in their new stations. Shell, for example, is planning a salesroom of approximately 324 square feet, which is almost twice as large as heretofore. Sinclair proposes to have a sales- or showroom with about 400 square feet of space. The front windows of the Sinclair station will project beyond the wall of the lubritorium to emphasize the salesroom. The display room will have about 40% more space than is presently used for such purposes.

Most stations will have a partition between the salesroom and the service bays. Many of the partitions will

(Continued on Page 19)

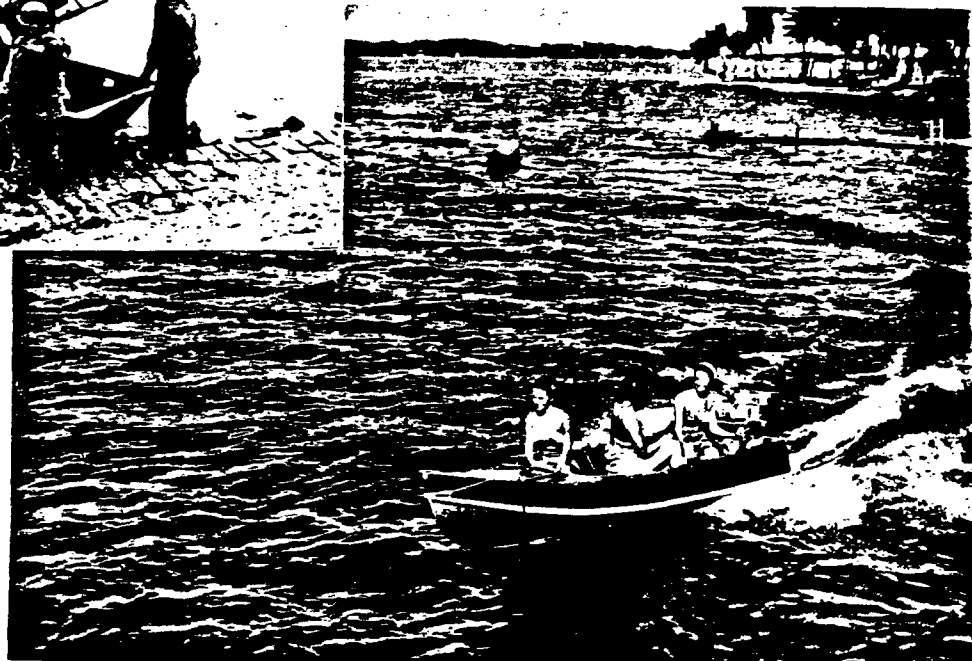
Socony-Vacuum has opened an experimental service station with no walls between the lubritorium and the salesroom





Outboard motors played a big part in the successful crossing of the Rhine, which carried our forces to final victory

Civilians will again enjoy the carefree days of peacetime — and with newer and more dependable outboards than ever



Civilian boating enthusiasts will enjoy better-than-ever outboard motors, thanks to their surprising wartime achievements

The Outboards Are In Again

By Hiram K. Smith, Jr.

IT is a typically American gadget. It drives skimming racing hydroplanes at more than a mile a minute, pushes the small pleasure boats of thousands of sportsmen and women, powers the busy net-tenders of commercial fishermen, performs new

and arduous labors with heavy barges and harbor craft. And we are indebted to a homely and typically American incident for the familiar outboard motor that today splutters so cheerily on practically all of the world's waterways.

During the war, outboard motors went everywhere and did everything. One big job was in evacuating the wounded



A man named Ole Evinrude, so the story goes, rowed across a broad lake and back under a blistering hot sun one August day in 1906, to fetch some ice cream for his picnicking fiancée. Then and there this young Milwaukee machinist made up his mind that rowboats should be powered by gasoline, not muscle. He also decided to do something about it.

Evinrude wasn't the first, or the last, with such an idea, to be sure. But the design he patented four years later was the first practical outboard motor. By practical is meant that it would start at least half the time — a feature that led many to regard it as, if not the ultimate, at least a long stride forward in the long search for a compact, lightweight, portable gasoline engine to take the drudgery out of rowboating.

In the next three decades, hundreds of thousands of small-boat men everywhere learned to be patient with their little outboards in the matter of starting; nine times out of ten, failure to start at the first or second crank of the flywheel was the fault of the operator, not the motor. And the motors themselves, improved constantly by the eager manufacturers, in time became amazingly dependable. Properly handled, starting is no problem.

Confidence in the performance of outboard motors reached such a high point, finally, that the success of the history-making initial crossings of the Rhine under Nazi fire depended on watercraft of almost all shapes and sizes — powered by sturdy little American “put-puts.”

But the Rhine was not the only water barrier surmounted by outboards. As one young officer put it, “Certainly no combat engineer would have tackled a major river crossing in the hard-fought campaigns across western Europe unless he could have depended upon the husky capacity of outboard motors for powering assault- or storm-boats and infantry-support rafts.”

Even so, and an amusing sidelight on an otherwise grim business, all the GI outboard operators weren't utterly convinced that their motors would start instantly for the trip across the Rhine. As a precaution, resourceful members of the Corps of Engineers requisitioned from the Medical Corps some hundreds of chemical heating pads which were placed over the motors' powerheads to keep them warm in the bitter cold weather. Outboard motors, in this case at least, were hot from start to finish.

This year, it's safe to say, Americans everywhere will keep their outboards hot as they go about myriad peacetime pursuits. Evinrude's “prac-



Outboards figured repeatedly in the invasions of Jap-held islands. Above, an unloading operation at Leyte



These giant outboard motors, in reality detachable power units, were used to help build rail spans across rivers

A heavily loaded raft of Army pontoons on the Athabaska River in Canada. Note the outboard, right foreground





Sportsmen will again thrill to the get-up-and-go of their sturdy "put-puts," as they seek out their favorite haunts

tical" motor and those of several estimable competitors have brought powerboating within the reach of scores of thousands of people who can't afford the luxury of big, expensive motorboats. And with a bow to the little gadgets, even yacht owners equip their dinghies and tenders with outboard motors; in any anchorage you'll find numbers of small craft skittering about from ship to ship, their little outboards muttering a happy if somewhat high-pitched song.

That high-pitched song, incidentally, sometimes sounds in the strangest places, even on dry land, for early in the game amateur — and sometimes professional — mechanics found the outboard was a truly versatile power plant. Modified outboard motors have been used to pump water, to drive saws and other machinery, to drive generators and, on the lunatic fringe, to power the midget racing autos whose pell-mell speed drew such enthusiastic audiences before the war.

But today as always, the chief user of the outboard is the sportsman-fisherman. Approximately one

out of every four men, surveys show, prefers hunting and fishing to all other recreations. Since a good single-cylinder outboard motor costs less than a good hand-made fly rod or a good duck gun, it is considered a practical convenience, and as much a piece of standard sportsmen's equipment as the fishing rod or shotgun itself.

Indeed, outboard designers some-

times have catered exclusively to the particular needs of sportsmen. One such model was designed expressly for operation in weed-choked, shallow water. Some enthusiastic owners of this motor, believe it or not, insisted it would drive a boat over a field in a heavy dew!

But while the great body of sportsmen-users apply their outboards to the serious and also pleasurable business of recreation, the industrial possibilities of the little motors have grown apace.

Commercial fishermen, for instance, were among the first to turn outboard motors into time-savers and hence profit-makers. Some of Evinrude's earliest big customers were Scandinavian, Canadian and American fishermen who were quick to see that the outboard emancipated them from the back-breaking toil of rowing their heavy, net-tending smallboats. On Canada's far-flung network of waterways, outboard motors have become the everyday workhorses of Dominion river commerce, pushing boatloads of manufactured products into the corners of the Provinces and returning with



"Why are all the straps reserved for the ladies, Mama?"

boatloads of Nature's bounty. And every day new uses are discovered for the versatile outboard motor.

The war, of course, proved conclusively that outboards are much more than sportsmen's fishing boat power plants. On China's inland waterways the Army Services of Supply had a fleet of nearly 500 outboard-powered sampans carrying military traffic of all kinds. Bags of rice alternated with bombs in the sampan loads.

As war's demands increased and the little motors' uses multiplied, so did their size. Tiny single-cylinder, small horsepower motors grew into big twins and fours — and sixes — of 10 and 22 and 55 hp. and more. A glorified outboard assembly was developed especially for engines of as much as 125 hp., and put to work pushing heavy harbor barges. Powering lighters and, particularly in the Pacific theaters, landing barges, this giant "outboard" has important applications in peacetime harbor utility work and in heavy traffic on inland waterways.

In the War Since 1942

Outboard motors, hitherto used only rarely by the military, went into combat early in 1942. The U.S. Navy used Kiekhaefer and Evinrude motors of regular commercial design for its seven- and ten-man rubber boats. The LCP(N) Landing Craft Personnel (Nested), a 36-foot plastic boat, used 50 hp. motors of a special design. And lighters and barges were powered, of course, by outboards of 22, 55 and up to 125 hp.

The U.S. Army found manifold tasks for the little motors. The first extensive Army use of outboards came in 1942 with movement of supplies through the Canadian Northwest for gigantic construction programs, including the Alcan Highway. On rafts made of ponderous

bridge pontoons and powered by outboards, vast quantities of gear ranging from food to bulldozers were ferried from point to point. That same summer, an Engineer Heavy Pontoon Battalion transported supplies over a route more than a thousand miles long over the Mackenzie and Athabaska rivers. More tonnage — including heavy cranes, cargo trucks and the inevitable bulldozers — moved over that route in a few months than the total of all goods that had ever moved over it in all the years since white men first explored that wilderness area.

But of all the outboard motor's valorous wartime achievements, nothing could ever approach in magnitude the Rhine crossings. Just three combat engineer organizations, for example, those of the First, Third and Ninth Armies, were supplied with more than 760 of the 55 hp. outboards plus 1120 of the 22 hp. size. These husky little motors powered the bulk of the crossing operations until the first tactical bridges were in, and continued to be used for special rafting jobs and general utility work for weeks after the initial crossings were made.

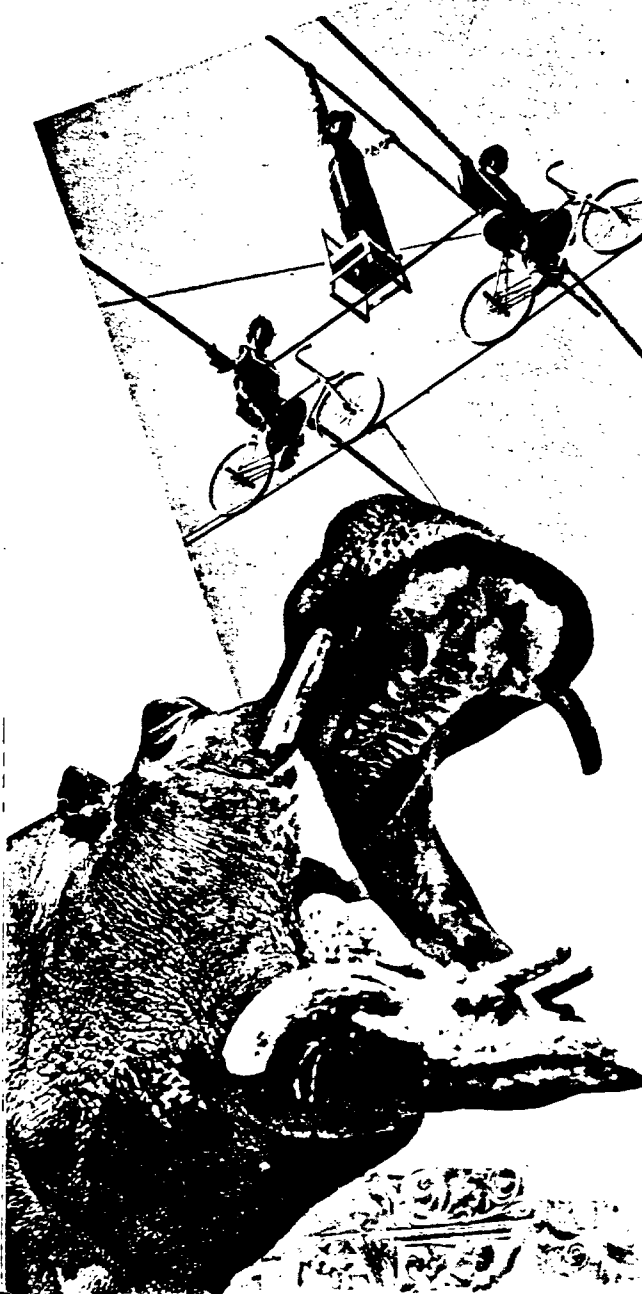
The 55 and 22 hp. models, of which we'll very likely hear a good deal from now on, were the two principal sizes used by Army engineers. Although a smaller 10 hp. model pushed the ten-man rubber landing boat used for reconnaissance, the smaller motors were not practical for general service requirements. But the "22" and "55" are rugged motors. The latter is a special high-speed model developed by Evinrude in cooperation with the Corps of Engineers for the specific purpose of powering the high-speed "storm boat," a 16-foot planing hull capable of carrying six infantrymen with full field equipment, plus a

crew of two engineers, at 25 miles an hour. In peacetime, it's worth noting, this storm boat might make a fine sporty racer. In combat it dodged shell fire, its load of fighting men lying face down in the bottom while the engineer crewmen drove it full speed right up on the bank of the far shore.

Used primarily for rafting and bridge-building, the Johnson 22 hp. motor was a slower-speed job with positive steering control through 360 degrees. A skilled operator could move backward, sideways, or hold the pontoon or raft motionless in a current simply by rotating the motor on its mounting bracket to give the propeller thrust in the right direction. This motor is exceedingly versatile, since it can be mounted on assault boats, single pontoons, or rafts made up of two or more pontoons.

Outboard Manufacturers

The majority of outboard motors have been made for many years by the Outboard, Marine and Manufacturing Company through its Johnson, Elto and Evinrude Divisions, but new developments in the field are promised by entry of several old and new companies on the postwar market. Among these are Kiekhaefer, maker of the "Mercury"; Champion Motors; Scott-Atwater; Muncie Gear Works and others. And out of the plants of famed water speed king Gar Wood has come a war-developed six-cylinder, 4-cycle, supercharged model whose potentialities have not yet been fully explored. Gar Wood, Jr., incidentally, holds the world's outboard speed record of 85 miles an hour. But fast or slow, big or little, for fun, for fishing, or for day-to-day commercial operations, there's an outboard motor to fit every pocketbook.

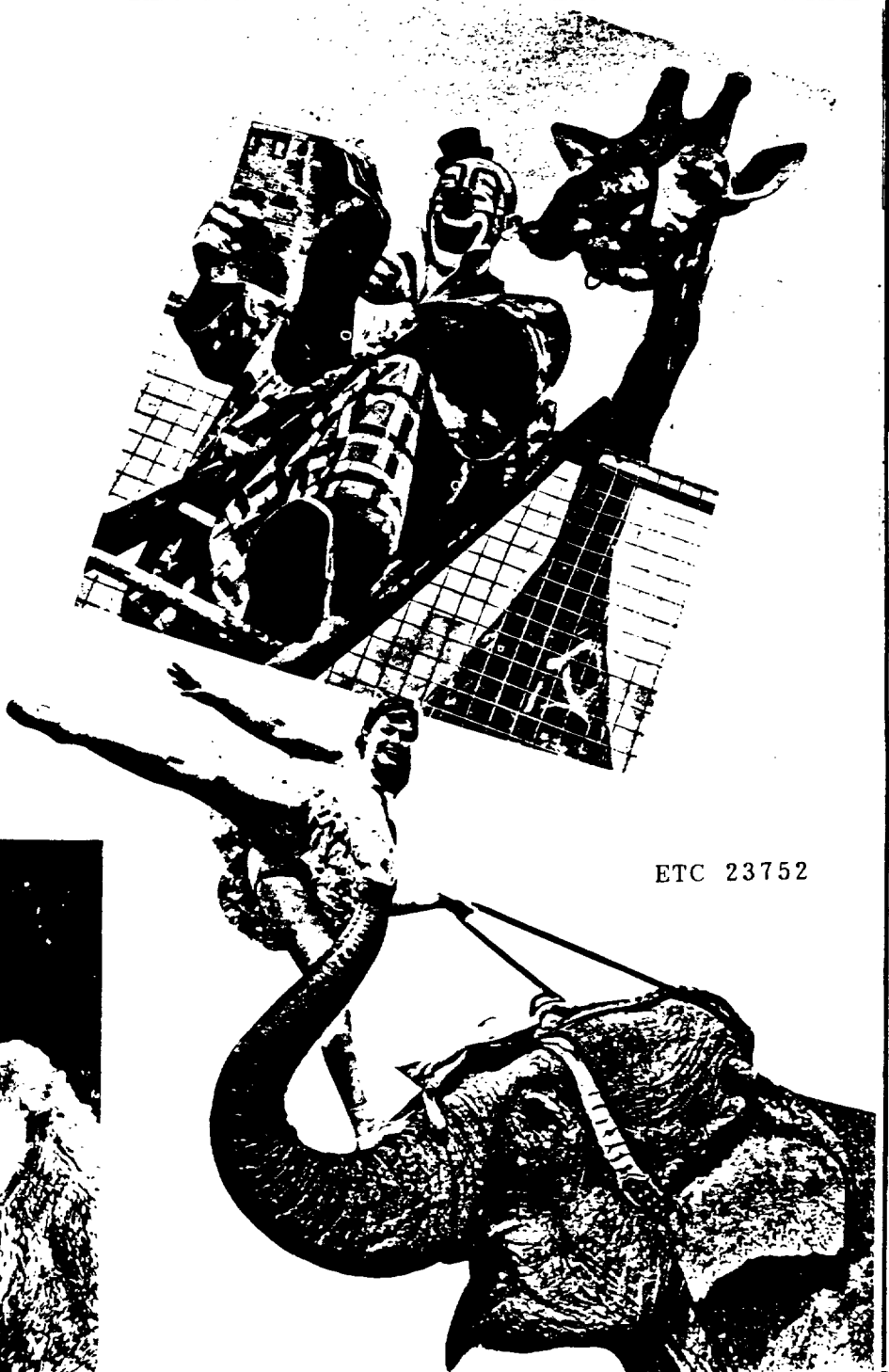


THE CIRCUS, one of the more brilliant heralds of spring, is coming. After opening in Madison Square Garden in New York this month, the Ringling Brothers and Barnum & Bailey Circus will tour the country from coast to coast. Resplendent and glitteringly be-spangled, this year's circus will again be "The Greatest Show on Earth."

One of the highlights of the 1946 circus will be its "Toyland" extravaganza. Another will be the "Sky Ballet." This is described by circus press agents with modest shyness as "The most beautiful aerial display of all time. It is a new 60-girl adventure performed in the lofty reaches of the Garden dome where glittering femininity reaches the absolute epitome of daring and where life hangs by a slender web."

In addition, there are chimpanzee-riding comics, bareback-riding marvels, a multitude of clowns, Gargantua and Toto, the famous gorilla couple, and "countless other rare wild animals and birds in the biggest travelling zoo in the entire world."

All in all, this will be the biggest and best circus since 1941, with all the wonderful trappings of former peacetime years. It's more than three quarters of a century since P. T. Barnum went into the circus business on a major scale, but for millions of fans the lure of the Big Top is as strong as ever.



ETC 23752

CLOWN PRINCES

Clowns are the mainstay of the circus. Running riot through the show, showing off their pranks and antics and amazing inventions, they are one attraction that circus lovers constantly look for each year.

Unknown to many people, however, is the fact that there is not one type of clown, but many. And there are nearly as many different kinds of make-up as there are clowns. Each clown feels he is ethically entitled to his own peculiar style. Some clowns, in fact, become so famous with one kind of make-up or another that they jealously guard it as their professional mark, and leave their "faces" to their offspring.

According to the Circus Magazine, "the classic standby (in clown make-up) since early Elizabethan days is the neat or white face and scalp." But, the magazine adds, "whether clowns wear caps and bells, pom-poms, bald front wigs, padded wigs, putty noses, rubber ball noses, or eyes that pop at you, they are all out for one serious thing — to 'feel' you're with them when they 'bust-out' in the walkaround."

Among clowns, as among all other circus performers, there are stars who stand out. Sad-faced Emmett Kelly is one who has delighted circus audiences in recent years. Charlie Bell is another. There are many who feel that the clowns make the show — and make the public come back again.



SOME TYPES OF CLOWNS

Motley Fool
Grimaldi
Hot One
Cracker Jack
Merry Andrew
Leon
Pierrot
Harlequin
Musical Clown
Bumpkin
Sunny Jim

Elegant
Grimacer
Fat-Boy
Odd Zany
Joker
Wit
Rooster Man
Punchinello
Jim Crow
Riding Clown
Entree



Neat



August



Character



Tramp



Funny Rustic



Female



Grotesque



Double Face



ANY TIME IS BLOSSOMTIME

By Stetson Clark

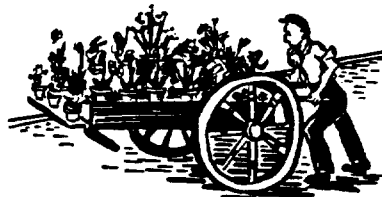
The selling of flowers used to be seasonal, but now it is a year-round business that even uses airplane delivery

EASTER IS COMING, the first peacetime Easter in five years. Normally the season at which we buy the most flowers, florists are preparing for the biggest rush on record this Easter.

To be specific, florists are anticipating the greatest demand ever for "table pieces" at gatherings of reunited families; flowers for weddings that were postponed until now; and corsages for the social events with which we'll celebrate this long-awaited peacetime Easter.

Last year, even while the war was on, retail sales of flowers mounted steadily. The Florists' Telegraph Delivery Association estimates that \$800 million worth of flowers were sold at retail last year on the North American continent, north of the Rio Grande. (The whole of North America was included in the estimate because some of the association's members are in Canada.) The florists' association estimated that its own 7,000 members sold \$400 mil-

lion worth of flowers, for certain, and that the remainder of the 20,000 retail outlets, including outdoor and market stands, sold another \$400 million worth. A fair guess is, that with sales proceeding at such a pace, Americans will invest \$200 million,



more or less, this Easter in the impelling but transient beauty of flowers.

At Easter, flowers are for church and for new dresses, and because spring is in the air. But there's also a great and mounting demand for flowers over the Christmas holidays, and around Thanksgiving. Poinsettias have become our national Christmas flower. Gardenias, carnations, and orchids are favorites for corsages for holiday social events. And at

Christmas there's a thumping demand for roses, for gifts.

Next to Easter, Christmas has become our biggest flower holiday season. The Fourth of July and Labor Day, in fact, are now about the only important holidays left that create no special demand for flowers. While valentines are still the favored "coin" for exchange of sentiment with children, on Valentine's Day adults now bombard one another with flowers. It's become one of our big flower holidays. Next on the list are Mothers' Day and Decoration Day. June, which has no holidays, is the biggest month for flowers, because of weddings. July and August are the dullest months.

World War II did more than to stimulate our interest in flowers. It created innovations likely to stick, such as American-grown tulip bulbs.

Since the supply from Holland was cut off, American growers supplied tulip bulbs that could be brought to flower on Christmas. Lily



Making a bouquet. Florists must keep abreast of fashions in flowers in order to serve the public's changing tastes

bulbs, too, from Bermuda and Florida, rather than Japan, likewise were forced for Christmas last year. Don't worry, though, there'll be some left for Easter.

Then, too, the impetus that the war gave to air transport has already worked changes in the flower business. It will have a bearing on the flowers from which you can make your Easter selections.

Thanks to air express, 'most any florist can now supply camellias from California if you want something gorgeous and expensive, though not too durable. Some of the best gardenias come from San Francisco by air, also, as do the less costly

Scotch heather and violets. And Californians may have airborne carnations from Denver, Chicago or New England if they want them. Orchids, one of the favorite Easter flowers, will be shipped by air from Long Island and New Jersey to all points of the compass.

During the war period, prices for flowers soared in some instances to two or three times their pre-war levels. Last Christmas, Rome Glory roses, the big red ones, sold for \$18 a dozen. At New Year's, white orchids were selling for \$25 apiece. Flowers won't be any cheaper this Easter; certainly not orchids, which are in high demand at this season.

Roses, however, are sure to be more plentiful than they were at Christmas time, because they'll have stiffer competition from other flowers.

Indeed, Easter has become a fashion parade of "florist's flowers." Chrysanthemums, alone, are notably absent. Gardenias and orchids get the top play for corsages. And carnations, which are the most popular flower of all for Mothers' Day, are also in great demand. Gladioli are to be had — from Florida — but there's no tremendous call for them; they're too cool and summery. While it's questionable whether an aster could be forced for Easter, it's pretty certain it wouldn't be wanted, at any rate. There's no breath of spring in an aster; certainly not to compete with potted hyacinths and narcissi, violets from Rhinebeck, New York — as well as by air from California — and greenhouse-grown sweet peas, snapdragons and stocks.

England, which still has its flower girls, comes closest among other nations to approximating our interest in flowers. Per capita "consumption," if you call it that, is perhaps about the same. But you could buy the shop of an English florist for the price some of us Americans have lately been paying for a few orchids. England doesn't have nearly as many out-and-out florist shops, however. Most flowers are sold at open-air or market stands along with green goods and groceries. But the liking of the English for flowers is of a riper vintage than ours. And while growers and sellers don't get American prices, the business rides on a more even keel.

Over here, there are, very definitely, fashions in flowers. The vogue in roses is for red. Of the three million orders that American florists received from soldiers and sailors overseas, last year, almost all called for red roses.



Iris, or the rainbow, was regarded as the bridge between heaven and earth



The tulip, with its showy colors, has the appearance of a Turkish tulband (turban)



The hyacinth, says a Greek myth, sprang from the spot where Hyacinthus was killed

When a certain flower gets to be the rage, florists often have a hard time getting it for their customers at any price. That accounted for the \$18 per dozen price tag of Rome Glory roses last Christmas. A bright red rose, Better Times, was quoted at \$20 a dozen at wholesale on the New York market last August.

Rather than a public at times so eager for red roses and white orchids at any price, many florists would like it just as well if a larger percentage of their customers were a little more inclined to buy flowers with their groceries, rather than as something special.

For either the selling of flowers or growing them can be a famine as well as a feast. If the business would just ride on a more even keel, many a florist would like it better, even if prices weren't quite so fancy. This accounts for the interest of florists in gardens of amateur growers. They like to rub elbows with friends of flowers, and the more of them

they meet, or can encourage, the better they like it. They are both a stimulating and stabilizing influence in the flower business.

All florists are very much pleased with the present interest in potted plants, which are becoming increasingly important items at Easter and Mothers' Day. For a plant in a pot is pretty likely to be around long enough, wherever it goes, to make real friends.

If you should ask a florist what he'd like to sell you best at Easter, he would most likely reply, "an azalea." If it gets the care that the species requires, which is nothing elaborate, an azalea will thrive and blossom for years. Then, at Mothers' Day, which this year is hardly more than two weeks later than Easter, spring is far enough advanced so that phlox, verbenas, lantana, geraniums, and ageratum can be put right out into the flower bed. Among the worthwhile new arrivals in potted plants for Easter and Mothers' Day



Gladiolus resembles the gladius, or sword, that the gladiators carried



The Greeks had a word for it. Chrysanthemum in Greek means "gold flower"

is the Canadian all-double petunia.

Florists likewise look with a friendly eye on the growing volume of sales of flowers at open-air market stands in the summer, which is

(Continued on Page 22)

By Any Other Name

Many a man has thought he was making a pun when he mentioned "Otto of Roses" instead of "Attar of Roses." As a matter of fact, there are two such terms in common use in the ancient art of perfumery. Otto of Roses is the essential or volatile oil of the rose, obtained from the pressed leaf petals and often called "rose absolute." Attar of Roses is the same thing, with alcohol added to make a tincture.

Though surveys reveal that 85% of all perfume buyers still prefer the aroma of the rose to the hundreds of other scents available, it does not always follow that the most fragrant liquid came from a real rose. Raw materials used

in perfumes come also from animal and synthetic sources, according to the American Medical Association. As many as 30 different materials are used to make a single scent.

Some of these materials are used for their odor value alone, some as fixatives — the ability to keep a perfume fragrant long after the alcohol has evaporated — and some for both purposes. The only four substances of animal origin in use are ambergris, castor, musk and civet, and they are used primarily as fixatives. The essential oils are derived not only from flowers, but also from fruits or their rinds, roots of plants and even the wood of some trees.



CAR WASHING HABITS

GARAGES and service stations used to do a tremendous business in car washing and polishing, but not nearly as many car owners patronized them as is commonly supposed. Two out of three car owners say they usually wash their own cars — and apparently they expect to continue doing so. This is one of the principal findings of a survey recently made in Scranton, Pa., and Peoria, Ill. by Opinion Research Corporation. The former city has very soft water and the latter hard water. Differences between car washing habits in the two towns were noticeable but not extreme.

The following tables show the breakdown for the two cities:

Question: Do you usually clean the outside of your car yourself? If not, who does clean the outside of your car?

	TOTAL	SCRANTON	PEORIA
Yes, usually clean car	60%	68%	52%
No, family member does	5	7	3
No, done elsewhere	33	24	42
Not washed	2	1	3

Car owners who do not *usually* wash their own cars comprise 40% of the total interviewed. These were asked, "Do you *sometimes* clean the outside of your car yourself?"

A survey reveals interesting facts about the attitudes of car owners

	TOTAL
Yes	9%
No	27
Don't know	4

The average income of Peoria residents is somewhat higher than that of Scranton residents, and as shown by figures above, more of them turn their cars over to commercial services for washing.

The evidence of these two towns indicates that the business in car washing could be increased substantially in the post-war era with better salesmanship or lower prices.

The frequency of washing appears to be about the same whether the car is washed at home or in a garage or service station. The absolute truth of the question of frequency is, of course, a difficult fact to determine by survey, since personal pride is involved and car owners are inclined to claim that they wash or have their cars washed much more often than they really do. To overcome this exaggeration as much as possible, a casual questioning technique was employed. Car owners who had been discussing the general subject for a few minutes were asked first, "How often

would you like to see your car cleaned?" and after they had answered that, they were asked "With all the expense and bother, how often does your car actually get cleaned?"

	CARS WASHED BY OWNER	CARS NOT WASHED BY OWNER
Often more than monthly	24%	24%
Monthly	30	30
3 - 6 times yearly	32	28
Twice a year or less	12	12
Indefinite answers	2	6

The methods and tools used for home car washing are also interesting. The typical car owner in the surveyed cities cleans his car with plain cold water, using a garden hose; however, about one third use a pail alone and another third use a pail and a hose.

	TOTAL	SCRANTON	PEORIA
Use pail only	33%	36%	29%
Use a hose only	37	29	47
Use both	30	35	24

Among washing aids, a sponge for washing and a chamois for drying are used most often in Peoria. A plain cloth usually suffices for the job with the soft water of Scranton.

	TOTAL	SCRANTON	PEORIA
Chamois	51%	35%	71%
Plain cloth	50	69	26
Sponge	44	28	64
Other	3	4	3

Only about one in four of the home car washers adds anything to the water to facilitate cleaning, and strangely enough, this is much more common in the soft water city, Scranton, than the hard water city, Peoria. Fifty-five per cent use water and nothing else. Ten per cent use a polish or wax-cleaner combination exclusively. The remainder use water with soap, or a paste or liquid cleaner in the water; or water first, followed by polish or wax. Of the water users, 27% use warm water.

Special preparations for cleaning certain parts of the car are fairly common.

Question: Do you use a special preparation to clean the metal trim on your car?

	TOTAL	SCRANTON	PEORIA
Yes	29%	25%	34%
No	71	75	66

Question: Do you use a special preparation to clean the glass on your car?

	TOTAL	SCRANTON	PEORIA
Yes	25%	28%	21%
No	75	72	79

Question: Do you use a special preparation to get tar, grease or other stubborn dirt spots off?

	TOTAL	SCRANTON	PEORIA
Yes	19%	17%	23%
No	81	83	77

Apparently, from the above and other data from the survey, car owners are not very well satisfied with present tools and methods of cleaning their cars. There is wide use of special paint and body cleaners, glass cleaners, metal cleaners, as indicated above. There is considerable complaint about the products used — both special purpose products and general cleaners — and there is some dissatisfaction with the results. Yet, somewhat surprisingly, only about one half the people that wash their own cars regard the job as drudgery. **Question:** How do you size up the car washing job as a whole — as a rather pleasant job, just average, or as a disagreeable chore?

	TOTAL
Pleasant	17%
Just average	35
Disagreeable	48

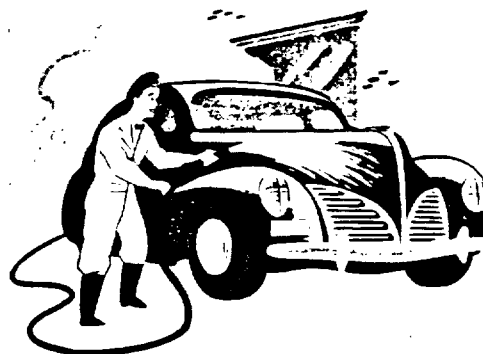
Apparently about one sixth of the people who wash their own cars think it is fun. These people also take pride in the job and like their automobiles gleaming.

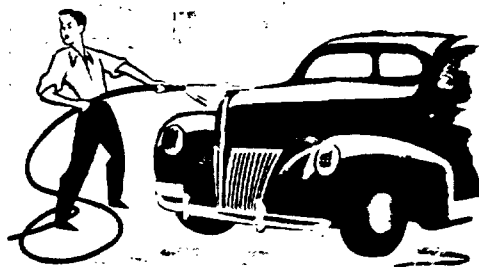
An interesting sidelight on the hard and soft water question is shown by answers in the two towns. In Scranton, 15% said the water was hard and 20% said it was average; but in Peoria where the water really is hard, not one single person made the mistake of saying that it was soft.

Question: Do you consider the water here soft, hard or just average?

	TOTAL	SCRANTON	PEORIA
Soft	33%	65%	0%
Hard	54	15	93
Average	13	20	7

People who believe their water is soft (Scranton





residents) most often add substances to the washing water to promote cleaning.

35% of those who consider the water in their town *soft* add something to the water

23% of those who consider the water in their town *average* add something

13% of those who say the water in their town is *hard* add something to their cleaning water.

The division shown between paste and liquid cleaners is about 50 - 50, with a much higher percentage in the hard water town using one of these cleaners than in the soft water town.

Question: Do you ever clean your car with some kind of liquid or paste cleaner? Is it a paste or a liquid?

	TOTAL
Paste	50%
Liquid	52

Question: What do you find are the advantages of using a cleaner?

	TOTAL	SCRANTON	PEORIA
Takes off dirt	38%	37%	40%
Makes car shine	30	24	35
Makes wash job last longer	17	12	22
It is easy to apply	7	10	3
It cleans as it polishes	6	5	6
Saves time	5	7	3
Can't think of any advantages	7	5	10

Question: What are the drawbacks of using a cleaner?

	TOTAL	SCRANTON	PEORIA
There are no drawbacks	55%	66%	46%
Might hurt the finish	20	10	30
Takes too much elbow grease	10	10	10
Takes too much time	9	7	11
It streaks	3	3	3
Other	5	6	5

Car washers are well aware that water alone fails to get off stubborn soil. The specific kind of dirt that

makes trouble differs markedly according to local conditions.

In Scranton, a coal mining center, people mention grease first and *coal dust* second.

In Peoria, where there is a great deal of civic to-do about tree planting, people put grease first and second say *tree sap*.

	TOTAL	SCRANTON	PEORIA
Grease	54%	56%	51%
Tar	28	31	25
Tree sap	23	2	50
Coal dust	18	32	0
Road film	15	4	29
Mud	12	10	13
General stains	11	15	7
Rust	2	3	1

One of the most significant facts of the whole study is that four out of ten people who wash their own cars are dissatisfied with the appearance *after* the job is done. Chief among the complaints were dullness and streaking.

Question: Is the finish ever dull or streaked after washing?

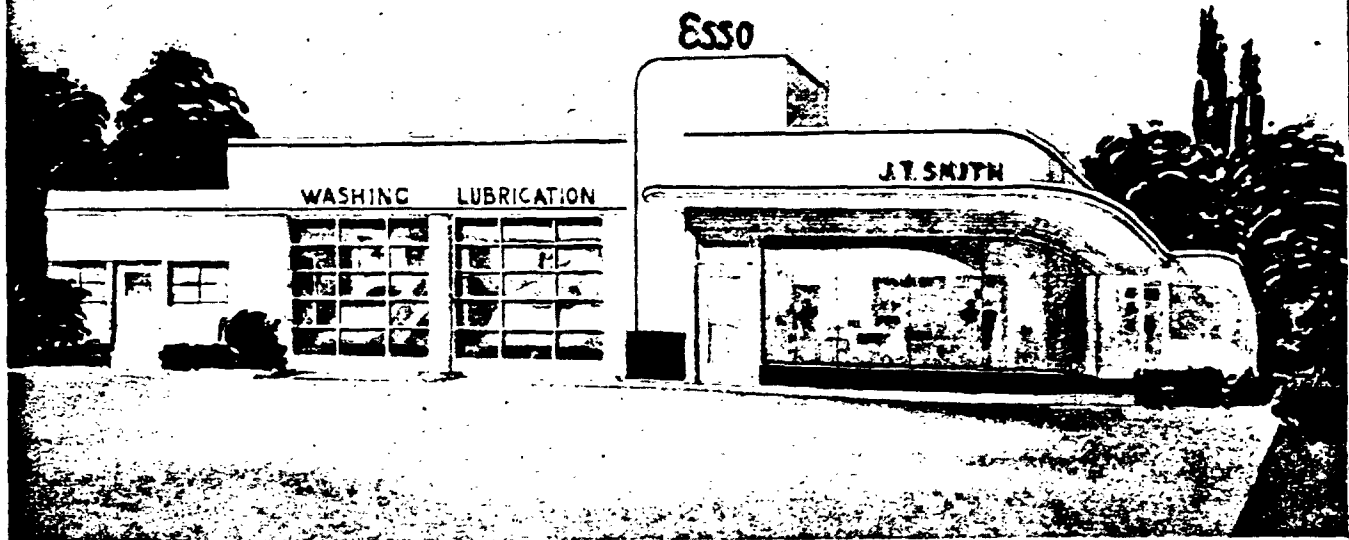
	TOTAL	SCRANTON	PEORIA
Yes	39%	44%	33%
No	61	56	67

Apparently from this study there is an excellent opportunity for service stations and garages to increase their business in car washing when sufficient manpower is again available — and a companion opportunity to sell some packaged cleaning compound which will do a better job and make the work easier for those who want to wash their own cars. After all, only 17% of those who "wash-their-own" think that car washing is fun!

EDITOR'S NOTE: Many months ago, the Ethyl News published this article on car washing habits. In response to numerous requests, it is republished now.

And now it can be told.

This survey formed part of the market analysis and consumer surveys first taken for Ethyl Cleaner. Out of such testing, and of parallel exhaustive tests in research laboratories, has come the new Ethyl Cleaner, recently put on the market. Originally conceived as a new and better car wash, experience has proved that it has innumerable uses around the home as well. That is why, in response to consumer demand, Ethyl Cleaner is being marketed as a multi-purpose household cleaner and car wash.



Esso stations, which are designed to make the interior a huge show window, will feature salesroom displays of petroleum products and automotive accessories clearly and easily visible from the outside

POSTWAR SERVICE STATIONS: A PREVIEW

(Continued from Page 5)

be built of masonry, although some will be of glass in order to give the station attendant an unobstructed view of the station and driveway. Richfield is planning to use insulated glass in order to prevent cooling of the salesroom when the doors in the service bays are opened.

On the other hand, the Socony-Vacuum Oil Company has done away with the partition entirely in its new station at Cedar Lane and River Road in Teaneck, New Jersey. Socony-Vacuum engineers believe that the absence of a wall between the sales space and the lubritorium allows one-third more sales space and permits more attractive displays of merchandise, leading to increased sales of TBA items. Socony-Vacuum believes that the new arrangement

also offers more convenience for the customers who can inspect the merchandise or relax in comfort while their cars are being lubricated.

Socony-Vacuum officials are aware that the absence of a partition may create dirt and odor in the salesroom; also that the proposed layout may require more heat when the service doors are opened and hence be more expensive. However, they plan to continue the experiment for several more months before coming to any definite conclusion.

In the new service stations the service bays will be larger. Heretofore, they were about 22 feet in length. In the future they will be approximately 30 feet in length.

All the oil companies have given a great deal of thought to the careful placing of equipment in the serv-

ice bays to promote maximum efficiency. Tests were made to determine the best type of lighting for each purpose. Time and motion studies determined the type of equipment to be installed and how it should be placed.

Utilizing the experience of Army automotive maintenance men in the war, oil company engineers have also helped develop new mobile maintenance equipment which can be brought to the car. The use of such equipment will not only save the station attendant time; it will quickly service the customer who is in a hurry.

In tomorrow's service station, the lavatories will be larger and will be tastefully furnished. Some oil companies believe it is better to have the lavatories adjacent to the salesroom



Here is a sketch of one of Gulf's postwar service stations. Facilities are being provided to handle an expanded line of tires, batteries, and accessories, as well as protective maintenance services

for various reasons, the most important of which is that it will tend to bring motorists, who just stopped off for gas and oil, into contact with other products on display in the salesroom.

This may be entirely feasible in the case of male customers. Yet, opposing this is the attitude of a majority of women surveyed on this point. They prefer that the ladies' room be located at the side of the station rather than in the rear or off the salesroom.

Richfield intends to build its new rest rooms with a closet in the wall of the rest room to keep the necessary implements to clean the rest room. This will make it easier, Richfield officials believe, for the station attendant to keep the rest room neat and orderly.

Heating does not worry the operator of a service station in the South too much, but in the North it is a real problem. So in place of the old pot-bellied stove in the center of the salesroom, the new station will have a boiler room for the heating equipment.

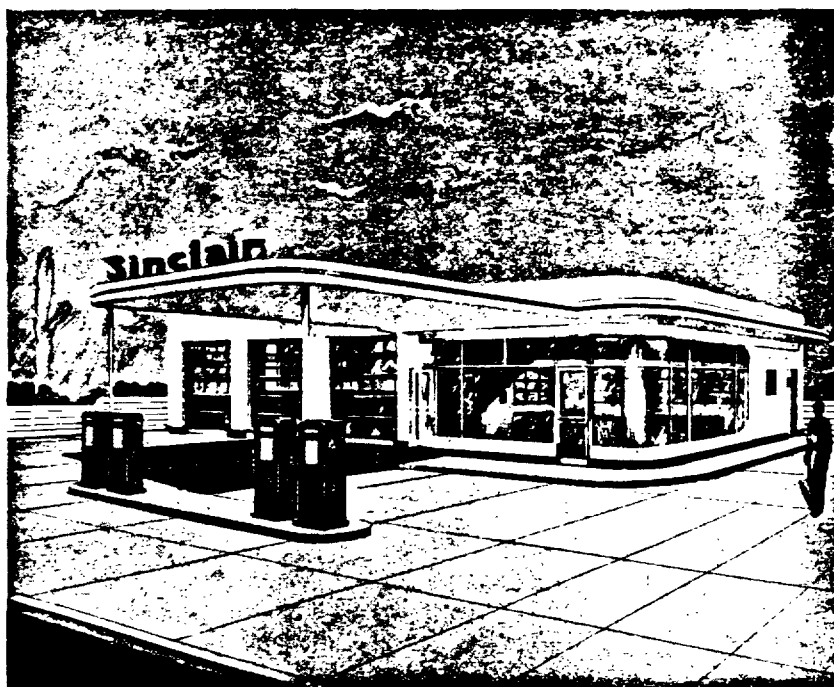
In order to keep ample supplies of merchandise on tap, the new stations will have good-sized stock rooms.

For example, Pure Oil Company is planning a compact stock room, 12 feet by 16 feet, which will be provided with 350 feet of shelving, five shelves high. The entrance to this room will be from the salesroom.

During the war there was some discussion of eliminating the pump island by locating the gasoline hose

and pumping system overhead. However, so far this has not been done. As a matter of fact, about the only change in the gasoline pump, thus far seen, is in the one designed by Shell for its new postwar station. This pump is 54 inches high, or about two feet shorter than the old pump. The pump was shortened, Shell

A canopy, as shown on this Sinclair station, is a feature that will be seen on many Southern and Western stations



points out, "so that it will not block the customer's view of the display room. The sales-recording device is at the customer's eye level so that the motorist will not have to cramp his neck inside a car. Air and water hoses will be in concealed wells at either end. The gasoline hose is rolled on a concealed reel.

"The gasoline hose is 18 feet long (6 feet longer than the old one) so that the operator won't have to ask the motorist to 'back up a little' or 'pull up a little' in order to reach the tank."

Some stations, such as those of Esso, Shell, and Sinclair, will have a projecting cornice on the front and side of the station to break the sun's rays or to afford protection from the rain, as the case may be.

Canopies will be used in the South and West, but not much in the East. They cost \$2,500 on the average, but vary in price according to size and structure. Unless the weather dictates a canopy, it is felt by some petroleum officials that the station operator will not receive the full value for his money, spent.

The trend in service station design is in large part a reflection of the trend in marketing. And here the goal is to provide a customer with more services, better services, and finally to take care of all of his needs under one roof. To that end, many stations, new and old, are extending their service facilities, installing new equipment and tools, selling products and services they have heretofore not handled.

For example, right now there is a great deal of interest in tune-up. Station operators are selling vastly improved grades of gasoline and oil. It is only natural, then, that they should help motorists to capitalize on the better products they have to sell.

To the service station dealer, tune-

up is not only a profitable source of revenue, but it also contributes to the sale of a host of other products and services. Selling tune-up increases the sale of TBA items, encourages motorists to buy high-quality gasoline, enables a station operator to attract the business of small fleet operators, and helps him to take care of all his customer's requirements at his place of business.

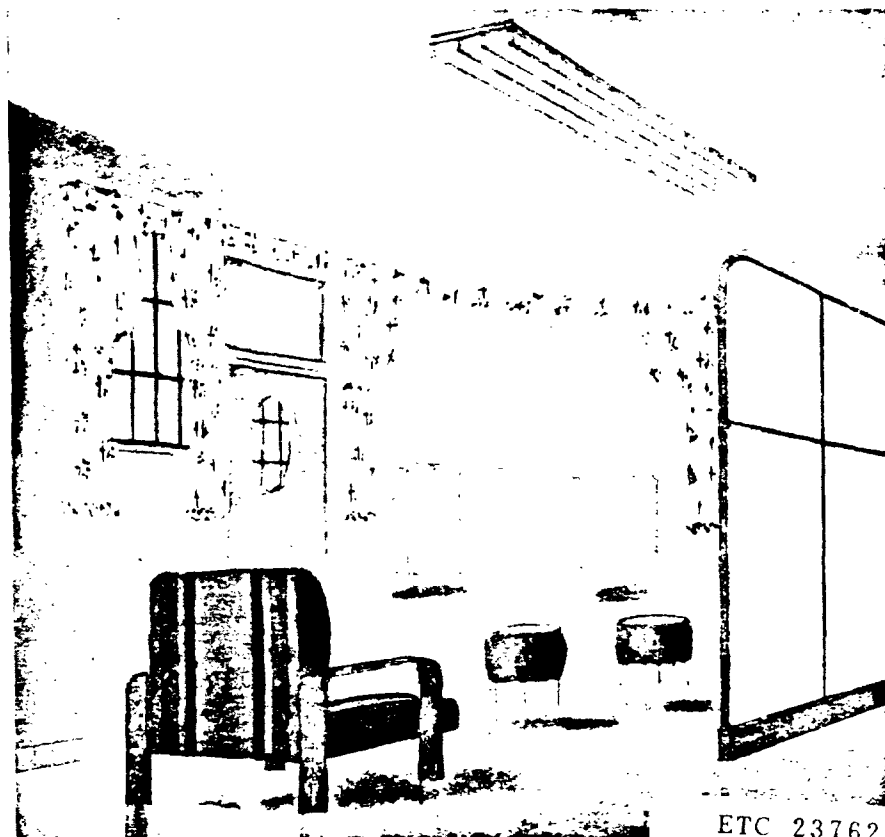
Other Opportunities

The sales opportunities existing in tune-up are also apparent in other directions. For example, an average-size station can carry a varied line of automotive necessities such as spark plugs, windshield wipers, mufflers, and tail pipes; such automotive replacement parts as fuel pumps, carburetors, and generators; such home specialties as polishes and cleaners; and "impulse sale" goods such as hardware, small electrical appliances, and other items which

customers are unable to buy except during regular store hours. These categories, the Shell Oil Company estimates, figured at an investment to the station operator of \$1,385, should net a profit of \$2,614, based on a turnover of three times during the year. Incidentally, no major company at the present time is planning to go beyond this — to retail hard goods which would require post-sale servicing.

Because it promises to become a more stabilized economic unit, the new service station offers good business and employment opportunities to civilian operators and returning veterans both. For their part, oil companies by and large are inaugurating an intensive training and refresher program for service station operators. With new tools, better products, and modern equipment and facilities, service stations in the present era will offer motorists more and better service than ever before.

For feminine-customer comfort, Esso plans a commodious, tastefully furnished ladies' room



(Continued from Page 15)

such a factor in the flower business in England. It helps to get more people better acquainted with flowers. There has been quite a development of this kind here in my own locality in eastern Pennsylvania. My neighbor, Vic Kickline, who has a stand at the Easton public market, gets more money for his peonies during the month of June than he does for his home-cured hams and bacon. And when the Shasta daisies blossom by Decoration Day, daisy money pays the taxes on many of the smaller farms in this locality. We also market asters, gypsophila, delphinium and gladioli. I, myself, happen to be a commercial grower of sweet peas on a modest scale. Flowers are coming to be one of our important cash crops.

Usually, when an American walks into a florist's shop, he may entertain a desire for a flower that's the latest thing, and that for its kind embodies perfection. But it isn't likely that he'll want a variety or color that he has never seen or heard of before. And, yet, it may be that he'll be swept off his feet by some new, exotic shade in, say, roses, such as the Talisman, a rose of copper hue. In the trade's parlance, this new shade would be listed as a "novelty."

Accepted florists' colors in sweet peas are pink, light blue and lavender. Although they are not to be found in all flowers, these are the colors most widely utilized. And florists prefer softer colors to bright colors. No one color is as widely utilized as white. That's partly because white has its ceremonial uses, as at Easter and for weddings, and it's also useful in arrangements as a background for other colors.

Normally, most of the cost of the flower that a florist sells to his customer is for others that he may have had to throw away, or that were

grown, but that for some reason or other failed to reach a florist's shop. During the war, demand was so great that more of the flowers grown reached their buyers. That was one reason that, while greenhouse men couldn't get enough coal or help to grow all the flowers they would have liked to grow, retail sales of flowers could still mount to the greatest volume on record.

When a florist buys a flower on "spec" the best guess he can make is that someone is more likely to want it if it's something special. "Well grown" is what they call it in the trade. Gardenias grow wild in the South. But San Francisco is the big gardenia growing center in this country, where, due to cool breezes from the Pacific, just the right greenhouse weather can be "manufactured" to grow them to perfection. Regardless of the seasonal factor, outdoor-grown carnations are not in the running either, as a florist's flower. They don't have quite the finish that can be obtained when they are grown under glass.

The best finished outdoor-grown flowers are often grown under cloth. Partial shading prevents softer colors from fading, and the cloth shields them from wind and rain and makes it easier to control insect pests. Yet, according to climate, and prevalence of their insect foes, lovely specimens can be grown out-of-doors without benefit of artificial shelter.

Air express may bring about great changes in how, and where, flowers are grown. New insecticides may work a change, too — such as sodium selenate, which applied in solution to the soil keeps red spiders off chrysanthemums and carnations. With a whole new arsenal of weapons, among them several petroleum derivatives, to use against insects, perhaps 'most any flower now usually grown under glass or cloth can

eventually be grown to as high perfection out in the open, if the climate permits. If they can be shipped from there to market by air express it won't make much difference where they are grown.

This is merely speculation, however, and may not ever exactly come to pass. Many florists' flowers have been bred to greenhouse conditions of light as well as of shelter, and might not thrive to perfection anywhere out-of-doors. Roses, carnations, gardenias and orchids are all present examples. In any case, they would have to be re-adapted to outdoor conditions, a process that could only be accomplished through long years of breeding and selection. Wild orchids from South America have long been supplied by air to New York. But they do not compare in quality to those that have been bred to thrive in Long Island greenhouses.

On the other hand, it's a matter of record that, whether reared in or out of greenhouses, flowers are increasingly being shipped by air. And the day is almost at hand when any florist can offer what the world offers in flowers, anywhere, at any time.

OUR PICTURES . . . Cover, Press Association; Page 4 (top) courtesy Pure Oil Co.; Page 4 (lower) courtesy Shell Oil Co.; Page 5, courtesy Socony-Vacuum Oil Co.; Page 6 (upper and lower left) and Page 7, U. S. Army Signal Corps photos; Page 6 (right) and Page 8, courtesy Oluf Mikkelsen Co.; Pages 10 and 11, courtesy Ringling Brothers and Barnum & Bailey Circus; Pages 13 and 14, Acme photos, courtesy of Wadley and Smythe; Page 16, H. Armstrong Roberts; Pages 19 and 21, courtesy Standard Oil Co. of New Jersey; Page 20 (upper) courtesy Gulf Oil Co.; Page 20 (lower) courtesy Sinclair Refining Co.



ETC 23764



ETHYL CORPORATION

● research laboratories

1600 West Eight Mile Road, Detroit

With removal of wartime restrictions, the Ethyl Corporation is now able to extend a cordial invitation to its friends to visit its new research laboratories at 1600 West Eight Mile Road, Detroit.

Designed specifically for research and development on the interrelated problems of gasoline engines, fuels and lubricants, these new laboratories have much in the way of special equipment and unique features which make them interesting to technical people in both the automotive and petroleum industries.



ETHYL CORPORATION, CHRYSLER BUILDING, NEW YORK, NEW YORK

ETC 23765

ETHYL NEWS



MAY 1946

ETC 23766



IN THE

ETHYL NEWS

MAY 1946

After 45 months of service with the U. S. Army, Lt. Col. Russell Schell is back at his desk at Ethyl as Assistant Manager of Safety.

More than half of Col. Schell's military service was spent with the Office of the Chief of Engineers, Washington, D. C., where the Corps of Engineers utilized his knowledge and experience in the safe handling of fuels in the field. As Chief of Gasoline Storage and Distribution Systems for Office of the Chief of Engineers, he had charge of the maintenance of all Army gasoline storage and dispensing systems in continental United States.

Before his assignment to the Office of Chief of Engineers in Washington, he served as Safety Officer and Fire Marshal with the Engineer Amphibian Command at Camp Edwards, Massachusetts, and the 533rd Engineer Amphibian Regiment at Camp Carrabelle, Florida; Battalion Commander of the 390th Engineer General Service Battalion at Camp Claiborne, Louisiana; Engineer Specialists Recruiting Officer with the Engineer District, Fort Sam Houston, Texas; and Labor Relations, Public Relations and Industrial Services Officer with the Milwaukee, Wisconsin, Engineer District.

A graduate of the U. S. Naval Academy, Col. Schell was employed by the Marmon Motor Company for four years and joined the Ethyl Corporation in 1929 as a field representative in the Tulsa Division. In 1936, he was called to the New York office to become Assistant Manager of the Safety Department. He entered the Army in 1942 with the rank of Captain.

THE FIRST FIFTY YEARS

3

A half-century of progress will be observed this month and next, when the automobile industry celebrates its Golden Jubilee.

FARM POWER IN SMALL PACKAGES

8

For the many people who intend to become part-time farmers, now that the war is over, garden tractors will prove to be a boon.

SHORT SHORT STORY

9

"IN THIS CORNER . . ."

10

This picture story traces the history of professional boxing from the earliest bare knuckle fight down to the first Louis-Conn match.

TRICK STUFF

14

Before the war, legerdemain was practiced by only the exclusive few. Now, fully a million people have taken to magic as amateurs or professionals, as a result of its immense wartime popularity.

WANTED: 25 MILLION GOOD DRIVERS

18

To help promote highway safety, a new Ethyl advertising campaign is stressing the importance of good driving habits. As part of this, a booklet of professional driving tips is being offered to motorists.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzales, secretary

ETC 23767

As the automobile industry prepares to celebrate its Golden Jubilee of progress, some of the highlights in its history are recalled

IT IS A fitting tribute that the automobile industry this year should celebrate its Golden Jubilee. It is fitting because it comes at a time when the American public's demand for motor cars is the largest in history. No greater endorsement of the industry's contribution to progress, and its meaning to America, could be made than this.

Within the next several weeks, when the industry marks its observance of this major milestone, it will pay homage to a number of the pioneers who played significant roles in its formative years. Among them will be J. Frank Duryea, who with his late brother, Charles, built and ran successfully the first gasoline-powered car in 1892 and sold the first gasoline-powered car in June, 1896; Charles B. King, who drove



J. Frank Duryea, one of the automotive pioneers whom the industry will honor, at the tiller of the 1896 Duryea car

The First Fifty Years

his horseless carriage down Detroit streets in March, 1896; Henry Ford, W. C. Durant, R. E. Olds and Charles W. Nash — all of whom made important contributions to automotive progress.

As the Golden Jubilee unfolds, the American people will be able to realize anew the significance of the automobile industry.

They will be told, for example, that since the Duryea brothers sold their first car in 1896, over 90 million vehicles have been produced by the

industry, with a factory sales value of over 50 billion dollars.

They will be reminded that whereas the first year, 1896, saw only 16 vehicles on the road, the year 1941 found us with 34 million registered vehicles—and the next decade promises to eclipse even that amazing total.

They will be told that while it took 20 years, from 1896 to 1916, to produce a million passenger cars annually, within the next year the industry expects to produce six million.

The automobile industry is so deeply a part of the American way of life that few laymen realize the enormous impact it has had on our economic growth and development.

From a score of tinkers' shops and sheds it has grown to a four billion dollar industry encompassing over a thousand plants owned by an estimated 850 motor vehicle and parts manufacturers. From a handful of pioneers and their helpers, who dared to break with tradition, it has become the mainspring of seven mil-



Henry Ford

William C. Durant



Charles B. King



lion jobs in the manufacture, sale and use of motor vehicles. From an infant industry of highly uncertain future it has become part of the backbone of the national economy.

Twice it was called upon to cease its normal activities—production for peace—to forge the implements of war. During World War I it turned out a stream of ambulances, engines, cars, and Liberty motors for aircraft. Its record for the war just ended was a thousand times better—the automotive industry produced 28 billion dollars worth of war goods, one-fifth of the entire armament output.

If there is one basic characteristic about the automotive industry, it is a constant dissatisfaction with past accomplishments, a continuing effort to reach new goals. This fundamental spirit of research has charac-

terized car building from the first experimental models all the way down to today's modern automobiles.

Today, the efficiency and dependability of the modern automobile are pretty much taken for granted by motorists. Car owners may be dimly aware of individual improvements, as they come along, or sense the improved performance in present cars against earlier models they drove. But what they don't often realize is that the automobile of today is a product of decades of unending research, with the countless changes and improvements brought about by a process of evolution.

The automobile of today is founded on the success of the internal combustion engine operated on gasoline. Gasoline-powered cars go

R. E. Olds



Charles W. Nash

back to the 1890's, when the automobile industry was founded, but the basic principle of internal combustion was successfully established several decades earlier, when the European scientist, Nicholas August Otto, patented his four-cycle compression engine.

When the first American gasoline-powered cars appeared, they not only had to sell the public on an inherently new mode of transportation. They also had to demonstrate their superiority over two other kinds of automotive power: steam and electricity. In many ways, the early steam and electric vehicles had the edge over their gasoline-powered rivals. And the competition between the several gasoline buggies was severe, even though all three kinds of vehicles were also fighting for a common existence.

Thus, it was an epic achievement when, in a race sponsored by the *Chicago Times-Herald* in 1895, Duryea's gasoline buggy covered the muddy 4-mile course in seven-and-a-half hours, winning out over all other competitors. Gasoline-powered cars proved they could start more quickly than steam cars and could deliver more power per pound than the electrics. And they used a fuel commonly available throughout the country.

Getting Underway

By the turn of the century, production of cars had reached an annual rate of 4,000 units. Five years later, it had risen to six times that figure. Within that time, not simply was the ultimate fate of the steam and electric vehicles sealed; the one and two-cylinder gasoline engine was giving way to engines of four and even eight cylinders. As a corollary, that era saw the first beginnings of the mass production methods for which the industry was to become

famous throughout the world.

By 1905, the first successful automobile show was held. Dozens of makes of all sizes and shapes were displayed. But it is interesting to note that of all the makes that were being produced by 1905, only a handful have survived since that time and are still being produced today. They include the Buick, Cadillac, Ford, Oldsmobile, Packard and Studebaker. Such was the intense competition within the industry, which has seen over a thousand different makes competing for the public's favor.

Milestones of Progress

In the four decades since 1905, there have been thousands upon thousands of separate improvements in automobiles. One-fourth of all the patents registered in the U. S. Patent Office are said to relate to automobiles. Yet out of the myriad improvements that have been seen, it is possible to pick out a few which automotive engineers consider milestones on the road of progress.

One of these, certainly, was the invention of the self-starter by Charles F. Kettering.

"Boss Ket" had just developed his new ignition system for automobiles, when Henry Leland, general manager of the Cadillac Motor Co., approached him on the possibility of a starting device. A friend of Leland's had been seriously injured while cranking a car, and he was interested in some device that would prevent such frequent accidents as this. As it happened, "Boss Ket" had already done some experimental work on an electric starter, and he felt he could develop one that would be practical.

Within a year, Kettering's electrical starting, lighting and ignition system was an accomplished fact. Kettering was yet to go through a trying period before it was finally

accepted. But in the end, his electric self-starter proved its practical value to even the most skeptical, and it was first installed as standard equipment on the 1912 Cadillac.

With the invention of the self-starter, one of the big obstacles to automotive progress was removed. No longer did starting a car require a strong arm, a strong back—and lots of patience. Ended, too, was the possibility of further accidents caused by cranking. But of greatest importance was the fact that women could now drive a car without requiring a man along to crank the engine. This alone doubled the potential number of car users. Within two years after its introduction on the Cadillac, the self-starter was standard equipment on nearly all makes.

Two further important developments came along in this period. One was the appearance of the enclosed automobile body. The second was the introduction of installment buying of automobiles. With a completely enclosed body, an automobile was no longer merely a fair-weather vehicle; it was a practical, all-weather means of transportation. Through installment buying, millions of people of modest means could now afford to purchase cars out of their current income.

Spurred the Industry's Growth

The self-starter, together with other collateral developments, had a tremendously stimulating effect. Automobile production nearly doubled in 1912 compared with the previous year, soared to 461,500 units in 1913, to 548,100 a year later. By 1916, it had passed the million-and-a-half mark annually, and by 1920 reached a total of 1,905,560 cars in one year.

Significant as was its progress in the decade centering around the first

World War, the automobile industry enjoyed its greatest single era of growth in the 1920's. Production soared to two, three and four million cars annually, as millions of Americans became car-conscious. The automobile industry, more than any other, paced the great prosperity of that era.

But early in that decade, before the soaring public demand for motor cars could be met, the industry had to overcome still another barrier to mass production. This was the time required for the paint to dry on the glistening bodies.

The assembly lines could turn out cars fast enough to meet the demand, but the manufacturers couldn't put them on the market because it required anywhere from 15 to 30 days to paint a car. "Twenty million dollars in automobiles sitting in warehouses waiting for the paint to dry!" was a rueful comment of the day.

Extensive research in the field of paint chemistry finally resulted in the development of a fast-drying, hard and durable synthetic lacquer. Using this finish, the time required

This 1897 Oldsmobile, the first model, developed an 18 mile-per-hour speed with its 5 hp. gasoline engine



to paint a car was reduced from a matter of days to a matter of hours. And automobile owners benefited from a finish that was infinitely better, easily cleaned, and highly resistant to deterioration.

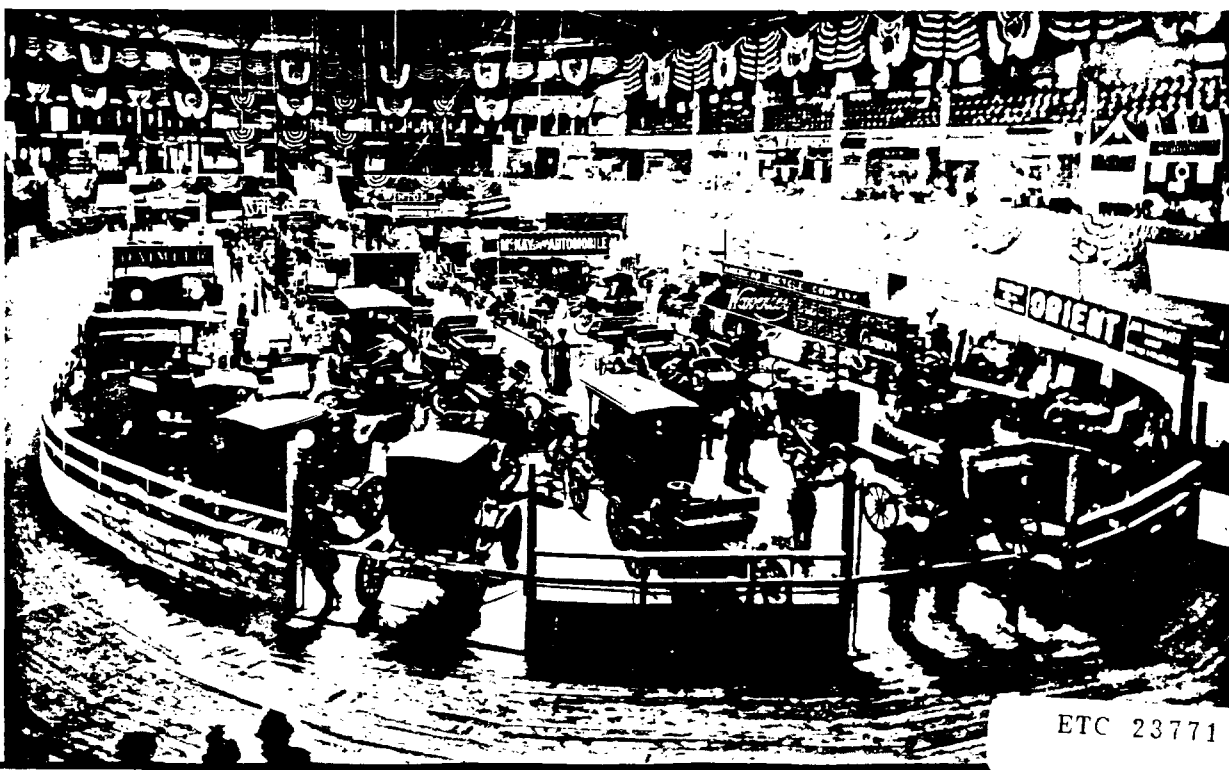
It is impossible to detail the host of improvements in automobiles seen in the last quarter-century. One can do little more than to highlight a few.

There was, for example, the advent of balloon tires, first seen in

1922; oil filters and four-wheel brakes came along the following year. Chrysler's famous "Red Head" engine of 1927 — the first modern high compression automotive engine designed to take advantage of high antiknock fuels — readily comes to mind. So does the advent of safety glass, hydraulic brakes, all-steel bodies and soft coil springs, down to the last notable prewar development: automatic transmission.

All of these improvements, en-

Cars looked more like carriages than automobiles, when the first auto show was held in the old Madison Square Garden in New York, in 1900, but the gasoline-powered buggies were beginning to win out over the rival steamers and electrics



compassing decades of continuing progress, go to make up the automobile as today we know it. Thus, while the automobile industry pauses to observe its Golden Jubilee of progress, motorists should remember that they are enjoying the fruits of fully five decades of continuing change and improvement.

The Role of Better Fuels

No account of automotive progress can fail to record the contribution of the oil industry. As the automobile industry has built more and more power into its engines, the oil industry has developed improved fuels and lubricants that would at all times bring out the best in car performances. The recognition of the interdependence of fuels and engines goes back many years. It had its origins in the research leading to the discovery of tetraethyl lead. The recognition of the interdependence of lubricants, fuels and engine design is more recent.

Looking back, it is interesting to recall that when "Boss Ket" told Tom Midgley to find out what was



Charles F. Kettering

causing automobile engines to knock, there was no general recognition at the time that this was an inherent tendency of gasoline. The phenomenon of knock was simply just another automotive problem, albeit a tough one. Midgley's investigations of knock and his ultimate discovery of tetraethyl lead opened the way for mutual progress in the oil and automotive industries, working to-

gether. Reflecting the coordinate improvement in fuels and engines, automotive engine power in the past two decades has been more than doubled, and mileage per gallon has been increased by approximately one-fourth, for an automobile of similar size.

Goals of the Future

Today, on the occasion of its fiftieth anniversary, the automobile industry looks to the future. Although its immediate concern is to achieve all-out production, in order to begin taking care of the tremendous accumulated demand for new cars, it is nevertheless looking ahead to the time when distant goals can again be translated into present accomplishments. One of these lies in the generally higher octane gasolines which the oil industry will be able to offer motorists and which will allow still greater gains in automotive performance and efficiency.

The most stimulating thought at the point of this anniversary is the next fifty years of automotive progress.

The town blacksmith added a new sideline, "General Repairs," to his business, when the early automobiles suffered their frequent breakdowns. Finding out what was the matter—and making the car go again—was a matter of general interest



Farm Power in Small

By Stetson Clark

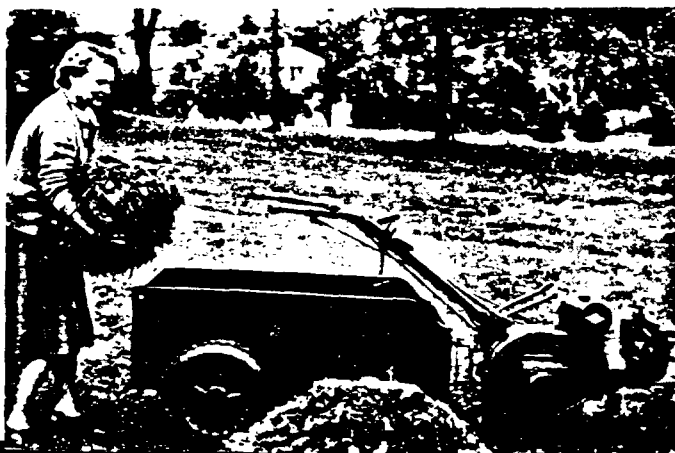
Whether for a big garden, a small farm, or almost any place in the country, garden tractors have many surprising uses



Garden tractors have many uses. Besides plowing, they can cultivate, harrow, spray crops, pull trailers, and even supply power off the belt



In wintertime, a snow plow attachment makes quick work of clearing away the snow



Another labor-saving device is this sturdy trailer which can cart off loads up to one-half ton

DR. AND MRS. FRITZ A. BEYERS of New York City have a farm near Columbia, New Jersey, which has a garden — a big one, 175 feet long by 103 feet wide. Mrs. Beyers was telling me about it. To be as precise as she was, it's 41.4% of an acre. Last year, Mrs. Beyers canned a great many jars of tomatoes, beans, corn, currant jelly, and other foods. And like good Victory gardeners the Beyers gave away more than they used themselves.

Even so, you never find the Beyers on the week-ends, hoe in hand, toiling in their garden. The secret of their fabulous garden that grows food without hoeing is a little garden tractor they own.

"Toy tractors," good dirt farmers often called them when they first appeared in this locality. As it happens, this one of the Beyers is equipped with a small chopper or soil pulverizer, rather than with shovel cultivators and a small plow. But the same story could be told about garden tractors of more conventional design.

For week-end farmers like the Beyers, a garden tractor not only takes the drudgery out of a big

garden, but also makes it easy to keep the lawn mowed and the weeds cut along the driveway. And what is significant — dirt farmers don't regard them as "toys" any longer. They have become commoner than "the old horse" on numerous small farms. They also have specialized uses on larger farms. Some of the big truck farms in Lancaster County have a half-dozen garden tractors.

The price for a garden tractor runs from \$135 for a one-hp. tractor up to \$375 for a 4½-hp. tractor. Attachments for it may be purchased for such jobs as plowing, harrowing, cultivating, seeding, and fertilizing. Then too, the addition of a lawn mower attachment or a snow plow does away with much arduous, backbreaking work on a farm, suburban home, or country estate.

A small garden tractor is a lot easier to use and keep than a horse. And it calls neither for baled hay nor two acres of forage crops, and it can be housed in a garage. One that Theodore Graver kept in his garage last year, alongside his car, made some two acres of Victory gardens ready for planting in his neighborhood on the outskirts of Allentown, Pennsylvania, and enabled him also to tend a half-acre truck farm of his own. The last time I heard, Graver was considering a number of ways in which he might round out his operations as a suburban farmer into a dependable year-round income.

Garden tractors are pitching in

1 Packages

where the horse left off on places like Graver's, and in general are removing the doubtfulness from a kind of undertaking which social planners once hesitatingly called a "subsistence homestead." Many such places are close to town like the Gravers'. Convenient access to sizable communities helps them to sell their produce to advantage, or, as is often the case, makes it possible for them to raise chickens or grow truck or fruit crops as a side venture, while relying on a job in town as the main source of their income.

For the great numbers of people who are expected to become part-time farmers, power in small packages will be a great boon.

Another development that's also apparently on the way is an intermediate package of power, namely,

Garden tractors can handle anything from a big garden to a small farm. They will prove to be a boon to the many people who intend to become part-time farmers, now that the war is over



smaller riding-type tractors. These may bring back a farm of about the size of the old two-horse farm which can have cows or other livestock.

From where I'm writing this I can hear the whine of a sawmill when the wind is in the right direction. The mill belongs to Claude Wolbach. Though his ten-cow dairy farm is mechanized to the hilt, Claude is one small farmer who hasn't had to wait for the small riding-type tractors that are on the

way. He has made much of his equipment himself. So, also, have many of the smaller farmers in this locality.

Farmers are good customers of automobile graveyards these days. Some of our local graveyards' best customers are mechanically precocious youngsters of about high school age who were reared on part-time farms. Dad perhaps works at the nearby home plant of the Beth-

(Continued on page 21)

Short Short Story



Oh Henry Legler

DOUBLE or NOTHING

The cats! Mrs. Gibbons' eyes blazed beneath her widow's veil.

The gossip old cats! They might at least have the decency to wait until the funeral is over.

Blaming her. Sure, they were. Not openly. Oh, no — but you could put quotation marks around those icy glances.

"It was her fault!" . . .

"She drove him to it!" . . .

"Poor John, married less than two years — and suicide was the only way out."

What were those words the Reverend Davis was mumbling: "In life, we knew him as a kindly, generous man — a man of high principles and stalwart character."

Rubbish! He was a jerk! A mean, tight-fisted jerk. And everybody knew it. The hypocrites.

The preacher droned drearily on — "problems of the world weighed heavily upon him — until alas, he sought escape from the trials and tribulations of this mortal existence . . ."

Mrs. Gibbons' thoughts drifted away from the stuffy

funeral parlor to a montage of pleasant anticipation — a cabana at Palm Beach — a box at Santa Anita — a flowered balcony at Cuernavaco.

Of course, there'd be those details of the insurance. She'd tend to that tomorrow . . .

Forty thousand dollars! How good those words sounded! She whispered them softly to herself — over and over — *forty thousand dollars!*

Let's see. She'd phone the agent first thing in the morning and tell him about her husband's suicide.

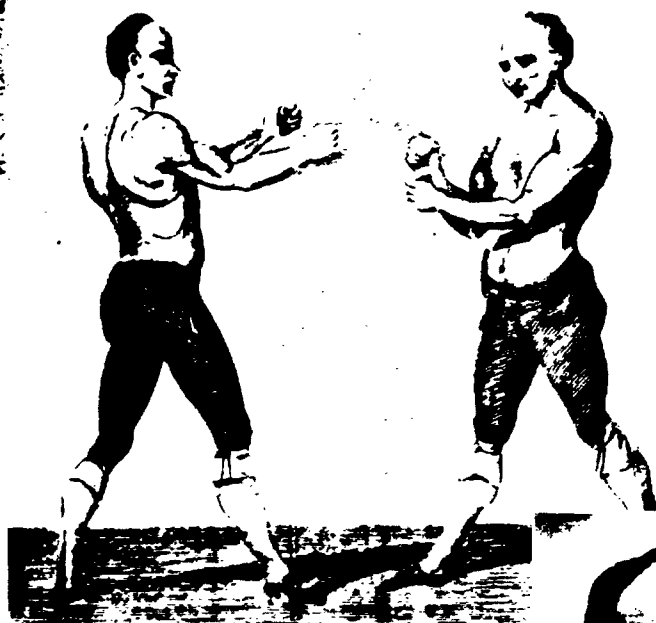
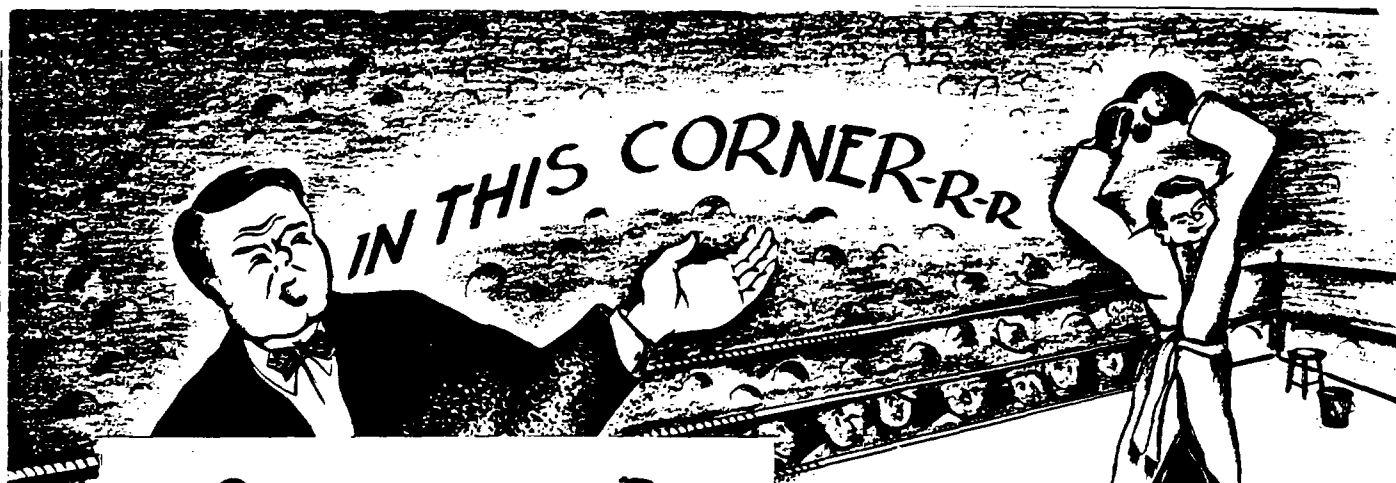
Suicide? Say, wait a minute! Don't those policies say something about *suicide*? Something about "double" for accidental deaths? or was it . . . ?

Out of the dim recesses of Mrs. Gibbons' memory echoed the half-forgotten words of the agent: "the usual two-year suicide clause — the policies become null and void . . ."

Null and void! Oh, my God!

Anguished sobs came from behind the black veil.

And for the first time, the frozen-faced mourners looked sympathetically toward the widow Gibbons.



Although professional boxing is regarded as a modern sport, its real beginnings go back more than two full centuries

The first upset in ring history occurred when a butcher named Jack Slack defeated John Broughton, the British champ, in 1750



The Marquis of Queensberry rules, issued in England in 1866, were first used over here in the title match between Sullivan and Corbett. Previously, two other sets of rules governed the conduct of boxing matches



The first American boxing champion was Tom Molyneux, a former colored slave, who was defeated by the British champion, Tom Cribb, in 1810

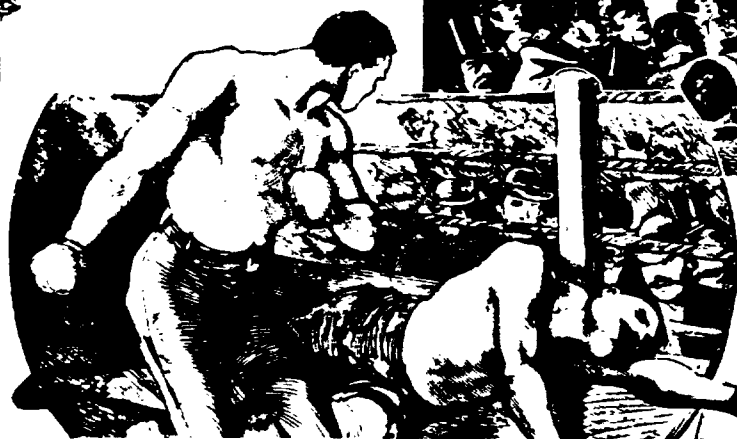
WHEN Joe Louis and Billy Conn square off for the heavyweight boxing championship of the world next month, big-time professional boxing gets off to its peacetime start.

Boxing as a recognized sport in this country goes back to the middle of the last century. But though the United States has produced the greatest number of champions since that time—and is today the leading sponsor of the sport—the science of boxing began in England a full century earlier than it did over here.

The first noted fighter was John Broughton, Champion of England from 1740 to 1750, who is credited with drawing up the first crude set of rules for the prize ring. These were later supplanted by the London Prize Ring Rules which, among other things, prohibited biting, gouging or tearing the flesh with fingers or nails. Interestingly enough, the Marquis of Queensberry rules, which first appeared in England around 1866, weren't adopted in this country until a quarter-century later.

In this country, the first heavy-weight champion was a former col-

The first great international ring event was held in England in 1860, when John Heenan, of America, met Tom Sayers, the British champ. The fight was ruled a draw, after the 42nd round



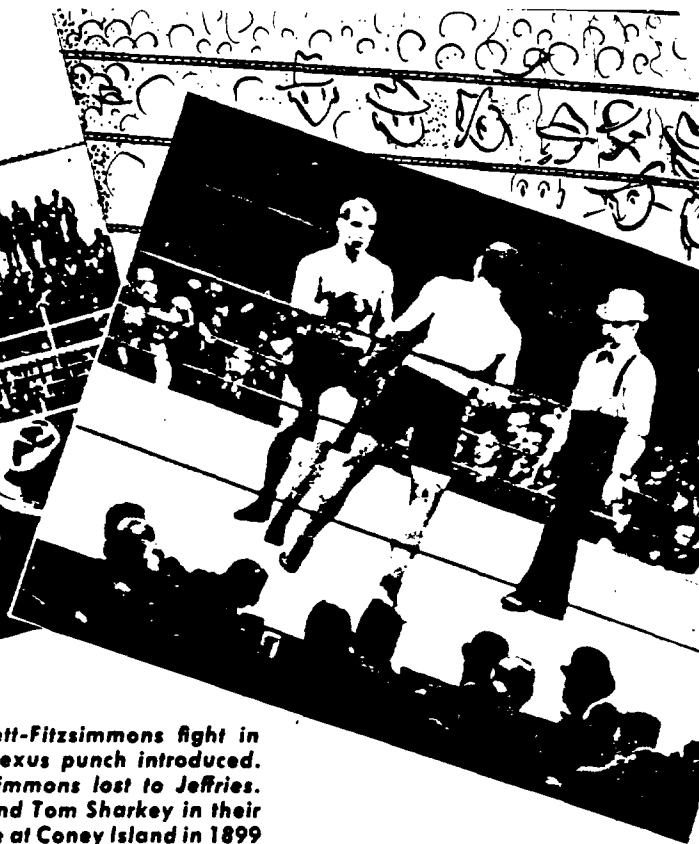
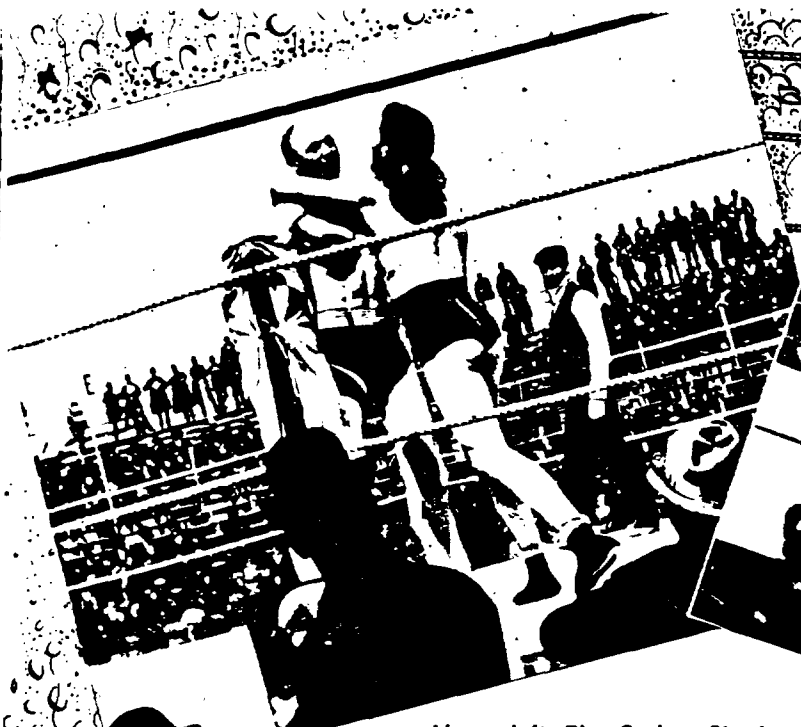
The era of scientific boxing began when James J. Corbett knocked out "the Great John L." in 1892. The 21-round battle saw the first use of gloves in the U. S.

John L. Sullivan began his ten-year reign as world champion when he knocked out Paddy Ryan in 1882

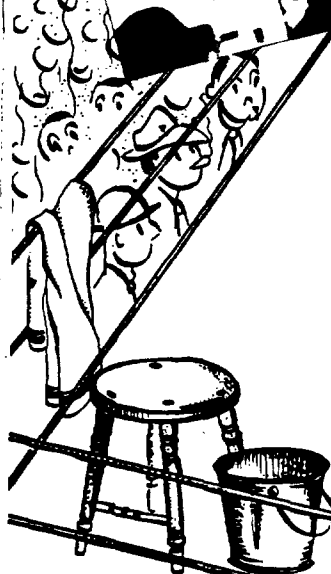
ored slave, Tom Molyneux, who fought the British champion, Tom Cribb, in 1810. Modern boxing, however, dates from the great John L. Sullivan, who bridged the transition from bare knuckle fighting to boxing with gloves.

Since then, this country has produced some of the world's most colorful champions. They include "Gentleman Jim" Corbett, the first exponent of scientific boxing; Bob Fitzsimmons, who introduced the solar plexus punch; Jim Jeffries, Jack Johnson, Jack Dempsey, Gene Tunney, and other ring greats. Scenes from their memorable championship fights, among others, are reproduced on these pages.





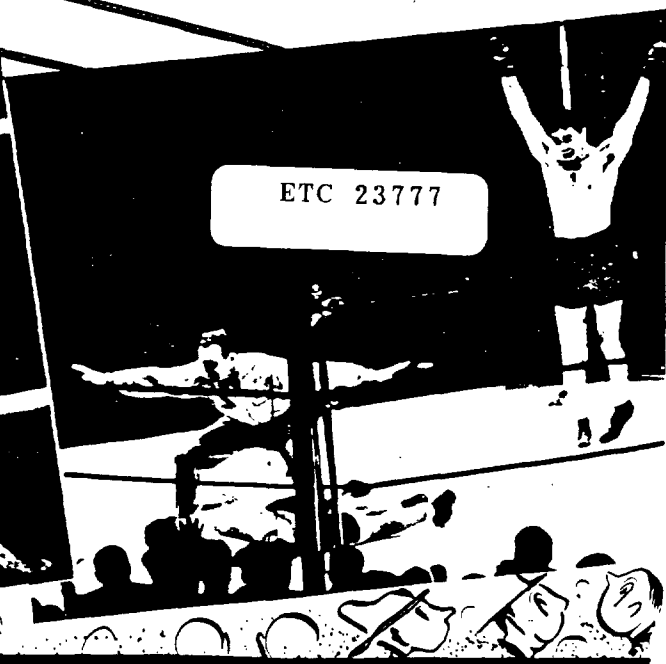
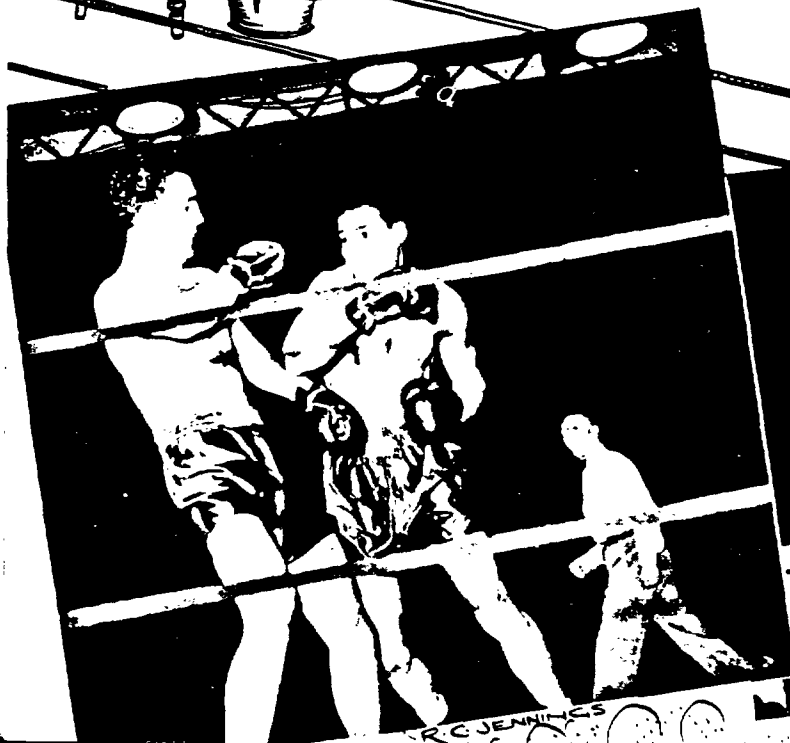
Above left: The Corbett-Fitzsimmons fight in 1897 saw the solar plexus punch introduced. Two years later, Fitzsimmons lost to Jeffries. Above right: Jeffries and Tom Sharkey in their famous 25-round battle at Coney Island in 1899



Back in 1941, Joe Louis stopped Billy Conn in the 13th round. Next month, Conn will make his second bid for the heavyweight title that Louis has held for nine full years

IN THIS C

The first time they met, in 1936, Max Schmeling knocked out Joe Louis in the 12th round. Two years later, Joe Louis kayoed Schmeling in the very first round



ETC 23777



The author with Joseph Dunninger (right), who is famous as a mentalist



Dell O'Dell, regarded as the leading magician of her sex, is a favorite with children



***Official Organ of the Magicians' Guild**

Blackstone, shown here performing the "floating light bulb" trick, is considered to be the foremost "heavy" magician



**By Walter B. Gibson, Editor
The Conjuror's Magazine***

**Magic today claims fully a million adherents,
as a result of its immense wartime popularity**

AMATEUR AND professional Merlin-ites — dabblers in the hocus-pocus of sleight-of-hand, legerdemain, mind reading and card manipulation — are increasing in numbers as rapidly as the rabbits they pull out of their silken toppers. It is estimated that fully a million Americans, of both sexes, from six to senility, have taken to magic as a hobby, a business, a profession, and an easy way to entertain friends.

Interest in magic is increasing to the point where close-mouthed professional wizards are cleaning up financially through demonstrations, club dates and theatrical bookings. Some of the old-timers worry, however, that their highly secret machinations are becoming too much of a public property.

Upstarts in the world of wizards, however, are all for revealing the innermost secrets of their fascinating profession on the theory that the more people who know about it, and think they can do magic, the better it will be for all concerned. A really crack performer knows in his heart it's not the principle of a trick that counts but the dexterity with which it's performed.

The increase in popularity of magic stems directly from the war.

Before Pearl Harbor, magic shops did a dull business indeed, professional magicians were a dime a dozen who scrabbled for a few lean bookings, and less than a quarter-million people claimed allegiance to even the simpler forms of legerdemain.

During the war, however, magic performers soon gained early priority on USO Camp Show rosters — practically every unit that went overseas included at least one Mer-





Jimmy Grippo, who is well-known as a card manipulator, is also noted as a hypnotist

requests for information from servicemen who want to set up magic shops in their communities.

Although there are hundreds of magic shops around the country, New York and California are the trade centers.

They each boast a half-dozen shops which peddle anything from books on hypnotism to Chinese Vases and Linking Rings. They have graduated from street level locales to cozier offices high up in office buildings. Magic enthusiasts are ever on the prowl from shop to shop looking for new ideas, gimmicks or manifestations. Amateurs are lured not only by the exotic display of rising cards, disappearing wands, and milk glasses which dissolve through a handkerchief, but also by the visits of professional wizards.

Tarbell, who has written four of a projected six-volume course on magic and holds classes in several cities, may usually be found sleight-of-handing at one of the mystic deadfalls when he's in town.

"You run into some naive people in this business, sometimes," he says. "I remember one student in my class in Philadelphia who came up to me at the end of a session, almost in

tears. I had just demonstrated the dollar in the lemon trick, in which a dollar bill apparently tied in a handkerchief shows up in the fruit after it is sliced open. 'Doc Tarbell,' this fellow said to me, 'I'm going to stop coming to your classes. Why that lemon effect isn't magic at all — it's just a trick!' What are you going to do with people like that?" asks Tarbell, calmly pulling a knotted handkerchief through his neck.

Dynamic Blackstone, white hair awry, and wispy mustache sharply drawn, drops in occasionally to intersperse his repertoire of prestochango with a stream of humorous asides. Blackstone is recognized as the No. 1 heavy magician today, inheriting the revered mantle once worn by Howard Thurston. Blackstone recently toured through the South, and at almost every theater he played, he was besieged by amateur prestidigitators who insisted on showing him their tricks. Good-natured, he kept nodding approval of their inept demonstrations, and, pretending to pat them kindly on the shoulder, he quickly inserted a special long pencil through their buttonholes. While they struggled to extricate themselves from these pixyish pencils, which are just too long to be removed without breaking, Blackstone quickly made his getaway.

Russell Swann is another regular at the magic shops, but he is reticent about discussing his best effects.

"You've got to keep the public mystified," he says. "When they learn too much about your art they won't pay to see you." Swann considers himself the master of misdirection. "Misdirection," he explains, "is letting the right hand do the work, while the left hand does the dirty work."

Cardini, president of the Magicians Guild, is an occasional gratis

demonstrator at these backrooms of magic. The suavest of today's performers, Cardini is admittedly the ace of the pasteboard manipulators. At the recent election of officers for the Guild, Julian Proskauer, a Manhattan publisher, presided. He tossed ballots into a top hat and a rabbit pulled out one on which was inscribed the name of the winner, and president — Cardini. I believe this story because the rabbit told me.

All of these professional mystifiers put on impromptu demonstrations on small platforms behind tiny curtains rigged up in a corner of the magic shops. The audience comprises men still in uniform, ex-servicemen, school kids, chorus girls, actors, writers and businessmen.

Orson Welles, who recently enjoyed a lot of fanfare as a wand-wielder who coyly cut his beauteous Rita into Hay and Worth, is a frequent performer. Richard Himber, chunky bandleader, recently took up magic, first as an interested hobbyist, but now as a semi-professional. He has a few original tricks to his credit, and has a musical show in the works with a magical background.

Dunninger occasionally gives lectures in mentalism. At the end of a recent session, the awed students clustered around Mr. Dunninger, plying him with questions. He groped in his pocket, during the conversation, looking for something.

"Have you got a cigarette?" he asked a boy near him.

"Why, Mr. Dunninger," exclaimed the disappointed lad. "I thought you were a mind reader. I don't even smoke."

Magicians are a clannish lot, fond of get-togethers and self-emulation, but they are also extremely jealous of one another. They guard their so-called new effects from other eyes which might copy them, even though they themselves may have

appropriated them from some musty volume of a forgotten Merlin of bygone years.

Actually, tricks don't stay secret long. Practically everyone close to the field eventually catches on to the principle behind even the most elaborate tricks. The gullible public, which witnesses magic shows for enjoyment, knows in its heart that it is being deceived.

Nevertheless, every professional magician likes to have at least one or two startling effects which are his specialty. To obtain such effects he will pay magic craftsmen as high as \$500 for an exclusive trick.

There are hundreds of basement and attic workshop lathe-workers in the country who make a good living turning out patented tricks sold through the magic shops or by mail order. A half dozen big houses virtually control the wholesale market — chiefly Abbott's Novelty Co., in Colon, Michigan. Abbott grosses over half a million dollars yearly, turning out hundreds of different gimmicks, from the simple penny-into-dime trick to elaborate Oriental cabinets which cost in the hundreds. All big shop-owners entice trade by introducing new effects, which they sometimes invent themselves. Before long, however, their competitors are out with a new version.

Before the war there weren't a score of professional magicians in

all categories making a living out of their activities. Today, there are at least 40 busy on the club, convention and cafe circuits. Thousands of businessmen — bankers, lawyers, accountants, florists, salesmen — have taken more than passing interest in the fascinating profession. Upwards of 6,000 are better-than-average amateurs who rate entry into one of the major magi societies — the International Brotherhood of Magicians, Society of Amateur Magicians and the Magicians Guild.

An odd fact about the practice of magic is that the practical kind — involving cards, gimmicks and mechanical apparatus — seems to appeal mostly to men. Only about 10% of the amateurs in the country are women, and there are but a handful of magicians in skirts, of whom Dell O'Dell is tops. Despite the natural gentle touch of the ladies, they are rarely as adept at card-palming or coin passing as they are at knitting. As might be expected, the female interest is concentrated on the West Coast, where a score of clubs called Magigals flower with a total membership of close to 100,000.

So widespread is the practice of magic that there are numerous examples of teen-agers working their way through high school and college giving club exhibitions. Also, there is an offshoot of the magic societies — the Magi-Ministers, a group of some 400 members of the



Lou Tannen, who runs a magic shop in New York, demonstrating a lighted candle trick

cloth, of all sects, who practice magic, especially in Sunday school, as a means of attracting parishioners.

Magic seems, verily, to be becoming a family proposition. All phases of magic are on the brink of a post-war boom as millions of people seek forgetfulness from the fateful four years of conflict.

The chances are that you will run across a magic fan in your fraternal club, or visit a magic shop out of curiosity, or perhaps witness a professional performance in the near future. If you should happen to see a dramatic-looking individual who "reads" your thoughts, or who makes ink stains evaporate from a handkerchief or changes the spots on a card, don't you believe it — it's done with mirrors.

Houdini's Magic Safe

When Houdini the magician died, he left an odd-looking safe to which he had never given anybody the combination. It had a huge lock bolted to the outside of the door, with cylinders and tumblers fully revealed. He had always told his wife that any locksmith could see how it worked.

Mrs. Houdini couldn't get the safe opened, so she sent for Charles Courtney of New York, internationally as famous in picking locks as the magician had been in getting out of handcuffs, leg irons, and other restraining devices. Courtney thought it would be a cinch.

But after spending half a day on the job the lock wizard

admitted he was baffled for the first time in his life. He asked Mrs. Houdini if she had ever seen her husband open the safe. She remembered that he had leaned on the top of the safe, on his right elbow, and simply passed his left hand over a flat space on the safe door.

That solved the mystery. In about three minutes Courtney discovered that the pin in the top hinge was also a push button. He put his finger on it, the bolts inside clicked back and the door swung open. The magician had installed a small magnet inside the hinge so that he could mystify people even after death.



THE CALL OF THE open road with its smooth ribbon of concrete stretching ahead has a magnetic appeal this month and in the summer months ahead. For after four long years of severely restricted driving, the American motorist will want to enjoy the beauty of America's countryside and see its changing panorama unroll before him. After being cooped up in the city for too long, the average American will take advantage of his opportunity to get out into the country and enjoy the clean, fresh air, the sunshine, and the magnificent landscapes which Nature paints with so lavish a hand.

With unrationed gasoline plentiful, more drivers soon will be seen on America's highways than in any summer since 1941. But even with more traffic on the roads the number of accidents can be reduced by the use of due care and simple courtesy. By seeing that brakes, tires, and car lights are in the best possible condition and showing the same sort of consideration to our fellow driver that we would have him accord to us, the accident curve can be bent downward and kept down.

As everyone knows, half the fun in motoring is good driving. And

New Ethyl advertising campaign designed to aid highway safety by emphasizing importance of good driving habits

good driving is not hard to learn. It just requires a little reading, some practice and the right mental attitude. Good driving can make motor travel a genuine pleasure in so many different ways. Good driving habits will enable you to drive long hours without becoming tired, to drive with ease through heavy city traffic, to park perfectly in a small place, and what is mighty important, to keep your car on the road.

President's Safety Conference

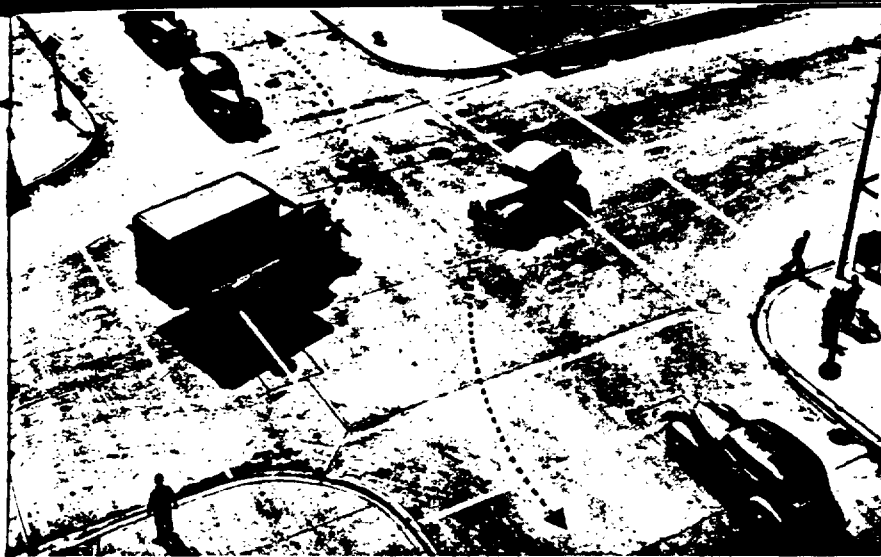
In order to get across better to the American motorist the significant message of highway safety, a national conference, called by President Truman, was held in Washington this month. Major General Philip B. Fleming, Administrator of the Federal Works Agency, served as general chairman of the Conference. The safety program has the endorsement and support of all groups interested in highway transportation, such as oil, automobile, tire and rubber companies, road builders, safety groups, and the police. Public officials from all over the

nation, as well as representatives of national organizations having a basic interest in highway safety, attended the President's Conference.

As part of the concerted drive to increase highway safety, the police of the United States and Canada, under the sponsorship of the International Association of Chiefs of Police, this month will initiate an intensive traffic safety check program. Going into operation at a time when automotive travel is rising to its peak, the program is intended to reduce the incidence of highway accidents by calling attention to any mechanical defects which lead to accidents.

Other motorists, however, will also be encouraged to have their cars inspected by police, of their own volition as a precautionary measure. The tests, it is pointed out, are relatively simple and require only a few minutes.

These road tests will remind motorists of the importance of keeping their brakes, tires, headlights, and taillights in good condition and working order as a means of pre-



Good driving habits mean safe, enjoyable driving, motorists are being told. Here, the proper way to make a left turn is shown



Above: Making sure the way is entirely clear, before backing out, is a good driving habit — and one way of avoiding accidents.

Below: Another reminder to motorists is not to signal one way — and then turn the other way, as this thoughtless driver is doing



venting accidents. Yet, important as it is for a motorist to have his car in good mechanical condition, records show that only 6% of the accidents involving automobiles are the result of mechanical faults. The great majority of accidents are the fault of the drivers themselves.

Driving Refresher

Police officials and traffic engineers are recommending that motorists who are returning to the highways after having done little, if any, driving during the war, should take some intensive driving practice wherever they can find unfrequented roads. They should become completely familiar with the braking power of their cars, so that they are absolutely certain how much distance is required for them to stop at various speeds. They should learn the exact position of fenders, bumpers, and tires in relation to other objects, both stationary and moving. When this familiarity has been gained, the drivers won't have to guess if they have enough clearance when driving or parking.

Courtesy is one of the most important factors in accident prevention, police officials point out.

Many good driving tips are contained in this booklet, which Ethyl is distributing to motorists upon request



Drivers who signal their intention to stop or turn, and who give right of way when it is due, seldom are involved in accidents, and they almost never cause accidents.

As part of the general effort to emphasize the importance of good driving habits, especially now, Ethyl Corporation has embarked on a new advertising program in leading national magazines with a combined circulation of more than 15 million copies per issue. The campaign presents a fresh approach to the problem, it is believed, because it will emphasize the positive results of good driving. Motorists should not be deterred from driving, it is felt, but should be encouraged to derive the greatest pleasure out of driving by practicing good driving habits. This is the underlying theme of the campaign.

Booklet Offered Free

The Ethyl advertising program handles the subject of good driving through the highly popular "quiz" technique designed to enlist the cooperation and interest of the reader. Presenting a series of tips on good driving, the program is built around a 72-page booklet, "Professional Driving," which is being offered free to car owners. Ethyl's program has been approved by the Automotive Safety Foundation and the National Safety Council, which believe that the ads and the booklet will be great helps in developing a nation of better, safer drivers. Written and illustrated by experts, the booklet is designed especially for the experienced driver who would like to improve his driving, and learn how much more pleasure he can get out of it by following intelligent methods.

Some of the important points stressed are indicated by the chapter headings: "Getting Started," "Park-

ing Made Simple," "How to Take a Curve," "Driving Needn't Be Tiring," "Through Rain or Fog," and "Driving Tips for City Traffic."

The way a person starts the engine of his car may make a big difference in the life of his car or truck and the operating cost per mile. The first chapter in *Professional Driving*, "Getting Started," relates the lore and knowledge about starting a car that has been gained by Fred E. Fullerton of Boston as a result of his 21 years of driving experience. When asked the best way to start a car Fred answered, "The first thing I always do is make sure the gearshift is in neutral—that's just a common-sense safety precaution. Then I turn on the ignition, step on the clutch pedal, and press the starter button. When the engine starts, it's a good idea to glance at the oil gauge to make sure the oil pump is working.

"One thing to remember when you start a car indoors is the danger of carbon monoxide poisoning. Don't let your motor run too long before you get going."

The chapter, "Driving Needn't Be Tiring," tells how to avoid fatigue on cross-country trips. A. D. (Gus) Honour, crack driver of Atlanta, Georgia, says that he takes good care of his health, eats lightly on the road, and gets plenty of sleep. He believes good health enables him to drive long hours day after day without fatigue. He states that "a driver should always see that the seat is comfortable for him. No two drivers find the same seat suits them exactly. Adjust the seat to your natural driving positions before you start out."

To prevent legs from getting stiff or cramped, Gus offers this advice. "When you hit a piece of open road—a spot where there's no traffic—use your hand throttle for a little while. That will give you a chance to stretch your legs." Then too, he ad-

vises, "Rest your eyes occasionally. Moving them up and down, right and left will do it—plus a good long look at the countryside."

In the chapter on "Parking on a Hill," Charles Jenkins of California, who had 24 years of driving experience, gives these three rules for hillside parking:

1. Cramp the front wheels against the curb.
2. Set the gearshift in reverse facing downhill or in low facing uphill.
3. Pull the hand brake on hard.

The best way to handle a blowout, according to veteran driver Merle Hartley of Detroit, is to "Hang onto the wheel and keep your head when you hear a tire blow. If it's a front tire, the car will swerve toward the side of the blowout. If it's a rear tire, the back end will sway from side to side.

Blowouts — And Speed

"Concentrate on keeping the car going straight. Don't take your foot off the accelerator. In fact, *increase* your speed slightly if possible. That will pull you out of the swerve. When you are sure you have the car under control, apply the brakes lightly. You can handle a blowout in your stride if you take it calmly.

"Just one final tip. Too much speed is one of the chief causes of blowouts. Obey the speed laws and you're far less likely to have a tire blow."

The Ethyl booklet also tells how to pull out of a skid, park perfectly in a small place, overcome blinding lights, and tell highway markers by their design, among other things.

Prepared with the advice of experts, the booklet is intended to aid in the campaign of reinstalling good driving habits in motorists, as a means both of preventing accidents and increasing driving pleasure.

FARM POWER IN SMALL PACKAGES

(Continued from page 9)

lehem Steel Company, and is handy himself with a welding torch. We have no monopoly on such youngsters in this locality.

There were 900,000 part-time farmers in the United States in 1940 who worked 100 days or more off the farm. When they weren't farming, 75% of them worked at some other type of occupation. A great many were industrial workers, and practically all the part-time farms were in the vicinity of populous centers. They have been multiplying notably in industrial and coal mining regions.

More Part-Time Farmers

Presently we are likely to have many more part-time farmers around here. Claude's sawmill tells me that. We are having a countryside building boom. Sites are not within eye-distance of one another, so you can't see a lot of buildings going up. But mills like Claude's are finding a market for lumber as fast as they can saw it.

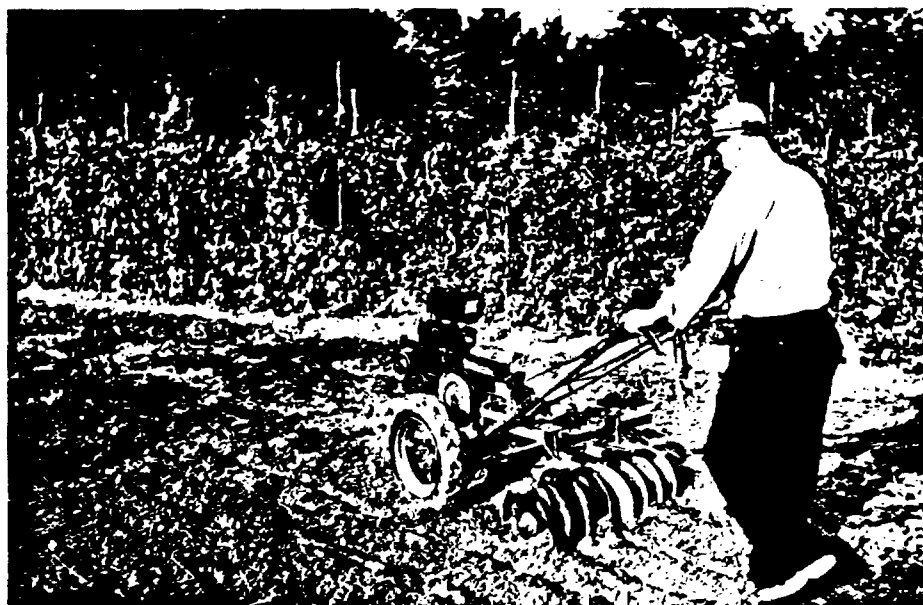
Much of the lumber he is sawing is going into improvements on part-time farms whose owners now have more time to work on their places, since the feverish pace of wartime production has slackened. Some of it is going into a bungalow that one of our returned soldiers is building on a two-acre "farm."

Perhaps this building boom

Right, cultivating gladiolus with a garden tractor. Besides their applications around a garden or farm, these tractors are also put to good use in greenhouses and nurseries, on country estates, and even on college campuses and stadia



Farm chores are done quickly with a garden tractor. Above is a riding-type tractor pulling a tandem disc. Below is a walking model equipped with a disc harrow attachment



ETC 23786





On any country place, a garden tractor can be used for everything from mowing the lawn to spraying trees

Claude's mill is announcing in this locality is nothing to what is coming. Some indications point that way. One can't forget those 1,200,000 G.I.'s who stated, in an occupational survey which the Army made some time ago, that they would like to have small farms and work at a regular job besides.

One Man's Plans

Another former serviceman I know of, who is planning to build nearby, is a brakeman on the Lehigh Valley Railroad. This is the job he had before the war. But while he was overseas he married a French girl, and would like to build in this locality because it looks so much like the part of France his wife comes from. There's no reason he can't. It won't cost him any more to live out here than it would in town. Nothing's to prevent him from doing some farming on the side if he wants to. A small tractor can make it easy for him to have a big garden, and a home-size quick freezer can help his wife to store its produce indefinitely.

True enough, seekers of small farms, or large ones also, who now don't know what farm life is like, may find out that it isn't all fun, nor

necessarily the embodiment of rock-ribbed security. However, the machines of the size they need to help them with their farming operations, and in their homes, should make it easier for them than it was for an earlier generation.

Most of our acres in this locality are held by full-time farmers. But, already, *most* of our population are part-time farmers, and when you count noses you find that it was quite a while ago that the majority of them pioneered at living in the country and getting back and forth to work in a car.

Our school teacher, Elmer Deemer, who is also a part-time

farmer, has a three-acre farm in Raubsville. When the high school where he was teaching closed, rather than seek a similar position elsewhere, he decided to stay put in Raubsville. Our township school can't pay the salary that he got as a high school teacher, but he planted raspberries and truck crops and got some chickens. Elmer was lucky enough to get a well-designed garden tractor while the war was on, and it is helping him out now.

Can Do More Now

Formerly, when Elmer had cultivating to do, he had to walk a half-mile to a neighbor's for a horse. Then after he had done the best he could with a horse-drawn cultivator, the rest of the weeds had to be hoed and pulled out by hand. Now his garden tractor does the plowing and cultivating more easily and quickly than those jobs have ever been done before.

The small farmers who are established in this locality have had their ups and downs. But these garden tractors, and in some cases, small home-made tractors, have been a great asset to them. Farming may not be all fun, but there are not many small places for sale in the locality.

OUR COVER: Kodachrome of the baby raccoon from the New York Zoological Society. **OUR PICTURES:** Pages 3 and 4, courtesy Automobile Manufacturers Assn.; Pages 6 and 7, courtesy General Motors Corp.; Page 8 (top), courtesy Eastern Tractor Manufacturing Co., (center), courtesy Gravely-Illinois Co., (bottom), Bert Boice photo courtesy Rotitiller, Inc.; Page 9, courtesy Bolens Products Co.; Pages 10, 12 and 13, artwork by Ruth Jennings; illustrations Pages 10 and 11, and photos Pages 12 (upper left) and 13 (top), Culver Service; Page 12 (upper and lower right) and Page 15, Wide World; Page 12 (lower left) and Page 13 (bottom), Press Association; Page 13 (center right), Acme Newspictures, Inc.; Page 14, courtesy *The Conjuror's Magazine*; Page 19, courtesy National Safety Council; Page 21 (top), courtesy Pond Garden Tractor Co., (center), courtesy S. L. Allen & Co., (bottom), courtesy Ariens Co.; Page 22, courtesy Gravely Motor Plow & Cultivator Co.

NEW ETHYL CLEANER

Better, Faster, Milder than Soap!

Makes light work of housework!

Here's a new and different kind of household cleaner! It's safe, not inflammable! Bad news to dirt and grease—good news to your hands!

Ethyl Cleaner suds even in hard water. Requires no scrubbing! Leaves no streaks or soapy acum—leaves surface sparking clean! Harmless to all surfaces. Get a bottle of Ethyl Cleaner today!

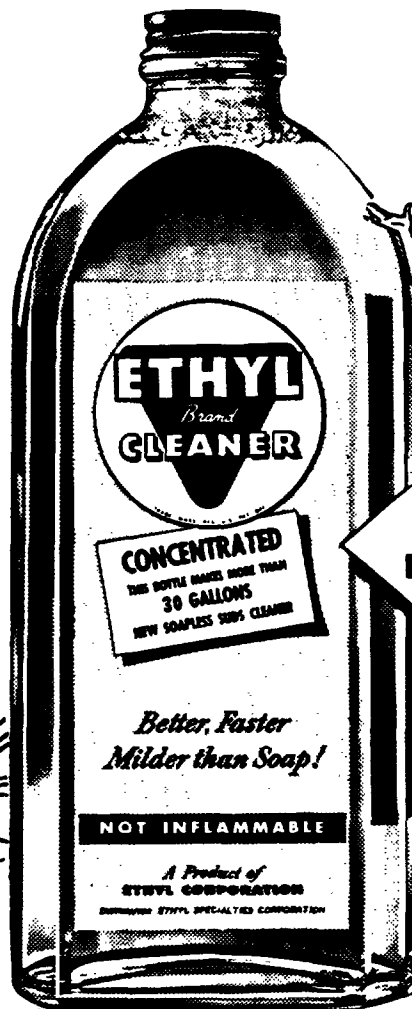
P. S. Ethyl Cleaner is a new product of scientific research originally developed for cleaning all parts of a car. Tested in major cities, housewives reported it speedier, easier and safer for dozens of household uses too!

CONCENTRATED — SAVES MONEY

More than 30 GALLONS from \$1 bottle

More than 20 GALLONS from 75¢ bottle

More than 30 QUARTS from 35¢ bottle



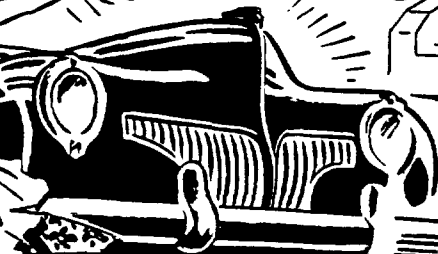
TAKES
THE WORK OUT
OF WASHING
WINDOWS... SEE
'EM SPARKLE!

LOOK FOR THE
ETHYL TRADEMARK



LOOK...
UPHOLSTERY'S
CLEAN AND
BRIGHT AS
NEW!

JUST SLAP IT ON,
RINSE IT OFF,
CAR'S CLEAN!



CLEANS
TILE, GLASS—
EVERYTHING IN
THE BATHROOM
LIKE MAGIC!

A PRODUCT OF ETHYL CORPORATION... 405 Lexington Avenue, New York 17, N. Y.



HOW DO YOU RATE AS AN AUTOMOBILE DRIVER?

There's a lot more to driving than some people think. A good driver meets many situations with the right split-second decision because he knows the correct thing to do.

What would you do in the typical situations presented below?

Three answers right out of five is good
—all five answers right is an expert's rating.

1. As you roll along a residential street a rubber ball comes bouncing across the road in front of you. What would you do?

- A Ignore it. B Squeeze your wheels to avoid running over it.
C Blow your horn. D Slow down and get set for an emergency stop.



2. In making a right turn on wet pavement your car suddenly starts to skid as shown in the picture. Which two of these five possible actions would help you control the skid?

- A Jam on the foot brakes. B Pull up the hand (emergency) brake.
C Turn steering wheel to the left. D Turn steering wheel to the right.
E Keep your foot on the accelerator and continue feeding gas.



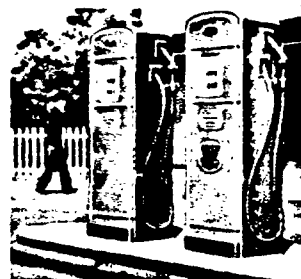
3. You see the sign above at the crest of a long, winding hill. What's the best thing to do?

- A Stay in high gear and use your brakes to control speed. B Shift in to second gear or "low" range if your car has an automatic transmission.
C Coast down in neutral to save gas.



4. The driver of an oncoming car neglects to dim, or "dip," his headlights. Which three of the possible actions listed below are the wisest, safest things for you to do?

- A Shine your own bright lights into his eyes to even the score. B Dim your own lights.
C Wear dark glasses. D Watch his headlights to avoid possible collision.
E Keep your eyes on the right edge of the road and pull your car over to the right as far as possible. F Speed up to get by as quickly as possible. G Slow down.



5. Which of these two pumps would you stop at to get this service station's highest quality gasoline?

ANSWERS:

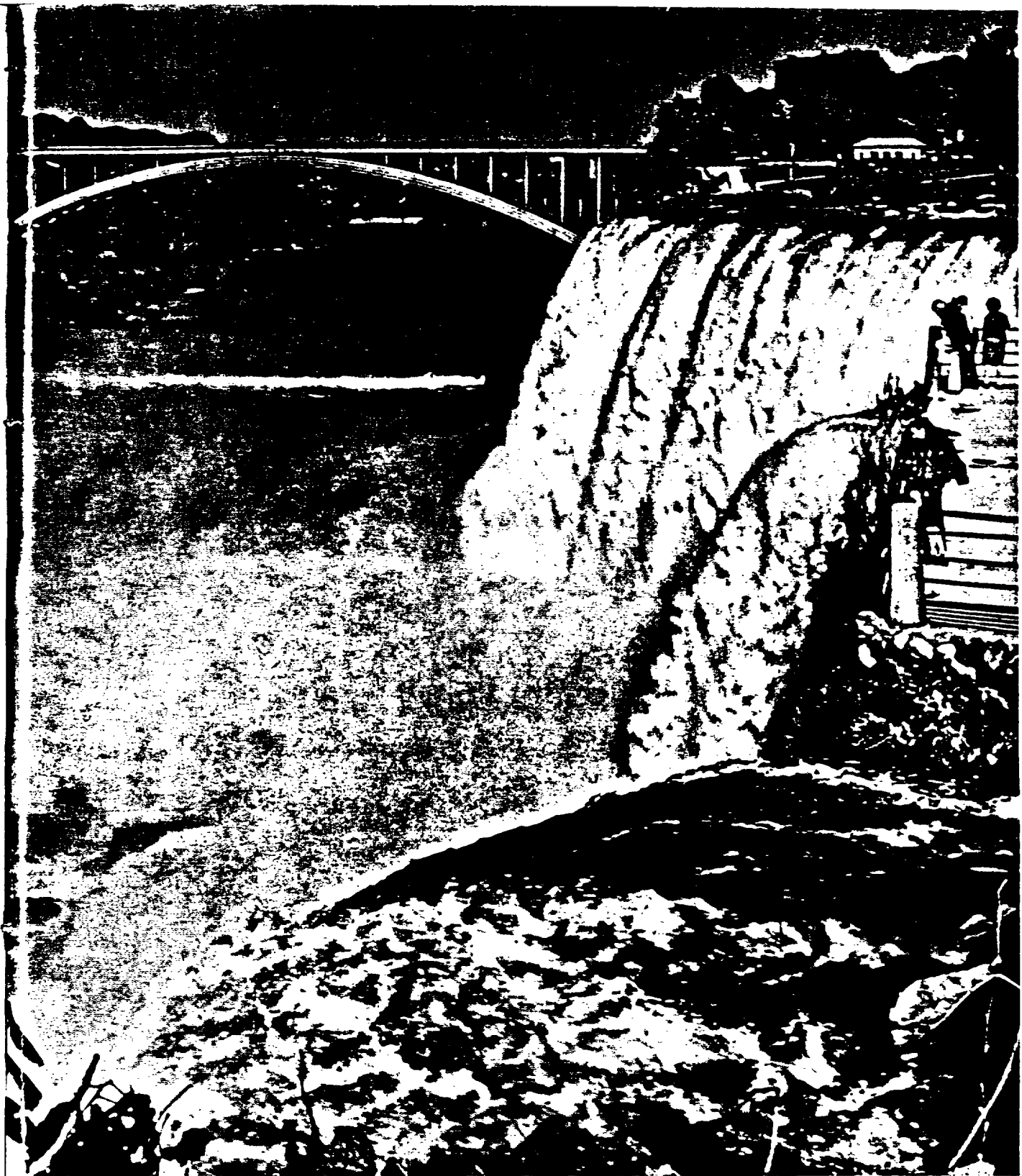
- (D) is correct—but it's also good to blow the horn. Remember, a rubber ball bouncing into the street is likely to be followed by a child trying to catch it.
- (C) and (E). Always turn in the direction of a skid to control it. Never use the brakes, but feed a little gas to get traction.
- (B) is right. Coasting is dangerous. Use second gear to save brakes.
- (B), (E) and (G) are right. Dim your lights, and the other driver probably will, too. Don't stare at oncoming headlights—you'll be blinded. For safety, keep your eyes on the right edge of the road, pull over to the right and slow down.
- The pump with the black and yellow emblem on it. Millions of experienced drivers look for the Ethyl emblem wherever they drive. They know that high-quality gasoline in a properly tuned engine makes for a more responsive car and therefore a safer car. That's another reason why they always ask for ETHYL.



FREE 72-page booklet: "Professional Driving" is not for beginners, but for people who know how to drive. Written and illustrated by experts. Typical chapter headings: "How to Take a Curve," "Driving Needn't Be Tiring," "Through Rain or Fog," "Driving Tips for City Traffic." Offered free to all car owners by ETHYL.

Ethyl Corporation
Chrysler Bldg., New York 17, N. Y.
Please send me without obligation a free copy of "Professional Driving."

Name _____
(Please Print)
Address _____
City _____ State _____



ETHYL NEWS

ETC 23790

JUNE ★ 1946

H. Claire Dees, who was Manager of the Baltimore division of Ethyl Corporation when he entered military service, has been released with the rank of lieutenant colonel after three and a half years with the Army Air Corps, and appointed manager of the Seattle division. In Seattle, Colonel Dees will succeed Harry Kuhe who has been named manager of the Chicago division of Ethyl Corporation.



Colonel Dees served with Headquarters of the Army Air Corps in Washington, D. C. before assignments overseas to Europe and Japan. For his services he was awarded the Bronze Star.

He came to Ethyl in 1931 as a field representative in Minnesota and in 1936 was appointed assistant division manager in Chicago. A year later he was transferred to Tulsa as assistant division manager and in April, 1939 was promoted to Manager of the Baltimore division, where he remained for three years until he entered the Army. He is a graduate of the University of Kentucky, Class of '29.

Mr. Kuhe, a graduate of the University of Wisconsin, was employed by the Strom Ball Bearing Company and the Continental Paper and Bag Company before coming to Ethyl in 1929. After



serving as a field representative in Chicago for three years, he was appointed assistant division manager in Tulsa in 1932. In 1938 he was Manager of the Mexican division and in 1940 he was appointed Manager of the Seattle division.

IN THE

ETHYL NEWS

JUNE 1946

AT HOME ON THE ROAD

3

Tourist courts and trailer camps, while helping now to ease the housing shortage, are looking forward to a further peacetime expansion and better service to motorists.

THE FINE ART OF TIPPING

7

Once upon a time, tipping was simply a voluntary gratuity. Today it is not merely customary but almost compulsory . . . and a thriving big business in itself.

EYES FRONT AT WEST POINT

10

The war just ended is shaping the curriculum of West Point. Looking to the future, the Academy is planning an intensive study of everything from the atomic bomb to new uses for electronics.

"AND NOW THE NEWS"

13

To the radio public, any popular radio news commentator is simply a familiar voice that comes out of the loudspeaker — but here are picture closeups of some of these radio newsmen.

AWAKE AT THE WHEEL

17

Round-the-clock driving has two little gremlins: Boredom and Fatigue. Here are some ways to ward them off, the next time you have to make that long trip.

OIL FRONTIERS: U.S.A.

20

Drilling rigs in the Florida Keys, in North Carolina, and elsewhere illustrate the widening search for oil in the United States. More, they presage an intensified hunt for additional reserves, when normal times return.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Any opinions expressed in these signed articles, of course, are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23791

Tourist courts and trailer camps once existed mainly for the vacationing motorist. Now they're doing a surprising job in the housing shortage

AT HOME ON THE ROAD

By Wm. A. McGarry

BACK IN 1913, the trickle of motor car tourists pushing its way across the great American desert was becoming something of a nuisance to the people of the Southwestern states. The horse had been the chief means of locomotion there for untold generations. Corrals, stables, blacksmiths and saddlers could be found in every settlement. But they had no means of providing for people riding on rubber. Motorists were bothersome.

An enterprising citizen at Douglas, Arizona, noted that these tourists all had money. They were "roughing it" for the adventure of seeing the wide open spaces beyond the far horizons. Some had tents, and some slept in their cars. It occurred to him that he might turn an honest dollar by setting up a place where they could park and sleep under cover. So he built six board shacks on the outskirts of town, with no facilities except bunks and cookstoves.

The oak of a tremendous national industry is now flourishing from the acorn of that idea. Tourist courts, as the operators call them, numbered 19,500 in 1941 and now exceed 20,000. Virtually all of them have electric or acetylene gas lighting, equipped kitchens and adequate furnishings. The courts range in size from modest setups of a dozen cabins to huge forested parks with swimming pools, playgrounds, dance

halls and moving picture theatres. At least two have airplane landing fields.

Profits were substantial and steadily rising at the tourist courts long before Pearl Harbor. Then they skyrocketed. The national average on invested income was estimated at 7.58% in 1938, when millions were still jobless. In 1943, according to the *Tourist Court Journal*, the return was 36.61% and in 1944 it went up to 37.85%. Many chains were operating, and the buying rush now on indicates that others are being formed. One of the more elaborate stopovers was reported recently to have been sold for \$1,250,000. Another one changed hands five times in six weeks.

The wartime housing shortage was and is the chief cause of this bonanza. At least 70% of the camps, including most of the larger ones with 50 or more cabins each, are located within 35 miles of critical housing areas around the big war plants. As soon as production got under way all of them had to hang out NO CABINS signs. Their guests settled down for the duration, get-

ting to and from the plants in share-the-ride cars. Largely they took care of their own cabins, so that the labor shortage elsewhere didn't bother these tourist courts much.

But now, the significant fact is that business didn't fall off, as expected, when the war plant workers began to move on. On the contrary it has been picking up. Rooms are still at a premium. The exodus was much less than had been anticipated. The courts are selling to the permanents and to a gold rush of tourists more gasoline and oil, more meals and more supplies of all kinds.

This coming event cast its shadow even during the war, but nobody noticed it until a year or so ago. Then the *Tourist Court Journal* discovered that in spite of tire and gas rationing and no new cars, the 30% of all the courts not in critical housing areas were earning 18% in profits annually. This came from tourists, not permanent guests, and was not to any great extent a consequence of the housing shortage.

In 1941, the American Automobile Association made a survey and estimated that courts then operat-



Many tourist courts are the last word in luxury. Above is one located in West Palm Beach, Fla.

ing contained 440,000 units, in single cabins or multiples. The average daily occupancy then was 22 guests to a court. But there were also nearly 300,000 trailers hauling their own living accommodations and using the courts as parking and service stations. On the basis of these and other figures, the A.A.A. estimated that motor tourists were spending at the rate of \$4.7 billion annually in that year. Of this the *Journal* says at least half a billion went for tourist court meals and lodgings, and \$150 million for gasoline, oil and other services.

Now, the A.A.A. says, motor tourist expenditures will hit an all-time high of six billion dollars this year, and that by 1950 it will be ten to twelve billions. In line with this, the *Journal* predicts that at least 10,000 new courts will be opened within that time, to provide double or more the present accommodations, and with more comforts than were available before except at the high priced de luxe courts. Also the U. S. Department of Commerce says it has requests for information from

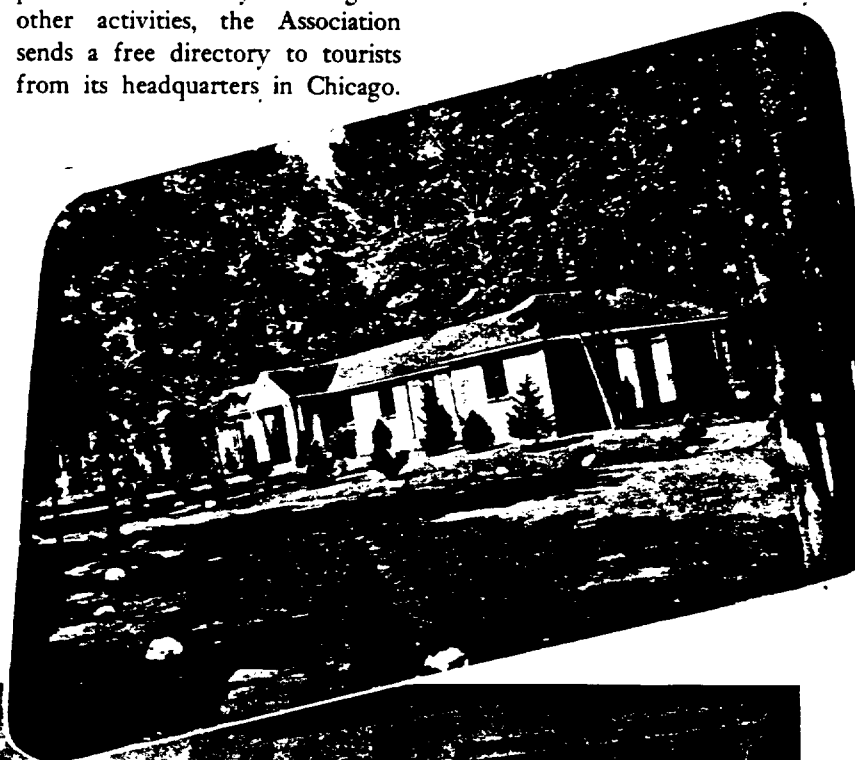
3,000 veterans who want to go into the tourist court business. It has urged the small court operators to organize under an association trade name and to offer uniform standards of service and rates.

The fact is that operators have been working toward this goal on a regional basis for some years, and there are a score or more of organizations. These in turn, as well as individual operators, hold membership in and support the United Motor Court Association, a non-profit national body. Among its other activities, the Association sends a free directory to tourists from its headquarters in Chicago.

The circulation of this has reached 500,000 copies a year. United is now preparing a national advertising campaign for the benefit of its members, and is even planning to endow courses in motor court operation in selected colleges.

A quarter of a century ago, most of the people who used motor courts were adventurous souls who didn't mind a little hardship. Since then, the courts have been developing the comforts of first-class hotels in response to a demand from a changing clientele. Guests at the courts today

Right is the Twin Lakes Motor Lodge in North Hackensack, N. J. Below is an interior view in the Harvey Line Motel, in Long Beach, Cal.



ETC 23793

Looking out on a corner of the swimming pool at the Motel El Rancho, Fresno, Cal. The inset shows a statue in the landscaped gardens of the San Rafael, Cal., court

are a cross section of motorists. If any one group predominates it is educational — teachers, social workers, writers, students, historians — who combine vacation travel with a thirst for knowledge about their country, or are on strictly professional projects. There is even a sprinkling of lawyers and doctors and bankers getting away from the hurly-burly of city life for a rest.

Initially, their low rates was one of the chief selling points of the courts to tourists, but it was not then and is not now the only one. Convenience and liberty of movement rate equally with it.

As anyone who has done any touring well knows, going into a strange city in a car with the wife and children, or even alone, can be a nuisance. Traffic rules are confusing to the stranger. Getting the car parked is a problem. Even when the hotel help picks it up at the door, one often must wait at the last minute until the car is snaked out of the garage.

At a tourist court, the motorist drives up to the central office, hires and pays for a cabin at a rate always lower than comparable hotel sleeping quarters, and then is on his own. Since only a handful of the swank courts have telephones and cabin service, nobody is going to bother the tourist. His car is a few steps from his cabin door. And since he has paid in advance for the length of his stay — a night or a week — he can start traveling again at any time he likes, without consulting anybody about it. Rates, incidentally, still vary from as low as 50 cents a night at the "poor man's courts" to \$10 a day at the de luxe establishments. But the latter sum will bring

the use of a superbly appointed "cabin" with living room, dinette, kitchen and bath. The kitchen will have sugar and salt and condiments, and the food shops at the court will be prepared to furnish virtually anything the tourist wants to eat.

The tourist court at San Rafael, California, has landscaped gardens decorated with excellent bronze statues. The two courts with airplane fields are in Ohio. One is on Rural Route 1 and U. S. 25, more familiarly known as the Dixie Highway, six miles south of Lima. The other is at Norwalk, a 20-minute flight from Cleveland. On one day, eleven planes came in with luncheon parties from Cleveland, Toledo, Columbus and Sandusky. Many courts in the Southwest and California have golf courses.

In 1941, the A.A.A. found 3,200 courts, out of 9,600 inspected, meeting its requirements for affiliation. In the same year, the *Tourist Court Journal* rated 5,000 of the 19,500 courts then operating first class, and 1,000 of them de luxe. It goes with-

out saying that virtually all the new courts being built — when materials are available — will be of high standard. Manufacturers of all kinds of equipment are now designing specifically for the tourist court market. But they won't be ready this year. An A.A.A. survey shows that 84% of its membership of a million intend to travel by motor car, so tourists would do well to make reservations in advance — if they are not already too late for this season.

It has been noted that 300,000 trailers were rolling along the highways when the war turned them into stationary housing units. Most of them are still "frozen" as such, and National Housing Administrator Wilson W. Wyatt has asked for 50,000 more for the same purpose.

The manufacturers now have the capacity to produce 100,000 units a year. But, they are turning out only a little more than 1,000 a month (12,000 a year) because they can't get enough materials. Trailer operators are among the best customers of the tourist courts. But now the



TIPS FOR TOURISTS

Get a list of tourist courts and their rates, along with maps, before starting.

Make reservations in advance, preferably by mail, and have the rates specified in the acknowledgment.

If you have no reservation, knock off driving not later than four o'clock in the afternoon in order to have daylight time to shop around.

Consult the court operator whose rates and services have been satisfactory as to your next stop. He will usually know how and where to direct you.

Leave the cabin as you would your own home. Otherwise you may not find room if you have to return some rainy night.

Don't wake up the other cabineers with a lot of unnecessary noise if you are making a start at three or four in the morning.

builders of both are in competition for housing equipment and certain building supplies — and the two groups are also competing for materials with motor car builders, housing contractors, and the furniture industry.

There is also the matter of ceiling prices. Siding on all the standard makes and often the partitions of trailers are made of a pine plywood. That is unobtainable because the OPA price is said to be not high enough to interest the lumbermen. Trailer builders can reportedly get all the birch and mahogany plywood they want, since the ceiling prices on these hardwoods are higher. But that would make the cost of the trailer prohibitive.

A 25-foot-long standard trailer, which before the war sold for \$1,995, has now been granted a retail price ceiling of \$2,395. It is more compact than an airliner, with slid-

ing panels that enable the occupants to separate it into three rooms — bedroom, kitchen and living room-dinette. The living room has a built-in lounge that can be turned into another double bed. About 40,000 of these were built during the war years for the Army and Navy, other armed or civilian Federal services, the Red Cross, and the Salvation Army, and as emergency housing facilities near war plants.

The Schult Corporation of Elkhart, Indiana, with plants in Canada and New Zealand, is the largest exclusive builder of trailers in the world. The growth of the industry otherwise has been somewhat parallel to that of the tourist courts, many of which are now equipped to hook up trailers to water, electric light and even sewage, in a few cases, if they want to make prolonged stays. Distributors for Schult and other builders can give the prospec-

tive trailer traveler a lot of good advice on how *not* to buy a trailer. Even when a lot of secondhand equipment becomes available, and the new units start rolling, it won't be just a matter of picking one up.

For one thing, the average cost of converting even a brand new car to haul a trailer is \$75. Even if the motor car is one of the more expensive makes it will require "helper" springs to carry the extra weight of the trailer. If the car is in the light, lower price class, it may need chassis reinforcement and even gear changes. The motor cars being made today are the best in the history of the industry, but they were not designed to haul trailers. Accordingly, the prospective trailer buyer is urged to get the advice of experts before he makes an investment.

A trailer vacation is in many ways ideal for the small family not in a hurry — and it may be had, when new units are available, without any initial capital investment. Virtually every large city in the country has trailer rental agencies, with rates approximating those for the rental of motor cars of comparable first cost. Even when water and electric light are hooked in at a trailer court, the parking cost is less than it would be for the rental of a cabin. Moreover, even when he can't find court space the trailer tourist still has a roof over his head — and in these days that's something!

Below is one of the luxurious postwar models that were displayed at the recent trailer show. An inside view of a trailer (right) shows the commodious eating quarters





The Fine Art of Tipping

By Paul D. Green

TIPPING HAS BEEN defined by some forgotten philosopher as the wages we pay someone else's help. It's other things: an expression of gratitude, a form of exhibitionism, a bribe — and sometimes a hold-up.

The term originated in England about two centuries ago. Wealthy landowners stopping at roadside taverns usually gave thruppence to the groom who took care of their horses while they ate. In time, they carried the gesture into the dining rooms, putting a coin on a card inscribed with a note: "To Insure Promptness." Eventually, they merely put the initials on the note. It took years for the custom to change to where tips were left *after* service, as a reward or token of gratitude.

This led to the inevitable story about the Scotchman who always bragged about a certain restaurant.

"It's soch a gude place," he chortled. "Everra time I sit doon I find six-pence under the plate."

Since its conservative introduction, tipping has developed into a major activity in America. In New York City, particularly, it is a fine

Once merely an occasional gesture on the part of a patron, tipping today is a highly developed science . . . of extraction



art. You can hardly make a move in Manhattan that doesn't involve a gratuity.

You tip the bootblack five cents for a fifteen-cent shine; you're expected to leave a dime under the saucer after you've had your ten

A.M. coffee and . . . the same amount or more goes for the hasty lunch. The barber expects you to round out his 75-cent haircut fee to bring it up to a dollar. If he gives you a shave, too, the same tip is still enough, but if he adds a few extras,

you're supposed to increase your tip accordingly. The manicurist figures on a minimum of 25 cents a customer, although men habitually tip better than women in this respect. Women go to town, however, in beauty parlors, where they'll tip anywhere from fifty cents to two dollars, if they get the works.

The boy who delivers your groceries expects fifteen cents to a quarter. The caddy on the golf club course anticipates a quarter a round, and better if he has been helpful in retrieving balls or improving your game. The usher in a legitimate theater or at a sport spectacle also has his or her hand ready for showing you to the seat you paid stiff prices for. Even nurses in a hospital look for a remembrance from private patients at the end of, say, a confinement. And so it goes.

You can find a hundred-and-one ways to tip someone for doing something you're paying for, anyway. If you don't, often as not you'll get nothing worse than a baleful glare and perhaps a few harsh words from a night club waiter. Unless you intend to return to a particular spot and use the services of the same person again, you'd actually lose nothing but esteem if you passed up the tip. But somehow, so ingrained has this practice become that you'd sooner juggle atom bombs.

The average New Yorker takes tipping for granted. The same fellow in non-tipping territory reveals his origin by subconsciously tipping too much for everything. Strangely, hinterlanders — oilmen from Oklahoma, cotton-planters from the South and cattle-growers from the West who consider tipping a hold-up — catch on quickly in New York. They are usually more lavish with their largesse than the natives, in an endeavor not to be considered yokels. But their overtipping gives

them away, just the same.

Tipping is at its extreme in Gotham's night clubs and swank *a la carte* eateries. In some clubs, an introduction from the Mayor wouldn't get you in. In most places, however, the only introduction you need is from George Washington, whose visage appears on the \$1 bill.

Headwaiters can appraise a party immediately and determine to the last cartwheel how much of a tip can be expected. If someone wants to make a good impression on a lady friend or out-of-town buyer, and visits a swank restaurant, he had better wave the green stuff pronto. Otherwise he will be conducted to a table near the kitchen or behind a pillar. A few minutes of such ignominy and even the sturdiest individual succumbs to this silent treatment.

The Personal Touch

The tipping routine only begins when you are seated. The smooth-tongued captains hover about taking orders for cocktails, wines and victuals. When your meal is finished, and the waiter hands you the check, you're supposed to leave him between 15% and 20% of the total (the pre-war 10% is as dead as an oyster on the half shell). Then you're supposed to drop the captain who supervised your service another two dollars or so, with an extra dollar for the *sommelier*, or wine steward, if you used him.

Before the war, one chain of luxurious restaurants added 10% to all checks as the waiters' tip to save the customer the trouble of guessing. The chain had to abandon this procedure — not because the percentage was too low — but because the waiters objected to the fact that these tips were reported to the federal government and they had to pay income taxes on them.

During the course of your eve-

ning in a cafe, you'll undoubtedly visit the washroom once or twice, which will cost you a quarter per brush-off. You'll also be plagued by female photographers, cigarette girls and flower-peddlers, not to mention the palm-reader and table magician. Every one of these attractive entrepreneurs expects a quarter or more added to the price of their wares or services. If you request a special number from the band leader, you should be prepared to slip him from five to ten dollars — or buy a round of drinks for the musicians.

On the way out, there's a hat-check girl who coyly sets her price with a fixed coin in the plate. As a finale, there's the doorman who gets you the cab. When you're safely at home, you can figure that you spent almost as much during the evening on tips as you did for refreshments and entertainment.

Earl Wilson, Broadway editor of the New York Post, sums it up succinctly: "After you've finished tipping everybody and you step outside, give your last quarter to a street beggar and change places with him."

The recipients of these tips are sums which would intrigue many a white-collared executive in industry. I know many a waiter and captain, even a bus boy or two, who owns his own home, an automobile, and sometimes a business on the side. A waiter who makes less than \$1 a week in New York, with his \$2 a week salary, thinks he's wasting his time. Captains in the swank East Side spots and bustling West Side cabarets earn \$200 a week and up while the prima donnas, the head waiters, are good for over \$500 a week. Bartenders do just fair, averaging \$60 to \$75 a week in addition to their salaries.

While many of these public servants keep all they earn in the manner, certain employers are not so



The biggest tippers of all are people who earn most of their salaries in tips

substantial percentage of their tips to their bosses — or are supposed to.

Hat-check girls, lady photographers and cigarette girls are supposed to turn their tips in to their bosses, who are concessionaires. Some concessionaires have a policy that all individual tips over a dollar are split with the girls. Shrewd "nuts-and-butts" salesgirls use this arrangement to their advantage by changing a lot of silver into dollar bills, and passing them in as individual tips, which they then proceed to split with the boss.

Others don't even resort to such fancy methods. They work with waiters, bus boys and cashiers to hold their money for them until after work. They don't attempt to hide it on their persons, because matrons could find it during a checkup unless the matron splits with the girls, too. To make things harder for them, their costumes have no pockets.

The coatroom concession business in New York is a major enterprise representing millions of dollars in investments. Most large clubs open for business with working capital

put up in advance by well-heeled concessionaires.

One hat check king owns about 28 concessions in New York City alone, representing an investment of over a quarter of a million dollars a year. Profits from his tipping concessions made him a millionaire.

Incidentally, he never wears a hat. He figures, like Earl Wilson, that he would spend \$250 a year for his hat, retrieving it from the check-room. Earl Wilson visits an average of four clubs a night, five nights a week, for fifty weeks out of the year. He must always remember to tip everywhere he turns or lose a valuable pipe line of grist for his gossip mill.

Society people, baseball players, Congressmen and newspapermen on-the-cuff are notably poor tippers, as are women as a group. The best tippers are seafarers and gamblers — and waiters and headwaiters.

"Diamond Jim" Brady was a renowned tipper, who is said to have tossed out \$50 bills like matchbox covers. Today, Macoco, the South American sugar king is reputed to be the most lavish tipper. It is said

that his parties run to \$1000 or more a night, and that he tips every waiter, bus boy, captain, bartender and headwaiter in sight from ten to fifty dollars apiece.

Tipping goes much further into our daily lives than taxis and restaurants, of course. Anyone who has traveled by train and used a Pullman has been confronted with the outstretched palm all the way. From the moment a person steps out of a cab into the maw of a railroad station, his bag or briefcase is the cue for a half-dozen handouts before journey's end.

On board the train, there comes the ticklish question of how much to tip the porter. The customary amount is a half-dollar a night. If there are added services, they call for separate tips.

This recalls the amusing story of the man disembarking from the 20th Century Limited at Chicago, after a run from New York. He was puzzled as to how much to tip the porter, so he asked the man himself.

"George," he said, "what's the average tip for a run like this?"

(Continued on page 26)



EYES FRONT at West Point

Change and revision is the order of the day as our Military Academy incorporates lessons learned in the war into its curriculum

A brief aviation orientation course will replace the intensive wartime pilot training program

GRADUATION DAY at West Point this year means more than just the fact that some 870 young men have completed the strenuous United States Military Academy course and qualified for commissions as second lieutenants in the Regular Army. It also marks the date upon which the world's foremost school for embryo military officers informally accepts the challenge of the developing Atomic Age.

Throughout all its 144 years of existence, the formidable grey-walled citadel high above the Hudson never has failed to keep in step with the ever-changing means of waging war. And this time is to be no exception.

The resultant "new" West Point still will cling to most of its time-tested, albeit ivy-covered, traditions and methods, many of them dating back to the Superintendency of Brevet Brigadier General Sylvanus Thayer almost a century and a quarter ago. "Brave old Army teams"



will continue to seek national football championships, Cadets will stroll with their "drags" along Flirtation Walk on Sunday afternoons, and the Corps will thrill tourists who converge on West Point from all corners of the globe to witness a dress parade on the famous Plain.

But it is in the classroom, in the laboratory, on maneuvers, during special joint training activities with Annapolis Midshipmen and the like — the West Point that casual visitors seldom see — where the United States Military Academy of the Atomic Age will be fashioned. The institution's proposed physical expansion will be the general public's only open reminder that new things are happening at and to West Point.

Courses dealing with the atom and with electronics have been incorporated into the curriculum, effective this September. Russian has been added to the list of elective languages to be studied. Additional time has been allotted to tracing the development of the art of war, with particular emphasis on the study of the combined air-land-sea operations of World War II and logistics.

On the tactical side, the Military Academy is keeping one jump ahead of the proposed merger of Army, Navy and Air Force into a common defense organization. Close working contact with the United States Naval Academy will be the order of the day beginning this summer, when Second Classmen (juniors) of both service schools join forces for two weeks of joint amphibious operations at one of the Naval amphibious training bases in the country.

Already launched is a program under which a thousand or more Cadets and Midshipmen exchange places for several days as a means of further strengthening the bonds of friendship and stressing the need for constant cooperation between

them. The plan calls for Cadets and Midshipmen to eat, sleep and study at the other Academy, and even obligates the West Pointer and Annapolis man to yield his best girl as a "date" for his counterpart if no reasonable facsimile can be produced. Frequent exchange of West Point and Annapolis instructors throughout the academic term is another phase of this program.

This unprecedented bilateral action with Annapolis seems bound to pay dividends whether the much-

discussed armed forces merger is approved or not. West Point officials feel that the petty jealousies which are apt to crop up between members of the two great institutions over athletic rivalries will be erased. At the same time, students will be given the opportunity to learn and understand each other's professional problems so that no "scandal" such as the alleged lack of Army-Navy coordination at Pearl Harbor ever need befall the United States again.

Few persons are aware of it, but

Classroom instruction is given to small groups at a time, and each Cadet must recite daily in all subjects



Their own special lend-lease program calls for Cadets and Midshipmen to trade places at each other's school



NEW MEMBERS OF ETHYL SPECIALTIES STAFF



Harry G. Kebel



Henry S. Bean

HARRY G. KEBEL as advertising manager and Henry S. Bean as sales promotion manager are new members of the staff of Ethyl Specialties Corporation, the new Ethyl subsidiary now marketing Ethyl Cleaner in the northeastern section of the country.

Both Mr. Kebel and Mr. Bean have had long experience in marketing packaged goods and are widely known in the wholesale and retail fields. They round out a selling organization which has been active since the Fall of 1945 in laying plans for the introduction and marketing of Ethyl Cleaner.

Mr. Kebel comes from Thomas J. Lipton, Inc., where he was director of advertising and research for five years. For eleven years before he joined the Lipton organization he was a member of the advertising department of Standard Brands, Inc.

Mr. Bean has been associated with the introduction of several new brands through grocery and drug channels and for the past eight years has been active in the development of sales promotion and merchandising programs for Lever Brothers Company.

On May 15, the Ethyl Specialties Corporation moved from quarters in the Chrysler Building to 21 West Street, New York City.

West Point carried out an extensive aviation training program during the war at Stewart Field, the Military Academy's own airport at nearby Newburgh. Since 1942, when flight training began, no less than 1100 Cadets have earned their "wings" while attending the Academy.

However, in reconverting from accelerated wartime to normal peacetime schedules, West Point is abolishing the program under which

it furnished full pilot instruction to air-minded Cadets and graduated them as commissioned officers in the Air Force. In lieu of this training, all Cadets will undergo a one-month orientation course in flying and Air Force fundamentals, regardless of their desire or intent to become Air Force officers. This course will be conducted during the Second Class summer and will consist of approximately 25 hours of flight instruction

and 60 hours of ground school. In addition, all Cadets during their First Class (senior) year will spend two weeks at an Air Forces Tactical Training Center to undergo advanced Air Force training.

The feeling at West Point is that this brief introduction to aviation will serve the twofold purpose of (a) predetermining the individual's aptitude for pursuing a flying career upon graduation from the Military Academy, and (b) enabling him to absorb and appreciate somewhat the problems of tactics of combined arms involving the Air Forces.

The wartime air training program is being abolished as "impractical and not desirable for peacetime operation" at West Point. Aside from all other determining factors, the Military Academy is frank to admit that the division of the Corps into so-called Air Cadets and Ground Cadets might establish "class distinction . . . that eventually leads to branch jealousies and claims of discrimination."

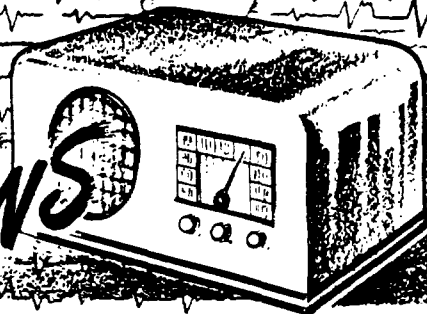
The policy of non-specialization in aviation also holds true as far as infantry, artillery, ordnance and all other branches of the service are concerned.

Cadets will continue to be commissioned into a specific branch of service, depending on their choice of branch and standing in the West Point graduating class. But every effort will be made to present the over-all picture of the Army, rather than just concentrated training in an individual's own designated field. The business of qualifying graduates for immediate duty with troops of a particular arm of service will be left to the Army's special service schools as part of the postgraduate work of junior officers.

Major General Maxwell D. Taylor, Superintendent of the Military

(Continued on Page 24)

AND NOW THE NEWS



Radio news commentators are constantly popular radio features, due to the unending public interest in the news

RADIO COMMENTATORS have long been popular with the radio audience at large, but during the war they really came into their own. Then, as each succeeding phase of the war unfolded, millions of people intently listened for the latest bulletins and communiques, or avidly sought interpretations and analyses . . . or speculation on the course of the war.

But surprisingly enough, since the war's end, there's been no great decline in listener interest. Instead of news and comment on the war, the listening public now wants to hear the latest word about important topics of present concern — strikes, inflation, reconversion, the outlook for the future at home and abroad. Reflecting the changing emphasis in public thinking, radio news staffs overseas have been trimmed to the point where only the major foreign capitals are constantly covered, while there has been at the same time an intensified coverage of domestic news.

To the majority of radio listeners, any popular radio news commentator is simply a familiar voice that comes out of the loudspeaker. Here, as a matter of interest, are close-up pictures of some of these radio newsmen.

Fiorello H. LaGuardia, New York's colorful ex-mayor, is now a radio commentator. He also writes a newspaper column as well



H. V. Kaltenborn (above) is known as the dean of the news commentators. Lowell Thomas (below) is another radio veteran



ETC 23802



Above are Walter Winchell (left) and Richard Harkness. Winchell has more listeners than any other newscaster



Bob Trout (left), well-known CBS commentator, is noted for his smooth delivery

STRIKE
IN WASHINGTON
TODAY IN THE
FOOD!

Gabriel Heatter (lower left) once set a record for continuous on-the-scenes news reporting. Below is Frazier Hunt





Above are Robert St. John and Elmer Davis.
The latter headed the OWI during the war



Quentin Reynolds is equally
famous as a radio news com-
mentator and a magazine writer



Baukhage (below) gave a memorable
broadcast of President Roosevelt's funeral.
Below, right, is John Daly, CBS newscaster



ETC 23804



Arthur Hale is a familiar radio personality of long standing, has a pleasant speaking voice



William L. Shirer, author of Berlin Diary, covered the Nazi war crimes trial for CBS



Radio commentators appeal to the listening audience for a variety of reasons. Some are noted for their style of delivery, others for their interesting handling of the news. Some newscasters specialize in attempting to predict the course of events, while others concentrate on explaining complex issues in easy-to-grasp terms. Interestingly enough, the most popular commentators of all, according to the radio polls, are the so-called gossip columnists.



Eric Sevareid (upper left) is chief of the CBS news bureau in Washington. John W. Vandercook (upper right) has travelled extensively abroad and written a number of books. Raymond Gram Swing (lower left) became noted during the war for his sober news analyses. John B. Kennedy (lower right) is a former Collier's editor



By North Clarey

SO IT'S THREE in the morning, and you still have 50 miles to drive. Your head begins to nod. You rub your face, trying to wipe away that doped weariness.

Brother, watch out!

Think — right now — of the smashed cars, the battered faces, the broken families that follow the frequent headline "... Asleep at Wheel." Don't let yourself be one of these pointless tragedies!

Your two enemies are Fatigue and Boredom. They're the gremlins that take the wheel from limp fingers and steer you into a smashup.

When you're dog-tired and *have* to push on, wake yourself up. If a pleasant relaxation comes over you, don't welcome it. That's the first sign of sleepiness. Stop the car and walk around a bit. A long drink of cold water, a cup of black coffee or strong tea, will often clear away that fuzziness. Wash your face in cold water . . . Better a partly sleepless night when you get home than a long rest in the hospital, or the cemetery.

When you get back in the car, open the window a bit and take off your hat. Let the air cool your scalp. Take a few deep breaths. Blow those cobwebs away!

Awake at the Wheel

Boredom and Fatigue are the two little gremlins of long, sustained driving. Here are some ways to ward them off

Maybe you've been forcing yourself, trying to make time. Slow down a bit, so you're not using up your energy trying to pick out a dim road or pass other cars. This is true in the daytime as well as after dark.

You don't realize it, but after hours of strain your senses of sight and hearing begin to take little cat-naps you can't control. Actually, they blank out briefly, then function again. I had a nasty experience of this one time, when I was in a rush to get from New York to Cape Cod. I'd been batting right along for hours, passing everything on the road, even eating a sandwich luncheon at the wheel with the speedometer at 50. I was on a clear stretch of road when — quite suddenly, as if in a dream — I saw a line of cars just ahead waiting for a traffic light. My brakes and tires screamed uselessly; the windshield slammed me

in the face; there was an awful crunching sound of metal, and I remember the white, taut faces of the people in cars heading toward me, waiting to be hit.

"Driving fatigue," pure and simple. My eyes just hadn't registered the scene ahead, the cars in front of me, until too late. The optic nerves had been taking a cat-nap.

What Expert Drivers Do

How to avoid this? Pull over, as truck drivers do when they're exhausted, and take a *deliberate* cat-nap. You'll save time in the end.

Another opiate is the steady hum of your engine, mile in, mile out. The noise of motor and wind in unvaried monotone will half hypnotize you. Change your pace. Drop to 35 for a while and relax while you study the scenery; kick it up again just long enough to feel that

Taking a deliberate catnap at the side of the road, for only 10 or 15 minutes, is one way to overcome fatigue



you're stretching your legs — then settle back to an easy cruising speed. You'll get there just about as fast, actually.

Some people get drowsy from a radio — but if *you* don't, then the music, news, or the irksome hodge-podge of cooking recipes and soap operas that monopolize the air during some periods of the day may have a sort of nuisance value for you. You won't fall asleep if you're irritated enough.

Take Turns Driving

Best thing of all, of course, is to have some one else spell you at the wheel. Let your wife take it for 30 minutes to each hour of yours, even though her pace and her technique with the gearshift set you to biting your fingernails. If you haven't got a wife, or a friend, pick up some intelligent looking hitchhiker. Who knows — he might be an excellent driver. Try him for 15 minutes on some pretext of looking at road maps, then swap back if you don't like his style.

So much for Fatigue. How about the pitfall of Boredom? It's always good to avoid boredom, even if it doesn't take you to the point of drowsiness.

We've mentioned a radio and a rider — both can make some kind of distracting noise to keep your brain turning over idly. Sometimes, by a happy accident, they're interesting as the dickens. In any case they're a form of company.

But when you're left to your own devices, and you're plodding drearily along an old familiar stretch of highway where you know each bump and traffic light a block ahead, and you've memorized all the billboards, — what then?

Games, I say. Play games with yourself. Like this:

Watch the numbers of the license

plates on the rear of the cars ahead of you, or those that pass you. Wait for sets of three's — 111, then 222, up to 000 — and see how many miles, or how many days it takes you to get there. Or watch for letters on the plates, A up to Z. Or look for states that you've been to. Sounds silly, but it's not as silly as driving along with your mouth open and your eyes getting glassy, until the man on the motorcycle snaps you out of the trance with a remark about traffic lights or stop signs.

Another cure for boredom is to guess your time on certain stretches. The route will pretty much divide itself into segments according to various landmarks as you go along — from a certain town with a funny statue in the square, to the route junction fifteen miles on, and from there to the bridge across the reservoir at Highlands, and so on. As you come to each new stretch, guess how

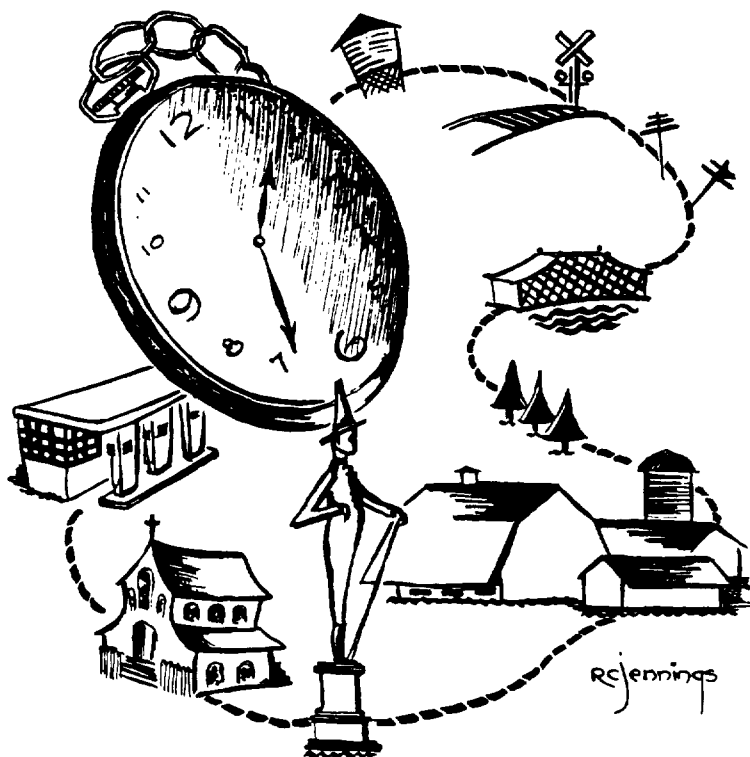
BOOKLET OFFERED FREE

Many more driving tips, from professional drivers, are contained in a booklet which Ethyl Corporation is distributing free to motorists upon request. Entitled "Professional Driving," the booklet is part of an extensive advertising campaign which Ethyl currently is conducting in leading magazines with a combined circulation of more than 15 million copies per issue. Purpose of the campaign is to encourage motorists to practice good driving habits in order to derive the greatest pleasure out of motoring. The campaign has won the approval of such organizations as the Automotive Safety Foundation and the National Safety Council.

many minutes it will take you at normal speed — then check it against your watch.

If you're good enough to handle a car just by second nature, kill the

Round-the-clock driving is tiring, but can be made safe



time with some practical day-dreaming. Try to puzzle out the tough parts of that letter or report you have to write. Figure a *new* approach to the people you're going to call on. Work out a mental blueprint for relocating the workbench in the cellar at home, and building a preserve closet in the old coal bin. Or analyze the mistake you made, last time you think you made a mistake in dealing with some one, and go through the scene again with the dialogue corrected — maybe you'll pick up something you can use.

There are a hundred things you can do, if you seriously turn your imagination to the problem. The big thing is to find an interest in the actual trip, the driving itself, or the route.

How long since you last gave any deliberate thought to your driving technique? Spend part of each trip in *consciously* avoiding the things you secretly criticize in others — jerky acceleration, unsure shifting of gears, rough braking, cutting in and out without checking your rear-view mirror and giving the car behind you a hand signal. See whether you're a zoom-zoom driver — do you keep a light steady pressure on the accelerator, or do you zoom ahead and coast, zoom ahead and

coast? Do you unconsciously ride alongside another car at the same speed for blocks, leaving no room for any one else to pass? Try "freezing" your speedometer. Can you hold it within a notch or two of 40, or say 35 — mile after mile, up and down each hill, anticipating each change in speed before it registers on the needle? You'd be surprised at the skill and coordination this takes.

Sounds silly, does it? At least it passes the time and takes some of the dreariness out of a trip — and if

you're the least tired, dreariness leads straight to drowsiness.

But, you ask, what if all your driving is in city traffic?

Even then you don't have to alternate between fuming at the slow trucks and watching for a pretty girl to cross the street at the stop lights. Carry a book, any kind of book, face down on the seat next to you. And at each red light read another paragraph or two. It's a hell of a way to read a book — but it's a swell way to take the pain out of driving!

Drowsy from driving? Glance at a book at every red light



TRUCKS DRESS UP, TOO

Regional tastes provide the basis for varying colors on trucks, says the Automobile Manufacturers' Association. Tastes in color vary from conservative Back Bay Boston to color-conscious California.

It may be the weather or it may be just that the North and East are of a more conservative bent. But those sections of the country proportionately take more dark colors than do the South and California.

More and more, owners of truck fleets have adopted colors as advertising trademarks. There are hundreds of such "fleet colors," ranging from the gaudy purple of some florists to the flaming red of several large oil companies.

Farmers and small businessmen, who use 2,450,000 of the 4,650,000 trucks in the United States, usually order the

more serviceable colors. Dark green and dark blue are bought by two-thirds of such buyers, red by one-seventh, black by an equal number, and the other shades, such as light green, or optional colors such as cream, brown, yellow, orange, and white are ordered by the rest, says the Association.

Buyers of large freight trucks prefer red and green.

Department stores usually are conservative in their color selections, preferring dark blue, dark green, brown, or maroon. Telephone companies also are conservative, using green and blue-grey. Dairies often use white or cream colors. Many companies such as meat packers and soft drink distributors use bright hues — but the oil companies use the gayest colors of all.

Oil Fr

Explorations along the eastern seaboard illustrate the widening search for new oil fields in the United States

By Henry E. Rose

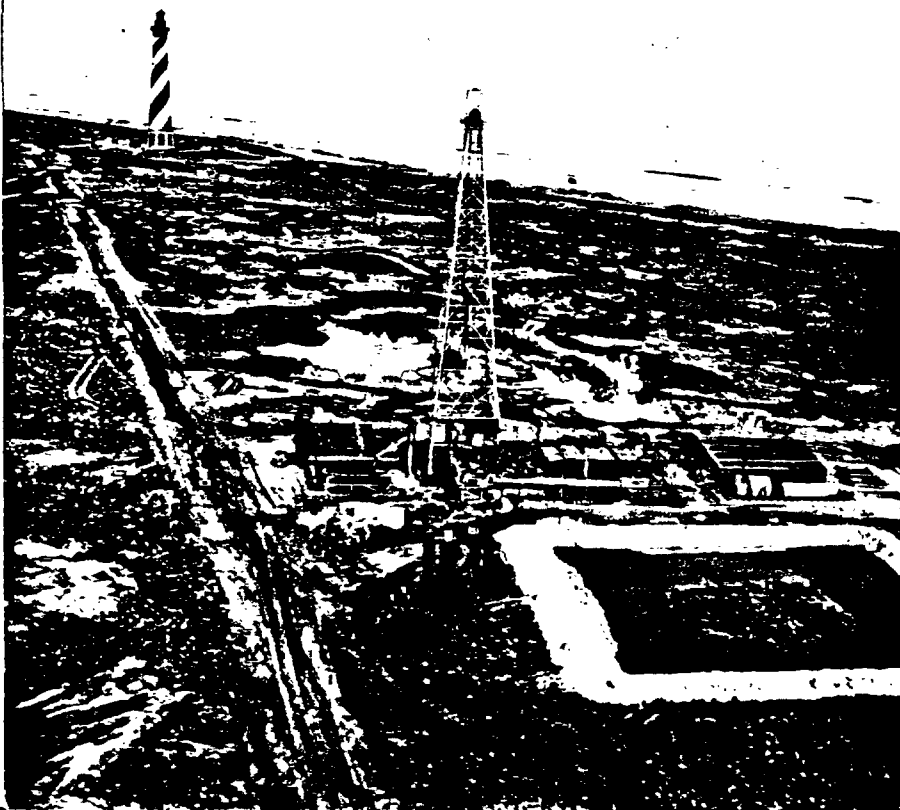
DOWN ALONG THE Florida keys, on a tiny man-made island 120 miles southwest of Miami, a drilling bit bores its way deep into the underlying strata of rock and sand. Overhead, a towering derrick stands limned against the wind-swept Florida sky. The derrick crew, of course, is digging for oil. But before this wildcat well could be drilled, the 500-ton rig, together with other supplies and equipment, had to be hauled in all the way from Mississippi; a two-and-a-half mile roadway had to be built between the well site and the main highway; tons of coral rock had to be blasted from "borrow pits" in order to build the artificial island. This is what it sometimes takes to dig a well . . .

Out along the North Carolina coast, hard by the old Cape Hatteras lighthouse, another rig is set up and a second drilling crew goes to work. Sixty miles to the North is Kitty Hawk, where the Wright brothers long ago proved their hunch that they could fly. Here, the drilling crew is testing out another kind of hunch — that oil may be found beneath the Carolina coastline. As it happens, the well turns out to be a dry hole, after a heavy expenditure of time and money. But in the opinion of the oil company undertaking the exploration, sufficient information has been obtained from the drilling to justify a continued search



Gulf's No. 1 State of Florida wildcat in the Florida Keys. Its site is the farthest south of any U. S. exploratory well

Standard Oil Co. of New Jersey's exploratory well in North Carolina, close by the historic Cape Hatteras lighthouse



Frontiers: U S A

for oil in the area. . .

These are two examples of drilling operations seen in recent months. They are essentially no different from any of the other 24,000 or so test wells annually drilled throughout the country. With this exception: These wells were put down in areas where no commercial production of oil was known before. More, they typify part of the oil industry's effort to increase the number of known oil-bearing regions in the United States.

In exploring new oil frontiers, spending millions of dollars in the process, the oil companies are not so much seeking oil to be used today or tomorrow as they are anticipating the likely demand for petroleum five, ten, twenty years in the future. Numerous estimates of such demand have appeared since the war's end.

According to one authoritative forecast, by 1965 the country will be consuming more than 5,700,000 barrels of crude petroleum daily. Which would be 18% above the 1945 wartime peak and nearly 41% above the pre-war high of 1941. Gasoline demand, alone, by that time is expected to soar above 2,600,000 barrels daily, compared with the previous peak peacetime demand of 1,800,000 barrels daily in 1941. Ranking second in demand will be heavy fuel oil which, the estimates show, will amount to 1,240,000 barrels daily by 1965. Together, these two products will account for some 68% of total demand for petroleum products. The remaining 32% will include kerosene, distillate fuel oil, lubricants and specialty products.

Even over the near-term future,

the demand for oil is expected to show a significant increase. Against projected requirements of 4,680,000 barrels daily this year, demand for crude is expected to increase to 4,830,000 barrels daily in 1947, to 5,160,000 barrels daily in 1948.

As of December 31st last, proven crude oil reserves in the United States were estimated at an all-time high of 20.8 billion barrels. Assuming that this reserve position is to be maintained, it is interesting to see how much additional oil must be discovered over the next 20 years, to meet the requirements mapped out by the economists.

If these predictions prove correct, they mean that the oil industry in the next two decades must discover at least 30 billion barrels of additional crude oil. This would just about match the industry's entire production in the last 57 years — from 1889 down to the present.

The oil industry, generally, is not concerned over the prospects of finding an adequate supply of crude oil to meet these long-range future needs. Leading geologists express the opinion that at least another 50 billion barrels of oil underlie potential new areas in the United States — equal to the entire amount of crude oil discovered since 1889 — while some place the potential reserves at as high as 100 billion barrels.

But what does concern the industry is the fact that existing price ceilings for oil, in effect since 1941, have hampered exploration and development of new fields, leading to the fear that domestic production may suffer over the next several years.

The rapid rise in demand, pro-

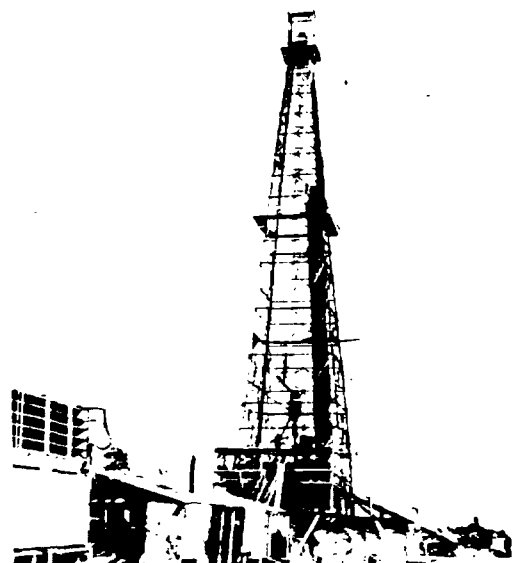


This first producing Alabama well was completed in 1944

jected over the future, makes it likely, in the opinion of some experts, that domestic output will be unable alone to match the demand. One oil company economist recently made some projections of supply and demand through 1948. Assuming that domestic crude production, at economically efficient levels, averages between 4,500,000 and 4,550,000 barrels daily these next several years, he estimates that it will fall short of meeting total requirements by nearly 3% this year; by 7% in 1947; and by 13% in 1948.

To erase this potential deficit, the alternatives would be to bring out additional production by means of

The first successful Florida well was completed in 1943





A drilling scene in the West Edmond field in Oklahoma. The field is said to be the largest discovered since Pearl Harbor

subsidy payments; to increase overall production above present maximum efficient rates, thereby contributing to declines in future productive capacity and, hence, to losses in ultimate recoveries; or to rely on increasing imports, particularly from South America.

This developing situation stems in part, at least, from the fact that the price of oil was held down throughout the entire duration of the war—at the very time the industry was called upon to deliver the greatest amount of oil in history. First, take a look at production.

Besides fueling our own war machines, the oil industry furnished the major part of the oil needs of our Allies. Estimates are that the United States supplied approximately 80% of the total oil requirements of all the Allies. Actual production of crude from domestic sources in the four-year war period amounted to about 5.8 billion barrels—equal to one-fifth of all the oil produced in this country in the last 57 years.

Meanwhile, however, the prices of crude oil and refined products have been held down ever since 1941—even though all other prices and costs have risen substantially. Illustrating this inequitable situation, as of a recent date the Bureau of Labor Statistics index of petroleum products stood at an index number of 61.2, while the index for all commodities stood at 108.9. In other words, this meant that petroleum products were selling for about 56% of the level of all other commodities. Throughout the war, the industry has repeatedly petitioned for an increase in oil prices, to offset its higher costs all around.

Only recently, the OPA finally granted some partial relief when it permitted a ten-cents-a-barrel increase in the price of crude. This, however, is less than a third of what the industry insists is necessary to spur the search for oil. Not until all price controls are removed from oil, it is believed, and the price of crude rises to a level which will justify in-

creased exploration, will there be a return to normal economic relationships.

Looking back, the oil industry experienced a declining rate of oil discoveries during the war years. In 1944, as an example, a total of 511,308,000 barrels of strictly new oil were discovered from the 4,778 wildcat wells that were drilled in that year. This is about equal to 107,000 barrels for every well. But in 1937, when only 2,224 exploratory wells were drilled, 928,742,000 barrels of new oil were discovered, equal to some 418,000 barrels of oil for every well. Thus, despite a doubling of the drilling effort, 1944 saw only about one-fourth as much oil discovered per well as in 1937.

During the war, drilling activity was hampered not only by subnormal prices for crude oil, but also by shortages of field crews and drilling equipment. Despite these obstacles, the industry managed to drill a record total of 13,400 wildcats—more than in any comparable period in its history.

Looking for new underground deposits to offset the war's drain on existing reserves, the industry extended the limits of previously discovered fields and spurred wildcatting in widely scattered virgin territories. Through such exploratory efforts, three new states—Alabama, Florida and Virginia—were added to the list of oil producers, making a total of 26 in all. Some of the recent test wells indicate the directions that postwar drilling is likely to take.

Some of the most intensive drilling activity has centered in the Rocky Mountain area and in western Oklahoma.

Before the war, extensive oil deposits were believed to exist in the Rockies; but the remoteness of consuming markets, among other fac-

tors, prevented full exploration. Thus, the mounting war needs for oil heightened the search for oil in that area. In the Anadarko basin of western Oklahoma, wartime exploration resulted in the discovery of one of the state's largest oil fields, the West Edmond, which is said to be the most important oil pool found in the United States since Pearl Harbor. Up to 200 million barrels are believed to be recoverable from the field by primary recovery methods alone, and considerably more by other methods. The Rangely field of Colorado was another notable wartime development.

The South was another general area of intensified exploration.

Mississippi, which first became an oil producer in 1939 when oil was discovered in the Tinsley field in Yazoo county, saw a number of additional discoveries during the war years, the most important of which was the Heidelberg pool in 1944. Just across the border, a field was discovered in Alabama, leading to further exploration there, while in

Georgia, exploratory drilling has been going on, although there have been no discoveries as yet. In point of volume of oil discovered, the West Texas fields brought in during the war were the most important of all explorations in the South. These, however, were in a state which already is the nation's leading oil producer.

Significant Discovery

From the standpoint of the future, one of the most significant wartime discoveries may turn out to have been a Florida wildcat that was completed in 1943. This well, drilled by the Humble Oil & Refining Co., not simply proved the existence of oil in Florida. It also strengthened the belief of many geologists that a vast new belt of oil may lie along the Gulf of Mexico and the Atlantic seaboard. Another significant wildcat is the test well being drilled for the Gulf Oil Corp. in the Florida keys. The site of the well, 30 miles northeast of Key West, is geographically the farthest south that any explora-

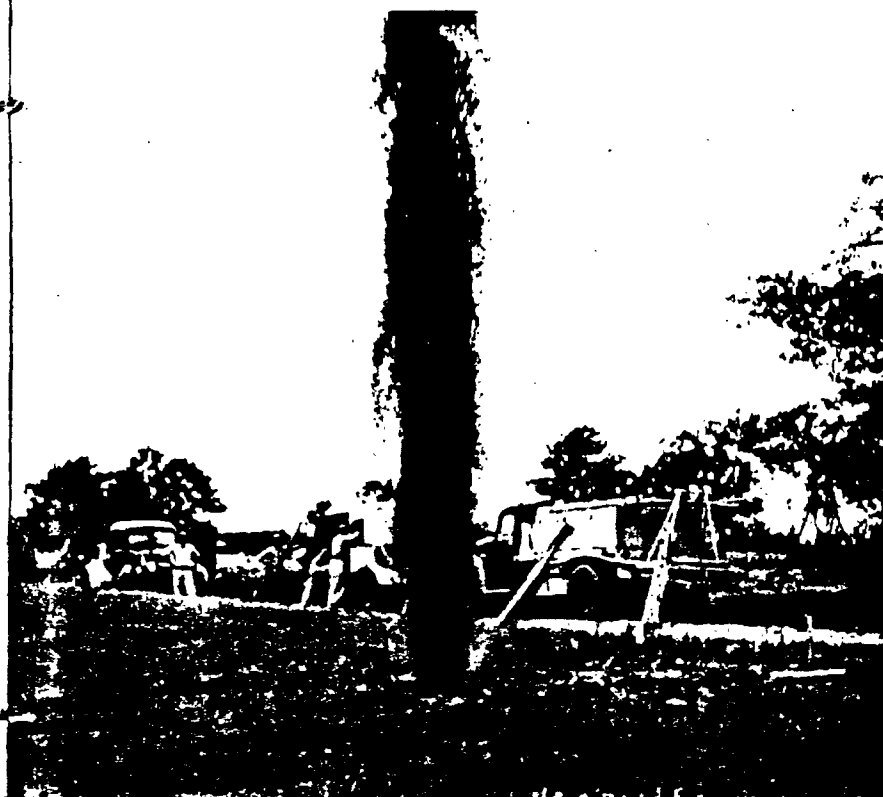
tory well has been drilled in the United States.

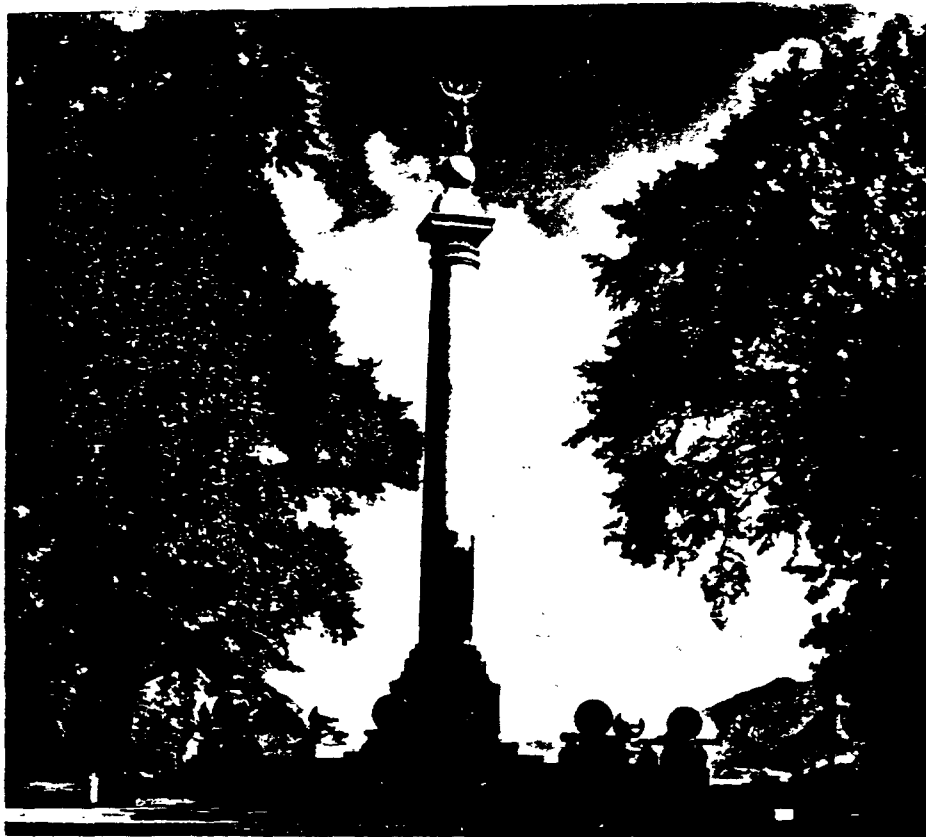
In the same spirit as other explorations in virgin territories, Standard Oil Co. of New Jersey has been sponsoring a search for oil along the North Carolina seacoast. (Jersey's test well in this area, as well as Gulf's wildcat in the Florida keys, were described in the beginning of this article.) Although this first well was a failure, the company's officials are determined to continue the exploratory effort in the state, and additional work along this line is scheduled to be resumed shortly.

Similar explorations have been conducted by various companies further north along the East Coast, notably in New Jersey, Delaware and Maryland. None of these as yet has proved successful, but they are indicative of the oil industry's long-range efforts to increase the number of oil-bearing regions in the country. Taking the country as a whole, the "hopeful" but as yet non-producing states include Arizona, Delaware, Georgia, Iowa, Maryland, Massachusetts, Minnesota, New Jersey, Oregon, the Carolinas, the Dakotas and the state of Washington. In most of these areas, both major and minor companies have acquired acreage in recent years, and in several, within the near future, exploratory operations will be undertaken.

Despite the somewhat lessened demand for crude oil that has been seen since the war's end, drilling operations have continued at a high level. Through the first four months, the number of wells drilled totalled 8,790, against 8,003 in the comparable period last year. When the present price controls are finally removed, and normal conditions of supply and demand reassert themselves, one can be sure that a greatly enlarged drilling program will get under way.

A seismograph party at work. An intensified program of exploration is indicated when normal conditions return





Battle Monument, on historic Trophy Point, honors the memory of West Pointers who died in the Civil War

EYES FRONT AT WEST POINT

(Continued from Page 12)

Academy, puts it this way: "The mission of West Point, as handed down by the War Department, does not make the Academy a mill for producing second lieutenants in any arm of the service. All the emphasis is placed upon giving a broad foundation of culture, affording the graduate a base upon which to erect a rich and full life of service. It is by the yardstick of this mission that our accomplishments or shortcomings should be measured."

General Taylor, colorful commander of the 101st Airborne Division during its heroic and never-to-be-forgotten defense of Bastogne, is to West Point today what General Douglas MacArthur was to it when the Academy underwent a similar overhauling immediately after the first World War. Then as now, the effort was to make the most of the lessons learned in a great conflict.

Upon the capable shoulders of the

lanky paratrooper falls the burden of carrying out a four-ply program for developing the modern postwar Military Academy. This program calls for, in General Taylor's own words, "reversion to a four-year course, critical study of the new curriculum, reinforcement of the faculty and a long-range permanent building program." He has been supported in his efforts by the report of an expert Board of Consultants, appointed by the War Department and headed by Dr. Karl T. Compton, president of Massachusetts Institute of Technology.

In returning to a four-year course after the stepped-up three-year curriculum of recent war years, West Point has halved its new Second Class. Individual Cadet wishes as to whether he be graduated in 1947 or 1948 were honored as far as possible, but some arbitrary transfers were necessary to avoid an unduly small graduating class in either year.

Just how fairly the division was effected is typified by the case of Cadet Felix ("Doc") Blanchard, all-America fullback for the past two seasons. Blanchard expressed the desire to graduate in three years, even though he forfeits a year of intercollegiate football eligibility, in order to embark upon his career as an officer as early as possible.

Aside from approving such revolutionary changes as the study of atomic energy and joint tactical and academic training with Naval Academy students, Dr. Compton's Board of Consultants also endorsed the Military Academy's plan for reorganizing its faculty, which had gone unchanged for the past 50 years, and of strengthening it to meet the needs of a Cadet Corps almost double its size of only 10 years ago. In many cases, the temporary officers who constituted two-thirds of the war-time faculty will be replaced by reserve officers with teaching experience and by junior career officers, most of whom served overseas.

Creation of the position of Dean, to be filled by a brigadier general, was recommended, as was the addition of 19 new permanent professors. Several lesser changes, such as consolidating the Departments of Chemistry and Physics into one unit, are being undertaken.

Last, but not least, of the recommendations approved was one affecting the selection of future Cadets. It provides that the practice of designating one principal and three alternate appointees to the Military Academy, as such, be given up by the individual members of Congress and placed with the Academic Board at West Point.

Each lawmaker still would nominate a quartet of young men as prospective Cadets, but it would remain with the Academic Board to select the most desirable candidate of the

four. If Congressmen prove willing to accept this modification, Dr. Compton's group avers, it would "increase the academic efficiency of the Military Academy and decrease the loss of time and money expended at present on inferior Cadets."

The present-day West Point physical plant, devoid of any major construction since 1938, was designed to accommodate a Corps of 1,960 men, compared to the now authorized strength of 2,496 Cadets. In calling for "prompt action to restore the Academy to its maximum operating efficiency," General Taylor has voiced the complaint that existing facilities are "crowded and markedly inadequate to meet the requirements for housing, mess and training." He envisions a five- or six-year construction program costing nearly fifty million dollars.

A Congressional stamp of approval on the proposed building program would result in additions to the Cadet Mess, the gymnasium, and famous Thayer Hotel, where Cadet guests usually make their headquarters.

Down would come Professor's Row and the Superintendent's house, in which have lived, during their tours as No. 1 man at West Point, such military masters as Robert E. Lee, Douglas MacArthur, and Robert L. Eichelberger. This tract

of land would be occupied instead by 25 new divisions of Cadet barracks. New quarters for the Superintendent and other officials would be provided on the site of the Old Observatory, overlooking Michie Stadium, home of Army football.

All these — the huge construction project, the reorganization of the faculty, the modernization of the curriculum and the return to the traditional four-year course — will combine to mould the postwar Military Academy.

The new West Point also will be men, thousands of men, following in the footsteps of earlier Cadets who since have gained the undying gratitude of a grateful nation for their leadership in both war and peace.

"West Point," says General Taylor, "succeeds or fails in the future to the degree in which it continues to produce men of broad character, capable of leading other men to victory in battle."



Reading battle maps at night, as these Cadets are doing, is an important phase of the tactical training

LANDING CRAFT RELIGION

The Biblical prediction that swords would one day be turned into plowshares is being given a modern twist by Father Jean Baptiste Langlois, a French-Canadian member of the Franciscans. He has turned an LST into what he calls an LCR — for landing craft religion — and is conducting it 3,000 miles up the Amazon to carry Christianity to tribes never before reached by missionaries.

Father Langlois brought the craft from the St. Lawrence through Lake Champlain and down the Hudson with his crew of five, and the 55-foot boat left Hoboken recently on the deck of a Lamport and Holt liner for Para, Brazil. From there, it will proceed under its own power — while its gasoline supply lasts. The problem of where to get more is one the priest says he will meet when he gets there.

The Franciscan plans to conduct services at various points, moving on when he has established a mission. He has a two-way radio with a range of 200 miles, and equipment to install a number of receiving sets. In years of missionary work in the frozen north Father Langlois has mastered several trades. He built a superstructure on the craft and installed living accommodations and a chapel, facing the landing ramp.

There are two women in the crew — the wife of the navigator, and Father Langlois' sister, who also holds the title of assistant missionary. Asked when he plans to return, the 53-year-old priest said there is never any time limit on a religious mission. "The work must go on," he said, "and we are prepared to stay indefinitely."

THE FINE ART OF TIPPING

(Continued from page 9)

"Two dollars," George replied quickly. The conscientious traveler forked over the two dollars with a wan smile. George looked at it for a while, embarrassed, and said, "Golly, suh, you'se is the fust man evah to pay the average."

Hotel guests encounter tipping on all sides. On checking in, very often in recent years, guests surreptitiously slipped the room clerk a bill to get a room. The porter who takes your bag from the entrance to the lobby expects a quarter. Then the bellhop who takes it upstairs and opens the doors, windows and closets expects another. Every tray of ice and soda calls for another gratuity. When you leave, you're expected to leave the housekeeper, whom you never see, fifty cents for an overnight stay, and a quarter for every night after the first.

No Tips on Planes

Air travelers get a break in the tipping department. It's almost impossible to give away money during the course of an air journey. Stewardesses are trained to give you a polite, "Sorry, sir," if you offer them a gratuity for their fine, personalized service.

Ship travel will be resumed soon, and tipping will be a major concern of passengers. They've got to consider the bellhop, room steward, stewardess, waiter, headwaiter, deck steward and smokeroom steward. Tips depend on the length of the trip, type of ship, class of accommodations, and the demands made upon the hired help.

The customary tips in pre-war days, first class, were a dollar a day per person to the waiter, fifty cents a day for the room steward, a dollar or so for the stewardess at the end

of the trip, a quarter a day for the bath steward, ten or twenty dollars for the headwaiter, two dollars each for the deck and smokeroom stewards. If you won a pool or sweepstake, you were expected to leave 10% to the fellow who paid you off.

Tipping has geographical peculiarities. New York cabbies expect a minimum of ten cents a ride up to 50 cents, a nickel extra for every 20 cents after that. In cities like Washington where the zoning system is in effect, a nickel a zone is considered enough. In towns where jitneys take you home from railroad stations, the fee is fixed, and tipping is a rarity.

The same differences are noted in restaurants. In New York, Chicago, Hollywood and Miami the high extremes prevail. In cities like Philadelphia, Washington, Detroit and New Orleans, 10% is adhered to strictly. Before the war, most restaurants in San Francisco carried signs which read "Tipping is Un-American. It is not done here."

Waiters and bartenders got good living wages and didn't depend on tips. The war changed all that, however.

Restaurant waitresses on highways where transcontinental busses stop get a cross-section of all kinds. They figure only about 25% of those who stop off for a bite leave a tip. Westbound customers tip much more than Eastbound.

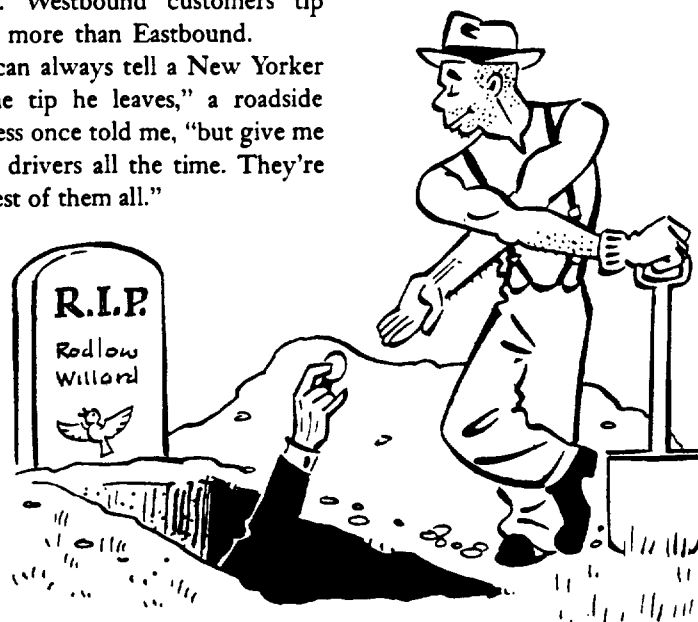
"I can always tell a New Yorker by the tip he leaves," a roadside waitress once told me, "but give me truck drivers all the time. They're the best of them all."

OUR COVER: Kodachrome view of Niagara Falls from Press Association. **OUR PICTURES:** Pages 3, 4, and 5 (except inset), courtesy *Tourist Court Journal*; Page 5 (inset), courtesy Court San Rafael, San Rafael, Cal.; Page 6, Wide World; Pages 7-9 and 26, illustrations by Rodlow Willard; Pages 10-11 and 24-25, courtesy West Point Public Relations Office; Page 13 (lower left), 14 (upper left), 15 (upper right and lower left) and 16 (bottom), courtesy American Broadcasting Co.; Page 13 (right), 14 (upper right), 15 (upper left) and 16 (center right), courtesy National Broadcasting Co.; Page 14 (left center), 15 (lower right), 16 (upper right and center left), courtesy Columbia Broadcasting System; Page 14 (bottom), 15 (right center), and 16 (upper left), courtesy Mutual Broadcasting System; Pages 17-19, illustrations by Ruth Jennings; Page 20 (upper), courtesy Gulf Oil Corp.; Page 20 (lower) and 23, courtesy Standard Oil Co. (N. J.); Page 21 (top) and 22, courtesy World Petroleum.

A man, the story goes, once walked into a New York branch of a California restaurant chain which carried the "No Tipping" sign.

"I see tips are forbidden here," he remarked happily to the waitress.

"Yeah," she snapped, "and so were the apples in the Garden of Eden."



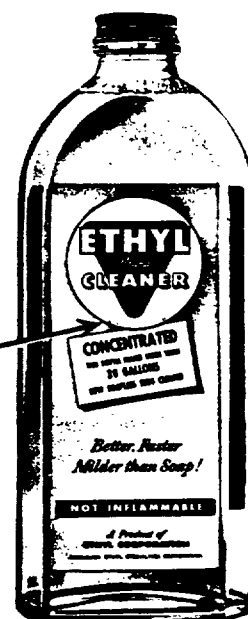


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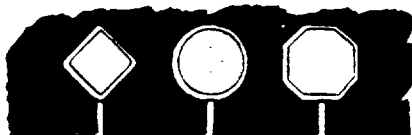
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Is he as good a driver as he thinks he is?

Do you know somebody who thinks he's the world's best driver? Here's how to take him down a peg. Try this quiz on him. If he's as good as he says he is, he ought to get four out of the five answers right.



3. Here are three of the standardized U.S. road signs. You might be too far away to read them, but their shapes tell the meaning. One says "Stop!", one says "Slow down!" and one says, "Railroad Crossing!" Which is which?

◇ means? ○ means? ○ means?

Answers:

- (C) If you're a careful, good driver, you'll stop and wait until the bus proceeds before starting up again. In fact, to pass a standing bus while children are getting off is illegal in many states.
- (1) He's left the engine running—an invitation to motor thieves.
(2) The car is parked on a hill and the front wheels are not turned in to the curb—an invitation to trouble if the car started to roll.
(3) Parking in front of a hydrant invites a ticket.
- ◇ means "Slow!" ○ means "Railroad Crossing!" ○ means "Stop!"
- Under ideal conditions it takes 55 feet to stop a car traveling 40 miles per hour. Under average conditions it would take 97 feet. Neither distance includes the time it takes to get your foot on the brake.
- (C) is right. The surest way to get top-quality gasoline is to look for the Ethyl emblem on the pump. Experienced drivers know that there's nothing like high-quality gasoline to bring out the best performance of a car—give you the effortless response that makes for smoother, safer car operation. That's why so many of them always ask for ETHYL.



Cooperate with the Police Safety Check

✓CHECK YOUR DRIVING ✓CHECK YOUR CAR . . . CHECK ACCIDENTS!



1. A school bus has just stopped in front of you to discharge passengers. Which would you do?

A Slow down and pass to left. C Stop and wait until bus proceeds before starting up again.
B Stop, sound horn and then pass.



2. The owner of this car has parked it for a moment while he does a bit of shopping. Can you see at least three things he's done (or left undone) that might get him into trouble?

1 _____ 2 _____ 3 _____



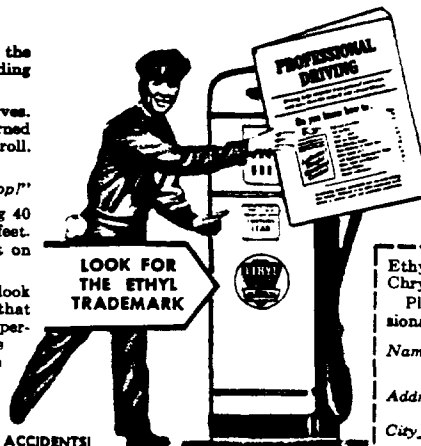
4. At forty miles per hour, what is the absolute minimum stopping distance for a car after the brakes are applied.

15 feet ☐ 55 feet ☐
25 feet ☐ 75 feet ☐



5. When you stop for gasoline, the way to get the best is to—

A Ask for "high-test" gas
B Look at the prices on the pumps.
C Ask for ETHYL.

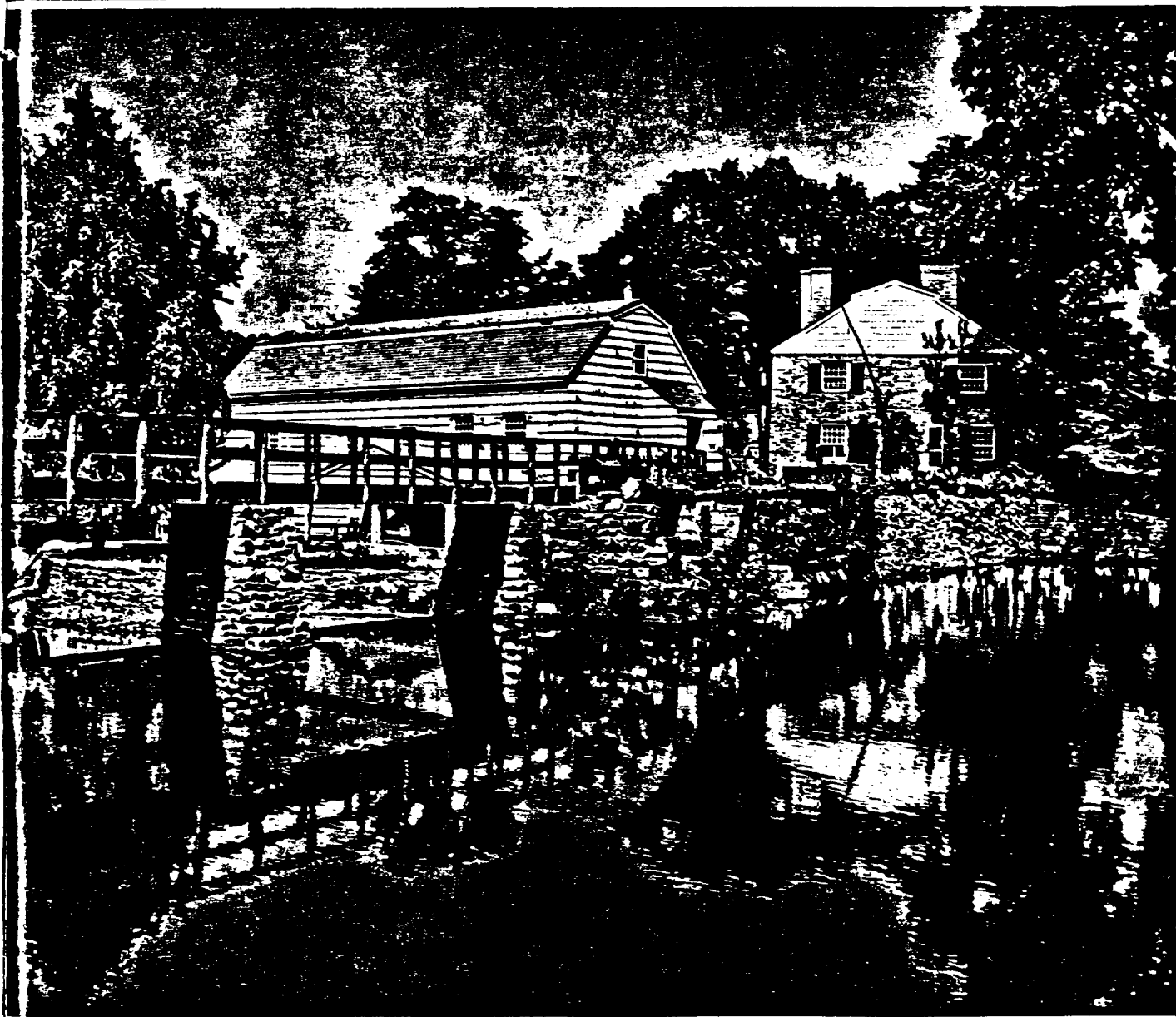


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ETHYL NEWS



JULY ★ AUGUST ★ 1946

ETC 23818



IN THE

ETHYL NEWS

JULY-AUGUST 1946

Addressing the recent summer meeting of the Society of Automotive Engineers in French Lick Springs, Ind., Earl Bartholomew, General Manager of Ethyl Research Laboratories, made some predictions of the improvement in fuel economy that will be seen, as automotive engines are designed to take advantage of improved postwar motor fuels.

On the basis of exhaustive studies and tests conducted at Ethyl's Detroit laboratories, Mr. Bartholomew predicted a 20% increase in gasoline mileage by 1950. The increase can be realized in automobile engines, he said, through the use of supercharging and higher compression ratios, and combinations of the two methods. Gasolines having road octane numbers of 90 to 95 will be in common use by that time, he added.

The predictions of gains in automotive performance are based on extensive tests, including investigations conducted on an experimental passenger car engine of medium size which was redesigned in Ethyl's laboratories. Intended to capitalize fully on the possibilities of postwar motor fuels, the engine showed mileage increases ranging from 18% at 65 mph up to 25% at 20 mph. On this basis, a passenger car of 1950, having an engine incorporating such design improvements, will give 25 miles to a gallon of gasoline at 30 mph, it was predicted.

It is planned to publish the full text of Mr. Bartholomew's paper in booklet form within the near future. When ready, the booklet will be distributed to readers of Ethyl News.

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Paced by the return of civilian goods to the store counter, consumer credit is enjoying a vigorous postwar boom.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Opinions expressed in signed articles are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

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Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23819

INTERCITY BUS INDUSTRY PLANS POSTWAR OPERATIONS

By Arthur M. Hill

President, National Association of Motor Bus Operators*

The bus lines will offer improved service to the public by means of new equipment and more efficient operation



FACED WITH INNUMERABLE problems, including the replacement of worn-out equipment, the need of adequate terminal and garage facilities, and the rising costs of labor, motor bus operators of America are looking ahead to new and greater responsibilities in travel services in the future.

The first postwar job of the motor bus industry is to make its service as attractive and efficient as possible to meet the competition from other forms of transportation.

To give the type of service that it wants to offer, some 6,000 new coaches are needed at an estimated cost of \$108 million. Another \$10 million must be spent on rehabilitating present equipment. Additional expenditures of about \$42 million are needed to provide adequate terminal and garage facilities and to undertake repairs which were halted during the war by the lack of labor and materials.

For smoother rides, the new buses will have improved spring suspension. More effective air-conditioning and better seat design will also add to passenger comfort, while the power units will be quieter, more efficient, and longer-lived.

But in their plans to put new de-

signs in buses on the road, operators of intercity buses face a serious obstacle to certain improvements because of restrictions imposed by many states. For example, a 40-foot bus could include many features not possible under the present 35-foot restriction. The same is true of width. A limit of 102 inches is needed in place of the 96-inch limitation now imposed in all but one state. One of the postwar jobs, then, is to explore the possibility of modifying some of these restrictions, which play such a large part in determining the design of a new coach model—an engineering program that costs about a million dollars.

Among other innovations planned in addition to new buses and terminals is two-way radio communication between buses and between drivers and dispatchers. Several experimental installations are now being tested in actual service, and a nationwide communication system is contemplated.

Two-way radio communication is bound to increase efficiency and quality of service. Advance information on incoming passenger distribution will insure prompt connections to other points and make it possible to provide additional sections in case of overloads. Departing buses can be held when the

Fully air-conditioned, this new ACF-Brill model is equipped with two-way radio communication

ETC 23820



* Also Chairman, Executive Committee, Greyhound Corporation

delay time is known, thus avoiding missed connections for passengers. It will be possible to route buses around highway obstacles such as washouts or other hazardous road conditions. Aid can be sent quickly in case of breakdown or accident.

Concurrently with its plans to build for the future and to replace equipment worn out during its war-time service to the military and the public, the motor bus industry faces a knotty problem in revenue levels in the postwar period.

The bus operators recognize that the end of the war brought the prospect of a decline in traffic revenues because of increased competition from other forms of transportation, notably the private automobile. Even if the Interstate Commerce Commission is correct in its prediction that intercity bus travel in the second postwar year may be from 1.5 to 14.5 per cent above the level of 1941, the estimated gross amount of travel would represent an appreciable drop from the abnormal volume of travel during the war.

On the other hand, literally thousands of communities scattered along the more than 200,000 miles of highway served by intercity buses are dependent upon them for their only means of public passenger transportation. The industry must continue to serve these cities, towns and rural areas, and it hopes to do it more effectively than was possible under war conditions.

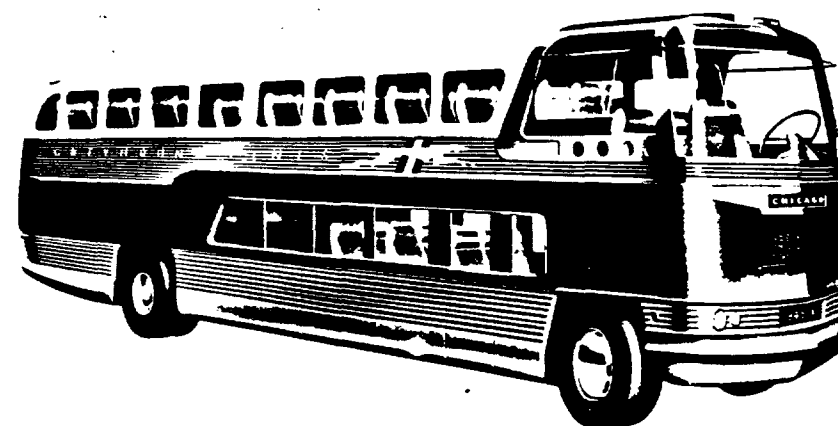
How best to plan its operations for the future is an immediate problem for the industry. If it is to serve the many communities and rural areas dependent upon bus service, and if essential transportation is to be furnished at low rates, it is impossible to continue operations over long periods unless the vehicles have an average of at least 60% of their seats occupied for the entire run.



This new Aerocoach model will have a 200 hp. engine and will be equipped with new type springing



Dual engines of 360 hp. will power this new Twin Coach bus. Use of aluminum will keep down the weight of the coach



A glimpse of the future in highway transportation is given by this model of a Greyhound Compartment Super Coach

The shifts of population and industries, together with the development of new communities and the decline of others, make the prediction of passenger traffic difficult. Furthermore, the coaches to be used represent a large investment and have a useful life of between five and ten years. If a given route or run shows a sudden drop in traffic, it is seldom possible to make a quick change from a 37- to a 27-passenger bus in order to reduce operating costs. The equipment is too costly to permit the maintenance of large numbers of coaches in reserve for such changes. In similar fashion, larger buses cannot always be substituted for small ones when traffic increases.

Because it performs an essential public service, the intercity bus industry, along with the railroads, the telephone service and others, is subject to rigid Governmental regulation. The intricacies of price control are, of course, an old story to the industry. To provide an essential service and earn a reasonable return on its investment, the industry must plan for the future with its many imponderables. If its predictions are accurate, these objectives will be attained; if they err appreciably, there is no remedy except through the time-consuming process of Governmental consideration of rate changes—during which time substantial losses may be incurred.

In most instances, the marked increases in costs cannot be expected to disappear. The upward trend of wage rates throughout the nation's industries generally is certain to be reflected in the prices which the bus industry must pay for much-needed new equipment and facilities.

The industry's own direct labor costs have increased sharply — more than 53% since 1939. As in the case of most service industries, labor

J. COARD TAYLOR

1901-1946

IT IS WITH deep sorrow that we record the death on June 25, 1946 of J. Coard Taylor, who was associated with Ethyl Corporation for the last 20 years and served as vice president in charge of sales since 1937.

Mr. Taylor was a beloved and respected member of Ethyl's management staff, who helped to guide the destinies of the Corporation almost since its inception. He was well known, too, throughout the oil industry at large, and counted many oil men among his wide circle of friends and acquaintances.

Mr. Taylor's entire business career was spent in the oil industry. Following his graduation from Princeton University in 1923, he entered the training school of the Standard Oil Company of New Jersey at its Bayway, N. J. refinery, and thereafter entered the employ of the Humble Oil & Refining Company at Corsicana, Texas, where he engaged in field and production work for the company. In 1924, he joined the sales department of Imperial Oil, Ltd., making his headquarters in Toronto, and a year later transferred to Imperial's refinery department in Montreal, where he was engaged chiefly in refinery experimental and research problems.

It was during his association with Imperial Oil that Mr. Taylor first came into contact with Ethyl, having been assigned to inquire into the sale of Ethyl gasoline, which at that time had been on the market for only a relatively short time. As a result of this contact, Mr. Taylor joined the Ethyl organization as its Canadian representative, with headquarters in Toronto. In 1928, he was named Assistant Sales Manager of Ethyl, with headquarters in the executive offices in New York, which position he held until his appointment as General Sales Manager in 1932. In 1937, Mr. Taylor was promoted to be vice president in charge of sales, a position he held until his death.

A native of Cranford, N. J., Mr. Taylor was born on January 1, 1901, the son of Mr. and Mrs. George F. Taylor. He attended Kent School, and was graduated with a B. A. degree from Princeton University in 1923. While in college, he was active in sports, serving on the varsity track team for three years. He was intercollegiate and national champion in the 220-yard low hurdles in 1922 and set the standing Princeton record for this event. Selected to represent the United States in the 1924 Olympics in Paris, he competed in the 400-meter dash but broke his Achilles tendon during the race, ending his athletic career.

Mr. Taylor is survived by his wife, Harriette Smith Taylor; his sons, Robert S., 20; George Richard, 14; and Peter Van Voorhees Taylor, 11; his mother, Mrs. George F. Taylor, of Montclair, N. J., and two sisters, Mrs. Ralph M. Watson and Mrs. George Frederick Tinker. He was a member of the Cloud, Canadian, Metropolitan and Princeton clubs of New York, the Cannon Club of Princeton University, the Greenwich Country, Indian Harbor and Beach clubs of Greenwich, Conn., and the University Club of Toronto.

In Coard Taylor, Ethyl has lost a man who contributed greatly to the acceptance and success of Ethyl gasoline. We extend our deepest sympathy to his family. He will be greatly missed by his friends and associates.



costs are a matter of vital concern to bus companies, since some 40% of total operating expenses goes to pay the wage bill. This high percentage is in contrast to many manufactur-

ing industries where direct labor costs are a smaller proportion of the total, compared to the cost of material. In addition, most manufacturing industries can look forward



Two-way radio communication between buses and between drivers and dispatchers will increase the efficiency and quality of bus service

to an increase in the productivity of labor and to reductions in premium overtime pay as the workweek is shortened. This is impracticable in motor bus operation.

The reconversion problems now facing the motor bus industry came with sudden impact because the urgency of the war job performed by the industry made it impossible to plan on how to overcome the obstacles now facing it. As much as any other industry engaged in public service, the motor buses did their full share in the war effort and to their everlasting credit.

The strenuous war job of the industry began on Pearl Harbor day. On the same afternoon, fleets of buses began rushing troops to gun emplacements along the Pacific Coast. Throughout the war, thousands of military personnel and inductees were moved by this highly flexible transportation system. Mile upon mile of new route was established to carry members of the armed forces on official business or on leave between military establishments and the cities and towns.

At the same time the regular service of the industry was doing its

utmost to relieve the tremendous congestion caused by greatly augmented travel, overburdened rail and plane facilities, and the lack of gasoline and tires for private automobiles. During the war years, from 1942 to 1945, the intercity bus industry carried more than 3½ billion passengers on its regular routes alone. All told, the industry's coaches operated some 5½ billion miles during the same period. This record is all the more impressive considering the drastic handicaps under which this war job had to be done. For all practical purposes new equipment was not to be had. One out of every five coaches still in service at the end of 1945 was living on borrowed time. Long overdue for retirement in many cases, some of them even put back into service after retirement, these coaches were kept on the road only by the ingenuity and resourcefulness of the industry's repair crews. When standard replacement parts could not be had, and this was often the case, new parts were made by the industry's own mechanics, or the old ones rebuilt.

Since many of the industry's

workers, particularly drivers, were young, the draft resulted in serious manpower shortages which had to be overcome by shortening and intensifying training periods, the employment of older men, and the recruiting of women.

More rigorous Governmental controls, notably speed restrictions, also added to the list of wartime problems. The 35-mile speed limit drastically decreased the amount of work each bus and driver could do and thus put a further strain upon the industry's limited facilities.

But despite all these difficulties, the job was done, and the experience gained in overcoming them is one of the industry's greatest assets as it faces the future.

Notwithstanding the enormity of the problems that must be solved, the intercity bus industry may look forward to making an outstanding contribution to postwar America. The flexibility of its service is indispensable to the hundreds of communities in which the bus is the only means of public transportation. It can provide these communities with a service more frequent than is feasible in the case of heavy rail equipment. It can pick up its passengers at the corner drug store or the country crossroads, thus saving the trip to a central depot or terminal. It can furnish a cross-country touring service to those who might be unable otherwise to enjoy the advantages of extended travel because of the higher cost of other means of transportation. For others it can provide a comfortable and carefree trip of 5 to 5,000 miles, with leisure for any degree of sightseeing and side excursions.

The industry's 2,600 intercity bus companies and their 70,000 employees are geared to do this postwar job with the same effectiveness that made its war record outstanding.

PIPE DREAMS

By Mildred Diefenderfer

Ingenious and even fantastic are some of the suggestions for peacetime use of the Big Inch and Little Inch pipelines

GARBAGE CANS . . . heavy tanks . . . thousand-mile pipelines . . . If you have an idea for peacetime uses of these items—and you haven't told the Government—you're a rare individual indeed.

Take a well-intentioned citizen, add a stroke of imagination and an impulse for letter-writing, and you'll achieve the blend of personality that contributes ideas for disposal of war surplus material.

Some of the suggestions pouring into the War Assets Administration are truly ingenious—like the scheme for converting left-over snowshoes into coffee tables. Many, however, are in the tradition of Rube Goldberg, and these contribute little toward the disposal agency's mam-

moth task of getting rid of from \$20 billion to \$40 billion worth of war materials with a maximum return to the federal coffers.

Idea-generating citizens from coast to coast have written War Assets officials with plans to convert synthetic rubber plants into bubble gum factories; to ease the housing shortage by building four-room houseboats on pontoons; and to make a little extra something for the Treasury Department by erecting bleachers and selling seats from which eager spectators might watch demolition experts blow up explosive-jammed equipment at surplus ordnance plants.

But of the millions of war surplus items which the War Assets Admin-

EDITOR'S NOTE: *The War Assets Administration, as the disposal agency for surplus war material, has been studying a number of offers from private industry for the Big Inch and Little Big Inch pipelines. Along with these serious offers it has had dumped upon it many gratuitous suggestions from private citizens. Coming from the inveterate letter-writing public, some of these "bright ideas" are truly ingenious; others would do credit to Rube Goldberg. What these letter-writers would have the Government do with the pipelines is the subject of this article. They provide an amusing sidelight on the more sober problem of war surplus disposal.*



istration has on its hands none has stimulated the writing public as much as the 3,500-mile pipeline system which carried more than 400 million barrels of oil from Texas to the New York City and Philadelphia areas during the war years.

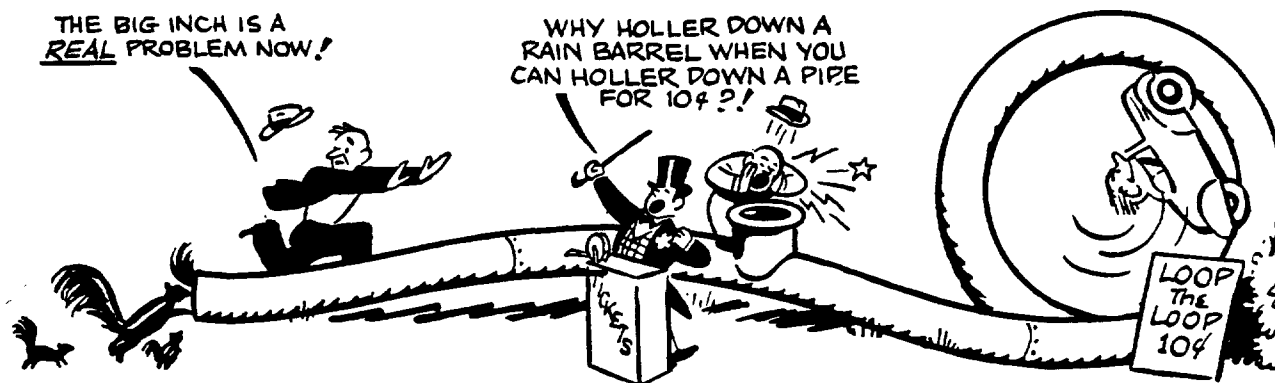
While Washington policymakers fret over ways and means of putting the 1,340-mile "Big Inch" line and the 1,475-mile "Little Big Inch" line to their "maximum" use for the good of the nation, their grass-roots collaborators keep coming up with their own refreshing suggestions.

There's the fellow from the prairie country who loves the seashore. He'd take the pipelines off the Government's hands and use them to bring the Atlantic Ocean inland.

To do this, he'd have the "Big

Suggested Peacetime Use for War Equipment





Inch" suck in salt water along the New Jersey coast and channel it through a chain of sea-water pools girdling the Middle West, and the stimulating tang of the seashore would be provided by using the "Little Inch" line to pipe in salt air.

The coal strike led to schemes for putting the \$161 million oil lines to use in combatting John L. Lewis.

"There's plenty of hot air on the plains of Texas," one correspondent informed the War Assets Administration. "Why not pump it through to heat the East?"

Others thought of a simple solution to the coal crisis—just jam natural gas into the oil-carrying pipes in

Texas and relay it to the manufactured gas plants of the New England area to avert shut-downs.

Then there's the citrus fruit fiend who would use these steel arteries to pump grapefruit juice through from Texas to New York. Or take the plan to lighten Postmaster General Robert Hannegan's burdens by converting the pipelines into pneumatic mail chutes for rapid "underland" transmission of both letters and packages to their destination.

An advocate of thermal baths came up with a proposal to transport mineral waters with curative powers to the metropolitan areas of the East.

Outstanding among the admit-

tedly tongue-in-cheek suggestions is the scheme for running Texas jackrabbits through on the hoof for consumption in the East. The reasoning behind this is that anything moved far enough becomes a delicacy!

Multiple Problems

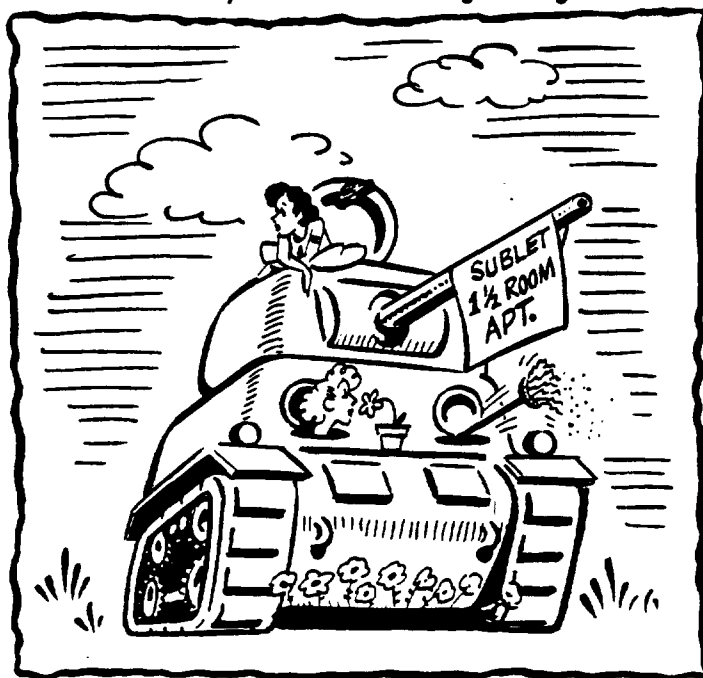
War Assets disposal authorities—who have considered the jackrabbit plan only in their lighter moments—ran up against disturbing problems like these: What feeding arrangements would have to be made? What incentive could be offered to keep the rabbits running? Who could estimate how many more rabbits would emerge in Linden, New Jersey, than were introduced into the tubes at Longview, Texas? (In answer to the first question, a counsel for Big Inch Gas, Inc., a serious contender for the pipelines, ventured the straight-faced opinion that the rabbits could probably "live on love" during their trip East.)

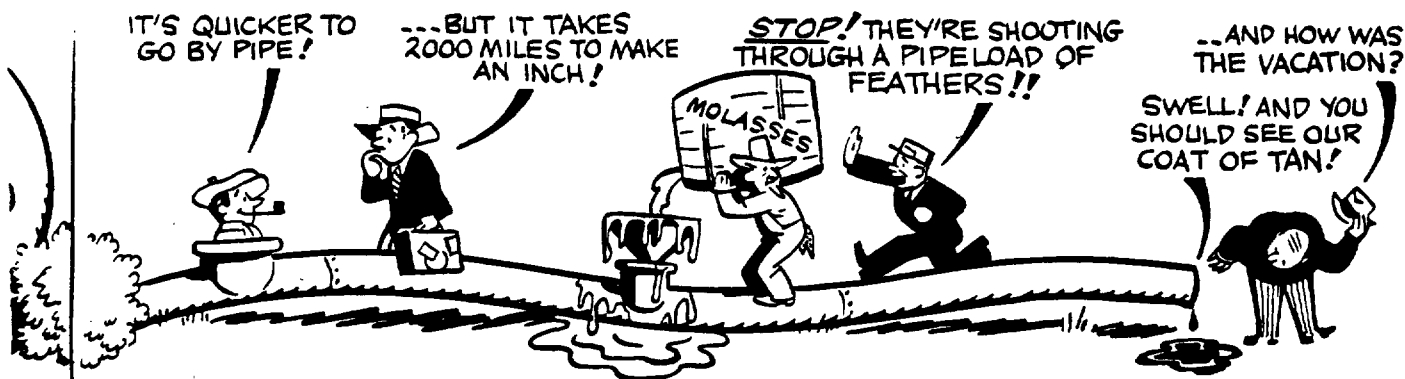
Not to be outdone by their helpful correspondents, the War Assets experts working on the pipeline disposal problem have come up with a fantastic scheme to top all others and, they hope, to put an end to facetious speculations.

They would pour carbonated water into the pipes in Texas, add Bourbon in Kentucky, route the concoction through Pennsylvania's "ice mines" and arrange termini in the nightclubs of New York City.

The pipelines have stimulated the

One Way to Ease the Housing Shortage





American imagination, but no surplus program has disturbed the public more than the disposal of the 17,000 homing pigeons of which War Assets officials hope they have seen the last.

When 20,000 pigeons were first offered for sale more than a year ago, pigeon fanciers were cool to the proposition because the Army hadn't kept individual pedigrees of the birds. About 3,000 were sold at an average return of \$2 a pair, and the remainder kept running up board bills at the rate of \$4.92 each a year — and having a solitary time of it while awaiting their demobilization at Camp Crowder, Mo.

Since these pigeon veterans were eating up more than they were worth, WAA decided on a giveaway program and announced that unless the birds were spoken for within a 30-day period, they would be done away with.

Among the 14,000 letters received in Washington were requests for a total of 300,000 pigeons and all manner of indignant retorts from bird lovers all over the nation.

Stenographers are still staying overtime to answer letters from thousands of children — many of whom extol the type of homes they would be able to offer the feathered veterans, together with their firm promise that any birds allotted to them would not end up in a pigeon pie. Hard on the heels of these letters are hundreds more—from the

children's parents telling the pigeon dispensers not to heed their offspring's requests since "Junior has too many pets already."

But the pigeon file isn't closed yet.

In the basement of the overcrowded Railroad Retirement Building in Washington, where War Assets' national headquarters are located, there is a stack of 60 crates, forwarded by hopeful souls who expected to see them returned with a cargo of pigeons. And the pigeon experts—who advised War Assets to require all 4-H Clubs and other claimants to agree to four nestings before the birds are given freedom of the air—keep a fearful eye on the Pentagon Building.

For they're convinced that only the sobering effects of family life will keep the feathered GIs from winging back to the Pentagon and other Army centers when they're released once more. And thousands of pigeons converging on even the largest of buildings is bound to present more problems.

Constructive Ideas, Too

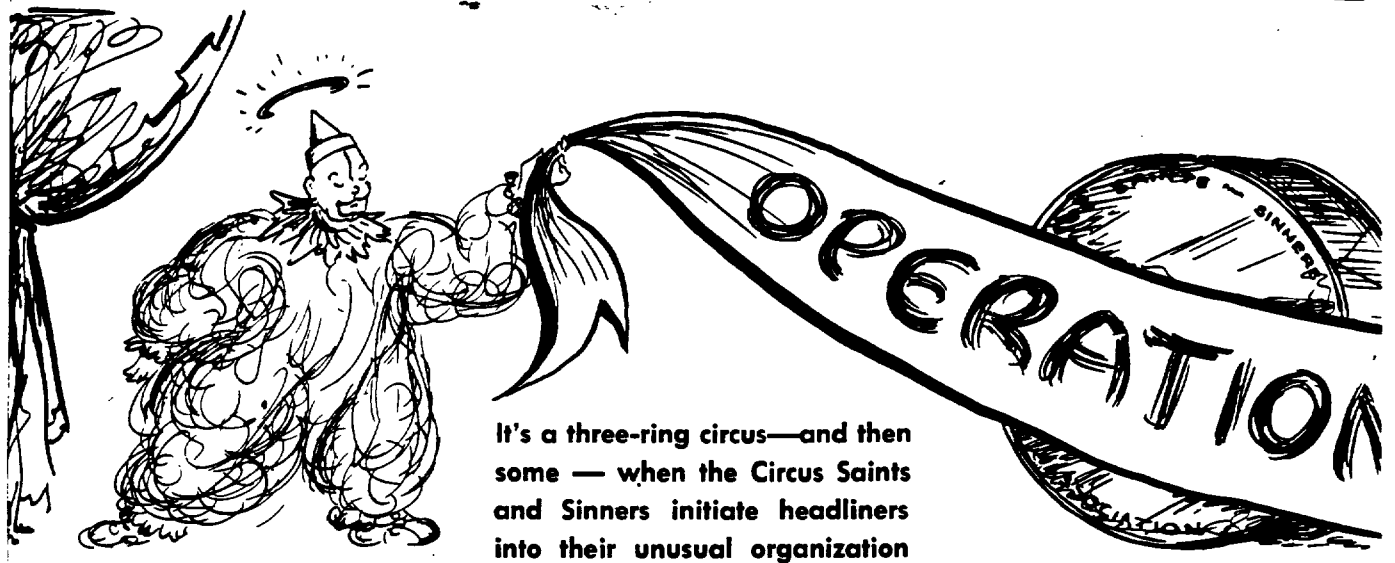
In addition to whimsies and complaints, the WAA receives many constructive suggestions. A manufacturer with an idea for developing a new product frequently writes in to find out what kind of surplus is available. Or, say, a designer, hearing of certain excesses, submits his plans as a step toward making a purchase of an available item.

This type of correspondence has led to the sale of hundreds of drab-colored life belts to a converter who attached to each a horse's head and tail and then merchandised them through photographs featuring a pretty girl in a bathing suit frolicking about in the pool of a luxury hotel. These belts are now in use as beach equipment at a number of resorts.

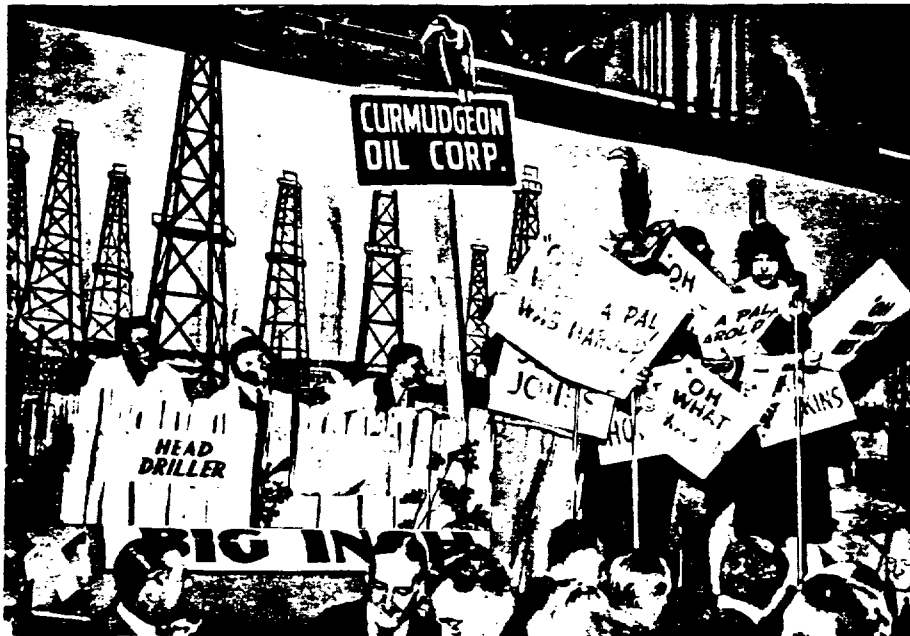
Camouflage wire — which is brightly painted chicken netting — has been worked up into chic hat dummies for window displays through the use of pliers and exotic lips and lashes, fashioned from a variety of scrap materials.

Enterprising developers of new products have used helmets in a variety of household articles ranging from wall brackets for electric lights to smoking stands large enough to serve as cocktail tables. A manufacturer of men's garters has discovered that the harness on gas masks is made of the same basic material as his product, and thus is at work on re-converting surplus harnesses.

If your imagination has by now been stimulated into concern over the pile of war surpluses, here's one to go to work on. The Government has in its warehouses thousands of jars of black cold cream, prepared for use by the commandos. To date, the best brains in Washington haven't figured out what's to be done with them. Maybe some blackface comedian could put them to use.



It's a three-ring circus—and then some — when the Circus Saints and Sinners initiate headliners into their unusual organization



The lampooning of Harold L. Ickes (second from left, behind fence) was conducted amid a backdrop of "Curmudgeon Oil Corp." gushers

Fred Waring made his grand entrance in a circus band wagon. The "Saints" have outgrown five New York City meeting places



ANY SIMILARITY between a small-scale riot and a meeting of the Circus Saints and Sinners Association is not unintentional or a mere coincidence. It's planned that way!

For almost two hours at each of their 10 monthly gatherings throughout the year, the Saints and Sinners (1,000 strong) turn the Grand Ballroom of New York's Waldorf-Astoria Hotel into a Grand Brawlroom — with your favorite entertainer, politician, author, military hero or sports personality on the receiving end. He is the "Fall Guy," paying the price of fame.

Anything goes during the hilarious initiation ceremony, to which 140 headliners from all walks of life have been subjected during the organization's 14 years of existence. Governor Raymond Baldwin of Connecticut, for instance, ended up by losing his trousers, while Admiral C. H. Woodward was "put to sea" on dry land in an old-fashioned wooden washing tub.

Although it is one of the country's best known fun-making groups, the Saints and Sinners Association also accomplishes a serious mission. It spends thousands of dollars annually to care for friendless circus veterans, it contributes \$500 each month to a leading charity, and each year it treats hundreds of children to the circus at Madison Square Garden.

Ex-"Fall Guy" Eddie Rickenbacker enjoys ex-Mayor LaGuardia's "mike" wit



This was the setting as Jack Dempsey took the count a second time as "Fall Guy." Saints and Sinners was organized primarily to render financial assistance to aged and homeless circus performers, but also aids many leading charities and sponsors an annual kiddies' circus party

John Kieran, who knows all the answers, was put in a cage apart from other mere mortals. Alfred G. Vanderbilt followed Kieran as "guest of honor"



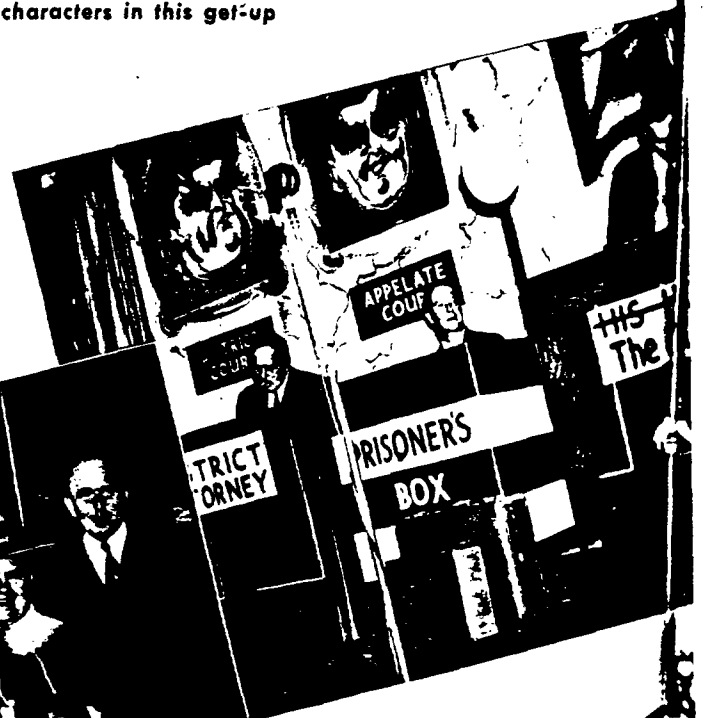


Robert L. Ripley (left) looked like one of his "believe it or not" characters in this get-up



Chair-borne U. S. Senator Saltonstall was clad in the dress of his pioneer ancestors. Jimmy Doolittle, below, is "weather-proofed"

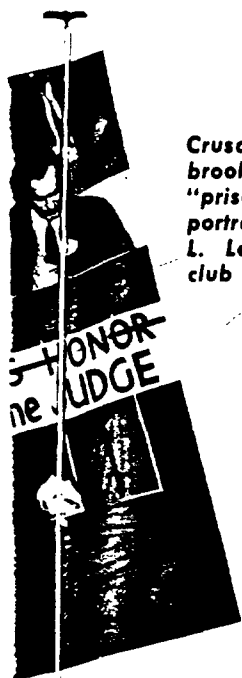
**SALTONSTALL
NEXT REPUBLICAN
PRESIDENT**



OPERATION



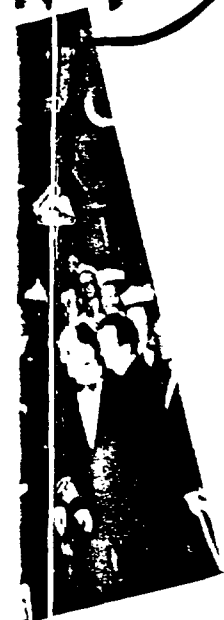
Although it wasn't Bismarck, Admiral William F. Bixby got white horse — and to the White no less. Club founder F. O. B.



Crusading Columnist Westbrook Pegler reposes in a "prisoner's box" below a portrait of labor chief John L. Lewis. Jimmy Walker, club prexy, is the "Judge"



Former New York Yankees' manager Joe McCarthy was labeled "The Giant Killer." Babe Ruth, Lou Little and "Happy" Chandler also are members of the "Saints"



Emperor Hirohito's pet mount, Halsey got around to riding at the Waldorf-Astoria ballroom, where F. D. Benham leads the way



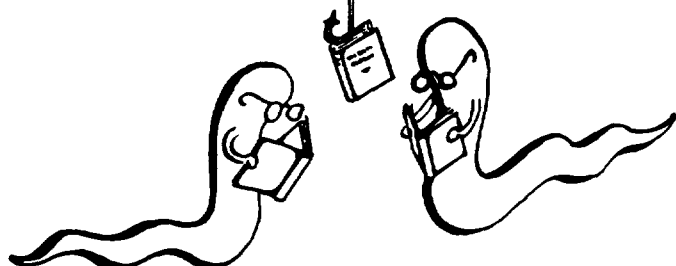
Advertising man Bruce Barton (seated) was "boomed" for President during his riotous induction into S & S ranks



Both ventriloquist Edgar Bergen and his famous dummy, Charlie McCarthy, were initiation "victims." They followed Jim Farley on the list of "Fall Guys"

BAT for BOOKWORMS

By William A. McGarry



Book clubs and the low-cost, handy reprints have changed America into a nation of readers and caused book sales to skyrocket to dizzy heights

ONCE UPON A TIME, Americans used to be called uncultured because they didn't read as many books as did the Europeans. But now that charge is no longer true. Americans have taken to reading and buying books so avidly that one puzzled publishing executive remarked, "They must be eating them."

The publishers, the booksellers, the critics and the authors thought it was only war demand when a new, amazing all-time high in book sales was registered in 1943. Most of them didn't know what the total was; many didn't even know that a new high had been reached. All they were certain of was that books were selling, literally, faster than they could be hauled off the presses.

But they were all agreed on one thing — it couldn't last. People in this country simply wouldn't read books, was the general feeling.

Along came 1944, and books were selling even faster. And so in 1945. At the moment there is a slight let-down in demand, but not nearly enough to enable production to catch up with consumption. It has given the publishers a breathing spell in which to analyze what happened to transform what was formerly a hazardous hit-or-miss business into a bonanza.

Books by American publishers on how to do anything from running a peanut stand to a steel mill admittedly are the best in the world. But there is less information avail-

able about the publishing industry than any other nationwide business enterprise. The WPB obtained the first inkling of how many books actually were being sold in this country when it got the Census Bureau to make a sample survey for 1942 and 1943. The survey revealed that 1,149 publishers, representing 92% of the industry, sold 424,096,000 copies in the first of those two years and 510,819,000 in the second.

Statistics are not available since then. But the best informed opinion is that book sales crossed the 600 million mark last year, which is equal to about four books for every man, woman and child in the country. No other nation has ever come within shooting distance of that record-breaking mark.

What sent the book business into high gear, however, was not the traditional outlet for books: the neighborhood book shop. There are still only about 5,000 retail book stores in this country. Most of them are still "bookish." They are, for the most part, austere, reserved, intellectual and almost esoteric. Obviously they are not set up for the physical task of shoving across the counters the half a billion books which people today are buying.

The answer, thus, is the book clubs, the first of which, the "Book-of-the-Month Club," was founded

Volumes are packaged securely for mailing to members of book clubs. One group sends out some 75,000 books daily





Book-of-the-Month Club judges pick the volume to be sent their million-plus members. Harry Scherman, extreme right, founded the Club 20 years ago

Modern printing presses are working overtime to meet the huge demand for books

by Harry Scherman in February, 1926. It is difficult to say how many clubs there are because they are continually increasing. Established enterprises in the approximate order of their age are the Literary Guild, controlled by Doubleday and Co., and its two associates, the Book League of America and the Doubleday Dollar Book Club; the Peoples Book Club, owned by Sears, Roebuck and the Cuneo Press and managed by Simon and Schuster; the Classics Club and the Detective Book Club, headed by Walter J. Black; the Book Find Club; the Labor Book Club — sponsored by the United Automobile Workers; and the Limited Editions Club.

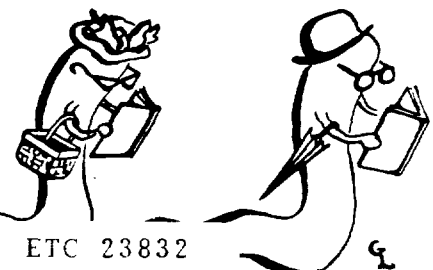
It costs \$10 a month to join the Limited Editions Club. There are now 1,500 members — and a long waiting list. Membership is free in most of the others, the subscriber merely agreeing to purchase so many books a year. In many instances he can return the book if he doesn't like it, and cancel his subscription when he pleases.

The latest club, now being organized by Martha Huddleston of Pocket Books, is the first to apply the idea to the pocket-size, 25-cent reprint field. It is the Teen Age Club, aimed at students in High and Junior High Schools, and one expert's guess is that when it gets going it will distribute a little matter of a million books a month.

Book-of-the-Month held its membership to 600,000 during the war. It took the lid off last year and is now over a million members strong. Literary Guild and its associates were the first to cross that line. They mail out some 75,000 books a day. There are nearly four million book club members in the country now, and all concerned are confident there will be five million by the end of the year. Literary Guild broke all records by a first print order of

600,000 copies of Thomas B. Costain's historical novel, *The Black Rose*. A few months later it notched its sights again higher and tossed off 775,000 copies of the first edition of Daphne du Maurier's *The King's General*.

All of this was done by the application of smart mail order merchandising.



dising and advertising techniques. The book publishers have put out thousands of books on merchandising, but never thought before of applying it to their own product. The point is, however, that all of those sales have served only to emphasize the fact that the saturation mark is not yet even in sight. In the six months after its Guild distribution, for example, *The Black Rose* sold 700,000 copies, largely through the retail book stores. It is still well up on the best-seller lists.

The phenomenal success of the book clubs has not been without some criticism. Some literary people have charged that it is unwise for a small number of groups, in a very real sense, to mould the reading tastes of the public. They feel that it is intellectually, politically and socially unsound for them, no matter how ethical, to select what the public should read.

The book clubs, in turn, have several answers to these charges. One is that they constantly conduct impartial surveys among their readers, asking them what kinds of books they want to read. Their most important answer is that, largely through their efforts, the sale of all new books, even the poor ones, is increasing to new records.

Indeed, book sales have been soaring to such high marks that, a short time ago, the book publishers decided it was high time they found out what, precisely, was their potential market. Many of them had been going along in the belief that a certain Columbia professor was substantially correct when he said the business of books was supported in this country by a mere 200,000 people. At any rate, the publishers set up the American Book Publishers' Council under the direction of Harry F. West, formerly a Lippincott editor who also knows market-

ing surveys and merchandising through long experience.

The Council has gathered a tremendous amount of information which is still in the process of analysis. It is seeking a lot more. About the only conclusion Mr. West has reached is that this sudden avidity for books does not represent a "new" market in the sense that motor cars and radio were new in their time. It has been there all the time, he says. Astronomical increases in periodical sales ever since the turn of the century prove that the habit of reading has been rising in this country hand in glove with education and the general rise in literacy.

Book club records show this was under way long before the war. Except for what has been happening in the pocket-size reprint field, it might be argued that even more standard books could have been sold if so many men hadn't gone to the wars. Book publishers refuse to think of these pocket-sizers as books, since 70% of them are sold like magazines and through periodical and news distribution channels. Yet there is no question but that, while the two-bit reprints are not in com-

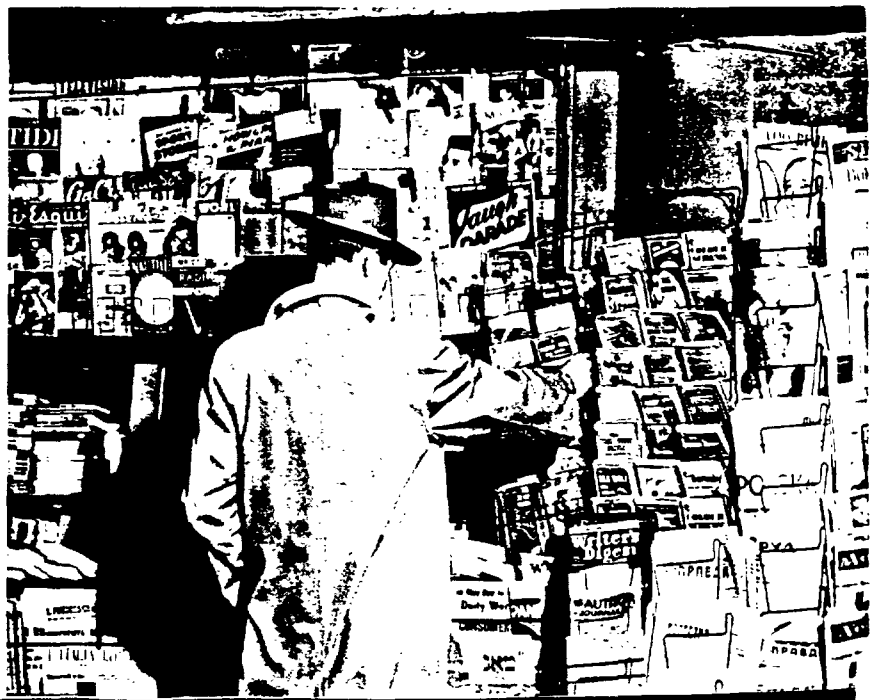
petition with standard books, the tail is beginning to wag the dog more and more. People who never even thought of buying a real book before are now buying — and reading — the reprints.

It is estimated that the total sale of reprints this year will reach 110 million. During the war the Council on Books in Wartime sent 105 million copies of 934 titles to servicemen; these were the Armed Services editions. Thus, the by-product is now a big business in itself.

Bantam Books is owned jointly by Curtis Publishing Company and Grosset & Dunlap, and is controlled by Random House, Scribner, Little Brown, Harper and the Book-of-the-Month Club. Pocket Books were first put on the market by Robert F. de Graff of Garden City Publishing in 1940, and Marshall Field now has a stake. Penguin, Dell and Avon — the three others of the big five producing 25-cent reprints — all have hookups with periodicals, standard book publishers and distribution agencies.

It is estimated that these books are now on sale at no less than 90,000 stores or stands set up initially to

The highly-popular pocket-size books, such as this customer is inspecting at a newsstand, usually sell for only 25 cents

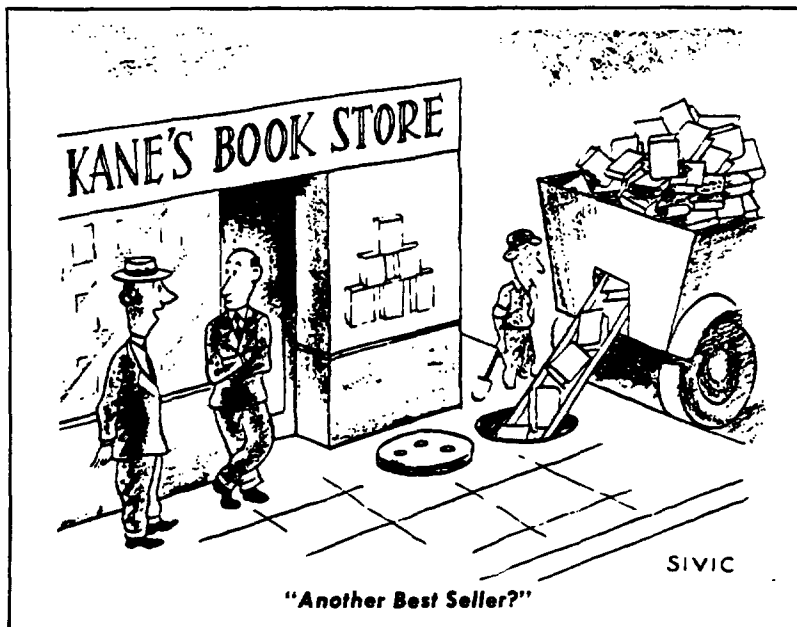


distribute cigars, cigarettes, chewing gum, candy, razor blades and any other small item in universal demand with a rapid rate of turnover. If converts to books are being made any place, it is here. Some of the buyers throw their volume away after reading it. But when a buyer becomes addicted to a certain writer of detective fiction — and has read all the reprints — he is a made-to-order customer for the next full-size volume by the same writer.

At the outset of the war the major bottleneck in book and reprint publishing was the paper shortage. Now there is another — machinery to print and bind the books — and even the first shortage has not been ended. By the time both are broken, the publishers hope to be ready with merchandising plans for their booksellers comparable to those being applied to the reprints. Booksellers at first were inclined to criticize the clubs, but since the sale of all books has increased, few sellers are doing so now. Some retailers have even wanted the publishers to give them a one- to three-month head start on the book clubs. They had to be shown that it was a club's selection that made the best-seller, proving that business begets business.

It goes without saying also that since the book club buys an edition outright, paying anywhere from \$30,000 up, it takes precedence over retail customers who order a few copies at a time until the book begins to move. As for the critics, the author who gets a book club order for 100,000 copies and up is in a position to yawn when the highbrows say his book is poorly written, shows no promise and is generally no good. So, for that matter, is his publisher.

Plans for the application of modern merchandising ideas to books have been proposed without num-

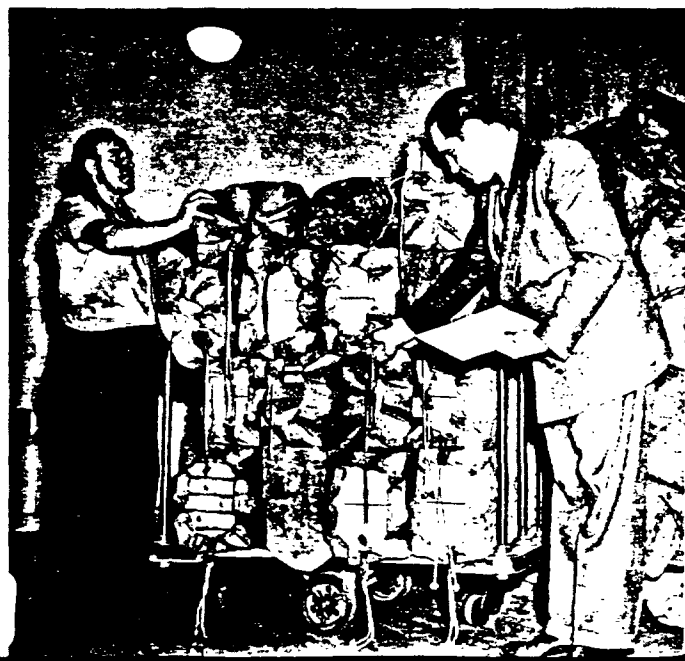


ber during the past quarter of a century. It is at least that long since Nelson Doubleday suggested a fund of a million dollars or more, to be contributed pro rata by all publishers, for a national "read a book a week" advertising campaign. The new Book Council hasn't come to that yet, but many of the things it is planning are in line with Mr. Doubleday's suggestions.

Sale of reprints through news agencies and chain drug stores is new. But another method that was killed off by the war flooded the

country with 25-cent books from the outset of the depression until the paper shortage developed. It was operated by the National Home Library Foundation at Washington, D. C., and functioned through 27 educational and parents' groups. The Foundation put out original books on economics and other topics of current interest as well as reprints of the classics, with initial printings of 100,000 copies. Today Pocket Book and Bantam imprints run to 300,000 copies, which are usually sold out within four months.

Book club choices are sent to about four million members every month. Enrollment in most clubs is free, and subscribers may drop out any time



RESEARCH

Scenes of Our Detroit Labs Illustrate

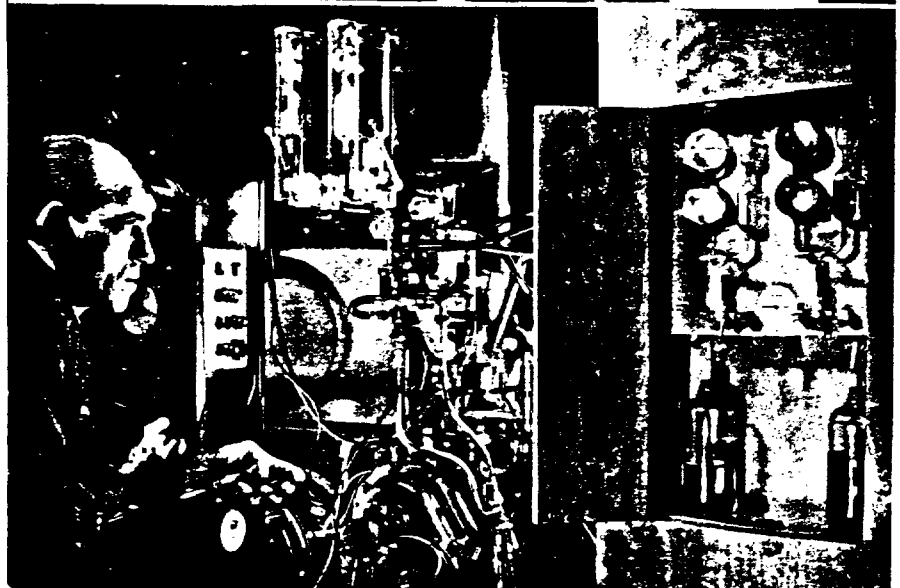


For experimental purposes, as well as for tests of fuel quality, gasoline samples are divided into their components of different volatility, in fractionating columns like this

WHEN AN AUTOMOTIVE engineer or petroleum technologist surveys the future — and forecasts definite gains in automotive efficiency — such predictions are not simply mathematical extrapolations of past trends. They are the result of painstaking research and investigation, of analyses involving the application of basic thermodynamic principles, and of countless experiments and tests on fuels and engines.

A case in point is the recent paper delivered by Earl Bartholomew, General Manager of Ethyl Research Laboratories, before the Society of Automotive Engineers, wherein he predicted a gain of 20% in gasoline mileage within the next few years. A few highlights of his address are reported in the story on the second cover of this issue.

Mr. Bartholomew's paper covers a field of investigation of major importance in fuel and engine research: maximum realization of the potentialities of high antiknock fuels. More specifically, the paper reports on investigations of four types of base stocks which refiners might use in varying proportions for the production of future motor gasolines. These investigations were based on the recognition that the



Experimental fuels of different types are studied in special research engines to determine their potentialities over a range of compression ratios, supercharge pressures, and engine speeds. The test engine can be operated at closely controlled speeds up to 3000 rpm

IN FUELS

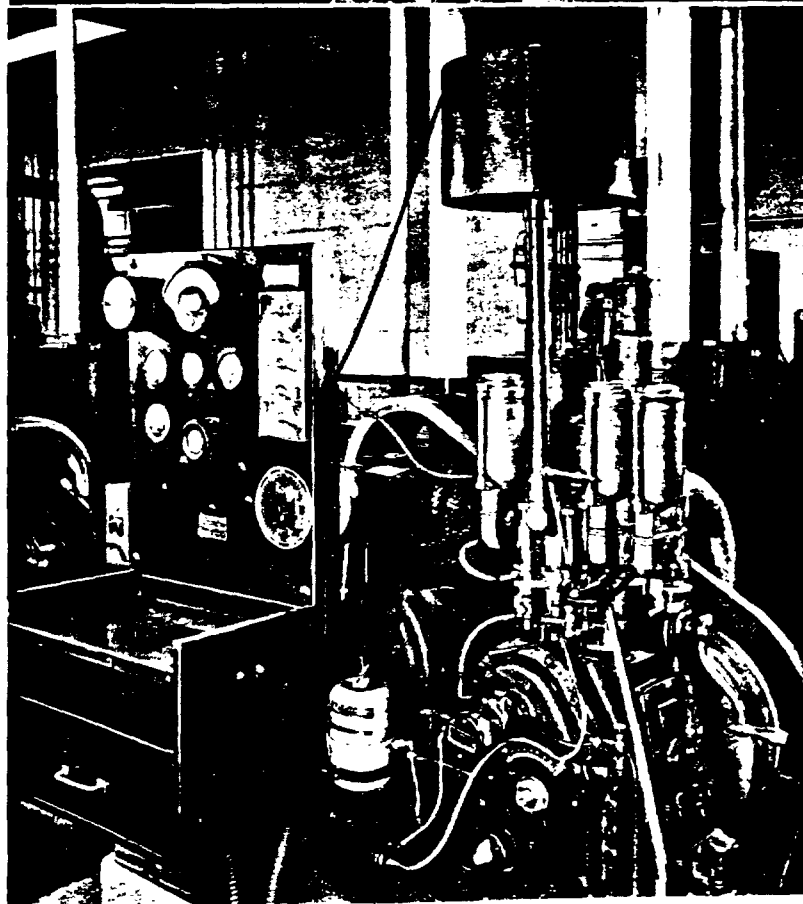
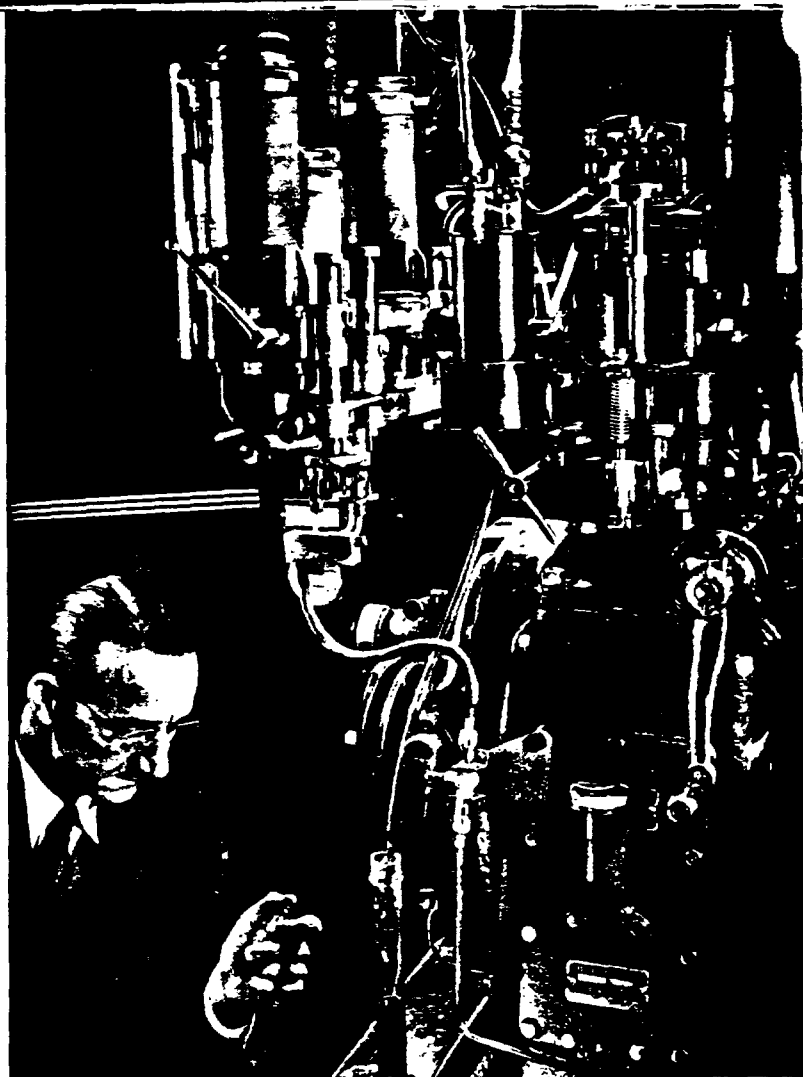
strate, a Phase of Ethyl's Research Endeavors

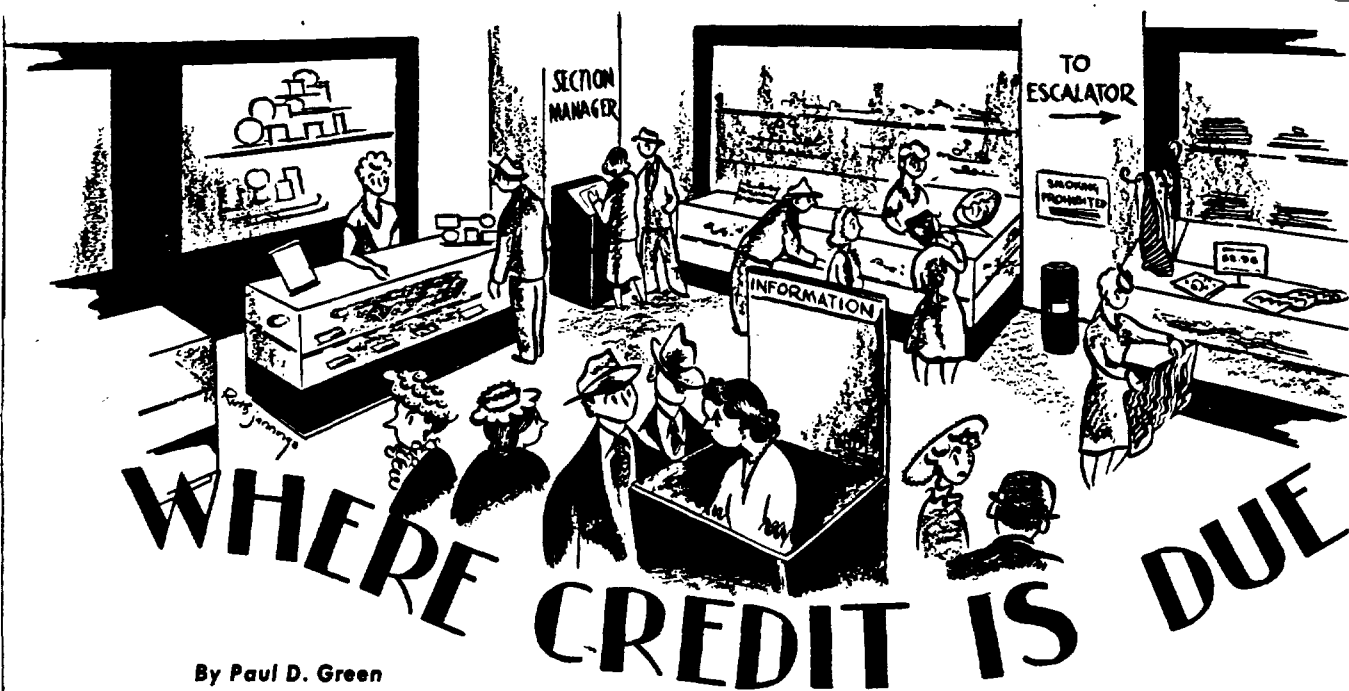
new motor fuels becoming available in the present era not only will be of higher laboratory octane number than previously, but also may differ from one another substantially in chemical composition, thereby requiring extensive study to achieve fullest benefit of their road anti-knock quality.

Exploring the potentialities in the utilization of postwar motor fuels, the paper discusses the possibilities for increased automotive power and higher fuel economy by means of supercharging and higher compression ratios. Work on special laboratory engines and on dynamometer and road tests of experimental automobile engines is reported. Further, the paper includes a forecast of the trend in the average octane number of motor fuels, and it presents some problems in engine design which will be encountered in realizing the potentialities of postwar fuels.

The work discussed in Mr. Bartholomew's paper is all part of the continuing research work at the Ethyl laboratories in the broad fields of fuels, engines and lubricants. The pictures on these pages show some aspects of the equipment in operation at the Detroit Laboratories in research on fuels.

The picture at the right shows a single-cylinder test engine used to determine the antiknock value of gasoline by a laboratory method. Above is another knock-test engine equipped with a special manifold intended to simulate the effects of incomplete vaporization and distribution in a multi-cylinder engine





By Paul D. Green

Sparked by a return of normal times and peacetime goods, consumer credit is again coming into its own

IT'S NO SURPRISE that, since war's end, the consuming public has been on a buying spree, as civilian merchandise has returned to the store counters. What is surprising is that, despite their immense liquid savings, more and more people are buying goods — on credit. Since last September the volume of credit or installment sales of consumer goods has risen steadily. The trend of business so far in 1946 indicates that this year will see over ten billion dollars worth of radios, furniture and automobiles sold on time.

A. B. Buckeridge, general manager of the Credit Bureau of Greater New York, largest in the country, states that during the month of April his agency alone processed 3500 inquiries daily, 50% to 70% more than during the same month last year. Trade clearances, the common type of credit inquiry, ran 100% to 200% higher. The trend is the same throughout the 1400-odd members of the Associated Credit Bureaus of America, and the hundreds of independent organizations which supply credit information to retailers, wholesalers and lending agencies.

After a four-year recess in credit sales due to government restrictions, shortage of merchandise and wartime prosperity, consumer credit seems destined to gain greater popularity than ever. Regulation W, which increased the amount of deposit and decreased the length of time to pay off credit sales, has not yet been removed. But the pool of purchasers has been swelled by the returning millions of servicemen and women, and many of them are nursing their savings. Long-absent items of merchandise — and many new ones — now appearing on the market in rising numbers are swelling the sea of purchases and with it the wave of credit sales.

This is not at all surprising to the credit agencies. Credit people say that as the river of civilian goods starts flowing, the bridge of purchasing will span it only with the hefty keystone of credit to support it. They discount the argument that the huge personal cash reserves of Mr. and Mrs. John Citizen mean indefinite cash-buying sprees. The traditional American attitude, they say, is "Sure, I've got the money, but

why spend it all when I can get things on credit."

Judging from the intensive campaign going on right now to woo more and more millions of buyers into the credit habit, storekeepers and lending agencies are only too glad to risk their money on you. The reason is the evidence of decades of credit experience. Mr. and Mrs. America's credit is 99.6% perfect — among those granted credit, that is. During the war, even that careless or delinquent 4/10ths of 1% of the people by and large tried to clean their slates. The percentage of losses on credit sales dropped to 1/10th and 1/25th of 1% in many areas, with many stores reporting perfect collection rates.

Collections may not always come that easy. Credit men point out that people whose buying habits were bad before the war will inevitably return to those same ways as soon as financial flushness fades. Storekeepers, particularly newly established veterans, must be on the ball, keeping tabs on potential losses. The percentage is so small, however, that some 10,000 banks in the nation are going hammer-and-tongs after consumer credit business. They are luring old borrowers back with prom-

ises of loans without co-signers. They are going to lend money for everything under the sun, because they know that their small margin of interest on such loans is still higher than their return on traditional triple-A investments, such as government bonds.

Don't think for a minute, though, that a store, a bank, or a finance company is going to lay \$300 or \$500 on the line, or deliver the new porch furniture, just because you have an honest face. Before you are enriched in worldly goods or cash, they will know a great deal about you and your past history.

Some of the things they may find out you probably wouldn't tell your best friends. On the whole, though, they merely verify your credit experience, or find out enough pertinent facts about you to guide them.

In addition to their own preliminary facilities, practically all of the banks, many finance companies, and hundreds of thousands of retailers all rely on credit bureaus to give them clear-cut, up-to-date reports on your paying habits. In most cases they have a complete file on you within a few days. In New York, where the volume of department store credit sales is so terrific, they receive file reports by teletype,

telephone and messenger the same day you apply for credit. Department stores can pass on you while you're debating the make of radio or kind of drapery material to buy.

The first thing a bank does when

HOW TO KEEP YOUR CREDIT GOOD

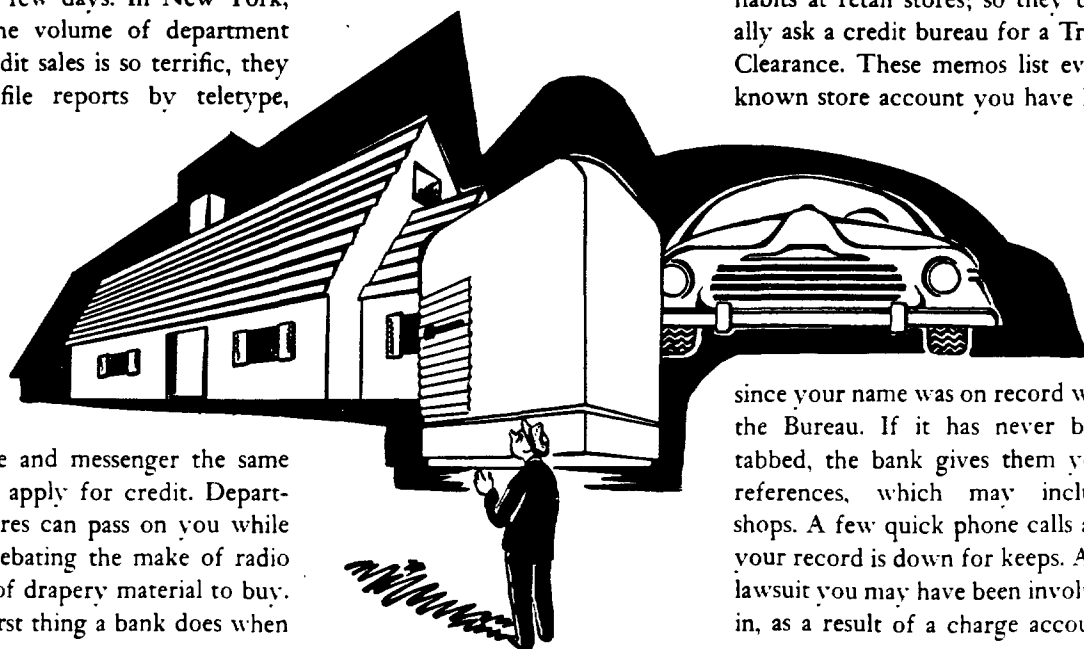
1. Pay your instalments promptly. Pay open charge accounts within 30 days. Pay off bank loans on their due date.
2. Pay rent and utility bills promptly, because your habits in these items are often included in credit reports.
3. Don't return too much merchandise if you're buying on a charge account.
4. Keep your personal checking account in good order. Returned checks, for whatever reason, count against you.
5. When applying for credit, don't hide any pertinent information, such as any other loans, notes or mortgages you may be paying off.

you apply for a personal loan is to check its own records for previous loans. If your reputation with them has been excellent, they may go no further, and you'll have a check within 3 days. If you're a newcomer, they refer to their own clearing house of credit information which will tell them only of your previous bank loans. If you're a first-timer, they call on the credit bureau.

The 1350 members of the A. C. B. A. have over 50 million names on record — enough to cover virtually every working person in the United States! Not all of these people are working, however. Many are housewives using their husbands' reputa-

tion to buy with. Thousands die weekly, and thousands move to new territories, straining the energies of file clerks to keep their records up to date. It is a common occurrence in the credit bureau to have a request from some out-of-town bureau — as far away as Honolulu — for a file on a person whose last charge account was in New York. The complete file is forwarded. This transcontinental exchange goes on continually, so that a credit applicant need never worry about having moved.

Since banks are currently expanding their consumer credit activities, they are interested in your paying habits at retail stores; so they usually ask a credit bureau for a Trade Clearance. These memos list every known store account you have had



since your name was on record with the Bureau. If it has never been tabbed, the bank gives them your references, which may include shops. A few quick phone calls and your record is down for keeps. Any lawsuit you may have been involved in, as a result of a charge account,

is listed, as well as judgments of any type. Defalcations of rent, broken leases, tiffs with the government for unpaid taxes, all are typical derogatory listings on your chart.

Department and retail stores get this same type of report. Finance companies are more interested in any litigations that may have been filed against you, and they draw heavily on the "Litigation Broadcast" — a comprehensive file of every known lawsuit, whether it has to do with charge accounts or not.

Points that grantors of credit watch for particularly are periods of payment, whether it has been necessary to dun repeatedly, and whether accounts have been skipped entirely. Credit bureaus usually operate efficient "skip tracing" services, which bring home the bacon in at least 25% of the cases.

Department stores scan such notations against your charge account listings as "30-60," "60-90," "90-120," "Unsatisf." They'll probably grant credit without qualm to people in the first two groups, will be a little cautious with those in the third, and will probably turn down the fourth group — unless there are mitigating factors. They bend over backwards to give credit applicants a break. If someone has had judgments against him — and made good — it won't hurt his chances for credit in most places.

Banks demand prompt payments, with short periods of grace. They rarely let a customer go beyond the second installment period before clamping down. Stores can let a customer go only 40 days without paying a due installment, according to the terms of Regulation W, which prohibits them from making further credit sales to the delinquent.

In about one out of ten cases, the store or financial agency is not quite able to make a decision based on the

sketchy information of the Trade Clearance, and they ask for a Special Report, either a dated one of prior years or one right up to the minute. These cost much more than Trade Clearances, but supply practically the entire personal history of the credit applicant.

Credit bureaus have trained reporters — the New York Bureau has over fifty in normal times — who investigate people for these "Specials."



It's easier for a humble clerk to buy on time than for the flashy type with a glib line

They go through a routine set of interviews — with the landlord, a neighbor, the local grocery store, drug store, employer and a fellow-worker. After talking briefly with these people, they can size up an applicant pretty well. In addition they track down such information as the type of house and apartment he is living in, the rent he pays, how long he has lived in one place, how

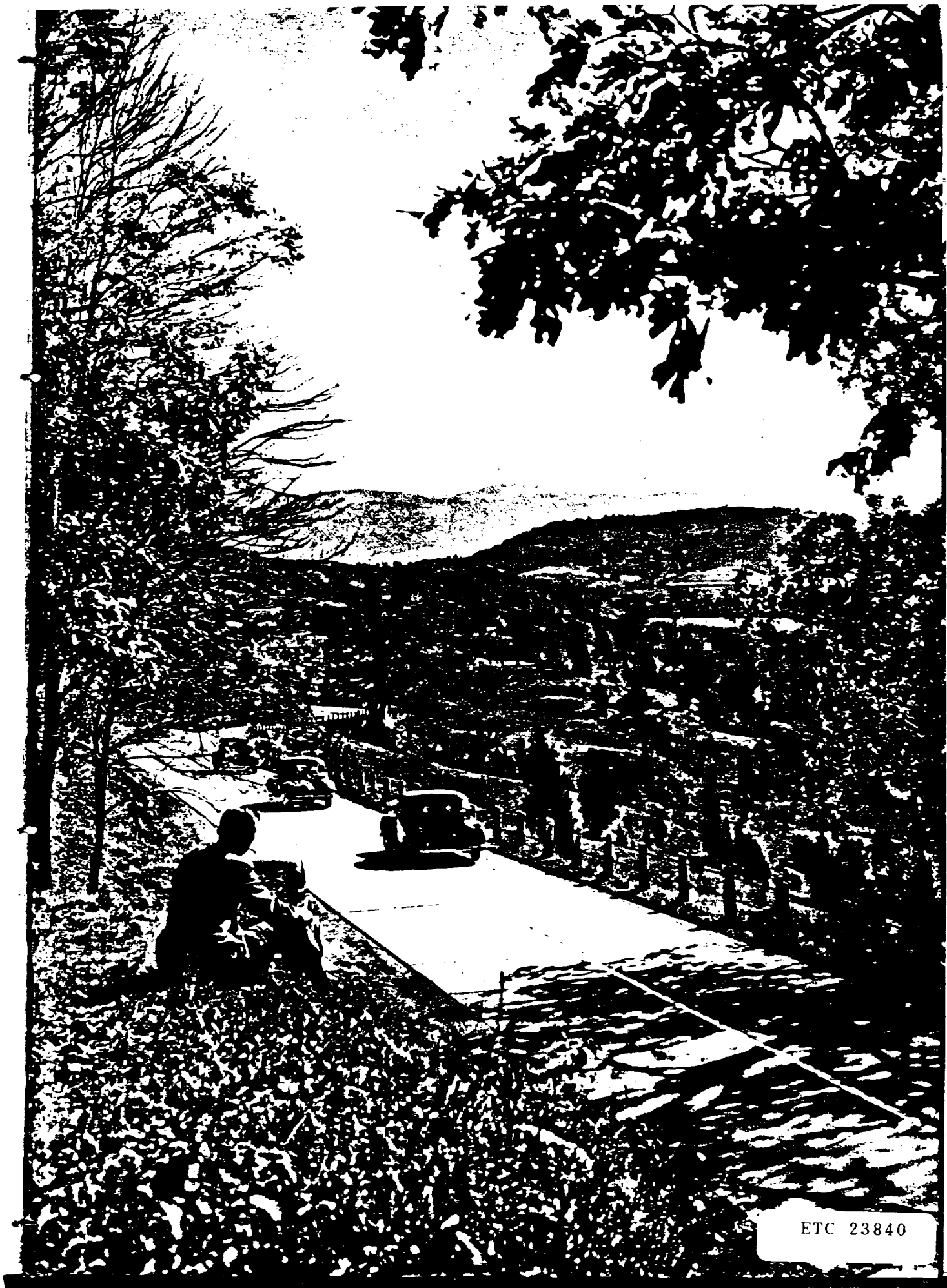
often he has moved. They trace his occupations back as far as ten years, although five is adequate in most cases. Where possible, they state his earnings, either from his job, profession, business or outside interest.

Such information, added to the Trade Clearance, is usually sufficient to allow the credit manager of a store, bank or finance company to make a decision. The Credit Bureau never decides whether any person should be granted credit. Anyone about whom there is still doubt, after Trade and Special investigations, represents a tough decision. There's no one so scorned as the woman who has been told she can't buy that gown on credit, after all. Yet the sad fact is that there is always a small fringe of people who try to beat the laws of supply and demand, and outlive their income, with the inevitable black eyes on credit reports.

No one need fear, however, that his case history will be misused. There have been no reported cases of wrong uses of credit reports, despite the fact that some of them contain enough dynamite to wreck a reputation. To the Credit Bureau a case like this is just another file card in its miles and miles of cabinets.

Today, with normal times reappearing, the average person can go out and buy that new car, take a vacation, furnish a house, buy new clothes, purchase a refrigerator, all on the strength of his credit. Wherever he goes, he's pretty sure to be told, "Your credit is good!"

OUR COVER: Kodachrome view of Sleepy Hollow, N. Y., from Press Association. **OUR PICTURES:** Pages 3-4 (top and center), courtesy *Bus Transportation*; Page 5 (bottom) and 6, courtesy Beaumont and Hohman; Pages 7-9, illustrations by Rodlow Willard; Pages 10-12 and 13 (bottom), Page 13 (top) *N. Y. Herald-Tribune* photo, Page 13 (center) Acme photo, all courtesy Circus Saints and Sinners; Pages 14, 15 (upper left) and 17, courtesy Book of the Month Club; Page 15 (lower right) courtesy Literary Guild, Page 16, *N. Y. Times*; Page 17, Sid Gordin cartoon, courtesy *N. Y. Times*; Pages 20-22, illustrations by Ruth Jennings. **THIRD COVER:** Scene on Route 7 near Pownal, Vermont, by Gustav Anderson, A. Devaney, Inc., N. Y.

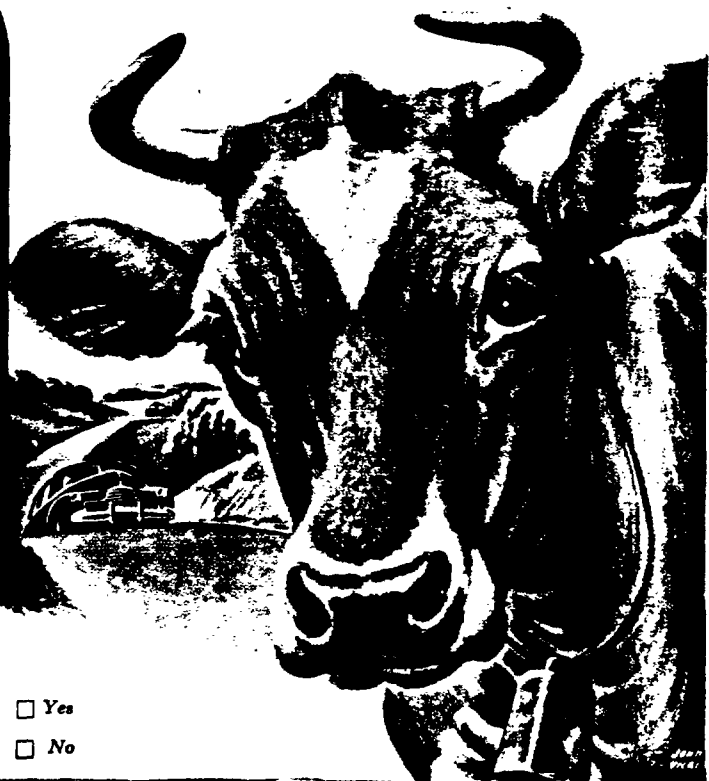


ETC 23840

*Could you pass
this driving test?*



Many states give driving examinations before they grant a driver's license. Well-trained and experienced drivers can readily pass these official tests. But here's a test that will make even you experts think a bit. Three answers right out of five is good—four is excellent—and if you get them all perfect, you're either a wonderful driver or you peeked at the answers at the bottom of this page.



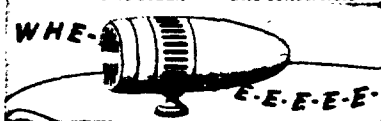
1. You are driving fifty miles an hour in open country. You come over the crest of a hill and see this cow about 150 feet ahead. Could you stop in time to avoid a cow-lision? ☐ Yes ☐ No



2. A woman and a child start to cross the road ahead of you. You are driving 35 miles per hour, and you blow your horn when you are 100 feet away (about half a city block). How many seconds have they to get out of your way if you do not slow down or stop?
1 second 2 seconds 5 seconds 10 seconds



3. Which of these two cars has the right of way? *The sedan The convertible*



4. What is the best thing to do when you hear a siren?

- A Stop where you are.
B Keep on going.
C Listen to determine where the sound is coming from and then decide what to do.
D Pull over to the right and stop.



5. At which of these two pumps would you stop to get this service station's highest quality gasoline?

The pump on the left. The pump on the right.



ANSWERS

1. No. You would travel about 75 feet before you could get your foot on the brake, and under average road conditions it would then take at least 148 feet to stop—a total of 223 feet.

2. Barely 2 seconds.

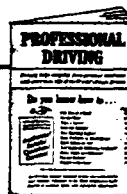
3. The sedan. Unless there is a traffic signal, stop sign or other regulation, the car on your right has right of way... but remember it's always better to yield the right of way than take a chance.

4. "D" is right—emergency vehicles should be given the right of way without question. Generally this means pulling over to the right and stopping—so long as you do not block an intersection.

5. The pump on the right—the one with the Ethyl emblem. Millions of experienced drivers look for the Ethyl emblem wherever they drive. They know that high-quality gasoline in a properly tuned engine makes for a more responsive car and therefore a safer car. They make it a point to always ask for Ethyl.

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✓ CHECK YOUR DRIVING ✓ CHECK YOUR CAR... CHECK ACCIDENTS!



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ETHYL NEWS

SEPTEMBER ★ 1946

ETC 23842



IN THE

ETHYL NEWS

SEPTEMBER 1946

Harold B. Hunt, supervisor of employee benefits at the Ethyl manufacturing plant in Baton Rouge, Louisiana, completed last month his 37th year of service, first with the Du Pont Company and later with Ethyl Corporation. He has the distinction of being Ethyl's oldest employee, in point of service, and the only holder of a 35-year service pin recognizing his combined record with Du Pont and Ethyl.

The only job "H. B." ever applied for during his 56 years was the one he took in 1909 as clerk in the glycerin refinery of Du Pont's Repauno plant in Gibbstown, New Jersey. Subsequently, he served at the refinery as stock clerk, chief timekeeper and night supervisor. During World War I, he was resident auditor covering two Du Pont plants in Hopewell and Penniman, Virginia, and in December, 1918 he was transferred to the old Dye Works (now known as the Chambers Works) at Deepwater, New Jersey. From the Dye Works, where he was supervisor of timekeeping and employment, the total daily output of five drums of tetraethyl lead was shipped to Dayton, Ohio, where Ethyl gasoline was first introduced and a blending plant was set up to manufacture Ethyl fluid. Later, the blending operations were moved to Deepwater.

In 1937, Du Pont sent Mr. Hunt to Baton Rouge as superintendent of its personnel at Ethyl's new tetraethyl lead plant and in 1945, when Ethyl assumed operation and management of the entire plant, he became an Ethyl man.

FOOTBALL GOES BACK TO COLLEGE 3

Record crowds, faster and smarter gridiron play, and plenty of competition for Army are in the offing this Fall.

IT'S A GOOD BUSINESS 7

The importance of a service station — as a career for youth and as a vital part of a community — is told in a new Ethyl movie entitled "Looking Ahead."

THE PRESIDENT MEETS THE PRESS 10

History in the making is often unfolded at the President's press conference. Covering the weekly event calls for top-notch reporting ability.

THE ENGLISH HAVE A WORD FOR IT 14

Americans and Britishers are supposed to speak the same language — but they don't when it comes to an automobile.

OCCUPATION PANORAMA 16

A year after its formal surrender, Japan remains a strange but interesting land to our GIs. This picture story shows many of the sights now so familiar to our occupation troops.

THESE DRIVERS KNOW HOW 19

Among the safest and most able drivers are the men who operate the nation's trucks. Pre-employment aptitude tests and methodical vehicle checkups are two of the reasons why.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Opinions expressed in signed articles are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

Published by ETHYL CORPORATION, 405 Lexington Avenue, New York 17, N. Y.

Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23843



What's the score on college football this Fall? Here's an Ethyl News preview of how the nation's leading teams shape up



The Army-Navy contest will be tops, as always

GOES BACK TO COLLEGE

USHERING IN ITS PHASE of the so-called postwar Golden Era of Sports, intercollegiate football holds out the promise of a bigger and better show than ever to the record-breaking throng of nine million fans which is expected to overflow the nation's major games this Fall.

From coast to coast and border to border, say the experts, the college brand of gridiron play will be brainier, faster and more colorful than even in pre-Pearl Harbor seasons, with at least a score of teams ready and able to challenge West Point's two-year stranglehold on national championship honors.

Since Japan's sudden capitulation came too late to have any effect on the 1945 campaign, the collegians are looking ahead to the first season not completely hampered by war since the draft started plucking students from the classrooms.

Football's "return to normalcy" is to be a bang-up affair, from the viewpoint of both the players and spectators.

Most of the popular pre-war in-

tersectional battles have been rescheduled, including Fordham vs. St. Mary's and Notre Dame vs. Southern California. Several West Coast teams will add an international tang to the game by meeting the University of Hawaii and the University of British Columbia, while up-and-coming Ohio Wesleyan travels to Cuba to engage the University of Havana gridders.

\$30 Million Gate

Followers of the sport will pay somewhere in the neighborhood of \$30 million for the privilege of sitting in on the outstanding gridiron attractions, but latecomers had better hurry. The Georgia Tech-Navy game, for one, is a sellout and has been since mid-July.

In anticipation of record crowds, the major institutions of higher learning have earmarked much of the \$25 million they plan to spend in postwar expansion of athletic facilities for enlargement of their gridiron plants. Cornell and Purdue are but two of the colleges to announce

they will increase the seating capacity of their football stadiums.

The tempo of collegiate football this year will be speeded up somewhat as a result of action taken by the Football Rules Committee.

Rule changes will render the widely used "T" formation more deceptive and also will encourage the employment of down-the-field laterals. Under the new rule, the "T" back in position a yard or less from the scrimmage line no longer is obligated to receive the snapback. The former rule served as a dead give-away, since a backfield player within three feet of the scrimmage line was bound to take the pass from center.

In an apparent move to encourage lateral passing and razzle-dazzle passing plays, the penalty for an illegal forward pass has been reduced from the loss of a down at the point where the entire play started to a mere five yards from the spot of the illegitimate toss. Still other rule changes provide for larger numerals on the front and back of players' jerseys, and for an increase in the



This bit of action occurred in the last Fordham-St. Mary's game in '42. Resumption of intersectional rivalries is a highlight of the coming season

number of legal time-outs from three to four each half.

Comes the end of November and fans will know the answers to such burning questions as: Is Army strong enough to go through a third straight undefeated-untied season? Can Herman Wedemeyer and the other all-America backs of last year retain their high regard in the face of keener competition? Is it true that the "T" formation has spent itself and now is on the way out?

But, at the moment, the biggest questions are which players will miss the draft this Fall and how much help can be expected from the grid-ders who responded to Uncle Sam's call and now are back in college. The coaches wish they knew either answer, but are frank to admit they don't. In the case of returned veterans, the mentors agree that players will be stronger of body and more alert. However, there are those who argue that prolonged absence from the game will reap a heavy toll among the older, albeit more physically fit, ex-servicemen.

The only certainty in this confusing situation is that the football destiny of virtually every college and university in the land will swell or ebb according to what players remain available and what calibre of play the war veterans demonstrate.



"Doc" Blanchard (below, left) and Glenn Davis will be on hand again as Army seeks to extend its 18-game winning streak of the past two years

Because of the unknown quantity represented by former and prospective GIs, pre-season ratings mean less in 1946 than ever before. Practically the only basis for seeding the various elevens is the national championship form sheet of last year, when Army, Alabama, Navy, Indiana, and the Oklahoma Aggies emerged as the five top teams in the reliable annual Associated Press poll. Michigan, St. Mary's, Penn, Notre Dame and Texas were ranked sixth through tenth, in that order.

An Ethyl News survey conducted among 24 leading colleges in all sections of the country indicates that fans would do well to string along with the two A-bombs of the grid-iron world — Army and Alabama. The Cadets have gone through their past 18 games without a blemish, and seem capable of extending that skein

this season. However, success will not come as easily as it did in the past, even with "Touchdown Twins" Glenn Davis and Felix (Doc) Blanchard and a handful of other potential all-Americans available. Reports have it that Columbia, for one, fully expects to halt the West Point juggernaut when the two teams clash next month.

Army Coach Blaik's most serious losses are among the guards and tackles, and unless he comes up with suitable replacements for all-Americans DeWitt Coulter, Al Nemetz and Johnny Green, Army may find itself in trouble more than once. Coulter, a 230-pound tackle, flunked out of West Point and since has signed a lucrative contract (reportedly at \$19,000) with the New York Giants pro eleven. Green, a guard and 1945 team captain, was

lost by graduation, as was Nemetz, a tackle.

Official word from the University of Alabama is that "we expect to be even stronger than the 1945 eleven which was undefeated in 10 games, including a 34-14 trouncing of Southern California in the Rose Bowl." The Crimson Tide is intact except for left end Rebel Steiner, who was drafted in March. That means that Harry Gilmer, the most efficient forward passer in modern annals, will be in there pitching again, while 240-pound all-America center Vaughn Mancha serves as 'Bama's defensive bulwark.

Behind Army, in the East, should come Penn, Navy, Columbia, Yale and Cornell, with Temple and Lafayette as dark horses. Penn-men of all-America stature include tailback Bob Evans, a standout in the New Year's Day East-West game, tackle George Savitsky and guard Joe Dickerson. Columbia will depend heavily on halfback Gene Rossides, fullback Lou Kusserow and tackle Werner Hasselman, just back from the wars. Kusserow, incidentally, turned down an appointment to West Point.

Although not to be sold short, the Navy squad has been riddled by graduation losses and the continuing epidemic of resignations which broke out in mid-season 1945. Among the most recent to depart from the Naval Academy, via the resignation route, were star ground-gainer Clyde Scott, halfback Bob Kelly and triple-threater Bob Hoernschemeyer. Scott will play for Arkansas U. this year, while Kelly has returned to Notre Dame, where he was all-America in 1944. Hoernschemeyer, a freshman sensation at Indiana University two years ago, before entering the Naval Academy, has turned professional. The only pre-season bright spots at

Annapolis were the availability of Dick Scott, Mancha's closest rival for national recognition in the pivot spot, and the transfer of ace back-field man Lynn Chewning from VMI.

In the South, Alabama will find the sun is not the only hot thing in Dixie. North Carolina, Duke, Ten-

nessee, Georgia and Georgia Tech all possess the stuff that champions are made of, and are ready to prove it. Coach Snavely, in his second year at North Carolina, has quarterback Charley Justice, the ex-Bainbridge Naval flash, and Sid Varney, a better-than-average guard. Duke boasts potential standouts in end Kelley

Alabama's banking on ace passer Harry Gilmer (right) for another Rose Bowl bid. 'Bama beat Southern Cal in the 1946 bowl classic

What will be 1946's most-disputed play? Last year it was: Did Tony Minisi of Navy stop Phil Colella before the latter crossed the goal line for Notre Dame (below)? The referee ruled Minisi had, and the game ended in a tie



Mote, guard Ernie Knotts and backs George Clark and Fred Palladino. Georgia, the Oil Bowl champion, has Charley Trippi at his halfback spot again, which is enough said.

Michigan's young team appears to be the cream of the Big Ten, although the race for this Conference diadem looms as the tightest in years. Defending champion Indiana U. still has the services of all-Big

Ten guard Howard Brown and full-back Pete Pihos, as well as the good right arm of Ben Raimondi. Purdue will be very much in the running, sparked by speedster Ed Cody, passer de luxe Bob DeMoss and possibly Bob Pfohl, shining light of the 1945 Merchant Marine Academy squad, and Dick Barwegan, all-America guard for the Boilermakers in 1943. In addition, Purdue has an-

nexed Clyde Grimenstein, who scored eight touchdowns for Army from end last year before failing in his Military Academy studies.

Returnees to the University of Illinois campus include Buddy Young, one of the fastest ball-carriers in the country, and Alex Agase, an all-America guard at Illinois in 1942 and the same at Purdue the following season. Ohio State is pinning much of its hopes on Warren Ameling, collegiate football's No. 1 tackle, and Cecil Souders, a tried-and-true wingman.

Notre Dame, as usual, should be tops among the Midwestern independents. The Irish are "loaded," and might well be the country's ranking team if Army and Alabama fall by the wayside. All-America John Mastrangelo will put in another season as guard, next to center George Strohmeier, who played service ball with the Iowa Seahawks. Backfield men who have returned to South Bend include Johnny Lujack, George Ratterman, Bob Kelly, Bob Livingston, Emil Sitko, Jim Mello, Gerry Cowhig and Bill Gompers. Notre Dame's concern is not a shortage, but an overabundance, of capable manpower.

In the Missouri Valley Conference, the powerful Oklahoma Aggies figure as a "shoo-in" again if Bob Fenimore goes untouched by the Selective Service system. "Rapid Robert" is hailed as the greatest offensive performer in college football history. Other leading teams in the Missouri Valley region will be Iowa State, Missouri, Oklahoma and Drake.

Texas and the Texas Aggies dominate the football picture in the Southwest. Dana X. Bible, who is winding up a 34-year coaching career, has his fingers crossed that the Longhorns' star back, Bobby Layne,

(Continued on page 22)



Added speed and deception are given the "T" formation under a new rule. This style of play is illustrated above

The list of New Year's Day "bowl" tilts grows each season. Below is Oil Bowl action as Georgia defeated Tulsa, 20-6



The vital role service stations play in everyday community life is vividly portrayed in a new Ethyl movie

IT'S A GOOD BUSINESS

AS AMERICA ONCE MORE becomes a nation on wheels, after almost four years of war-restricted driving and lack of automobile manufacture, the service station operator is learning all over again how vital a role his place of business plays in the everyday life of a community.

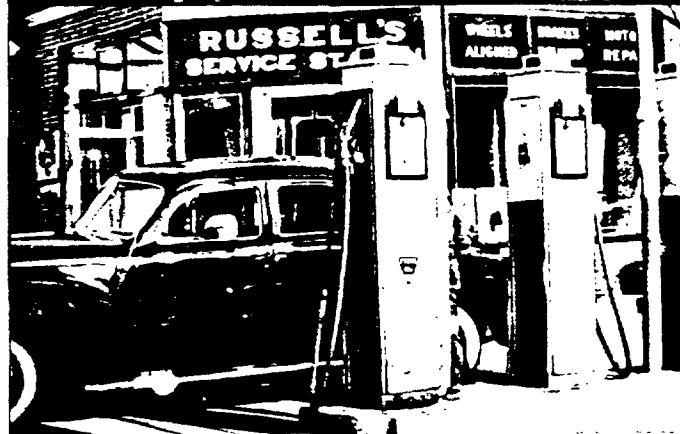
Nothing can illustrate the true importance of the service station more graphically than a mental picture of how a community would be prostrated if, Aladdin's lamp-like, every one of its service stations was suddenly wiped out of existence. Mass transportation would come to a virtual halt, and business would be at a standstill. Food and other essential commodities, lacking trucks to deliver these goods, would rot in storage places. The sick would suffer needlessly for want of a doctor who could not reach them in a hurry. In short, a city or rural area without ready access to gasoline and oil would become a paralyzed segment within a matter of hours.

The greatest service that any station has to offer is service to the community. More than "filling 'er up" for Dr. Smith and replacing the spark plugs for Mrs. Brown, service to the community is helping Bill

In Ethyl's latest film, entitled "Looking Ahead," a young man learns that operating a service station in reality means participating in the life of a community

7

ETC 23848





Jerry, hero of the film, learns the importance of service stations from his father-in-law



Taking a job in a neglected station, Jerry sets about to brighten it up. The proprietor had failed to appreciate that cleanliness is a big factor in attracting trade



His father-in-law's model place of business, shown here, gave Jerry many valuable tips. He soon had his boss's shabby station back on its feet again



Jerry's reward comes when he is made a partner. Opportunity, he finds, is unlimited in the service station business

Jones plan his route to that upstate fisherman's paradise, and directing an out-of-town motorist to a reliable hotel or tourist home in the locality. Service to the community also is suggesting to customers that they use only the best fuel and the best tires, batteries and accessories in order to obtain full value for their service station dollar.

To encourage continued "service to the community" on the part of service stations, Ethyl Corporation stresses this theme in a new sound motion picture which is being made immediately available to oil companies and other interested groups. This latest addition to the Ethyl Film Library, which includes a number of movies for use by the oil and automobile industries, farmers and the general public, is entitled "Looking Ahead."

The picture is keyed to interest both present and prospective service station men, especially those who are veterans of the recent war. Former GIs planning to enter the business will find in "Looking Ahead" an oral and visual explanation of some of the steps that must be taken to make a service station a successful venture. In the case of veterans who were members of the service station fraternity before joining the armed forces, this same message will serve as a "refresher course" in what is required of an up-to-date station.

There is no attempt to glamorize service station workers or present them as something they may not be, but the human interest story of the film brings home the fact that their job is a dignified and profitable one and consists of more than "pumping gasoline and wiping windshields." On the other hand, the movie contains many suggestions that service stations, if they have not done so already, might put into practice to

increase not only public esteem but sales as well.

It takes a bit of convincing — a year of it on the screen, in fact — to prove to Jerry, the “hero” of the movie, that “a fellow has a better chance of becoming his own boss in the service station business than any business I know of.” That was important to him, Jerry explains, just as it is important to a lot of Jerrys in real life.

Part of the convincing process was learning that gasoline is the lifeblood of the nation, and that it takes plenty of hard work, knowledge and money to convert crude oil into a fuel that flows out of a pump and into the tank of an automobile.

While he was coming to appreciate the full importance of the oil industry, Jerry also had an opportunity of learning how to put a run-down service station on its feet again. Hank, his boss, just could not see any reason for going out of the way to attract business. “They come and they go” was his outlook in regard to customers. But Jerry had different ideas. Simply by treating customers with courtesy, and by using a broom and some elbow grease to produce a clean station and spot-

less rest rooms, he soon had Hank’s place on a paying basis. The next step was to install a complete line of products and accessories that sell themselves. It wasn’t long before their station became one of the busiest in the community.

Ethyl’s new film imparts information which all service station men should have if they are to be able to discuss their products with customers and thus do a better selling job. For instance, it is brought out that at least one million persons earn their living in the oil industry, and that the industry’s investment in machinery and equipment necessary to get its wares to the consumer runs into the billions of dollars.

Step by step, “Looking Ahead” audiences see what happens from the time a crew of geologists explores territory that appears to contain oil until the finished product is in the hands of the service station operator, ready for sale to a waiting public. Actual photographs of test wells, laboratory samplings, refineries and service stations illustrate the story of finding, producing and marketing gasoline and oil, as it is told by one of the characters in the motion picture.

Animated sketches are employed freely to describe the four main types of gasoline refining processes — additional information which service station personnel should know if they are to talk about their business intelligently.

Again step by step, the film shows what takes place as the crude oil is scientifically and chemically converted into gasoline by each of these four processes — the straight-run, the thermal cracking, the catalytic cracking and the polymerization methods. Most of the gasoline used today is a blend of gasoline made by two or more of these processes, and Ethyl fluid generally is added to the finished product to increase the antiknock quality of the fuel.

“Looking Ahead,” which was produced by Audio Productions, Inc., for Ethyl Corporation, is being offered by Ethyl as a service to the oil industry and as a tribute to the men who staff the country’s service stations.

Ethyl’s hope is that the service station operators who see the picture will obtain from it knowledge that will help make their business of even more “service to the community” than it already is.

STEAMBOATIN' RETURNS

A hundred and thirty-five years ago Nicholas Roosevelt, granduncle of the Rough Rider, launched a colorful chapter of American history when he took the “New Orleans” to the city of that name from Pittsburgh. She was the first steamboat to travel the Ohio and Mississippi rivers. A small library has been written about the fleet of paddle-wheelers that followed her, on conquest or pleasure bent, and its part in the winning of the West.

The War Between the States put an end to the best days of steamboating on the Mississippi. But now excursion and cargo boating are being revived, not only on the Father of Waters, but also on the Ohio and Tennessee. A scenic paradise and a fisherman’s dream has been created along the latter stream by the Tennessee Valley Authority. The vast area in which its waters have been impounded already is being called “the Great Lakes of the South.”

A new fleet of steamers carrying 300 passengers each,

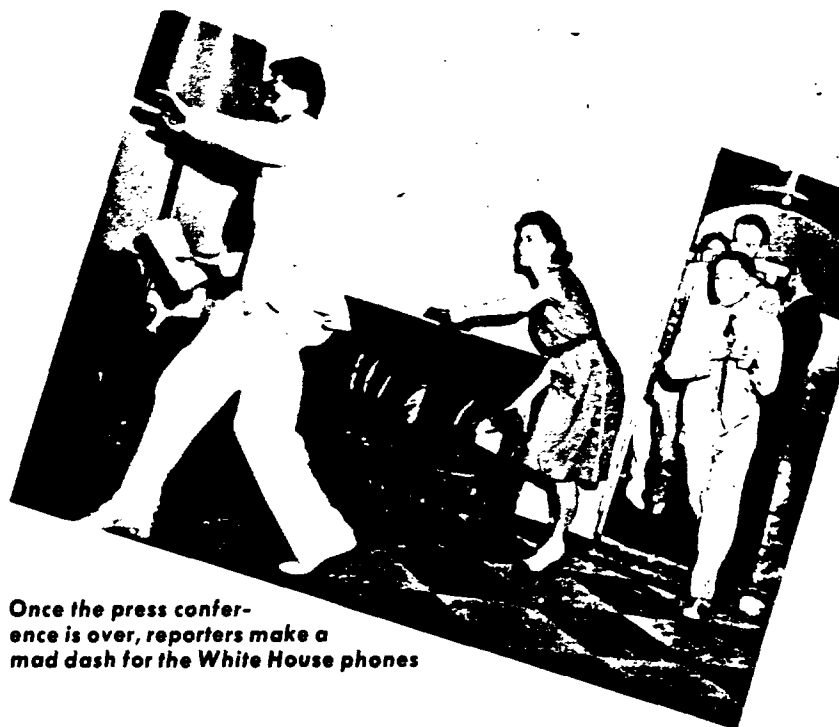
and narrow enough to negotiate the various straits, will operate excursion schedules from Knoxville — where the Tennessee joins the Ohio — to Paducah. The Tennessee Waterways Conference, representing all the interests in the Valley, is fostering this and other projects. In addition, some of the historic old lines are coming back.

The S.S. “Gordon C. Greene,” long famous as the flagship of the Greene Line, has been refitted and streamlined and is now operating out of Cincinnati all the way down to New Orleans. Likewise the old “Golden Eagle” of the Eagle Packet Company, still sound and seaworthy, has been given new engines and completely modernized. She also is sailing the Ohio and Mississippi. Other cruises in both directions are being scheduled from St. Louis. All the towns along the way that once were stopping places for the show boats are sprucing up to welcome a flood of tourists — and the millions they will spend in seeing this historic part of America.

Covering the President's press conference calls for top-notch reporting ability by Washington correspondents

YOU MAY BE SAFER in your automobile doing 60 miles an hour than you would be at a White House press conference during a critical moment of current history.

For the highly competitive news-gathering system turns the polite gentlemen of the press into a frenzied mob with a dangerous glint in their eyes as they tear from the President's private office to the too-few telephones in the White House press room.



Once the press conference is over, reporters make a mad dash for the White House phones

The President Meets the Press

By Mildred Diefenderfer

Veteran United Press correspondent Merriman Smith once tripped over a ladder left by White House painters in his rocket-like exit from a Presidential press conference near the war's end. His wrenched shoulder required extensive medical care.

There are other instances of bruises, contusions and minor abrasions resulting from the split-second race to get the chief executive's words clattering over teletype machines across the nation and around the world.

The starting gun for this elbowing shuffle through the narrow corridor to the White House lobby and the subsequent dash to the press room comes with the words "Thank you, Mr. President," the traditional "thirty" closing press conferences.

But let's start at the beginning . . .

Presidential press conferences are weekly affairs, attracting from one to two hundred reporters. The oval-shaped executive office has held as many as three hundred for crucial pronouncements during the war. There are always guests—mostly

home-town editors and publishers, the "bosses" of accredited correspondents, visiting newsmen or members of foreign delegations brought across the street from the State Department.

Writing White House news is an exclusive affair. The White House Correspondents' Association lists 680 members, but only about 400 of them are accredited to the White House. Each must undergo a thorough Secret Service investigation, and it often takes from four to six months for a reporter to get a "permanent" White House pass, complete with picture and fingerprints. In the meantime, he uses a temporary card.

On press conference days, a steady stream of newsmen trickles through the northwest gate and up to the West Wing where the press room and executive offices are located. At the door, they're greeted by soft-spoken Sergeant Bowles, a long-time Secret Service man whose decep-

tively quiet manner and sincere friendliness conceal an efficient "once-over." Visitors are taken in tow by white-haired, pipe-smoking John Simmons who escorts them to a special waiting room between the crowded lobby and the President's office.

Morning conferences usually begin at ten o'clock, afternoon ones at four, alternating weekly to give morning and evening papers the news "breaks." A half hour before the appointed time, reporters gather around the massive round table of carved mahogany which dominates the leather-chaired lobby and serves as an impromptu hat rack and "perch" for casual reporters.

There's mounting tension as the press conference hour nears; beneath the hum of conversation is an undertone of expectancy, for no one can foresee what news—perhaps of world-wide importance—may be waiting for them at the end of the east corridor.

Then a guard opens the corridor door and the rush is on. Reporters

hold up their passes for the guards to see and a Secret Service man with a mechanical counter keeps an accurate check on the number entering the famous oval executive office, where history is made daily.

The "special" correspondents for newspapers, from cities like Birmingham, Tulsa, Portland and Phoenix, arrange themselves in rows at a respectful distance from the massive desk with its few adornments. On the walls of the room, in place of the full-sailed ships of Roosevelt's days,

are prints of war planes; in place of the dozens of personal mementos and smoking paraphernalia which littered F.D.R.'s desk, President Truman's is practically barren. On a table behind him are pictures of his wife and mother and daughter.

The front row is reserved for the White House "regulars" — men who cover the official mansion and its occupant whether he's in Washington or Independence or Potsdam. Among them are Ernest Vaccharo of the Associated Press, who covered

Senator Harry Truman's war profits investigation when the well-known Mead committee was known as the Truman committee; United Press's Merriman Smith and International News Service's Robert G. Nixon, as well as a handful of the older reporters.

When the last reporter has filed in, Bill Donaldson, superintendent of the House of Representatives' press gallery, intones "All in." The press conference is on.

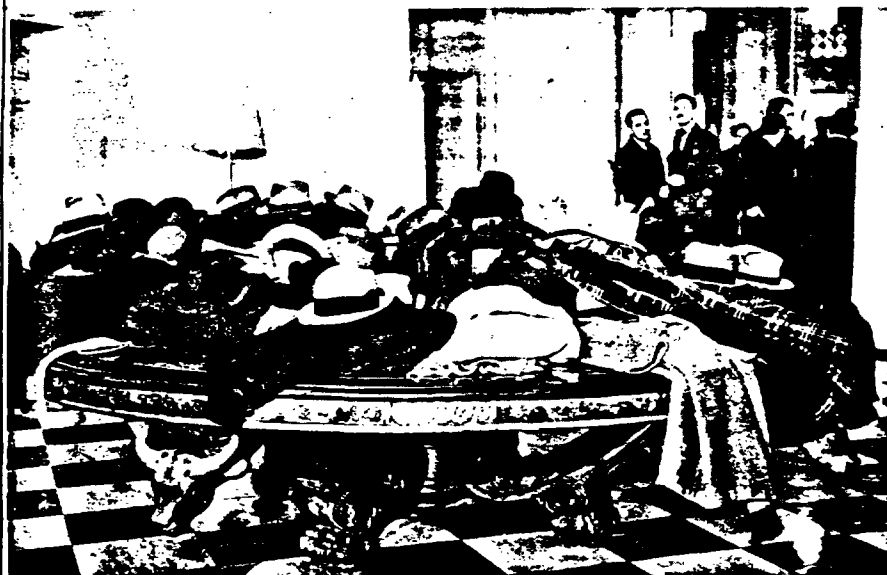
The present occupant of the White House seems to enjoy his verbal bouts with the press. Mr. Truman springs to his feet, grins a greeting, and makes whatever official announcements he may have. Then he tells the reporters that he's ready for their questions.

Only an accredited correspondent may interrogate the President. His replies — all his statements, in fact, — can't be quoted directly unless he authorizes a direct quotation. Sometimes he will signify that his answer is "background information," which means it may be attributed to the much-quoted "White House spokesmen" or "official sources."

When the news begins to wear thin, after twenty or thirty minutes of rapid-fire questions and less hurried answers, the correspondents' spokesman ends the session with "Thank you, Mr. President," and the scramble for telephones begins.

Painstaking preparation that doesn't show up at the actual conferences helps them run smoothly. Presidential press secretary Charles Ross — who as *St. Louis Post Dispatch* correspondent attended hundreds of Roosevelt conferences — early in the day "briefs" Mr. Truman on subjects that are likely to be uppermost in reporters' minds, so the President can mull them over a bit.

But the conferences themselves are unrehearsed and completely in-



This White House table is weighted down with reporters' hats and coats while a press conference is in session

President Truman, flanked by members of his Cabinet, telling his press conference the war in Europe is over



Merriman Smith (right), one of the newsmen who regularly cover the President, introduces his young son to the chief executive



Charles G. Ross, President Truman's press secretary, pores over a stack of mail that followed a radio talk

formal. There is always some good-humored joshing, and if Mr. Truman draws fewer laughs than his predecessor, neither does he bring on the grumbles which often reverberated from F.D.R.'s stinging criticism of the press.

No written questions are submitted in advance. The late Presidents Harding and Coolidge and ex-President Hoover demanded written questions after Harding made an error necessitating correction, but Roosevelt went back to the informal questioning method and encouraged conferences in which there was an easy interchange of ideas between him and the correspondents.

If the President has a long statement for release, or the texts of some pertinent letters, they are mimeographed for distribution when reporters leave the conference. This is directed by Ross's assistant, Eben

Ayres, who handles all press routine and substitutes when necessary at the White House press secretary's daily briefing sessions for reporters.

When the President's press conference breaks up, reporters for the news services — AP, UP, INS, Reuters, Transradio — dictate their bulletins over direct telephone circuits to their offices. Leading papers such as *The New York Times*, *Herald Tribune*, *Baltimore Sun* and *Wall Street Journal* have direct telephone wires to their Washington offices. The other reporters await their turns in front of the two public telephones or go back to their Washington offices to write their stories.

Members of the President's staff frequently attend press confabs. Ringed about Mr. Truman is a semi-circle of chairs. Back of his desk may sit his close personal friend, Secretary of the Treasury John W. Snyder; Presidential secretaries Bill Hassett and David Niles, Ross and Ayres; the Presidential military aide, Gen. Harry Vaughan, or the naval

aide, Capt. James H. Foskett. Once in a while, Mrs. Truman sits in.

Mr. Truman also is flanked by two Secret Service men whose eyes rove over the roomful of reporters, alert for anything. On a recent humid day when a reporter fainted in the heat of the closely packed room, the Secret Service men were at his side before he fell.

Once at their phones, reporters dictate in bulletin form the top news of the conference. Detailed stories follow, but there's no time to write them out. The reporter dictates as his eyes scan his notes. Grammatical polishing must wait for later revisions. A typical bulletin:

"PRESIDENT TRUMAN TODAY SIGNED THE BILL REVIVING OPA."

White House conferences are still largely masculine affairs. Among the scattering of "regular" women reporters attending them are Elisabeth May Craig, a Maine correspondent who always asked President Roosevelt at least one question; petite Ruth Moore of the *Chicago Sun*; Doris Fleeson of the Bell Syndicate; Lucy Jones of *U. S. News*; Bess Furman of *The New York Times* and Lillian Lovell of the French news agency.

To the biggest news beat in Washington come top-notch columnists such as Mark Sullivan, David Lawrence, Drew Pearson, Marquis Childs, Ernest Lindley and Walter Lippmann, and radio commentators like Richard Harkness, H. R. Baukhage and Raymond Swing.

When all of the country is awaiting news of vital importance, reporters sit in "death watch" around the too-small press room or the lobby, waiting for the call to a special press conference, such as the ones which announced the end of war with Japan, and the formation of a national wage-price policy during the critical steel strike.

Theodore Roosevelt is credited with being the first chief executive to hold press conferences, although his barber chair seminars — to which only his close friends and correspondents favorable to the administration were invited — could scarcely be compared with the free-for-alls at which the second President Roosevelt parried verbal blows with his vitriolic newspaper critics.

But it was a woman — the calico-gowned, poke-bonneted publisher of an early 19th century journal called the *Paul Pry* — who first established a reporter's prerogative to get an answer from the nation's President.

Ann Royall had a few questions concerning John Quincy Adams' stand on the Bank of the United States, and to get them answered by the President himself she conducted the most embarrassing interview in American history. President Adams was inhibited by neither the Secret

tackling them. Both resort to criticism, but there is genuine good feeling in the press relations of this administration as in the last.

Franklin Roosevelt summarized this appreciation in his tribute "To The Reporter" presented by him to Walter Davenport, who is now editor of *Collier's* magazine.

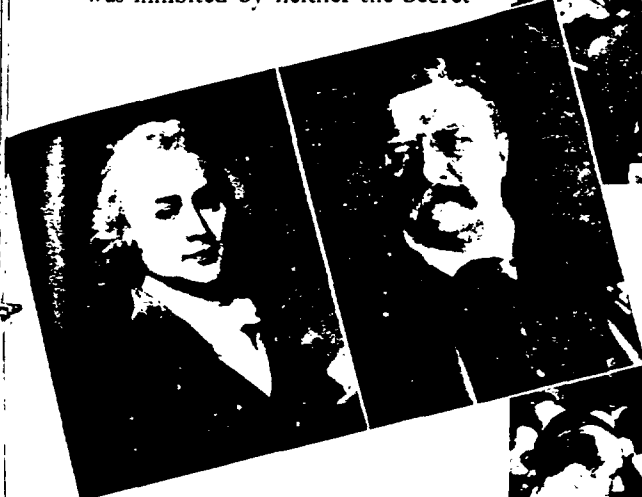
"He is everywhere," wrote the late President. "His perception, his

intelligence, encompass all men, all things. His eye scans the earth, surveying its tragedies and comedies, its men of wealth and of poverty.

"In the beginning he chiselled in living rock the news of the first dawns of promise. In the great ending, he will write 'thirty' — his own mystic symbol of conclusion — and the strange history of man will be complete."



This was the scene as newsmen awaited the White House announcement that Japan had surrendered. Left, John Quincy Adams and Theodore Roosevelt. Below, the late Franklin D. Roosevelt and Winston Churchill, as they had a joint press conference



Service nor a bathing suit when Ann Royall got her questions answered, while he floundered neck-deep in the muddy Potomac River and she sat comfortably on the bank — on his clothes!

How do the Presidents regard the reporters, and vice versa? On the whole, each has a marked respect for the other's problems and means of



The English Have a Word

By Bernard L. Miller

... and when they speak of a "dickey," a "bonnet," a "boot" or a "wing," believe it or not, they mean a part of an automobile

DRAWING A DISTINCTION between the "English language" and the "American language" is usually accompanied by a gentle smile to indicate that it really isn't so. But anyone who has dealt with the British in automotive matters knows that the difference is not only real and con-

led by "quaint" designations for familiar parts and assemblies. Usually, it only takes a quick mental juggle to realize that the British "windscreen" is our windshield, and the "windscreen wiper" is our windshield wiper. But when you run across a thing called a "scuttle," and



ward of the windshield we call a cowl, and the "dickey" is nothing but a rumble seat.

Like bright pieces out of a philologist's collection are such odd "Britishisms" as "wings" for front fenders (rear fenders are "mudguards"), "bonnet" for the hood, and "demister" for the apparatus we never call anything but the defroster.

"Appurtenances," No Doubt

To the English motorist, tires are "tyres," and they are never white-walled, but "white-sided." The heat indicator on his instrument panel is a "water thermometer," and the trunk of his car is a "luggage locker" or "boot." By this time, every American knows that English "petrol" is gasoline and a "lorry" is a truck — but who would ever guess that a "saloon" is a sedan, and a "caravan" is a house trailer?

You can fairly hear the throaty British intonation through "kerb" for curb, and "sparking plugs" for spark plugs. "Dynamo" sounds a little closer to the truth for the thing we call a "generator" on an automobile, but there's more poetry in the American "shock absorber" than in the British "hydraulic damper."

The action exerted on a wrench



fusing, but amusing, bizarre, and even fascinating.

An American reading British automotive literature is continually start-

led by "quaint" designations for familiar parts and assemblies. Usually, it only takes a quick mental juggle to realize that the British "windscreen" is our windshield, and the "windscreen wiper" is our windshield wiper. But when you run across a thing called a "scuttle," and

It for It



is what gives the tool its American name, but the British like the way the tool sits on, or encompasses, a nut or bolt; so they call it a "spanner." Likewise, our storage battery takes its name from the fact that it's a battery of cells hung together to

"store" and generate electricity. The British note the function and call it an "accumulator," although lately they've swung into the habit of calling it a battery, too.

The British name for the little vest that is fastened to the front of the radiator grill, to aid warm-up of the engine in winter, is "radiator muff." With less imagination, we call it a radiator cover. In the same way, the various parts and panels of the body and the body trim, for which we don't seem to have any name at all, the British call the "coachwork." Inside the car, we talk about leg room; the British call it "leg reach."

Under the car, the large round cylinder in the exhaust pipe that quiets the uproar of the engine, and which we call a "muffler," is known in England as a "silencer." Our hydraulic brakes are their "hydro-

static brakes." The oil pan fastened to the underside of the engine is a "sump" in England.

Although the British "rev up" is often used interchangeably over here with step-on-the-gas, and you could guess that "change down" or "change up" is English for shifting gears, quiz yourself on "top up" and "flat out."

You're wrong.

"Top up" means to fill the battery with water, and "flat out" means to go at top speed.

In the early days of the automobile, at the turn of the century, British and American nomenclature was practically identical — both borrowing heavily from the French, who were at that time the leaders of the infant industry. But the passing years saw the gap between the languages widen. It was mostly a case of the "American" automobile language drawing away with the vastly greater use of the automobile in this country.

Today, British motor journals, in language and usage, are strongly reminiscent of our own motor publications of the years 1895-1905. This is no criticism of the British magazines. The automobile in England, not having reached the U. S. state of "vulgarization," the British journals are written for the more literate class. The pages are sprinkled with classical allusions, and quotations in the original Latin and Greek are not at all uncommon.

Although a rose by any other name smells and so forth, the whole difference in attitude, as well as language, between the British and ourselves can be summed up in the names given to styles and models. We talk casually of "tudor" and "four-door" models; the British still call them "two-seaters," "four-seaters," "tourers," and "sport models."

Cunning, what?





*A young sidewalk merchant with her wares
—a typical Tokyo street scene to our GIs*



OCCUPATION

Japan, to our occupation for

A YEAR AGO this month, a simple ceremony on board the battleship *Missouri* marked the end of the war in the Pacific. It marked, too, the beginning of the occupation of Japan, certainly one of the most crucial of all Allied postwar tasks.

Within the past year, much has been accomplished toward the twin goal of eliminating Japan's war potential and rehabilitating her civilian economy.

The demilitarization of Japan has been completed, the major war criminals have been rounded up, the fanatical societies

Photos and Text
by Con Gebbie,
former Officer-in-Charge,
YANK Magazine, Tokyo



Masked street carnival actors stage a mock drunken dance (upper left). In photo upper right, two Geishas (pronounced "gay-shas") pose in front of a group of actresses. On festival days, the Japs delight in parading through town beside richly decorated replicas of temples (lower left). A sight familiar to GIs is the aged Jap male puffing on his tiny pipe (lower right). The pipe holds one-tenth as much tobacco as found in a U. S. cigarette



ETC 23857

N PANORAMA

nces, is still a nation of contrasts

have been disbanded, and a more democratic form of government is taking shape. At the same time, the reconstruction of Japan's domestic industries has begun, new homes are being built for her bombed-out civilians, and efforts are being made to increase the supply of food and other essentials.

Serious shortages still exist in food and coal, for example, while unemployment is at an all-time high. Yet, for all the problems still to be solved, Gen. MacArthur's occupation forces can point back to a year of great accomplishment.



Remindful of the ruins of Athens are the remains of this temple at Naha on Okinawa (directly above). Top, a Japanese peasant pauses in his labors, which last from sunrise to well after sunset. This GI (right) is checking his guide book for the right words. The language difference, a big obstacle, is being overcome



Country roads in Japan are extremely narrow. This native (left), attired in his long black kimono, walks along a rural highway beside stacks of drying rice straws. The photo directly below shows a typical street scene on Tokyo's bomb-blasted Ginza. Bottom, a makeshift hut does this civilian until a new one can be had. A quarter million housing units are to be built annually

Life in Japan is never without interest for the American soldier of occupation. In the time he has been on duty there, he has had an opportunity to observe the Japanese at close range. Yet their customs and habits are an unending source of fascination — and bewilderment.

Even today, a year after the war's end, the veteran GI will stop and stare when a kimona-clad Japanese girl clacks down the famous Ginza Street on her high stilted wooden shoes called "getas." The soldier is fully used to the kimona and the girl, but he will never quite understand how she keeps from falling on her pretty face. He sees it a hundred times a day, yet it never fails to intrigue him.

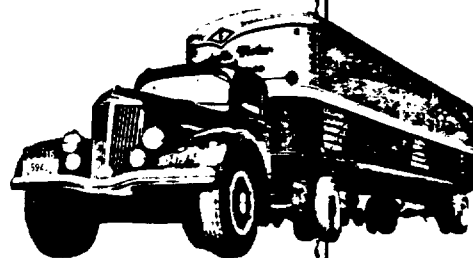
He knows full well that many Japs are near starvation and he appreciates their hunger and willingness to do anything for an Army ration or a bar of chocolate. But he will never understand why a hungry Jap, given his choice, will almost invariably choose tobacco over food. The Jap craving for tobacco seems insatiable.

Well housed and well fed, the American soldier is the physical envy of nearly every Jap. Though the average GI would rather be back home, he is finding Japan a land of strange customs and people, but an interesting place.



It's no coincidence that truck operators are among the best — and safest — drivers on the road

THESE DRIVERS KNOW HOW



UNKNOWN to many people, truck drivers are among the most safety-conscious groups on the highway. Handling heavy loads of freight, and with delivery schedules to meet, theirs is no easy job. Yet, if they're safe, dependable drivers, as indeed they must be, it's because they're trained that way, purposely.

As part of the general effort, American Trucking Associations, in cooperation with truck operators, is constantly working in many directions to promote increased highway safety. The organization has been sponsoring a short course for truck fleet supervisors at various colleges throughout the country. The course is based on the recognition that, to be fully effective, safety habits must begin long before a driver even leaves the garage.

The course is intended to promote the scientific selection of drivers of commercial vehicles. Motor carriers which have adopted the safety practices taught in the course have reduced accident frequency by as much as 50% in one year.

As a result of the techniques learned in the ATA course, trucking company supervisors are able to give prospective truck drivers a series of scientific tests which determine an applicant's fitness for driving a truck. In that way, trucking firms reduce the frequency of traffic accidents — in advance.

After the initial routine process of selection, an applicant is tested

as to his mental and emotional background for the job. These tests cover attitudes toward other users of the highway and toward pedestrians and traffic situations. Too, they take in the applicants' knowledge and understanding of traffic regulations and of accepted driving practices. There are also laboratory tests to determine any mental, emotional, and physical limitations that may exist. Faulty attitude, insufficient traffic knowledge, or personal limitations which can neither be corrected nor compensated for, disqualify an applicant.

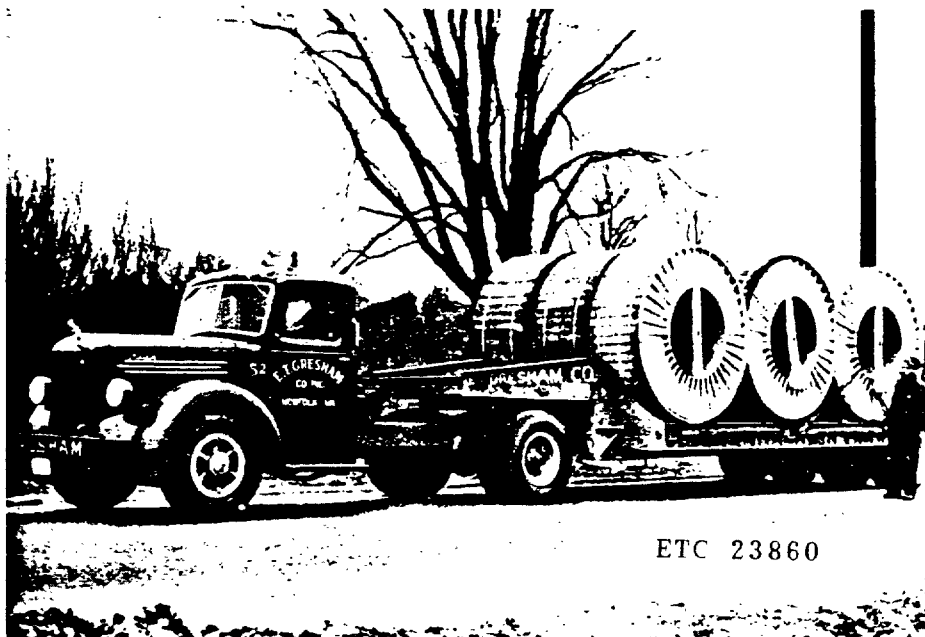
In addition, a series of road tests are given, consisting of skill tests, traffic tests, and vehicle-defect tests. Their combined scores will measure

a driver's ability to understand and to handle a vehicle expertly.

Skill tests, generally given on company property, include the most difficult aspects of driving, such as clutch control, smooth stop in a limited distance, and backing up to a loading platform. For the traffic test the applicant is taken over an established standard route and required to turn, climb and descend a grade, and maneuver in traffic.

Then one of the most important of all examinations is given to a driver, that is, of his ability to keep a constant check on his vehicle and to recognize a need for repairs. Based on Interstate Commerce Commission regulations, either a prepared written test or a presentation

Over-the-road trucking operations, under all sorts of highway conditions, require skillful driving. Pre-employment aptitude tests insure that an accepted driver is a safe driver



FOOTBALL GOES BACK TO COLLEGE

(Continued from page 6)

will not be spirited away by his draft board, and that the U. S. Navy will release all-everything end Hubert Bechtol in time for play. Layne has the makings of the nation's best all-around back of the upcoming season. He was responsible for all 40 of the points Texas scored in drubbing Missouri in the Cotton Bowl classic last January first.

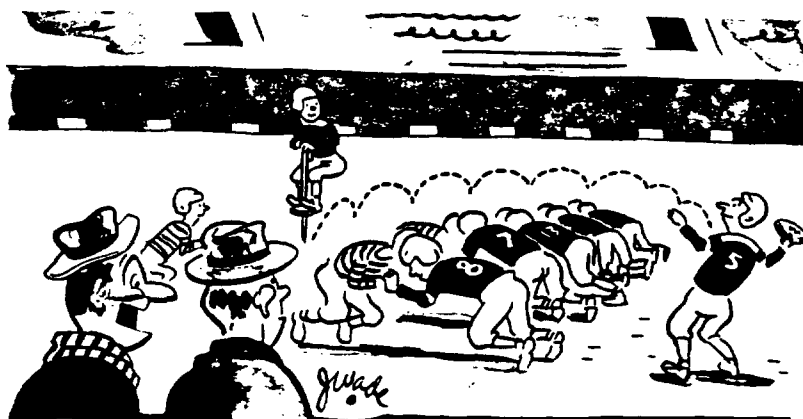
The Texas Aggies expect tackle Monte Moncrief and halfback Rob Goode to lead the way in A & M's attempt to wrest the Southwest Conference crown from Texas U.

Southern California, with its Rose Bowl lineup hardly altered, gets the nod as the Pacific Coast's best. Coach Jeff Cravath has a pair of crackerjack ends in Jim Callanan and Don Hardy, a 1944 all-America tackle in Johnny Ferraro, and an all-Coast backfield trio of Mickey McCordle, Ted Tannehill and Gordon Gray.

UCLA, however, has declared itself a contender not to be overlooked, now or at bowl team selection time. It lists center Don Paul and flanker Tom Fears as all-America candidates, and proudly asserts that, Davis and Blanchard notwithstanding, "there may not be an equal anywhere" to the UCLA backfield combine of Johnny Roesch and Cal Rossi.

In its bid for Coast honors, the University of Washington has switched Alf Hemstad, ace guard, into the "T" formation quarterback slot, with John Zeger, late of the Fourth Air Force eleven, assuming top status among the guards. Also on hand will be Bill McGovern, a pivot-man of the top drawer.

Of the non-Conference teams, St.



"I betcha it's gonna be a pass."

Mary's squad of young sophomores should show the way again, especially if Wedemeyer lives up to advance notices that he will be better than ever in '46. Out to make a name for itself, too, is the University of San Francisco eleven. Its ambitious schedule includes intersectional tussles with Mississippi State, Detroit and Kansas State, the latter being perhaps the "travelingest" team of the season. Besides California, the Kansas State club will perform in six other states.

Many colleges have hung out the "welcome home" sign for pre-war coaches back from the armed forces, while countless others have new mentors altogether. Among the returned veterans are head coaches Eddie Anderson at Iowa University, "Hook" Mylin at Lafayette, Bob Neyland at Tennessee, Jack Hagerty at Georgetown, Wallace Wade at Duke, Frank Leahy at Notre Dame and Al Humphreys at

Bucknell University.

The new coaches include Frank Wickhorst at California, Ray Wolf at Florida, Tom Hamilton at Annapolis, Jim Tatum at Oklahoma, "Biggie" Munn at Syracuse, Henry Frnka at Tulane, John Barnhill at Arkansas, "Buddy" Brothers at Tulsa, Clark Shaughnessey at Maryland, Wes Fesler at Pittsburgh, Charlie Soleau at Franklin & Marshall and Bernie Masterson at Nebraska. The year's most unique switch occurred at Ohio State, where 1945 head coach Carroll Widdoes exchanged places with Paul Bixler, his assistant.

All in all, the 1946 intercollegiate gridiron party shapes up as quite a success. Whether you sit behind the goalposts in a \$1.50 seat or whether you occupy a \$6.60 box location, the football you see this Fall will be the best since Rutgers and Princeton got together for the first college game 77 years ago.

OUR COVER: Kodachrome view of Yellowstone Park from Press Association. **OUR PICTURES:** Pages 3, 4 (left), 5, and 11 (upper), Press Association; Pages 4 (right), 6 (upper), 10, 11 (lower), 12, and 13 (except inset), Acme Newspictures, Inc.; Pages 6 (lower), and 13 (inset), Wide World; Pages 14-15, cartoons by Rodlow Willard; Pages 19 and 20, courtesy American Trucking Associations; Page 21 (upper), courtesy International Harvester Co., (lower), courtesy General Motors Corp. Third Cover photo from Press Association.



SEPTEMBER 2, 1945.

The surrender documents that ended the war in the Pacific.

ETC 23862

Which of these people would you let drive your new car?



They might be your best friends, but you wouldn't want people to drive your car who were likely to get you into trouble. Three of the five drivers pictured are doing things that stamp them as poor driving risks . . . two are showing extremely good driving sense. As an experienced driver yourself, you shouldn't have much difficulty in picking out the good drivers. Put a check after their names.



ANSWERS

DON'T let Jimmy, Lucy or Frank drive. Here's why:

Jimmy is a nice lad, but a bit too romantic when he's driving. That one-arm technique at the wheel is bad business on today's busy highways . . . and might even rate a summons in many states.

Lucy has the unhappy habit of turning her head and taking her eyes off the road when she has something to say. Even if she were going only 30 miles an hour, she'd travel 225 feet in the five seconds her head is turned.

Frank shouldn't use a flame when the car is in motion. The glare will temporarily blind him. He'd be much safer using an electric or flameless lighter to light his "smoke" . . . and he certainly should keep one hand on the wheel.

IT'S OKAY to let Ralph or Linda drive. Here's why:

Ralph has stopped at the side of the road for a little cat-nap to rest his eyes and avoid fatigue. That's one of the smartest things anybody can do on a long drive, both for the sake of safety and for the enjoyment of the trip.

Linda shows a lot of good driving sense, too. Note that she's getting her gasoline from the pump with the Ethyl emblem. Millions of experienced drivers look for the Ethyl emblem wherever they drive. They know that high-quality gasoline in a properly tuned engine makes for a more responsive car and therefore a safer car. It's the mark of a good driver to ask for Ethyl.



**LOOK FOR THE
ETHYL TRADEMARK**

FREE "PROFESSIONAL DRIVING"—a new 72-page book on driving, written and illustrated by experts. Read it yourself and then pass it along to somebody else. Typical chapter headings: "How to Handle a Blowout," "Fanning the Brakes," "Driving Needn't be Tiring," "Parking Made Simple." Offered free to car owners by Ethyl. Send a postal card or mail coupon below.



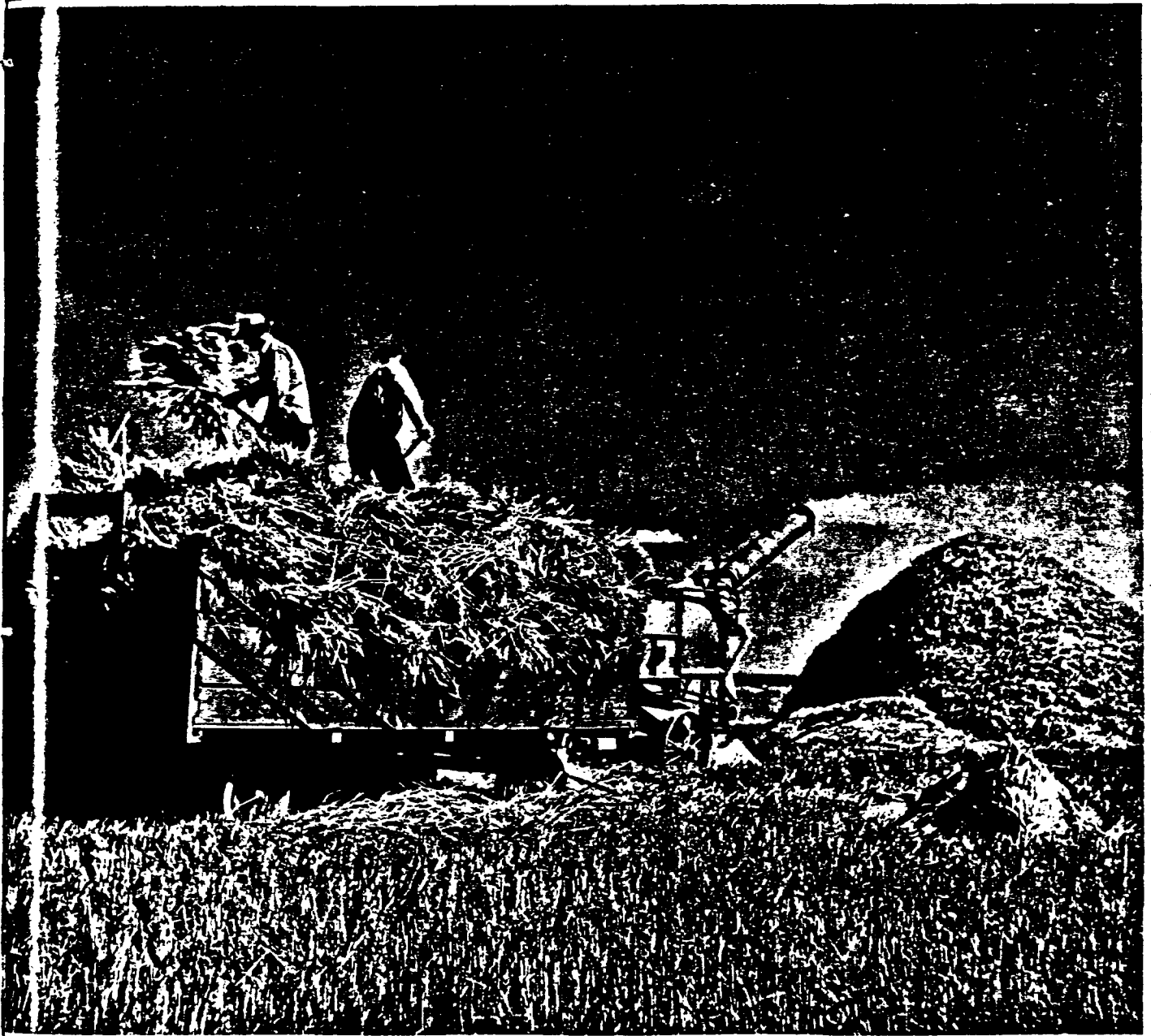
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ETHYL NEWS



OCTOBER ★ 1946

ETC 23864



IN THE

ETHYL NEWS

OCTOBER 1946

Ten years ago this month, Andrew Joseph Helouin, Sr., became the first Baton Rouge resident employed for the then unconstructed Ethyl Corporation plant in that city. Today, Mr. Helouin holds the distinction of being the oldest Baton Rouge employee. He is with the Medical Department.

Mr. Helouin didn't wait for an employment office to be opened. He went to the train to meet Dr. T. L. Watson, who was to take charge of medical examinations for prospective workers, and the late William Irwin, who was Ethyl's assistant resident manager at the time of his death. After his qualifications were reviewed, Mr. Helouin was hired at once.

There was a lot of work to be done in a hurry. Mr. Helouin worked from six in the morning until late at night, helping Dr. Watson with physical tests for the hundreds of applicants at the employment quarters. Later, after hospital facilities were constructed, Mr. Helouin settled down to do his part in the steady growth and expansion of the plant's employee services. The company plans to build a new Medical and Personnel Unit and Mr. Helouin is looking forward to working there.

Mr. Helouin studied pharmacy in New Orleans, and was a druggist for many years in St. Gabriel, White Castle and Baton Rouge. Before going to work at the Ethyl plant, he worked for the Solvay Chemical Company.

OLDOM'S FIRST CAMERAMAN

3

Not every industry had a photographer on hand to photograph its birth and early childhood. The oil industry did have one, however, in the person of a country cameraman named John A. Mather. His exciting life story is told in this article.

MAGIC IN AGRICULTURE

8

What the amazing new science of Farm Chemurgy means to the farmer, the manufacturer and the general public is related in Ethyl's latest movie.

SUCH LANGUAGE!

12

If you should find yourself saying "Roger," "On the ball" or the like, you're just one of the millions of Americans who have added GI Joe's pet slang terms to their vocabulary.

WHIRLWINDS ON WHEELS

15

Miniature racing cars that zip along at more than 100 mph represent one of the country's newest sport-hobbies.

"ACCIDENTS" — MADE TO ORDER

18

There are those who will go to any extreme in faking an accident — all in the hope of collecting insurance money — but sooner or later they get caught in the act.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Opinions expressed in signed articles are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

Published by ETHYL CORPORATION, 405 Lexington Avenue, New York 17, N. Y.

Manufacturer of Ethyl Fluid, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23865

OILDOM'S FIRST CAMERAMAN



By Paul H. Giddens

HISTORY OWES a great debt of gratitude to a man named Mathew B. Brady. Were it not for this Civil War photographer, and the crude cameras and developing equipment he trundled around the battlefields in horse-drawn wagons 80 to 85 years ago, there would be no pictorial record of the terrible War Between the States. Thanks to Brady, who followed the ebb and flow of the epic struggle on the side of the Union armies, there is preserved for posterity a faithful record of that fratricidal conflict.

In like manner, the petroleum industry is indebted to a photographer named John A. Mather, who was a contemporary of Brady. Thanks to Mather, there is preserved in glass plate negative many of the vivid scenes accompanying the birth of the petroleum industry in America. Mather lived and died in the historic oil fields of Pennsylvania, from which today's full-grown oil industry first sprang. Through the eyes of his camera he saw and captured

much of the early romance and adventure of oil.

Although Brady and Mather were contemporaries, there were great differences in their backgrounds and in their manner of working.

Brady, in 1861, was an experienced and fashionable photographer

Here is the life story of an unusual pioneer—the only man to compile an extensive pictorial record of the birth of the oil industry in America. For over a half a century, he travelled up and down the oil fields of Pennsylvania, taking pictures of every point of interest. Thanks to his efforts, the oil industry has a priceless picture album of its humble beginnings in the 1860's and its adventurous growth in the following decades.

But while he left behind an extensive collection of pictures, comparatively little has been known about the man himself. Only by patient digging in musty files has enough information come to light to piece together the life story of the man. This article is the result of that research.

The author is Professor of History and Political Science at Allegheny College, Meadville, Pa., and Curator of the Drake Well Memorial Park, Titusville, Pa.

of distinction; Mather was hardly more than an amateur and an itinerant photographer. Brady had specially built wagons to haul his equipment and serve as his darkroom on the battlefields; Mather had a horse and wagon and a little house-boat which carried him from place to place in the oil region, and a modest

studio back in Titusville, Pennsylvania. Brady had a staff of 20 camera men to assist him; Mather worked alone. Brady became famous throughout the country; Mather remained a relatively obscure country photographer, hardly known or appreciated beyond the region where he worked and lived.

Yet, through Mather's efforts, probably no industry has as fine or as extensive a pictorial record of its beginnings as the petroleum industry.

Throughout his career (he died in 1915 at the age of 88), Mather roamed up and down the storied oil fields of northwestern Pennsylvania, everywhere taking pictures. Most of these pictures were made by the then revolutionary wet-plate method, which required immediate development of the negative but permitted any number of prints to be made. In the course of his work, Mather took pictures of pioneer oil men and their families; of famous oil wells, fields and farms; of the pioneer pipelines of his day, and of the

band of teamsters who battled their coming; and of a host of other people and places that made Pennsylvania famous for oil.

Anyone familiar with the history of oil has doubtless seen a picture of the Drake well, completed in 1859, which was the first successful oil well to be drilled in the United States. That picture was taken by Mather—but it is not of the original Drake well. The reason is that the well's original derrick and engine house burned down shortly after Drake struck oil. The structure, however, was immediately rebuilt and Mather was the first to take its picture. Mather also photographed Colonel E. L. Drake, after whom the well is named, and "Uncle Billy" Smith, originally a salt well driller, who in drilling the Drake well became the first oil driller in history.

Except for losing out on the original Drake well, Mather caught in his camera sight many of the wells which were to become milestones in the panoramic history of oil.

He photographed the first great flowing wells along Oil Creek—the Empire, the Sherman, the Phillips, the Woodford, the Noble and Delameter. The Empire well came in during 1861 at about 3,000 barrels per day. The Noble and Delameter came in during 1863 at about 4,000 barrels daily, and depending upon the price of oil, made its owners anywhere from \$15,000 to \$45,000 a day. The operators of some of these wells were unable to cope with such an unprecedented flow of oil. The result was that large quantities spilled over into Oil Creek where school children—and adults, too—would scoop up the oil in buckets and sell it, earning anywhere from \$30 to \$50 a day in the process.

Mather photographed the famous United States well, developed in 1865, which inside of a few months

created Pithole City, one of the greatest oil boom towns of all time. Three months after that well was brought in, Pithole City boasted 50 hotels, a daily newspaper, a water-works system, a population of 15,000, and the third largest post-office in Pennsylvania. Six months later—after the oil prospectors began drilling into one dry hole after another—most of the people deserted the town, until eventually it became a ghost town and is today simply farming land.

Other Famous Pictures

In 1863, Mather photographed the famous Reed well on the Smith farm along Cherry Run, which was the first well to be "torpedoed" to increase its output. Five years later, he photographed the famous Harmonial well at Pleasantville, which started the oil rush to Pleasantville and is one of the first instances on record of an oil field being opened up by spiritualistic means. Moreover, Mather photographed the famous "646" mystery well in the Cherry Grove district in 1882. This well marked the beginnings of the oil scouts; it also marked the beginning of frenzied speculation in oil. Mather also photographed the famous Phillips, Armstrong, and Christy wells in the Thorn Creek district near Butler in 1884, which proved to be the largest wells (from four to eight thousand barrels a day) brought in up to that time.

In short, Mather followed the Pennsylvania oil fever wherever it erupted, slowly trudging along in his overland wagon or poling his flat-bottomed house-boat along the reaches of Oil Creek. He photographed, in their heyday, such famous oil towns as Titusville, Pleasantville, Oil City, Red Hot, Pioneer, Petroleum Center, Pithole City, Bradford and Shamburg. And he

photographed many famous oil pioneers as well.

Among the pioneers who posed for their pictures was W. H. Abbott, who with James Parker and William Barnsdall, built the first refinery in the oil region. Another was John D. Archbold, later president of Standard Oil Co. (N. J.), while a third was J. J. Carter, founder of The Carter Oil Co., which is today Jersey's oldest producing subsidiary. A fourth was Cyrus D. Angell, well-known oil producer and originator of the oil belt theory (whose "hunch" led to the discovery of oil in West Virginia and southeastern Ohio). There were, also Lewis Emery, Jr., well-known oil producer and refiner in the Bradford field and one of the founders of the Pure Oil Co.; James Tarr, whose oil-rich farm on Oil Creek made him a fortune; and D. H. Cady, prominent oil man, who had one of the most extravagantly furnished homes in Titusville, and who became immensely wealthy from his business dealings.

Mather photographed countless other figures, big and little, during the half century he worked at his calling. At one time he had nearly 20,000 negatives on hand, but a large number of them were lost in the fire and flood that swept Titusville in 1892. The several thousand that remain constitute a priceless picture album of the early days of the oil industry.

Mather's fame rests on his work as a country photographer, yet his original ambition was to follow in his father's footsteps as a paper manufacturer. It was entirely by chance that he turned to photography.

Born at Heapbridge, England, in 1827, Mather was one of a family of six sons and a daughter. His father served as the superintendent of Ridgely & Sons' paper mill, one of the largest plants in England. In his



The Reed Well

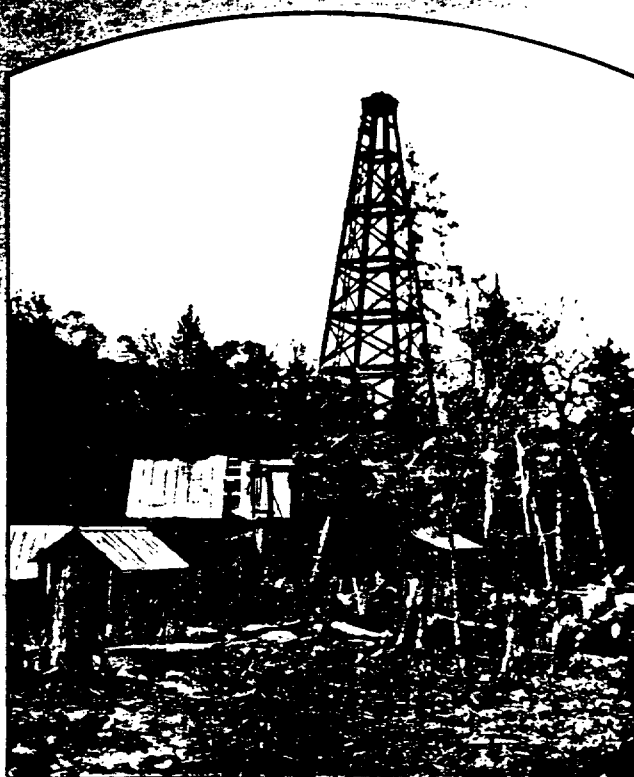


The Drake Well

*Photos
by
Mather*

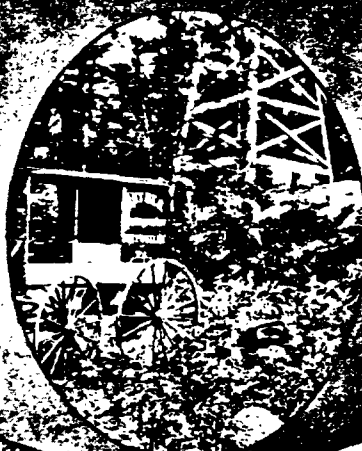


The Harmonial Well

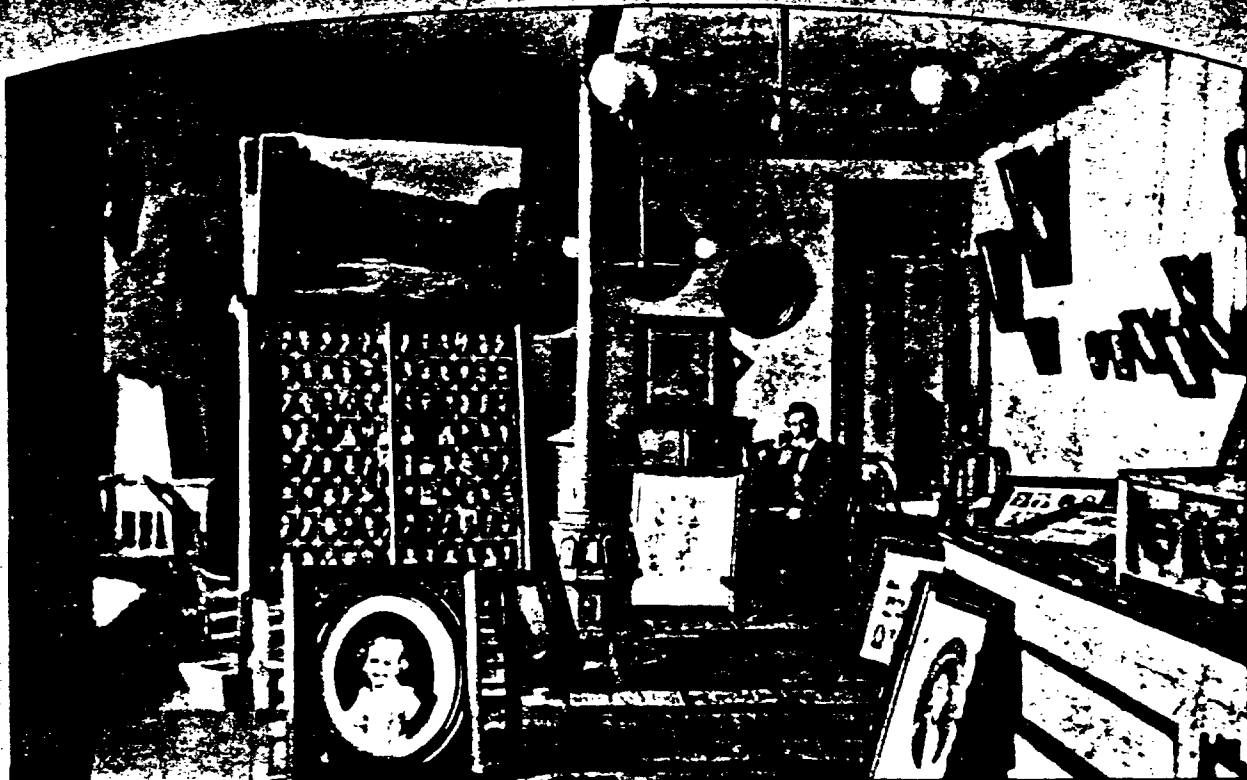
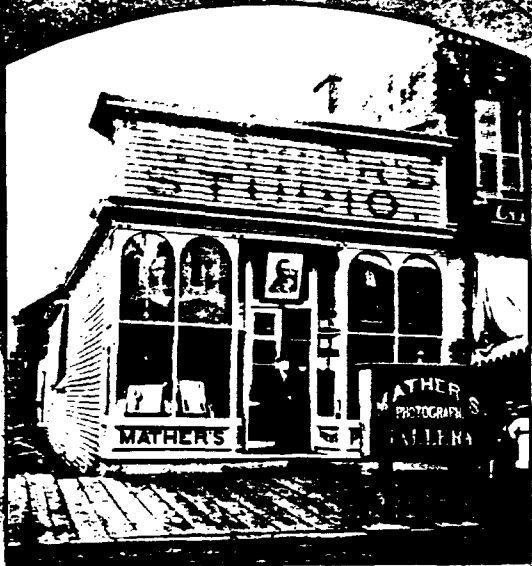


The "646" Mystery Well

Mather's Studios

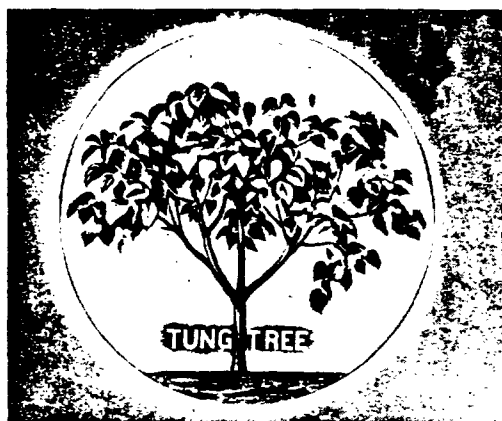


SEVERAL YEARS AGO, AT THIS TIME, MATHER ERANDED HIS CAMERA ABOUT ALL OVER THE PENNSYLVANIA RAILROAD, TRAVELING OVERLAND BY RAILROAD AND ALONG RAIL CREEK BY RAIL. THE PICTURE (LEFT) SHOWS MR. AND MRS. MATHER STANDING IN FRONT OF HIS TITUSVILLE STUDIO. THE PICTURE (BOTTOM) SHOWS MATHER IN AN EARLIER LOCATION OF HIS SHOP.

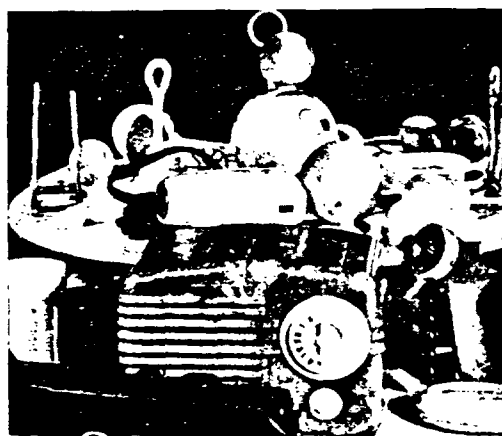




Foreign crops like these are being introduced in the U. S. because of industrial potentials discovered by Chemurgy



Plants yield many different products. Among them are dextrose, used in medicine, and materials for plastics



MAGIC IN AGRICULTURE

The fascinating story of Farm Chemurgy—
what it is, what it holds in store—is told
in a new Ethyl movie soon to be shown

FARMERS AND MANUFACTURERS have an unseen magician working for them. He can make useless things valuable and he can make good things even better. He has even been known to make something out of practically nothing at all.

This magician has it within his power to provide a more abundant life for farmers. He can show manufacturers how to make new products, and new ways to make familiar things. And for the rest of us, he opens up the happy prospect of better homes, better clothes, better health and better living.

This magician is a new science. Its name is Chemurgy, or more properly, Farm Chemurgy.

Chemurgy means putting science to work for the farmer and the manufacturer, creating new outlets for all kinds of agricultural products. Through its magic, countless new crops are being developed—valuable to the farmer because they are profitable, and valuable to industry because they can be turned into finished goods. At a wave of its wand, countless new industrial uses are being found for old-established basic crops. As a result of its magic touch, even former waste products of the farm are being turned to important uses.

Altogether, the story of Chemurgy is a fascinating industrial romance. What it has already accomplished, and what it holds for the future, are told in a new film, "Magic in Agriculture," which has been produced by Ethyl Corporation. The film, which will shortly

be ready for showing, is the latest in Ethyl's series of moving pictures made especially for farmers, farm equipment dealers and other groups with a stake in agriculture.

In unfolding the story of Chemurgy, "Magic in Agriculture" is a particularly timely film. This is because Chemurgy touches upon so many phases of agriculture. At the present time, Chemurgy is important because it suggests to the farmer new ways to promote soil conservation by showing him how to increase his income with new crops that are both profitable and soil-replenishing. In the long run, Chemurgy will help the farmer to stabilize his income by providing him with new cash crops and finding new industrial uses for his old ones.

Experiments on Foreign Crops

For example, one of the most interesting parts of the picture deals with foreign crops which, successfully grown here, will both relieve our dependence upon overseas imports and at the same time provide a new source of income to farmers.

From China has come the tung tree, and from northern Europe the rape plant, valuable for their oils needed in quick-drying paints, and in soaps and special lubricants. India has contributed a pod-bearing plant called guar, from which a milling company extracts a starch-like material used in making papers, cosmetics and many drug store items.

The Chemurgists found in a Russian dandelion a new source of rubber, and two companies have already explored its possibilities, processing

and fabricating rubber from these roots into tires. Another promising plant is ramie, which comes from China, and whose fibers can be woven into a strong, light sailcloth, and into ropes, nets and fishing lines that will not rot.

Crops such as these may not seem very important to farmers, long accustomed to growing the conventional wheat, corn and cotton, yet several of them promise to develop into profitable secondary crops at least, if not into major cash crops on their own.

Chemurgy, as "Magic in Agriculture" explains, comes from an old Egyptian word, "chemi," meaning chemistry, and from the Greek word, "ergon," meaning work — and so we see that Chemurgy literally means putting science into harness. Since 1935, a concerted movement has grown up around the science, sparked by the National Farm Chemurgic Council. The Council, which is composed of industrialists, farmers and scientists, has sought not only to acquaint the American people with the meaning of Chemurgy, but also to stimulate research and development along its branches. To date, its accomplishments already mean annual income for farmers and industry running well into the millions of dollars.

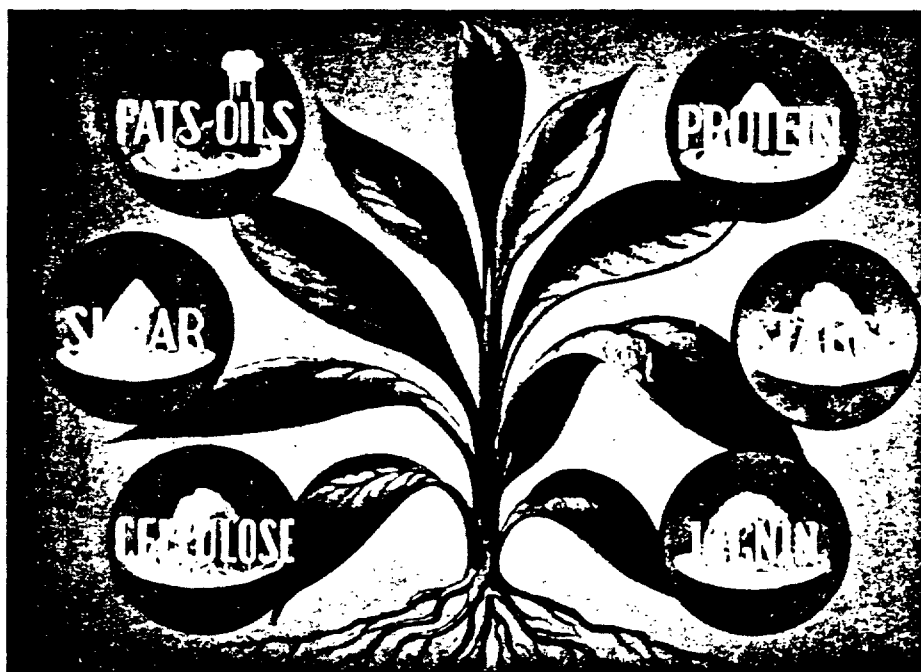
"Magic in Agriculture," which was produced by Audio Productions, Inc., required an enormous amount of planning and research. As a first step in preparing the picture, it was necessary to find out everything that had been printed and said about Chemurgy. More than five months alone were spent poring over booklets, reports, speeches and bulletins, and interviewing farm organizations, industrial companies and various research laboratories.

The National Farm Chemurgic Council and the U. S. Department

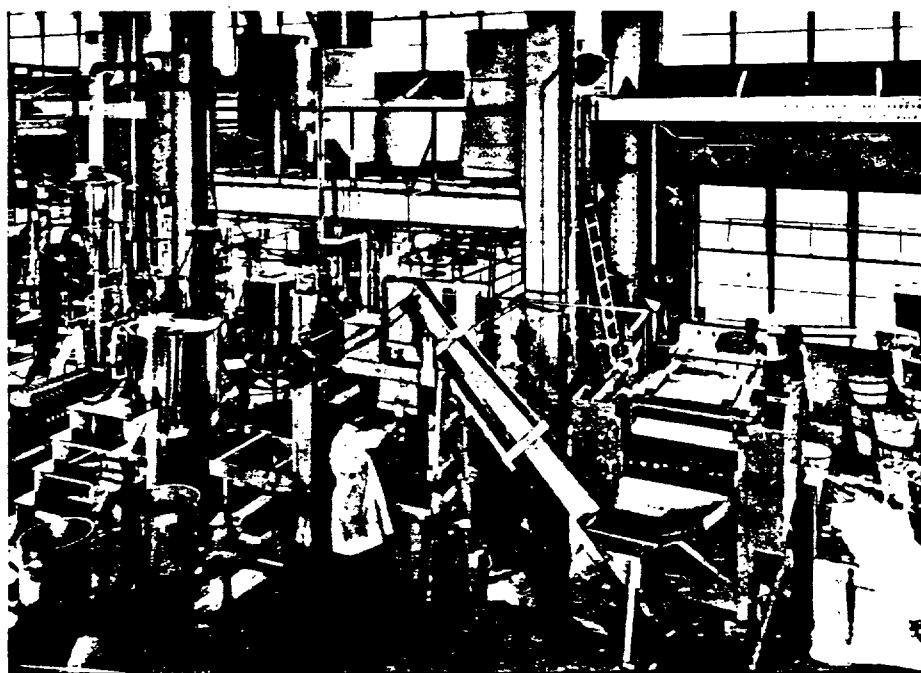
of Agriculture provided splendid cooperation, giving freely of their time and their technical advice. Industries and farm groups also provided invaluable assistance. Many industrial processors of farm products showed how they fit into the Chemurgic picture, and furnished practical information and background.

Moreover, various manufacturers cooperated by sending in samples of raw materials and products made possible by Chemurgy. Among the strange assortment received were phonograph records, combs, dresses, building materials, ropes, rolls of paper, pills, rayon stockings, corn syrup, bottles of ink, jewelry, piles of oat hulls, sheets of plastic,

Here are the basic components of plants which Chemurgy re-arranges in developing new raw materials for industry



New outlets for old crops and supplementary income for farmers are among the aims of the Chemurgic movement



bundles of cotton lint, chicken feather yarn, sugar cane, cakes of soap, and automotive parts. In addition, to make the picture as authentic as possible, the movie sound trucks, camera crews and other technicians were taken to a farm to photograph the appropriate farm scenes.

All in all, it took nearly a year before the last scene was shot and the final editing completed, but it was time well spent. In "Magic in Agriculture" Ethyl believes it has the most comprehensive and authentic moving picture yet made about the amazing new science of Chemurgy.

The picture is built around a typical farm family and their 14-year-old son, Tommy, who sees little promise in the future of farming — and no connection at all between agriculture and industry. Tommy is wide-eyed with astonishment, however, before the picture ends.

In the opening scenes Tommy learns how Nature herself is a Chemurgist of no small ability. A cow, for example, unconsciously converts the basic chemicals of plants — their cellulose, sugars, starches and other elements — into milk. Man, with his knowledge of chemistry, Tommy discovers, can also change Nature's basic building materials into new and useful products. Take, for example, starch, which comes from corn and potatoes.

Besides its age-old use in laundering, starch is now used to strengthen textile fibers, to bind sand used in moulds for casting engine parts, and to provide the adhesive element in medicinal tablets. Vast quantities of starch are used by the food industry.

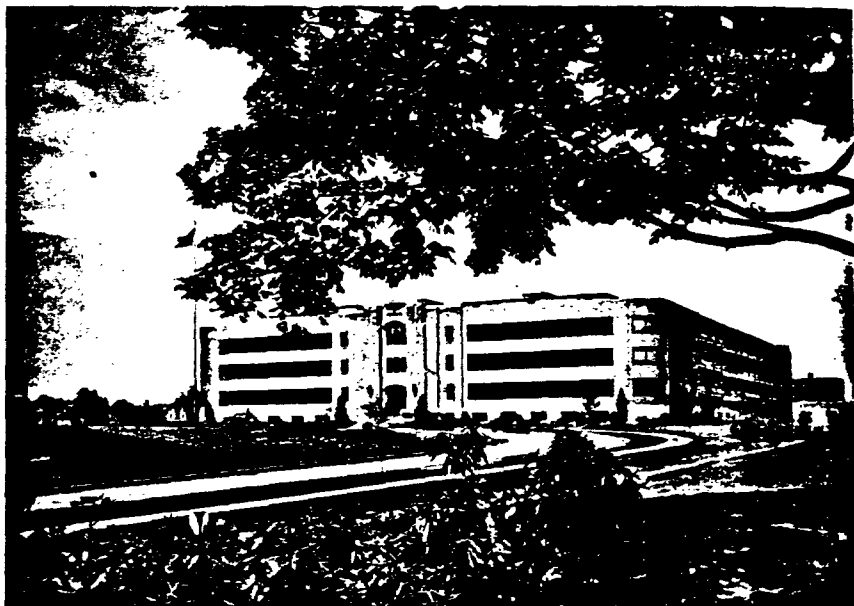
In drilling for oil, starch is added to drilling mud to seal the sides of a well, so that the lubricating fluid does not seep away and expose the drill head to overheating. Keeping

the well walls sealed eliminates the danger of collapse.

From starches, surprisingly enough, come certain sugars, among them dextrose, a pure sugar used to keep tobacco moist. Dextrose is also used in the leather industry to make new shoes soft and to keep the soles from squeaking. Dextrose, or glucose, can be injected into the human blood stream to restore strength

quickly. Dextrose saved thousands of lives of wounded men in the war.

Corn is the source of a substance known as zein. When mixed with alcohol, zein becomes a kind of shellac, or it can be used to strengthen phonograph records. A new product made from the lowly corncob and the otherwise useless oat hull is a liquid called furfural, important in making high grade lubricating oils.



Typical of the research facilities devoted to Chemurgy is this Department of Agriculture laboratory in Philadelphia

Ethyl's latest farm movie took nearly a year to produce. Here a camera crew is getting ready to shoot a scene



Another familiar crop with many new uses is cotton. The soft bolls can be made into a light but extremely strong plastic that replaces lightweight metals in a wide variety of ways. Short cotton lint fibers are turned into an insulating material. Linters — the shreds of cotton sticking to the seeds — were once thrown away, but they now emerge as rayon fabrics through the magic of Chemurgy. From the cellulose in cotton we also get explosives, motion picture films and countless varieties of plastics.

Among dairy products, casein — an ingredient of skim milk — is now used in huge quantities as a binder for color pigments, for coating special printing papers, and for making plastic buttons, jewelry, and other attractive articles. One of the newest products from casein is a fiber called Aralac, which has most of the qualities of wool.

Farm wastes have the peculiar habit, under Chemurgy's magic spell, of turning into the most unexpected things. Among the latest developments is a use for chicken feathers, which have been made into another new experimental yarn. Corn stalks, wheat straw, and bagasse — the stalks of sugar cane — become paper, corrugated fiberboard and building boards.

These wastes, moreover, are even put to good use in servicing farm machinery. Corn cobs ground up with rice hulls produce a soft-grit blasting material said to be ideal for removing carbon deposits from engines without pitting highly polished surfaces.

Besides telling of these individual accomplishments, "Magic in Agriculture" emphasizes the place of the scientist in the Farm Chemurgic team — showing how he discusses and plans research projects, conducts his experiments, and finally turns his

test tube accomplishments into commercially successful products. These laboratory sequences were photographed in the Department of Agriculture's eastern regional laboratory in Philadelphia, a \$2 million plant. In everyday life, research is carried on by hundreds of industrial laboratories as well as by the Department of Agriculture. The National Farm Chemurgic Council, in addition to sponsoring many projects, acts as a clearing house for information about Chemurgic developments.

Two industries which play a direct role in the advancement of Farm Chemurgy are the oil industry and the farm equipment industry.

Thanks to power-driven farm machinery, farmers are getting more production in the aggregate and higher yields per acre. And through the use of such economical, labor-saving machinery, not only are they able to produce enough of basic foodstuffs, but also to turn part of their acreage over to crops which have industrial uses. One of the big contributions of farm machinery manufacturers, in this direction, has been the development of the high compression tractor engine powered on gasoline, which greatly increases the power and efficiency of farm equipment.

Illustrative of the importance of modern, powered farm machinery to Chemurgy, it would have been impossible for the soybean to become one of our most important crops unless the equipment companies had developed suitable harvesting equipment. Only 20 years after its introduction here, the soybean reached an annual production of 200 million bushels in 1945. In the automobile industry alone it is the father of car lacquers, window trim, horn buttons and even upholstery. Meanwhile, the farm equipment in-

dustry is constantly studying other new crops in order to anticipate the farmer's need for new machinery.

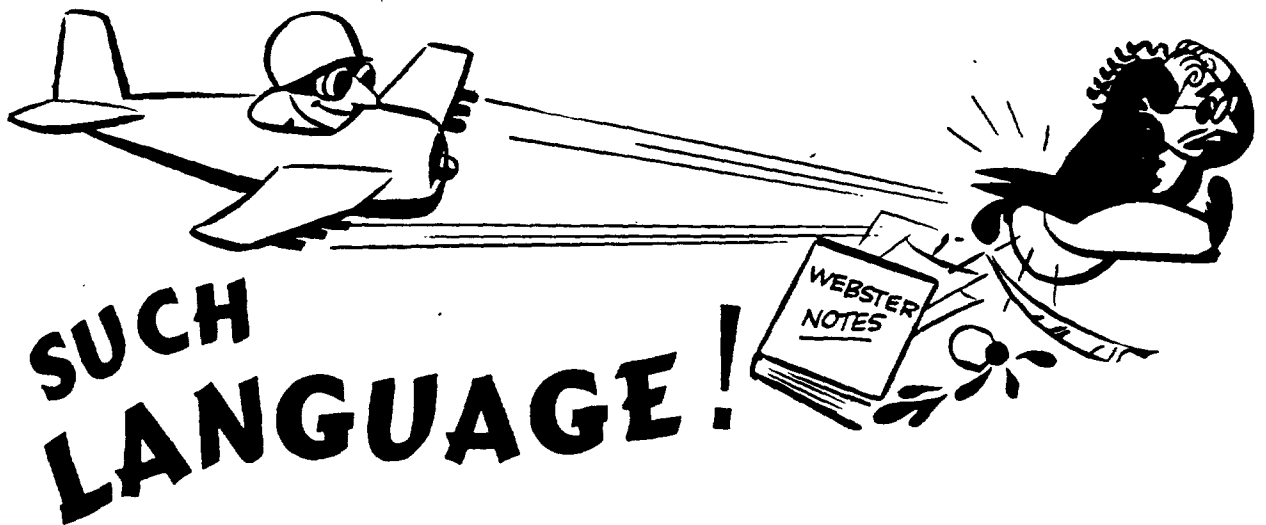
For its part, the oil industry not only has offered farmers continually improved gasoline, but has perfected better oils and greases to prolong the life of their equipment. New products of the oil companies designed to help the farmer in many ways include rust preventatives, stock sprays, and insecticides.

To portray the central characters in "Magic in Agriculture," actors were selected from among top professionals.

The role of the boy, Tommy, was taken by Robert Antoine, juvenile star of such Broadway hits as "Song of Norway," "Tomorrow the World," and "I Remember Mama." Tommy's sister Sue is Phyllis DeBus, who has been cast in "Lady in the Dark," "Janie" and "Strange Fruit." Tommy's father, Harry Martin, is played by Joseph Draper, who just finished a year on Broadway in "Polonaise," while his mother in the picture is Florida Friebus, an actress of considerable experience, who served as understudy for Ruth Hussey in "State of the Union." The part of Uncle Jim Martin is taken by Rusty Lane, Broadway actor in "Decision," and more recently a USO show director.

Fred Stone, the county agent in the picture, is played by Anthony Ross of the prize-winning play, "The Glass Menagerie." Alexander Lockwood, who appeared in such stage successes as the Maurice Evans' production of "Hamlet," takes the role of Bill Jamison, a farm equipment dealer.

"Magic in Agriculture" makes the fifth in Ethyl's series of farm movies. Others are "This Is Our Land," "Old MacDonald Had a Farm," "At Your Command," and "Masters of the Soil."



**It'll never be the same—the American language, we mean—
thanks to the slang terms that sprang up during the war**

WORLD WAR II DID MORE than simply change our way of living. It put new words in our mouths.

Whether we realize it or not, most of us are saying many things a lot differently than we did just before Pearl Harbor. "Okay" has moved over and made room for the airman's "Roger." "On the ball" has all but replaced "Get hep." "You've never had it so good" has sidetracked "Quit your bellyachin'." And these are just a few examples of the new twist the American "slanguage" has taken.

The reason, of course, is that many of the countless new slang terms which sprang up in the ranks of our armed forces have been readily accepted on the home front.

The serviceman's practice of concocting his own special words and phrases is as old as the military profession itself. From Revolutionary War days through the recent global struggle, our men under arms have taken delight in bestowing pet names on their weapons, their different pieces of clothing and equipment, the places they've been, the intensity of their servitude in the armed forces, and almost everything else comprising their soldier or sailor life.

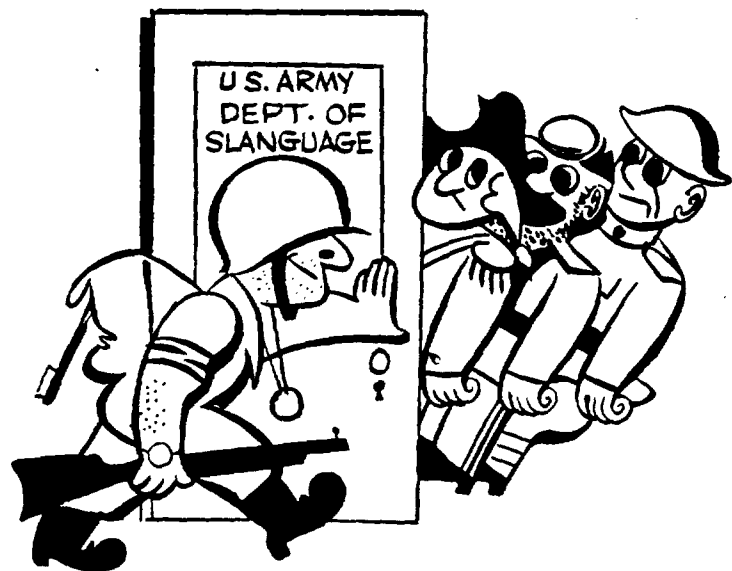
The second World War popularized more than its share of these

Americanisms, and many of them already have earned a lofty niche in the vocabularies of millions of civilians, especially the men and women who were in uniform during the conflict. Some of the slang terms will fade or die out altogether after a few years' usage, but others will maintain such widespread popularity that lexicographers will have no choice but to put them in their dictionaries.

Perhaps the most commonly accepted slang word of the past war is "snafu." It spells out — politely — "Situation normal, all fouled up" in military circles, and now is used by civilians to denote a confused situation or, as a noun, to describe a person who created the "snafu." The

word gained such popularity that it was the title of a Broadway show and later a Hollywood motion picture. The paradoxical "Situation normal, all fouled up" carries the connotation that Army and Navy official matters are not "normal" unless they are snarled in red tape or otherwise befuddled. Beyond "snafu," there is the superlative "tarfu" — meaning "Things are really fouled up" — which covers a case of hopeless confusion.

"Bunk fatigue," the most pleasant job in the Army, has been carried over into the new postwar world as a synonym for sleeping or resting, while "hitting the sack" is another way of going to bed, verbally. To



many veterans, each and every meal is just plain "chow" instead of breakfast, dinner or supper, and canned milk is called "armored cow" and butter "grease." Further, a lavatory is an Army "latrine" or a Navy "head," and the laundry is a "button chopper," as it was in the service.

Reconversion days also find the ex-serviceman and wartime civilian alike asking not so much "What d'ya know?" as "What's the latest G-2?" This expression is derived from the fact that G-2 is the Army's Intelligence section.

See for Yourself

If you still are not convinced that the war has had a marked effect on your vocabulary, be you veteran or not, count up the number of times during the past week you gave out with an "Oh, my aching back" (a complaint when misery is piled upon misery), "You've had it" (missed out on something), or "Sweating it out" (enduring a mental or physical hardship).

Initials always have enjoyed a respectable position in the parlance of the services, even in official communications. An Army Regulation is an A. R., the commanding officer is the C. O., the Quartermaster is referred to as the Q. M., and so on. By the same token, the uniformed men and women of the recent war often used initials in their talk, either voicing the letters separately or combining them to form a slang word, such as "SOP" for "Standard Operating Procedure."

It is a safe bet that "G. I." will be retained as the designation for American servicemen, particularly those in the Army, for a long time to come. Still other examples of "initial slang" apparently destined to hold their own are "T. S." and "S. O. L.," both of which are expressions of little solace to a person ex-

periencing a spell of bad fortune. The more refined version of S. O. L. is "strictly out of luck." "A. W. O. L." is spoken either by the initials or as one word, and when used by civilians refers to an absentee, just as an Army "ay-woll" is Absent Without Official Leave. In civilian as well as Army life, "R. H. P." says laconically, "Rank has its privileges" — with all its attendant woes for the enlisted man or civilian counterpart.

Not all, or probably even most, of the slang terms employed by GIs in World War II were coined by them. But the common acceptance of these colloquialisms today is due certainly

the personal identification discs issued by the Army were and still are known as "dog tags." Bayonets, although not used as much these days, continue to be called "persuaders." In both wars, too, chaplains were affectionately referred to as "Holy Joes" and "sky pilots," and "Jerry" meant a German fighting man.

The other way around, however, Dad's "corned willie" of 1917 was "Spam" to his soldier son, the modern artilleryman shortened still further the abbreviated name for a high explosive shell from World War I's "Hi-Ex" to "H. E.," and "GI Joe" generally replaced "doughboy" as



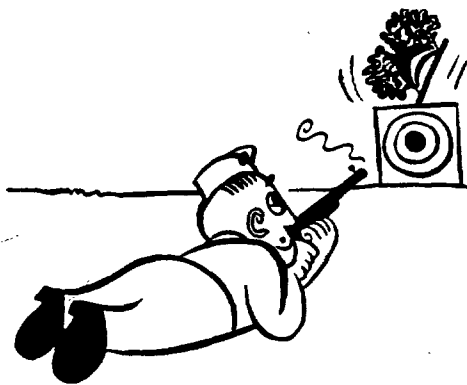
to the use, if not the over-use, given them by the members of the armed forces. Although new techniques of warfare, different types of weapons and equipment, local battle conditions and the like encourage the invention of new words, many of the soldier's and sailor's unorthodox expressions are carried over from war to war.

"Tell it to the Marines" and "red tape" date back to Spanish-American War years and may have been in use even before then.

A "bunk" was a bed to the American soldier in both World Wars, and

the universal designation of all men in uniform, regardless of branch. Incidentally, the appellation "doughboy" goes back at least as far as the Civil War. It was applied first to the large, globular brass buttons on the infantry uniform of that era, but soon became a nickname for the infantryman himself.

World War I brought into prominence such current widely used phrases as "Give her the gun" and "Nothing to write home about," the latter having been the chronic complaint of soldiers in their letters from overseas. There was, they informed



their families and friends, "nothing to write home about because the food is lousy, the trenches are muddy and smelly" and so forth.

Out of the war of almost 30 years ago we also added to our national vocabulary the word "jake," meaning that something or everything is all right. The best guess is that this was as close as the average American doughboy ever got to pronouncing the French word "chic." American sailors who sank the Kaiser's submarines were credited with being the first to "pound my ear" when they meant sleep, and the first to label an empty beverage bottle a "dead soldier."

Terms That May Stick

It is anybody's guess, which, if any, of the slang terms employed so universally during the recent war will stick in our civilian vocabularies. But right now, in addition to the many others, the expression "brass hats," which was applied to the policy-makers and top officers of the Army, is enjoying widespread usage as a name for any group of "big shots." "Egg in your beer," meaning too much of a good thing, also is holding its own in the postwar world, as is the term "higher than a Georgia pine," referring to an unduly excited person. And "Maggie's drawers" — the red flag used on the rifle range to indicate a miss — is the favorite phrase of countless ex-ser-

vicemen in reporting an unsuccessful business adventure, love affair, or experience of any kind.

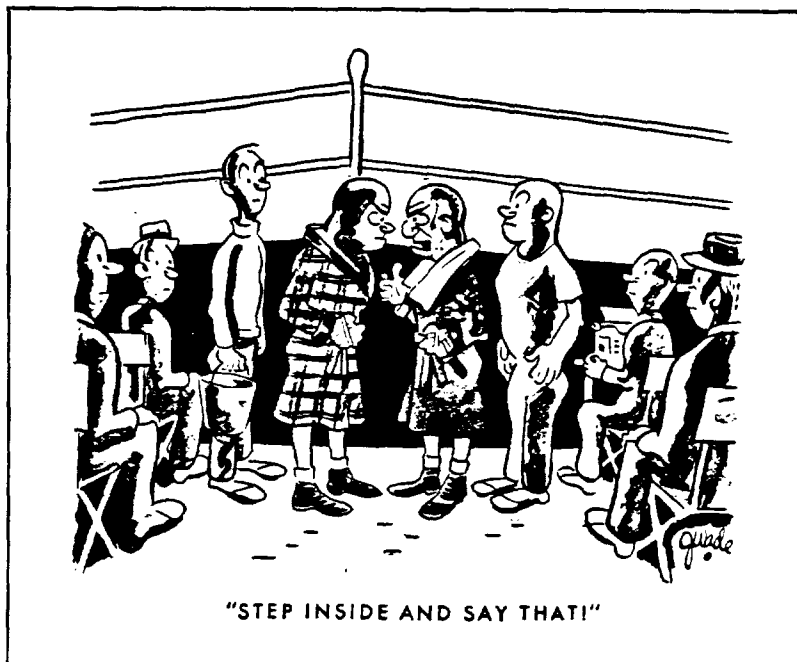
Members of the armed forces of World War II managed to circulate their own slang terms amongst themselves quite thoroughly via the word-of-mouth method, but some of the credit for spreading and keeping alive those expressions must be given to many of the cartoon characters that appeared in service newspapers and magazines. The prime purpose of these pen-and-ink figures, of course, was to provide a couple of laughs or a few seconds of light reading, but their use of a bit of slang in even one strip invariably was enough to insure the success of that word or phrase.

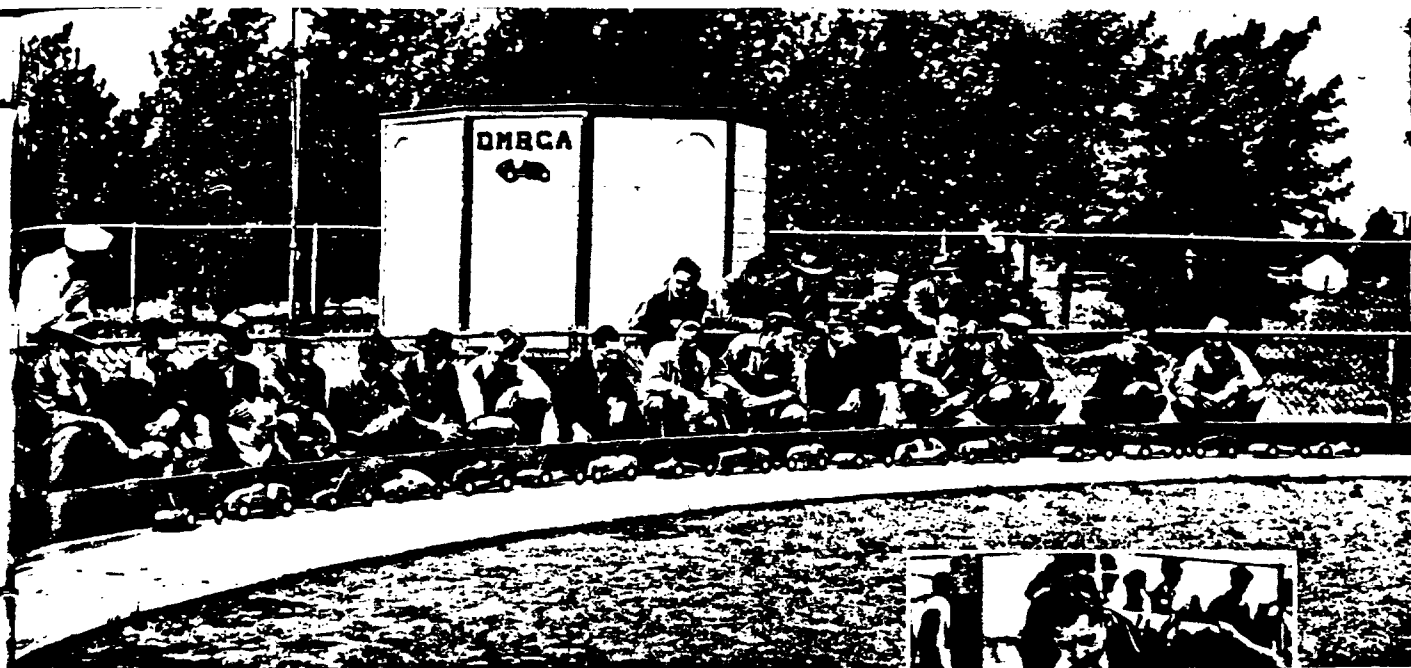
Among these characters were "Willie and Joe," who helped soldier Bill Mauldin win the Pulitzer Prize and who now are carrying on their comradeship as civilians in many daily newspapers throughout the country; Dave Breger's "Private Breger" (now "Mr. Breger" in the civilian press) and "Miss Lace," the tantalizing and alluring heroine of

the "Male Call" strip drawn exclusively for GI publications by Milton Caniff, creator of "Terry and the Pirates."

In the Navy, the chief, albeit unintended, cartoon character slang-popularizer probably was "Dilbert." He was the zany used in Navy Department pamphlets to illustrate how NOT to fly a plane, how NOT to rescue one's self after a disaster at sea, and how NOT to do a million and one other things.

While soldiers and sailors have some slang words in common, each branch of the armed forces boasts a jargon all its own. Among the few expressions which both the Army and Navy use are "snafu," "hash mark" (a service stripe) and "knock off," meaning to stop doing a particular thing. Navy men continue to use their own slang in civilian life, just as Army vets employ theirs, but it is the lingo of the soldier that is more apt to "latch on" permanently in the postwar world due, if for no other reason, to the fact that the overwhelming majority of men wore khaki.





WHIRLWINDS ON WHEELS

By Paul Chandler

Designing and racing miniature cars that can do better than 100 mph is today an up-and-coming sport and hobby

GULLIVER, a large and awkward fellow who did more than his share of traveling in weird fictional lands, arrived among the little people much too soon.

The Lilliputians, you will recall, were six inches tall and were strange and wonderful people. Gulliver was struck by their progressive ideas of government, society and science. Amazing as they were, however, the Lilliputians had no automobiles. Even today, many years after Gulliver wound up his wanderings, the only cars fit for a self-respecting Lilliputian are built in the United States. Here they spin about tiny tracks spotted across the continent from New York to California.

We're talking about model cars, three or four inches high, weighing about five pounds, and capable of speeds in excess of 100 miles an hour!

Building them and racing them is a hobby sport of hundreds of Americans. The sport is still quite new. It first thrived in the years before World War II began, and it was revived only this past summer. During the war, rationing hurt some, making it difficult to get the tiny engines, the few ounces of rubber for tires, and the fuel. But what really stopped activity was the induction into military service of most of the men who build the cars.

The fastest of these motorized jack-rabbits incorporate the most streamlined automotive design possible. They're nothing more than big raindrops — rounded in front, tapering to a point behind, with no cockpit or any other protuberance to give wind resistance. Only a fraction of an inch of tire touches the road. It's the closest thing to a motorized bullet ever built.



Top, a lineup of entries in a race. Inset, a push is needed to get a car underway

Building things in miniature, of course, has been a hobby of men for many centuries. Model cars are not new either, but organized competition among them is just getting started. There is a national organization that establishes rules for racing. Local clubs keep the competition alive on a regional basis. Cars are separated by "classes," depending on the type of design.

Detroit, the "Motor City," has a large and active group of model automobile designers and racers, as might be expected, but the most successful racing is done in California. On the Pacific Coast, weather does not interrupt racing in the winter, whereas in other parts of the coun-



"Filling 'er up," as the miniature racing enthusiast in the top photo is doing, requires but little time. The tiny cars hold only a thimbleful of fuel—but the mixture is a carefully guarded secret of each owner. Below, a group of cars are primed up before a race in Chicago

try the cold months are used only for tinkering and designing in the workshops. There are no indoor tracks in existence.

It takes a special kind of track for these cars. The best one is located at Detroit's Rouge Park, scene of the national races. It was built for the Detroit Model Racing Car Association by the city Department of Parks and Recreation.

In actual competition the tiny cars race only against time, not against other cars. Engines are warmed up by placing the rear wheels against a large revolving wheel. When the engine is warm, the car goes to the track, which is brick, circular, and an eighth of a mile long. The car is hooked to a slender airplane cable extending from a steel post in the middle of the infield. The owner pushes the car until the engine coughs and roars, and the tiny vehicle flashes away with a mighty noise.

The cable and the center-post are part of an elaborate timing device. An intricate series of electrical contacts at the center-post relays impulses with each revolution around the track to a timing station enclosed in a small hutment outside the track. Electrical watches there measure the blinding speed of these giant-throated doodle-bugs.

Most races are for half-mile or mile distances. There are no brakes in the car. When the finish line is crossed, a cord hits a tiny spoke which extends upwards from the car engine. The spoke is connected to a switch which turns off the ignition. The car coasts to a stop many laps hence.

There are three classes of model cars.

The fastest is the "spur" class, so-called because a tiny spur gear connects between the engine and the transmission. In this type the one-cylinder engine lies on its side, oc-

cupying space that in big cars would be occupied by a driver. The fuselage has no breaks in it whatever — just a sheer, shining droplet designed purely for speed. A car built by Dick McCoy of Pomona, California, holds the speed record for the "spur" class — 114.38 miles per hour.

A second class is the "streamliner." In it the engine sits upright, with a conventional crankshaft and transmission arrangement, but here again the cockpit is eliminated, to cut down wind resistance. "Streamliners" have gone 103.9 miles per hour.

Miniatures in the third class — "conventional" — are exact duplicates of full-size racing cars, complete to every detail of windshields, hoods, driver's seats, and exhaust outlets. These are the cars the Lilliputians could have used. When lined up on the hot, oil-smelling, red-brick track, the scene is like looking at Indianapolis' famed "500" race through the wrong end of the field glasses.

Miniature auto racing is a sport

that draws its value from the same sources as full-sized auto racing. It's a hobby that keeps technical minds alert, and it's a microscopic portion of the fabulous industry for which America is famous — planning and building automobiles. Because it is done in miniature, it provides many opportunities for experiments that are impossible in large cars. It is safe to predict that from the sport will come revolutionary ideas that will prove useful to automotive manufacturers and designers.

One of the close secrets of the game is that of fuel formula. Each builder spends hours of his time with test tube and eye-dropper, carefully compounding fluids from alcohol, castor oil, and other chemicals, always seeking something that will give him more power and speed. Fuel tanks hold only a thimbleful of liquid, and no model auto racing man lets it be known just what he is using in his car.

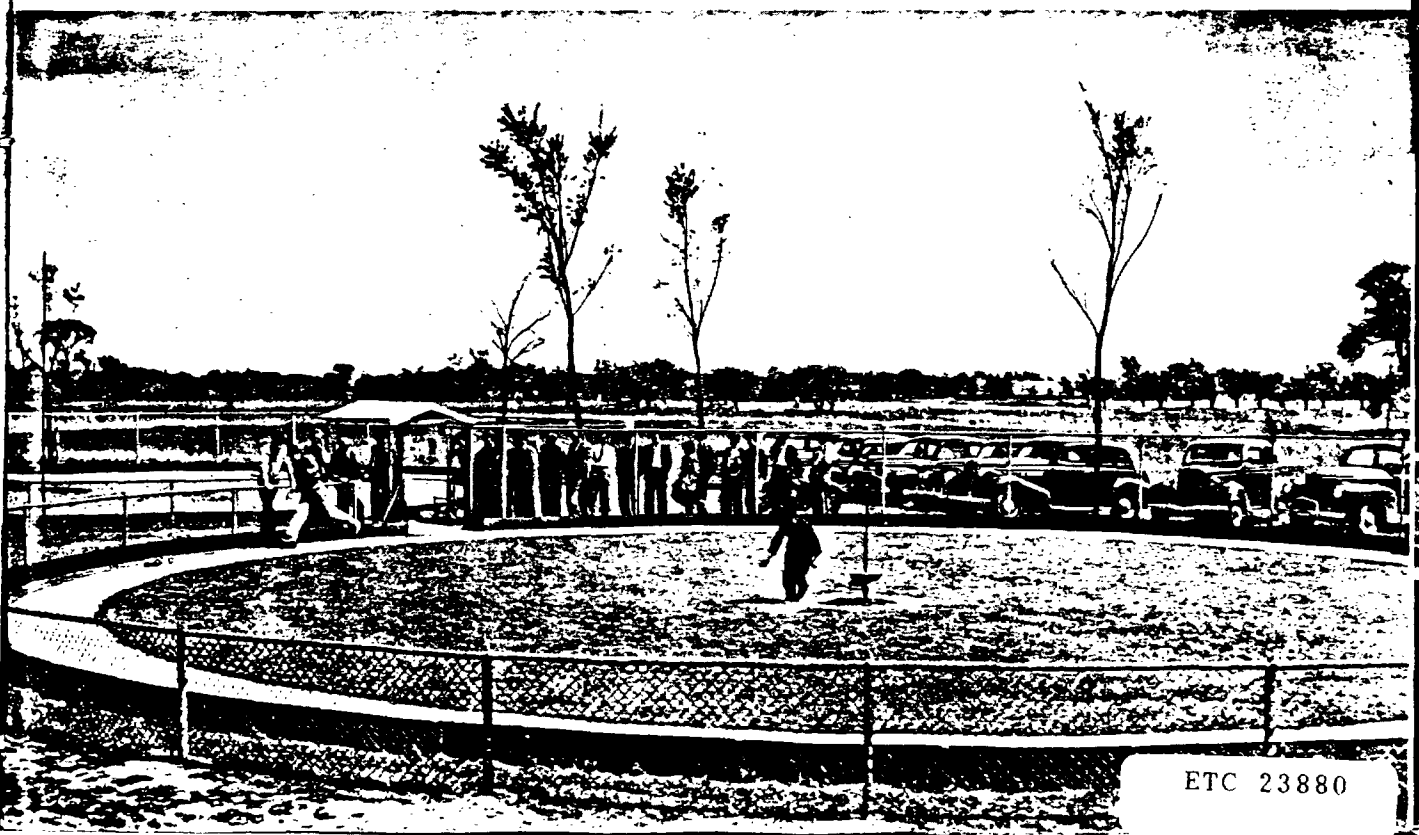
Most of the cars have a thumb-sized Hornet engine that develops one horsepower at 18,000 rpm's.

Rubber tires weigh three or four ounces. Tiny gears and other parts, requiring perfect balance and strength, and microscopic tolerances, are made by hand in private workshops. The finished car is an amazing tribute to the sublime patience, meticulous planning, and tireless manual labor of the builder. Materials for a car cost only \$50 or \$60, but no price can be placed on the hundreds of hours of individual labor that are spent on each automobile each year.

Like all hobby sports, it involves whole families. In California, New York, and Michigan, wives, sons and daughters help in the workshop. On Sundays and other racing days, they all go to the track, picnicking and joining with other families in conversation. Meanwhile, the man of the house sends his car into competition, and there learns of the success or failure of his workbench creation.

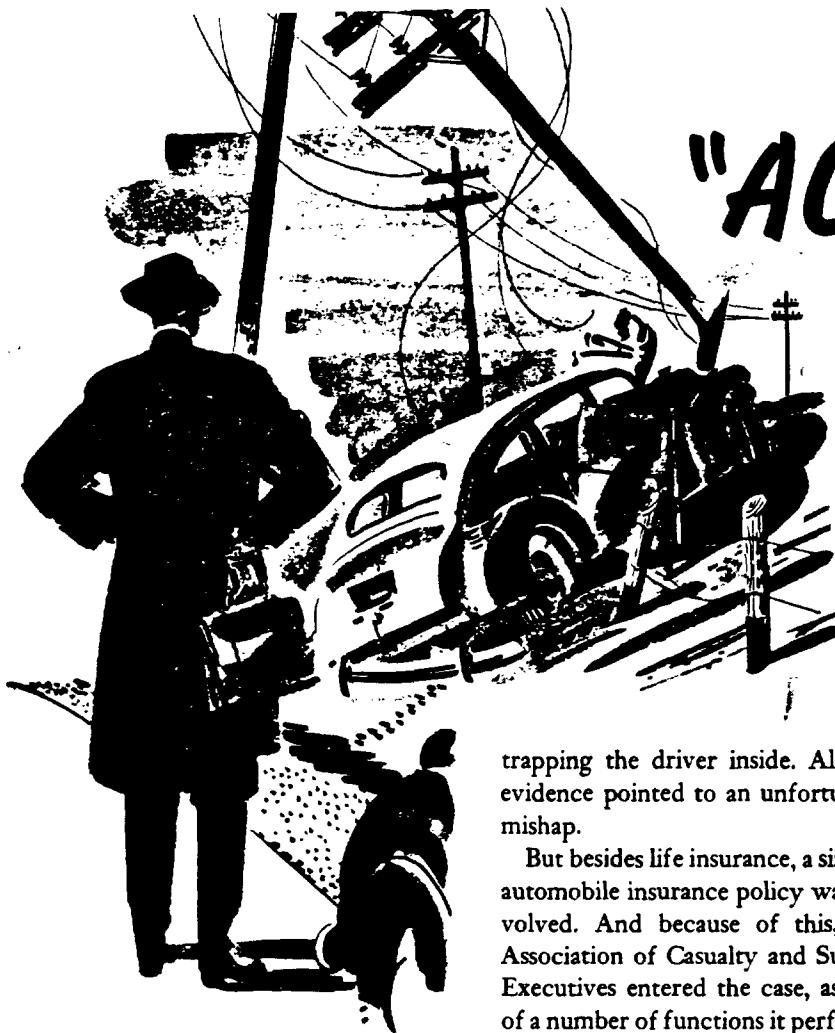
All the way through, it's American. Even Gulliver would have been impressed.

This miniature racing car track in Detroit's Rouge Park is one of the best in the country. The cars race against time, not against other miniatures



ETC 23880

"ACCIDENTS"



By Paul D. Green

NOT LONG AGO, a man was found dead in a wrecked and badly burned automobile, apparently the victim of a highway accident. A short time later, his brother, a doctor, filed a claim for the dead man's \$120,000 worth of life insurance. The doctor, incidentally, had been paying the premiums on the insurance.

In view of the amount of insurance involved and the violent nature of the death, a life insurance investigator was assigned to the case. His brother, the doctor told the investigator, had gone out for a drive by himself the night in question. It appeared that the car hit a telegraph pole, somersaulted and caught fire,

trapping the driver inside. All the evidence pointed to an unfortunate mishap.

But besides life insurance, a sizable automobile insurance policy was involved. And because of this, the Association of Casualty and Surety Executives entered the case, as one of a number of functions it performs for a group of casualty and surety insurance companies.

Checking the events of the night of the accident, a claims investigator from the Association learned at a nearby roadside diner that the dead man had purchased a cup of coffee and a sandwich less than 15 minutes before the crash — and that he was accompanied by a man who vaguely resembled him. The diner attendant also recalled that the deceased man had acted somewhat strange on the way out.

Inspection of the ill-fated car revealed a peculiar fact — the front part had been burned completely, whereas the rear, where the gas tank was located, hardly had been touched by the flames. It looked suspiciously like a fire set by human hand. The body was burned so badly that an autopsy was impossible, but

there were no crushed bones or bullets to indicate foul play.

Finally the investigator, seeking witnesses to the accident, located a small boy who claimed he saw a man set fire to the car, after jumping out of it and letting it crash into a telephone pole.

Faced with the suspicious angles worked up by the investigator, and the eye-witness account of the youth, the doctor broke down and confessed. He had taken his brother for a drive, stopped off in the diner where he drugged his coffee, and then drove him to his doom.

This is a typical example of how assiduously insurance investigators, acting very much in the manner of detectives or FBI agents, but without their official status, break many insurance frauds. They are employed by the Association of Casualty and Surety Executives, which was formed in 1929 to expedite the settlement of claims when they are legitimate, and to track down frauds when they are patent. The Association, a non-profit organization, performs these and other cooperative tasks for its 66 stock casualty insurance company members.

The Association handles some 800 fraud cases a year, averaging over a score of criminal indictments, and can point to hundreds of cases where it has saved its member firms hundreds of thousands of dollars in claims they would otherwise have paid.

These savings are reflected in lower costs of operation for the surety companies and in lower premiums to policy holders, who benefit when insurance risks are kept at a minimum. The Association has ten

"- Made to Order

Insurance fakers often go to fantastic lengths to collect money on phoney accidents, but they're almost always caught

branch offices throughout the country, each staffed with from four to fifteen operators for handling claim investigations alone. Many of the agents are former FBI men or municipal detectives. In the Association's Claims Index File are records of some three million claims served upon 250 casualty companies in the past 15 years, which furnish a bird's-eye view of the whole claims picture.

Insurance fakers are forever beating the underbrush of finance to scare up new schemes or revive old ones, according to Wayne Merrick, general manager of the Association's Claims Bureau.

Their methods are as endless as a circle, and just as roundabout in many cases. An example of the extremes to which they go is the man

on the Association's blacklist who practically sold his soul for the sum of \$8,000. He virtually destroyed half of himself in a bloody trail of faked accidents, all self-induced. These included chopping off a finger at a time until he was missing six, then a toe at a time until he was minus eight, then part of an ear, the remainder of one hand, and slices of his thighs and legs.

Because it is the easiest to fake, the most common type of phoney accident is the injured back. One quack, who eventually was sent to the hoosegow, specialized in this form of claim. For several years, he collected \$200 here, \$100 there, and so on before deciding to try for the jackpot by having his back almost broken while falling off a bus. After

the accident, he was declared by his doctor to be almost completely paralyzed from the waist up, and unable to work again.

The insurance investigator, suspicious because of the claimant's record of frequent accidents, delayed the settlement while he checked into the case.

The investigator happened to live in the same town as did the injured man, and, upon making inquiries, he learned that the man's plight had evoked the sympathy of the community. Baskets of groceries were sent to his house. Welfare agencies did what they could for him. The parish priest sought assistance for the man and his family.

Finally, the crippled man was able to get a job in a nearby city — an office position, he said. His son drove him to work in the morning, and brought him back at night. Once home, the disabled man would collapse into bed, exhausted by the exertion, so his wife claimed.

But one day, the investigator followed the car to the man's place of work. He saw it stop after it had passed the town limits, and the father swap places with the boy and drive to his job. It turned out that the man was a carpenter on a building project, and his apparent injury did not prevent him from clambering nimbly around girders and framework in a most industrious manner, for eight working hours. That was enough for the insurance investigator. He soon broke the case.

It is not uncommon for a man to seek damages on the same injured part of the body time and again. One accident "victim" collected 12 times



for back injuries, which he faked, and nine times for hand injuries, and three times for one finger alone. All told, he garnered almost \$3,500, before he cooked his own goose. In attempting a phoney fall from a trolley car, he misjudged his step and his right foot went under the car wheel and was severed. When he presented his claim for this, his previous false claims came to light — and he was tried, convicted and imprisoned for five years.

Frequently, insurance swindlers are able to continue their skullduggery for a long time by operating on a national scale, employing countless aliases, and never repeating an accident in the same city. One such woman faker sued bus, railroad and trolley companies from coast to coast before she was arrested in Pittsburgh after a lengthy search by investigators. Like many insurance swindlers, she also was found to have a criminal record on other counts.

Lawyers, doctors and hospital attendants have often been involved in fraudulent accident cases. Records show hundreds of instances where "ambulance chasers" encouraged people to present damage claims for imaginary accidents, or where doctors falsely testified to the extent of accident injuries. The Association of Casualty and Surety Executives has done much to stamp out such rackets by causing the ousting of scores of lawyers and doctors who have thus forsaken the ethics of their professions.

The Association has numerous ways of determining fraud in insurance claims. It is suspicious of a person who will settle for much less than his original claim. It orders extra medical tests to verify the original doctor's report. Also it relies heavily on repetition, figuring that if a person presents more than three claims within a short period of time,

it is no longer a coincidence. It gets on the claimant's trail, and tracks down the giveaway facts.

To aid in smoking out frauds, the Association refers to its voluminous Claim Index File, which turns up repetitious claimants. A man who operated under 23 aliases made 38 claims from February 1941 to June 1944, collecting some \$1,425 in small sums. Ironically, several of his aliases were listed in the Index. One company actually had a claim from him made under an alias — which was how it reported it to the Association — but it had made out his claim check for \$175 in his correct name, at his own request. Had the company notified the Association of this fact, the fraud would have been detected then, because this man's real name already was on file. Instead, he got away with the deception until he made the mistake of using the same alias twice. That finally landed him in jail.

An "Angel" Nine Times Over

One of the most colorful characters ever turned up in an insurance fraud investigation was a character who used nine aliases — all of them with the name "Angel" in them. He finally was caught and convicted on a charge of using the mails to defraud.

Almost immediately thereafter, other crimes came to light. It developed that he had posed as a Collector of Internal Revenue, and collected fees for tax claims he supposedly squashed for unwitting citizens. A thorough investigation of this man covered ten states, disclosing that he had made damage claims in all of them to 14 separate companies. He also had obtained employment in hospitals under the guise of being a doctor, and had married four times but only bothered to be divorced once. The payoff was that he evaded

the draft as a 4-F by faking epileptic fits. All of this was revealed because an alert manager of the Claims Bureau became suspicious when the man tried to settle a \$200 claim for twenty-five cents on the dollar.

An attorney who became a personal injury specialist was disbarred and fined some \$1,200 after an Association probe uncovered a long list of malfeasances on his part. He not only built up phoney cases of accidents — and found people who were willing to perjure themselves for illicit claims — but put in 12 separate accident claims for himself. He was apprehended when one of his confederates, angry because the lawyer withheld too large a share from a fake claim settlement, tipped off the Claims Bureau to the racket.

Some insurance frauds are readily unmasked, attesting to the stupidity of the people who try to make a living outside of the law. One man who claimed he lost the end of a finger while working, and collected \$310.50, eventually was proven to have suffered the injury while fixing his car. He worked in collusion with his foreman, who certified that the accident occurred on the job. The man was ordered to pay back the settlement plus costs.

Another claimant, using the common dodge of the injured back, was photographed with a movie camera climbing a tree — strange actions for an incapacitated man.

Products' liability claims — finding strange objects in food and drinks — are the most common type of insurance claim but the easiest to defend. Because of the huge number of such claims, however, a number of food products companies retain specially-trained lawyers full-time to handle the hundreds of such claims that are filed against them each year. Not one in a hundred result in a payment.

OILDOM'S FIRST CAMERAMAN

(Continued from page 6)

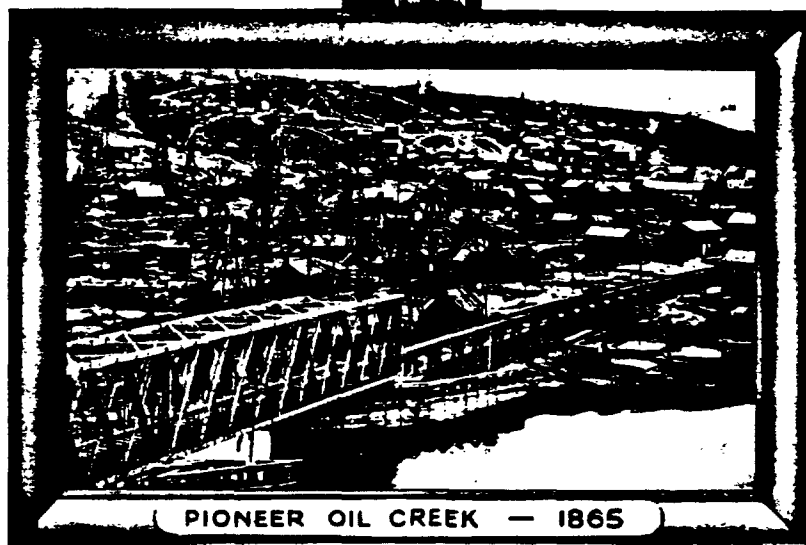
road stations, teamster wagons, refineries, pipelines — all formed a wonderful panorama for his camera sight.

Through his travels by wagon (and by barge along Oil Creek), Mather became one of the most widely known figures in the Pennsylvania oil region. Often he would be hired to take a picture of a new oil field or installation. But many's the time he snapped a scene just for the satisfaction of having taken it, thereby preserving it for generations to come.

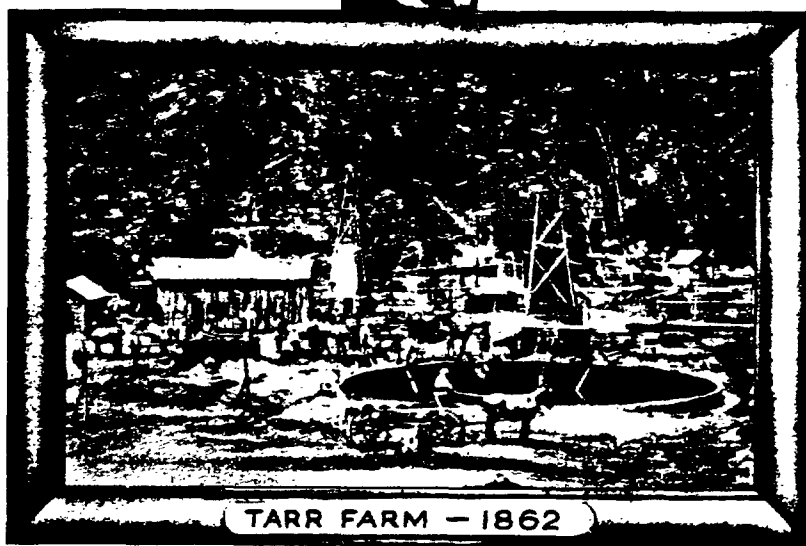
For a man as captivated by the lure of oil as Mather, one would have expected him to take a fling in many a wildcatting venture. Actually, he had at least one fleeting chance to reap a fortune, but missed out because of a baby.

The golden opportunity that came — and went — took shape in the person of a hard-bitten oil prospector named J. W. Sherman, who was drilling on the Foster farm along Oil Creek. Operating on the proverbial shoestring, Sherman was down to his last dollar and needed to buy a horse to supply the power for his rig. Stopping in at Mather's shop, Sherman offered him a one-eighth interest in the well for \$68, the price of a horse.

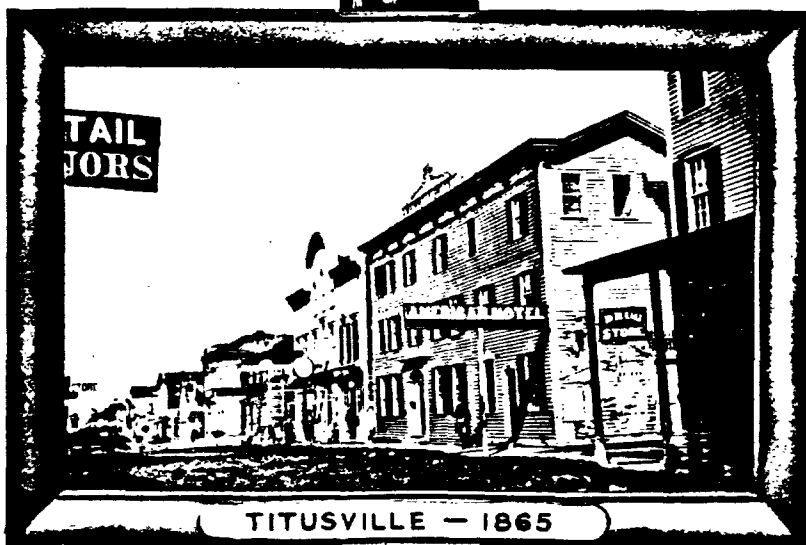
Mather had the money and the inclination to buy the interest. But just at that moment, a woman with a baby entered his studio and asked to have the baby's picture taken. Thinking that Sherman would wait, Mather went ahead with his work. But Sherman, meanwhile, stepped outside, saw a man sitting on a horse across the street, and offered him the one-eighth interest for his horse. The deal was made, and as luck would have it, three days later Sher-



PIONEER OIL CREEK — 1865



TARR FARM — 1862



TITUSVILLE — 1865

man tapped a vein of oil, which spouted some 1,500 barrels of oil a day. For that one-eighth interest, the man who traded Sherman his horse made about \$175,000. Meanwhile, Mather received one dollar for the picture of the baby.

But what he lacked in financial reward, he made up in many exciting experiences. One of his most thrilling had to do with a photograph Mather had taken of the Reed well in 1863. That well was famous because it was one of the first to have a charge of gunpowder lowered into it and exploded, in the hope of increasing its flow of oil. It was also to be a bone of contention in the bitter litigation that ensued in the 1870's over the patent rights involved in torpedoing oil wells.

In the midst of the protracted court fight, Mather was offered \$500, by one of the litigants, to give him, or destroy, the picture he had taken of the Reed well. Mather promptly refused. He was told that if he did not comply, another photographer would be brought to Titusville to put him out of business. Again, Mather refused. Sure enough, within a short time another photographer appeared in town and set up shop in competition with Mather.

At first, Mather was at a loss as to what to do, but one day he had a clever idea. Only recently he had purchased a pistol flashlight, a new development in photography, and now, Mather decided to have some fun at his rival's expense.

The next day, as his competitor was passing by, Mather hailed him, quite amiably, and offered to take his picture by a new-fashioned method. The man agreed, and unsuspectingly seated himself in a proffered chair. Suddenly Mather whipped out his pistol flashlight, pointed it at his rival's head, and

shouted, "I've got you just where I want you at last."

As the victim sat speechless, Mather gave him a sermon in "pure oil country code," and when the man seemed at the point of collapse, Mather raised his pistol and pressed the trigger. There was a blinding flash — and a scream — and the frightened victim lost no time in fleeing from his "murderer." Mather was never more to be bothered by this competitor.

Mather took one brief flyer in oil, during the oil rush to Pithole City in 1865, but it was unsuccessful. Returning to his regular business, Mather remained a photographer the rest of his life, content to photograph the lusty adventure of the oil fields rather than to risk his scant savings. In the early seventies, he married Miss Mattie Tarr of Cherrytree township; they had one child, a daughter, later Mrs. Willard H. Hunt, of Philadelphia.

Mather never made much money from his photographic studio; it provided him with barely enough to keep him going from month to month. Yet he had a full life, a rich life, a life spent in the romance of oil. Mather died on August 23, 1915, in his 88th year, and was buried in a rural cemetery between Cherrytree and Dempseytown, Pa.

Of his work there were many tributes. Said a writer in 1913, "John A. Mather has made it possible for the historians of the day to embellish American history with true scenes of the commencement of the world's now greatest industry." His

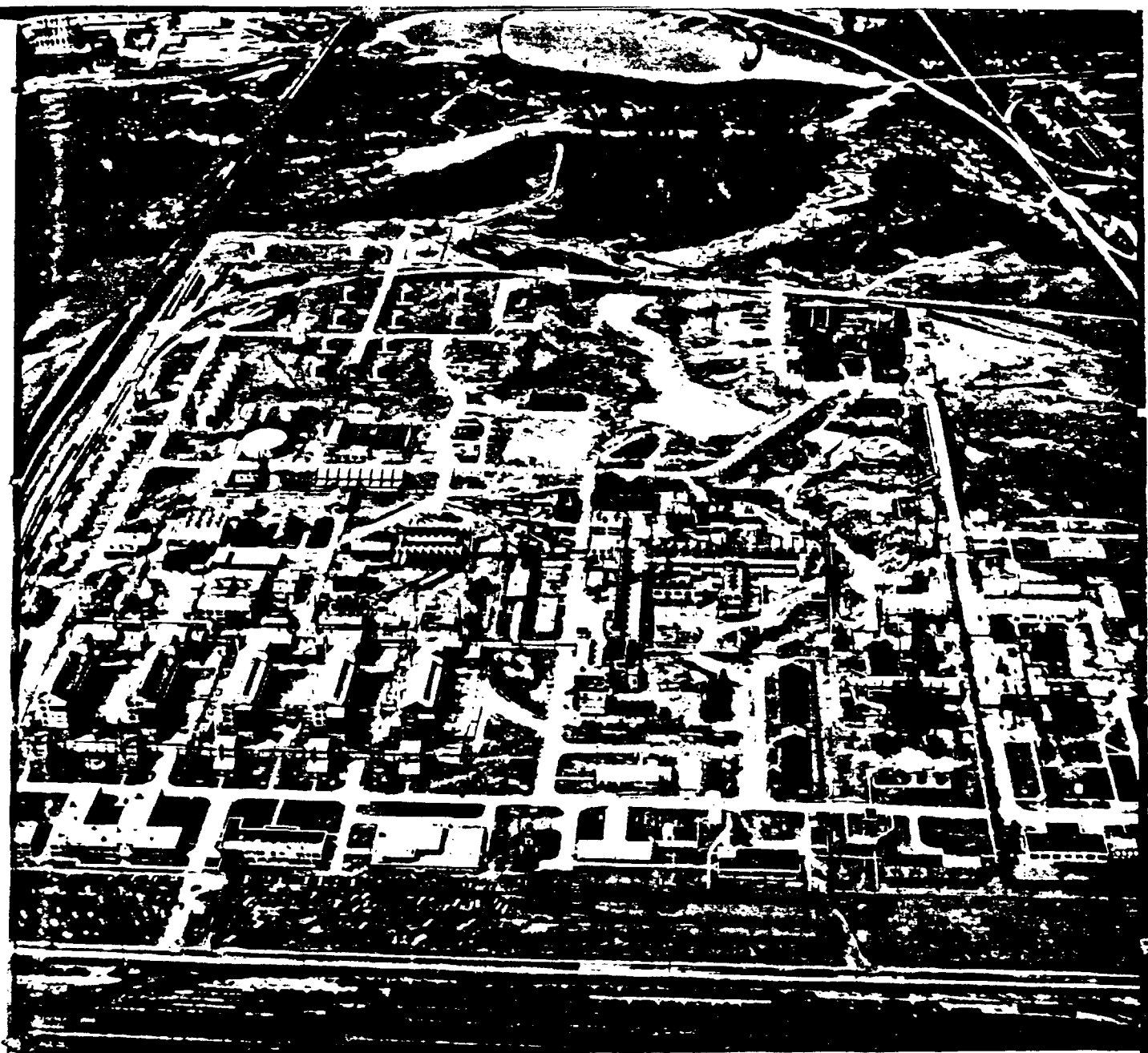
pictures, wrote the editor of the *Titusville Herald* in 1896, "are the most delightful souvenirs of the primitive and halcyon days in the petroleum industry, which are gone never to return."

It is impossible to tell how many pictures Mather made in his lifetime. During the fire and flood at Titusville in June, 1892, he lost over 16,000 negatives, but nearly 3,000 others relating to the oil region were saved. As he grew older and less active in business, he wanted to dispose of the negatives so that they might have a permanent home after his death. In 1912 he tried to sell them to the State Museum at Harrisburg. An official representative was sent to Titusville to examine his collection but, "owing to insufficient funds," the State Museum could not purchase the collection.

After Mather's death in 1915, the Drake Memorial Association purchased the negatives for \$100. When Drake Well Memorial Park near Titusville was established in 1934, the entire collection was placed in the Drake Museum where they are to be found today.

Altogether there are 3,374 negatives in the Museum, of which 2,229 have been identified and labeled. Most of them are in excellent condition; some have been cracked in handling; and the emulsion on some is slowly crumbling. New negatives need to be made in order to preserve forever the work of John A. Mather. They constitute a priceless pictorial record of one of the most exciting eras in American history.

OUR COVER: Kodachrome view of combining wheat in North Dakota, courtesy U. S. Department of Agriculture. **OUR PICTURES:** Pages 3, 5, 7, 21, courtesy Drake Well Memorial Park Museum; Page 9 (lower) and Page 10 (upper), courtesy U. S. Department of Agriculture; Pages 12-14, cartoons by Rodlow Willard; Pages 15, 16 (upper) and 17, courtesy Detroit News; Page 16 (lower), Press Association; Pages 18 and 19, illustrations by David Shaw.



Ethyl Baton Rouge Plant

Employment for Ethyl Corporation's tetraethyl lead manufacturing plant at Baton Rouge was started ten years ago this month (see Page 2).

The photo above is the latest aerial view of the Ethyl plant, as it stands today.

The Ethyl property is bordered on the left by the Yazoo and Mississippi Valley Railroad and on the right by the tracks of the Louisiana and Arkansas Railroad. Tetraethyl lead is manufactured in the five large buildings at left center. To the left of these buildings is the blending plant for mixing tetraethyl lead with ethylene dibromide, ethylene dichloride and dye to form Ethyl fluid. Tanks above the blending plant are for storing the finished product. Just behind the tetraethyl lead plants is the alloy plant for prep-

aration of lead sodium alloy, used in the manufacture of tetraethyl lead.

Across the railroad tracks at the bottom of the photo is property of the Louisiana Division of the Standard Oil Company of New Jersey. Pipe lines from this refinery bring crude propane, ethylene and hydrogen to the ethyl chloride plants of Ethyl Corporation (shown at extreme right).

Pipe lines from the Solvay plant (at the extreme left of the Ethyl property, but not pictured) carry salt brine to the sodium plant (slightly right of center). Just in front of the sodium building is another plant for making ethyl chloride, using alcohol as a raw material instead of refinery gas. Hydrogen chloride and salt cake are produced in the HCl plant beyond and to the right of the sodium building.

Are WOMEN better drivers than MEN?



Suit by Philip Mangone. Hat by Sally Victor.

ANSWERS

1. 56 feet.
2. Slow down. Leaves are slippery—particularly when wet—and can cause a bad skid.
3. Yes. Courts have held that when a collision occurs, it is the fault of the person who had the "last clear chance" to avoid it.
4. Don't count it against your score if you didn't know this answer. Few people outside the petroleum and automotive industries know the reason why gasoline quality leveled off—and even slipped back a bit—this year. The cause has been government rationing of lead,

one of the materials needed to make Ethyl antiknock fluid, and oil refiners have not been permitted to raise premium gasoline as high as they would like to. Meanwhile, the Ethyl emblem is your assurance of your oil company's best gasoline at all times.

5. Worn or out-of-adjustment brakes—probably on the front wheels.

6. a. Too much speed for the curve.
b. Under-inflated tires.

7. With some power on. Feeding gas gives extra traction, helps prevent skidding. Use your brakes before you hit the curve.

THE MORE STATISTICS we dig up on this subject, the more confused we get. The ladies produce reams of figures showing that women drivers have fewer accidents than men. The men counter by saying that such figures don't mean anything because men operate cars and trucks under the most difficult conditions—day and night, through rain, fog, ice and snow.

Since there are undoubtedly good and bad drivers of both sexes, we'll leave it to you to find out *who in your family knows the most about driving*. See who scores highest on the quiz questions below—dad, mother, brother or sister.

1. If a certain car with first-rate brakes running 20 miles per hour on a dry road can be stopped in 14 feet, how many feet would it take to stop it at 40 miles per hour (not counting driver's reaction time)?

28 feet ☐ 42 feet ☐ 56 feet ☐ 72 feet ☐

2. Colorful autumn leaves make a drive in the country particularly enjoyable at this time of year, but what does a capable driver do when leaves cover the road ahead?



3. The driver of the sedan has deliberately run through a red light. By stopping short, the driver of the convertible can avoid a collision. If she fails to do so, can she be held liable—considering it was the other driver who ran through the light?

Yes ☐ No ☐

4. After the war everybody expected gasoline refiners to offer super-gasolines. Why has gasoline quality remained at its present level for the past few months instead of soaring to new heights?



5. If the steering wheel of a car pulls to one side when you stop, what would you suspect the cause to be?

a. Worn steering knuckles. b. "Frozen" differential gears.
c. Worn or out-of-adjustment brakes. d. Loose steering gear.

6. Give two possible reasons why the tires of a car will "equal" when rounding a corner.

a. _____
b. _____

7. One way to round a curve is to take your foot completely off the gas and proceed without power. Another is to reduce speed before entering the curve and proceed with some power on. Which method will help you around the curve better—reduce possibility of skidding?

a. With power off. b. With some power on.



LOOK FOR THE ETHYL TRADEMARK

FREE . . . "Professional Driving"—a 72-page book that will make your driving safer, easier and more economical. Here are some chapter headings: "How to Handle a Blowout," "Parking Made Simple," "Driving Tips for City Traffic." Offered FREE to car owners by Ethyl.

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ETHYL NEWS



NOVEMBER 1951

ETC 23888



IN THE

ETHYL NEWS

NOVEMBER 194

William K. McCulloch, Jr., who has been associated with Ethyl Corporation for the last 14 years, has been named to the newly created post of Sales Promotion Assistant to the General Sales Manager, Julian J. Frey.

In his new assignment for Ethyl, Mr. McCulloch will act in a liaison capacity between the sales organization in the field and the executive offices in New York on various programs. His duties will include the analyses of sales promotion ideas and programs suggested by the various Division offices for consideration and adoption by the company. Moreover, he will aid Division Managers in putting into operation the sales promotion plans developed or adopted at sales headquarters.

A native of Owensboro, Ky., Mr. McCulloch is a graduate of Sewanee Military Academy and the University of the South, both located in Sewanee, Tenn. He taught school in Allenhurst, N. J., for a year after graduation from college, and then joined Ethyl in October, 1932. He was associated with the Ethyl exhibit at the Chicago World's Fair, and in 1934 was assigned to Ethyl's Kansas City Division as a field engineer. Except for two and a half years in the Navy as a lieutenant during the recent war, Mr. McCulloch remained with the Kansas City Division until his appointment as Sales Promotion Assistant.

MEXICO'S INDUSTRIAL BOOM

3

Our neighbor to the South is making great strides — with the aid of U. S. capital — in a program to industrialize and modernize the country.

NEWSPAPER FOR NOMADS

8

It's called The Hobo News, and is hardly an orthodox journal. But it is read almost as avidly on Park Avenue as in the freight yard "jungles."

WHEN THE DRAGON SHIPS CAME

12

It now appears probable that America was "discovered" by the Vikings, some 500 years before Columbus set sail.

ICE CREAM SODAS FROM THE SEA

16

Maine fishermen are taking more than lobsters and mackerel from the sea these days. They're raking in a seaweed that has many strange, but important, uses.

MOTORCYCLES ARE BACK

19

Postwar interest in the motorcycle is running high among commercial users as well as sport enthusiasts.

In order to widen the fields of reader interest in Ethyl News, we frequently publish articles contributed by writers not associated with Ethyl Corporation. Opinions expressed in signed articles are the authors'. The editors of the News welcome articles of timely interest submitted from outside sources.

Published by ETHYL CORPORATION, 405 Lexington Avenue, New York 17, N. Y.

Manufacturer of Ethyl brand of antiknock compound, used by oil companies to improve the antiknock quality of aviation and motor gasoline

Earle W. Webb, president; Percy L. Griffiths, vice president and treasurer; Julian C. Gonzalez, secretary

ETC 23889

MEXICO'S INDUSTRIAL BOOM

By Henry E. Rose

A host of new factories are sprouting up south of the border, financed by American companies

"SALUDOS AMIGOS" — the new welcome Mexico has been tendering foreign businessmen in growing numbers — is paying handsome dividends. Reflecting the more favorable attitude toward foreigners, together with cooperative governmental policies, the southern republic has made great strides toward improving living standards and the general status of its people. Much remains to be accomplished, but Mexico has charted its course toward modernization and industrialization.

It is difficult to walk a block in Mexico City without hearing the

crash of falling walls, the hum of a riveting hammer, or the rolling rattle of a cement mixer. Old buildings are being demolished and replaced by new ones. Mexico City already is a different metropolis, and the story is the same for other cities.

But this is only one evidence of Mexico's intentions for the future. Industrialization is a vital cog in her drive for better living conditions. Some Americans regard Mexico as an agricultural country, yet not more than 25% of her land can be placed under cultivation. This year, in fact, she is importing corn, wheat and sugar — three of her own principal crops.

Before the war, the Mexican Government and Mexican capitalists conceived a plan for broad industrialization which is taking shape now. Most of the projects have been

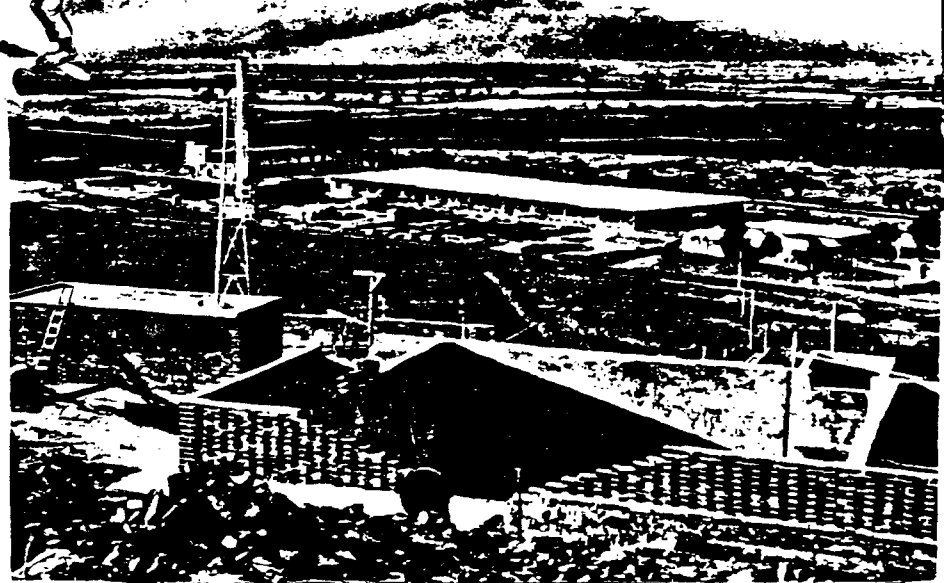
predicated on the utilization of domestic raw materials and labor, plus inducements of tax exemptions.

What Mexico has been seeking is capital and technicians, while it furnishes the raw materials and labor. Availing themselves of the opportunity, American firms have been making substantial investments in Mexico. Using their industrial know-how and their resources, they are improving old industries and establishing new ones.

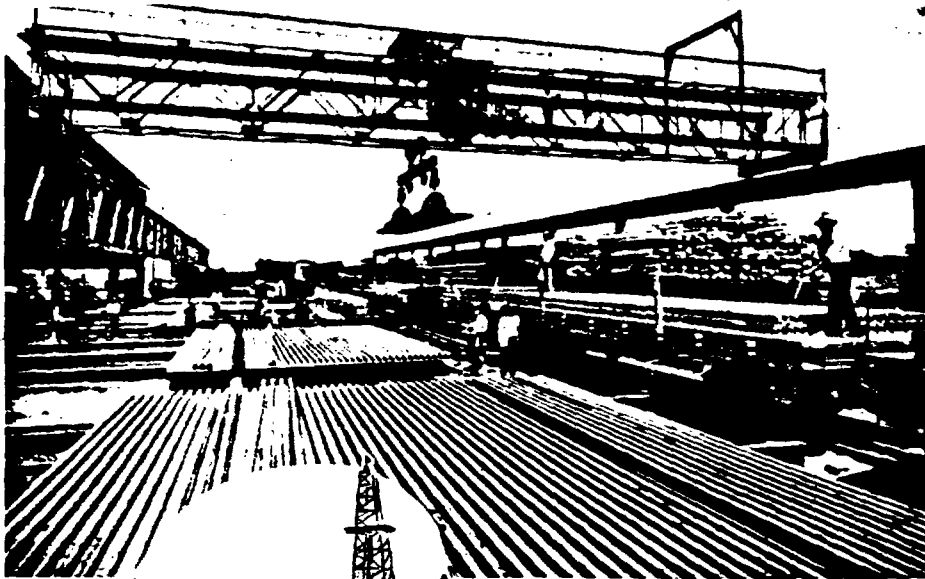
Under Mexican laws foreigners may conduct business on the same basis as Mexican nationals, except for certain provisions with regard to financial institutions, agriculture, mining, oil, forestry, water power and land ownership. These do not prohibit foreigners but outline various requirements which must be met, usually as to joint participation in capital. In some cases, the Mex-



Typical of the many new manufacturing facilities being erected in Mexico is this new Celanese plant in Guadalajara, state of Jalisco. Others include metal products, electrical equipment, paper and chemical plants



ETC 23890



Loading rails for the Mexican National Railways at the Monterrey steel works. Like other industries, the steel industry has undergone a big expansion

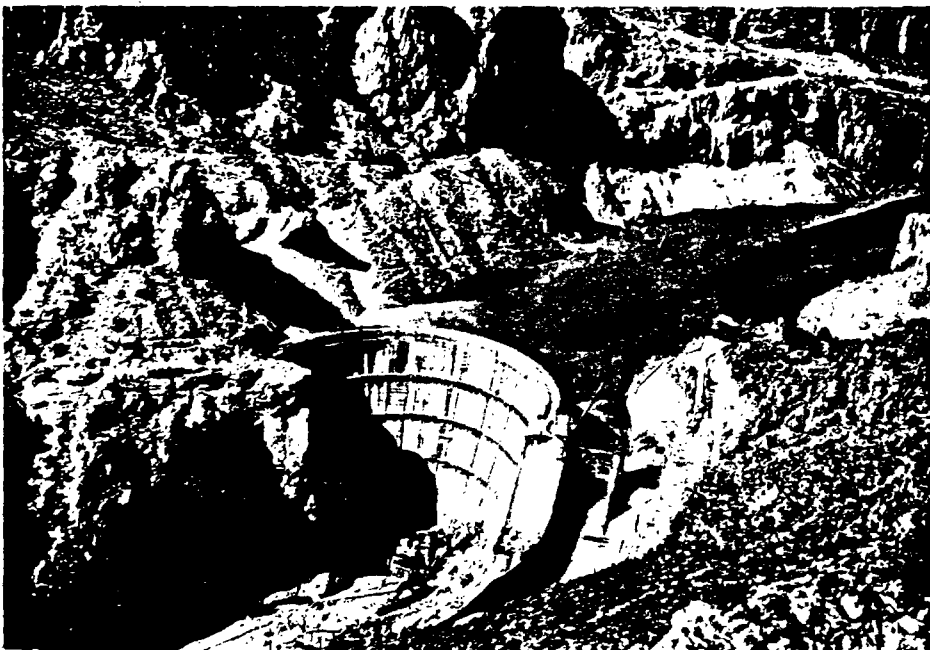


ican Government, through governmental banks, becomes a partner in the newly established enterprises. Mexican nationals usually participate to the extent of 51% of capitalization.

The two inducements held out to American capital lie in the fields of income taxes and import duties.

By an act of 1941, Mexico's Department of National Economy is empowered to grant five-year tax exemptions from federal taxes to new or essential industries, and in many instances relief from import duties on machinery and raw materials has been provided. Thereafter, the new businesses are subject to income taxes varying from 3.8% to 30% (the first 2,000 pesos of income are exempt). In the United States, on the other hand, present normal and surtax business levies average 38%. Moreover, the Mexican Government has assisted financially in

Among the public works projects completed during the war was this new dam in the state of Sonora



many projects, establishing several national financial institutions to aid the economic growth of the nation.

The southern republic's invitation to foreigners to participate with domestic capital in her industrialization, instead of establishing wholly foreign-owned companies, has proved successful. The American investments, it is believed, will be safeguarded against expropriation and other policies which in the past adversely affected American interests.

Today there are about 200 companies in which American capital is interested. They include such industries as mining, metal products, textiles, electrical equipment, paper, aluminum, chemicals, airlines, construction materials, rubber goods and foodstuffs, and also railroads and public utilities.

American companies with producing and/or distributing interests in Mexico run the gamut of all industries. Among them are American Smelting & Refining Co.; Gardner-Denver Co.; General Electric Co.; International Business Machines Corp.; Safety Car Heating & Lighting Co.; United Shoe Machinery Corp.; Allis Chalmers; Babcock & Wilcox; Chicago Pneumatic Tool Co.; Standard Sanitary Manufacturing Co.; Abbott Laboratories; Bauer & Black; Johnson & Johnson; Plough, Inc.; Sharp & Dohme; Colgate-Palmolive-Peet Co.; Ford; General Motors; and numerous others.

Among the larger enterprises are the Altos Hornos Steel Co. in which American Rolling Mill Co. has supplied capital and technical direction; the Mexican Celanese Co. in which the Celanese Corp. of America has

largely contributed; and Atenquique Pulp and Paper Co. in which American Cyanamid is participating. Moreover, there are interests in Mexico by Reynolds Metals Co., Aluminum Co. of America, Continental Can Co., Johns-Manville Corp., E. R. Squibb & Sons and Westinghouse Electric, among others.



Above, silver mines in the state of Durango. Mexico is one of the richest countries in the world in mineral resources and is the leading silver producer. Below, a section of the new Pan-American highway in Oaxaca state, showing the rugged terrain that had to be cut

In all, since 1939 some 400 manufacturing enterprises (including domestic companies) have been organized in Mexico with capital estimated in excess of 400 million pesos (roughly \$80 million). In this development the government has been extremely helpful by granting special franchises and tax exemptions.

These industries in Mexico yield much larger profits than in the United States. Net profits would average from 15% to 20%, and in some instances profits have been sufficient to pay off the original investment entirely in the space of two or three years.

American investment in Mexico was particularly noticeable during the war when, because of onerous taxation in the United States, capital was seeking a better return. Moreover, Mexico benefited from the huge wartime sale of raw materials, metals and manufactured goods to the United States. It was practically a one-way street — all exports and





no imports — and the southern republic in consequence has built up enormous gold and bank credits in the United States. One leading banker estimates these credits in excess of \$500 million.

A big business in itself, Mexico's tourist trade also zoomed during the war. American tourists could not make their usual trips to Europe, because of the war, and so, instead, flocked to Mexico and other Latin American countries. North American "touristas" streamed in by plane, train and bus, and 1945 was a banner year for Mexico. It is estimated that tourists spent about 300 million pesos (about \$60 million) in Mexico last year. Tourists provide a big business for Mexico, and large metropolitan centers as well as numerous

shore and vacation points are enjoying a tremendous upsurge in business.

New hotels and restaurants were established, only to be overtaxed. Reservations at many hotels had to be made, and still must be made, in advance. And the Mexican Government is doing everything possible to encourage and expand this business by offering inducements to tourists.

Besides its industrial development and the encouragement of tourist trade, Mexico has also embarked upon a vigorous public works program. Through the use of a master plan, it has developed blighted areas by widening streets and making new street openings. Its parks are another example of its many civic improvements.

Moreover, the expansion of home industries, in addition to new factories, office buildings, etc., means more water systems, power plants, highways, railroads and airlines. The federal government has appropriated 300 million pesos (\$60 million) for public works construction this year. Other funds to be acquired through sales of bonds will be used for construction of highways and for the development of electrification and irrigation projects. Even ports will be expanded and streamlined. At Vera Cruz it is expected that port facilities will be tripled at a cost of several million pesos by the construction of new wharves, warehouses and improved railroad yards.

The petroleum industry of Mexico, which has been operated by the Government since the American and British oil properties were expropriated in 1938, may witness greater exploration to develop new oil producing areas. Only recently the Mexican Government invited bids for private exploration, but only by Mexican capital, for the first time since expropriation. No bids were received, however.

Financially, Mexico is one of the few countries to enjoy a balanced budget, and it has only a small in-

(Continued on page 24)

JUAREZ—"TOURISTA" HAVEN

Thirty yards across the Rio Grande River from El Paso, Texas, lies the Mexican city of Juarez (see opposite page.) This "tourista" haven likes to think of itself as being "the heart of the Old World," but actually it is a far cry from the Mexico pictured in tourist folders. Juarez is small, clean and modern, but it also is commercial. Its main streets are lined solid with curio shops and bars, and in the streets themselves are pushcarts by the hundred. From these sidewalk vendors visitors may purchase a cheaper replica of the jewelry, fine Mexican silver, leather goods, liquor, and French perfumes to be found in the shops a few feet away.

Before the Pan-American highway was pushed through to

Laredo, Juarez was the chief jumping-off place to interior Mexico. Today, it is largely a convenient tourist shopping center. Travelers, staying at a modern hotel in El Paso, can ride into Juarez by trolley in five minutes for only 12 cents. Every adult is allowed to bring back \$100 worth of gifts and souvenirs each month, although only one bottle of liquor per person is allowed in this quota.

While not "Old Mexico," Juarez is a city of romance and everlasting appeal. Music constantly fills the air, due to the many street musicians who wander throughout the town, and the curio shops and bars are a subject of renown for the American "tourista" with a camera.

SIDEWALK
COMMANDOS



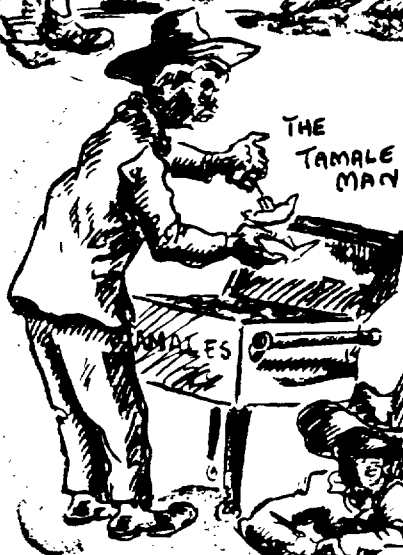
SHINERS'
CONVENTION



STREET
SINGERS



THE
TAMALE
MAN



MEXICAN
MODEL-T



A TALK IN THE SUN



BUFFET A LA JUAREZ



N.J. Davis



NEWSPAPER FOR NOMADS

Even Hobos have their own tabloid, *The Hobo News*. Its slap-happy pages cheer up 90,000 readers every week

The Hobo News is printed in New York City at this plant near the edge of Manhattan's cabaret belt

Today his building at 115-119 West 52nd Street, where *The Hobo News* is published, is valued at \$150,000; his presses and equipment at another \$150,000. Pat claims the good will of his paper alone is worth \$200,000. If you had told him back in 1934 that he ever would have that much in worldly goods, he would have suggested you find a nice, quiet sanitarium and the best doctor around.

Pat hit the "el" pillar the same day he hit New York. He'd just come from his home town of McKees Rocks, Pa. Riding with him in the jalopy were his wife, Lucy, and a fellow hobo and good friend, Boomer Rodgers, known as the Poet Laureate of Freight Yard Jungles. The "el" post survived the crash.

Luck caught up with Pat, however, disguised as a junk dealer who offered \$30 for the remains of the car. And Luck got Pat a job as janitor of a West Side tenement a few hours later. The pay was two basement rooms, rent free.

When he was a boy Pat had been a printer's devil. He also had worked in printing plants and newspaper offices here and there during his hobo days. As an easy way to make a little money, the Mulkerns and Rodgers decided to start a printing venture of their own. Pat took \$15 of the \$30 they had received from the junk dealer and bought a small secondhand press.

Their first publication was a one-

ORDINARILY YOU WOULDN'T expect that driving a jalopy headlong into a pillar supporting an elevated railroad would have anything to do with starting a newspaper. But sleepy-eyed Pat Mulkern knows differently. He's founder, owner and publisher of a tabloid unique not only in the way it began, but completely unorthodox by almost any other standards you can imagine.

Pat doesn't recommend an automobile accident as a sure way to catapult yourself into a successful business venture. If you take what comes along, he figures, and make the best of it, you'll come out all right with a little luck.

That's the philosophy Pat has steered by since the days when he was a hobo, wandering as the spirit moved all over the country. He's still a hobo at heart, and proud of it, but probably a better businessman than he realizes.

Pat's paper, just by its name, gives

you a hint that this is no ordinary journal. He calls it *The Hobo News*. You might expect that the bright green and pink and flaming orange pages would have something to do with America's knights of the road, but that's only half the story.

Appeals to Anybody

This breezy sheet doesn't forget the restless men who ride the blinds and live in hobo jungles, but it also appeals to anybody who likes a curious concoction of jokes and cartoons, leggy pictures and girl art, articles of tear-jerking sentimentality, tips on horses, Broadway gossip, poetry, homespun philosophy, short stories and plugs for worthy causes. Bums and bankers, high school kids and housewives, crooks and commuters—more than 90,000 of them altogether—read *The Hobo News* in every big city and many smaller towns from coast to coast.

Twelve years ago Pat Mulkern hit New York with \$1.32 in his pocket.



Pat Mulkern, right, the paper's founder, and Cliff Mack, editor, scan page proofs



Working in the plant takes muscle. Irene Lohsen once was a strong lady in a circus

Pat dishes up Mulligan stew for his partner, Boomer Rodgers, left, and hungry Cliff

Hobo Philosopher Roger Payne buys a copy of the paper from Ralph Johnson, peddler



page sheet of old and familiar ballads like "The Cremation of Sam McGee" and "The Face on the Bar-Room Floor." After they had run off a hundred copies or so, Pat and Boomer would peddle them on Broadway for a nickel. The take was good. They continued the sheet for a couple of years, whenever they felt like it, printing as many copies as they could sell.

One day, Pat and a group of hobo friends were spending a lazy afternoon at home reminiscing about past adventures. Eventually the conversation drifted around to Pat and Boomer's ballad sheet.

Among the hobos gathered that afternoon was one Sundown Slim, who never used a short word when a long one would do. When the idea came up that the ballad publishers ought to print a newspaper with a hobo twist, Slim was especially enthusiastic. The others soon joined in.

"I've got it!" Slim yelled. "I celebrate that the paper should be called 'The Hobo News'."

And it was.

The first edition was a single sheet folded to make eight pages. The paper was a screaming yellow. The headline, which took up half the front page, was "Fair to Fair With No Fare." It told hobos how to bum their way across the country for the forthcoming expositions at New York and San Francisco without spending anything for a railroad ticket. Dan O'Brien, whose long white beard had earned him the title of "The Bernard Shaw of the 'Bos,'" was the author, writing from rich personal experience.

A number of excellent cartoons and jokes studded the first issue — good because they had been nonchalantly lifted from the best magazines. Even now Pat laughs when he thinks of how freely he used his scissors in those early days. "And why not?"

he asks. "The best at any price — and no price, so much the better."

Loaded down with 1,000 copies of their new paper, laboriously run off on the little press, Pat and Boomer and their friends began hawking the sheet in Union Square, Columbus Circle, Broadway, the Bowery, city parks, and wherever gentlemen of leisure might be found. Copies sold for ten cents each, and went like a four-star extra.

Everyone relaxed after the first flush of success. They had money in their pockets. Editions were published only when Pat and the rest felt in the mood, seldom more than once every three months. It was simply too much work.

Within a year, however, the pattern of the paper's future was reasonably well established — a lot of cartoons and jokes lifted from magazines and other newspapers, a generous emphasis on pictures of young ladies clad in a minimum of garments, racy sketches about one thing or another, occasional poetry, and, of course, articles and drawings about hobos and life in the open spaces.

New Printing Press

The Hobo News sold so well and the dimes piled up so rapidly that Pat and Boomer bought a new printing press for \$3,200, paying \$400 down. As time went on, they began to talk about other fields to conquer outside New York. They decided on Chicago. Armed with an untouchable thing called a Pullman ticket, Boomer set out for the Windy City, taking with him 10,000 copies of the paper.

Threadbare clothes and down-at-the-heel shoes helped Boomer make the familiar rounds of Chicago's flophouses without attracting undue attention. He casually jingled a pocketful of \$20 or so in quarters,

nickels and dimes under the noses of the city's destitute. When they asked how he happened to have so much money, Boomer simply replied, "By selling that screwball paper, *The Hobo News*, of course." He signed up salesmen by the dozen, and disposed of his 10,000 copies in no time. Today one former rod-riding hobo distributor in Chicago is rich enough never to travel any way except by plane — and he pays his fare.

The same circulation-building stunt was tried in other cities. Later on, Pat and Boomer made arrangements with regular newspaper distributing agencies to handle deliveries from New York. But aside from newsstand sales, *The Hobo News* is peddled by the same hobos who always have been the backbone of the paper's circulation department.

Cheered by their success in the national field, Pat and Boomer, who by this time had formed a kind of partnership, set out to go to town with their newspaper. Editions began to appear once a month. Pat bought articles, poems and cartoons from hobos and struggling young writers down on their luck. No one knows just how it happened, but when word got around that the paper was buying free-lance stuff, contributions also started to come in from would-be artists, writers, and gag men in jails all over the country. Pat estimates that 20 per cent of his present 150 correspondents are under lock and key. He's proud of the fact that wardens have given his paper credit for helping in the rehabilitation of some prisoners.

Circulation continued to climb toward the 50,000 mark. By the fall of 1940, the sheet had outgrown its little basement apartment on West 17th Street. One day Pat asked Harry Baronian, his promotion man, how much money they had in

the bank. When Harry told him \$18,000, Pat couldn't believe it. Then, taking a deep breath, he said, "We're going to move uptown. Uptown and spread out among the swells."

It wasn't long before *The Hobo News* had its own plant and offices at 105 West 52nd Street, on the edge of the city's nightclub belt. A canopy stretched over the sidewalk. A red neon sign blazed the paper's name to passers-by. To all who stopped to look, there was the paper's slogan in gold letters across the plate glass window — "A Little Fun to Match the Sorrow." The prosperous little tabloid now came out twice a month.

Four years later, Pat put up \$100,000, all of it in cash, and moved to still larger quarters a few doors away at 115-119 West 52nd Street. That's where *The Hobo News* is published today as a weekly.

In spite of its fancier home, the paper is much the same as it has always been. Pat and Boomer, their editor, Cliff Mack, and Fred Marshall, circulation manager, are much too shrewd to forget the ingredients of the frothy recipe that swelled the circulation to a high of 123,000 before newsprint allotments were cut. The only changes have been in the improvement of the contents.

The paper pays more now for its articles and cartoons, and has signed up more writers with professional experience. Editor Mack is a former *Time* magazine and *New York Mirror* man. Pretty Georgina Campbell, who wrote a lively, informative and semi-philosophical column called "The Wandering Mind," used to work for *Town and Country*. Once she interviewed Lord Halifax, who confessed on the front page that he's a hobo too, because he "roves about and lives away from home." Next she interviewed Tom-

my Manville, and married him—and so today there is a new "Wandering Mind," Ann Suplock.

Jack Kennedy's Broadway column is as flippantly chatty as those appearing in more orthodox journals. A good many readers used to pore over the late Jack Harris' tips on horses, written in a pithy, slang-studded style. One of the best regular features about hobos is the Chicago Kid's "Hobo Days," a series of whimsical and nostalgic reminiscences of life on the road.

Loafing Theme Popular

A good deal of the humor in *The Hobo News* stems from its play on inertia, like the drawing of a swash-buckling wife lecturing to her husband who is reclining on a couch. "John," says the missus, "I wish scientists would discover a way of splitting you and releasing your energy!" Another favorite cartoon subject, naturally enough, is the predicament of hobos hitching rides on freights, trying to grub meals, and having brushes with The Law.

The articles, poems and anecdotes are an odd assortment of humor, uplift, patriotism, romance and adventure. Readers are warned that "love will die sooner from surfeit than from starvation." A typical squib

advises people, with a nice moral pat, to "choose a goal somewhat above your present capacity, but not impossible to attain." Cheek by jowl with a rib-tickling story about dishwashing in Albuquerque will be a ballad about the evils of drink, a crack at the housing shortage, and the observation that "if we don't give away our 'atoms' we'll always have pleasant 'eves'."

The Hobo News seldom bothers to print news as such — it has always paid little or no attention to events of the day. But before the war, when Pat bought an article called "To Hell with Hitler," it gave him an idea. He splashed the title all over the front page. Whenever the Nazi dictator perpetrated a particularly flagrant crime, Pat yanked the headline out and used it over again. He therefore claims the distinction of being the first editor to repeat a headline. He still repeats stories and cartoons he particularly likes.

Pat thinks his best idea during the war was the one he used after Italy surrendered. The front page carried pictures of Mussolini, Hitler and Hirohito, with a big "X" through Il Duce's photo. The caption was "One Down, Two to Go." The same idea was picked up by others news-

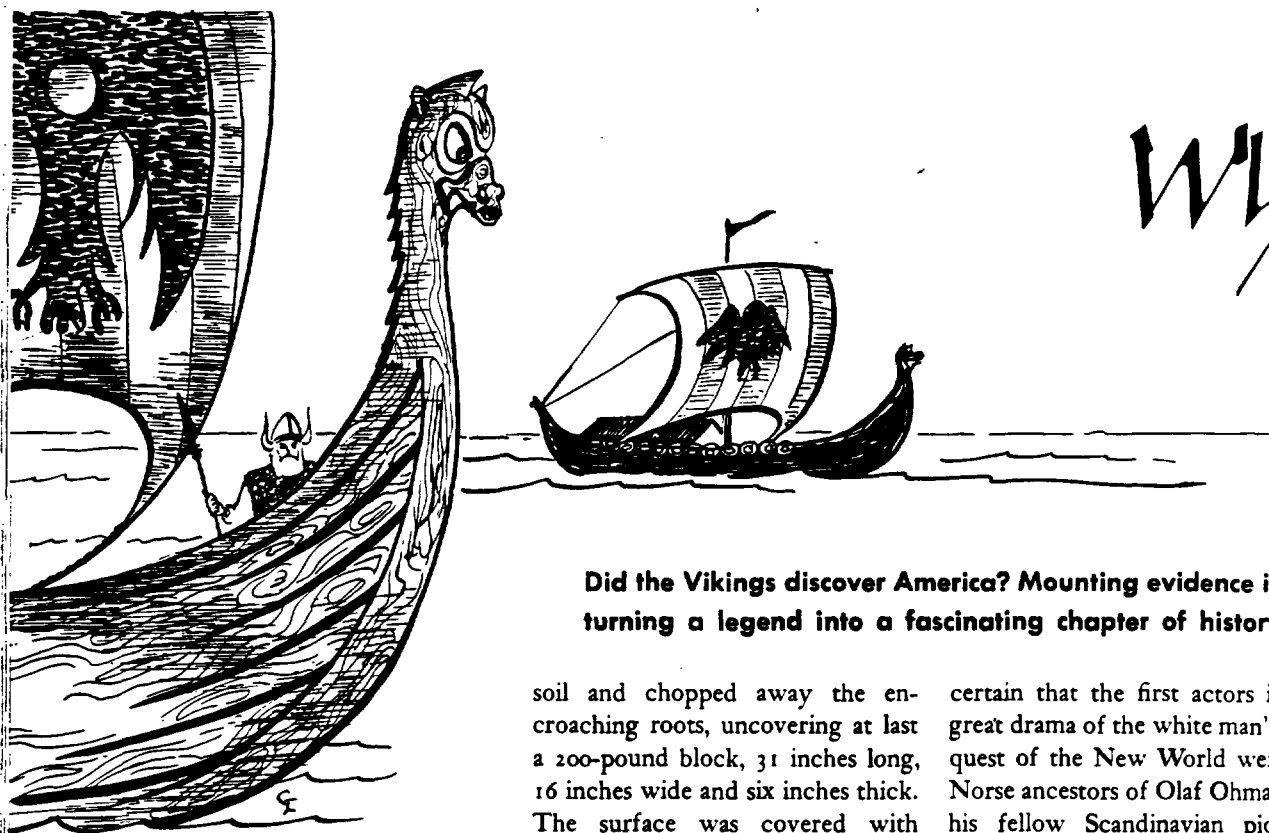
(Continued on page 26)

*The freights roll by while
this hobo enjoys his paper*

ETC 23898



When



By John E. Kelly

IT WAS HOT that summer day in 1898 as Olaf Ohman, a rugged Scandinavian immigrant, cleared away the land for his new farm in frontier Douglas County, Minnesota. Sweat rolled off his broad back. Perhaps he wondered whether he'd been a fool to leave the Old Country for this wilderness, where he'd had to work harder than ever before in his life. And yet America was a land where everybody was supposed to get rich, and where a pot of gold awaited every fortune seeker.

His axe bit into a ten-inch poplar growing on a knoll, the white chips flying in all directions. The tree shuddered, swayed and fell with a crash into the underbrush. Olaf leaned on his axe-handle for a few moments to catch his breath. Then he noticed in the loose earth around the stump the corner of a roughly squared stone.

Curious at first but with growing excitement, Olaf scraped aside the

Did the Vikings discover America? Mounting evidence is turning a legend into a fascinating chapter of history

soil and chopped away the encroaching roots, uncovering at last a 200-pound block, 31 inches long, 16 inches wide and six inches thick. The surface was covered with strange hieroglyphics.

Olaf's ice-blue eyes danced. The sweat on his forehead came from more than the midsummer sun. Buried treasure! Someone had hidden a chest of gold! What else could this strange marker mean? The stories about America were true!

Armed with pick and shovel, the frantic farmer made the dirt fly. Hours later, bitter with disappointment, Olaf had to admit that no pot of gold was buried here. An empty hole in the ground was all he had to show for his trouble.

But the stone that hid no gold for Olaf has since proved to be of priceless value. For it is one of many clues which have convinced many historians that Columbus was really a Johnny-come-lately to America. Today it is almost indisputable that the first Europeans to set foot on North America landed nearly 500 years before the Captain from Genoa, leaving behind them inscribed stones and other indelible relics.

Oddly enough, it is also just as

certain that the first actors in the great drama of the white man's conquest of the New World were the Norse ancestors of Olaf Ohman and his fellow Scandinavian pioneers who came to build their homes in the same territory, centering around the Great Lakes, once explored by the Vikings.

Shortly after his discovery, Olaf took his stone to the neighboring town of Kensington. Here someone remarked that the curious inscription was like ancient Scandinavian writing known as runes. Interest in the tablet soon spread to learned circles.

Experts here and abroad looked down their noses at the "discovery," claiming that the stone could not possibly have been carved by early Norsemen. Minnesota, they contended, was too far away from the coast, where wandering Nordic seafarers might have landed.

The year, 1362, was inscribed on the stone in a strange hieroglyphic. Carefully inspecting this, archaeologists like Hjalmar R. Holand of Ephraim, Wisconsin, traced it to the same form of runic writings used in certain districts of Norway and Sweden during the fourteenth century. Since then the doubting

the Dragon Ships Came

Thomases have had much less to say.

The inscription on the Kensington stone tells a laconic story of disaster to a group of Norse explorers nearly 600 years ago. Some of them had gone fishing, and when they returned to their camp they found "ten of our men bloody and dead." Presumably the victims had been massacred by Indians. This is believed to be the first written account of a tragedy that was to be repeated so many times in the later colonization of our country.

Civilization as we think of it was

primitive enough in the Norway and Sweden of those forgotten days, but it was certainly more advanced than the civilization of the Indians. The red men could not write. The Norsemen could and did. The runic symbols of Scandinavia can be traced to several ancient alphabets, including the writings of the Phoenicians. Other characters come from letters on early Greek and Roman coins.

The Kensington stone was by no means the first Norse relic discovered in North America, nor was it the first to have its authenticity

challenged. One of the earliest was a small oval slab of sandstone unearthed by Abelard B. Tomlinson in an upper vault of the great prehistoric Indian mound at Grave Creek, Moundsville, West Virginia, in 1838.

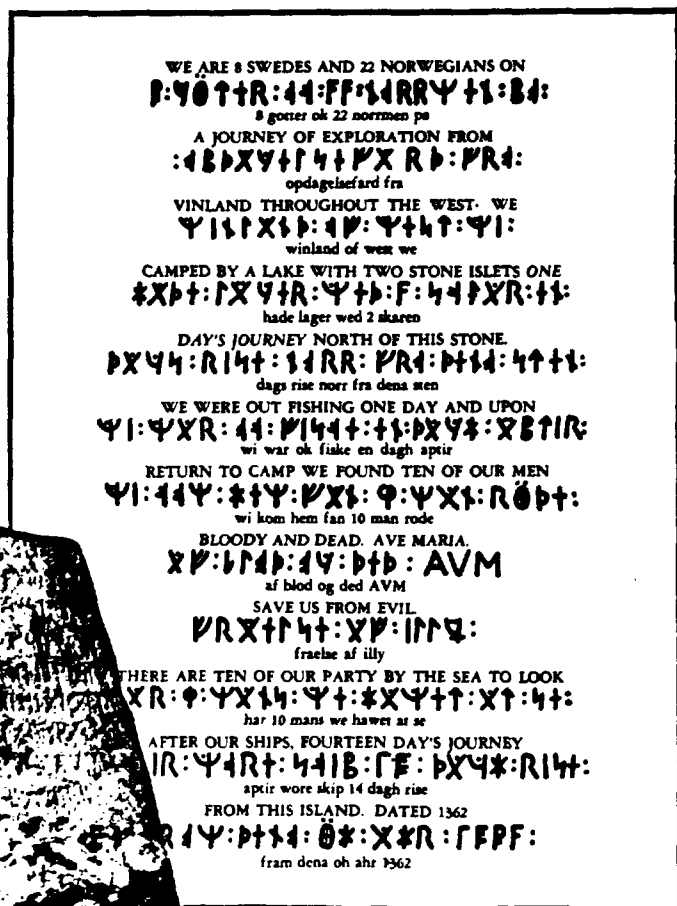
About the size of a hen's egg, the stone bears a runic inscription recounting a religious observance by Norse explorers in the eleventh century. For years the experts scratched their heads, wondering how a tablet of this kind, if it were genuine, ever found its way into a mound obviously built by Indians. Since then at least four more similar tablets have been dug up in Indian mounds in the same area.

Later excavations in the Middle West, also at Indian mounds which were built long before the English or French or even the Spanish came, have brought to light many more articles undoubtedly of European manufacture. Copper kettles, silver bands, axes, and knives with antler handles fashioned in the Norse manner have been discovered buried next to Indian relics.

How can these circumstances be explained?

To the red men the mounds were sacred places, graves, sanctuaries and safe deposits, all in one. It was the Indians' custom to bury there mementos of valorous enemies. It is a natural assumption that the weapons, implements and inscribed stones of the fierce Norsemen would have been highly prized souvenirs of battle.

During the past hundred years, many more relics have been found over a wide area along both sides of



WE ARE 8 SWEDES AND 22 NORWEGIANS ON
P: 40 T + R: 44 FF: 61 RRY + 1: 84:

8 goster ok 22 norrmenn pa

A JOURNEY OF EXPLORATION FROM
: 45 bXY + 1: 4 + PX Rb: PR4:

opdagelaefard fra

VINLAND THROUGHOUT THE WEST. WE
Y 1 1 b X 1 b: 4 P: Y + 4 t: Y 1:

winland of west we

CAMPED BY A LAKE WITH TWO STONE ISLETS ONE
*Xb +: 1X4 + R: Y + b: F: 44 bXR: 11:

hade lager wed 2 skaren

DAY'S JOURNEY NORTH OF THIS STONE
PX44: R14 +: 11 RR: PR4: b11: 4t + 1:

dags riae norr fra dena men

WE WERE OUT FISHING ONE DAY AND UPON
Y 1: YXR: 44: P14 +: 11: bXY4: XbTIR:

vi var ok fiske en dagh apir

RETURN TO CAMP WE FOUND TEN OF OUR MEN
Y 1: 44 Y: *1 Y: PX1: 9: YX1: ROb +:

vi kom hem fan 10 man rode

BLOODY AND DEAD. AVE MARIA.

X P: 61 b: 44: b + b: AVM

af blod og ded AVM

SAVE US FROM EVIL

PRX + 1: 4 +: X P: 11 RQ:

frælae af illy

THERE ARE TEN OF OUR PARTY BY THE SEA TO LOOK
XR: 9: YX14: Y +: *XY + 1: X +: 4t:

har 10 mans we hawet at se

AFTER OUR SHIPS, FOURTEEN DAY'S JOURNEY
IR: Y4R +: 441 B: RF: bXY4: R14 +:

apir wore skip 14 dagh riae

FROM THIS ISLAND. DATED 1362
1 Y: P1 + 1: 0: X XR: RFPF:

fram dena ok ahr 1362

The Kensington Stone tells how
Norse explorers were massacred



The Indian mound at Grave Creek, W. Va., where a tablet with Norse writing (inset) was discovered. Many Viking weapons have been found in the Middle West

the Great Lakes and around the headwaters of the Mississippi. A large number of these relics were once used by Norse warriors.

Weapon for weapon, they are identical with Scandinavian arms preserved in European museums. They also vary among themselves as types in use from the eleventh to the fourteenth centuries, the exact period when the Norse settlements in Western Greenland were sending out parties to explore Leif Ericssons' glimpsed "Vinland the Good."

A year after the discovery of the Kensington stone, Nels Windjue unearthed a fourteenth century spearhead in good condition in Trempealeau County, Wisconsin, 40 miles east of the Mississippi. Hans O. Hanson, a farmer of Ulen in Clay County, Minnesota, found a thirteenth century sword in 1911. Ted H. Field, a Madison, Wisconsin, attorney, owns a Norse battle-axe, found at Kensington, and of a type in use during the same period that the Kensington stone was inscribed.

New discoveries are continuing. In 1930, J. E. Dodd was working



his mining claim at Beardsmore, Ontario, north of Lake Superior. As he started to sink a shaft at the foot of a hill marked by a strong vein of white quartz, his pick struck a great two-handed sword with its blade snapped in half, an axe-head, and the metal handle of a shield. The relics date from the eleventh century. They were probably buried with a fallen Norse warrior.

And only last summer, Richard S. Sackett, field director for the Minnesota Historical Society, announced that he will lead an expedition to a Red River valley swamp near Fargo, North Dakota, where a Viking ship is said to be lodged. The ship has been described and its location plotted by Vernon Jampsa, of Minneapolis, an oil company engineer, who said he found the ancient craft in 1914 when he was a boy.

Hardy, rough and fearless, the early stalwart Nordic adventurers must have come to North America via Greenland. There the Scandinavians had established two colonies of several thousand people in 985 A. D., when the climate is believed to have been somewhat warmer than it is today. The settlement at the southern tip of the coast existed until at least 1432. The second colony, on the west coast at Vesterbygd, prospered until about 1342.

In some year around 1000 A. D., the explorer Leif Ericsson was blown off his course by a gale, and so instead of landing in Greenland, he discovered the mainland of America, which he named Vinland for the grapes he found growing everywhere. Others followed his lead, and a small settlement was established, but it was abandoned three years later because of the hostility of the Indians. Various sites from Labrador to Rhode Island have been claimed as the Norse landfall.

Leif Ericsson's discovery must have whetted the imaginations of more than a few Greenland settlers. Sagas relate that the way to the New World from the Greenland outposts was through a narrow channel of mountainous seas and swirling currents, a place of "insupportable ice and boundless gloom." This was obviously Hudson Strait, whose Atlantic mouth was nearly opposite Vesterbygd. A number of the more adventurous colonists, however, were willing to risk the passage to find the warm, lush land to the south and west.

How many of these pioneers returned to Greenland with tales of vast forests, rolling hills, boundless lakes and mighty rivers, we do not know. We do know, however, that when King Magnus Erickson, lord of Sweden and Norway, sent an expedition to Vesterbygd in 1354 to put an end to religious dissension, the community was deserted. Other settlers reported that the colonists had "sailed to join the people of Vinland." Many years later, on the southern shore of James Bay, explorers found blue-eyed "white Indians," possibly the descendants of Vesterbygd settlers.

The leader of the King's expedition of 1354 was Paul Knutson, a prominent courtier. Some historians trace his course in search of the Vesterbygd colonists through Hudson Bay, up the Nelson River, and across Lake Winnipeg and lesser waterways to the region of the Great Lakes. One theory is that the Kensington stone was inscribed by a member of his party. Other Norse expeditions to the mid-continent area probably found their way via Hudson Bay too.

At any rate, the first French and English explorers in the Great Lakes region found their white skins and strange clothes no novelties to the

Indians. "Men in wooden boats" had been there before. Jean Nicolet, in the service of Champlain, heard of "men of the sea" when he reached Wisconsin in 1634. A Winnebago Indian legend told of bearded whites who had come down from the north, ages before, to battle the red men. In upper New York State, where Norse relics have been uncovered, the Six Nations had a fearful memory of the "Stone Men."

Manpower and Gunpowder

If the Northmen came to mid-America, why did they fail to conquer and colonize the new lands? The answer lies principally in two words: manpower and gunpowder.

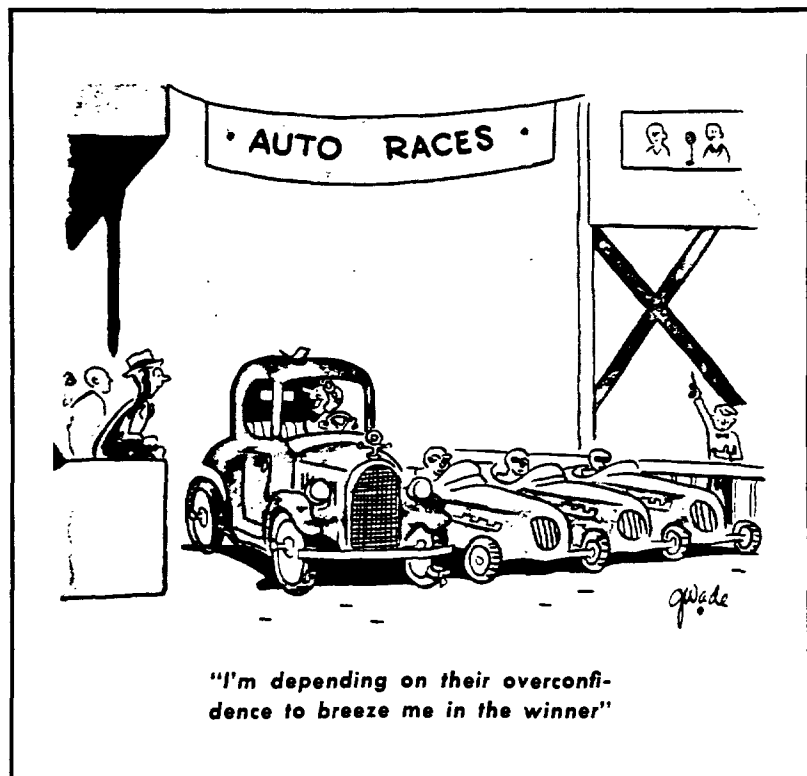
As Scandinavian seapower declined, the Norse kings lost interest in their American colonies, sending only one ship a year to Greenland. Troubles at home eclipsed thoughts of empire. Plague decimated the people — the Black Death in Europe

and smallpox in the Arctic. No reinforcements came to help the little groups continuously battling well-armed savages.

When the Spaniards, French and English landed, they had firearms. It was relatively easy for them to beat back the Indians with such superior weapons. The earlier Norsemen, although well armed with lances, battle-axes and spears, were no better equipped than the Indians, and of course vastly outnumbered.

Horses, too, played their part. Mounted Spanish warriors under Cortez in Mexico terrified the Aztecs. If the Norsemen had been in the saddle instead of coming up rivers and across lakes in their lean dragon-ships, their story might have ended differently.

The Norse invasion came too soon. Otherwise we might be living today in a country called "Vinland the Good."





ICE CREAM SODAS FROM THE SEA

By North Clarey

ROY JOHNSON STOOD at the little dock watching the dory come in. It was a grey dory, high-sided, and deep in the water with its load. The fisherman rowing it was lean and weathered, dressed in a nondescript plaid flannel shirt and high rubber boots — the trademark of the Maine waterfront man. He stood up to row, bending forward against the oars. Without raising his voice he spoke across the water: "Fine mo'ning, Roy."

Roy raised his hand to answer, appraising the load in the dory. Twelve hundred pounds, looked like. Twelve hundred pounds of slippery, greenish-brown seaweed. Worth \$24 delivered to the dock.

Why?

That's what the fisherman asked, as he and Johnson turned away from the dock, toward the office building to collect his check. "Been sellin' sea moss to yuh five-six weeks now, Roy. What d' y' do with it?"

The other man — in a blue business suit, stocky of build, silver hair trimmed short — turned a wry and friendly smile to him. He made a start on the telling of it, then interrupted himself.

"No, wait," he said. "Might's well start at the very beginning." And pointing along a narrow peninsula of white beach where they stood, with the Atlantic on one side, and a little inlet on the other, he unfolded the story of an infant industry with a fascinating future — extracting money from the sea.

The sea moss, for which fishermen collect two cents per pound, is washed and re-washed in wooden tubs (above)

Below, odd-looking wheelbarrows cart the clean seaweed to fields for sun-drying. Washing and drying require five days



Now used chiefly to improve ice cream and syrups, the gummy fluid of a seaweed found off Maine soon may be added to foods and drugs

The peninsula is at Small Point, Maine, near the community of Bath — but if it were at Kure's Beach in North Carolina there would be many striking points of similarity with the Ethyl-Dow plant there, where bromine was first commercially extracted from the sea. There is a pumping station which takes sea water from the ocean side and supplies it to processing vats. From these it flows into the inlet across the peninsula. The raw material comes from the ocean (although it is a marine growth rather than the water itself), and the finished product is used as an additive to improve other liquids in widespread commercial use. The sea moss company is a subsidiary whose entire output of the marine growth goes to the parent organization.

Acts As a Binder

The raw material is carrageen: a short, fringy, tenacious variety of seaweed known as "sea moss." And the liquid it is used mostly to improve is chocolate syrup.

Certain food products like ice cream or soda fountain syrups need a binder, a sort of emulsifying agent to keep them in suspension so the tiny floating particles in the mixture won't settle to the bottom. Research men looked everywhere for something to act as a binder and a preservative. They finally found it in Maine — under water. Sea moss contains a gummy fluid just as trees contain sap. On the Irish coast, housewives have used it for a hundred years in cooking or making home remedies. On our own West Coast, a somewhat similar gum is being ex-

tracted from a seaweed called kelp.

At Small Point, on that strip of sandy peninsula barely four feet above water at high tide, a new American industry is being born. At present all moss treated at the plant, known as Marine Growths, Inc., goes to the firm which owns it — Bowey's, Inc., manufacturer of soda fountain supplies. In its first experimental season, the plant processed 60,000 pounds of wet moss. Next year it is aiming at more than three million pounds.

In time, if enough moss can be gathered and dried, there will be dozens of new uses for that extra carrageen gum — in cheese, ice cream, facial creams, and even medicines. There is a practical possibility, for instance, that it will replace agar in the drug, dental and food fields. For years the Japanese supplied us with most of our agar; the American industry is just getting started.

In Maine, Irish moss is gathered by local fishermen using long-handled rakes specially designed of wrought iron — broad, flat, comb-like, 15 to 18 inches across. Working at low tide, when they can reach the moss, they tear it from rocks and ledges (submerged islands) in the cold coastal waters that produce the world's tastiest lobsters. When the tide gets too high, they row the moss over to Small Point and collect two cents a pound for it. A beginner may get 300 pounds on one tide; a good mosser may fill his boat with 1,200 to 1,500 pounds.

The fisherman's big boots clumped slowly along the boardwalk as he and Johnson moved up the beach. He pulled out a cigarette and observed, "Roy, that's int'restin'. But what d' y' do with it hee-ah?" His talk was the mixture of clipped and drawled syllables you hear "down east" so often.

During drying, the seaweed must be raked and turned every few hours. A sudden rainfall would spoil this field of moss



Johnson chuckled and pointed to the beach, where a rectangle the size of a tennis court was covered with blackish, crisp-looking seaweed. "That's black-dried — what your load'll look like after a day's drying. Then we dump it in those wooden tubs you see along here, for washing in salt water. Then it's spread out and dried again, washed again, dried again — a five-day job. The final dryings are on canvas, to keep the sand out. And every few hours we have to rake it, turn it over for the sun to get to it. There's an art." He picked up a handful from the end of the drying-line. It was pale amber — ready for hand-picking, to remove foreign growths or shells, then baling up for shipment.

The fisherman puffed his cigarette, watching the beach crews at work — some raking, some carrying the moss to the washing tanks in jumbo-tired, basket-like wheelbarrows, dumping it out for drying again. Most of them were high school youngsters or war veterans. One of the best rakers was an attractive, light-haired girl in dungarees.

"Whole thing seems mighty simple," he decided. "Sounds like a good idee-ah."

"Yes, guess it sounds so." The manager scratched his silver hair. "Actually, it's durned far from it. See that big cloud over east? If the wind should swing around and bring that rain over here, I'll lose a thousand dollars this afternoon." Pointing to a patch of whitish-looking moss ahead of them, he explained that rain or fresh water will bleach carrageen to a translucent, milky blue-white in just one soaking. The bleaching part of it is fine — but fresh water unseals the pods of the moss and lets the gum run out, like a tree bleeding after a cut.

There's also the problem of supply, he added with a grin.

Fishermen are fishermen, and it takes a lot of convincing (usually several weeks of poor hauls) to make them forget fishing temporarily and go poking around in a skiff, raking up seaweed. They can work only for about four hours, at low tide, when the underwater plant they want is near the surface. They have to use a special rake, which means laying out about \$10 at the start. Their boats, moreover, must be scrubbed clean of oil or fish.

Must Work With the Tide

These mossers cannot work a sandy, muddy or stony bottom — just rocks and ledges — or the moss will be full of loose gravel, stone and grit. Boats can be brought in at the wharf to unload only during the flood tide, when the inlet is full. Moss won't keep more than 24 to 36 hours without being dried; it will heat up and decompose in its own juice. So if a man is too distant or misses the tide for delivery, he must "black-dry" it himself along some clean beach, preferably on canvas, then cover it or move it inside a clean shed at night to make certain no rain falls on his haul. And to cap it all, the moss can be gathered and processed only about four months of the year.

How much can an experienced mosser make in a season? That depends on how long he stays with it. One of the best gatherers cleared \$150 one week — then the herring started to run again, and he was off after them.

"Seems we give you a lot of trouble, Roy," said the man in the big boots.

"Seems you do," grinned the plant manager. "But that ain't near the end of our trouble."

He told a little about the actual extraction problems, after the dry moss had been delivered to the plant

company. There are two techniques for removing the sap — a mechanical process using filter presses, and a chemical process in which the precious gum is dissolved out in alcohol, then precipitated. Both are full of technical headaches.

Throughout the operation, the gum is highly unstable. After it is dried to a flaky powder and stored, it still is highly unstable. Then it is added to a perishable, unstable food product such as chocolate syrup, and Presto! it becomes a different thing. Not just an emulsifier, an efficient binder — but a wonderful stabilizing agent itself.

The two men paused at an open door in the last shed along the line. Inside, under electric lights and practically hemmed in with a mountain of dried carrageen, a half dozen middle-aged women stood alongside a moving conveyor belt. Past their eyes traveled an endless supply of moss. Their hands darted into it, scuffed it, came out triumphantly with foreign matter that had escaped the washing — other growths such as "green hair" or "foxtail," and more shells. Young men scooped the cleaned product from the floor with blunted pitchforks and piled it up on the looming mountain. At the same time, others were digging away the other side of the mountain. Into bales the moss went, and the men stamped it down to pack it tight.

"All ready to be shipped," said the manager.

"And paid for," observed the fisherman.

"Let's get your pay, while we're at it," said the manager. "You'll have a nice check this week."

"That's good, Roy," said the fisherman. "I can use a good check. The mackerel are runnin' again. I'm goin' out for them, and I might be a couple weeks without much money."

The motorcycle once more is a peacetime business and sport machine after faithful service in the war

BACK AT THE TURN of the century, when the automobile industry was in its infancy, another gasoline-burning "contraption on wheels" was born in a quiet New England college town. This latter transportation baby—the American motorcycle—and the automobile since have experienced parallel growths in many respects, not the least of which was their common success in overcoming the doubt and suspicion which attended their introduction to a public still unused to any but horse-drawn vehicles.



Typical of the many female motorcycling enthusiasts is the lady rider shown above

MOTORCYCLES ARE BACK

By Hiram K. Smith, Jr.

Today, the motorcycle is a veteran of two world wars and almost half a century of peacetime service. It served faithfully in the recent conflict as a vehicle for Military Police work, dispatch and messenger service, scouting, convoy escorting, and general transportation. Its speed, its maneuverability, its "gradability" and its compactness made the motorcycle an indispensable machine in whatever climate and under whatever conditions our land forces fought.

The reconversion period finds thousands of new devotees to motorcycling anxiously awaiting the day when supply equals demand so they can fulfill a newborn desire to own a modern version of the "bicycle built for two." Too, on the basis of its years of dependable service, the motorcycle is being evaluated anew by many businessmen as the possible solution to their special problems of pickup, delivery and courier-communications, especially

in metropolitan cities and other heavy traffic areas.

All over the country, membership in motorcycle clubs is mounting so rapidly that it is virtually impossible to obtain an accurate count. The most reliable estimate is that the total of both men and women riders is increasing at the rate of about 10 per cent annually.

Two years ago, motorcycles registered in this country totaled 165,675. By last year, the figure was close to the 200,000 unit mark. The majority of these motorcycles, of course, was used for sport and pleasure, although a substantial percentage was in the service of commercial establishments, law enforcement agencies, and other non-pleasure users.

As a vehicle for commercial use, the motorcycle has much to offer in the way of economy, safety, speed and reliability. It is inexpensive to operate and upkeep cost is relatively low. It is easily handled. It possesses

the stamina required for long-distance runs. And it is of such size and construction that it can wiggle and dart through traffic with comparative ease, or, at the other extreme, travel terrain that might prove impassable for other vehicles.

Oddly enough, all these qualities which make the motorcycle so attractive to police departments and business houses have been developed by riders who use the machine solely as a sport mount. Approximately 70 per cent of all motorcycles licensed in the United States belong to individuals who make riding for sport their chief avocation, and it is from the performance of their "wheels" in hillclimbs, cross-country runs, closed track races and the like that engineers have compiled most of their data for improving the vehicle.

According to an official of one of the country's two major motorcycle manufacturing concerns, the motorcycle was so far advanced as a result of pre-war testing and

checking in sport competition that wartime research failed to develop any changes that might be incorporated in his company's 1946 models.

The motorcycle used by the armed forces in the past war differed in some respects from the peacetime sport model, but these changes were made to conform to military specifications only and do not portend any radical departure in the style or construction of future civilian models.

One of the more important wartime developments was that of equipment to suppress ignition systems. Motorcycles, tanks and armored cars operated in close cooperation with one another in combat,

and it was essential that motorcycle ignition systems operate as quietly as possible so they would not interfere with radio reception in other military vehicles or prove traceable through enemy radio detection devices.

To many people, the motorcycle looks like a glorified bicycle with a motor attached. Actually, it is far more than that. But, interestingly enough, the American motorcycle owes its existence to the bicycle in more ways than one, for it was professional bicycle riding that led to the development of the first practical motorbike.

In the 1890's, bicycle racing was the rage in America. Race promo-

ters, ever seeking to stage better races and new attractions, hit upon the idea of employing motorcycles as "pacers" to break the wind for competing bicyclists, thereby enhancing the possibility of a new record being set. Motorcycles were practically unheard of in the United States at that time, but some motor-powered bicycles had made their appearance in Europe. Usually the small gasoline motors failed to run either well or long. Of those that did work, the French-made DeDion was considered the best.

Motorcycles for pacing were imported from the Continent, but rather than speeding up bicycle racing and making the competition more interesting, they actually slowed down the competitors and confused the onlookers. The cycles with motors suffered so many breakdowns that the spectator became befuddled by an ever-changing parade of pacers in each race. Further, the bicycle rider usually overhauled his pacer and finished the race unaided.

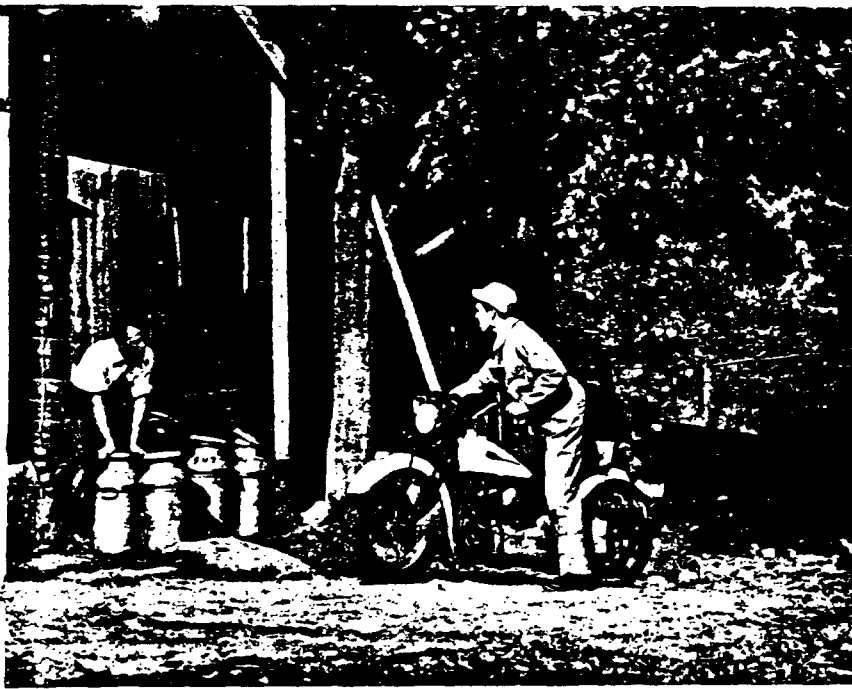
The failure of foreign motorbikes to perform efficiently turned Carl Oscar Hedstrom, one of the top-ranking professional bicycle riders of the day, to the task of designing a gasoline engine that would power the two-wheelers satisfactorily. Together with a riding mate, Hedstrom had used a tandem powered by a DeDion motor with more than average success in pacing, but he saw much room for improvement in the French-made engine.

Hedstrom set about constructing a machine of his own, and in December, 1899, completed the "bike." He took it to New York, and during the 1900 bicycle racing season at the old Madison Square Garden it performed with signal success as a pacing vehicle.

A bicycle manufacturer, George Hendee, became so impressed with

During the recent war, motorcycles were used not only as messenger vehicles, but for convoy and escort work as well





Motorcycles daily serve many useful purposes in rural areas, due to their ability to travel over almost any kind of terrain

Men and women from all walks of life, such as movie stars Robert Taylor and Barbara Stanwyck (below), are "bike" fans

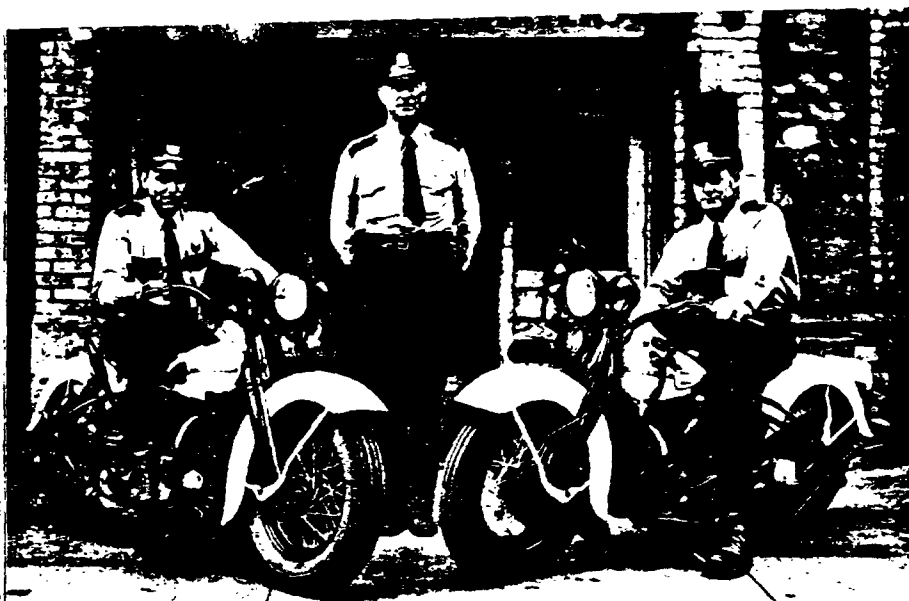


Hedstrom's motorbike that he induced Hedstrom to develop a single-seat motor-driven "bike" that could be produced in volume — not for pacemaking but for general sale to the public.

All through the winter of 1900-01, in a shop in his home town of Middletown, Connecticut, Hedstrom worked on his motorcycle. Finally, when the engine was finished, he assembled it to a bicycle frame, tested it successfully, and then shipped it off to the plant of the Hendee Manufacturing Company (now the Indian Motorcycle Company) in Springfield, Massachusetts. There, the machine was tested again, this time publicly with Hedstrom in the saddle. The puny one-and-three-quarters horsepower engine was a far cry from the modern motor, but it was strong enough to take the "bike" up hills without pedaling. To Hendee and Hedstrom, public response was enthusiastic enough to warrant putting the machine into production.

Their motorcycle was given the name "Indian," and in the first year of manufacture, 1901, three machines were produced. The following year the company made 143 motorcycles. During this time, two Milwaukee friends, William S. Harley and Arthur Davidson, had been perfecting a vehicle of their own design. They formed a partnership and in 1903 began commercial production of the Harley-Davidson motorcycle.

Indian and Harley-Davidson now are the only two popular makes manufactured in the United States, but such was far from being the case at one time. During the decade ending 1912, no less than 30 to 50 different manufacturers entered the market as the success of the motorcycle became assured. For any one of several reasons, most of them de-



**Famed in fact and fiction is the American "motorcycle cop."
Police use the mounts primarily for traffic and patrol duties.**

parted from the scene almost as quickly as they had arrived on it. The majority of these ill-fated companies produced standard mounts, but the variety of vehicles manufactured by them ran the gamut from three-wheelers designed especially for gentlewomen to monsters created for the "daredevil" type of rider.

Motorcycle racing, as a sport, came into prominence as soon as the first machines were produced, and many of the early records were set by men who later achieved fame in automobile and airplane racing.

In 1904, Glenn Curtiss, the pioneer aircraftsman, established a speed mark of 10 miles in eight minutes 54 1/5 seconds—a record that stood until 1911. Curtiss also once held the distinction of having traveled one mile straightaway faster than any other motorcycle rider in history. He covered the mile in 26.40 seconds, or a little more than 136 mph, using a home-made machine. Curtiss undertook the sprint as a means of testing an eight-cylinder airplane engine he had just designed. The engine was installed in a reinforced motorcycle frame, and Curtiss literally flew over the course at Ormond Beach, Florida.

Thirty years later, speedster Joe Petrali bettered Curtiss' time for the one mile straightaway, and it is his mark that is recognized nationally. Mounted on a stripped-down standard make machine, Petrali did the mile in 26.07 seconds. His run was made in 1937 on the famous white sand course at Daytona Beach, Florida, where Sir Malcolm Campbell and others have set racing car speed records.

In motorcycle racing, riders are classified according to their experience and equipment. Class A and B equipment is of professional and special design, while Class C machines are stock. Riders in Class C are rated as expert, amateur or novice, and may compete in most of the many different types of motorcycle competition. Among other events, cross-country runs and tourist trophy races are open to riders of stock machines. The tourist trophy event is conducted on a permanent course laid out to simulate almost every possible riding condition and situation.

Hillclimbing is one of the most popular and grueling tests of both rider and machine stamina, and much technical information has been gained from competitions of this

nature. Wherever the hillclimbers are in action—on inclines like those near Muskegon, Michigan; Hornell, New York; and Rock Island, Illinois—there too is a crowd, seeking some of the biggest thrills in the entire world of sports.

Motorcyclists who ride for pleasure are among the safest drivers on the highway, and are noted specifically for their consistency in giving the proper hand signals. In 1942, members of 442 of the nation's motorcycle clubs compiled the enviable record of only one accident in every 315,459 miles of driving.

Aside from the operator himself, there are many reasons for motorcycle safety on the road. The chief factor undoubtedly is that cyclists have unobstructed vision in all directions at all times.

Motorcycle enthusiasts include men and women from many walks of life and of all ages. Roy Rogers, the cowboy motion picture star, is an old hand at the game, as is orchestra leader Vaughn Monroe. The famed pianist-conductor, Jose Iturbi, is another avid rider.

The appeal of the motorcycle is strong, and for tens of thousands of men and women there is no thrill equal to that of motorcycling along the open road or in competition. It is significant that even greater popularity appears to be in store for the American motorcycle as it approaches its 50th year of service to the nation—both as a commercial vehicle and as a machine of sport and pleasure.

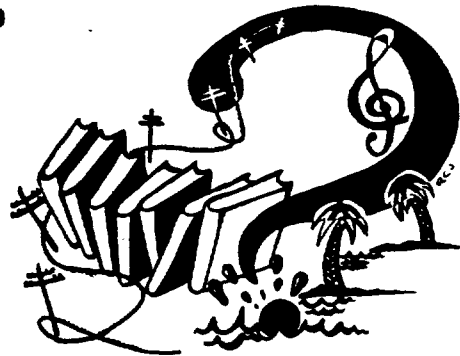
CORRECTION

The cover picture for the October issue of *Ethyl News* was inadvertently mistitled. The picture should have been described as a threshing scene. We regret the error.

Brain Teasers

By Ren Dicke

Count five points for each correct answer. If your score is 50, you know what's going on. If it is 75 or over, you're exceptionally well-informed. If you score 90 or over, show it to the boss — you're obviously underpaid.



1. What is the Russian equivalent of The Associated Press: (a) Pravda (b) Tass (c) Izvestia
2. Can you place the following men in the order in which they lived: (a) Jesus (b) Confucius (c) Mohammed
3. To what island group does Bikini belong: (a) Marshall Islands (b) Caroline Islands (c) Gilbert Islands
4. What is a burgee: (a) a Scotch accent (b) a swallow-tail or triangular flag (c) an Australian sandpiper
5. Where is the statue of The Minute Man: (a) Boston (b) Concord, Mass. (c) Philadelphia.
6. There are four different groups of instruments — wind, brass, string, and percussion. Can you tell to which the following belong: (a) piccolo (b) zither (c) tympany (d) viola (e) cornet
7. These ill-assorted pairs have the same surname. Can you identify them: (a) Herschel and Van (b) William H. and Bette (c) G. B. and Wilbur (d) George C. and Herbert (e) Bertrand and Rosalind
8. What is a plantain: (a) owner of a plantation (b) a tool for smoothing wood (c) a species of banana
9. Who was the first recognized heavyweight boxing champion: (a) Sullivan (b) Corbett (c) Fitzsimmons
10. Can you finish these similes: (a) flat as a (b) high as a (c) mad as a (d) snug as a (e) blind as a
11. Can you answer the riddle of the Sphinx of Thebes, which was: "What creature walks in the morning on four feet, at noon on two, at evening on three?"
12. Camp Shanks, N. Y., has ended its career as a POW camp. Early in the war it was a famous POE. What do the designations POW and POE stand for?
13. What is an abacus: (a) a Roman meeting place (b) a frame with sliding counters for arithmetical calculations (c) a South African antelope
14. At least nine Presidents of the United States were generals. Can you name five?
15. Who is Secretary General of the United Nations: (a) Arkady Sobolev (b) Gen. Sir Alexander McNaughton (c) Herbert Evatt (d) Trygve Lie
16. Identify these abbreviations: (a) ILGWU (b) AMA (c) CAB (d) PAC (e) FM
17. Can you name the authors of the following best sellers: (a) The Arch of Triumph (b) The Egg and I (c) The Anatomy of Peace (d) Show Boat (e) For Whom the Bell Tolls
18. Name the sports in which the following are famous: (a) Tami Mauriello (b) Gardner Mulloy (c) Craig Wood (d) Glenn Cunningham (e) Leo Durocher
19. What is the capital of the Virgin Islands?
20. How many miles of telephone wire are there in the United States: (a) 50,760,000 (b) 95,150,000 (c) 113,000,000



ANSWERS

1. Tass
2. Confucius, Jesus and Mohammed
3. Marshall Islands
4. A swallow-tail or triangular flag
5. Concord, Mass.
6. Piccolo — wind; zither and viola — string; tympany — percussion; cornet — brass
7. (a) Johnson (b) Davis (c) Shaw (d) Marshall (e) Russell
8. A species of banana
9. John L. Sullivan
10. (a) pancake (b) kite (c) hatter (d) bug in a rug (e) bat
11. Man — as a baby on his hands and knees, in his prime on his feet, and in his old age with the aid of a walking stick.
12. Prisoner of War and Port of Embarkation
13. A frame with sliding counters
14. George Washington, Andrew Jackson, Zachary Taylor, Franklin Pierce, U. S. Grant, Rutherford B. Hayes, James A. Garfield, Chester A. Arthur and Benjamin Harrison.
15. Trygve Lie of Norway
16. (a) International Ladies Garment Workers Union (b) American Medical Association (c) Civil Aeronautics Board (d) Political Action Committee (e) frequency modulation
17. (a) E. M. Remarque (b) Betty MacDonald (c) Emery Reeves (d) Edna Ferber (e) Ernest Hemingway
18. (a) boxing (b) tennis (c) golf (d) track (e) baseball
19. Charlotte Amalie (formerly St. Thomas)
20. 113,000,000



Along with its manufacturing industries, the Mexican movie industry also is coming of age

MEXICO'S INDUSTRIAL BOOM

(Continued from page 6)

terior debt. There are no restrictions on exchange and for several years now the peso has been stably quoted at 4.85 to the dollar.

Like her neighbors on both sides of the border, Mexico has experienced a price inflation incident to her war-generated prosperity. But Mexico's inflation is similar to that of the United States, stemming from a more-or-less temporary shortage of goods. This kind of inflation is vastly different from that plaguing many countries in Europe, which as a result of the war, are literally impoverished.

How inflation has affected Mexico is demonstrated by the fact that in the interior of the country the peso will purchase only half as much as it did in 1940. In Mexico City, on the other hand, the condition is far more serious. There, the cost of living, as measured by indices of the Mexico City Chamber of Commerce, has gone up two-and-a-half to three-and-a-half times compared with 1934. Today the cost of living in Mexico City stands at an index number of 362 (1934 equals 100);

that for food around 355 and that for clothing around 442.

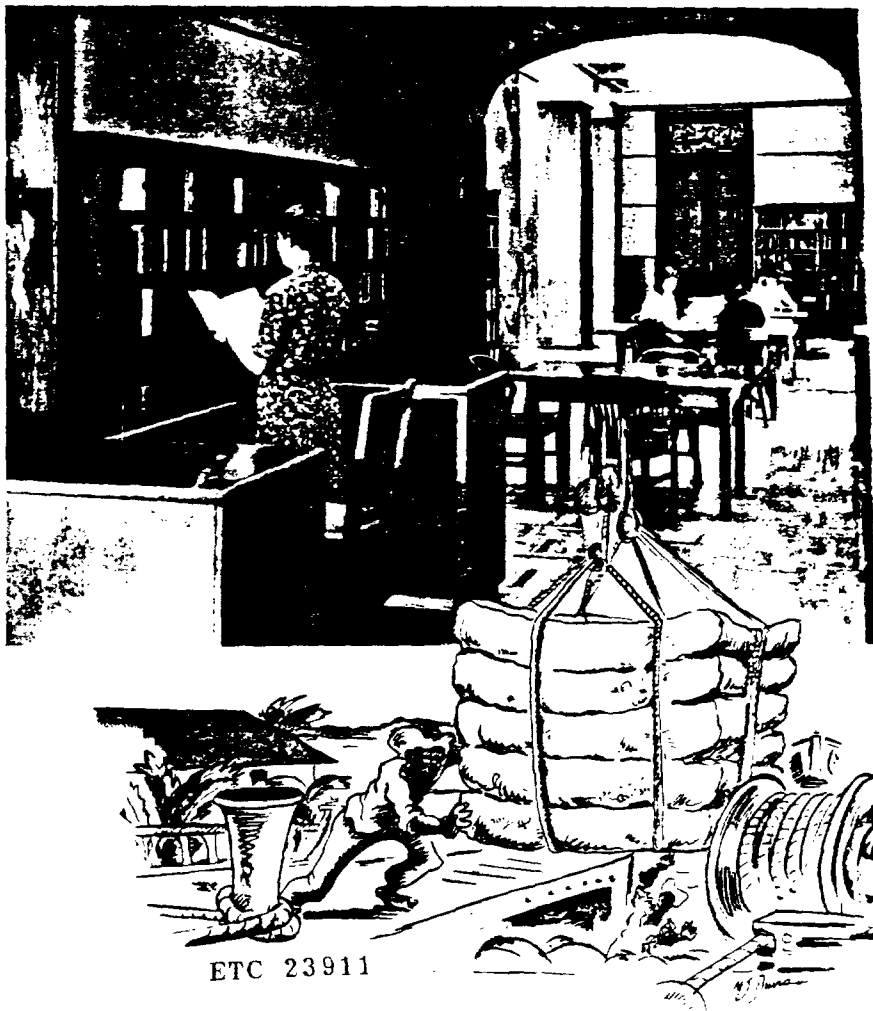
During 1945 the country exported an estimated \$268 million and imported \$320 million of goods. The

apparent deficit of \$52 million was more than offset by tourist trade and immigrant remittances from Mexican railway workers and farm hands employed in the United States.

Mexico's exports consist principally of minerals, precious metals and other raw materials, although textiles, some early vegetables and various industrial products are growing in importance. Some of the country's larger textile mills are selling goods to the United States and Europe. Among its imports are listed chiefly foodstuffs, manufactured goods, machinery, automobiles and parts, and tools.

For a long time, Mexico has de-

A reading room in a Mexican library. The Government is attempting to teach all illiterates to read and write



The new Mexican children's hospital is so designed that sunshine reaches every room

veloped an economy based on diversified products of mining, temperate and tropical agriculture, stock raising and such specialties as petroleum, henequen fibre and chicle. Her present revitalization as an industrial economy is a complete turnabout from that which has existed for many years. At the end of the 19th century, in fact, Mexico was, industrially, one of the most advanced of Latin American nations, but the ensuing years of political instability put a damper on that progress. Now the country is headed for industrialization with renewed interest and vigor.

With more than 90% of its approximately 23 million population of pure, or mixed, Indian blood, there has been a high percentage of illiteracy. The Government has been especially concerned with this problem as well as with efforts to raise living standards of its people. In 1944 President Camacho, asserting that what the country needed "is to learn to read and write," decreed that all illiterates between 6 and 40 years must learn to read and write and that all literates should be responsible for teaching them. The educational campaign was officially

launched on March 1, 1945, and is being pursued vigorously with good results. Numerous schools are being erected throughout the Republic.

Leading Cities of Mexico

Mexico City, the capital, is the oldest metropolis in North America and the heart of the country. It is also the largest city and the center of the economic, industrial, financial and social life of the nation. Ranking next is Guadalajara, the capital and principal city in the State of Jalisco, which is famous for its ceramics. Guadalajara's other industries include breweries, textile and flour mills, foundries and tanneries. Third is Monterrey, capital of the State of Nuevo Leon, a large railway center where the biggest iron and steel

works are located, as well as lead smelters, refineries, flour and cotton mills, soap and tobacco factories, cement works, a brewery and an important glass factory.

Other large industrial cities are Merida, an important market for henequen and chicle; Tampico, the chief northern Gulf port; San Luis Potosi and Vera Cruz.

The new president-elect of Mexico, Miguel Aleman, 44, is one of the country's "new generation." His aim is to make Mexico more modern and stronger. To aid in this endeavor he has tendered a welcome hand to foreign capital, oft declaring that "any type of foreign investment, if linked with the life, institution and laws of the country, will have full protection."

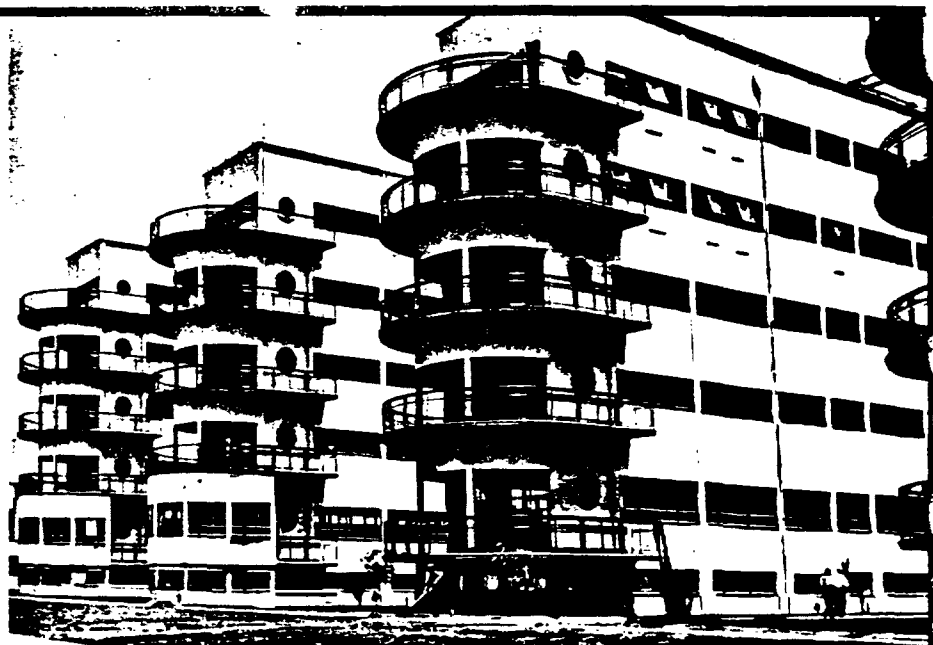
Barnyard Golfers

Now it appears that the "horseshoe" vote may be an important factor in the 1948 elections. News that President Truman had caused to be laid out a horseshoe pitching court on the grounds of the White House brought out the fact that there are three million active horseshoe pitchers using the public courts in the United States. This doesn't include the farmers and village dwellers, virtually all of whom take a fling at the game now and then.

Frank G. Menke, sports historian, says both horseshoe and quoit pitching can be traced back to the Greek and Roman discus throwers. Camp followers and slaves couldn't buy a discus. But when horseshoes were invented—about

200 B.C., according to a coin in the British Museum — people began picking up discarded shoes and bending the ends to form a circle. Since horseshoes are much lighter than the 4 pound 7 ounce discus, pitching for accuracy took the place of throwing for distance.

The first horseshoe pitching club in the United States was established at Long Beach, California, in 1900. In 1909, the first "international contest" was announced by the little town of Bronson, Kansas. That put the town and Frank Johnson, an Iowa farmer, on the map. He won the tournament, held the title for ten years, and then refused to defend it further in order to give someone else a chance.



NEWSPAPER FOR NOMADS

(Continued from page 11)

papers and cartoonists—with no credit to *The Hobo News*, Pat remarks with some irony.

What makes the paper click with so many people is the way it deliberately avoids anything subtle or sophisticated. Much of the humor, especially the cartoons, can appeal only to the most naive, but you never miss the point of anything the tabloid prints. Pat Mulkern knows that the world is made up of the common man, who likes the simple, the direct, the homespun and the heartwarming.

Because Pat has never forgotten his own thin days on the road, he insists that most of his salesmen be hobos. He has some 60-odd in New York alone, and they sell about 35,000 copies a week. Among the peddlers are Roger Payne, who has two degrees from the University of Cambridge; an ex-captain of a merchant vessel, and a midget called Smitty.

To give his peddlers a break, Pat dates all editions of his paper six weeks ahead, so that everybody will have plenty of time to unload them. But Pat and his staff will tolerate no bums. There's a sign in the office that reads: "No Papers Sold to Drunks, Mission Stiffs or Jungle Buzzards."

The plant makes no pretense of being an orderly newspaper shop. It is run literally in hobo style. Pat's desk is a welter of ashtrays overflowing with cigar butts, photographs,

clippings, odd socks, beer bottles, curios and patent medicines. A fondness for Mulligan stew means a stove in the corner for meals at odd hours. Boomer Rodgers, although officially treasurer, sweeps out the office, makes coffee, or does errands whenever the urge strikes him.

Hobos wander in and out at all hours of the day or night (the plant operates around the clock, more or less) to get warm, to doze in a chair, or to sit and chat with Irene Lohsen, in the composing room, who used to be a circus strong lady. A big tomcat named Hobo appeared off the streets one day and has stayed on ever since, along with a nondescript mongrel called Hoboette. Like everyone else on the staff, they come and go as they please. Pat can't stand the sight of a time-clock.

If it's a dull day, Pat will take his feet off his desk, yell at his crew, and announce that "it's time to have beers on me." So across the street they go, toss off a few, and then call it quits. Sometimes they all go to a show. Pat's generosity extends to \$100 Christmas bonuses for the staff of 18 persons. His payroll runs to \$1,500 a week.

Everyone on *The Hobo News*

wishes more people knew what a hobo really is. The definition given by one correspondent, they think, is a good one, and it also helps explain why the paper prints what it does. Here's the idea, as published in a recent issue:

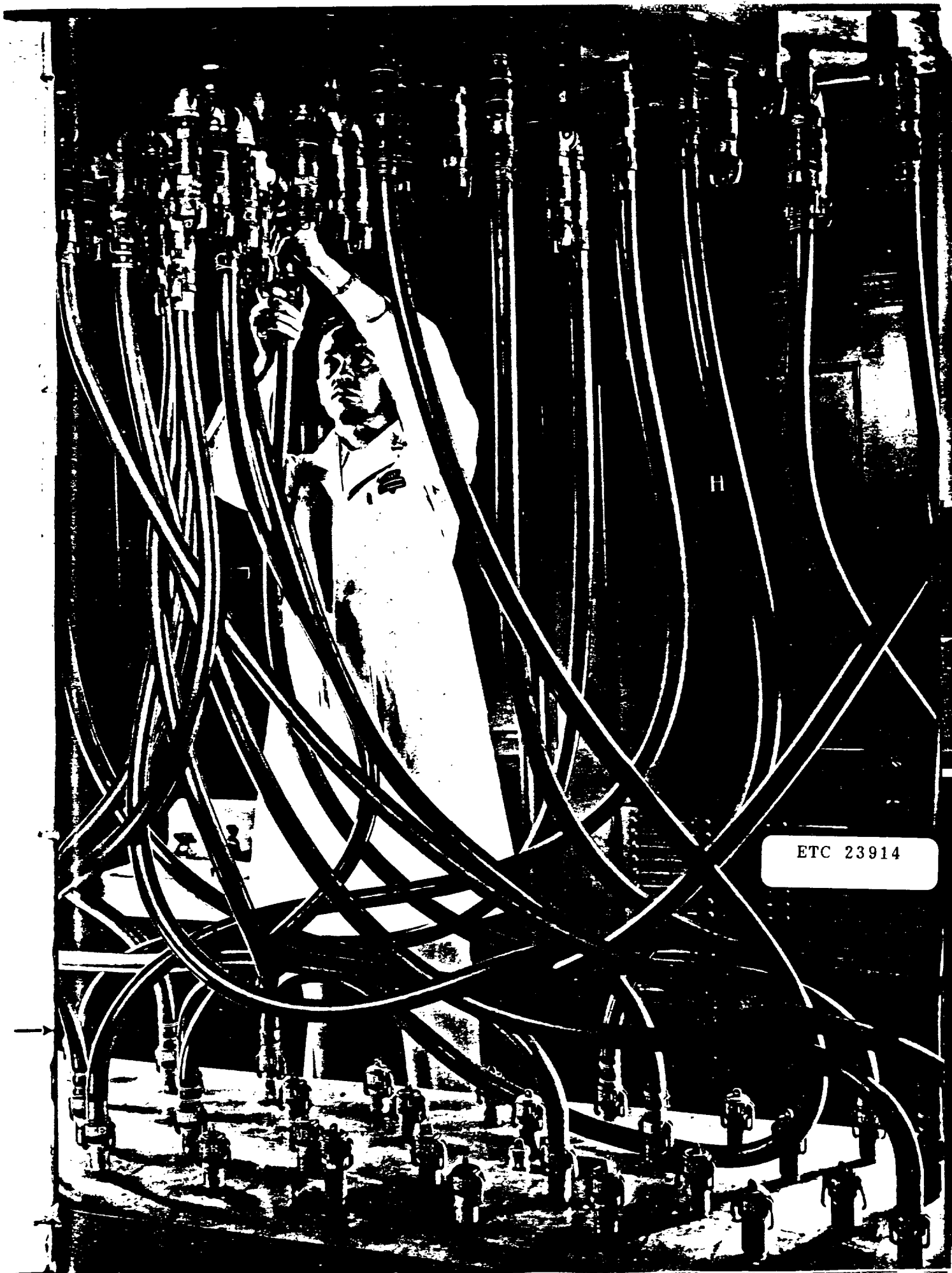
"A hobo is not a tramp, a bum, or a ne'er-do-well. He is not a social outcast or an enemy of society. Usually he is a migratory worker who rides the rods between jobs. Some of the most famous people in America were represented in this category at one time or another.

"The true hobo orientates himself with society at large and learns how to live in harmony with his fellow man. He refuses to push others around and develops a hard enough outer shell to prevent others from shoving him around. He develops a love for poetry and art and music and the sciences.

"After he has seen things and experienced life in the raw, he settles down to useful endeavor. If he is the type of hobo who rides the rods, he does not always remain so. But whatever type he is, he has tasted of the rich experiences without which life is impossible of full development."

OUR COVER: Autumn Scene by J. J. Fanta. **OUR PICTURES:** Pages 3-7, 24, illustrations by M. J. Davis; Pages 3, 5 (lower), 24 (upper), Wide World; Page 4, courtesy U. S. Department of Commerce; Page 5 (upper), courtesy Pan American Union; Page 11, H. Armstrong Roberts; Page 13, Hjalmar J. Holand; Page 14 (top), Gertrude Shaw; Page 15, cartoon by J. Wade; Pages 19, 20, 21 (upper), courtesy Indian Motorcycle Co.; Page 22, courtesy Harley-Davidson Motor Co.; Page 23, illustrations by Ruth Jennings; Page 24 (lower), courtesy Library of Congress; Page 25, courtesy Institute of Inter American Affairs.

What looks like a tangle of fuel lines, on the opposite page, is actually a part of a unique "service station" in daily use at the Ethyl Corporation Research Laboratories in Detroit. Shown is the "selector" portion of the fuel distribution system, with which lines for the supplying of gasoline to engines in the dynamometer laboratories may be connected with a minimum of time, effort or probability of error. Connections provide for the supplying of gasoline from any two of 24 underground tanks or from eight drums to any multi-cylinder engine dynamometer. The fuel system of which the "selector" is a part was designed especially for safe and efficient storage, blending, and handling of many different fuels used in research pertaining to engines, fuels and lubricants.



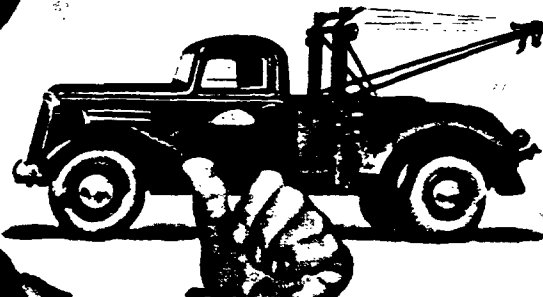
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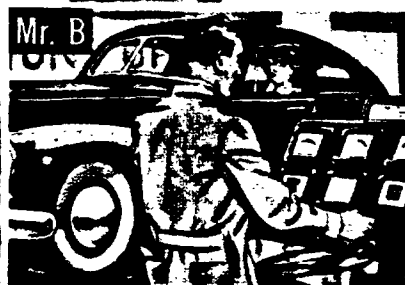


who's next?

WHOSE CARS ARE MOST LIKELY TO WIND UP BEHIND A TOW TRUCK?



Mr. A



Mr. B



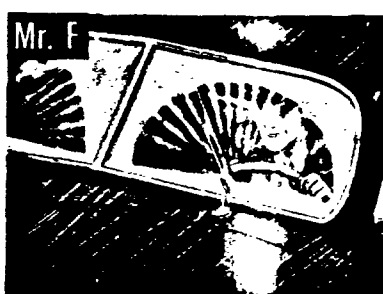
Miss C



Mr. D



Mr. E



Mr. F

Check your answers with these —

Mr. A is a candidate for the tow truck if he doesn't keep his tires inflated. That soft tire on his left front wheel may heat up, blow out—and then anything can happen.

Mr. B isn't likely to be a tow truck customer, because he regularly brings his car in for a check-up—keeps his brakes adjusted, his engine tuned up and everything else shipshape.

Miss C pulls up too close to the lowered gates at a railroad crossing. If her nice new car should be bumped from behind and pushed into the path of a train, it might take more than a tow truck to get it unscrambled!

Mr. D forgets to turn on his lights be-

fore he pulls away from the curb. Another driver may not see him, and the tow truck will get a new customer.

Mr. E isn't likely to have trouble. How do we know? Just look at the gasoline he's buying. A man who knows the value of good products—Ethyl gasoline, high-quality oil, batteries, anti-freeze, tires—is more apt to keep his car trouble free. By spending a few extra pennies in the service station, he often saves dollars on the road.

Mr. F has put off getting new windshield wiper blades. He won't be able to see a tree that's down across the road . . . so he'll soon be looking for a telephone to call the tow truck.



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ETHYL TRADEMARK

FREE "Professional Driving"—a new 72-page book. Typical chapter headings: "How to Handle a Blow-out," "Fanning the Brakes," "Driving Needn't be Tiring." Offered free to car owners by ETHYL.

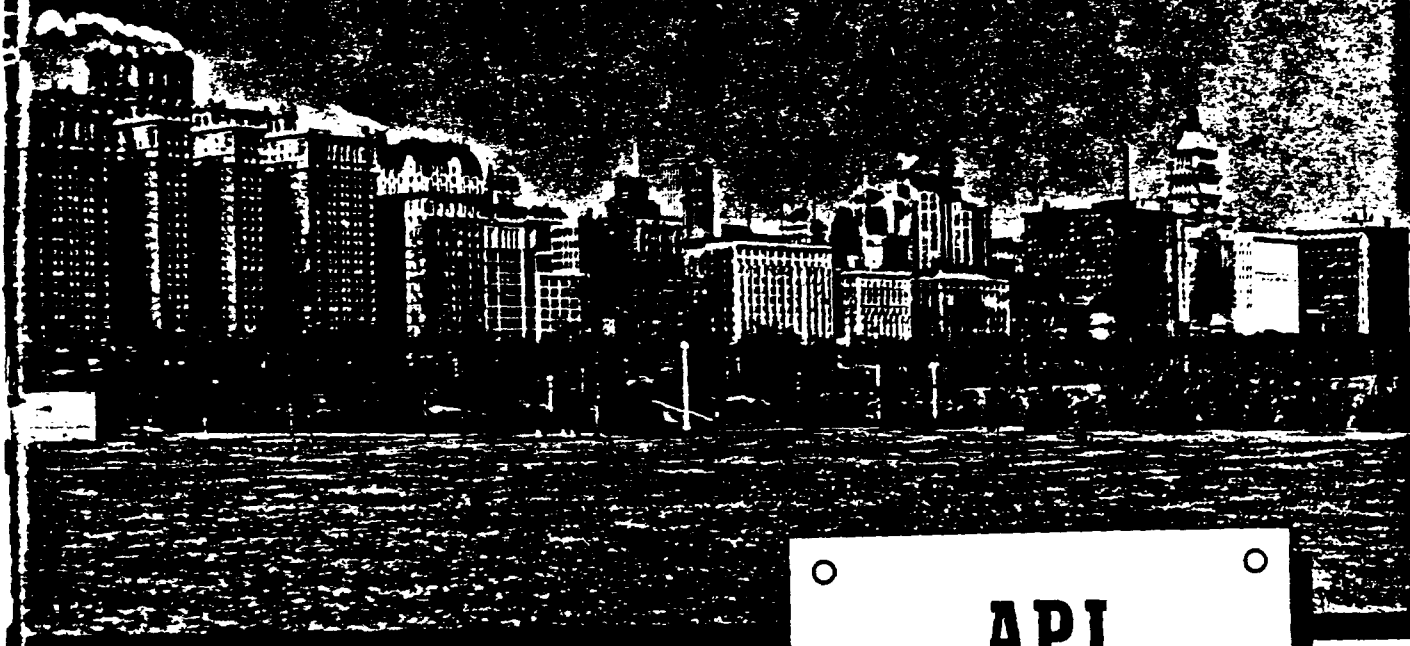
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**ETHYL
NEWS**

DECEMBER ★ 1946

ETC 23916

ETHYL NEWS

SOUVENIR CONVENTION ISSUE

The 26th annual meeting of the American Petroleum Institute

Pages 3 - 56

Open House at Ethyl's Detroit Research Laboratories

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T**H****E** *twenty-sixth annual meeting of the American Petroleum Institute, held at the Stevens Hotel, Chicago, November 11-14 last, will be long remembered in the oil industry. Attracting a record-breaking gathering of oil men, the meeting received progress reports on various phases of oil technology, listened to discussions of contemporary problems, and heard industry leaders and public figures weigh the future outlook on important issues. Among other notable developments, the annual meeting saw the adoption of an unprecedented public relations program, which is designed to give the American public a better understanding of the oil industry and its philosophy.*

This issue of the Ethyl News has been prepared as a purely informal report of the API meeting. A pictorial souvenir of the convention, it is devoted to pictures of everyone — delegates and speakers — whom it was possible to photograph at random. In it we hope we have captured some of the flavor of the enthusiasm which characterized the fruitful sessions.

THE EDITORS

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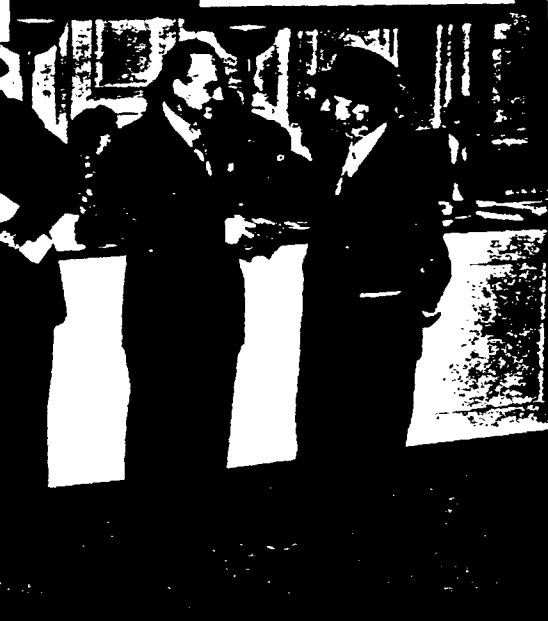
CONVENTION BOUND

API REGISTRATION



Membership
Applications
HERE

API REGISTRATION



Sunday, the day before the annual meeting opened, was a quiet one in the registration room compared to Monday (see page 8). The Sunday registrants (above) included Harvey A. Craig, of Republic Steel; R. H. Tecklenborg, of R. H. Tecklenborg Co.; and H. E. Howard of Howard Supply Co. All hail from Los Angeles.

FROM VIRTUALLY EVERY STATE in the Union, and many foreign lands, including Argentina and Czechoslovakia, came the men and women who attended the 26th annual meeting of the American Petroleum Institute. They converged on Chicago by train, plane, automobile and bus. Some arrived days before the convention got under way, to attend committee meetings. For the most part, though, "delegates" did not show in strength until the meeting's opening day, Monday, November 11.

Most of the record-breaking 3,889 persons who registered during the four-day meeting had been able to reserve hotel rooms in advance. Others were not so fortunate. However, thanks to the willingness of room-holding oilmen to "double up," and to the untiring efforts of the API housing committee, no one had to sleep on a park bench.

Relaxed in the 20th Century observation car en route to Chicago (upper photo) are W. H. Bratches of Shell Oil, flanked by J. R. Taylor and George Bowden, both of Socony-Vacuum. Below, S. S. Smith, of Shell Oil, and Monroe Spaght, vice president of Shell Development Co.

Henry L. O'Brien, vice president of Cities Service Co., checks his train reservations at Grand Central Terminal.



Among those aboard the 20th Century Limited, which served as the unofficial "API Special" out of New York, were H. S. Merriman, of Socony-Vacuum, and Frank Kerns, of the Texas Co.



Enjoying a hearty laugh as the New York-Chicago express rolls westward are William R. Argyle, of Sinclair, and two Socony-Vacuum executives, W. M. Holaday and Dr. L. C. Beard, Jr.

W. W. McFarland, a vice president of Cities Service Oil Co. (Pa.), makes a point during a friendly get-together in the Limited club car. L. to r. are L. H. McMahon, of Amoco; John Brandli, of W. G. Post, Inc.; C. M. Davison, of Standard of Jersey; Walter Warnock, of Socony-Vacuum; Mr. McFarland, and J. R. Sloane, of the Oil Trading Co.





Harold L. Curtis, William Case, G. Gordon Bigger and Joseph H. Salmon, all of Shell Oil, lead the way as this group of Easterners files from the train at Chicago.

The Tulsa "delegates," above, chatting with the engineer of their train, are Clyde Pape, an independent producer; D. M. Bradley and D. D. Bovaird, of Bovaird Supply Co.; and Carl White, Jr., president of Franks Manufacturing Corp. The group reached Chicago in time to see an Armistice Day ceremony (below) in Union Station. Right, API-ers from the East load into a taxicab at LaSalle Street depot.



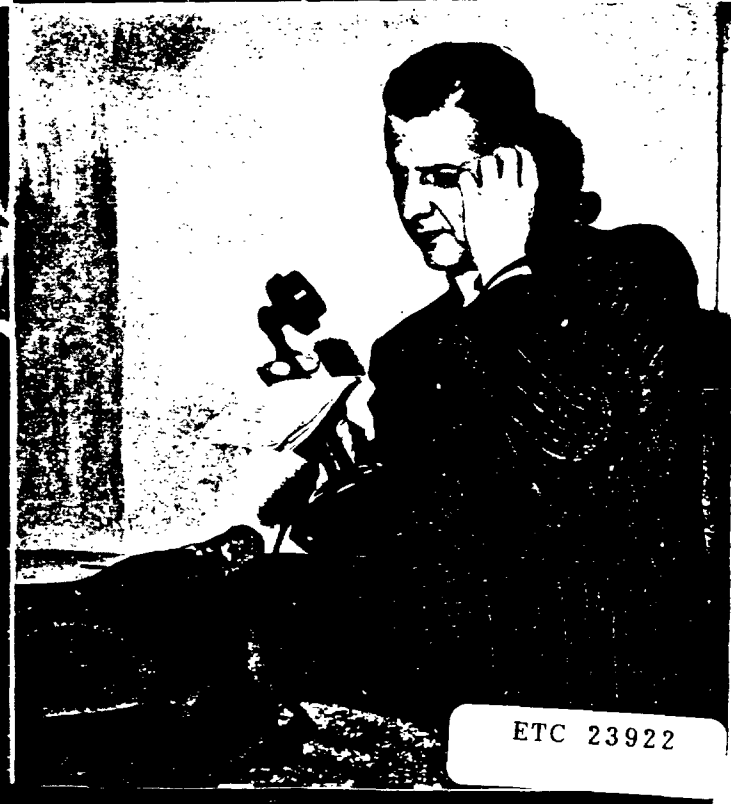


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Swinging up the Union Station ramp beside the Tulsa Special are P. C. Lauinger and John Reilly, of Oil and Gas Journal; Paul Hedrick, of The Tulsa World; Arch Foster, of Oil and Gas Journal; and V. R. Oakley and R. E. Stewart, of Bareco Oil Co.

Obtaining suitable accommodations for those without hotel rooms was a major headache for the API housing committee. Top right, J. C. Wick of Gulf Oil (right), a member of the committee, discusses the problem with H. B. Richardson, reservation manager of the Stevens Hotel. Center, a group of Gulf Oil men, sweating out hotel space: Blaine B. Westcott, of Pittsburgh; P. H. Bohart and S. G. Sanderson, of Tulsa, and R. P. Higgins, of Los Angeles. Below right, housing committeeman W. J. Arnold, of Pure Oil, makes a telephone call on behalf of an API room-shortage victim.

A. E. Watts, executive vice president of Sinclair Oil, was among those who registered the first day. He is shown here (left) with API President William R. Boyd, Jr.



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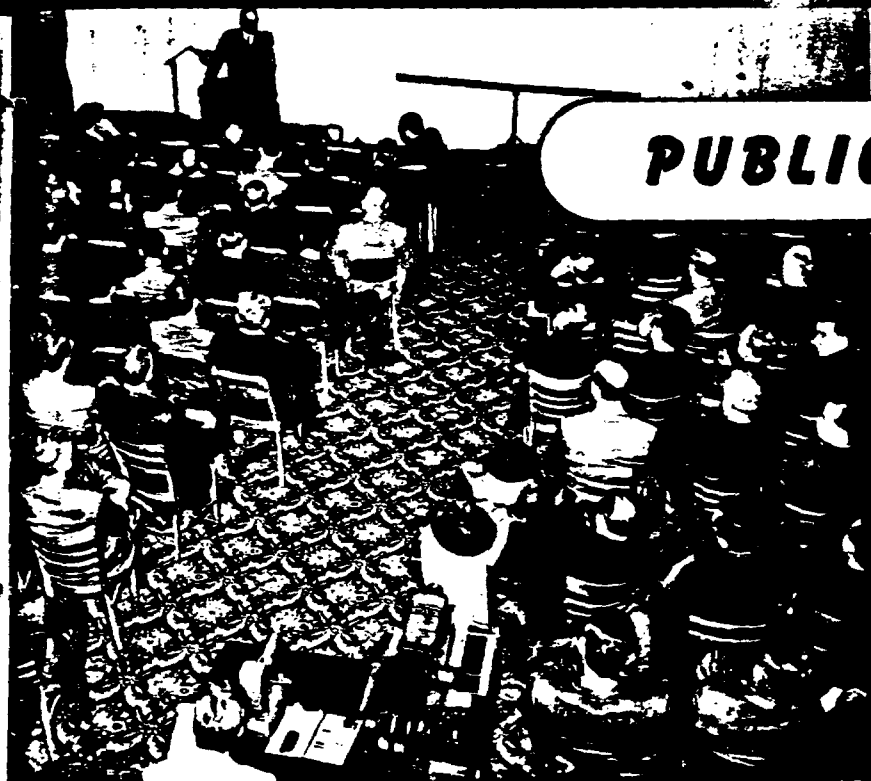
One of the early registrants was E. A. Landreth of Landreth Co., For Worth (striped suit). He was one of 1,359 who checked in the first day. Second day registration totaled 1,891. The third day total was 519, and the fourth day 120. The final official registration tally was 3,889 persons, surpassing by 748 the previous record registration set at the annual meeting in Los Angeles in 1935.

Harry A. Gilbert, of the Oil Transfer Corp., New York, and Dr. Joseph E. Pogue, vice president of Chase National Bank, New York, engage in a bit of pre-convention conversation. Dr. Pogue is recognized as one of the top authorities on the economics of the oil industry.



Registration began in earnest on Monday morning, and continued all through the day. By closing time, the API staff rightfully predicted the Chicago meeting would be the best attended of all 26 annual conventions.

PUBLIC RELATIONS



Claude Robinson, president of Opinion Research, Inc., is shown as he announced the findings of the public opinion survey conducted by his organization for the oil industry. Mr. Robinson was the lead-off speaker at the Tuesday evening general session on Public Relations.

The overflow audience at the Public Relations general session found laughter, as well as a moral, in a skit presented by a cast of Chicago radio performers. The action related the tribulations of an executive whose company had "no need" for a public relations program.

A NATIONWIDE public relations program to tell the story of the oil industry's social and economic contributions was adopted at the API annual convention this year. Full support to the nationwide project was given by the Board of Directors upon the recommendations of a committee assigned to the problem.

Tuesday, Claude Robinson, president of Opinion Research, Inc., reported the findings of a survey of public opinion made by his organization on behalf of the oil industry. The survey, one of the most thorough ever undertaken, provides accurate samples of opinion representing various geographical areas of the country as well as of particular groups of the public, including oil industry employees and people who

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The leading character in the skit, bespectacled and self-centered, was the perfect example of how NOT to build good public relations.

live in communities where the oil industry is prominent.

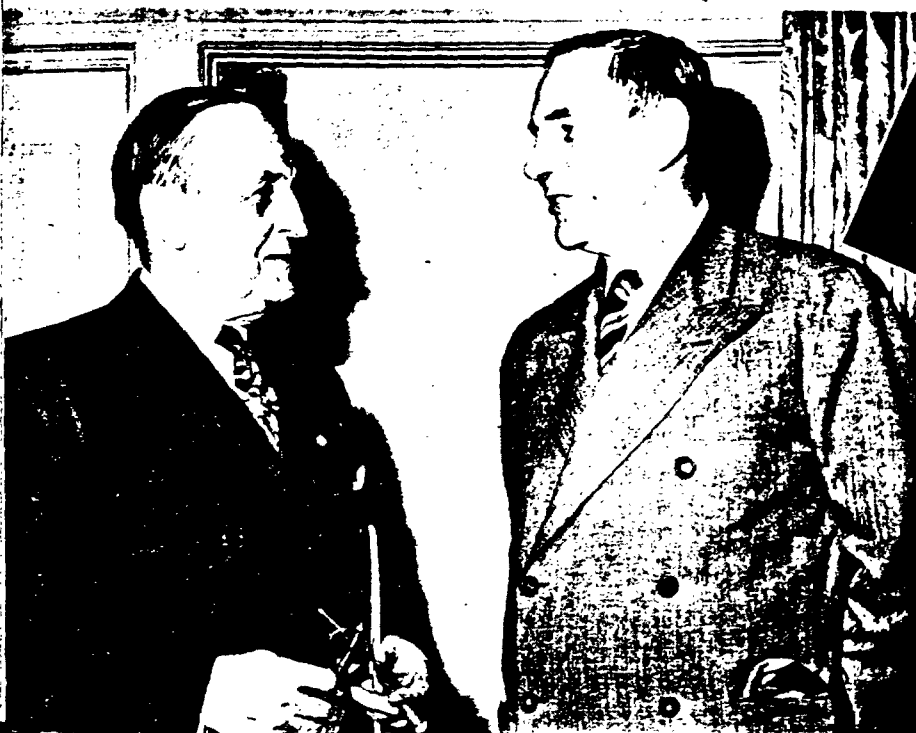
Reporting for the API advisory sub-committee on public relations, which had been instructed a year ago to study the problem and propose a program, Robert T. Haslam, chairman of the committee, outlined the recommendations for better public relations for the oil industry. Because of sudden illness, his paper was delivered to the Tuesday night meeting by George Freyermuth. Pointing out the areas of misunderstanding where the greatest lack of knowledge of the oil industry's policies and practices exists, the

paper demonstrated that in the case of the oil industry, familiarity promotes more favorable opinion. The report of the survey presenting the findings is entitled "Those Who Know You Well, Think Well of You."

Emphasizing that "Petroleum Is Progressive," a comprehensive grass-roots campaign will be undertaken. A field staff of trained public relations men will work with individual companies, trade associations, trade papers and molders of public opinion. Editorial background data will be prepared on each subject on which the industry needs greater

public understanding and support. The Fred Eldean organization has been engaged to aid in the industry's program.

At the public relations forum, Fred Eldean discussed the program and emphasized the importance of "selling" to the individual companies the idea of "talking about the industry." Don E. Gilman traced the role of the trade association in supporting the industry plan, and the vital part regional organizations can play in promoting better public relations for all parts of the oil industry. Discussing the role open to each company in terms of five fundamentals for doing the public relations job ahead, Ethyl's Ralph Champlin stressed the point that only through the combined efforts of every company in the oil business can the maximum value of the petroleum industry's newly adopted program be achieved.



Above, Robert T. Haslam, chairman of the API Public Relations Advisory Sub-Committee. Left, API President Boyd discusses the public relations survey with Claude Robinson.

PUBLIC RELATIONS FORUM



Franklyn Waltman, of Sun Oil (above), presided at the Public Relations forum. Part of the audience which attended this session is pictured at right.



Speakers at the Public Relations forum, sponsored by the API Committee on Public Relations, were Ralph C. Champlin, of Ethyl Corp. (left); Fred Eldean, public relations counsellor; and Don E. Gilman, of the Western Oil and Gas Association. An audience participation forum followed the addresses.





Five oil editors formed half the panel of experts for the audience participation forum. They were (above): P. C. Lauinger, of Oil and Gas Journal; Warren C. Platt, of National Petroleum News; Ray L. Dudley, of Gulf Publishing Co.; Keith J. Fanshier, of the Chicago Journal of Commerce; and Milburn Petty, of Petty's Oil Letter.



Franklyn Waltman, Sun Oil; George Freyermuth, Standard Oil (N. J.); Daniel McCarthy, Socony-Vacuum; and John Dupree, Ivy Lee and T. J. Ross.



Robert T. Haslam, vice president of Standard Oil Co. (N. J.), and Conger Reynolds, public relations director of Standard Oil Co. (Indiana).



Left, one end of the table at a meeting of the Public Relations Advisory Sub-Committee.



The five public relations men representing industry who participated in the public relations forum were: Edgar A. Waite, of Standard of California; John Wieland, of Standard of Ohio; Clarel Mapes, of Mid-Continent Oil and Gas Association; John Dupree, public relations counsel to Socony-Vacuum; and Conger Reynolds, of Standard of Indiana.



Richard Rollins, public relations director of the Atlantic Refining Co. (right), confers with J. W. Rees, of Pure Oil Co., and F. H. Marling, of Pure Oil Co.



S. A. Baxter and Keeton Arnett of the Fred Eldean public relations firm.

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Another meeting of the Public Relations Advisory Sub-Committee, with Chairman Robert T. Haslam at the head of the luncheon table.





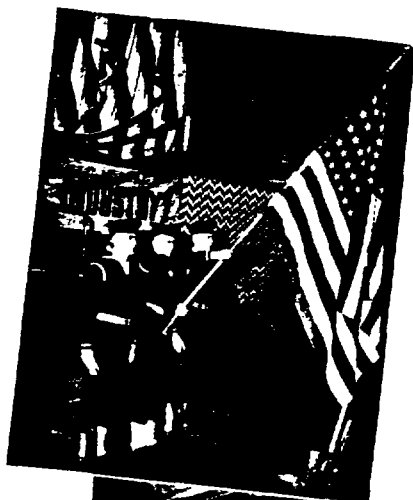
API President Boyd was the key-note speaker of the Wednesday afternoon general session.



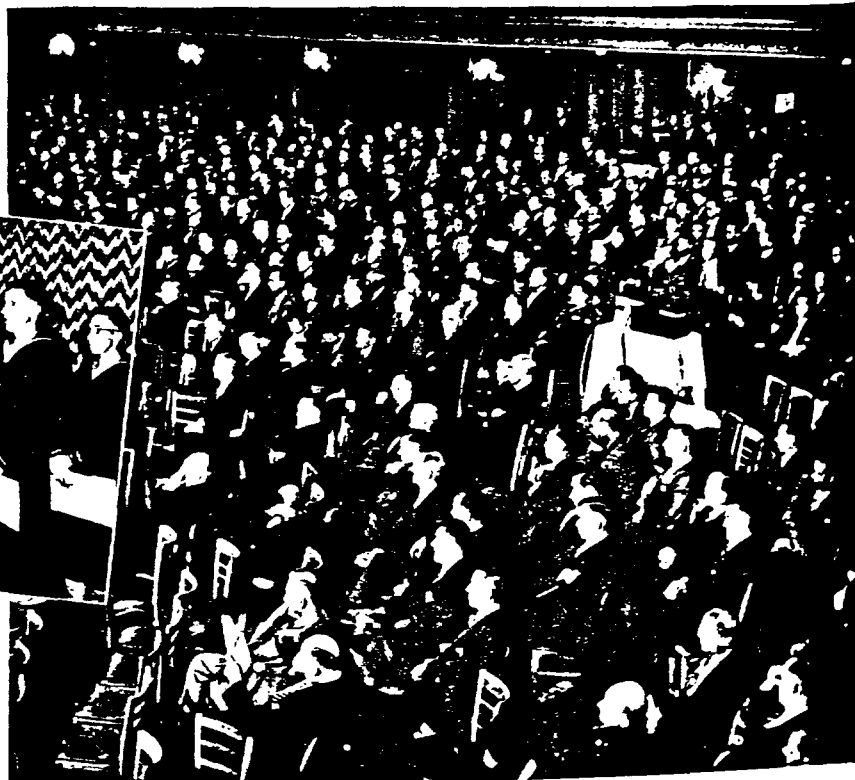
Former deputy PAW chief Ralph K. Davies read J. A. Krug's speech for the absent Cabinet member.



Listeners were handed many laughs by witty H. E. Babcock, chairman of the Cornell U. trustee board.



A memorial service in honor of the oil industry's dead of World War II was part of the general session. A Great Lakes Naval Training Station color guard stood at attention, while the 44-voice Bluejacket Choir rendered "Abide With Me." Below, part of the audience gathered in the Stevens Hotel main ballroom to hear President Boyd and guest speakers.



REPORT TO THE API



Writer-photographer John Strohm tells how he gained a Soviet visa on Premier Stalin's orders.

BY TRADITION the opening address at API annual meetings is the report of the Institute's president to its membership. In pointed and challenging remarks, William R. Boyd, Jr. said that, with "the stimuli of patriotic and filial devotion" of war-time past, there now is a real need "for finding a proper and adequate unifying force for protecting our industry against the debacle of a depression and against any movement to regiment and control it." It was his confident belief, he said, "that with the right kind of leadership our industry can overcome every obstacle with which we are confronted."

In a speech read for him, Secretary of the Interior J. A. Krug assured those gathered that he stood

opposed to "any proposal for the Federal government to 'take over' the oil industry or the gas industry." He asked the petroleum industry's "active and sincere support" of state conservation laws and regulations as a means of rendering ineffective "any clamor for independent Federal action." Other speakers were H. E. Babcock, chairman of the Cornell University board of trustees, and John Strohm, reporter and photographer just back from an extensive tour of the Soviet Union.

Tribute was paid to the men and women of the oil industry who served in the armed forces during the recent war. John Wieland of Standard of Ohio read "A Salute to Oil's Heroes," commemorating the 6,310 oil men who did not return.



Oil's tribute to its war dead was delivered by John Wieland of Standard of Ohio.

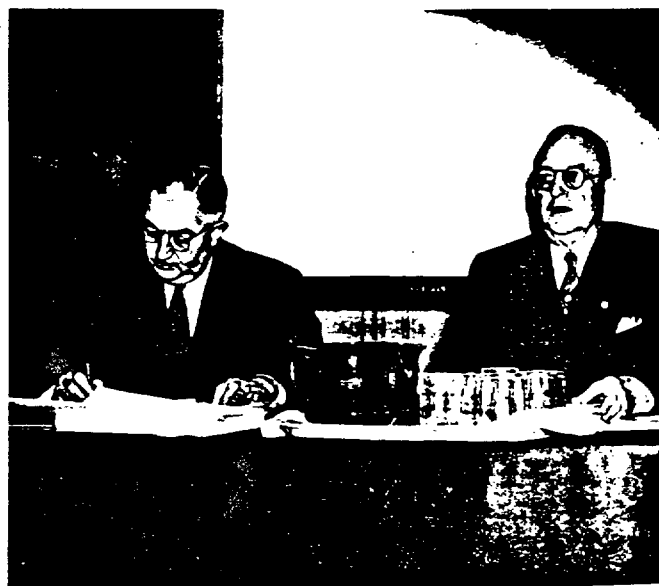
A Standard Vacuum Oil Co. foursome (in the foreground): H. W. McCobb, L. W. Elliott, president, Albert H. Tomlinson, and Harold M. Davidson.





One corner of the room as the Board of Directors met to consider the problems and policies placed before it for decision. Two meetings and a luncheon were scheduled for the Board during the annual convention.

Lacey Walker and William R. Boyd, Jr., (shown right) were re-elected secretary and president of API, respectively. Other officers elected were: Dr. Robert E. Wilson, chairman of Standard of Indiana, as vice president for refining; B. L. Majewski, vice president of Deep Rock Oil Corp., as vice president for marketing; Jake Hamon, of Cox and Hamon, Dallas, as vice president for production; B. Brewster Jennings, president of Socony-Vacuum Oil Co., as vice president for transportation; and L. S. Wescoat, vice president of the Pure Oil Co., as treasurer.





Colonel T. H. Barton, president of the Lion Oil Co., Eldorado, Ark.



William G. Skelly, president of the Skelly Oil Co., Tulsa.



Frank Phillips, chairman of Phillips Petroleum Co., Bartlesville.

Two well-known figures are pictured together—Amon Carter, Fort Worth publisher, and Daniel Moran, president of the Continental Oil Co.

H. D. Collier, Standard of California chairman, and G. L. Neely, also of Standard of California, confer under an exhibit of oil paintings.





A group of Standard of Indiana representatives huddle with Charles W. Saacke of the Davison Chemical Corp., Baltimore (left). The Standard of Indiana men are M. T. Carpenter, W. L. Webb, W. S. Nordberg and O. L. Hurley.

C. K. Hewes and William Graham, of Richfield Oil Corp., Wilmington, Calif., and O. F. Campbell of Sinclair Refining, East Chicago.



Atlantic Refining Co. men all — W. W. Scott and Edgar Kraus, of Dallas; R. C. Harris, of Philadelphia; and B. E. Moir, of Dallas.



John Kendrick of Columbus, O.; John Eaton of Bethlehem Supply Co., Tulsa; and S. M. Weckstein of Timken Roller Bearing.



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Both Rockwell Manufacturing Co. employees are George L. Geuss, of New York, and C. K. Madison, of Houston.



WORKING TOGETHER

A HALF-CENTURY of mutual achievement and advancement by the automotive, rubber and petroleum industries was saluted at the Wednesday evening general session.

Leaders of each of the three industries concerned participated in the program, which bore the title: "Working Together For Fifty Years—The Automotive, Rubber and Petroleum Industries."

Alfred P. Sloan, Jr., chairman of General Motors Corp., spoke for the automotive industry; T. G. Graham, vice president of B. F. Goodrich Co., for the rubber industry; and Reese H. Taylor, president of Union Oil Co. of California, for the petroleum industry.

All three speakers referred to the common interests and the common problems of the fields of endeavor which they represented, and each foresaw still greater opportunities to serve the public interest as the automotive, rubber and petroleum industries continue to work together in the years ahead.



Top, part of the assemblage which attended the Wednesday evening general session, at which Alfred P. Sloan, Jr., chairman of General Motors Corp. (right), was a speaker.

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Other major speakers were T. G. Graham, vice president of B. F. Goodrich Co. (right), and Reese H. Taylor, president of Union Oil Co., (far right).





John W. Scott, president of Buckley and Scott Utilities, and Indiana's Dr. R. E. Wilson.



Two company presidents—A. C. Mattei of Honolulu Oil and Harry Wiess of Humble.

Exchanging pleasantries just before the start of the general session are Bruce K. Brown, vice president of Standard of Indiana, and George Bryant and Michael Halpern of the Texas Co. Mr. Halpern is a vice president of the Texas Co.

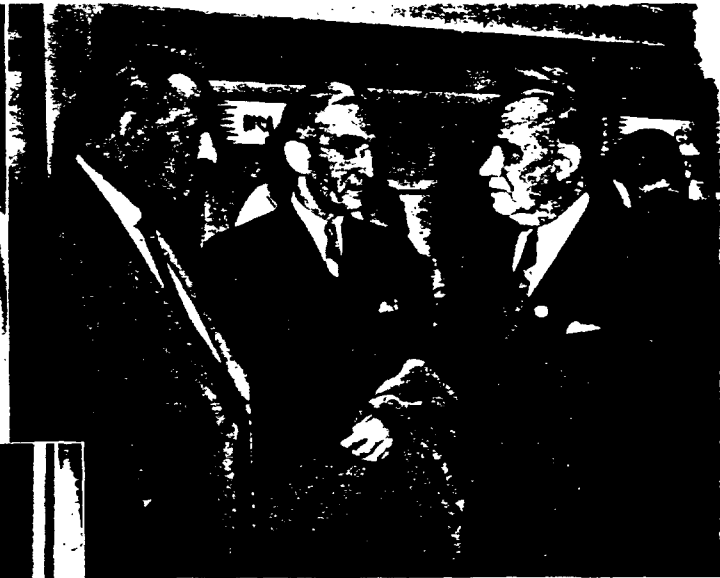


W. S. S. Rodgers, chairman of the Texas Co., API President Boyd, and Alfred P. Sloan, Jr., chairman of GM, enjoy a pre-session laugh.





John M. Crawford, chairman of Parkersburg Rig & Reel Co., watches Earle W. Webb, president of Ethyl Corp., light a cigarette for L. S. Westcoat, vice president of Pure Oil Co.



L. W. Collins of the American Petroleum Industries Committee; John Downing, a vice president of Standard Oil of Kentucky; and Baird H. Markham, director of the APIC.



Charles F. Roeser, of Fort Worth, as he left a convention session.

The Committee on Automotive Research in session. K. G. Mackenzie (top right) presided as chairman. Top left is W. T. Gunn of the API staff, committee secretary.

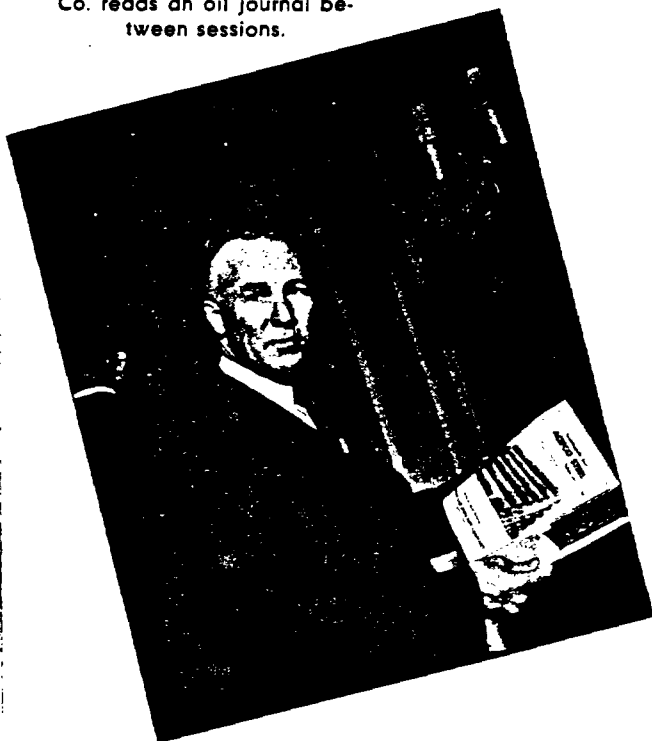




R. L. Wheelock of Wheelock & Collins, Corsicana, Texas; R. B. Anderson of the W. T. Waggoner Estate, Vernon, Texas; and Eugene Holman, president of Standard Oil Co. (N. J.).

W. Alton Jones, president of Cities Service Co., and C. S. Jones, president of Richfield Oil Corp. Bottom, Marc Braeckel, vice president of Richfield of New York; and Rud Babor, also Richfield of New York.

G. R. Fenner of the Pure Oil Co. reads an oil journal between sessions.





W. R. Boyd 3rd, a lieutenant colonel during the recent war and now with Cities Service, visits with oil-minded naval and military men. L. to r., Boyd; Capt. Ralph E. Wilson of the Army-Navy Petroleum Board; Col. Webster Anderson, chief of the Fuels and Lubrication Branch of the Quartermaster Corps; Col. Gus Vogel, ANPB executive officer, and Col. O. F. Kotick, chief of the ANPB planning division.



Kenneth W. Yeates, president of the Wasatch Oil Refining Co., Salt Lake City, shakes hands with James E. Boudreau, of Ethyl.

Dr. Gustav Egloff of Universal Oil Products, and Charles Becker and Louis Mittelman, both of Tide Water. In photo at far right: Robert B. Bossler of the Brundred Oil Corp., Oil City, Pa.; Charles B. McClintock, consulting engineer of Oil City, and J. Paul Jones, of the Pennsylvania Grade Crude Oil Association.



LOOKING AHEAD



Eugene Holman, president of Standard Oil Co. (N. J.), delivering his address at the final session.



Another major speaker was Ralph T. Zook, of the Sloan and Zook Co., Bradford, Pa.



J. Howard Pew, president of the Sun Oil Co., was the session's third and last speaker.

SPEAKING at the final general session, Eugene Holman, president of the Standard Oil Co. (N. J.), said the oil industry has four main responsibilities: "To continue to supply our customers with oil in quantity and quality at reasonable prices; to see that our stockholders receive a fair return on the money they have invested in the oil industry; to maintain labor policies that are progressive and enlightened; and to plan our future development along lines that will give the industry the productive capacity and adaptability needed to cope with any emergency or danger that may face our nation."

Outlining the problems facing the oil industry, Ralph T. Zook, of the Sloan and Zook Co., said that the industry's basic objective must be to "develop productive capacity to assure this nation of an adequate supply of petroleum and products for any emergency." Warning that "the surest way to invite a disastrous import policy is to let our domestic productive capacity become inadequate for our needs," he said that "the best way to prevent such a development is to drill — continuously and vigorously — for new reserves."

In the concluding address, J. Howard Pew, president of the Sun Oil Co., warned that "the battle to subject our industry to a super-state cartel has just begun." Said he: "If we are permitted to proceed along that highway of spirited competitive enterprise, then all the bright hopes for our industry will be fulfilled and we shall multiply many times our past contribution to raising the standard of living and assuring the national defense of the American people."

A feature of the closing general session was the presentation of a gold medal and scroll to Henry Ford by the API. Henry Ford 2nd accepted the honor on behalf of his grandfather.



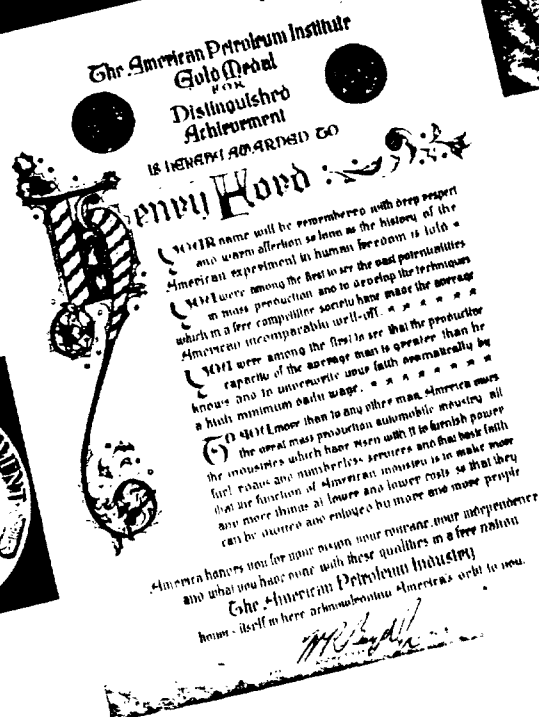
A view of a section of the audience which attended the Thursday morning "Looking Ahead" program.



Henry Ford 2nd accepts from API President Boyd the gold medal and scroll honoring Mr. Ford's grandfather for his "vision, courage, and independence." Below, the reverse sides of the API Distinguished Achievement medal.



Henry Ford, recipient of the gold medal in absentia. Presentation of the award, the first of its kind by API, will be a feature of each annual meeting.





A. W. Peake, president of Standard Oil Co. (Indiana), gives a "how" greeting to E. G. Seubert, former president of the Indiana company.



George A. Hill, Jr., president of the Houston Oil Co. of Texas, and Robert H. Colley, president of the Atlantic Refining Co.

J. W. Warner and Leonard R. Leonard, of Tide Water Associated; M. H. Robineau, president of Frontier Refining; and James Boudreau of Ethyl.



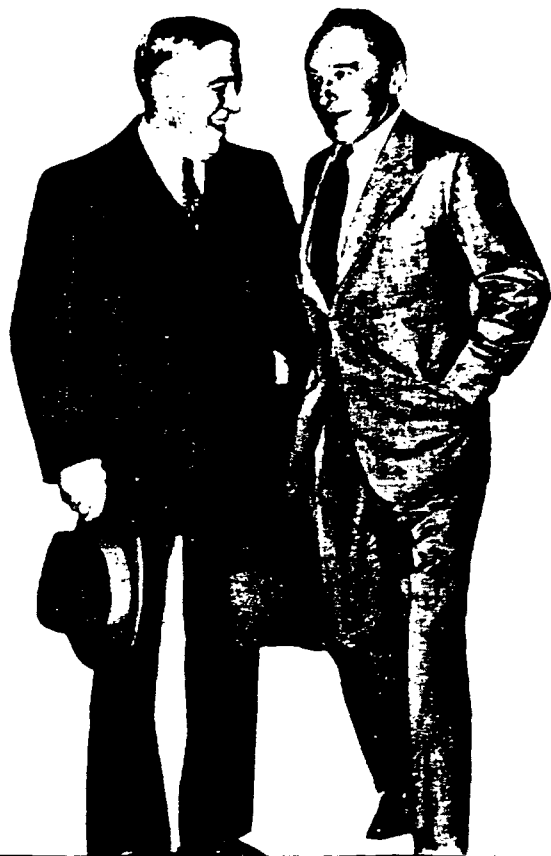


Carl L. Mayhall, vice president of the Anderson-Pritchard Oil Corp.

R. L. Wheelock, of Wheelock & Collins, of Corsicana, Texas, converses with another Southwesterner—Frank Phillips, chairman of Phillips Petroleum Co.



J. A. Padon, vice president of Warren Petroleum Corp.; Kenneth V. Zwiener, vice president of the Harris Trust and Savings Bank of Chicago; and Paul Ryan, of the Ryford Oil Co.



L. J. Drake of the Union Tank Car Co., and R. G. A. van der Woude, president of Shell Union Oil Corp.



Frank H. Dunn, president of Wilcox Oil Co., Tulsa, and R. R. Irwin of Socony-Vacuum, Kansas City.



Sporting broad smiles are E. B. Reeser, director of Bamsdall Oil Co., and Warren Platt, editor and publisher of National Petroleum News.



O. C. Schorp, president of Carter Oil Co., Tulsa.



L. B. Simmons, chairman of Rock Island Refining Co., Duncan, Okla., bends an ear for Oliver Klinger, publisher of Oildom.

The Sub-Committee on Internal Combustion Engines in session.



PRODUCTION



L. L. McWilliams, of Phillips Petroleum Co., read a paper on the Source and Purification of Gas Supply.

FOUR important sessions on various phases of production were held during the API meeting.

At the opening session on production problems, a paper dealing with the Silica Arbuckle Pool in Kansas provided a case history for analysis of the relation between well spacing and ultimate oil recovery for this important type of reservoir. A second paper contained a review of op-

erating practices in gas-condensate reservoirs, while a third presented "A Study of the Flow of Homogeneous Fluids Through Ideal Porous Media."

The Symposium on Secondary Recovery heard nine papers on various aspects of the subject, while the session on Drilling and Material Problems included papers on "Corrosion and Preventive Methods in the Katy Field" and "Practical Aspects of Directional Drilling." The final session was devoted to a four-part discussion entitled "Maintaining and Increasing Injection Rates of Water-Input Wells."



Paul D. Torrey, consulting engineer of Houston, presiding at the Tuesday symposium on Secondary Recovery.

Part of the audience that attended one of the two Production sessions on Tuesday.



R. C. Earllougher, of Tulsa, discussed the use of explosives in secondary recovery.



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K. H. Andresen, of South Penn Oil Co., as he presided at the session on Production Technology.



J. F. Buckwalter, of Ryder-Scott Co., read a paper on Advantages of Increased Injection Rates at Water-Input Wells.



Printed copies of speeches and papers delivered at the Production sessions were collected by the audiences for future reference.



Jake L. Hamon, of Cox and Hamon, Dallas, newly-elected API vice president for production.

Drilling and material problems were discussed at Wednesday's Production session. Among the speakers was R. C. Buchan, of Humble Oil and Refining (standing). Seated are chairmen J. M. Cooper, of Gulf Oil Corp., and Lot Bowen, of Western Gulf Oil Co.



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HERE AND THERE



E. L. DeGolyer of DeGolyer and MacNaughton, Dallas, holds a Stevens mezzanine confab with Fred F. Murray, president of the Oil Well Supply Co., Dallas.

J. E. Heston of Petroleum Advisers, Inc., New York; Ralph J. Schilthuis of Humble Oil & Refining Co., Houston; R. W. French of Continental Oil Co., Ponca City; and Robert L. Kidd of Gtites Service Oil Co. (Del.).



Below, a trio of Pure Oil Co. representatives: I. W. Alcorn, of Houston; Kenneth Covell, of Chicago; and Ira H. Cram, of Chicago. Smiling happily in the center of the group shown in lower right photo is Frank Porter, president of Fain-Porter Drilling Co., Oklahoma City. Puffing on his cigar is Oliver B. Hopkins, of Imperial Oil, Ltd., Toronto. C. S. Sanders of Stanolind Oil and Gas Co., Tulsa, is at the right, while back to the camera is W. H. Ferguson, executive vice president of Continental Oil Co.



BUFFET PARTY



ONE OF THE social highlights of the API annual meeting was the Tuesday afternoon buffet party jointly sponsored by Youngstown Sheet & Tube Co., The Continental Supply Co., and Emsco Derrick & Equipment Co.

The party, largest of the convention, was held in the grand ballroom of the Stevens. To cater to the huge throng which attended, tables filled with hors d'oeuvres and other delicacies were set up in the center of the ballroom. Solid masses of ice, shaped in many designs, formed part of the decoration scheme for the food tables.



At the top and upper left are general scenes of the buffet party. Among those present (below left) were F. M. Sowle, vice president of the National Bank of Tulsa; F. M. Mayer, president of The Continental Supply Co., Dallas; Francis L. Jehle, of Globe Oil and Refining, Wichita; and D. F. Haynes, of Humble Oil & Refining Co., Houston.

Two Lane-Wells Co. representatives—M. T. Higgs of Houston and J. D. Hughes of Los Angeles—smile broadly for the cameraman with Carl Reistle and Bowman Thomas, of Humble Oil & Refining Co.



The party meant get-together time for H. C. Clark, of Abegg and Reinhold, Los Angeles; Gavin Witherspoon, of Bahrain Petroleum Co., New York; Roland E. Smith, of Globe Oil Tools Co., Los Angeles; and Felix Dreyfus, of The California Co., New Orleans.

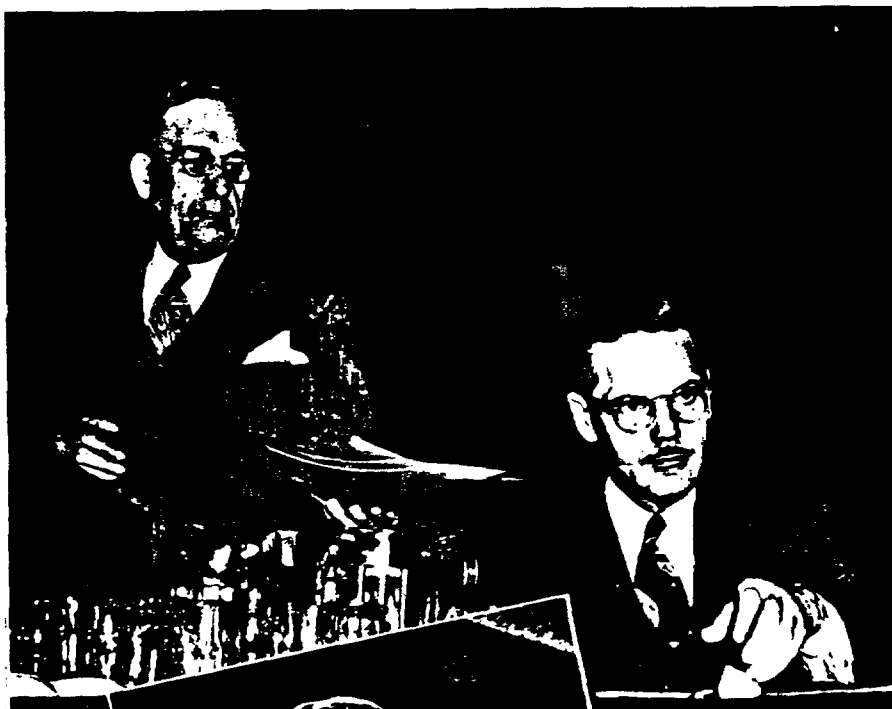


This party group includes Roy Rodolf, of Gardner-Denver Co.; N. A. Endicott, of The Continental Supply Co.; Hugh Glen, president of Emsco Derrick & Equipment Co.; G. V. Leece, vice president of Gardner-Denver Co.; H. S. Cole, vice president of Thompson-Carr, Inc.; and E. F. Schaefer, executive vice president of Gardner-Denver Co.

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REFINING



John C. Day of Western Petroleum Refiners Association, Tulsa, hands to W. T. Gunn, API director of the Division of Refining, the report of the Division's nominating committee.



W. M. Holaday, of Socony-Vacuum, presided at the Refining Division session on Gasoline.

Two refining group sessions were held during the API meeting — the first consisting of a Symposium on High-Temperature Analytical Distillation and the second dealing with gasoline.

Discussing future trends in aviation at the latter session, Dr. C. C. Furnas, director, Cornell Aeronautical Experimental Station, said that the development of lighter weight aviation gasoline offers great potentialities, because it would increase the useful payload of a plane. He foresaw 4,000 planes in commercial service the next few years, besides 300,000 to 400,000 private planes.

Other papers discussed various technical phases of the industry's wartime refinery operations and methods, and their bearing on post-war operations.

The audience at the symposium on High Temperature Analytical Distillation hears C. R. Reed, of the Texas Co., Beacon, N. Y., offer a paper.





Guest speaker Dr. C. C. Furnas, of Cornell University, discussed the Future Trends in Aviation.



H. M. Trimble, of Phillips Petroleum, delivered a Status Report on the CFR-AAF Volatility Flight Test Studies.

Correlation of Operating Variables in the Polyform Process was the title of a paper presented by Joel H. Hirsch, of Gulf Research.

P. J. Harrington, of the Standard Oil Development Co., read a paper on Miscellaneous Fractionating Techniques.



This was the scene as the Advisory Committee on Fundamental Research on the Composition and Properties of Petroleum met in session. Harold M. Smith, of the U. S. Bureau of Mines, is addressing the group.



F. D. Rossini, of the National Bureau of Standards.

HERE AND THERE



J. E. Ford, Jr., of Houdry Process Corp., New York, with I. A. Anson, vice president of Bell Oil and Gas Co., Tulsa, and Elmer M. Cooper, of the Chanute Refining Co., Chanute, Kansas.



Jane Jordan, of Ethyl's Detroit Research Laboratories, and Howard V. Smith, of the Kendall Refining Co., Bradford, Pa.

Dr. L. C. Beard, Jr., of Socony-Vacuum Oil Co.; H. R. Warrick, the Texas Co.; Gage Averill, American Cyanamid, all of New York, with R. W. Schlessler, assistant professor of chemistry at Pennsylvania State College.





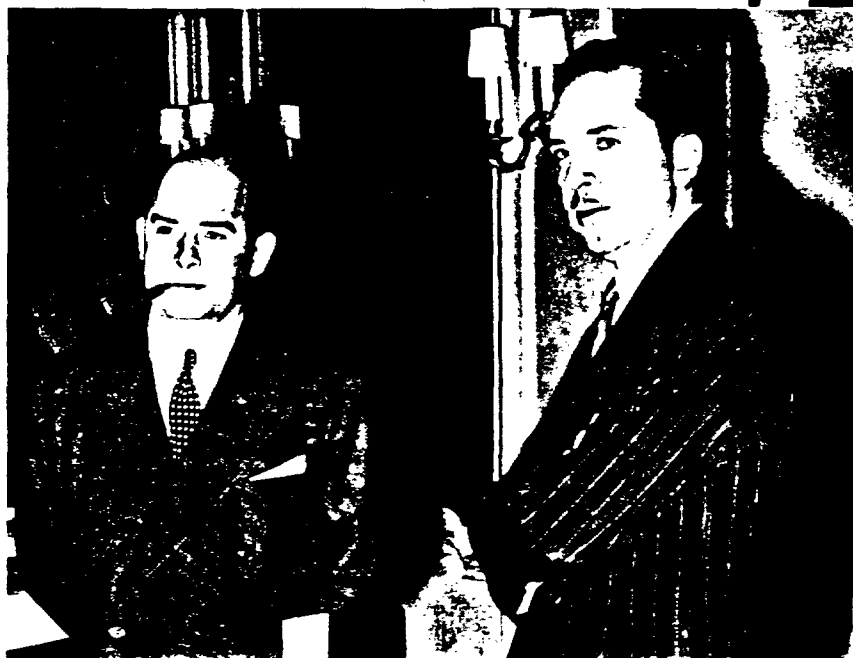
Two Skelly Oil Co. men — E. K. Anderson and G. E. Canaday.



W. K. Warren, president of Warren Petroleum Corp., Tulsa, with John M. Lovejoy, president of Seaboard Oil Co. Mr. Lovejoy has been named head of a committee of 34 oil executives who will direct the industry's new public relations program.



J. B. Rather, Jr., of Socony-Vacuum, Brooklyn, and Robert J. Askevold, of Pure Oil Co., Chicago, snapped outside the grand ballroom.



A lull in traffic along the third floor corridor leading to assembly and ballrooms, where many of the group sessions were held.

BUREAUCRATS' BUFFET



API ANNUAL MEETING time also was PAW "alumni" reunion time. The occasion was an extra-curricular event called the Bureaucrats' Buffet.

More than 200 former members of the Petroleum Administration for War attended the party, which was held after sessions Tuesday afternoon. It was the first such gathering, on a broad scale, of men once associated with the wartime Government agency, and was purely a social affair. There was plenty of music and refreshments, but speech-making was not allowed.

Representation from all sections of the country was excellent, and virtually everyone present expressed the hope that the PAW buffet would become a permanent fixture of future API annual meetings.

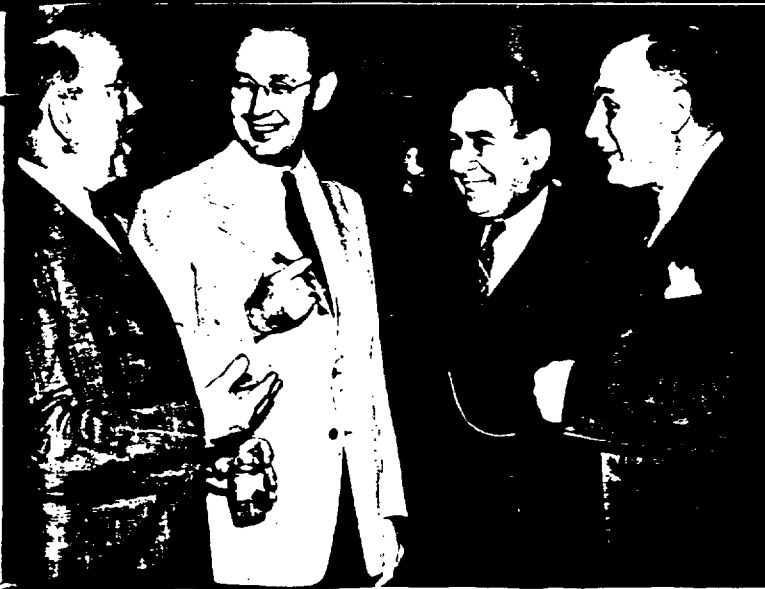
Talking things over at the PAW buffet are Paul Raigorodsky, president, Glen Rose Gasoline Co.; Bruce K. Brown, vice president, Standard of Indiana; James E. Pew, of Sun Oil; D. E. Buchanan; and E. L. DeGolyer, of DeGolyer and MacNaughton.

A. P. Frame, vice president of Petroleum Advisers, Inc., who was PAW director of refining; E. O. Jones, of Ethyl, who was special assistant to the PAW director of refining; and Dustin Wilson, of A. G. McKee & Co., who was assistant PAW director of refining.



Robert E. Allen, director of information for the API, was among the guests at the buffet party given by former PAW people.





The Bureaucrats' Buffet brought together B. H. Barnes of Gulf Oil, Pittsburgh; George A. Wilson, Jersey Standard, Baton Rouge; William Argyle of Sinclair Oil, New York; and Walter Hochuli, of Texas Co.

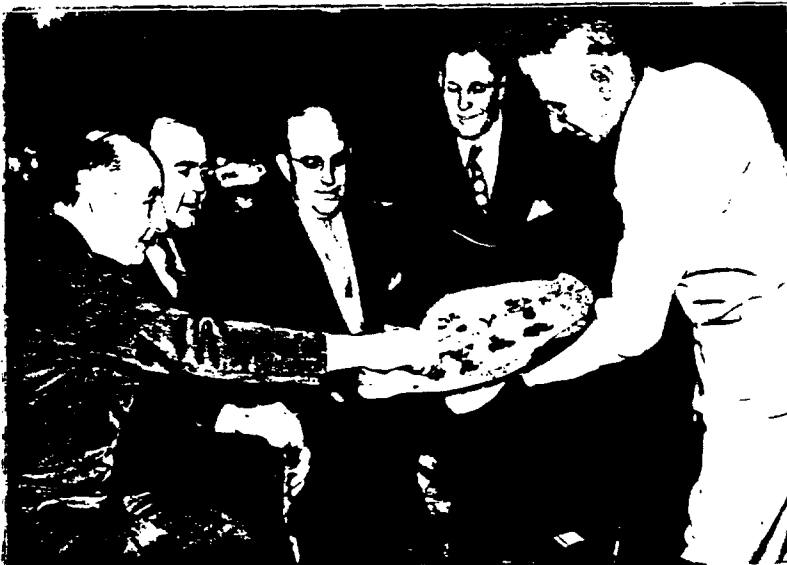
Raymond B. Kelly, of Pure Oil, Fort Worth, and Charles B. McClintock, a consulting engineer of Oil City, Pa.

L. A. Mekler, a Chicago consulting engineer, also attended the buffet.



"Hail, Hail . . ." The former PAW supply and transportation group ganged up at the buffet. The party was held in the tower of the Stevens.





Talking over their days with the PAW are C. P. Parsons, Hughes Tool Co.; Frank A. Watts, of Humble Oil; Greer W. Orton, of the Texas Co.; and David L. Trax, of Gulf, Tulsa.

Below, left, are Carleton Speed, Jr., of Speed Oil; Leatrice Hollenbeck, of Sunray Oil; and Earl Petty, of Washington, D. C.



Fayette B. Dow, Association counsel, is snapped with J. Howard Marshall, president of Ashland Oil & Refining Co.



A. C. Sailstad, Leonard Refineries; Philip Denton, Sinclair Refining, Chicago, and E. F. Underwood, of Skelly Oil, Kansas City, formed this huddle.



William Mendius, Sinclair Refining, East Chicago; Dustin Wilson, Arthur G. McKee & Co.; C. M. Ridgeway, Pure Oil, Chicago; and Harold V. Nyland (back to camera), of Sinclair Refining, East Chicago, made a foursome.





E. V. Weber, president of Eureka Oil Co., presided at the Marketing session.



B. L. Majewski, vice president of Deep Rock Oil Corp., the new API vice president for marketing.



Raymond Shaw, president of the Chek-Chart Corp., spoke on Balanced Selling at Service Stations.

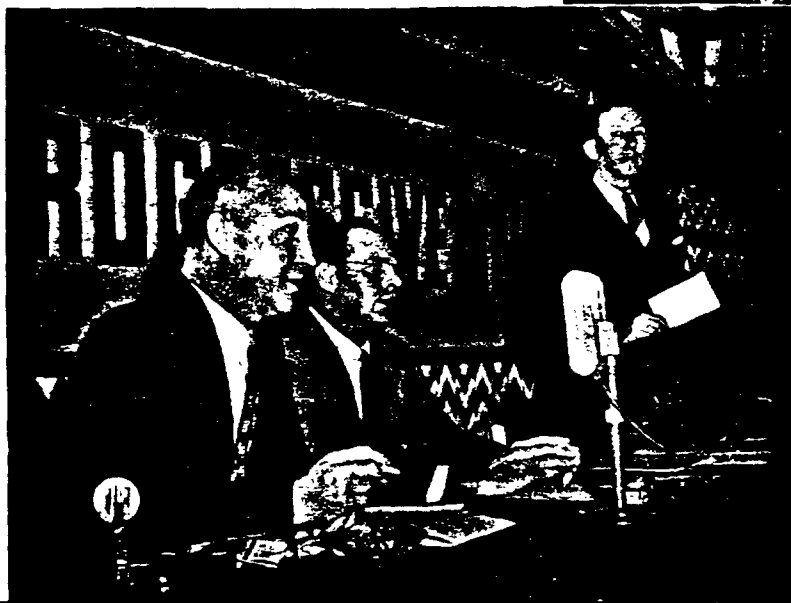
MARKETING

THE MARKETING SESSION was featured by a panel discussion on distillate heating oils. Stressing the growing importance of this market, one speaker urged that fuel oil be marketed by brand name, while a second cited ways that fuel oil can meet the competition of gas heat. A third speaker said that low-cost oil heat equipment is needed to capture the small homes market, while a fourth discussed proposed changes in fuel oil specifications.

Raymond Shaw, president of Chek-Chart Corp., was another speaker at the marketing session, talking on "Balanced Selling in Service Stations."



Above, W. A. Matheson, of the Oil Heat Institute (standing), and Jack L. Minner, of Shell, and Eric V. Weber, meeting chairman.



Left, L. B. Fox, of Socony-Vacuum; John R. Sherwood, of Sherwood Brothers; and Robert Gray, of Fuel-oil and Oil Heat magazine.

HERE AND THERE

Chester C. Oberly, chairman of Tokheim Oil Tank & Pump, and E. S. Higginbotham, also of Tokheim, relax between sessions.



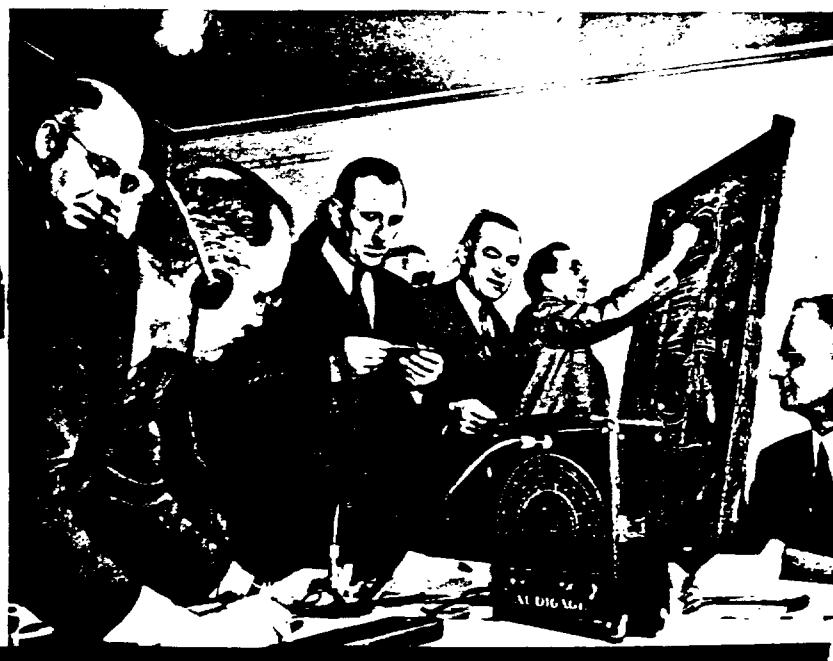
A busy place at mealtime was the Oak Room of the Stevens. Here, a hostess lines up a group of diners.



J. C. Case, of Socony-Vacuum, and A. Jacobsen, president of Amerada Petroleum Corp., New York



Activity during the joint committee meeting on tanks and tank welding. Wearing the earphones is F. G. Wilson, liquid fuels engineer, Air Transport Command, Washington, D. C. Walter Samans, of Sun Oil, is at the blackboard. Left of him is Oscar B. Lewis, of Ethyl.

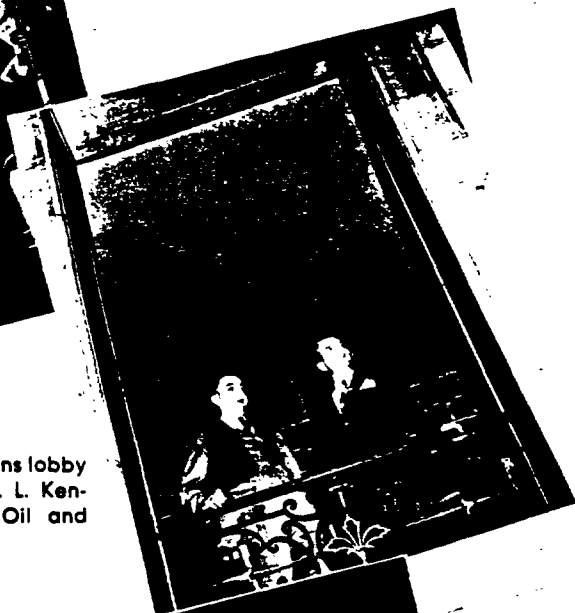


H. B. Catlow of Republic Supply chats with Tom W. Nelson of Gulf Publishing in an elevator at the hotel.



Glancing at the API bulletin board, F. E. Holsten, of Southern Oil Service, got a chuckle out of the inevitable, ubiquitous "Kilroy was here."

Looking down at the Stevens lobby are Clarel Mapes and H. L. Kennedy, of Mid-Continent Oil and Gas Association.



F. LeRoy Nelson, organist at the Stevens, obliges with a request for a selection.



L. P. Calkin, of Phillips Petroleum; Harry Kaley, vice president of Ethyl; and Joseph H. Salmon, of Shell Oil.



Fred E. Cooper, Tulsa oil field equipment dealer; R. E. Meinert, vice president of the Lion Oil Co.; and Chris Zeppa, of the Delta Drilling Co., Tyler, Texas.



Clyde E. Wallingford, of the Ohio Petroleum Marketers Association; Earl Lamm, of NPN; and R. J. Rogers, of the Indiana Petroleum Association.



Clyde J. Merrill, of the Atlantic Coast Oil Conference; Marc Braeckel, vice president of Richfield of New York; W. C. Burns, president of Richfield of New York; and W. R. Quattrocchi, New York.

Standard of Indiana was host to the API Board of Directors at dinner in the Stevens tower. Partakers of the refreshments included (right) E. B. Reeser, director of Barnsdall Oil Co.; H. R. Straight, chairman of Cities Service Oil Co. (Del.); J. French Robinson, president of East Ohio Gas Co.; and Dewitt T. Ring, of Preston Oil Co.

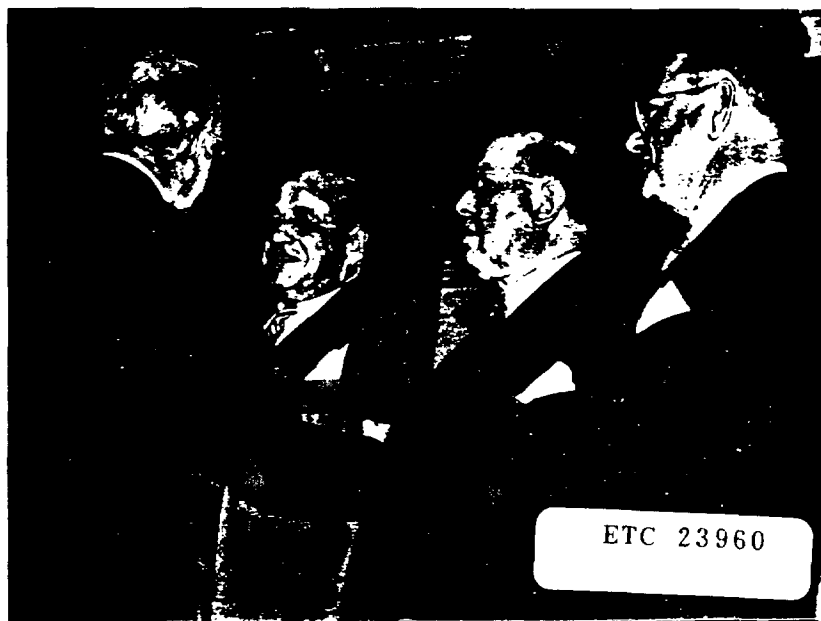


Being served a helping of hors d'oeuvres are W. H. Ferguson, executive vice president of Continental Oil Co., Denver, and Reese H. Taylor, president of Union Oil.



Harry F. Glair, of Standard of Indiana; E. G. Seubert, former head of the Indiana company, and E. B. Reeser.

The heads of four oil companies get together at the Standard of Indiana dinner for the API directors. Frank Phillips of Phillips Petroleum (back to camera) greets Daniel Moran of Continental Oil, while William G. Skelly of Skelly Oil and William K. Warren of Warren Petroleum wait to say "hello."



TRANSPORTATION



B. Brewster Jennings, president of Socony-Vacuum Oil Co., and API vice president for transportation, presided at the Division of Transportation meeting.



Donald G. Conn, left, of the Transportation Association of America, Chicago, and Fayette B. Dow (lower left), of Washington, D. C., were speakers at the session of the Transportation Division.



ADDRESSING the transportation session, Fayette Dow, counsel to the API, declared that transportation is in the early stages of a legislative battle over future government policy. Outlining the stand of each type of carrier, he said that all agree the coming era will be one of unparalleled competition.

Donald G. Conn, of the Transportation Association of America, sounded a warning against government ownership of transportation.

S. F. Niness, of Leaman Transportation Co., outlined the present state of development among for-hire motor carriers of petroleum products, and discussed their future plans.

H. H. Anderson, of Shell Pipe Line Corp., reviewed wartime developments in pipe-line technology in the light of their postwar applications.

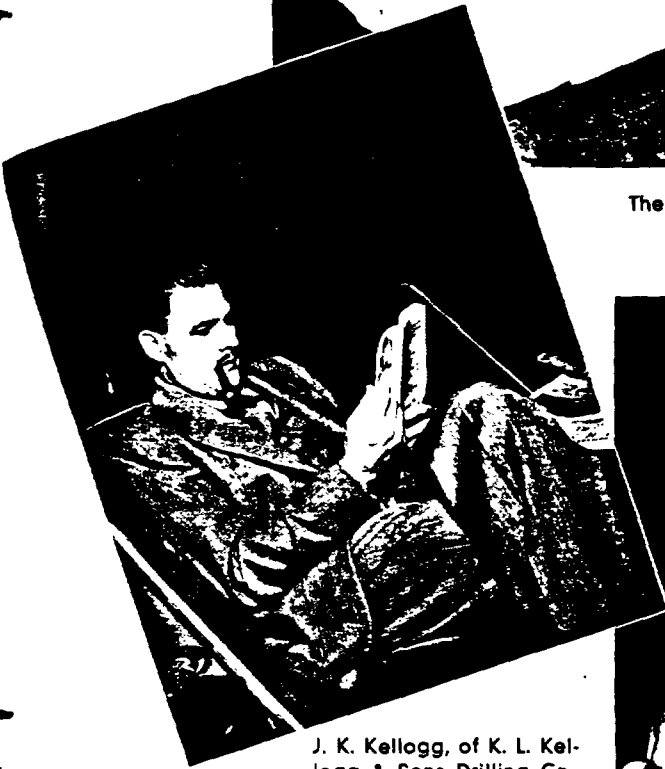
S. F. Niness, below, left, president of Leaman Transportation, Downingtown, Pa., and H. H. Anderson, right, vice president of Shell Pipe Line Corp., Houston, also presented papers at the Transportation Division group session on Wednesday morning.



HERE AND THERE



The speakers' table at the Pipeliners' Dinner held on Monday night in the Crystal Ballroom of the Blackstone Hotel.



J. K. Kellogg, of K. L. Kellogg & Sons Drilling Co., Long Beach, Calif., looks over the registration list.



Intent listener at right, above, is William G. Kinsolving of Sun Pipe Line Co., Philadelphia, snapped at a session Thursday. At right, a huddle of Ethyl area sales managers: James E. Boudreau, Central area; Richard Murphy, Eastern area, and S. M. Wagner, Western area.





The 25 Year Club of the Petroleum Industry held its seventh annual dinner and business meeting on Tuesday evening in the Casino Club. Above is a general view of the dinner meeting of the Club, which is composed of members of the industry with at least a quarter-century of continuous service. Left, Holbrook T. Ashton congratulates Daniel J. Moran, his successor as president of the group. Mr. Ashton is general manager of the Lubrite Division of Socony-Vacuum, and Mr. Moran is president of Continental Oil Co.

J. A. Lentz of Continental Oil Co., Denver, and O. J. Shaw of Lincoln Oil, Lincoln, Nebr.

Marion J. Greenwood, vice president of Utah Oil Refining Co., greets Harry Kuhe of Ethyl.



AGRICULTURE



The chairman and vice chairmen of the API Agricultural Development Committee. Lloyd H. Geil, of Standard of Indiana; George Krieger, of Ethyl Corp.; and Carey F. Ramey, of Standard of California.

THE FIRST GROUP session on Agriculture ever conducted at an API annual meeting was held Monday afternoon under the auspices of the Institute's new Agricultural Development Committee.

Addressing the meeting, John L. McCaffrey, president of International Harvester Co., approved the Committee's objectives and suggested still other aims the group might accomplish to the benefit of both the farmer and the petroleum industry.

The other speakers were Arthur Turner, of the U. S. Department of Agriculture, and Ladd Haystead, farm editor of Fortune magazine.

Guest speakers at the Agricultural group session were Ladd Haystead (left), farm editor of Fortune magazine; Arthur W. Turner (center), chief of agricultural engineering, U. S. Department of Agriculture; and John L. McCaffrey (right), president of the International Harvester Co.



HERE AND THERE

John A. Ritter, of the Sun Oil Co., Dallas.



Descending to the Stevens lobby are W. C. Wenzel, Pennsylvania Grade Crude Oil Association, Oil City, Pa., and John Harper, president of Harper Oil Co., Long Island City, N. Y. A few steps behind, at extreme left, is R. J. Pfeiffer, of Stanolind Oil and Gas Co., Tulsa.

D. P. Barnard, Standard Oil of Indiana, and G. G. Lamb, chemical engineering professor at Northwestern, head for the grand ball-room to attend one of the general sessions.



George Calingaert, director of chemical research for Ethyl, and William H. Hubner, of Ethyl's New York office, compare notes between sessions.

Oil man of the future? Young Jimmy Fawcett, of Chicago, looks over some trade magazines before taking in the Wednesday night session.



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LUBRICATION

THE NECESSITY for lubricating an automobile every 1,000 miles, as advocated by the API, was discussed from the technical, marketing, and safety viewpoints at a Monday evening group session.

The main problem, it was brought out, is to gain acceptance of the fact, by the motoring public and service station personnel, that frequent lubrication means a longer life for the vehicle.

L. C. Welch, of Standard Oil of Indiana, presiding at the Lubrication session.

Among those present at the "Lubricate for Safety" meeting were the interested listeners shown at right.

Below are three of the speakers who participated in the "Lubricate for Safety" symposium: A. L. Weist, Shell Oil, San Francisco; J. Willard Lord, Atlantic Refining, Philadelphia; and J. M. Koch, Quaker State Oil Refining Corp., Oil City, Pa.



HERE AND THERE



One of the social events of the API meeting was the Wednesday afternoon party tendered by Clark Brothers Co. Among those present (left), were David Hutchcraft of Clark Brothers; J. B. O'Connor of Dresser Industries, Cleveland; C. Paul Clark, president of Clark Brothers; and F. W. Laverty, also of Clark Brothers.

Taking time out during the busy convention schedule are two Universal Oil Products Co. representatives — W. Meredith Behrens and Charles Lowry, Jr.



Listening intently to William R. Quattrocchi of New York City (right) emphasize a point is Howard V. Smith, of the Kendall Refining Co., Bradford, Pa.



At a convention party were Joseph H. Salmon, of Shell; Julian J. Frey, general sales manager of Ethyl; Harold R. Berg, Southern area sales manager for Ethyl; and Robert Cass, of White Motor Co.

TAXATION



Edwin S. Hall, chairman of the American Petroleum Industries Committee, presided at the Taxation session. At the left is Dr. Harley L. Lutz, professor of public finance at Princeton, a guest speaker.



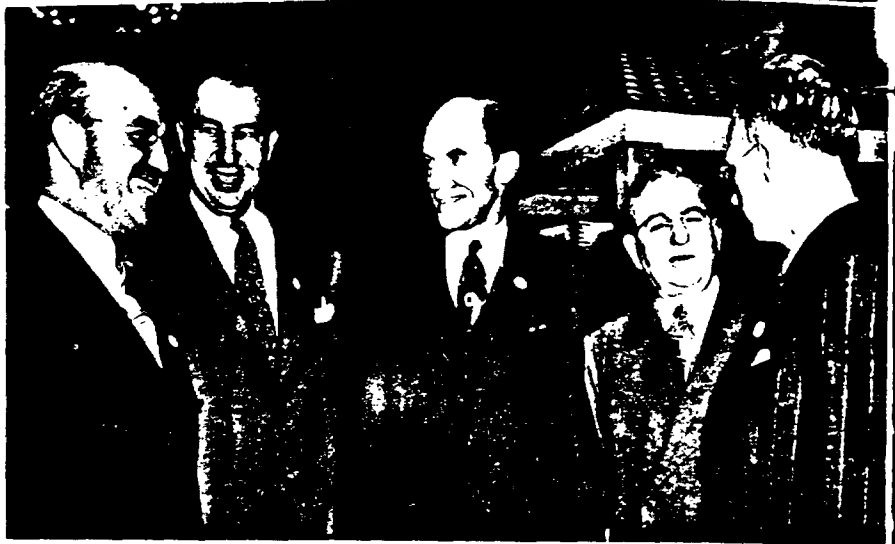
Lee S. Wescoat, vice president of Pure Oil and chairman of the API Committee on Highways, addressed the Taxation meeting.

Leaving the Taxation meeting are A. J. Rumoshosky, of the API staff; H. R. Fuller, of the Ohio Petroleum Marketers Association; Joseph P. Walsh, of Sinclair Oil; Joseph E. Keller, of the National Petroleum Association; J. R. Schulz, of Socony-Vacuum; and R. D. Stafford, editor of Super Service Station magazine.

Also heard at the Taxation session was ex-Congressman Robert Ramspeck, executive vice president of the Air Transport Association of America.



HERE AND THERE



Greer W. Orton, of the Texas Co.; Richard Murphy, of Ethyl; H. B. Nichols, of Cal-Tex; H. E. Hanson, of Standard of Indiana, and J. C. Donnell 2nd, vice president, the Ohio Oil Co.



Jean Milam and Helen Kohl pin buttons on David E. Fields, of Tulsa Boiler & Machinery, before an exhibit on gasoline taxes prepared by the APIC.

E. A. Evans and F. H. Ayden of C. C. Wakefield & Co. pause to admire a painting by Thomas Benton. The painting was one of a group placed on display during the convention by Standard Oil Co. (N. J.).



BEHIND THE SCENES



One of the big jobs at the API meeting was in making available, to the press and to delegates, copies of the addresses delivered by speakers. Here, the mimeographing staff is hard at work. At the right is Eloise Michel, who is one of the oldest employees of the API in point of continuous service.



Among the hard-working API staffers at the convention were J. A. McNally, Lacey Walker and Ernest Collenburg, shown here checking a day's registration list.



Millie Hearn was one of the staff who registered the steady influx of arrivals during the API meeting.

Briefcases bulging with material, Joseph L. Dwyer, of the API staff in Washington, emerges from a Board meeting.



J. S. Cooke, another of the API old-timers, has attended every annual meeting ever held.



Left, the API press room was always filled with correspondents pounding out stories about the convention for their home papers. Below, left, newsmen quiz API President Boyd at a press conference during the convention.

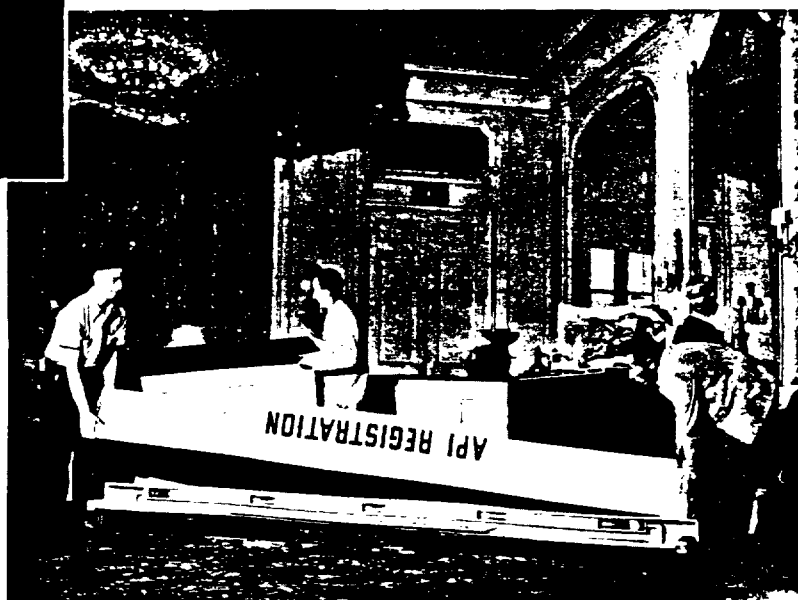


Lloyd Brady, of The Associated Press, was one of the newsmen who covered the meeting.



Paul Wollstadt (right), of NPN, talking with Philip D. Denton, Sinclair Refining.

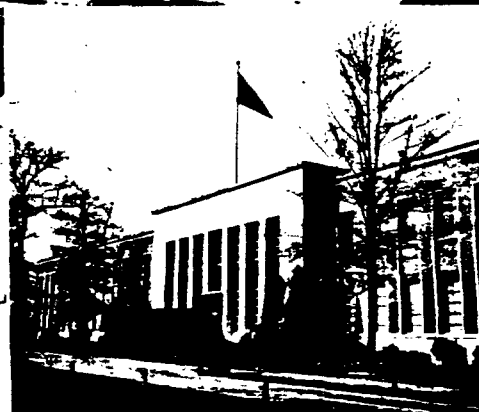
Workmen disassembling the API registration booth, at the conclusion of the sessions.



ETHYL OPEN HOUSE



Ethyl Corporation's central research laboratories in Detroit (above and right) were the scene of Open House, held concurrently with the API annual meeting. Many oilmen visited the laboratories on November 14 and 15.



CONCURRENTLY WITH the API annual meeting in Chicago, Open House was held at Ethyl Corporation's central research laboratories in Detroit for a period of three days. Visitors on Nov. 13, the opening day, included citizens of Ferndale

and neighboring communities. Representatives of the petroleum and automotive industries were invited to inspect the modern research establishment on Nov. 14 and 15.

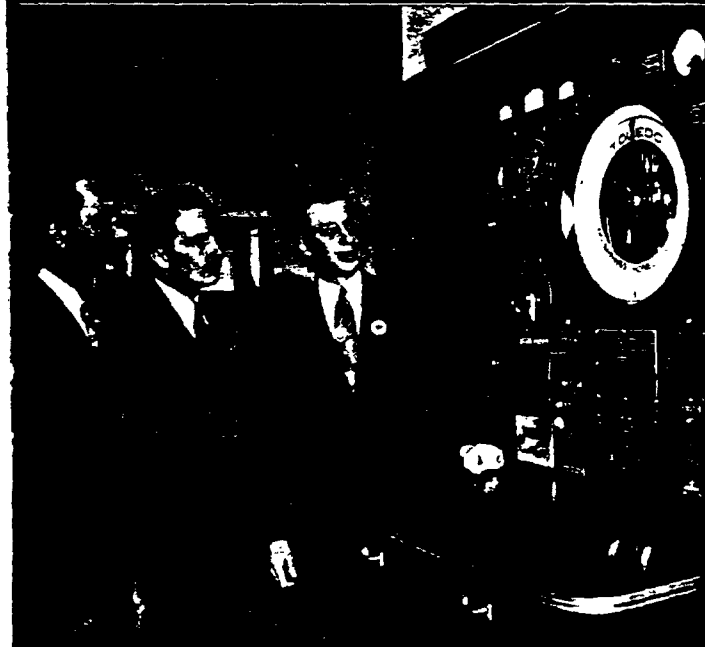
Although the Ethyl laboratories on West Eight Mile Road in subur-

ban Detroit have been in operation more than four years, the Open House marked the first formal public showing of the facilities at their new location. This delay in the "housewarming" was necessary because heretofore time and effort could not be spared, first from war work and then from reconversion activities.

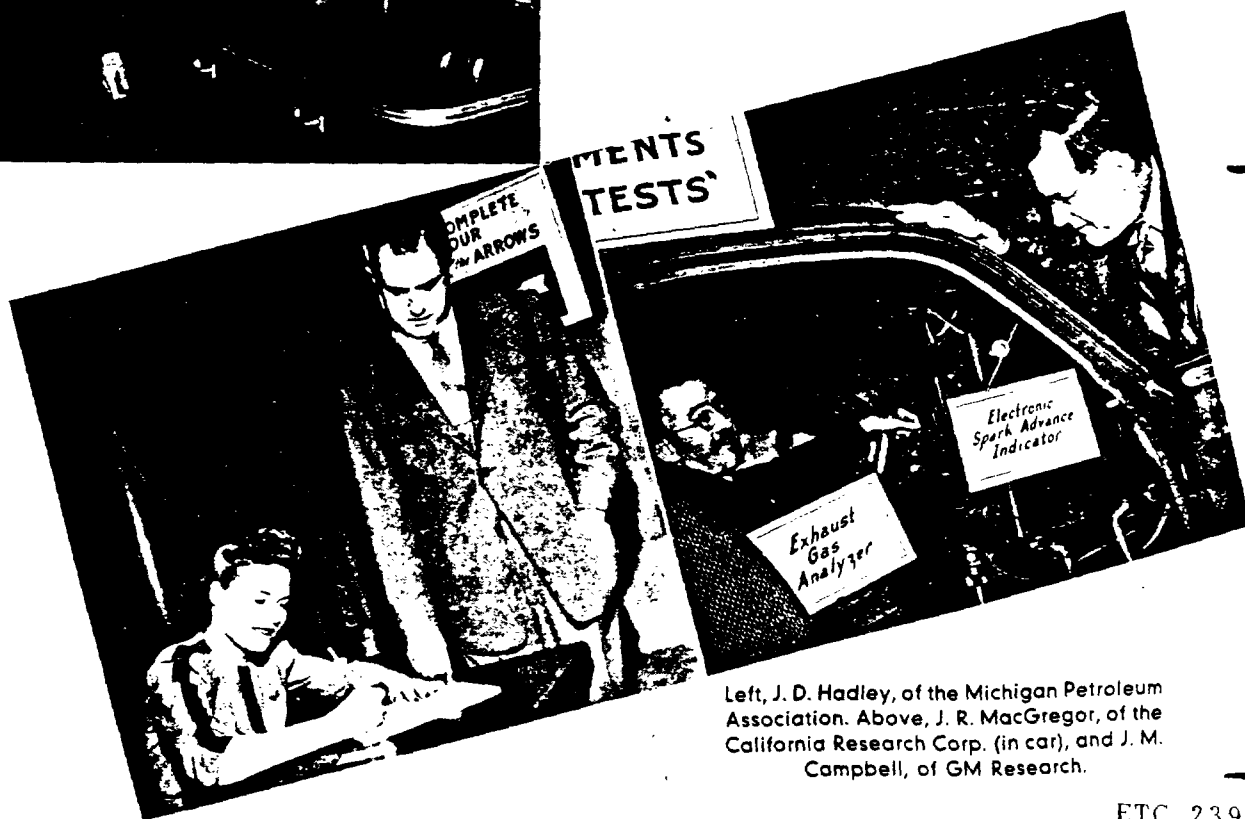
Holding a place of honor in the laboratories' main lobby during Open House was a newly-sculptured bronze plaque of Thomas Midgley, Jr. Midgley discovered the antiknock qualities of tetraethyl lead, the prime ingredient of Ethyl brand of antiknock compound.

Charles F. Kettering has his name added to the list of those attending the Open House.





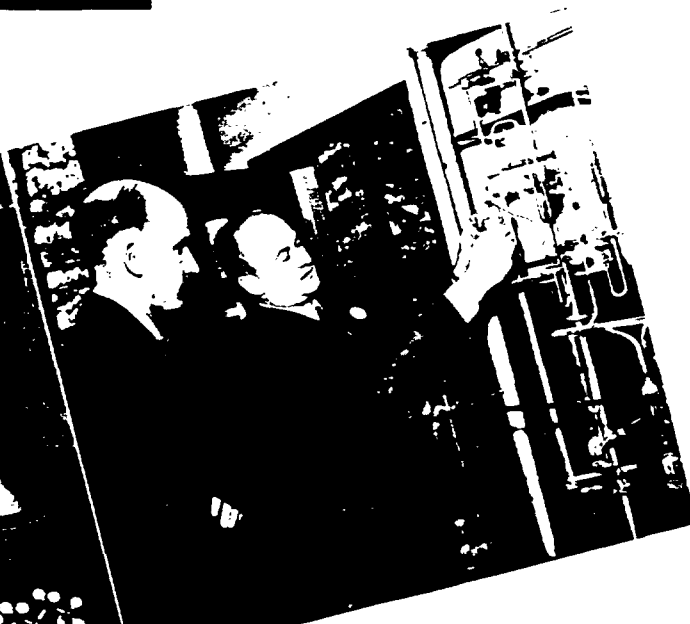
Top left, Earle W. Webb, president of Ethyl Corporation, stresses a point during an Open House conversation with Earl Bartholomew, general manager of the Ethyl research laboratories, and Charles F. Kettering. Above, Arthur Felt, supervisor of engine tests in the Aeronautical Laboratory, discusses a two-speed inductor engine with D. O. Nichols, Jr., and H. C. Mougey, both of General Motors Research. Left, Arthur Zeitz, an Ethyl engineering trainee (right), explains the control panel of a CFR engine to two executives of the Triangle Refineries, Inc., Houston. They are J. Howard Barksdale, vice president, and R. L. Grogan.



Left, J. D. Hadley, of the Michigan Petroleum Association. Above, J. R. MacGregor, of the California Research Corp. (in car), and J. M. Campbell, of GM Research.



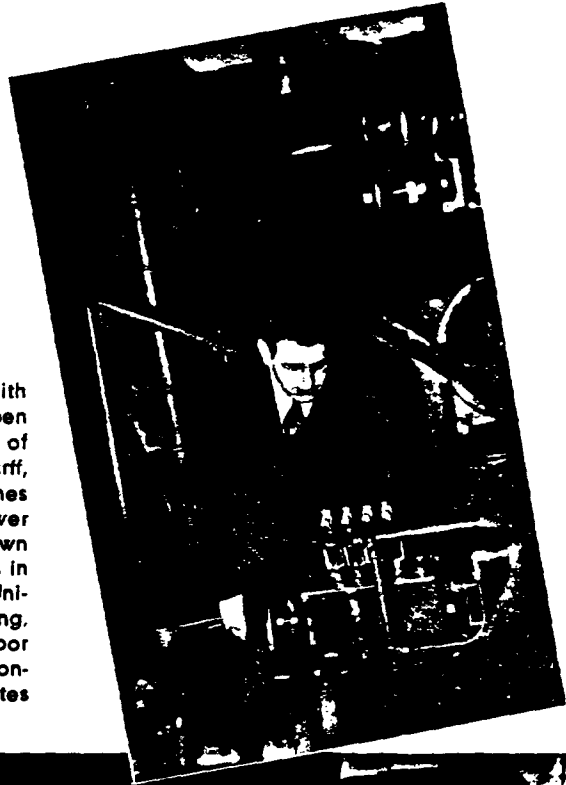
Above, E. J. Frueh, of Triangle Refineries, and E. G. Richardson, president of Transcentral Oil Corp., are shown a supercharged test engine by Robert Stevenson, of Ethyl. Above right, H. E. Anderson of Sun Oil.



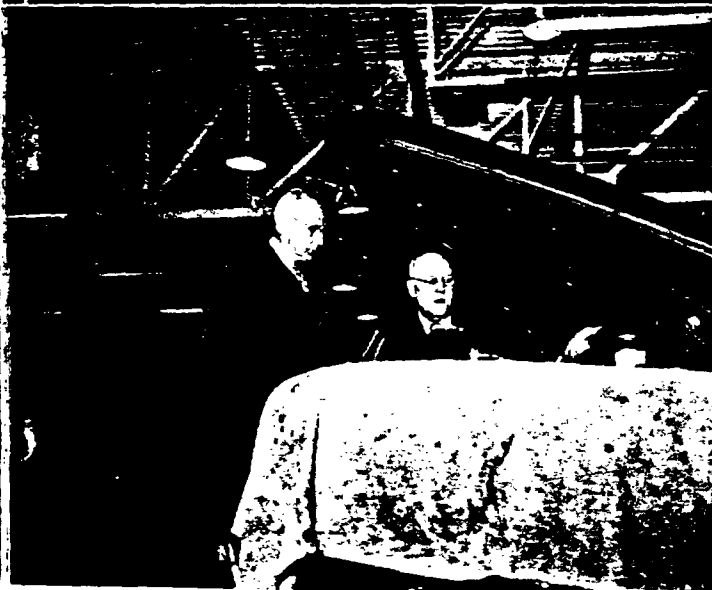
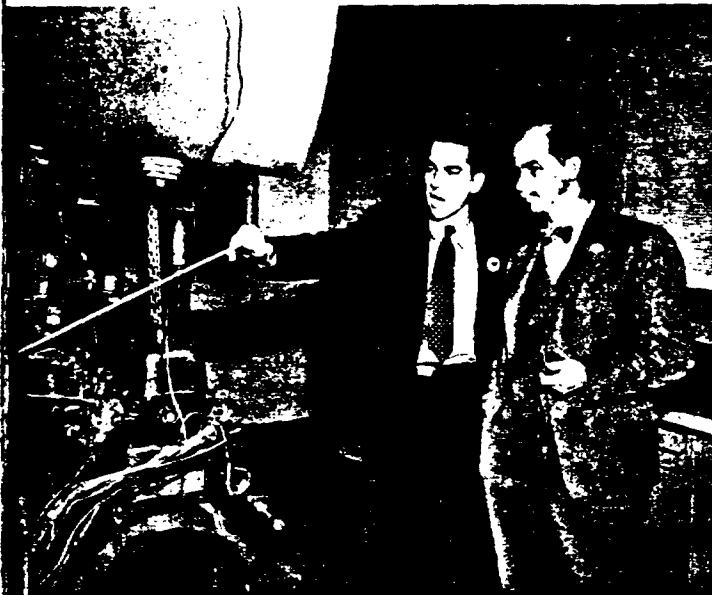
Inspecting molecular models of fuel constituents (above) are D. P. Barnard, of Standard of Indiana; his wife; and R. K. Scales, of Ethyl. Above right, J. N. Zoll, of Gulf Refining, and Dr. Vincent Hnizda, of Ethyl. Right, M. C. Thompson, Jr., and M. H. Campbell, both of Standard of Ohio, and L. E. Baker, of Sinclair.



W. A. Horance, of General Motors Research, examines part of the refrigeration equipment for the "cold room" of the Ethyl laboratories.



James Mason, of Ethyl, points to an engine used in connection with the equipment for studying manifold distribution. His interested Open House guest is Dr. Robert Hatte, head of the Cranbrook Institute of Science in Detroit. Upper right, George E. Phillips and W. H. Scharff, both of Standard of Indiana, inspect the controls for cycling engines being tested for performance and endurance characteristics. Lower left, F. O. Lewis, of the Dayton (Ohio) Power and Light Co., is shown by L. Volberding, of Ethyl, how compression pressures of engines in cars are measured. At extreme left is Prof. C. W. Goode of the University of Michigan. In lower right photo, William Zechel, L. H. Frailing, and Fred Dietz, all of Packard Motor Co., find interest in the "Indoor Highway" exhibit. The "Indoor Highway," which automatically controls the speed and load of engines on dynamometers, duplicates actual on-the-road driving conditions in these laboratory tests.



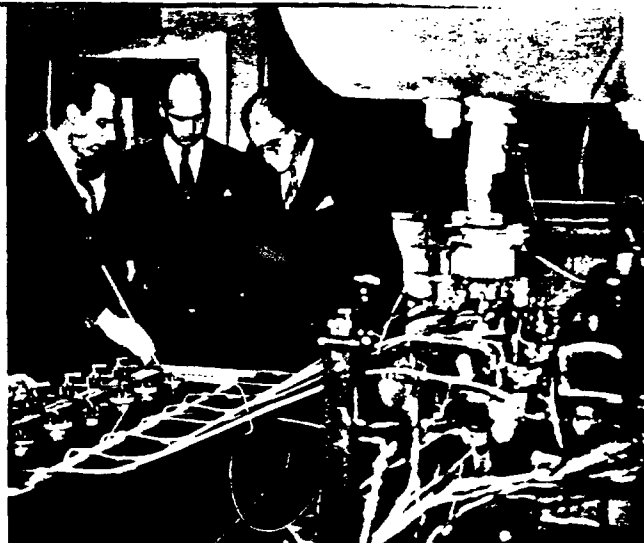
Experience has shown that data accumulated during extended operation of engines at constant speed is, but an index to the operation of engines in actual service. In service, engines are operated under a great variety of speed & load conditions.

The apparatus shown here, developed in the Ethyl Laboratories, is for all practical purposes an "Indoor Highway". It can duplicate almost exactly, in proper sequence, all of the conditions of speed & load which an engine would undergo in a full day of real service. Operating on the same principle as a dynamometer, it employs a punched tape & a pneumatic system to reproduce road

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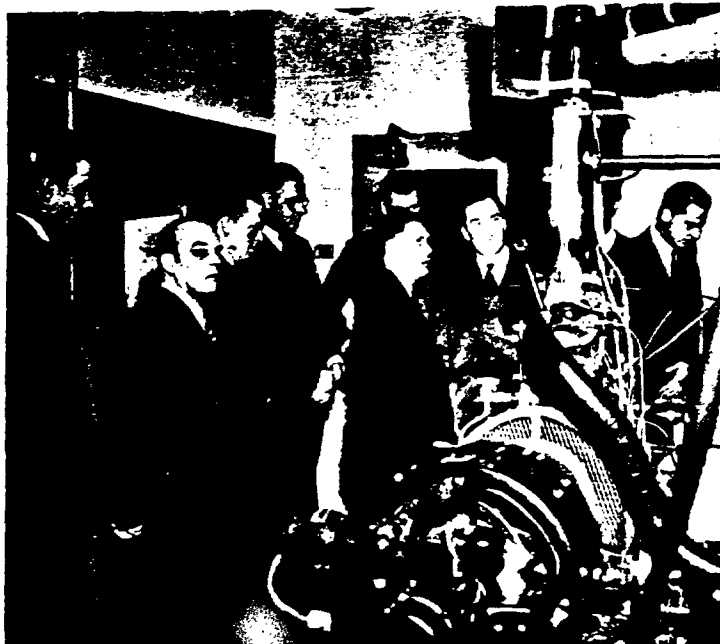
The "Indoor Highway" pneumatic controller for engine speed and load, in accordance with data obtained from actual road performance, is explained to J. S. Blanke, of Pure Oil Co., Toledo, by M. J. Anderson (left), of Ethyl.



In photo top right, J. S. Wintringham, of Ethyl, describes equipment used in studying manifold distribution to A. C. Korte and H. A. Farr, of the Carter Carburetor Co., St. Louis. Right, Fred Green, of Ethyl (white coat, foreground), tells C. A. Kushler and A. R. Decker, of the Champion Spark Plug Co., how the fuel system distributor supplies fuel to the multi-cylinder engine dynamometers from underground storage tanks or from drums.



All five of the men pictured right played a part in the birth and growth of Ethyl Corp. L. to r., T. A. Boyd, of GM Research; John B. Macauley, director of engineering research for Ethyl; Charles F. Kettering, director of GM Research; Harry Mack, manager of Ethyl's Dayton division; and Earle W. Webb, president of Ethyl Corp.

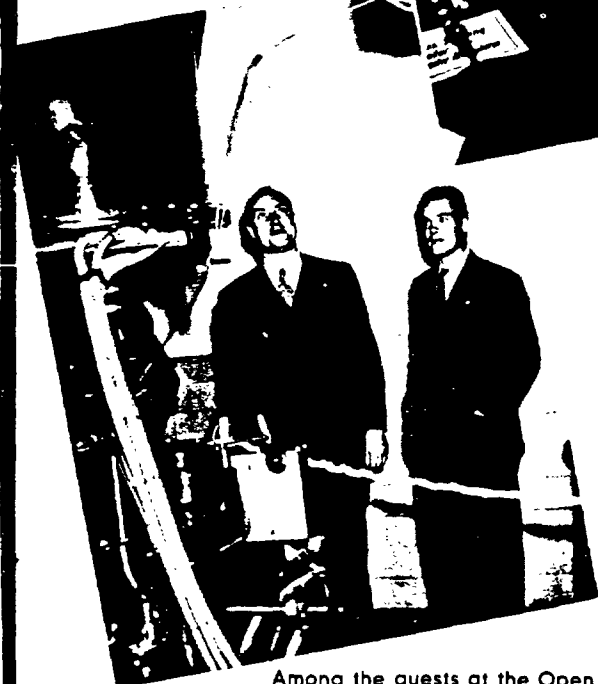


In this group of Open House visitors, viewing a piece of the Laboratories' testing equipment, is A. L. Helliwell, of Imperial Oil, Ontario, (second from left).



Inspecting the Jet Tube, used to assist in the development of fuels for jet aircraft engines, is R. P. Perkins of Dow Chemical.

A glass-enclosed stirring motor for use in corrosive atmospheres is demonstrated by James Hinkamp, of Ethyl, for Dr. J. B. Hill, of Sun Oil. Below, R. I. Potter and L. S. Hall, of Standard of Ohio.



Among the guests at the Open House was the group of New York Times writers and executives (right). They are inspecting a test engine (not visible) in the Aeronautical Laboratory.



JET TUBE

newer tube apparatus
is intended to assist in the
study of fuels for the new
engines such as turbo-jets
or pulse-jets

assist in
aircraft
chemical.



HIS CONTRIBUTIONS TO SCIENTIFIC KNOWLEDGE ARE OUTSTANDING
THIS COMPANY OWES ITS EXISTENCE TO HIS GENIUS

THE MIDGLEY PLAQUE

IN MEMORY OF Thomas Midgley, Jr., as an associate and in grateful recognition of our debt to his creative talents and his many contributions to this company in science and business, this bronze plaque honoring him is placed in the main lobby of the Ethyl Research Laboratories in Detroit that all who enter may be inspired by the memory of his achievements.



ETC 23979