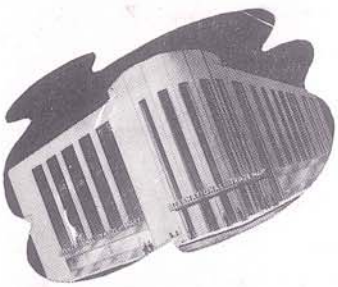
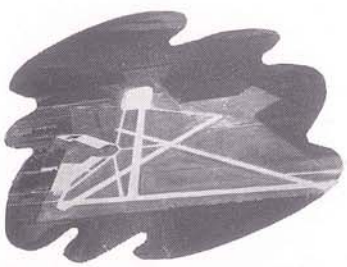
1949 JEFFERSON PARISH YEARLY REVIEW

FIFTEENTH ANNUAL

We're Telling the Story—

of the New, Greater New Orleans—A Story to Benefit All Louisiana





Throughout 1948 and in the year ahead Public Service advertisements have helped, and will continue to help, tell New Orleans' story to business men in such key Mid-Continent cities as Chicago, Detroit, Des Moines, Kansas City, St. Louis and Louisville, as well as in New York. The attention of importers, exporters and industrialists has been directed to the splendid opportunities for profitable commerce and industry in and around New Orleans. We've pointed out such concrete achievements as INTERNATIONAL HOUSE, the FOREIGN TRADE ZONE, and the INTERNATIONAL TRADE MART.

In these ads, industrialists have been reminded that our location makes the Port of New Orleans a natural cross-roads for Mid-Continent and world trade, and that the New Orleans area is served by rail, barge, air and steamship service to major centers in this country and the world.

This advertising program was undertaken in order to further **New Orleans'** growth and prosperity, but in as much as the increase of trade and industry here in the Crescent City reaches out to further the growth and prosperity of all of Louisiana, we feel that every citizen of our state will be interested in this program and will ultimately benefit from it.

new orleans **Public Service** inc.

SERVING NEW ORLEANS WITH LOW COST ELECTRICITY, GAS AND TRANSPORTATION!

F I F T E E N T H Y E A R 1949

JEFFERSON PARISH YEARLY REVIEW

STAFF

Publisher.....Justin F. Bordenave

Managing Editor and
Business Manager....Joseph H. Monies

Associate Editor and
Art Director.....Arthur Charbonnet

Published annually with the endorsement and support of the Police Jury of Jefferson Parish.
Weaver R. Toledano, President

Kenner, La. Lee Hornaday 1949

OUR COVER

Lovely Elmwood as it is today at Harahan. Built in 1762 of handmade bricks, its twenty-two inch walls are cut by gunslots against ancient dangers. The charming plantation home underwent changes with the years. Partially destroyed by fire in 1940, it was restored closer to the original plans by Mr. and Mrs. Durel Black, whose home it was then. Regally set within triple rows of great oaks, today this dream from the past is kept ever beautiful by the loving understanding of the Frank J. Monteleones, its present owners.

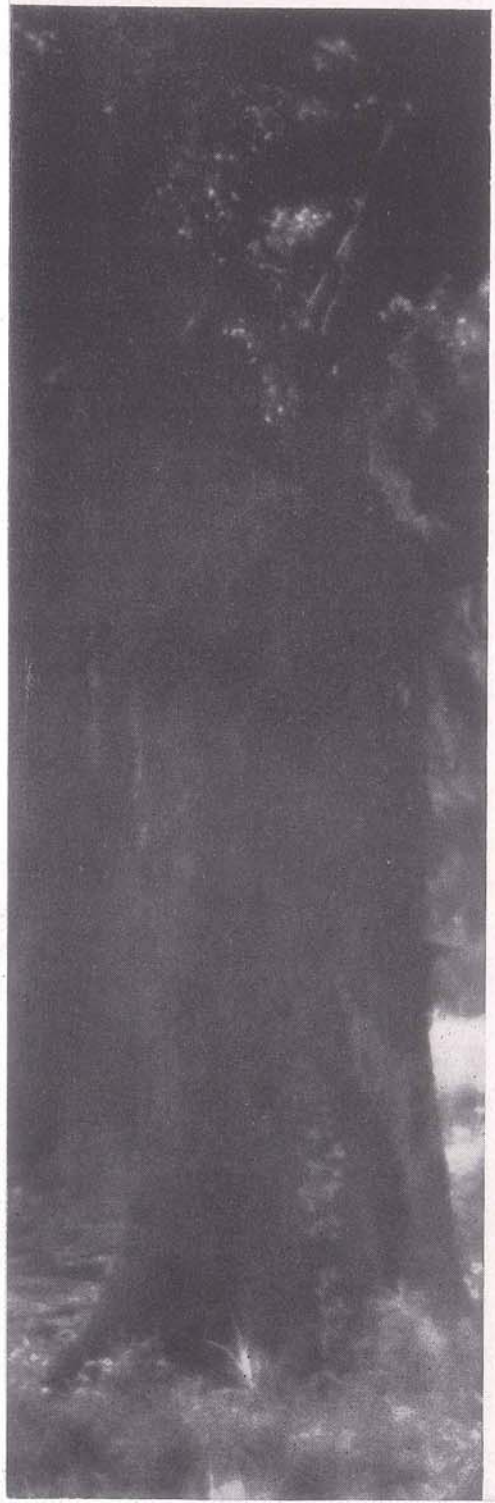
The publishers of the Jefferson Parish Yearly Review will be glad, at any time, to furnish information to anyone interested in Jefferson Parish industrial opportunities. The establishment of new industries is encouraged in every way possible by the Police Jury and citizens of the parish. More detailed data will be furnished on its extremely low transportation costs, easy access to raw materials, excellent facilities for distribution and ten year tax exemption. To homeseekers, visitors or those just interested in the history or future of this prolific parish, the publishers offer the facilities of this publication. Your request for information or assistance will receive prompt and courteous response.

FEATURES

I N T R O D U C

SEASONING YARD *of the old-established Freiberg Mahogany Co., world's largest producers of mahogany lumber and veneers. Ancient handcart is the last of its type here, as all facilities have been modernized.*

T I O N :



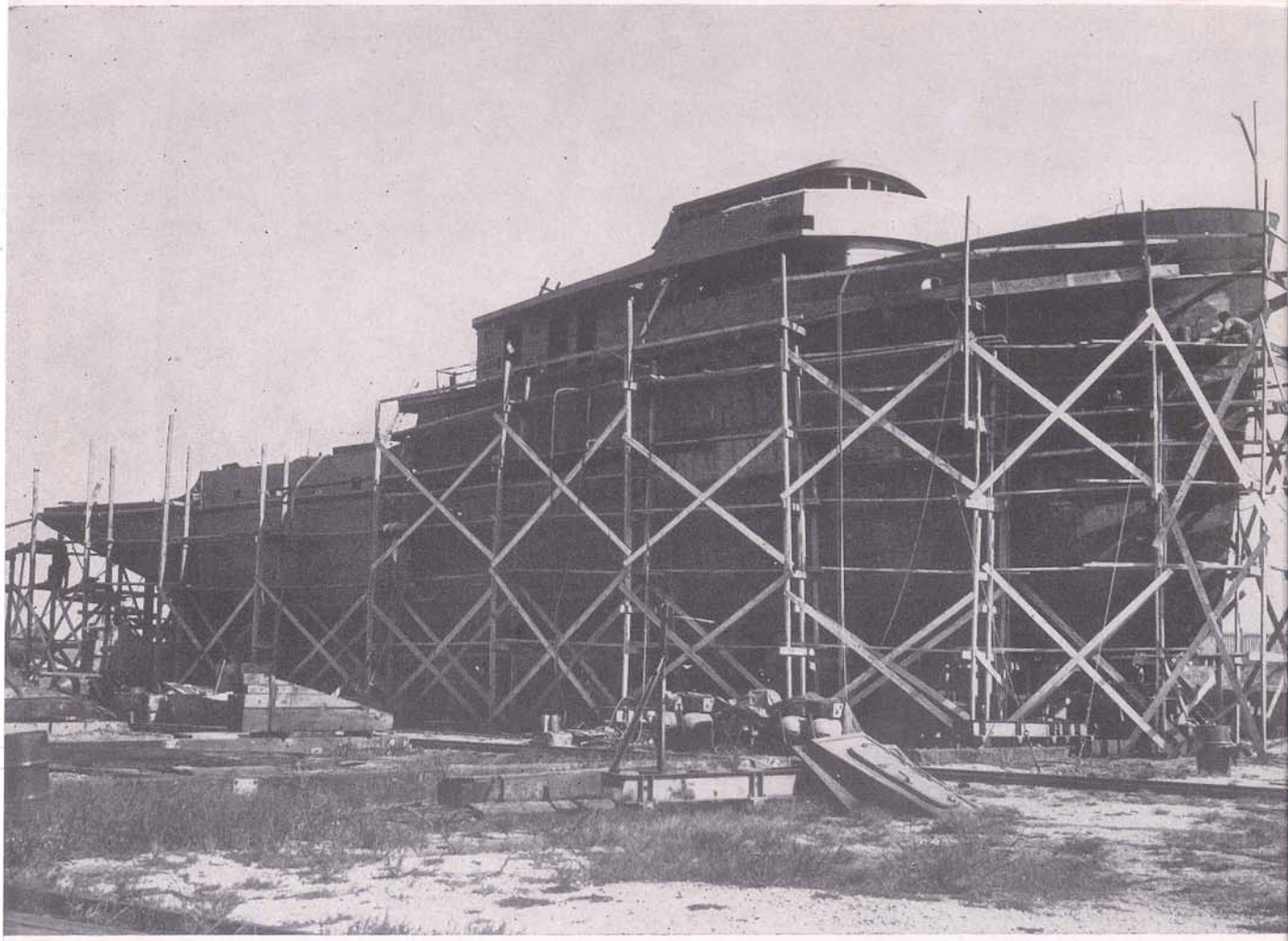
This is the extraordinary story that Jefferson Parish can tell to the world. Here in words and pictures we have portrayed as well as we are able the remarkable assets and ever increasing growth of a part of Louisiana pre-eminent in its high industrialization and fabulous for its natural resources.

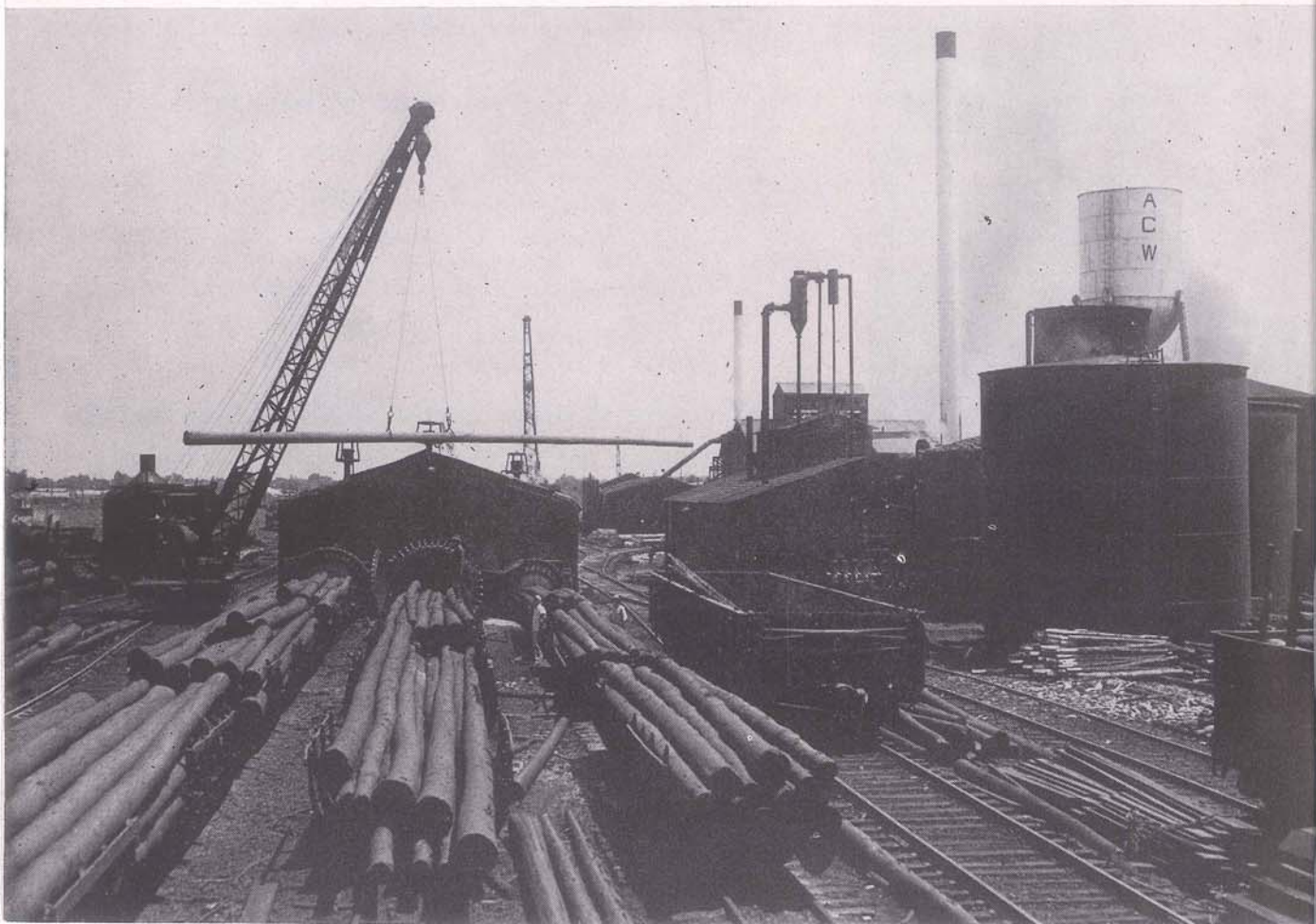
The year 1949 marks the fifteenth anniversary of the Review, and this issue may well become almost documentary in the stand it takes regarding the singular portent of this time. Still, we believe that no one herein represented is "sticking his neck out" in declaring that our parish is yet but on the threshold of its development and potentialities. The facts **are** there, and the future **does** look ever brighter.

It has been a pleasantly exacting task putting out this particular issue. Pleasant because we have such a good story to recount, exacting only in the choice, because of space limitations, of the best of the excellent material available.

But sit back and relax, turn the pages at leisure, and come with us on an armchair tour from Lake Pontchartrain to the Gulf of Mexico. We are certain that long before Page 196 you will understand—and share—our enthusiasm and well-founded optimism.

The Editors




A
C
W

TUNA CLIPPERS *for the West Coast fishing industry are turned out by the Avondale Marine Ways at Avondale.*

The CHALLENGE of NORMALCY

By Weaver R. Toledano

President, Jefferson Parish Police Jury

In the world of industry today there's a new note in the air. Above the hum of wheels and the hiss of steam, the staccato pounding of pneumatic hammers and the grind of concrete mixers, you can pick out the tenor of such words as "recession", "inflation", "deflation", and that fine new word, "disinflation", which is defined as a condition when prices go down before a lowering of wages. Also, you hear others, grim unsmiling words like "unemployment" and "depression".

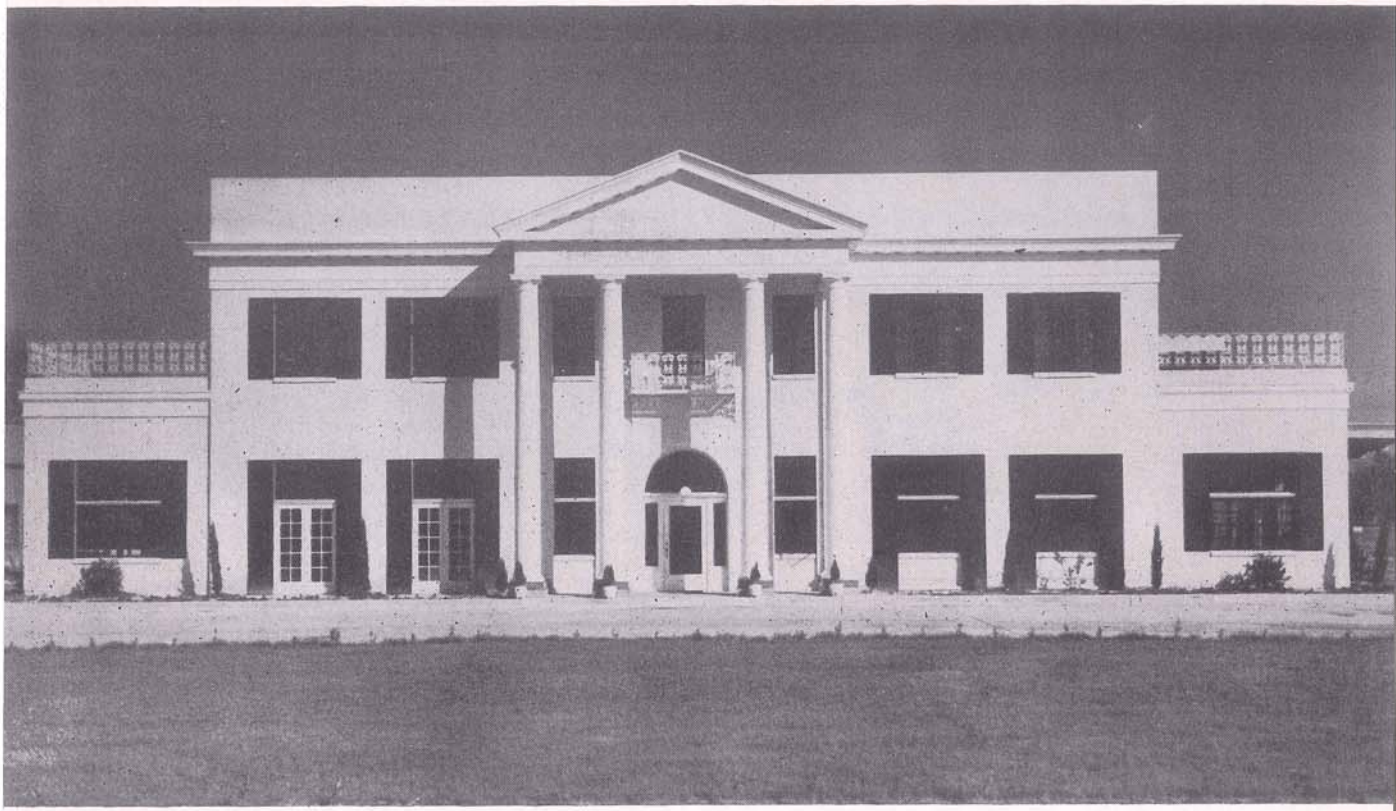
That we have come to a leveling off period in national economy there is no doubt. On all sides and in all fields there is unmistakable evidence that we have come commercially past the peak of the postwar boom. Most pressing needs are alleviated, inventories of stock are gathering in storage places, and of course Big Business has lost, in large part, its best customer, Uncle Sam.

Businessmen throughout the nation admit that at last we have come to the "buyer's market" and the balmy days of order-taking are over and gone. Now the customer must be *sold*, and competition for his favor and his buying power is keying business to cost-cutting and quality-maintaining procedures. Here and there throughout the country too, you hear of industry slowing up, in certain cases coming to a halt.

The concensus seems to be that we are going into a period of "normalcy". That is to say, production unspurred by the insatiable appetite of war, turning out goods for the natural needs of a peacetime world. Normalcy is something that has long been absent from our land. It is a condition that might be difficult to recognize when it gets here. If it means a time of sound prosperity based on filling our own needs and exporting a profitable surplus, we will most likely perceive it. If it means a time when we can carelessly relax and disregard the dignity of our position as the first nation of the world—that time is not in the foreseeable future.

Here in Jefferson Parish, for many years the focus of manufacturing efforts in the South, we place a construction upon the word "normalcy" that might not hold in other parts of the United States. For us the years ahead will continue to make unremitting demands upon our energies. The wheels will spin at unslackened pace as our industries, which were not war born or founded on transient emergency, convert the raw riches of our resources in-

PILINGS *being treated at the American Creosote Works on the East Bank, the largest plant of its kind in the world.*



COMPLETED *in March at a total cost of $600,000, the beautiful and thoroughly modern ice cream and milk plant of the Borden Company on the Airline Highway serves a trading area of 725,000 population.*

to the quality products on which our prospering economy is based.

Jefferson has been called "the most highly industrialized section of the Deep South" and this is hardly questionable when you consider that more than eighty large-scale industries thrive within its borders, accounting for more than 60% of the manufacturing output shipped from the Greater New Orleans area. Of these, many of the largest completed vast expansion programs during the past several years, and are now turning out products in greater volume than at any time in their history. The Celotex Corporation and the Johns-Manville Products Corporation both recently spent millions of dollars extending their facilities to meet the demands for their building materials.

Everywhere the map of Jefferson Parish is thickly dotted with industrial plants. In the ample available space along all the highways and waterways which provide swift, economical transportation for their products, dozens of new manufacturing concerns have gone into operation in the last few years, and more are coming in all the time.

Out on Jefferson Highway the Kieckhefer Container Company makes corrugated boxes of all kinds, right next door to the long-established Freiberg Mahogany Company, largest producers of mahogany lumber and veneers in the world. Also along this traffic artery are found the Rheem Manufacturing Co., U. S. Steel Products Co. and Louisiana Steel Drum Co., turning out steel barrels and other containers, the Boyce-Harvey Machinery Co., tractor distributors, Delta Pipe & Boiler Co., Great Southern Box Co., Concrete Products Co., Shippers Compress Warehouse and the Pinnacle Oil Co. The Green-Walker Galvanizing Co., Southern Ford Tractor Co., and W. A. Ransom Lumber Co. are on this highway, and the new warehouse of the Wholesale Market is here, in the Harahan area.

Stretching along the broad swath of the Airline Highway are the Delta Petroleum Corporation, which completed last year the construction of two new

buildings, a 1-quart and a 5-quart completely automatic canning plant; the bulk wholesale plant of the Cities Service Oil Co., newest of the *eight* major oil companies having holdings in the parish; Friedrichs Wood Specialities, who make fine furniture and fixtures; Airline Lumber & Supply Co., largest dry kiln plant in the South, which has been adding to its structures and equipment steadily since the end of the war. We must take special note of the beautiful new $600,000 ice cream and milk plant of the Borden Company, built to meet steadily growing demands. The main building, resembling a gracious plantation home, is set in an 18-acre site fronting 395 feet along the Airline Highway.

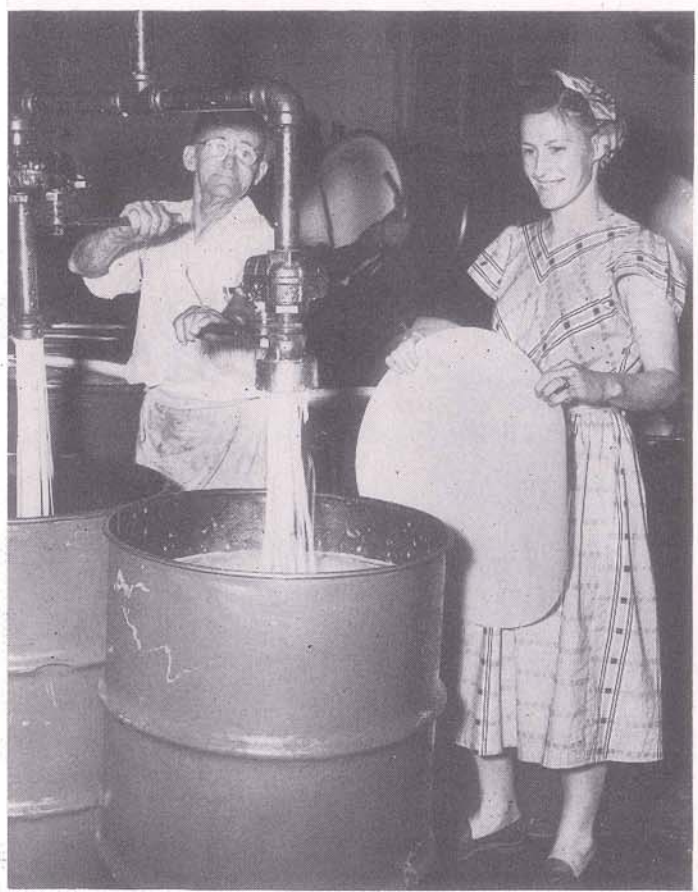
Near the east side terminal of the Huey P. Long Bridge is the Crescent Materials Service, Inc., and at East End is located the frozen seafood plant of Charles & Charles.

Around Kenner we find the Mancuso Barrel & Box Co., Ipik Plywood Co., and the Airway Supply House. The Great Southern Box Co. has a plant here manufacturing veneer for wooden crates. The Jefferson Bottling Co. has a plant in beautiful Metairie, and the American Creosote Works, largest creosoters of lumber in the world, is situated on the old River Road. Shrewsbury Road has the Jackson Equipment Co., and the New Orleans Compress Co. is located on the Illinois Central Railroad tracks.

Harvey Canal on the West Bank, is one of the greatest oilfield supply and service centers in the world. On both sides it is plentifully settled with over fifty old and new industries, all growing constantly and continually increasing their production ability. Here are the recently expanded Avondale Marine Ways, a branch of the main Avondale Marine Ways on the Mississippi River, the George Engine Co., Harvey Lumber & Supply Co., Evans Cooperage Co., Wilkinson Veneer Co., Harvey Canal Shipyard & Machine Shops, Haik Galvanizing Works, Pipeline Service Corporation, and the five new pipe yards storing more than $1,000,000 of pipe for the oil industry. The Southern Shell Fish Co., which several years ago mechanized its crabmeat picking process, has its plant here, and the Oyster Shell Products Corporation is clearing ground on the canal and preparing to move in.

In the environs of the town of Harvey are Penick & Ford, who make Brer Rabbit syrup, the Harvey division of Commercial Solvents Corporation, Stauffer Chemical Co., the Continental Can Co., and two plants of Swift & Co., a refinery and a fertilizer factory.

The full steam ahead whistle has blown for practically all the other industries and manufacturing concerns of Jefferson. We heartily mention the seven shrimp canning plants of Westwego alone, including the Robinson Canning Co., Cutcher Canning Co., Ed. Martin Seafood Co., and George Martin Seafood Co. Here too are the Products Research Service, Inc., and the U. S. Industrial Chemical Co., Commercial Solvents Corp., and Publicker Commercial Alcohol Co. of Louisiana. The "Marsh Boat", an efficient and economical amphibious craft, is manufactured here for the petroleum industry by the Marsh Equipment Co. Westwego is the site of four new power plants, totaling $36,000,000, to be built here by the Louisiana Power & Light Co., and work on



HOG LARD FOR BELGIUM. *Huge quantities of lard and other products are exported to foreign countries from Swift & Company's refinery at Harvey.*

number **4**

Boyce - Harvey

Opening in NEW ORLEANS

WHEN YOU THINK OF THE Big Yellow MACHINES···THINK OF Boyce-Harvey YOUR FRIENDLY CATERPILLAR DEALER

Boyce-Harvey Machinery Inc., now has four conveniently located Caterpillar service headquarters in South Louisiana.

Baton Rouge, Morgan City and New Orleans branches are connected with teletype facilities for even faster service to heavy equipment users.

Visit your nearest Boyce-Harvey headquarters for faster, more efficient service.

1 
Baton Rouge, Louisiana

2 
Lake Charles, Louisiana

3 
Morgan City, Louisiana

4 
New Orleans, Louisiana

Caterpillar SALES SERVICE

BOYCE-HARVEY MACHINERY *Inc.*

AGRICULTURAL DEVELOPMENT *is a primary point in Jefferson's program. Above, at left, S. M. Shall, Inseminator, and County Agent George T. Geiger, with fine calves produced by artificial insemination. Below, Mr. Geiger with Robert Thibodeaux, 4-H Club member from Westwego High School and his twice Grand Champion cockerel.*

the first one, costing $9,000,000, is already under way. Above Westwego on the river, near the main Avondale Marine Ways, the California Distributing Co. has its refinery.

Gretna, banking and business center of the parish, is well represented by the Southern Cotton Oil Co., Davidson Chemical Corp., United Distillers of America, J & L Steel Barrel Co., Henry Norris Petroleum Products, and the Seaboard Refining Co., which manufactures a fine grade of vegetable oil.

Marrero, also on the West Bank, site of the Celotex Corporation and Johns-Manville, takes in also Clark's Refinery, the Douglas Public Service Corp., and the General Chemical Division, Allied Chemical & Dye Corporation.

Down at the southern tip of Jefferson Parish, Grand Isle, beautiful fishing and bathing resort, has an industrial side too. A branch of the Morgan City Canning Co. processes shrimp here, as do the Grand Isle Seafood Co., the Quong Sun Co., and the plant at Manila Village on Barataria Bay. The Grand Isle Shipyard does boat repairs, and vitally notable are the vast developments being made by major oil companies relative to their offshore drilling operations in the Gulf. At Lafitte are the Marcomb Shipyard and General Seafoods Co.

All of this is just a surface picture of what we have in Jefferson to meet the challenge of the changing world. More growth is natural and expected. Just

the acorn is a piker...

This photograph shows the long, tough cane fibres which, when Ferox-treated against dry rot and termites, form the base for many Celotex building products.*

*REG. U. S. PAT. OFF.

When it comes to sprouting things big, the acorn is a piker alongside the *node* from which sugar cane grows. For the acorn only fathers an oak . . . but the sugar cane *node*, through production of tough cane fibre, has sired three of the greatest advances in building history—

1 building insulation—From cane fibre in 1921 came Celotex cane fibre board . . . combining low thermal conductivity with great structural strength. For the first time, architects could reduce more economically the flow of heat and cold in all types of buildings, with a single, mass-produced, low-cost structural material. *Today, because of Celotex pioneering, heat-leaking buildings are obsolete.*

2 sound conditioning—In 1924 came another great advance from cane fibre—Acousti-Celotex perforated cane fibre tile . . . combining high sound absorption with paintability. At last architects had a practical way to build *quiet* into offices, schools, and hospitals . . . to control noise in factories . . . and to correct acoustics in churches and auditoriums. *Today, because of Acousti-Celotex, noise in business and industry is on its way out.*

3 single-wall construction—More recently the trend toward single-wall construction in residences and industrial buildings has been accelerated by the development of Cemesto . . . a fire-and-moisture-resistant asbestos cement wall unit with a cane fibre core. Cemesto, one integrated material, replaces the 8 to 10 separate layers used in building ordinary residential walls and permits the erection of industrial buildings with light-weight economical "curtain" walls, partitions and roof decks.

more to come—You'll notice one thing in common about these three contributions of cane fibre to building progress—each is a multi-function material. This illustrates the continuing objective of engineering research at Celotex . . . to give you *better building products—at lower cost.*

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

CELOTEX

REG. U.S. PAT. OFF.

BUILDING BOARD . . . INSULATING SHEATHING AND LATH . . . CELO-ROK ANCHOR LATH AND PLASTER
CEMESTO . . . CELO-ROK WALLBOARD . . . INTERIOR FINISH BOARDS . . . TRIPLE-SEALED SHINGLES . . . FLEXCELL

across the river on the east side, the great city of New Orleans lies cramped within its boundaries. It is fenced on the south and the north by the river and Lake Pontchartrain, and eastward development is hampered by basic economic reasons. History shows that cities never build downstream and the events of the past fifty years have proved this: all the development in the New Orleans area has been upriver and westward.

It is inevitable that commercial development spread out to the west and across the river to the West Bank. We have the space, and all the other advantages that have brought such augmentation of our industrial activity.

The oil industry is meeting the challenge of the times by going to sea. Ten rich fields in Jefferson—more than one hundred and sixty-five wells—with combined allowables of 28,547 barrels per day, are not bringing enough of the precious black fluid to the surface to satisfy the hungry market. So eight miles out in the Gulf of Mexico, off the beautiful beige bathing beach of lovely Grand Isle—and elsewhere in the surrounding waters—the Humble Oil & Refining Company's deep sea drilling rigs, and rigs of the California Company, probe through the salt water and sand deeper into the earth's crust than man has ever gone before in his never-ending search for petroleum. It is out there under the blue, sparkling waters of the Gulf, and men who dare to face the challenge of modern life mean to get it.

And braving the challenge of the deeper sea to gather more of our natural resources, this season over 372 shrimp trawlers registered in Jefferson Parish alone, to bring in their share of the multi-million dollar seafood harvest. Through the marshes in fragile pirogues went also last winter over two hundred and fifty licensed trappers, for muskrats and nutria, mink, otter and racoons. For in normal times the state of Louisiana produces more fur pelts than all of Canada and Alaska combined, most of which comes from the coastal marshes.

The challenge to transportation is a challenge indeed. Though the parish is criss-crossed by a multiple system of fine highways and roads, our ever busy industry demands the projected new four-lane super-highway, and our leaders strive untiringly to see it leave the drawing board and fling itself across the broad curve of the West Bank

MODERN *motion picture theatre in Metairie, part of 1948 building activity.*

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from the Huey P. Long Bridge to the Naval Station at Algiers. We are working too for the day when the great span of a bridge stretches across the river between New Orleans and the most logical West Bank terminal, Gretna, the "Brooklyn of the South". On the concrete side of our well-integrated transport system, Moisant International Airport celebrated its third anniversary as the largest commercial airport in the world, on May 1 of this year. Since 1947 too, the Illinois Central System's Mays Yard, with its 21 switching tracks, each with a capacity of 100 cars, has been in full operation.

As the population figures soar from 21,563 in 1920 to nearly 100,000 in 1949, the challenge that is offered to housing is being met head on. All through the parish new residential sections have developed, and new homes for our growing permanent population are rapidly being constructed. Streets are being paved, gas and water mains laid down, electric and telephone wires strung by the hundreds of miles. In fact, during 1948 the Louisiana Power & Light Company supplied electricity to 3,243 *new* consumers, 226 of which were commercial and 13 of which were industrial. New gas customers showed an increase of 2,698, of which 147 were commercial and 9 industrial. Present estimates also show that 90% of all Jefferson's 320 farms are served by the Louisiana Power & Light Company, and electricity is *available* to practically all the remaining farms in the parish. And to protect our industrious, friendly people our law enforcement department is well-equipped,

capably manned and modernized.

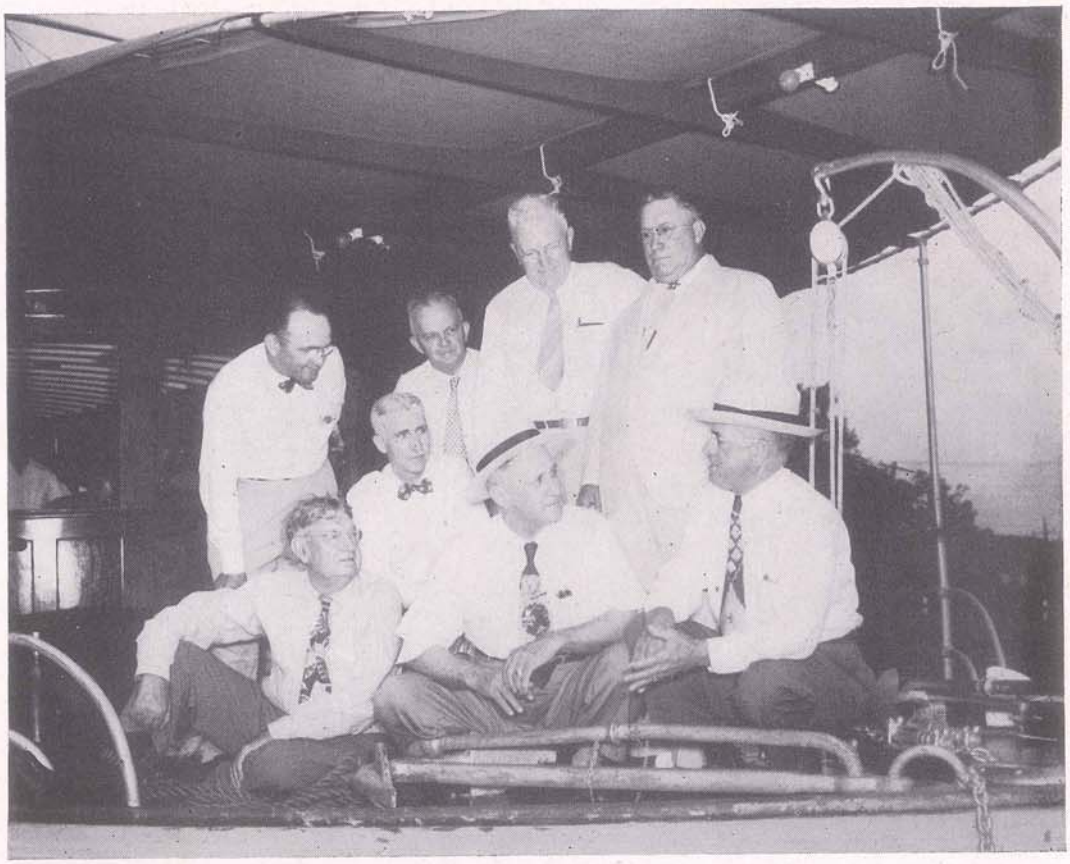
The challenge to education is a challenge to youth and to us to whom our youth looks for guidance. And this, possibly our most sacred trust, is perhaps also our most important. We have not had really normal times in almost a dozen years. Our young people, growing up in the abnormal time of war, the threat of war, the aftermath of war, hardly have standards by which to measure the life into which they are emerging.

Just a decade ago the word "atomic" referred to the smallest particle of matter. Today what was an adjective meaning minute is now a synonym for vast and horrible destruction. Our children, who today accept supersonic flight and television without awe, must be educated into the world that was just a short time ago the world of the future and is now suddenly the world of today.

It is a world of fine moral precepts combined with high technical knowledge and unflagging energy, and we must educate ourselves along with our children.

We here in Jefferson Parish find we must keep our shoulders to the wheel. We realize that for us normalcy means uninterrupted and ever-swelling production of goods. Also we have the satisfied feeling of knowing that our products will be *used* for the benefit of mankind at home and abroad, not desperately *expended* in a terrible war of self-preservation.

So, normalcy will find Jefferson Parish ready. We no longer stand on the threshold of the future. We have taken the first steps forward and are going full stride into the great, shining world of Progress and Growth, which challenges the best that is in us to meet the vision of the Present.



INSPECTION PARTY *starting out on board the "Ruth" to look over the construction being done on the Pontchartrain Protection Levee assuring the safety of Jefferson's East Bank residents. Standing, from left: Jesse R. Jones, Metairie; David T. White, U. S. Engineers, New Orleans; Byron P. Lyons, Chief Engineer, Department of Public Works, Baton Rouge; Ludger G. Peytavin, President, Pontchartrain Levee Board, Union. Seated, from left: Weaver R. Toledano, President, Jefferson Parish Police Jury, Kenner; George Hudson, U. S. Engineers, New Orleans; Alvin T. Stumpf, State Senator, Gretna; J. Lester White, Director, Department of Public Works, Baton Rouge.*

DEEP WATER

How two major oil companies are solving the problem of bringing precious petroleum up from two miles below the blue surface of the Gulf of Mexico.

How Humble Does It

Humble Oil & Refining Company's search for oil beneath the continental shelf extends from the mouth of the Mississippi River to Freeport, Texas, a distance of about 400 miles. We now have 13 drilling platforms standing in waters from 35 to 55 feet deep, and up to 10 miles offshore. Three oil wells have been completed from two of the platforms, and drilling is currently in progress from seven of the others.

However, development of this offshore production is still in the very early stages. Total oil production from the three wells to February 1, 1949 was only 30,270 barrels, and combined allowables for the two wells now producing are 489 barrels daily.

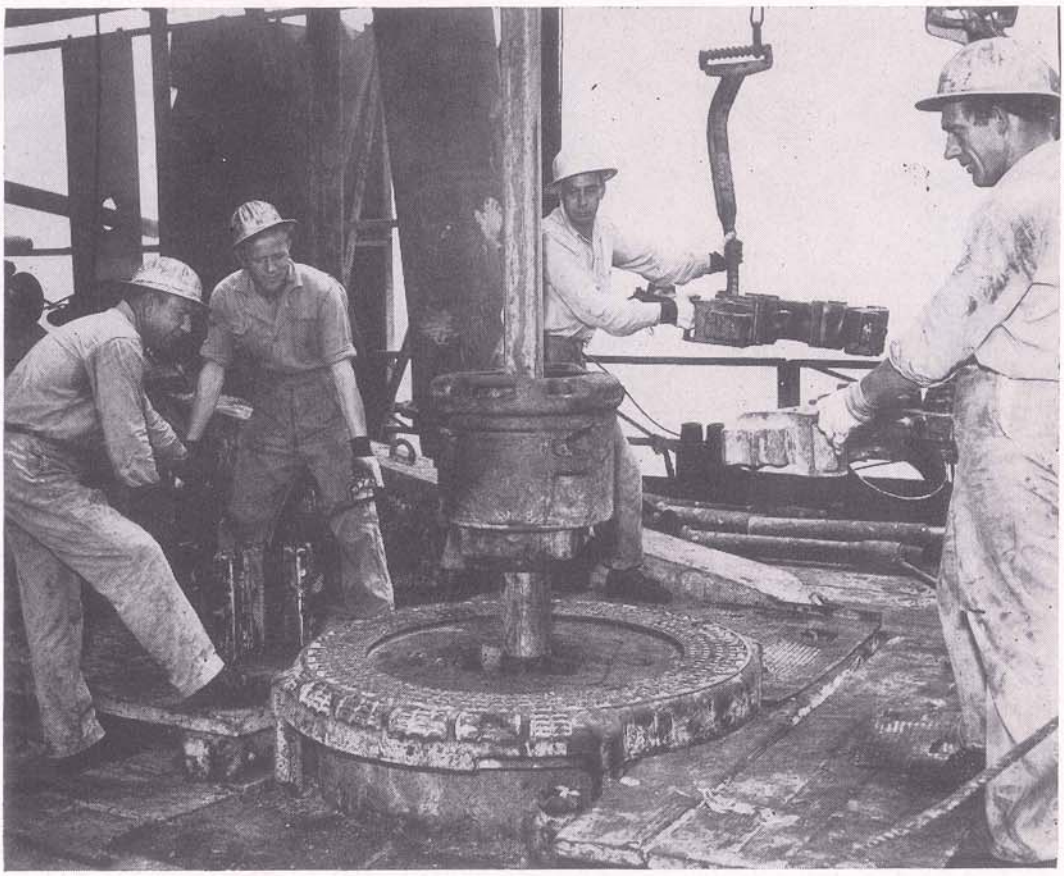
Humble began to investigate the possibilities of oil beneath the continental shelf as long ago as 1930, when seismograph tests indicated a salt dome about one mile off the Texas coast at McFaddin Beach, between Galveston and Sabine Pass. Since that time, Humble engineers and scientists have devoted a great amount of research to the means of finding and drilling for oil beneath coastal waters. Many millions of dollars have been spent in developing techniques and equipment capable of surviving Gulf winds and waves.

Humble's first venture offshore was to test the McFaddin Beach dome, and in 1938 and 1939 five dry holes were

(Continued on Page 27)

Humble Oil & Refining Company's giant Grand Isle No. 1, seven miles offshore.

DRILLING



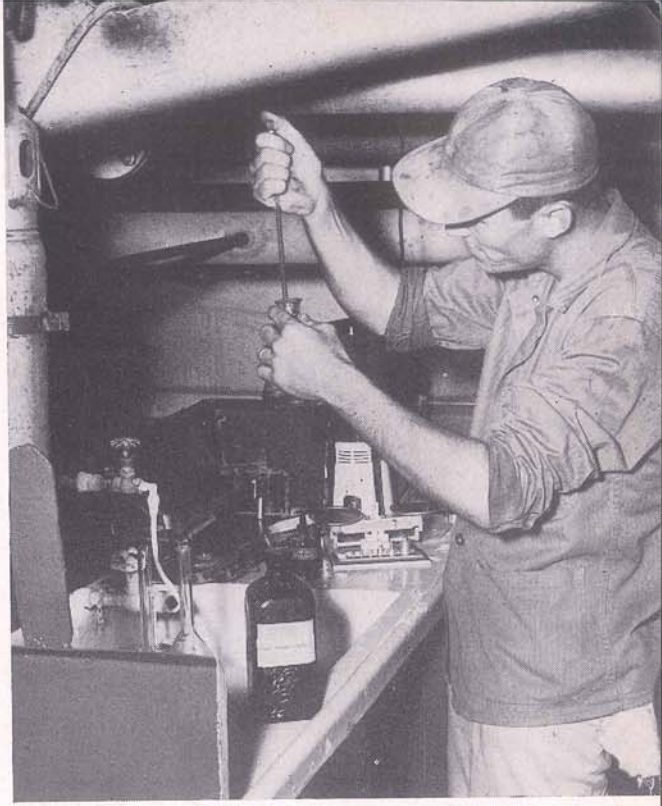
CALIFORNIA CO. *drilling crew in action on the derrick floor, preparing to put down another section of pipe.*

The California Story

The California Company after having purchased thousands of acres of leases in the open waters of the Gulf of Mexico off the coast of Louisiana was faced with the same major problem as all other operators who had procured leases in the Gulf. In a few words, "How does one go about drilling a well 12,000′ to 14,000′ deep in open unprotected waters?" As everyone knew, the drilling problems should be the same as on any inland South Louisiana well, but transportation and material handling were the big stumbling blocks. This is quite a poser when one realizes that the average 10,000′ well requires approximately 2,500 tons of materials which must be readily available. Such considerations in our Barataria and Delta Farms Fields are relatively non-existent. In these fields when one needs materials he merely picks up the 'phone and calls any one of the many fine supply stores in the Harvey area. The materials are immediately loaded on a truck, barge, lugger or speedboat, as appropriate, and are in the fields and in use in a matter of a few hours. Such is not the case in the Gulf where one must face such weather elements as heavy fog, high winds and destructive waves—and hurricanes. Realizing that

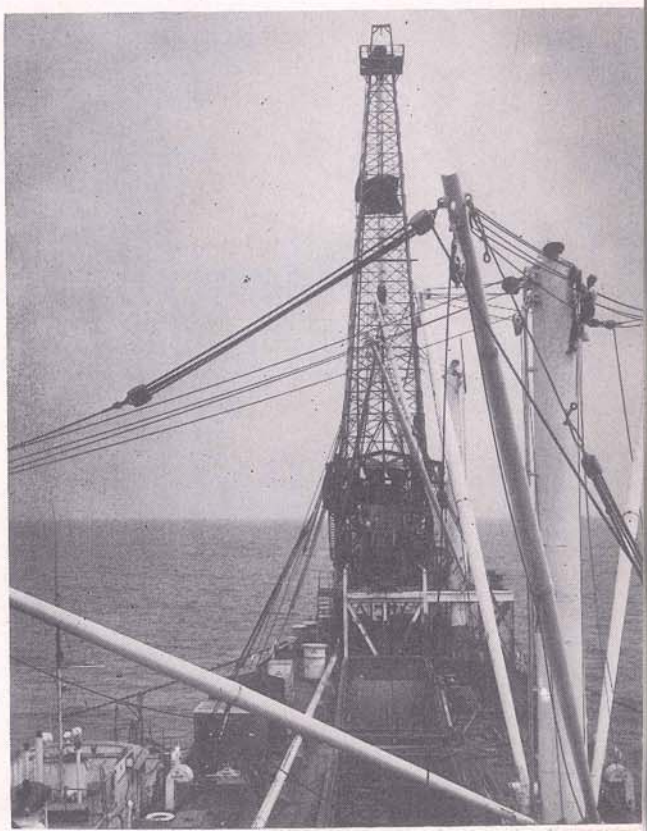
the weather in the Gulf is as unpredictable as a lady's change of mind, we knew that all of these materials and men must be kept right at the well site, as available transportation was slow and untrustworthy.

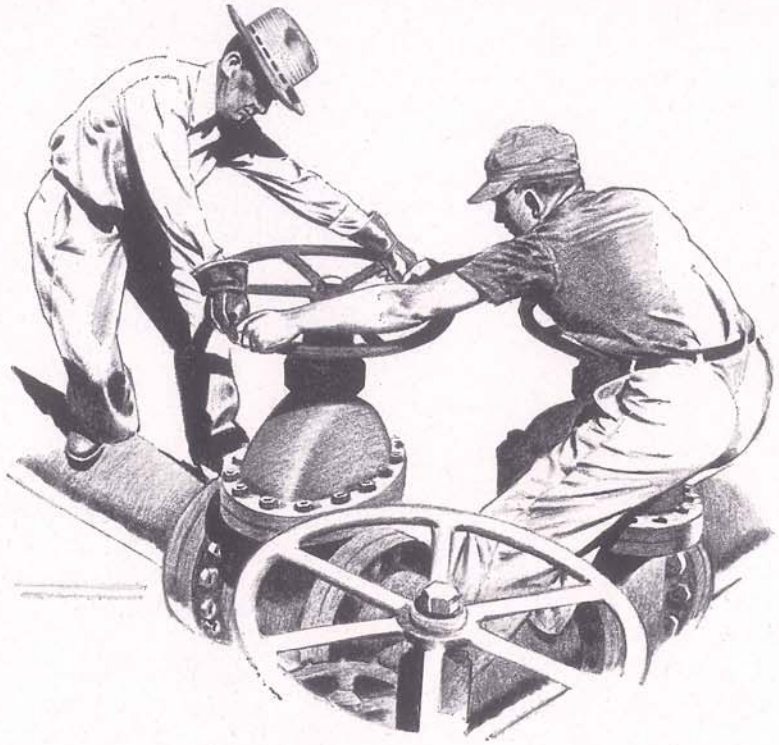
A piling platform capable of handling all of these supplies in addition to the necessary drilling equipment and housing facilities was estimated to be so costly as to be entirely impractical. We then investigated the possibilities of placing all facilities and materials which need not necessarily be stationary on a floating barge. War surplus LST's, landing ships 325′ in length, were found to be readily available for purchase from the United States Government and seemed to be adaptable to our needs and requirements. Consequently five of these vessels were purchased with three of them being converted for oil field use. These LST's are capable of holding all of the drilling muds, cement, well casing, drill pipe and miscellaneous supplies which are needed for drilling and completing the average deep well. In addition, complete living facilities including galley, dining room, recreation rooms and bunk rooms are provided for 60 men. LST's were selected not only for their carrying capacities, but also for their sturdiness and abilities to ride out rough seas. In fact, one of them rode out the hurricane last September without damage to the ship and without injury to any of the crew. We are fortunate in having selected ships of such sturdiness as the September hurricane formed so quickly that we did not have time to get her to protected waters. While the work of purchasing and converting these LST's was in progress, our engineers were investigating the most feasible means of constructing piling platforms in open unprotected water. J. Ray McDermott & Company of Harvey, pioneers in such work, seemed to offer the most practical solution. Their plan was to use procedures which were just the opposite to those which are normally used in piling structures. The normal method is to drive pilings and then tie braces in between the piling. McDermott proposed to construct the bracing first and then drive the piling. This procedure offered the possibilities of eliminating a considerable portion of the construction work in the open waters as these braces, commonly referred to as templets or jackets, could be constructed inshore at Avondale Marine Ways and then barged



PETROLEUM ENGINEER *Chuck Allen making chemical analysis of drilling mud in the modern, well-equipped laboratory.*

THE DRILLING RIG *and the war-surplus LST seem to be one unit from the bridge of tender S-21—and indeed they work as one.*





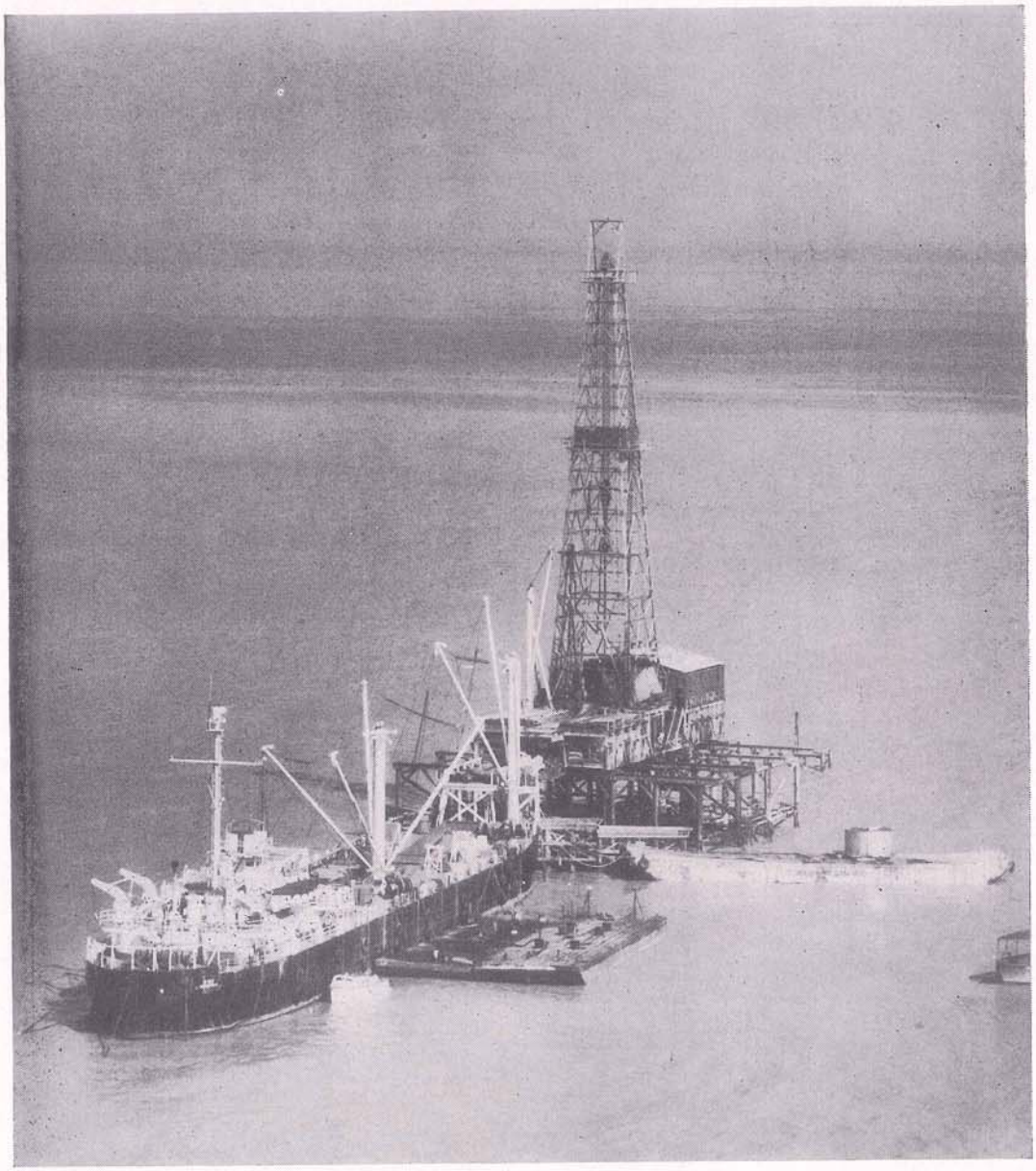
6 GOES INTO 18 *Hundreds* OF TIMES

Yes, in hundreds of locations on the United Gas system, pipe lines of two to twelve inches in diameter have been "tied in" to main transmission lines measuring from eight to 24 inches in diameter. Some of the smaller lines bringing additional gas **to** the system, adding new sources of supply for our customers. Some take gas **out** of the system, which means dependable natural gas service is provided for still more homes and factories. In many instances, it is necessary to make the connection without interrupting the flow of gas through the main line, a process pipeliners call "hot tapping." This is one of many functions of the United Gas organization . . . all of which have the utlimate purpose of assuring a continued dependable supply of natural gas to our customers.

UNITED GAS . . . .

Union Producing Company

Serving the Gulf South



GULL'S EYE VIEW *of the way drilling platform and anchored LST work smoothly together, with oil barges moored alongside. Wells with depths exceeding two miles are drilled from the platforms, and the 325' converted landing ships hold all the pipe, drilling muds, cement, well casing and miscellaneous supplies necessary—plus ample and comfortable living quarters for 60 men.*

---

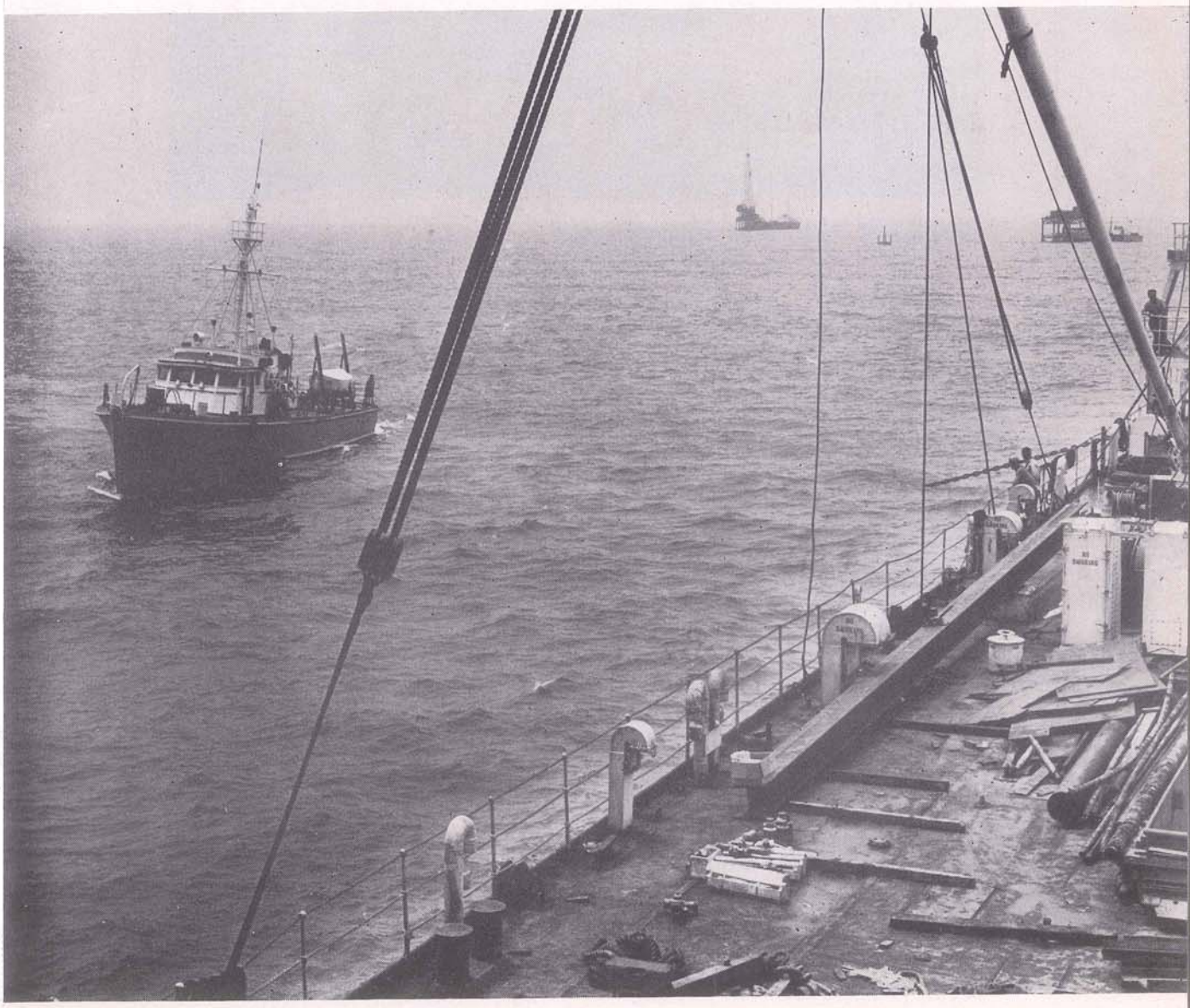
to the location. After the jacket is placed at the location, piling can be driven through its corner sections, resulting in a completely braced and sturdy piling structure.

Thus after approximately a year of study and planning and hundreds of thousands of dollars in expenditures, we were ready to start on our first gamble in the Gulf of Mexico. In March of 1948, construction work started on the first platform. Our first drilling, drilling which was to cost us approximately $200 per hour, was started May 16, 1948. Sixty-six days after at a depth of 12,600' it was decided to abandon the location as no commercial shows were penetrated.

From an engineering angle our first venture was completely successful, but from a commercial viewpoint, it was a complete failure. Our ante was pretty high and just because our first card

was a deuce, we couldn't afford to drop out. The second card, a well in the Main Pass area off Plaquemines Parish, turned out to be an ace. This well came in producing 250 bbls. of oil per day. Our third well, 14 miles south and east of Grand Isle, turned out to be a jack, dry but with possibilities at a later date. Oh! And then an ace—we had paired up. We had hit on a location three miles offshore from the mouth of Bayou Lafourche in the Bay Marchand area, and we now stood a chance at taking the pot.

This Bay Marchand well was drilled on a structure unique in that it was formed by one of the largest known salt domes in all the world. This kind of structure is known technically as a large shallow piercement type salt dome. This means that a huge "bubble" several miles in diameter of nearly pure rock salt has "floated" up through the soft muds and sands from some great but undetermined depth to a position near the surface. In forcing its way upwards, the salt "bubble" created a huge dome in the sediments shaped roughly like an inverted bowl. It is in this "inverted bowl" that the California Company hopes to find large quantities of oil and gas. At this time Calco has



THE CRANFIELD, *104' crew boat approaching drilling rig tender S-21, converted LST. In background a mile away is another drilling rig with LST tender, and to the right, a platform with production tank battery.*

two LST's tending drill structures in the Bay Marchand Field and one in the Main Pass Field.

Until now we have been discussing the California Company, its plans and activities, and its cooperation with local industries in making possible one of the greatest ventures to date within the oil industry. But what about the roughnecks, the roustabouts, the drillers, the deckhands, and all the other men who do the actual work? No one can deny that it has been hard work, but the compensations have made it worthwhile. It is a new and adventuresome task with a future to it. This is the spirit behind the work, but to make certain that every man is satisfied while on the job, the California Company attempts to give its employees, free of charge, the best food and beds that money can buy. Each LST serves not three, but four, meals each day, and, of course, there is always fresh fruit, pie and coffee which can be nibbled on between meals. While preparing this article, the author asked the chief cook on one of the LST's to send in a copy of his next day's menu.

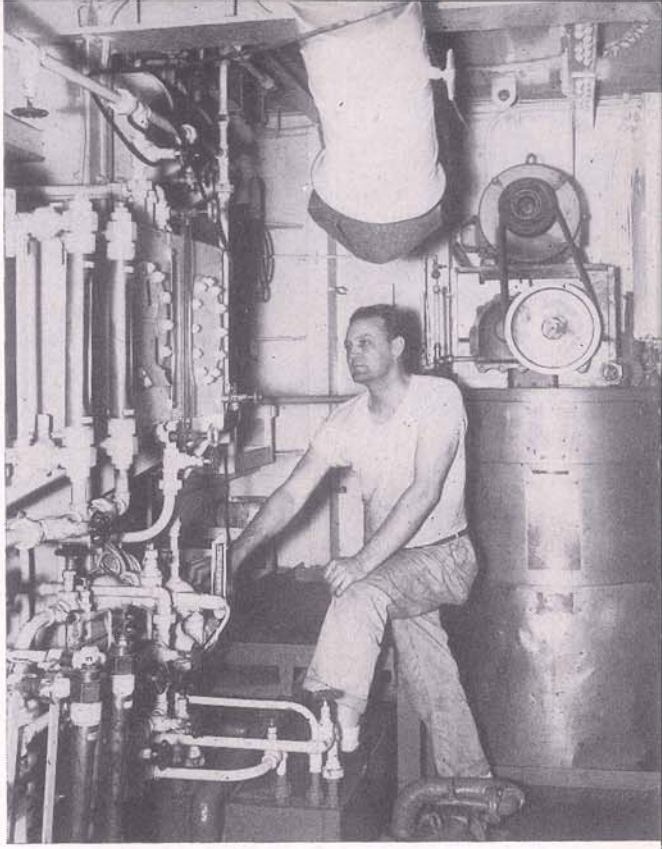
Here it is—

BREAKFAST

Chilled Grapefruit Halves
Assorted Dry Cereals
Fried Ham and Bacon — Boiled Grits
Eggs (to order) — Hot Cakes—Hot Rolls
Coffee—Milk

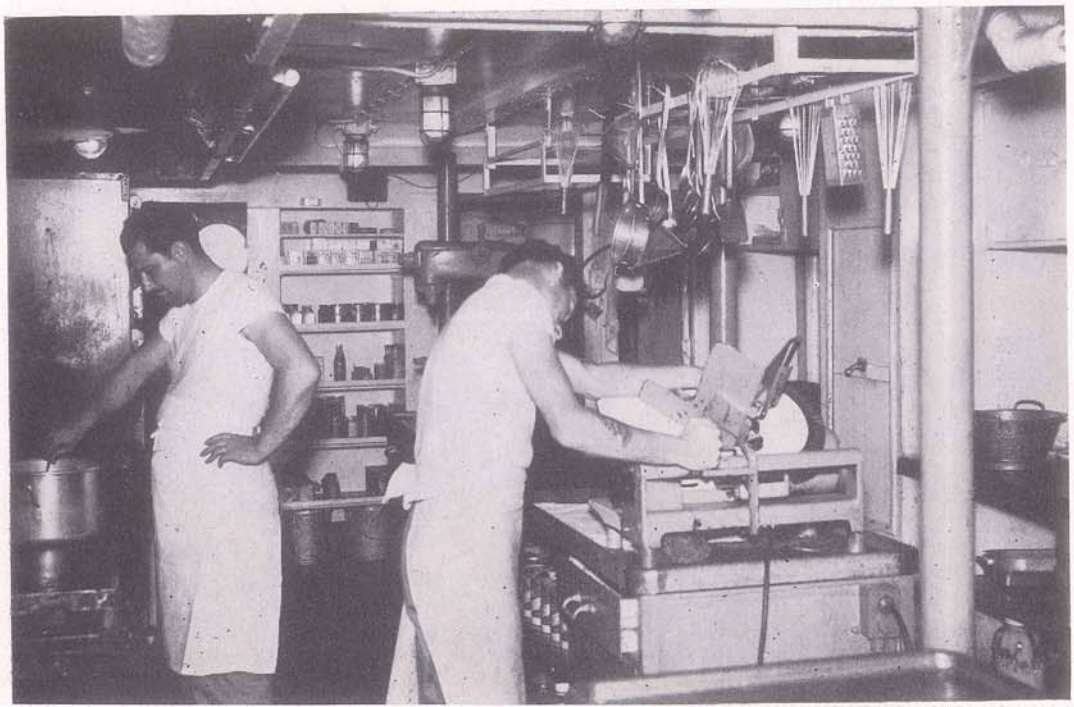
DINNER

Lettuce and Tomato Salad
Hot Corn Bread
Virginia Baked Ham
Pineapple and Raisin Sauce
Candied Sweet Potatoes



WATER DISTILLATION UNITS *on S-21 can convert 4,000 gallons per day of sea water into the purest water for drinking and bathing purposes.*

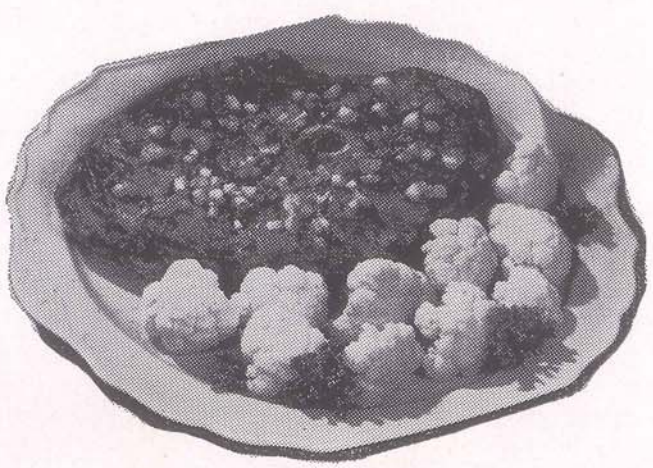
FOUR, NOT THREE, *meals per day are prepared in the gleaming galley by expert cooks. Also, fruit, pie and coffee are always available for between-meals snacks.*



H. G. HILL STORES

G. HILL STORES

OVER 26 YEARS
THE HOME OF
FINE FOOD AT A
FINE SAVING !



'Nuff said . . .

Braised Mustard Greens
Layer Cake
Stewed Red Beans Rice

SUPPER

Combination Salad
Broiled T-Bone Steaks Buttered Broccoli
Parsleyed Potatoes Baked Squash
Navy Beans Rice
Peach Cobbler

MIDNIGHT

Creamed Turkey on Toast
Mashed Potatoes
Fried Ham or Bacon
Eggs (to order)
Cinnamon Rolls—Assorted Dry Cereals
Coffee—Milk

Evaporators capable of converting 4,000 gallons of sea water per day into the purest of drinking water run continually in order to provide drinking and bathing water for the crews. Completely modern bathing and toilet facilities along with inner spring mattresses and individual air circulating fans further add to their comfort. A recreation room complete with overstuffed chairs and lounges, radios, daily newspapers and magazines helps to entertain the men during off hours.

Converted Army air-sea rescue boats serve as crew boats. The high octane gasoline engines with which these boats were originally equipped have been replaced with much safer 500 H.P. Diesel engines. These boats, 104′ in length, afford comfortable and safe transportation for the crews. One of these boats with a full crew of five men is kept standing by at all times near each rig to be readily available in case of accident or emergency.

The California Company's private radio network with transmitting and receiving stations at Harvey, Venice, Grand Isle and aboard all of the boats and drilling rigs enable supervisory personnel to maintain constant communication with all operations. This radio system used in conjunction with radar equipment allows crew boats and tugs to operate in heavy fog. A company owned and operated PBY Amphibian plane is always immediately available and through the use of radio can at a moment's notice be dispatched to the scene of any accident.

It can be seen that offshore drilling is a large and complex business. It is a business which could not be conducted without the full cooperation of everyone concerned. Jefferson Parish can be proud of the part it has played in helping to meet and conquer this challenge of deep water drilling. It has been only with the help of industries along the Harvey Canal and the West Bank of the Mississippi River and with the help of the people and officials of Jefferson Parish that the California Company along with other oil companies has been able to conduct its search for oil in the offshore waters of the Louisiana coast.

How Humble Does It— Continued from Page 14

drilled there. The drilling rig was supported by a platform on wooden piles at each location, in water from eight to 18 feet deep. Bad weather and the high cost of these unsuccessful operations discouraged further offshore drilling at that time.

During World War II, Humble scientists and engineers concentrated on war problems, but also continued studies on marine geophysical exploration methods and offshore drilling and operating requirements. After the war, the need for oil became even greater, and Humble's geophysical crews renewed the search beneath the continental shelf off Louisiana.

PIPE RACK *and other facilities on the main deck of Humble's huge double-deck Grand Isle No. 1. The self-sufficient rig also has comfortable living quarters for 54 men.*

A gravity and a seismograph crew began work in 1946, and in 1947 another seismograph crew and an electrical survey crew began sweeping the coastal waters of Louisiana and Texas for indications of oil structures below. These four Humble crews continue to search for continental shelf prospects, mostly in converted air-sea rescue boats and subchasers.

Meanwhile, Humble's civil and petroleum engineers continued extensive studies of deep-water drilling and production problems. These were both difficult and complex, as most of the better prospects on which the company secured leases were in water about 50 feet deep. Up to that time no platform had been erected in unprotected waters of that depth, although drilling platforms had been mounted in more than 100 feet of water in Lake Maracaibo, Venezuela. Analyses by leading ocean-

The Southern Cotton Oil Company

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Manufacturers of

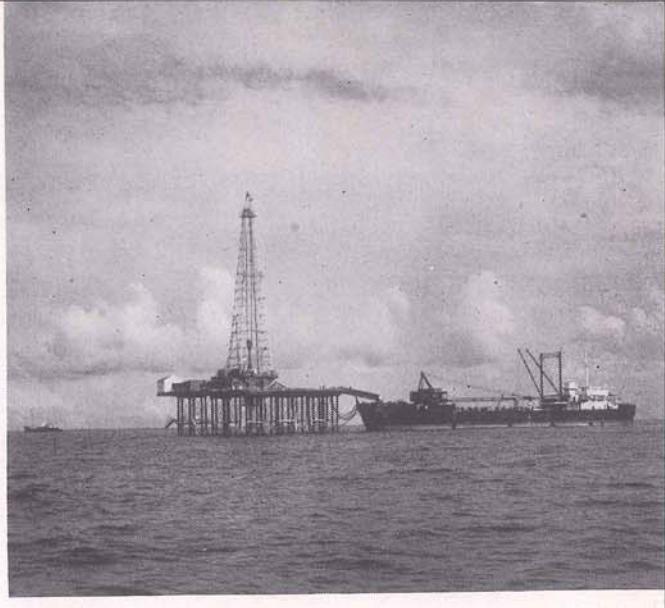
WESSON OIL
SNOWDRIFT SHORTENING

★ ★ ★

GRETNA, LOUISIANA

ographers had shown the effects of waves to be most critical in waters from 40 to 60 feet deep, posing a difficult design problem. Extensive tests were made, including the drilling of several core holes along the shore and several miles out to determine the nature of the sediments upon which the platforms would rest. These tests were thorough, for every effort has been made from the very first to insure the safety of the operating personnel and the platforms.

Erection of Humble's first drilling platform off the Louisiana coast was begun in November, 1947, seven miles out from Grand Isle. Bad weather interfered, and 14 days were lost due to high winds and waves before the platform was completed on March 17, 1948—114



ONE OF ELEVEN *smaller platforms with LST tenders built by Humble in 1948 in the waters off Grand Isle, La.*

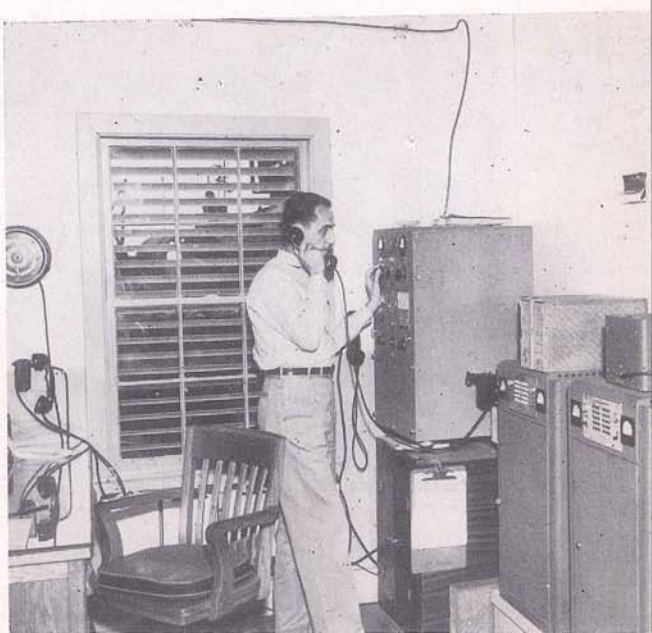
CONSTANT *vigilance is vital in deep water drilling operations.*

days later—at a cost of $1,200,000.

The first platform, a giant called "Grand Isle No. 1," is a self-sufficient double-deck platform for drilling up to seven wells. Each deck measures approximately 206 by 110 feet, providing nearly an acre of deck space. There is ample room for the extra-heavy rig and sufficient supplies for more than two weeks operation, should high waves prevent the usual regular supply boat operation. Comfortable quarters for 54 men are provided. The decks are 34 and 48 feet, respectively, above mean Gulf level. The platform and rig weight of 10,000,000 pounds is supported by 100 steel piles driven through the tubular corners of 25 templets which provide lateral bracing. Approximately 2,000 tons of steel went into the platform, which was designed to withstand gales of 120-miles per hour, and 32 foot waves, worse than the worst anticipated Gulf hurricane.

During 1948, Humble built 12 smaller platforms for use with converted LST drilling tenders. Eleven of these are in the waters near Grand Isle, Louisiana, and one is out from Freeport, Texas. These single-deck platforms are of the same type construction as Grand Isle No. 1, but are supported by piling driven through four, six, or ten tem-

RADIO ROOM *on Grand Isle No. 1. All rigs, boats and shore stations communicate by radio and radio-telephone.*



A FLEET *of 36 vessels of various types is maintained to service and supply drilling operations. Crew boats transport personnel in speed and safety.*

plets. The decks, 34 feet above the water, are in three sizes: 49 by 70 feet, 50 by 100 feet, and 50 by 150 feet. Cost of these platforms varies from $200,000 to $450,000.

Only the derrick, hoisting equipment, pipe rack, and auxiliary mud pump are mounted on these smaller drilling platforms. The crew quarters, two main drilling mud pumps, cementing and well surveying units, and storage for pipe and drilling mud materials are all located on the LST drilling tender.

Humble's LST drilling tenders are ships which were completely converted to their new job of being an integral part of an offshore drilling rig. Petroleum engineers and naval architects devoted many months to planning and designing the vessels to utilize properly every available bit of space. The exact location of everything was worked out in advance, from the giant revolving crane on the deck, to each individual bunk, and the installations were made on models before they were tried on the real vessels. As a result, Humble's LSTs have performed notably well in offshore drilling service. Humble purchased a fleet of 19 surplus Navy LSTs, eight of which have been converted as drilling tenders.

In service, the LST is moored adjacent to the drilling platform by eight massive anchor chains. In very bad weather, the 325-foot vessel may be maneuvered away from the platform by the anchor winches or the standby boat kept there for such emergencies.

Humble also constructed two small platforms measuring 38 by 66 feet in 1948. The deck of these structures was only 18 feet above the water, and rested on six 30-inch oil well casing piles. They were not designed to withstand very high winds and waves, and both were lost before drilling began in the 85-mile gales and more than 25-foot waves, of the September, 1948 hurricane. Before the storm struck, the LSTs at Caminada Pass and Tigre Pass were pulled away from their platforms

a safe distance and swung at anchor, and all personnel were removed to safety on shore. Very little damage was inflicted on the larger platforms.

An integral part of Humble's offshore drilling program is the operations base at Grand Isle, where 65 acres on the island are used by Humble for warehousing, boat pens, and employee community facilities, as there are now 333 Humble people employed in the Grand Isle district. To utilize sheltered Bayou Rigaud on the north of Grand Isle for harbor facilities, Humble had to dredge more than two miles of the channel, and an additional mile of the sand bar offshore from Barataria Pass.

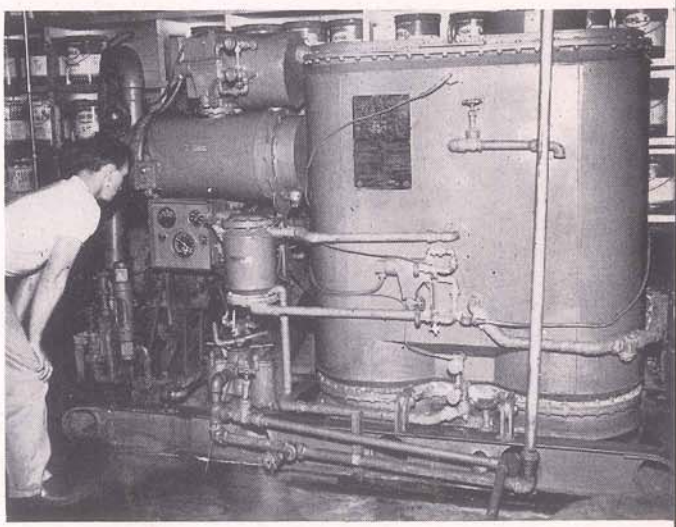
Humble's drilling operations off Grand Isle, which extend over an area about 75 miles long, are directed almost entirely by radio. In the Grand Isle district office, the platforms, and the fleet of Humble craft, there are 36 static-free FM transmitters used for transacting company business. In the fleet, there are nine ship-to-shore radiotelephones for contacting other vessels and the New Orleans marine operator.

Radar is employed in Humble's marine drilling operations for use in bad weather, particularly during storms and heavy fogs. Five LSTs and one crew boat are radar-equipped, in addition to the radar at the Grand Isle base. A special radar set is now being constructed on Grand Isle for hurricane and cold-front detection by Humble's weather advisor and oceanographer. Radar was especially valuable in the 1948 hurricane, when several crew boats were guided to safety in stormy darkness.

Each of Humble's offshore drilling rigs depends upon the fleet of boats and barges for its operating supplies. At the seven Grand Isle platforms, and at Freeport, regular supply boat service is maintained as long as the weather permits. But although each rig keeps on hand at all times two weeks supply of food and materials in case bad weather interrupts boat service, emergency drilling requirements sometimes can't wait. At the Freeport location, drilling mud once had to be barged out to the platform in waves more than 12 feet high. Heavy-duty tugs and barges must be kept available for such an eventuality.

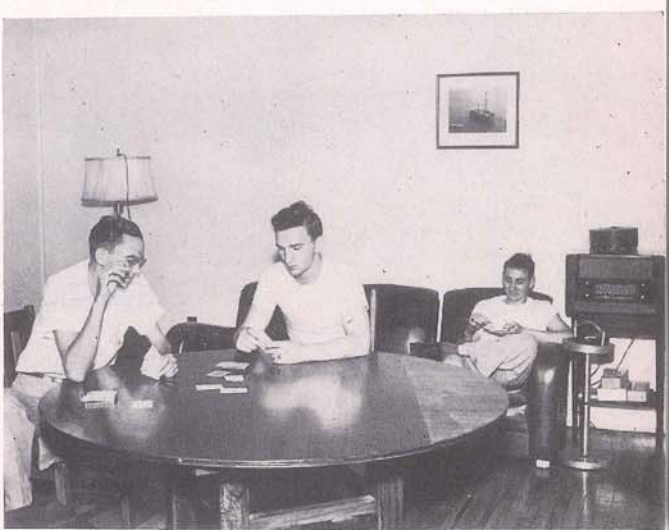
To service and supply the Grand Isle drilling operations, Humble maintains a fleet of 36 vessels. Of these, 18 are service boats handling light supplies

LAND-BASED *personnel live in modern, comfortable quarters that would enhance any residential section.*



MEN WORKING *and living on the No. 1 rig are assured an abundance of fresh water by constantly running condensers.*

RECREATION *facilities in comfortable surroundings take up off-hours on the unique deep-water drilling rig.*



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Twenty-six acres available for pipe storage.

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PIPE LINE SERVICE CORPORATION

GENERAL OFFICES

FRANKLIN PARK, ILLINOIS

and personnel, eight are tugs (two of these are inshore tugs) and 10 are barges for both supplies and oil. Five crew boats, a tug, and three barges are used at Freeport, Texas. Marine transportation alone for all of Humble's offshore drilling operations currently costs more than $7,000 per day. Major periodic repairs make this figure even higher.

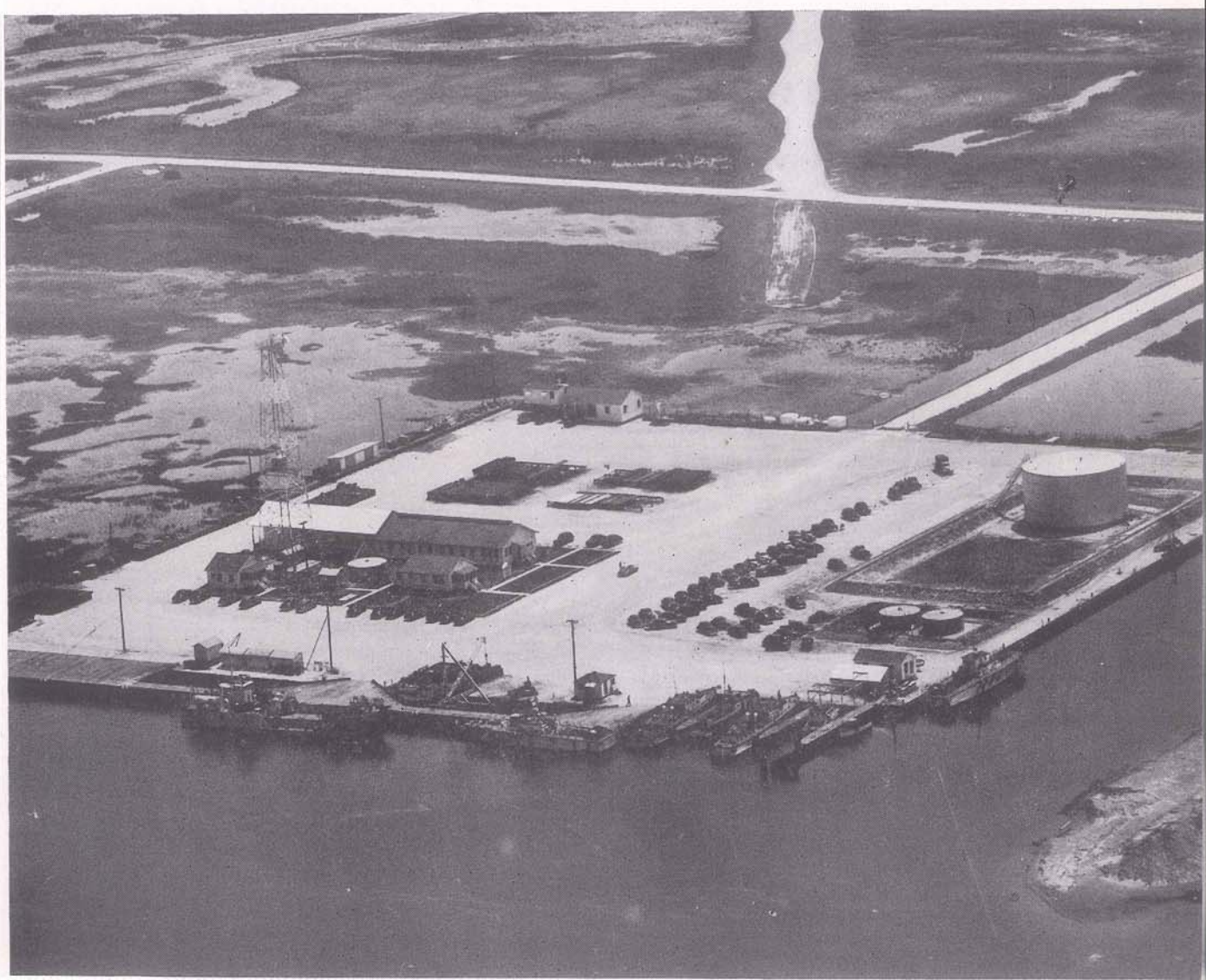
Humble now has 12 platforms in the waters near Grand Isle, and one six miles east of Freeport, Texas.

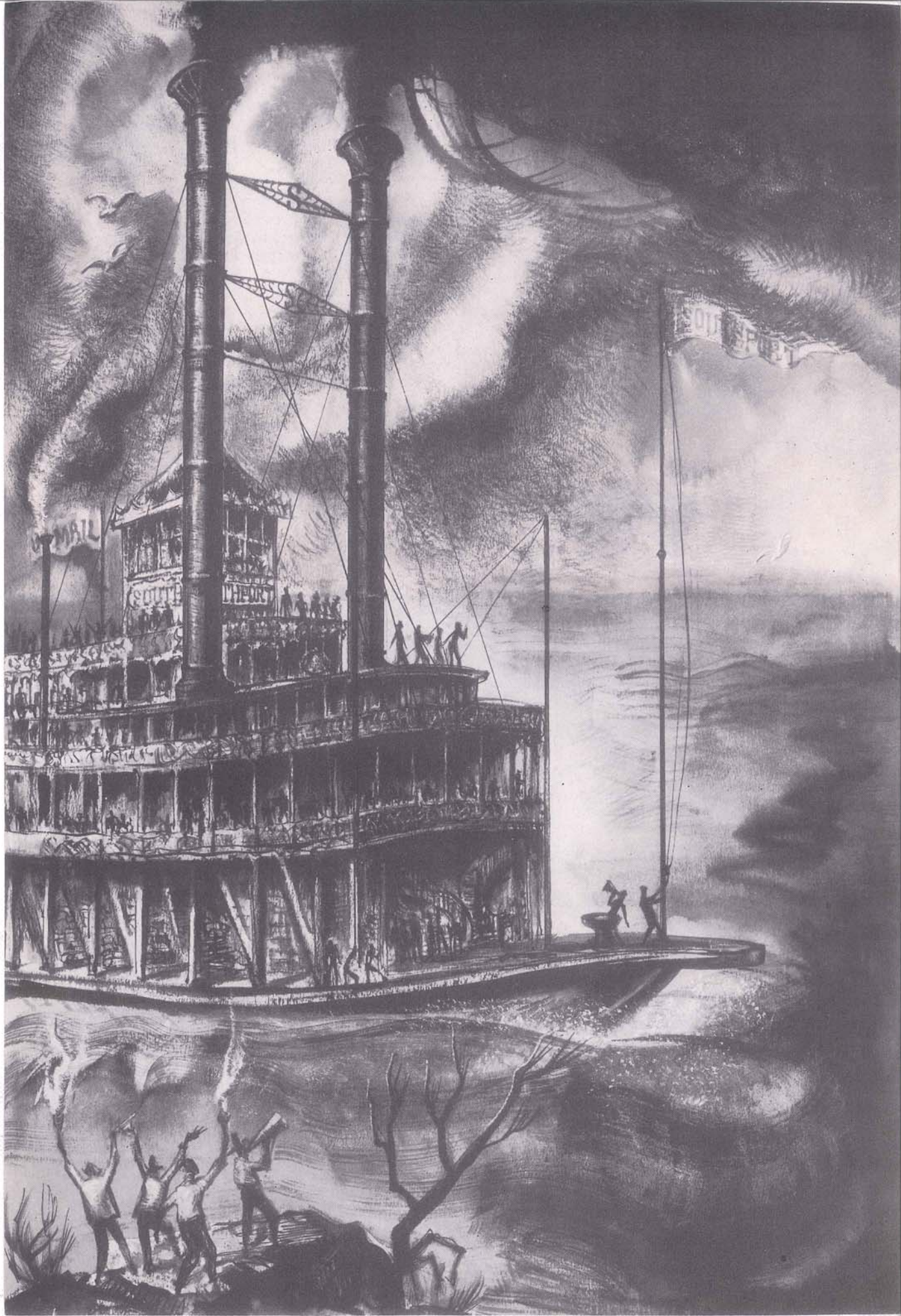
As mentioned previously, two oil wells have been completed in different zones from the Grand Isle No. 1 platform, and a third is being drilled. One well has also been completed at Caminada Pass. Drilling is now in progress at Caminada Pass, Tigre Pass, Quatre Bayou, Pelican Isle, and South Timbalier, and Freeport.

After the oil has been found, its production and transportation bring new problems. Oil produced thus far has been barged to a pipe line terminal at Avondale, Louisiana, above New Orleans. Because good production practice usually requires that oil wells be produced slowly, the barges must be moored alongside the platforms for several days to receive their load. In bad weather this is extremely difficult.

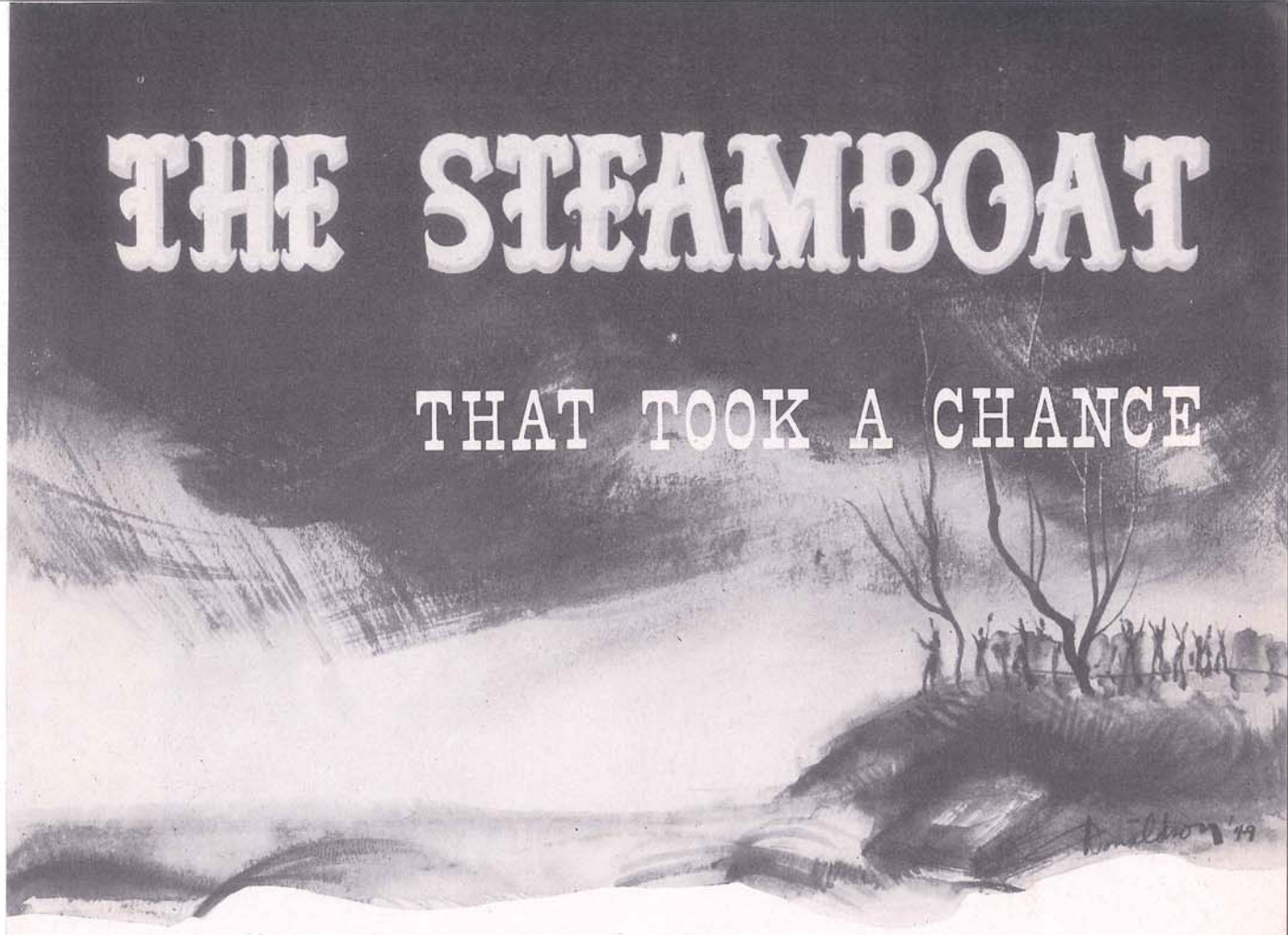
At the present time engineering studies are being made seeking the best possible method of transporting oil to shore. When this problem is solved, still another advance will have been made in the development of continental shelf oil reserves.

HUMBLE'S *Grand Isle base on Bayou Rigaud. Slip (bottom right) was dug recently so heavily loaded oil barges could unload into storage tanks.*




MAIL

THE STEAMBOAT THAT TOOK A CHANCE



By André Cajun

TUCKED away in the extreme southeast corner of east Jefferson Parish, on the banks of the mighty, and muddy, Mississippi, is the quaint sector known as Southport, and we are willing to wager that not many people today know how it came by its unique name.

Many guesses have been ventured. Some say it is because the spot marks the southern limit of the ancient Village des Chapitolas (Tchoupitoulas). Others hold that it derived its title from having been an unloading area for steamships. Some of these guesses are good, but they are guesses nevertheless.

The truth is, the site was named after a steamboat that once stood there.

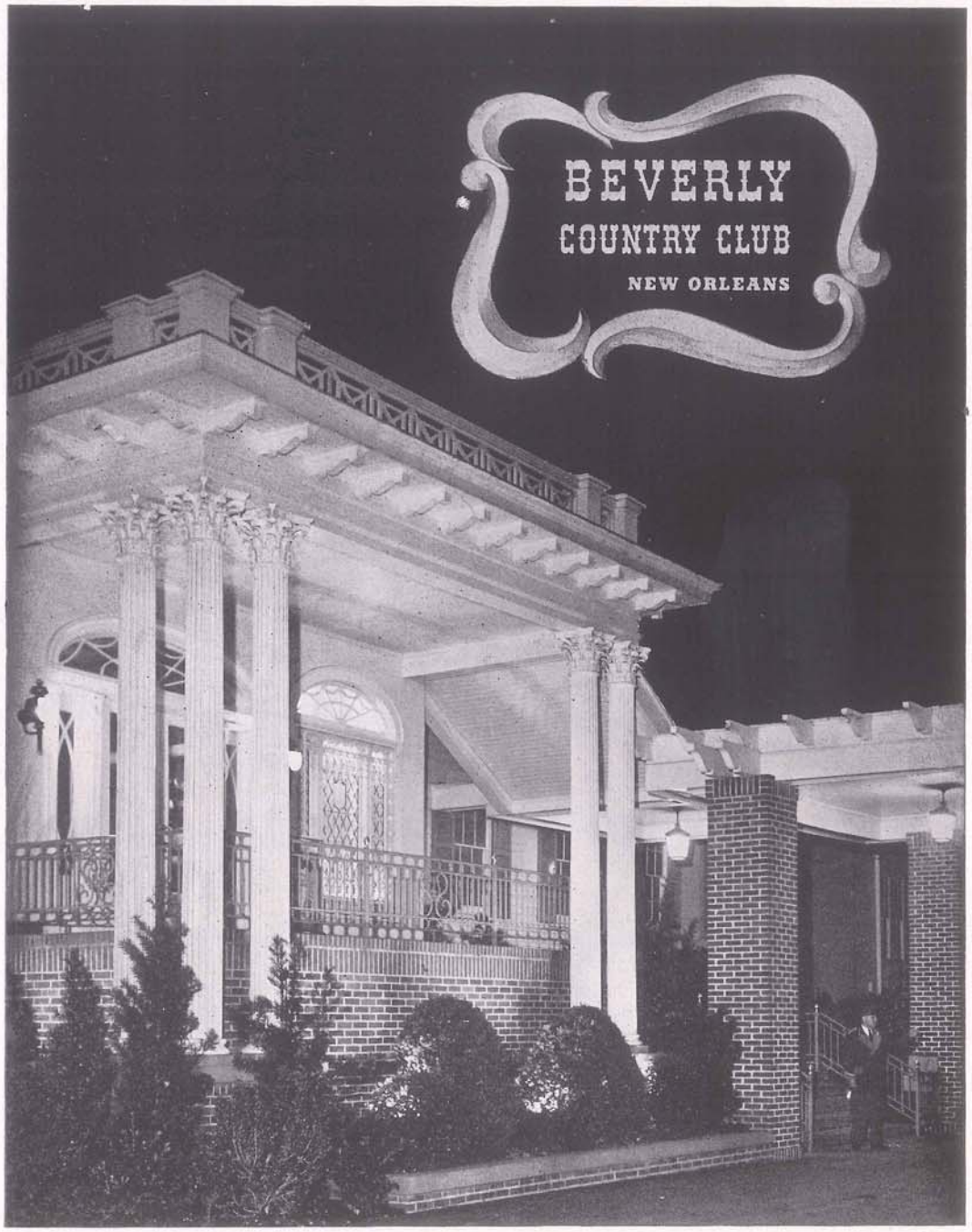
"But that is impossible!" you might declare incredulously. "Southport is on the land side of the levee, hundreds of yards from the river!"

Be that as it may, Southport, a few steps from the Jefferson-Orleans Parish line, was named for a beautiful and luxurious paddle wheel steamer once located on the spot. And this is how it came about.

The first craft to float upon the broad bosom of the Mississippi were the canoes of the Indians. Then came the sailing ships of Spain and France. Later, when men from the eastern seaboard crossed the Appalachian Mountains on their westward treks, such types of craft as flatboats, keelboats, broadhorns and others made their appearance. They were crude, cumbersome, and had to be propelled by manpower, using sweeps, or long poles with blades at the end, and occasionally sails when the wind was right.

The principal drawback to this form of water transportation was that after taking months to build, they were good for only one voyage. Upon reaching their destination, which was generally New Orleans, the boats were sold, to be dismantled and the timber used for other purposes. Thus the crew had the alternative of returning home on horse-

Illustration by Joseph Donaldson, Jr.



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back or afoot, or remaining in New Orleans.

Then came the steamboats. From 1840 to the outbreak of the Civil War steamboats on the Mississippi River south of the Ohio were as thick as fleas on a hound's back, navigating this ancient stream up and down, down and up. And so it went, from Louisville, Kentucky, to New Orleans, a distance of 1,382 twisting, tricky miles.

By 1850 the old Mississippi boasted some of the finest river steamers afloat, and the palatial *Steamer Southport* was one of the finest of them all. She was 204 feet overall, with a 56 foot beam, and she drew five feet of water. She had four decks and one hundred staterooms. A gorgeous saloon extended from one end of the steamer to the other. Its richly carpeted floors, lavishly furnished with hand-carved tables, reading desks and luxurious lounges, to say nothing of the ornately engraved and highly silvered spittoons, insured the guests all possible comfort.

The decks were terraced after the fashion of the time, thus giving passengers the choice of three open decks on which to promenade. There were individual staterooms containing two single beds, and no two persons were "roomed" together unless the steamer was crowded, and then never without the mutual consent of the parties concerned. The extreme after end of the saloon contained a group of tables and was furnished in even greater, more luxurious style than the rest. This area was reserved for ladies, and gentlemen accompanied by ladies.

As one came down the gangplank to board the *Steamer Southport* he was greeted by a most conspicuous sign:

"Those who expect-to-rate as Gentlemen, will not expectorate on the floor."

In somewhat grimmer vein, however, was the sign posted in the staterooms:

"Passengers will find Life-Belts under their berths. The doors can also be lifted easily off their hinges, and the Mattresses make good Life-Preservers."

This information and observation was founded on the "bad habit" of the early river steamers of blowing up from excessive pressure in the boilers. To meet another steamboat on the river automatically meant a race, and to the captains losing meant a disgrace they could never hope to live down. Therefore on spotting a rival, orders were given to the engine room to raise every pound of steam the boilers could stand, and huge pieces of resin would be heaped upon the fuel in the boiler's fire-box, to help increase the heat. At times the fire-box developed such extreme temperatures the boiler's crown sheet buckled.

The passengers as a rule were just as enthusiastic as the captain, and just as loath to lose the race. They aided and abetted as far as they were able by lining the rails of their vessel and cheering. And the captain, emboldened and made foolhardy by this encouragement, shouted for "More steam!" while up in the wheel-house, the pilot cut corners and crowded his opponent for every foot he dared.

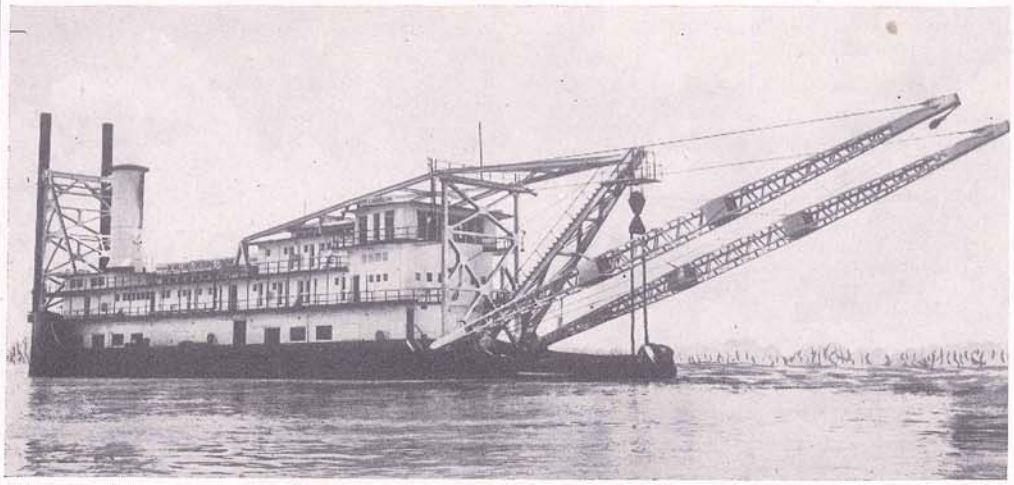
A race of this kind had three possible outcomes: One steamer would pass the other, and the one falling back would give up the contest; one of the steamers would run afoul a sandbar with usually dire results; or finally, one of the vessels would blow up. So it went among steamers plying the great brown stream known as the Mississippi River.

In the middle of the first week of May, in the year 1854, the good river ship *Southport* lay moored to a makeshift wharf at Louisville, Kentucky. She was loaded to the gunwales with coal, hides and whiskey, and every stateroom was jammed to capacity. From the great volumes of black smoke rolling from her funnels, rivermen knew the *Southport* was only waiting for her captain to come aboard. Then she would cast off her lines for her voyage downstream to New Orleans, stopping at Memphis, Tennessee to discharge the hides and coal, and continuing on down to the Crescent City with the whiskey and passengers.

In the upper portions of the Ohio Valley snow and ice had begun to melt, sending raging torrents of water into the usually peaceful Ohio River and swelling that stream to "banks full." The rolling, boiling, churning waters of the Ohio sang a song that was sweet to the ear of every river pilot: "Plenty of water on the sandbars."

The pilot of the *Southport* heard the song and knew its meaning. On the first four hours of duty in the pilot house he logged sixty-four miles.

The *Southport's* passenger list consisted of planters with their wives and sons and daughters; commercial men, gamblers and sight-seers. The weather was good, the steamer comfortable, and the food—four sumptuous meals daily—cost each passenger only $5.00 per day.



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LAND RECLAMATION

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NEW ORLEANS

Following is a typical menu of one of the "dinners" served on the early palatial river steamboats:

SOUPS:
Ox-joint, vermicelli.

FISH:
Baked red snapper, with brown oyster sauce.

BOILED:
Leg of mutton with caper sauce, sugar-cured ham, corned beef.

COLD DISHES:
Corned beef, roast beef, mutton and ham.

ROASTS:
Beef, loin of lamb, pig with apple sauce, loin of pork, loin of mutton, loin of veal.

ENTREES:
Beef a la mode, calves' head with brain sauce, croquettes of rice with lemon sauce, calves' feet a la Pascaline, veal and ham scalloped with mushrooms, macaroni with Italian sauce, oyster patties.

VEGETABLES:
Irish potatoes mashed or boiled, hominy, rice, beans, spinach and cabbage.

RELISHES:
Worcestershire sauce, mushroom catsup, walnut and tomato catsup, pickled beets, mixed pickles, pickled cucumbers, Cumberland sauce, lettuce, cheese, Harvey sauce, beefsteak sauce, John Bull sauce.

PASTRY AND PUDDING:
Gooseberry pie, bread pudding with brandy sauce, Pethivier pie, Genoese perlies, biscuits Milanais, anisette jelly, English cream.

DESSERT:
Raisins, filberts, almonds, pecans, oranges.

COFFEE

To dispose of even a small portion of the variety of dishes offered, took one with the gastronomic capacity of Apicius. On fare such as this, the river travelers dined on the four day trip to New Orleans.

Aboard the *Southport* everything was as lovely as a bachelor's dream girl. The giant wheel astern bit deep into the muddy water, pushing the vessel downstream as her broad bows plowed water right and left. The pilot glanced at the vessel's log and muttered with satisfaction, "Ninety-seven hours out of Louisville, and one hour to go. Yep, the *Southport* is right on schedule, to the hour."

The sun had but barely disappeared beyond the great cypress swamp in the extreme eastern portion of Jefferson Parish when the *Southport's* clock struck four bells, which meant, to the gay and happy passengers, six P. M.

They had just finished dinner, and were sauntering about the decks, as was the custom of river steamboat voyagers. Many had reached the topmost, or hurricane deck, and were watching the countryside and wondering what New Orleans would be like.

At the forwardmost end of the deck a lone individual sat in an armless chair. He was not handsome, but was immaculately groomed, and his tall, slim figure, with his long, curly black hair had an impressive appearance which was made the more striking by the violin across his knees. In the card file of the *Southport* he was listed as Monsieur Mollé Basset, New Orleans, La. From the same record it could have been noted that he was a frequent traveler on the steamer and spent considerable time at the card table.

From time to time the pilot, up in the pilot house, dropped his eyes down to the arresting figure draped languidly in the chair and very carefully treating the violin's bow with resin. The man placed the instrument to his shoulder and began to play. Suddenly from the evening haze stepped a heart-breaking Kentucky belle. She went up to Monsieur Basset and spoke a few quiet words.

The pilot was unable to hear the brief conversation, but he did see the Frenchman make a gesture of disdain. Humiliated, she forgot her good manners, turned up her nose, stuck out her tongue, and flounced off. She had reached the pilot house when abruptly she stopped, thrilled by the music Monsieur Basset's nimble fingers were drawing from the violin.

Fascinated, the pilot watched the scene. He was enchanted by the heart-stirring music and the loveliness of the charming girl, and his vigilance relaxed. He did not see the levee, lined with people shouting frantically and waving red flags. He was not aware that the protecting earthen bulwark had given way, and the swollen river was pouring wildly through a crevasse, until the steamer was drawn in irrevocably by the whirling, sucking waters.

Instantly he realized the danger. He knew there was no chance of escape, that to try to tear out of the torrent's grasp would send his vessel into the levee, perhaps capsize it and drown many of the passengers. So, signaling desperately to the engineer for full steam ahead, he ran the *Southport* straight into the open break. More than a hundred yards inland the steamer struck the soft earth with such a terrific impact her entire upper structure moved forward a foot.

The engineer, familiar with the an-

tics of the river, quickly shut off the steam and fought his way forward to open the trap doors to the boilers, permitting the intense heat to escape.

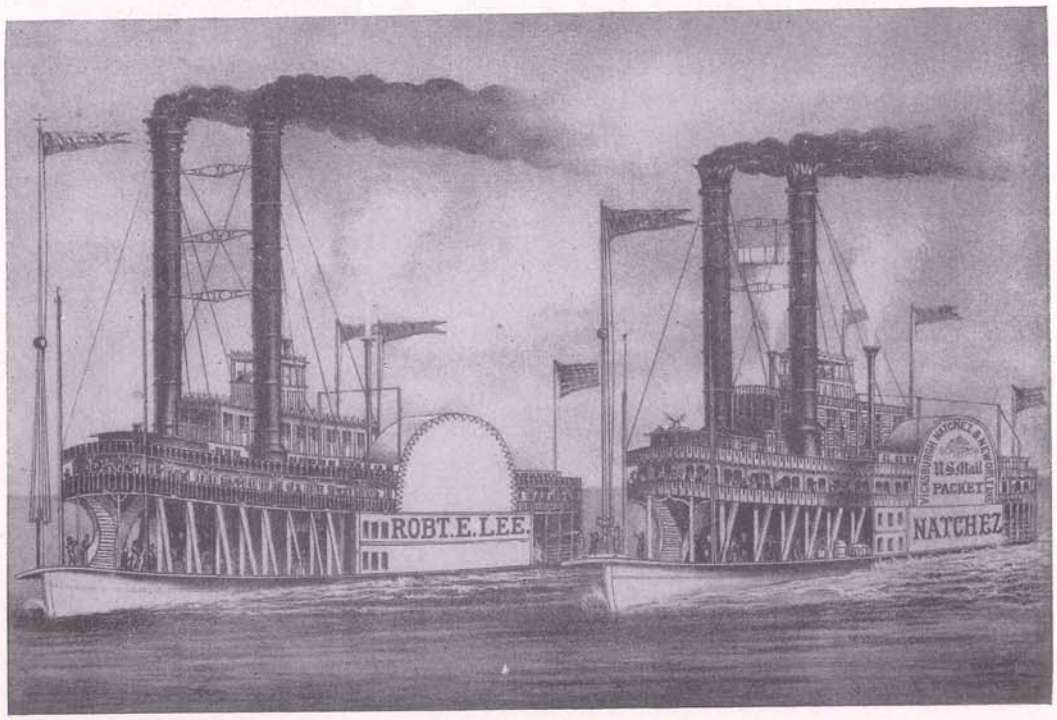
When order was restored, Captain Bertrand Berwick, master and owner of the *Southport,* lined all the passengers and the crew against the saloon walls. All were accounted for. Many were cut and bruised, and there were two deaths. A woman passenger had died of apoplexy and a Negro deckhand had been knocked overboard. The injured were taken to New Orleans for treatment.

When the water receded, leaving his vessel high and dry, Captain Berwick realized that the *Southport* would never steam again. So he salvaged what he could and sold the hulk to a Mississippi River gamester. This gentleman, with the aid of a contractor, rebuilt the *Southport* where she lay and converted her into one of the most elaborate houses of chance west of the Appalachian Mountains. She became known as "Old Southport," operated nights only, and always to capacity. And her motto: "Nothing ventured, nothing gained" replaced the signs about expectorating and life preservers.

The fame of the establishment spread far and wide until one tragic New Year's Eve. Her patrons had gathered to celebrate the birth of the year 1860. At the height of the reveling and festivity, suddenly and unaccountably, fire broke out. The singing and laughter turned to shouts and screams, and amid the roar of flames and the sound of breaking glass, the merrymakers streamed outside. Within an hour the once palatial river steamer was a pile of smoldering embers.

But the site where she ran aground still bears the name Southport, in lasting memory of the noble steamer that took a chance and lost, and came ashore to die.

The Greatest Race



The greatest steamboat race of all time was between the **Robert E. Lee** and the **Natchez,** New Orleans to St. Louis, July, 1870. The **Lee's** record of three days, 18 hours and 30 minutes for the 1210 miles, has never been broken. The great zest and spirit of steamboat racing is superbly pictured in this old Currier & Ives print, reproduced here through the courtesy of the Louisiana State Museum.

CHALLENGING CHANNEL

By Thomas Ewing Dabney

New Orleans steadily approaches a program which will make it one of the most fabulous ports of the world. Without stretching the facts, you might say that the physical development has already begun.

On the project side—Army engineers last year approved a seaway proposal from the Industrial Canal to ocean water 79 miles away, to the east. The same authority had already, in 1930, approved a seaway proposal from the Mississippi River near Westwego to the Gulf of Mexico, only 55 miles to the south. Both would accommodate ships of 40-foot draft.

The Army engineers are the supreme technical body on rivers and harbors in the United States, and you could not ask for a more absolute acceptance, than these two rulings, of the fact that New Orleans has outgrown the river which gave it birth. It must therefore junk the 108-115 mile course via river and passes through strong and dangerous currents, in favor of a shorter, artificial approach from the sea, with fixed water-level wharf facilities in the place of those subject to a 22-foot variation as the river rises or falls.

Sooner or later the United States government will undertake the creation of such a seaway, for it will be a national project aimed at the economic enhancement of this entire country. The only question to be settled will be the route: East side or west side. Both have received the highest engineering endorsement. Why the east-side proposal received the latest approval—in the face of its obvious disadvantages—is an issue which need not be explored here. The question will be decided by Congress, on the basis of cost and other considerations affecting the people of New Orleans and the people of the Mississippi Valley—especially cost, in which the west-side proposal holds a tremendous advantage, from the standpoint of initial construction as well as annual cost of maintenance and operation.

The east-side seaway would cost to build, according to estimates in 1947, $112,000,000. How much the maintenance would be cannot be accurately stated, but it would probably average in excess of $1,000,000 annually. The west-side seaway was estimated to cost $75,000,000, and its maintenance cost was estimated at between $250,000 and $500,000 annually.

Today's prices may be higher, tomorrow's may be lower. But the relative advantage, in favor of the west side, will be the same. It will be the advantage of 55 miles over 79 miles. It will be the advantage of a channel cut through more or less stable ground for its entire length, and one dredged for 30 miles through shallow open water, where constant work will be needed to keep the route open, as has been proved in the offshore dredging of the Gulfport harbor channel.

Congress must take cognizance of this advantage, it will eagerly grasp the

HEART OF THE TROUBLE. *Southwest Pass, one of two navigable Mississippi River entrances. After rushing southward for over two thousand miles, the mighty river meets the powerful braking force of the Gulf of Mexico here, and drops millions of tons of silt per year. The fertile Delta thus built is wonderful for crops and wildlife, but ever-forming bars in the passes are a constant menace to ships.*

economies offered—and it should, for the appropriations come from the tax monies of the people.

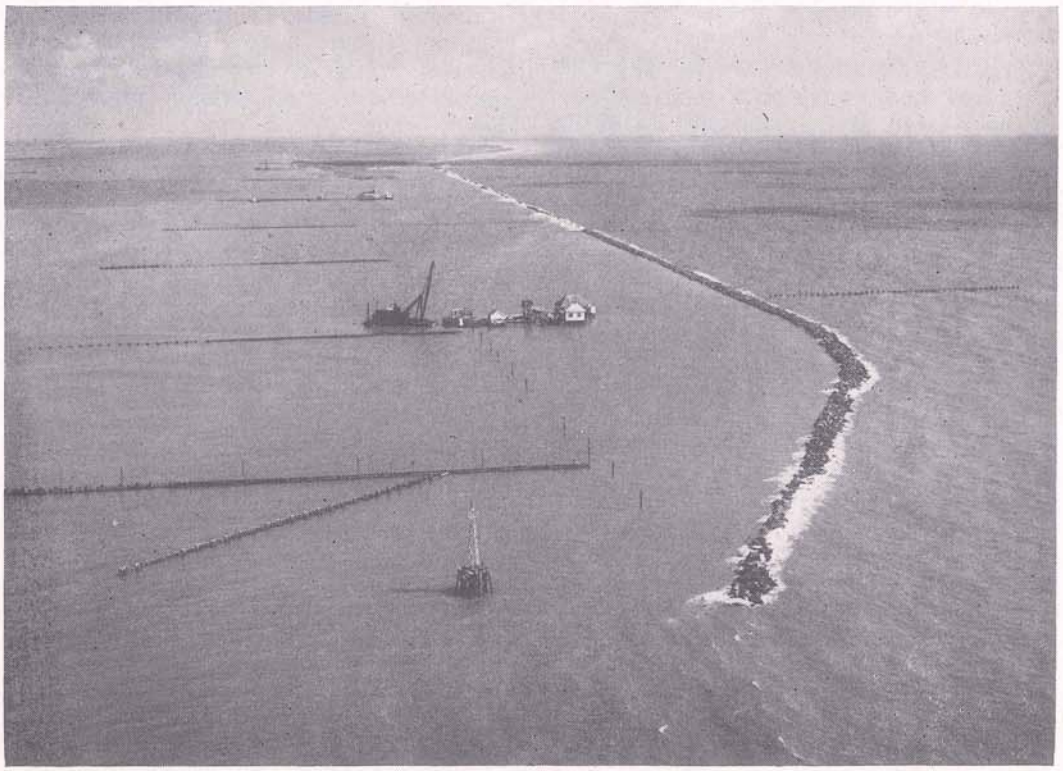
The west-bank route is so much cheaper, and it has so many other advantages, that the east-bank route would never have developed impressive interest, with dock board endorsement, had it not been deemed necessary to absorb the losses of the $20,000,000 Industrial Canal in a new project—such losses being due to the policy-mistakes of the dock board in the operation of that facility.

On the development side—Army engineers have approved a project to dredge a canal from the southern end of the Company Canal at Westwego to the Bayou Villars connection with the Intracoastal Canal near Lafitte. This will give fishermen a more direct and a more economical route to the seafood industrial plants at Westwego and in the New Orleans area. It will be only 13 miles long, this new channel; only nine feet deep by 60 feet wide, but its acceptance by Army engineers underscores two of the basic principles of the proposed west-bank seaway.

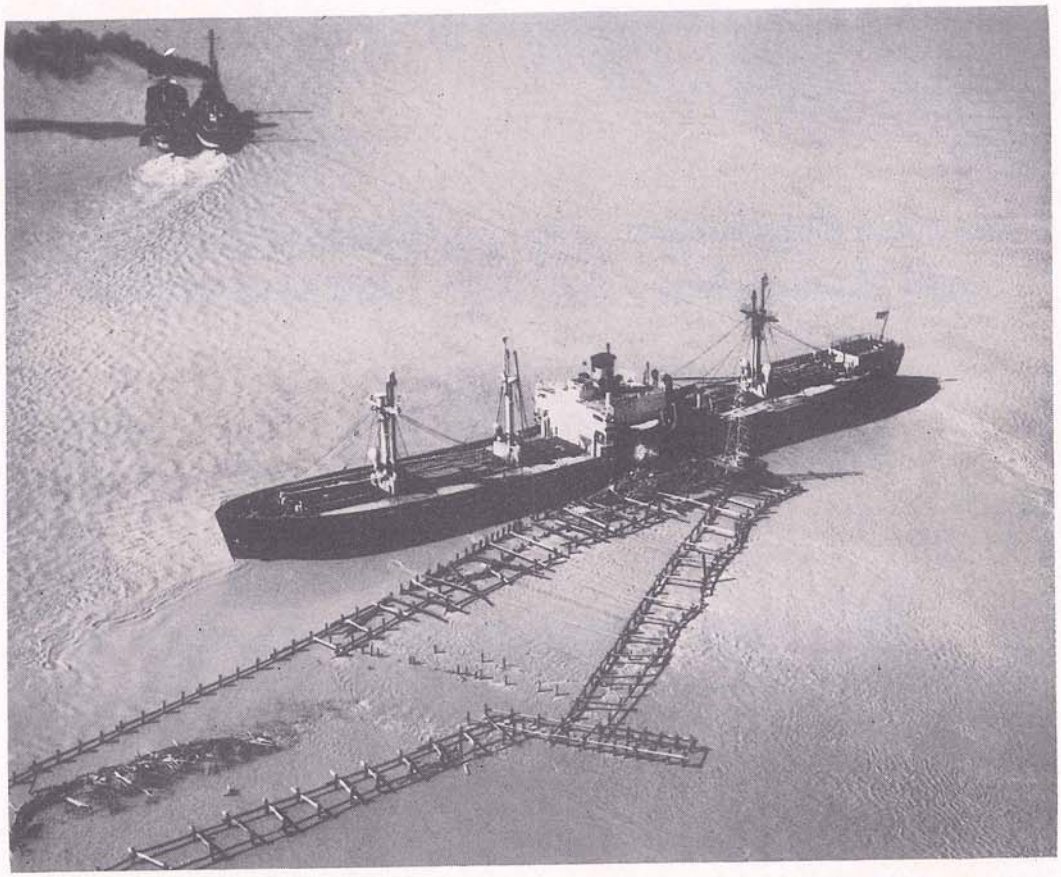
First, economy to the users. The government could widen and deepen channels through existing waterways, Bayou Segnette, Bayou Bardaux and Lake Salvador; but that would be a longer route and its use would consume more time and power.

Second, economy of maintenance. The shorter the route, the less the maintenance costs. But more important than that, the engineers, in refusing to dredge a channel through the open water of Lake Salvador (about half the full distance) indirectly proclaimed the difficulty and the cost of maintaining a ship channel through 30 miles of open water in the Mississippi Sound, which an east-bank seaway would require.

South of Lafitte, oil company and barge line operators are developing a project for a waterway for the transportation of oil produced in the Grand Isle, Barataria Bay and the lower marsh areas, to refineries now located on the Mississippi above New Orleans or which may be built, in the foreseeable future, in the vicinity of Westwego.



EAST JETTY, *Southwest Pass. A closer view of the remarkable jetty system devised by James Buchanan Eads to speed the silt-laden current through the passes. However, constant maintenance is imperative for safe depth.*



DESPITE *the unceasing vigilance and untiring labors of the Engineer Corps, ships run aground. Unavoidable fogs caused by the cold river waters meeting the warmer Gulf, treacherous currents, insidious shifting shoals, are all hazards eliminated by a tidewater ship channel.*

Now the oil must be sent by barge through the open sea to the mouth of the Mississippi and then be towed upstream against 115 miles of strong current, or it must be sent by barge to Texas.

When these planned canals are dredged we will have the beginning of the west-side seaway, for they are along the route of that proposed harbor development. They will have to be deepened and widened, of course, but the demonstration of the economies in time and money on barge shipments from Gulf to port will tell New Orleans—and the world—how important this the shortest of all possible routes can be to the maritime commerce of our country.

So, in a manner of speaking, the west-side development is already under way, while the east-side is waiting for the United States government to pour out the millions of dollars which the dock board hopes will cover up the Industrial Canal failure.

What a change has come over west-side Jefferson since I reported, for my newspaper, The New Orleans States, the opening of the Harvey Canal locks in 1934. The speeches and the editorials then envisioned a large development as a result of this expansion of intracoastal canal facilities; but none of them foresaw what has already come to pass, not only in that direction, but also in the undreamed direction of industrial growth.

West-side Jefferson Parish then was one of the great open spaces, and one of the principal anxieties of the executive brass supervising the construction of the Harvey locks was the landscaping of them. Now that section is a continuous drive of activity, and the problem is to find sites for industry to build on. The Louisiana Power & Light Company is starting construction of a big, new $9,000,000 power plant — the first of four, which will total $36,000,000—in

the Westwego area, because industrial development on the west side is outgrowing the present electrical supply.

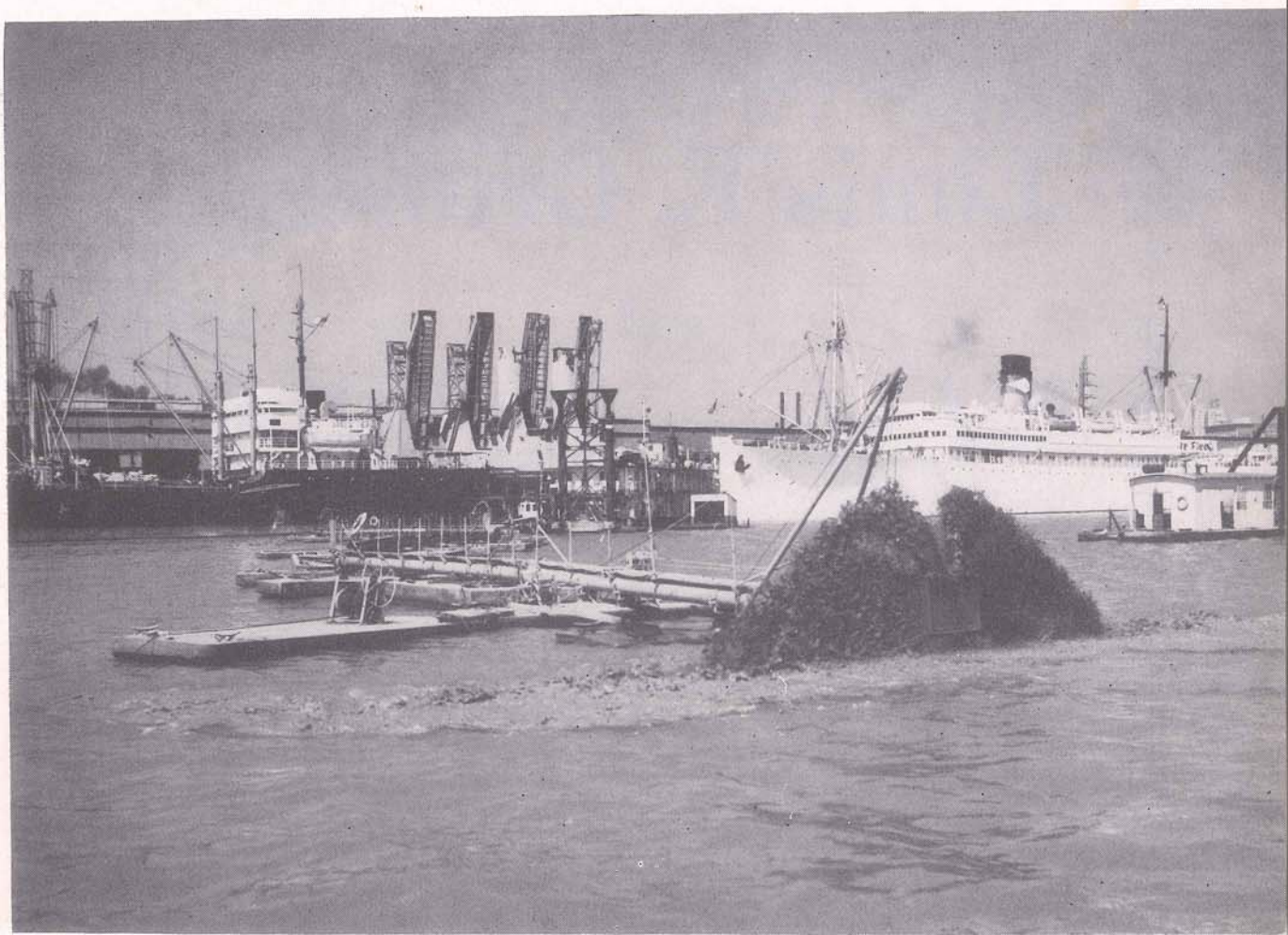
Oil is a major factor in the west-side growth. It will make the future greater, according to present indications. Most of the oil production of the nearly 800 wells in the New Orleans area comes from the marshlands south of the city and a large part of that volume, now estimated at 350,000 barrels per day, springs from the land and sea adjacent to the proposed west-side seaway. Vast offshore oil operations center upon the Grand Isle area, the southern end of the proposed seaway. These operations are already dizzying in their scope, but they may become much greater, for geologists predict that the continental shelf of the Gulf of Mexico will be a most important, if not the principal source, of our future oil supply, and that "more oil will be discovered beyond the three-league limit (10½ miles) than within it." Already oil production has been pushed 25 miles from the mainland out to sea; even now operators can work their drills through water 120 feet deep.

Oil operations have projected an enormous industrial growth in west-side Jefferson, to serve their needs, and will promote more. Much of the growth is not directly connected with oil, but is the inevitable increase which accompanies every business stirring.

Between Algiers and Avondale, the lower and the upper boundaries of west-side Jefferson, have been built nearly 100 industrial plants; they employ 9500 persons, and their pay roll of $21,000,000 a year is the economic backbone of a population of 85,000, and a major contributor to an east bank population of another 600,000. Some of these industries are the largest of their kind in the world; all have increased or are increasing their production.

New Orleans is becoming an industrial port because of west-side Jefferson. It was a brokerage port, an agency town, in its beginnings, and as such

AFTER HIGHWATER *periods, the docking areas in the New Orleans harbor must be dredged of siltage. Here, off Erato St. and Julia St., the U. S. Engineers skillfully perform their unending task of keeping the wharfage available to deep draft ships.*



THE SOUTHERN PACIFIC RAILROAD, *with rare dock-side spur tracks, pays dockage fees on its own west side wharfs.*

achieved its so-called golden age a hundred years ago. When commercial routes shifted, its fortunes drifted down and down and down. Not until the second decade of this century did recovery begin, on an impressive scale. That improvement has been gaining momentum.

Most of the port's increase is due to the industrial growth of Jefferson Parish, and to the swelling flow of business from west of the Mississippi. New Orleans' trade territory in this country is upriver and to the west, not to the east, which is under the New York complex. Seventy-five per cent of the import and export tonnage of New Orleans that moves by rail enters the port from the west, carried by five of the eight trunk-line railroads which enter the city. Eighty per cent of the water-borne import and export commerce comes from above or to the west of New Orleans. Both the rail and the water-carried business, therefore, are as far from the proposed east-bank seaway (Industrial Canal route) as the city's breadth can push them; and to force that movement across the city or through the congested river traffic, to such a harbor, would be to introduce costly and dangerous and intolerable conditions into the life of New Orleans.

With a seaway New Orleans can become the greatest port in the United States, perhaps the greatest in the world. Without a seaway it can not go much beyond its present achievement. The shorter distance, the elimination of pilotage charges, the reduction of delays due to fog would mean a saving of at least $1 a ton on the entire port movement, estimate shipping men —millions of dollars a year.

But more important than these economies are:

1. The savings that would result from opening the port to larger ships. Years of experience prove that it is impossible to hold a channel depth of 35 feet at the mouth of the river. Consequently the ocean tonnage of New Orleans is held to uneconomic shallow drafts, while the world movement is to ports which are open to the larger vessels. Ships drawing 40 feet could come through the seaway without trouble and without danger.

2. The encouragement that would go to industry if it were able to control its water frontage here. In New Orleans, private ownership of the river-front is forbidden by law, and the dock board applied the same policy to the Industrial Canal, though that port facility was created with the hope of getting around such an inhibition. The fact that New Orleans has maintained this policy of the Closed Door has raised a great and increasing competition against the port—Houston, Port Isabelle, Corpus Christi, Beaumont,

JEFFERSON DEMOCRAT

Official Journal of the

PARISH

OF

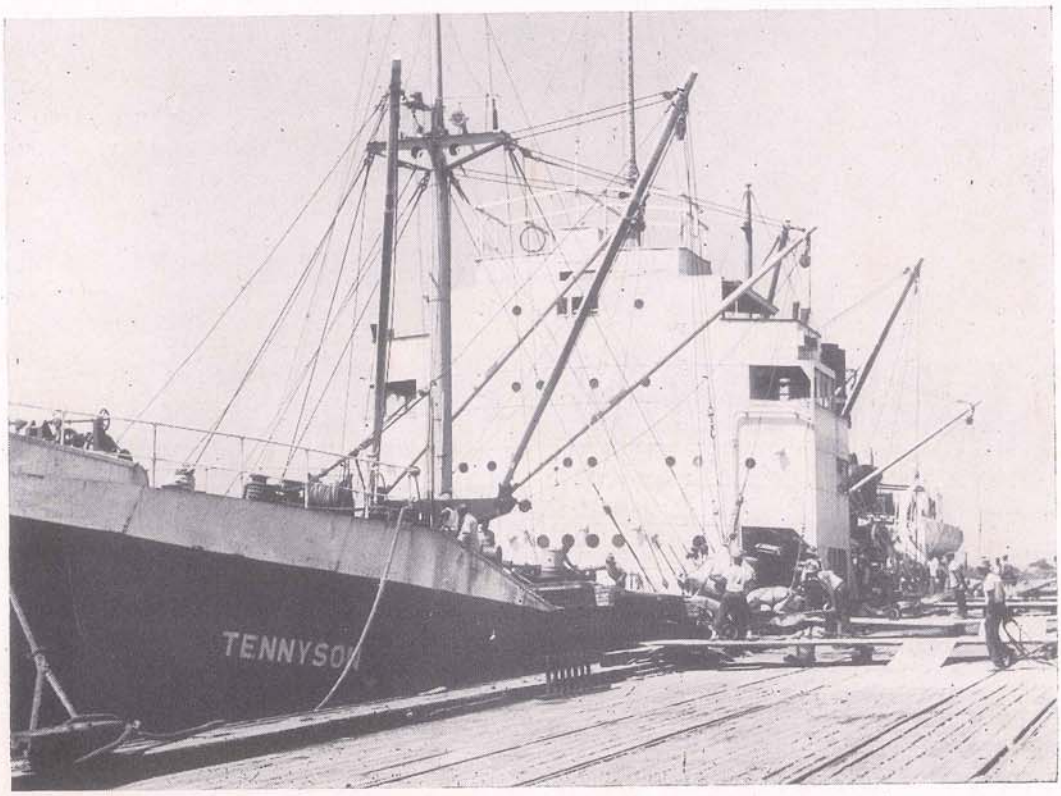
JEFFERSON

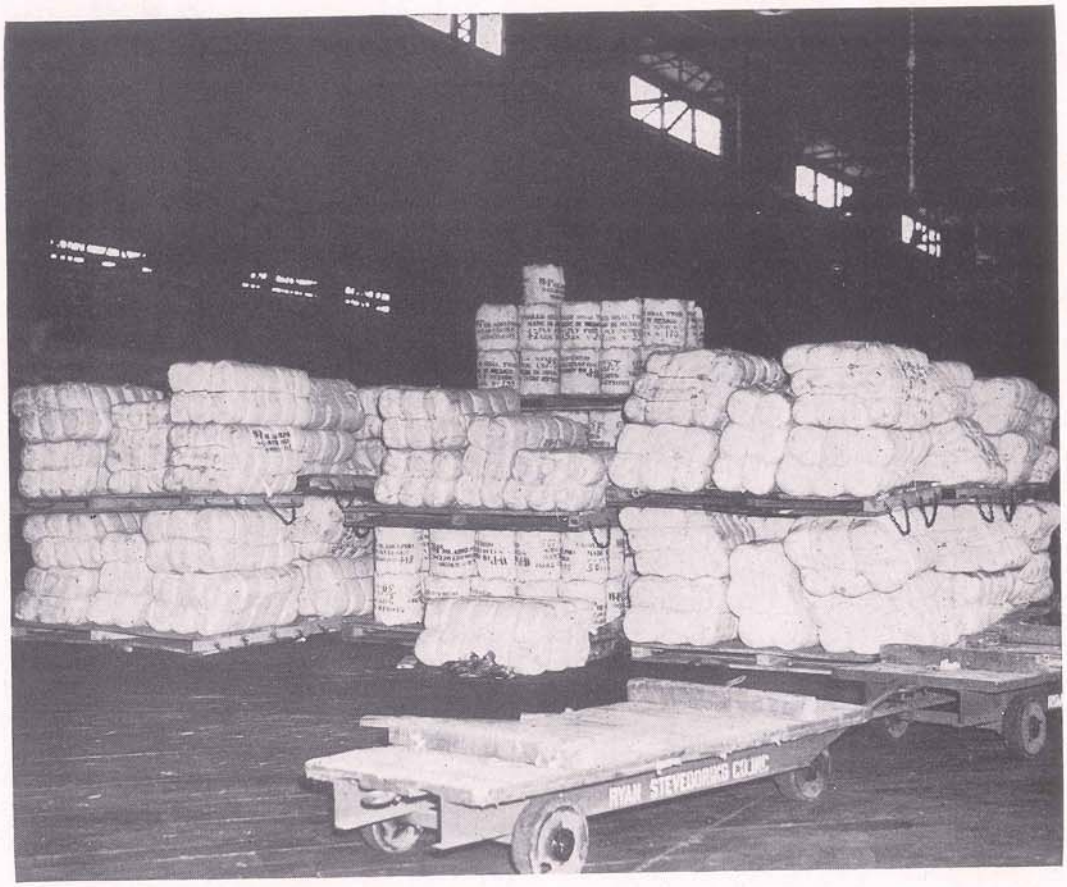
SINCE 1896

Gretna, Louisiana

THE GREATER NEW ORLEANS AREA *has outgrown the river. A new harbor, with finger-type slips and dock-side railroad tracks, is desperately needed.*

AT MOST OTHER WHARFS *than this of the S. P. R. R., below, freight must be towed through the warehouse to or from the freight cars on the other side.*





PRESENT STORAGE *areas on the river permit only 350 lbs. per square foot. Tidewater harbor storage would provide the 1000 lbs. per sq. ft. needed.*

Port Arthur, Lake Charles, Gulfport, Pascagoula and Mobile. In every port in this country, except New Orleans, industry can own or control its water frontage, and considers this to be an essential of safe and profitable business operation. In the fabulous days of the past, New Orleans could ignore a fundamental economic demand like this, because it was the only port; but under the lash of competition, New Orleans has been driven to seventh place among the nation's ports.

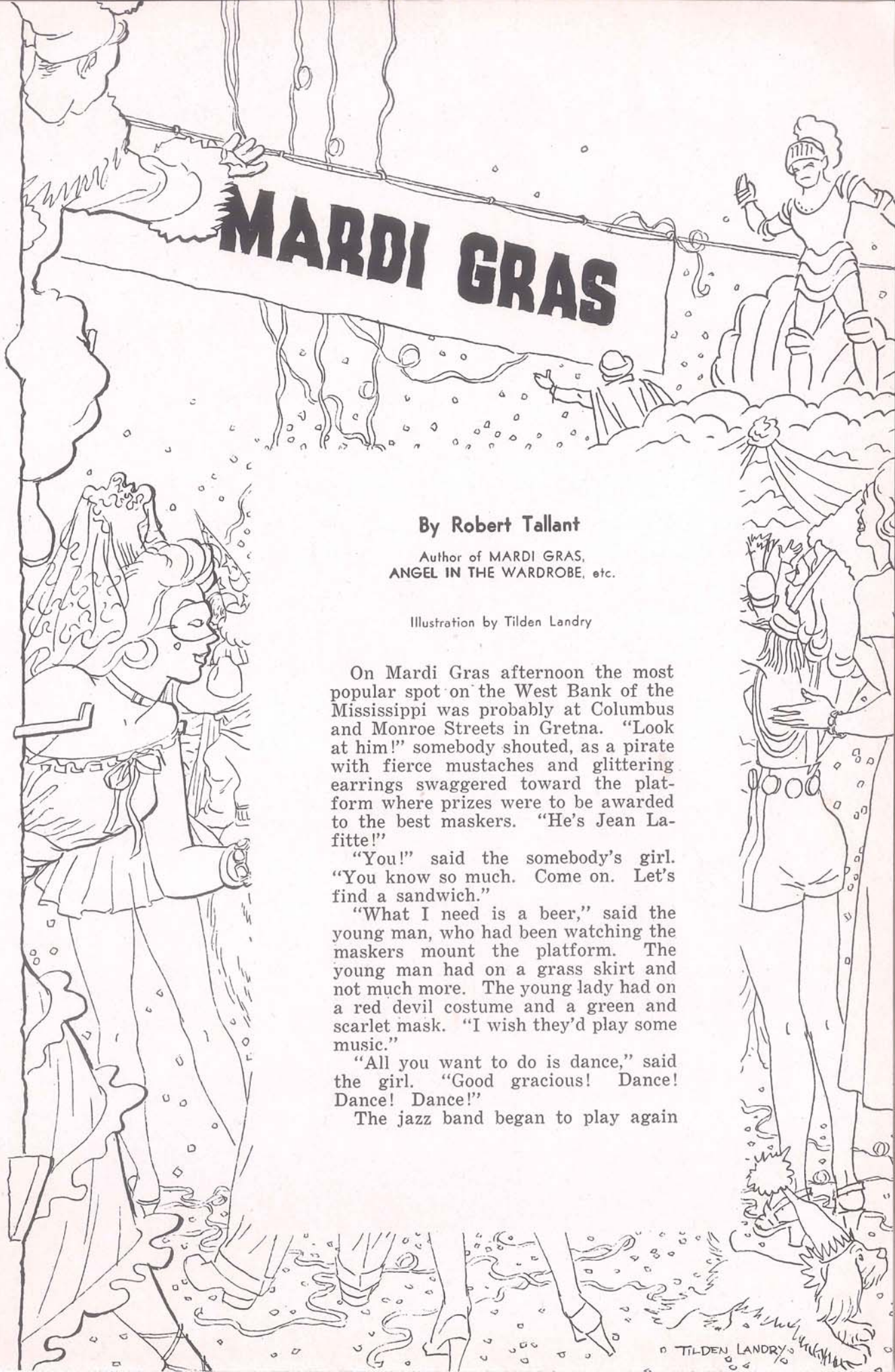
The greater cost estimated for the east-side seaway is due partly to its greater length, but principally to the fact that nearly half of the ship channel would have to be dredged through the open and shallow waters which end at the 40-foot contour off the Chandeleur Islands. The west-side channel finds the 40-foot contour only three miles offshore. To maintain a 30-mile channel through open water would call for the building of artificial banks or jetties on both sides of it, the longest and most costly construction of its kind in the world. It would also call for constant dredging. The extra cost and maintenance might nullify the entire undertaking. In addition the land and such port facilities as may be constructed adjacent to it, would have to be protected against flood waters. Witness the fact that hurricane driven water from Lake Borgne covered the Michaud area to a depth of 3 to 5 feet in the 1947 tropical hurricane.

Army engineers, when they this year rejected open-water channel dredging in favor of a straight land cut in creating a canal for the west-side fishermen, proclaimed the principle which should rule out the east-side seaway proposal because of that 30-mile stretch through open water, even if the other disadvantages of the route are ignored —especially at a time like this, when the tax burden is the heaviest in the nation's history.

The 55-mile cut from the river at Westwego almost due south to Grand Isle would be through country made to

(Continued on Page 161)


WEST BANK



By Robert Tallant

Author of MARDI GRAS, ANGEL IN THE WARDROBE, etc.

Illustration by Tilden Landry

On Mardi Gras afternoon the most popular spot on the West Bank of the Mississippi was probably at Columbus and Monroe Streets in Gretna. "Look at him!" somebody shouted, as a pirate with fierce mustaches and glittering earrings swaggered toward the platform where prizes were to be awarded to the best maskers. "He's Jean Lafitte!"

"You!" said the somebody's girl. "You know so much. Come on. Let's find a sandwich."

"What I need is a beer," said the young man, who had been watching the maskers mount the platform. The young man had on a grass skirt and not much more. The young lady had on a red devil costume and a green and scarlet mask. "I wish they'd play some music."

"All you want to do is dance," said the girl. "Good gracious! Dance! Dance! Dance!"

The jazz band began to play again

and the young man swung her into his arms.

This was the block dance held in Gretna on Mardi Gras, sponsored by the Jefferson Carnival Club and its captain, Sam Centineo. James Coney was chairman of the activities and Leslie Schroder master of ceremonies. Like all the other carnival events of Jefferson Parish it attracted a large crowd and was a huge success.

For the residents of Jefferson Parish don't have to go all the way to New Orleans to celebrate Mardi Gras. There's plenty going on right at home, and even some New Orleanians, looking for something different or just curious to see what is happening in their neighboring parish, come to Jefferson to see the activities there.

It can be easily said that there has been some Mardi Gras activity in parts of Jefferson Parish ever since there has been such a place. Indeed since Jefferson Parish once included most of uptown New Orleans, including Carrollton and extending all the way down to Felicity Street, which in turn included the Garden District, where the wealthiest "American" New Orleanians lived, it can be said that much that is now part of the New Orleans Mardi Gras actually had its birth in what was once Jefferson Parish. Then as the large city grew and took in more and more territory Mardi Gras was included with everything else, becoming a part of New Orleans proper once more.

Mardi Gras is of course of first ancient then Latin origin. The Creoles who settled lower Louisiana celebrated it from the founding days of the colony. Their Mardi Gras, however, was confined to the one day, insofar as parading and street celebrations were concerned, although masquerade balls were held from Twelfth Night until Shrove Tuesday, as they are today. It was later that formal parades with floats, followed by grand balls came into being. The first was Comus, who appeared in the streets of the city for the first time on Mardi Gras night in 1857, with two floats, numerous maskers on horseback and on foot, all lighted with blazing torches and flambeaux. It was such a

"THE FABLE OF JEFFERSON" *was the theme of the parade of eleven floats of the Jefla organization. King Jefla (Louis Badalamento of Marrero) led the colorful pageant through Gretna's streets on the night of Sunday, February 27, 1949.*

spectacle as the community had never seen before. "They came!" said the *Daily Crescent* the following day. "Led by the festive Comus, high on his royal seat, and 'Satan, high on a hill, far blazing as a mound, with pyramids and towers from diamond quarries hewn, and rocks of gold; the palace of great Lucifer,' followed by devils small, devils with horns and devils with tails, and devils without!"

Most of the fathers of Comus were men from "uptown" New Orleans, once part of Jefferson Parish, and planters from along the banks of the Mississippi River. Carnival made rapid progress after that. Suspended by the Civil War, for it has always vanished for the duration of wars, it thrived as soon as the worst of the Reconstruction period was past. In 1872 came the first Rex, and after that the numerous krewes and clubs that are part of it today, with new ones being born nearly each year.

For a long time Rex came across the Mississippi River to enter New Orleans. He first appeared in this fashion in 1878 aboard the famous *Robert E. Lee,* and he continued to arrive by water until after World War I.

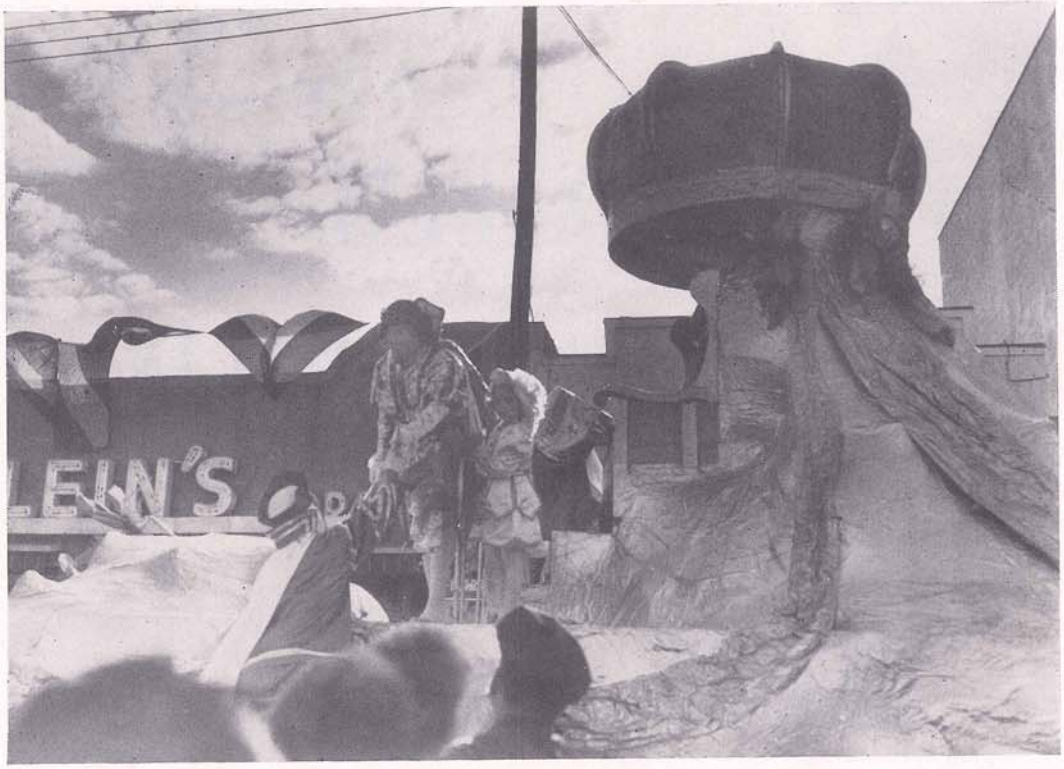
The carnival clubs of Jefferson Parish have been many and varied since the days when it was first settled by enough people to warrant getting together for their own celebration, instead of journeying to join in that taking place in New Orleans. Old, old marching clubs existed, many of them nearly forgotten now. Then with the depression of the early 1930's almost the last of these vanished and Jefferson Parish, although there were still dances and small balls to celebrate the event within its own limits, had to enjoy most of its carnival activities in New Orleans, except on the one day of Mardi Gras when masking and street dancing still persisted in most of the towns of the West Bank.

Now, however, the story is a different one. In 1949 there was so much celebrating in the parish that no one had to go far to have a good time.

This year Jefferson even had its first night parade with floats and flambeaux, a little smaller perhaps than the night pageants of New Orleans, but only a little, and none the less colorful and exciting. King Jefla led eleven floats through the streets of Gretna on Sunday night, February 27. His Majesty rode on a float of crimson and gold, under a huge crown supported by marble pillars. Flanked by pages, and wearing jewels, robe and mantle that rivaled the magnificence of his brother kings across the river, he was as regal as any of the older monarchs. The theme of the pageant was the "Fable of Jefferson," and sparkling, tinseled floats following him depicted the flowers, the bird sanctuaries, the surf and the bayou country of the parish. One float showed the Barataria home of Jean Lafitte, another a plantation home of the early nineteenth century, still another a country church along a bayou bank. The parade began at Monroe and Columbus Streets, and wound its way through many of Gretna's streets, sometimes in narrow and dark ones where almost the only light was the eerie glow of the smoking flambeaux and Roman candles being shot off high into the night sky. All along the way people waited to see and greet the monarch, commenting on the beautiful floats, where here a great heap of jewels cascaded from an open pirate chest, and there a scene of Gretna as it looked a century and a half ago. Near the end of the procession King Jefla, really Louis Badalamento of Marrero, drank to his Queen, Norma Calzada of Gretna, in an exchange of traditional carnival toasts. Lining the streets, and in some places seated quietly on their galleries and front steps, the citizens watched it all, calling out to the maskers and loudly recognizing one friend or another aboard the floats, admiring the Jefferson Parish Palomino Brigade, which led the parade. The ball that followed the parade of the Krewe of Jefla at the Gretna High School gymnasium began with tableaux that told the history of Jefferson Parish and ended with dancing. Queen Norma Calzada wore an empire gown covered with rhinestones and sequins and a long train heavily embroidered with an immense "J." Her crown was of rhinestones and she carried a jeweled scepter, all in the best carnival tradition. The Krewe of Jefla was a fine success.

But King Jefla had not begun this Mardi Gras season in the parish. There had been a long series of masquerade dances and parties, some of them private affairs, others sponsored by schools and clubs, that had begun weeks before.

Just the night before the Harvey Betterment Club held a block dance on



KREWE OF GRELA *held its ball this year with exciting tableaux depicting Marco Polo's meeting with the great Kublai Khan. Unfortunately its parade, scheduled for the Saturday afternoon before Mardi Gras, was called off because of rain. Grela paraded in 1948, as shown here.*

First Street in Harvey, where people appeared in the costumes they would wear on Mardi Gras. Prizes were awarded the best ones, and there was dancing and refreshments. The same night the 15th annual Carnival Ball was held by the Junior Sodality of the Holy Name of Mary Church, with Queen Jo Etta Cerniglia reigning over the tableaux.

Also on that Saturday night preceding Mardi Gras the Krewe of Grela, the Gretna Carnival Club, held its ball at the Gretna High School gymnasium. Here Marco Polo visited the Great Khan, Dick Guidry reigning as king, Miss Rosemary Rotolo as queen. In fine Mardi Gras style the tableaux told how Marco Polo, arriving at the palace of Kublai Khan, so impressed the Khan that he gave a great ball in his honor to which were invited all the princes and princesses of the empire. The parade which was to precede the ball during the afternoon was called off because of rain.

Yet even before this there had been masquerade affairs throughout Jefferson. There were dances and balls in Harahan and Kenner, others in Metairie. A week before Mardi Gras the CYO of Harvey and Marrero held their annual ball, using the "Arabian Nights" as their theme. Marion McCloy was king and Josephine Territo queen. The Krewe of Jivers presented a carnival ball on the Friday night before Mardi Gras in Westwego, and the Krewe of Marrero had their own ball on the Sunday night before Mardi Gras, which began with a tableau entitled "Lafitte the Patriot," over which reigned George Laurent and Shirley Mae Nicosia. For the Marrero ball the school auditorium was transformed into the Victory Ball of 1815, the celebration held in honor of General Jackson when he defeated the British at the Battle of New Orleans.

All these events and the many others that took place were, of course, only preliminary to Mardi Gras itself, that big day when everybody casts off his inhibitions, lets down his hair and assumes the identity of somebody or something he really is not, but has al-

ways wanted to be. Throughout the parish maskers went about on foot or in decorated trucks and automobiles, sometimes driving to New Orleans for awhile, then returning home again for parties and dances in the evening, but as often as not content with what was going on in their own neighborhoods.

Crowds gathered at block dances in all the towns, where they danced and ate and sometimes drank, and competed for the best costumes at the judging stands set up at most of these affairs. Jazz bands played furiously, and when they weren't dancing young people joined hands to wind their way snakelike through the crowds of spectators. There were wonderful costumes—savages from Africa, men from Mars, Egyptian and Arabian sirens to whom the coolness of the day seemed to mean nothing.

In the afternoon Bridge City had a fine parade, sponsored by the Bridge City Property Owners Association, which traversed the streets of Bridge City and Westwego. The parade was made up of floats and trucks designed by the various civic and social groups in the community. There were a number of bands and lots of music. Malcolm Ogeron was king, and Leona Falgout, the queen, was presented with a gift at the Westwego Town Hall by Town Marshal Jacob Gregory.

In Gretna the oldtimers were saying it was all like the old days—the well-remembered days of the Big Fifties and the other clubs that used to appear every year. Minstrels were in the streets again, and men dressed in female attire with waists and skirts stuffed with pillows. There were mammies, Indians, clowns, red devils, hula dancers and all the other costumes always seen at Mardi Gras. There were pirates and angels and gypsies and one large pink elephant.

In the neighboring community of Algiers, really a part of New Orleans, but in many of its associations close to Gretna, there had been all kinds of carnival celebrations, too. On the Sunday morning before Mardi Gras Chief Choctaw (Henry H. Klink) had led his followers, the Old Reliable Carnival Club, in a river parade aboard the *Good Neighbor*, which was followed by a 10-float parade through the streets of Algiers. His princess this year was Gloria Panepinto. Then King Alla (Herman Soulant), representing Gov. Claiborne, held a pageant of a dozen floats, which he led through a winding route of Algiers' streets. The theme of the parade was "Jean Lafitte, the Buccaneer" and the floats were filled with rollicking pirates, British redcoats, backwoodsmen and Louisiana heroes. Queen Flora Berthaut was toasted by the king. But perhaps Algiers' most spectacular contribution to the Mardi Gras of the entire vicinity was the Congos.

The Congos emerged a few years ago as one of the most colorful and dramatic parading groups of all, yet it was not until this year that they turned out in full force and with such gusto. Their costumes were probably among the best seen on Mardi Gras anywhere. Leading the parade were gorillas, wearing costumes that made women shriek, and at least one faint. These weighed thirty-five pounds and were made by hand of strands of rope, combed and dyed and pieced together. Their masks were handcarved from driftwood salvaged from the river. The gorillas were followed by wild medicine men and savages from darkest Africa. All the costumes and masks were conceived by one man, Lloyd Frisch, and everything carried by the Congos was handmade—costumes, masks, shields, spears, drums and the small skulls they gave away along their march. And after parading through Algiers the Congos invaded New Orleans! They crossed on the ferry and marched out Canal Street and up St. Charles, where they presented a skull to Mayor Morrison at the City Hall.

But no matter whether costumes were elaborate or simple and homemade, people had a good time all over southern Louisiana, as they always do on Mardi Gras. For Mardi Gras is a spirit, one from which all southern Louisianians draw heartily each year. In some places, for instance, where the residents are of French Acadian descent, many of the customs and ways of celebrating the day are generations old. Maskers stroll through town streets and along the highways and lanes of the bayou country, playing tricks on their neighbors and indulging in all sorts of foolishness and Gallic good humor. As they put it, they "pass a good time." In other places maskers on horseback ride over the prairies in wild hilarious frolics. This old custom is called "running the Mardi Gras."

Accompanied by musicians with fiddles, guitars and other simple instruments, bands of maskers often visit

from house to house, practicing the peculiar ceremony of begging for a chicken for a gumbo. When such a group arrives on the front gallery the family is not supposed to recognize the maskers, even though they are often neighbors, perhaps relatives. The head of the house asks the spokesman for the maskers where they are from. The reply, which is often given in song, is always that they are from England and concludes with a demand for a fat hen. The family must then supply either a hen, or should they not have chickens, a small amount of money. If a hen is donated it is dropped into a sack the group of maskers always carry. Then they may unmask for a few minutes, amidst much laughing and joking, and drinks and refreshments are served. Then, a fat hen in their sack or with money for wine or other refreshment, they are off to the next house along the winding bayou, sometimes on horseback, but nowadays usually in festively decorated automobiles or trucks. In the evening the women prepare the delicious chicken gumbo and there is wine and music and dancing.

It is that spirit of Mardi Gras that is important, no matter where the Mardi Gras is celebrated, and let us hope it will increase, not only in New Orleans and the towns of Jefferson Parish, but elsewhere. It would be wonderful if the clown in the grinning mask should appear on all the streets in all the towns and villages of the world, if the blazing flambeaux and the rocking floats were everywhere, if everywhere there could be a season, or at least a day, devoted to nothing but fun and laughter. Louisianians have always had a gift for enjoying themselves, for casting off, at least for a short time, whatever cares they have. It would be fine if people elsewhere could learn this ability and could spend more time at preparing for and enjoying Mardi Gras, instead of devoting all their time, their labor and their thoughts toward ends more serious.

ONE OF THE OLD-TIME *Carnival marching clubs, from a photograph over thirty-five years old.*


Playtime in the Parish
PHOTOGRAPHS BY EUGENE DELCROIX

Playtime is a bright smile that says, "Won't you come along?"

For everyone deserves a little sweet idleness

And although woman's work is never done . . .

. . . the fish are biting and it's time for fun

The generous Gulf calls us to its warm and golden sands . . .

. . . and farther inland blossoms bloom in wild cascades of color

Solitude reigns quietly in some sun-embroidered lanes . . .

. . . while down others bold a d v e n t u r e r s sally forth

Each day the friendly sun rises out of the bounteous sea . . .

. . . and deep in the good earth lie wells of refreshing coolness

On Bayou Barataria industry keeps in close touch with Nature

. . . but

Bayou

Coquille

drifts

quietly

in

mellow

somnolence

And

alike for

lovely

dryads

gaily

viewing

Life's

early

mirror . . .

and

those

who

have

long

scanned

reflections

of the

past . . .

comes

the

hushed

serenity

of

sundown

on the

Mississippi

HIGH HOPES

for the

LOW SECTION

By Frank J. Clancy, Sheriff

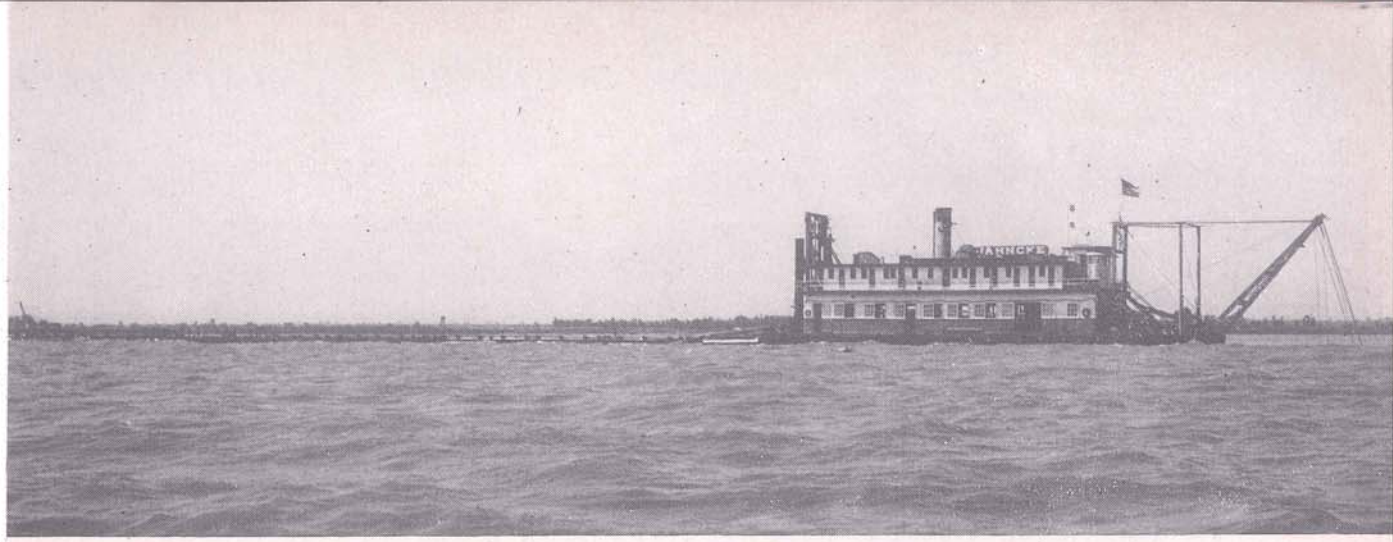
The irrevocable law of physics that causes water to seek its own level has presented a bold, continuous challenge to the East Bank of Jefferson Parish from the very beginning of its development. The complex problem has consisted not merely of the draining of water from the low areas within Jefferson's borders on the east side of the Mississippi, but also the difficult — at times impossible — task of keeping it out.

We are now making heartening, constructive progress at last. After years of unremitting striving against most discouraging rebuffs, it seems as though our efforts are finally meeting with success. The initial work is well under way, the major portion of it is still ahead of us.

Because of the geographical fact that the greater part of the 7th, 8th and 9th Wards is composed of land with critically low levels, the inhabitants of these

THE PROBLEM

LAKEFRONT *of Jefferson Parish. Bisecting picture top to bottom is present road-embankment, sunken and useless in places. Lower right Pumping Station No. 2.*



THE SOLUTION

TWENTY-TWO HUNDRED *feet out in the lake, this sharp-bitted dredge is digging up mud and sand from the bottom . . .*

. . . pumping it ashore through a pontoon-supported conduit, where the water drains off and the filling . . .

. . . piles up between the two retaining walls being thrown up by a powerful dragline bucket, until the top is 10 feet above sea level.

32,000 acres must take refuge within a strong stockade from the danger of an aqueous invasion of their corner of the world. Eastern Jefferson Parish must live like a walled town, with high earthworks thrown up on all its borders, because over 26,000 acres are below the 5 foot contour, 13,000 of which are below sea level.

However there are, and have been for a long time, breaches in this wall, and long stretches of it have been inadequate to successfully repel the long brown spearheads of powerful floodwaters. Presently we are deep in the mighty task of mending our wall, which when completed must be continuously maintained, for the elements do not rest, and neither can we.

The work of getting the water off the land started in 1913 with the creation of the Fourth Drainage District as a reclamation project of only a small part of the section.

It was soon evident that a much greater accomplishment of drainage was necessary, and in 1922 the Drainage District was reorganized to include all the area bounded by the Orleans and St. Charles Parish lines, and on the north and south by Lake Pontchartrain and the Mississippi River.

By an act of the State Legislature passed in 1921, the Drainage District was given authority to levy taxes for maintenance and to pay off bonds which were issued for $2,712,000, and in July, 1923, the work began. A very effective drainage system was completed, and put into full scale operation by 1926. More than 20 miles of ditches had been dug, and 60 miles of canals. Four pumping stations, each with two pumps capable of a combined capacity of 160,000 gallons per minute, could drain over 640,000 gallons of water from the area sixty times every hour.

Of great moment was the necessity of keeping the water out, once it had been pumped off the land. Hence a salient feature of the system was a protective levee, 6 feet above the Gulf high tide mark, projected along the shore of Lake Pontchartrain across the watery northern boundary of the parish. The State Highway Commission agreed that if the levee was constructed by the District, the Hammond-Lake Shore Highway would be built on its crown.

Accordingly, that part of the work for which the Drainage District was responsible was completed, and though the embankment was topped with a road surface and bridges were constructed across the drainage canals where they debouched into the lake, the Commission did not carry through its part of the agreement in its entirety, and ultimately abandoned the work.

Then came the first of the great setbacks, the depression of 1929. Our people were sorely hit during this trying time, and many landowners could not bear the burden of the maintenance and acreage tax, plus the regular constitutional tax. As a consequence, 60% of the land, more than 19,000 acres, reverted to the state. This slashing of the revenue unavoidably resulted in a curtailing of maintenace, and the drainage system languished.

But more than ever the area needed protection, passive as well as active, for the drainage scheme had worked so well the water table had been reduced and in some places the surface of the land had sunk lower still. The "coffee grounds" texture of the earth led to other serious menaces. Unavoidable neglect of maintaining the lake shore levee permitted the roadbed to sink from the attrition of the lake waters and the pounding of vehicular traffic on the crumbly soil. In places this earthern rampart flattened out, exposing the north side of Jefferson Parish to the ever imminent danger of extreme high water. And ironically, it was low enough for the lake to come in, but just high enough to prevent the impounded water from running off again when the lake receded.

This acutely hazardous condition was brought clearly into focus and unmistakably to our attention by the opening of the Bonnet Carre Spillway in 1937. More than two hundred and ten thousand cubic feet of floodwater per second poured through and within a very few days it appeared that the level of Lake Pontchartrain would rise enough to overrun the land. In this emergency, the City of New Orleans requested aid from the WPA, which sent a large number of men to sandbag the vitiated embankment to a height of approximately three feet.

Jefferson Parish officials requested help from the Federal Government, but it was found that Lake Pontchartrain was not a part of the Flood Control Act. Therefore, in the face of the enormousness of the job, steps were immediately taken to secure governmental assistance.

The efforts made and failures sustained make an impressive list. I am certain the other officials of Jefferson

Parish, looking back on these strivings, feel a large measure of satisfaction in the obstacles surmounted. For we have come a long way.

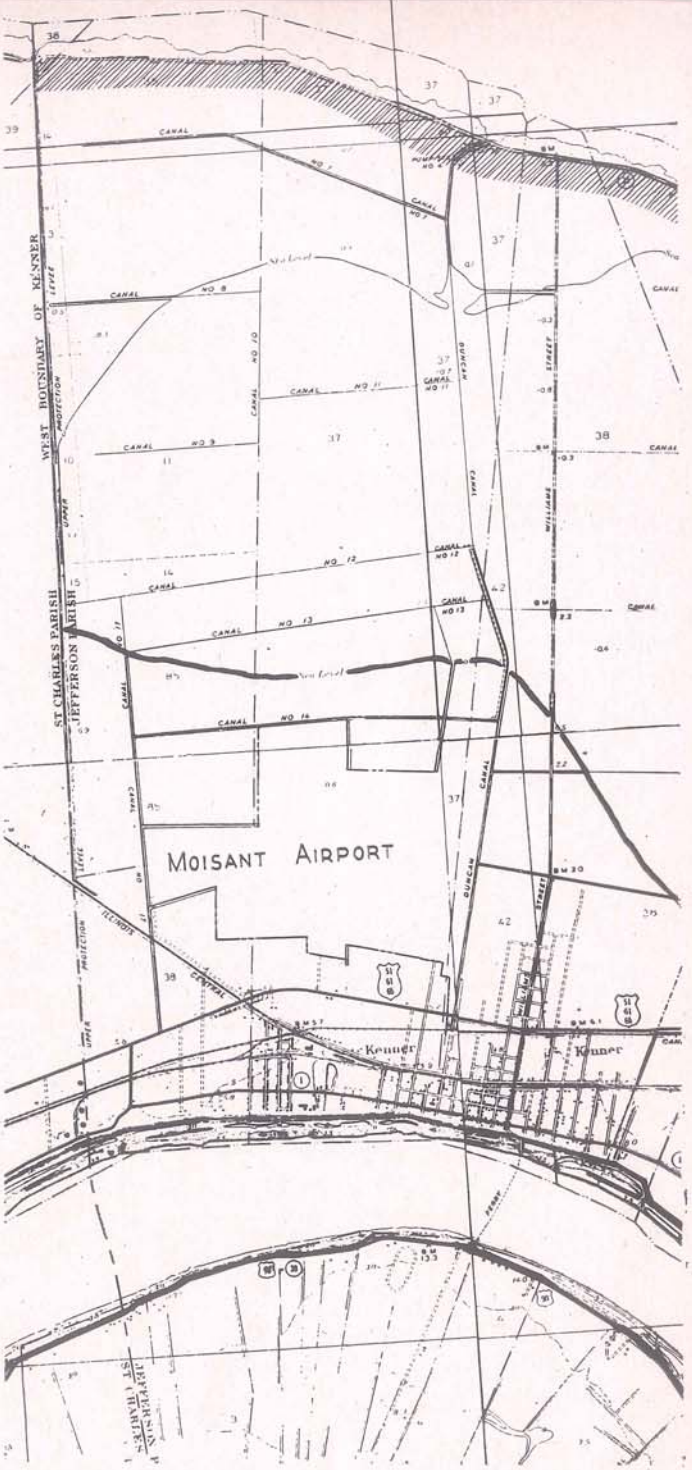
These labors began with a meeting attended by United States Senators Allen J. Ellender and the late John H. Overton, U. S. Representative Paul H. Maloney, the late State Senator Jules G. Fisher, the then State Representative Alvin T. Stumpf, the Fourth Drainage District Board and some of the members of the Police Jury. The situation was inspected carefully, and Representative Maloney introduced a bill in the House of Representatives requesting an appropriation for a survey to be made by the U. S. Engineers to ascertain the necessity for protection. Though the bill was passed by both houses, it was vetoed by the President.

Later an appeal was made for a hearing of local interests by the Board of Engineers for Rivers and Harbors. This was granted, September 28, 1942, and was followed by an affirmation of the need for a survey. An appropriation of $12,000 was made for this, but the funds were impounded by the President of the United States on the grounds of wartime necessity.

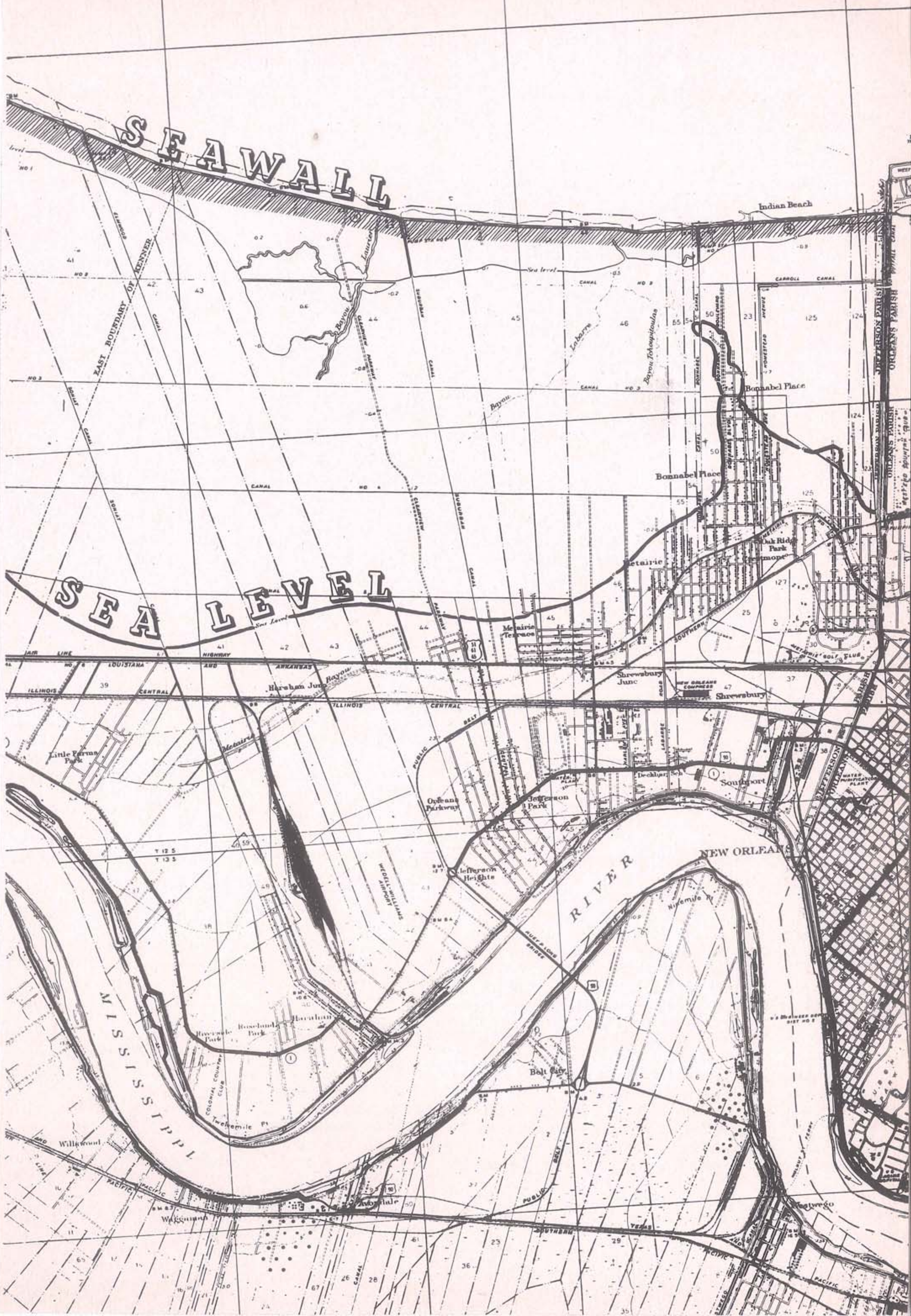
In the latter part of May, 1944, the funds were released, and in June, 1944, the U. S. Army Chief of Engineers instructed the Division Engineer to make the preliminary survey, according to the Flood Control Act of August 18, 1941. The Division Engineer's report on January 30, 1945, recommended the rebuilding and enlargement of the lake shore embankment across the northern border of Jefferson Parish, from New Orleans' West End to the St. Charles Parish line, then following this line south to the Mississippi River. The cost of this construction was estimated at $1,200,000, of which the Federal Government would furnish 75% and local interests would put up the remaining $300,000, besides according rights of way and easements, altering bridges, and freeing the Government of any consequential damages.

In December of that same year, Lt. General R. A. Wheeler, Chief of Engineers, advocated the adoption of the recommendation. In June of 1946, the Acting Director of the Budget in a letter to the Secretary of War, turned thumbs down on the proposal.

Notwithstanding the Acting Director's negation, the Government's share of the expense, $900,000, was enacted into law, but because of his action, it



ALMOST HALF *of Eastern Jefferson Parish is below Elevation 0', as shown on the excellent map of Engineer S. V. Applewhite. The seawall now being built along the lakefront, with subsequent raising of the levees along the Orleans and St. Charles Parish lines, plus the improvement of drainage facilities, is absolutely indispensable for the safety of this area.*


SEAWALL
SEA LEVEL
Indian Beach
EAST BOUNDARY OF KENNER
CARROLL CANAL
JEFFERSON PARISH
ORLEANS PARISH
Bayou Labarre
Bayou Tchoupitoulas
Bonnabel Place
Metairie
Oak Ridge Park
Metairie Terrace
METAIRIE GOLF CLUB
AIR LINE HIGHWAY
LOUISIANA AND ARKANSAS
ILLINOIS CENTRAL
Harahan Junc
Shrewsbury Junc
NEW ORLEANS COMPRESS
Shrewsbury
Little Farms Park
PUBLIC BELT
Orleans Parkway
Jefferson Park
Southport
NEW ORLEANS
Jefferson Heights
RIVER
MISSISSIPPI
Ninemile Pt
Harahan
Riverside Park
Rosedale Park
COLONIAL COUNTRY CLUB
Belt City
Twelvemile Pt
Willswood
Waggaman
Avondale
Westwego
TEXAS
PACIFIC

was not included in the House appropriation bill.

Up and down went our hopes during all this time. Back and forth were our efforts shunted. Yet with unflagging tenacity the parish officials persisted in their labors. We turned next to the State Legislature with the request that the Pontchartrain Levee District (which derives 75% of its income from Jefferson Parish) be required to furnish flood control funds, since it is responsible for the flood waters of the Mississippi River which come through the spillway.

This was agreed to, and the Levee District was authorized and mandated to provide the $300,000 due from local interests, and further authorized to issue bonds for $2,000,000 for protective measures, through a constitutional amendment.

At last things were beginning to look up. Further legislation was secured to permit the Fourth Jefferson Drainage District to change from an assessed benefit board and to finance on a 4 mill ad valorem basis. This amendment was also approved by the electorate in November, 1946, increasing the maintenance revenue from $35,000 to $90,000 per annum.

The drainage system was seriously in need of rehabilitation, so the Drainage District called an election for authority to issue bonds for $1,500,000, to be used in deepening and clearing all canals, correcting elevation of culverts and reconditioning and enlarging the facilities of the three pumping stations essential to the system. This project would tie in with the lake front protection work, and the proposal was approved and carried.

In July, 1947, some work was started. Quantities of riprap rock were deposited in an effort to buttress the old levee, but the Pontchartrain Levee District did not as yet issue the $2,000,000 bonds. Still all was not clear sailing. There was a plethora of ill fortune yet to be visited upon Jefferson Parish.

For the most convincing argument of all—and one we could well have done without—struck on September 19, 1947. Not since 1915 had such a hurricane battered this area. Gulf waters piled high in Lake Pontchartrain, charged over the levee, and spread across vast areas of the parish, in many places to a depth of four feet and in spots even deeper. Water damage alone in this section amounted to three and a half million dollars. Even this was not enough to appease grinning Destiny, for before our citizens had time to recover from this disaster, on March 5, 1948, the heavens opened and ten inches of rain sloshed down upon us. It is fearful to contemplate our fate if Mississippi River floodwaters had been rushing through the spillway at the same time, a situation which is not impossible.

It was evident after the hurricane that the protection plan recommended by the Division Engineer was inadequate to cope with such possible catastrophes. Accordingly, Congressman Boggs, with the assistance of Senator Overton secured the passage of a resolution by the Public Works Committee of the U. S. Senate authorizing a review of the plan. Congressman Boggs also arranged for a hearing before a subcommittee of the Committee on Appropriations of an appeal for the inclusion of the $900,000 previously voted, in the report. At this time the cogent arguments of Senator Ellender, Congressman Boggs, State Representative James E. Beeson and John J. Holtgreve of the Police Jury and the Fourth Drainage District had substantial results. The Pontchartrain Levee Board was also represented. I added my own efforts to these strenuous pleas, and happily, we were successful.

The review report was made by Col. John R. Hardin, District Engineer of the U. S. Engineer Corps, and an additional expenditure of $4,200,000 was recommended for lake front improvement. With the completion of the total work, Jefferson Parish will be able to breathe a bit easier.

The completed protection levee will rise to Elevation 10—the height of the concrete seawall protecting New Orleans—and the embankments along the St. Charles Parish line and the 17th Street Canal likewise. Traffic will not run on its 50 foot crown, but behind it at ground level. Its base will be from 175 to 200 feet broad, with a long expendable beach sloping far out into the water. The fill will be pumped in from at least 2200 feet out in the lake to prevent the possibility of the beach sliding into the borrow pit.

Therefore, though we cannot prevent torrential rains from falling, we will have the facilities to dispose of the water, and our earthern bulwarks will keep out all but cataclysmic tidal waves.

Our vigilance and our energies, however, must not relax. Huge drainage problems will continue to challenge the citizens of the east side of Jefferson

Parish and the officials on whose shoulders rests the responsibilities of the situation. The amazing mushrooming of our population has contributed one of the major problems. In 1940 there were 52,000 people in all of Jefferson Parish. By 1948, more than this number lived on the East Bank alone, with 30,000 residing in the beautiful Metairie district which has tripled its population during that time.

Each new home, each improved street adds to drainage problems, and large developed areas create large drainage issues, especially since the necessary funds generally lag far behind. The Government has provided facilities for financing new homes, but has not provided for a ready meeting of the enlarged demands on drainage and other public utilities that new home construction makes.

Reflect too that the Fourth Jefferson Drainage District must keep the water out of an area larger than that occupied by the City of New Orleans, with less than 20% of the funds and a fraction of the facilities to do the job. The tropical rains, almost 60 inches a year, fall on the land without regard for parish lines, and angry waves on storm- and flood-swollen Lake Pontchartrain — whose 640 square miles receive through its tributaries water from 6000 square miles of eastern Louisiana and western Mississippi—necessitate a bulwark just as high and as strong as the New Orleans seawall, with a population under one-sixth the size footing the bill.

The District has fought mightily and well, and the work of its members stands out as a record of civic devotion. Also out-standing in these labors are the members of the Police Jury, Weaver R. Toledano, John J. Holtgreve, Robert Ottermann and Ernest Riviere, who live in and are most profoundly a part of this area.

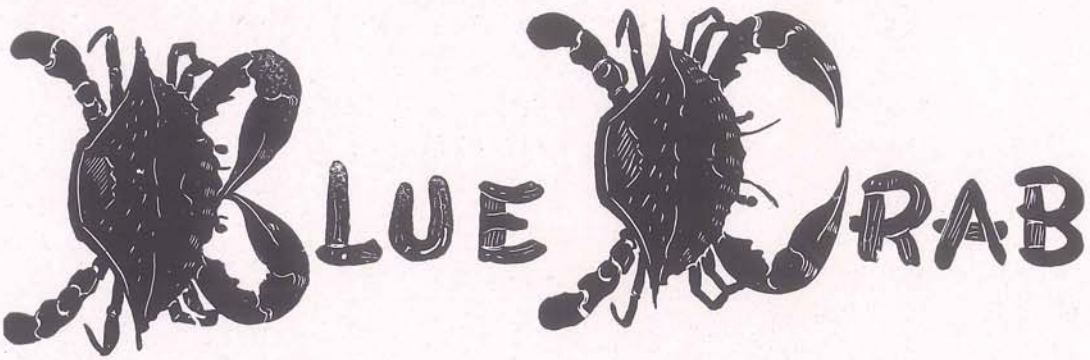
Jefferson Parish has fought a hard drainage and flood control battle, uphill most of the way. At long last we are ably meeting the challenge of the elements, and this round is ours.

FOURTH JEFFERSON DRAINAGE DISTRICT BOARD

Seated, left to right: Frank J. Clancy, Ward 9, Board Member; John J. Holtgreve, Ward 8, Board Member; James B. Davidson, Ward 7, President and General Manager; Carroll D. Frankell, Secretary-Treasurer; Marion R. Tucker, Ward 7, Vice-President.

Standing, left to right: Joseph T. Montgomery, III, Engineer; Clyde de la Houssaye, Attorney; S. V. Applewhite, Consulting Engineer. Joseph J. Fabacher, Ward 8, Board Member, was absent when this picture was taken.

The BLUE CRAB



—DELICACY IN ARMOR

By James Nelson Gowanloch

Chief Biologist

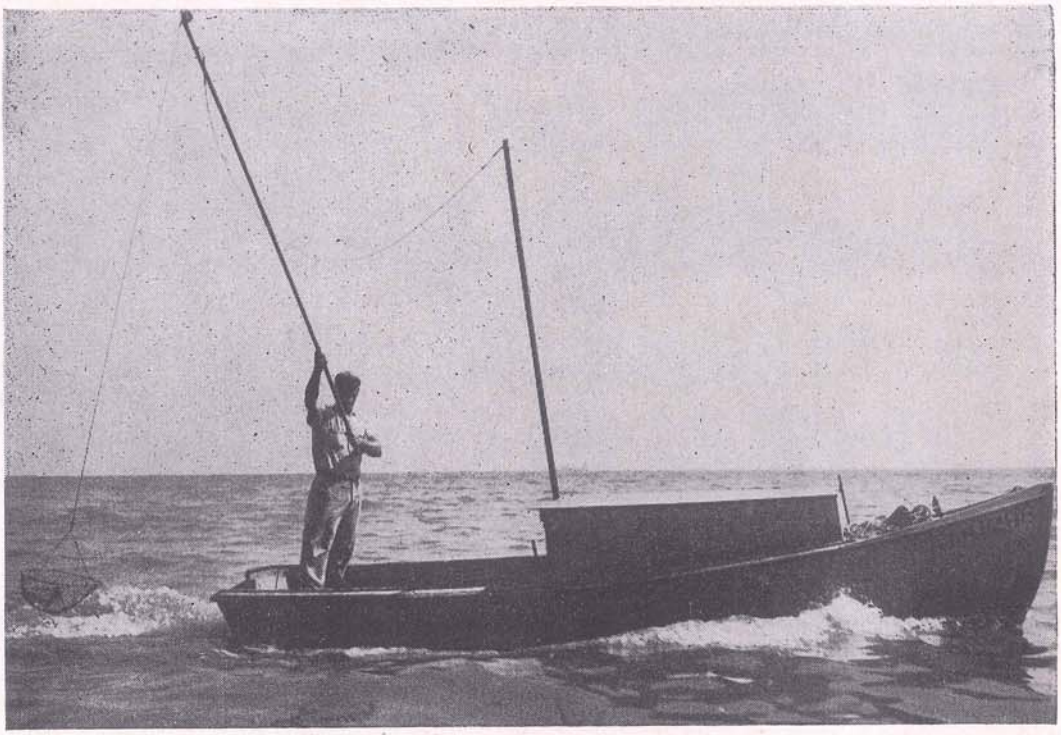
Department of Wildlife and Fisheries
State of Louisiana

Louisiana is traditionally a state whose coastal waters produce immensely valuable seafood and other resources. For example, because God arranged for the Mississippi River to come down through the State of Louisiana instead of Texas or Mississippi, we account for 70% of the total production of shrimp in the United States plus Alaska, and 50% of the production of muskrats in the United States plus Alaska is derived from only one-seventh of the area of this multi-blessed state.

The importance of the crab industry cannot be too highly emphasized, and it is desirable that it be set as a part of the pattern of our entire seafood industry. Louisiana, as will elsewhere be made clear, is pre-eminently part of that pattern. The latest available national figures show that the Blue Crab family, or *Callinectes sapidus,* as it is known scientifically, produces annually 80,000,000 lbs. of hard shell crabs and 3,000,000 lbs, of soft shell crabs, the total yielding close to 14,000,000 lbs. of edible crab meat. This is worth, depending upon market conditions, between $3,000,000 and $5,000,000 to the fishermen. The two chief production centers of crab meat are Louisiana and Chesapeake Bay.

There are other species of crabs that compete in the American market, including an immense crab found in Alaskan waters. For some time before the war, heavy inroads were made on the market by the Japanese naval officers, who in their exploration of our waterways, were ostensibly engaged in the catching of this seafood. There is also the Stone Crab, the technical name of which is *Menippe,* found only in a negligible degree in Louisiana because of its intolerance of the silted conditions. But in point of fact the entire American production of crab meat is based not on these other species, which include also *Cancer magister,* but our own plentiful and delicious *Callinectes sapidus.*

The crab industry is founded upon the great maternal activity of the female *Callinectes sapidus.* Once only does she meet her spouse, but she is capable thereafter of producing two families, each of which may number 4,000,000 little boys and girls. Nobody has ever denied that the Blue Crab is good to eat, but the writer has never heard anyone say that a crab is a beautiful animal. Yet, as a matter of fact, the crab is a thoroughly efficient and architecturally beautiful creature. Peculiar, it is true. Peculiar is its life and peculiar are its ways.



TWO METHODS *of catching crabs that are deplored by the author. At top the fisherman is using baited nets, and the young crabber below is running a trot-line, a long line secured at both ends, from which shorter bait lines lead off. The hungry crab is lifted gently to the surface and skillfully scooped up with a hand net.*

Blue Crabs have a strange life. They live briefly and produce abundantly. Like other crustaceans, such as shrimp and crayfish, they are incapable of growing without shedding their skeletons, which, unlike ourselves or other vertebrates, they carry on the outside instead of the inside of their bodies.

Also like other crustacea and lower forms of animal life, crabs have the peculiar ability of shedding their appendages under conditions of danger or sudden changes of temperature, and thereafter regrowing the lost members. Many people have seen captured crabs shed their claws, but not everyone knows that, if returned to their homes, crabs will regrow these very necessary parts. This process, which includes an instant stoppage of bleeding, is known as autotomy, and occupies only a relatively brief time.

Important and valuable work has been done in the study of the growth and development of the Blue Crab, yet here in Louisiana not one bit of scientific work has been done concerning the natural side of this important industry. That is, the promoting of proper capturing methods, and the improving of living conditions for the crabs. There is no state in the union wherein the crab industry could be conducted as well and profitably as in Louisiana. It has

THE ADVANTAGES *of the wire-mesh crab trap are explained by the author.*

been personally observed that at Berwick, Louisiana, alone, 100,000 pounds of crab meat were picked *in a single day*. Along our hundreds of miles of coast line, Blue Crabs move in and move out in the normal conduct of their life history.

The purpose of this article is to discuss the present state of the crab industry in Louisiana and elsewhere, and how profoundly wrongly this industry is being conducted here; the activities and love life of *Callinectes sapidus*, with the answers to some frequently asked questions; and some recommendations for the preservation and expansion of the Blue Crab industry in Louisiana.

The reasons why the industry could be better conducted here than in other states are biological, and like many other matters concerning Louisiana, somewhat different. The sharp contrast may perhaps best be made by comparing our crab industry with that of Maryland and Virginia.

Crabs mate in brackish water. The circumstances in Chesapeake Bay where they mated in Maryland waters and produced their young in Virginia waters caused an intense controversy because, although by mutual agreement the two states decided to care for the mother crab, which bears with her approximately 4,000,000 offspring that should be protected by law, the Virginia industry decided that since the crab had come from Maryland, they wouldn't bother protecting her anymore. The end result was one of the most disastrous pictures in the history of commercial fisheries. Within one year, crab production was actually decimated, not as a figure of speech, but as a matter of statistics.

It will appear presently that our Louisiana problems are very different indeed from those of Maryland and Virginia. For the Blue Crabs of the Chesapeake Bay area must necessarily pass under the jurisdiction of two states in the cycle of their life history, since the gradient of the water of varying salinities in which they develop forms a sea-to-fresh-water avenue passing under the control of these two states. Whereas we, with our 500 miles of Louisiana coastline, provide a direct inshore-offshore habitat, entirely under the control of the State of Louisiana.

It will also appear that we here in Louisiana occupy a position unrealized, and incapable of realization, in any other of the forty-eight states. But it will appear too that we are doing definitely less than any other state to insure the welfare of an industry in which we can, with our natural opportunities, outstrip in production any competing state.

Louisiana does and can still excel any other state in the production of crabs. Yet this industry has been carried on under the worst possible conditions in the world. It is the purpose of this article to prove that.

In the first place, it is astonishing that in the commercial catching of crabs the bait used is in my opinion the very worst sort. For the most part, this consists of old, salted lips and ears of cattle, obtained from the abattoir. That this is poor bait is proven by the observation that crabs hungry enough to eat these salted, old, and decidedly unappealing ears and lips are generally worthless. It is time that the crab industry of Louisiana, which can lead the nation in crab production, abandon such practices.

The whole pattern for the improvement of the industry falls into two parts, production and marketing. Recommendations based upon a very great deal of experience involve a complete change in the capture procedures, which in the State of Louisiana have never been correctly performed. A revision of the marketing methods is imperative so that crabs which have been bought from the crab fisherman for 50c for 84 crabs will not be offered to the retail purchaser for $1.60 per dozen, as the writer has actually experienced. There is no reason for the injustice whereby the fishermen who work to secure a very fine and acceptable marine re-

source are compelled to accept the worst price for their labor.

Referring again to the method of taking crabs, we have been following methods that have been in use since 1790. The trot line and the crab net have long become obsolete, and the time to change has most certainly arrived. Because, as has been stated, crabs caught voraciously eating on unappetizing bits of salted meat are hungry crabs, these methods produce only the poorest crabs.

There is also the highly improper practice of trawling for crabs, but fortunately, the control of the crab industry is within the immediate power of the Commissioner of Conservation, and this illegal and wasteful method has been explicitly stopped.

The trap that is herewith illustrated is so far more efficient and profitable than the trot line that the results are

Upper, first zoea *larva of the Blue Crab, about three days old. Lower, the* megalops, *or last larval stage of the Blue Crab (drawings by R. L. Robertson).*

amazing. The writer will be very glad to provide the practical details covering the construction, durability, cost and operation of such traps, at no cost to the inquirer.

Under the heading of production we must include also soft shell crabs. Crabs that are ready to shed their hard shells seek a place suitable for hiding from their enemies in their helpless state, and containing something against which they can scrub themselves. That is why soft shell crab fishermen can usually find them by searching through areas where eel grass grows, and also accounts for the effectiveness of a method of capturing them which originated in Louisiana but has not become very widespread. This consists of sinking bunches of branches into the water, into which crabs will crawl to undergo ekdysis, as shedding is technically known.

The development of areas of suitable sub-aquatic vegetation can be immeasurably increased by a very simple device, the details of which we have in our files, and to which the reader is welcome.

Regarding the life cycle of the Blue Crab, which ranges all the way from Nova Scotia, Canada to Uruguay, South America, it carries out its normal life history partly in sea water and partly in brackish water. In common with certain other shell fish such as shrimp and some fin fish as the shad and eel, the crab moves to water of various salinity depending upon the stage of development it is undergoing. This salinity is usually expressed, not in parts per hundred, but parts per thousand (parts per *mille*). Our usual Louisiana sea water in such terms has the value of thirty-four parts of salinity per thousand. However, on occasion crabs have shown surprising abilities to withstand fresh water. Dr. Gordon Gunter has made some interesting observations which reveal the presence of Blue Crabs at Simmesport, Louisiana, on the Atchafalaya River, over 160 miles inland from its mouth.

The mother Blue Crab can readily be identified by the conspicuous "sponge" on her underside, which has been known to contain from 1,000,000 to 5,000,000 eggs. This sponge emerges from the crab's body in probably a little more than two hours and at first is a bright orange color, which grows gradually darker as development proceeds. The eggs take between eleven and fourteen days to hatch, and as the stage of growth progresses, the narrower become the desirable limits for both the saltiness and the temperature of the water.

The Blue Crab has a complicated process of development, slightly less complex, however, than that of the Lake Shrimp (which has ten developmental transformations). After leaving its mother, it performs an extraordinary series of metamorphoses during which it in no way resembles its parents. These minute Blue Crabs are often so abundant in the coastal waters of Lou-