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The Harvest From the Sea

ALTHOUGH fishing is one of the oldest industries in the Sixth District, many Southerners believe that its potential income-producing capacity has not yet been reached. They believe that if the improvements already started are carried further, the industry can be a factor in raising the South's income to the national level. Moreover, this gain can come from utilizing existing resources rather than from introducing an industry wholly unrelated to the area's natural resources.

Each District state except Tennessee has direct access to the waters of the Atlantic Ocean or the Gulf of Mexico, along a general coast line measuring 1,791 miles. When the shore line of every bay and inlet is included, the total shore line increases to 19,457 miles. Florida's alone, measured on this basis, amounts to 8,426 miles, and Louisiana's to 7,721 miles. Georgia can claim 2,344 miles; next comes Alabama with 607 and Mississippi with 359 miles. The discussion that follows relates only to the five coastal states, although the people of Tennessee get some income from inland fisheries.

Most fish are confined to the waters of the gently sloping portion of the ocean floor, called the continental shelf, or to the bays and inlets of the coast. In these waters, off the coast of the District states, abounds a greater variety of fish and shellfish than anywhere else off the shores of the United States.

The continental shelf is wide along a great deal of the coast and far out along the Florida Keys. The deeply indented bays, the coastal marshes and inland lagoons, especially along the coasts of Louisiana, Mississippi, and Alabama, provide ideal growing conditions for oysters, as well as shelter for the young shrimp and fish that come in from the open sea to grow to maturity.

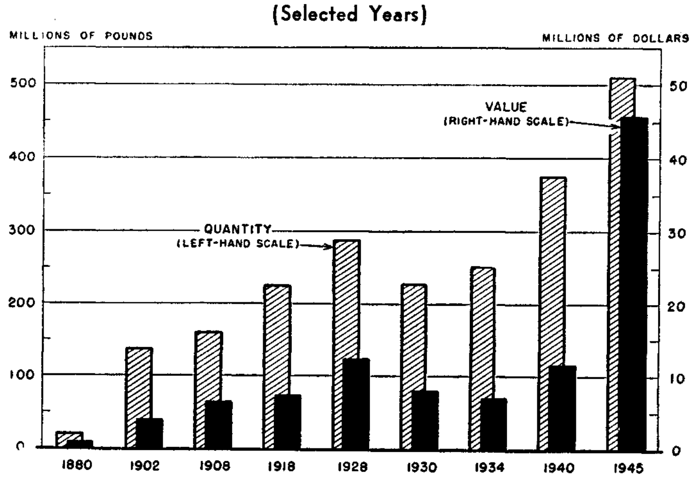
The Catch

Out of these District waters, 45 million dollars' worth of fish and shellfish were caught in 1945, the latest year for which there are detailed statistics. About two-thirds of this income came from shellfish and the rest from what are classified as fish. Wartime conditions, of course, were still limiting fishing activities in 1945. Incomplete statistics indicate that by 1948 the total value of the catch may have increased to over 50 million dollars.

A comparison with the value of certain agricultural crops grown in the five states helps place the value of this harvest from the sea in perspective. In Louisiana, fishermen get more from their catch than the farmers get from any crop except cotton, rice, and sugar cane. Fishermen in the five states sell their catch for more than farmers get for the total peach or pecan crop and for twice as much as the Irish potato crop brings.

SHELLFISH. Southern fishermen get the greater part of their income from shellfish. The latest comprehensive statistics—those for 1945—place the value of shrimp sold by District fishermen at over 18 million dollars. Preliminary figures for 1948 show a yield for Louisiana alone of almost 19 million dollars, one of over 600,000 dollars for Alabama, and one of 850,000 for Mississippi. In 1945 shrimp caught by Florida fishermen were valued at almost 2 million dollars and by Georgia fishermen at over one million. Of the 191-million-pound catch recorded for that year, District fishermen claimed 156 million pounds, or 82 percent.

QUANTITY AND VALUE OF COMMERCIAL CATCH
Sixth District Fishermen
(Selected Years)



The quantity of fish and shellfish caught by fishermen in the states of Alabama, Florida, Georgia, Louisiana, and Mississippi has risen from 24 million pounds in 1880 to over 500 million today. The value of the catch grew from 1.3 million dollars in 1880 to 45.7 million in 1945. Between 1940 and 1945, the catch increased only 38 percent in quantity, but 300 percent in value. Over one-third of the gain in value was due to an expansion in the shrimp business, but rising prices of other fresh fish also swelled returns.

Next to shrimp, oysters bring in more revenue than any other type of fish or shellfish. The most recent figures place the value at between 4 and 5 million dollars. Louisiana is credited with 3.1 million dollars for 1948, followed by Alabama with almost 600,000 dollars, and Mississippi with a yield of between 400,000 and 500,000 dollars. The value of the yield in Florida in 1945 amounted to 788,000 dollars, and the revenue from oysters in Georgia was more than nominal.

FISH. The United States Fish and Wildlife Service lists almost 60 varieties of fish being caught commercially off the shores of the Sixth District states. Seven varieties, however, account for 75 percent of the total fish sales excluding shellfish. Mullet, caught principally by Florida fishermen, yielded 28 percent of the total returns in 1945. Other important varieties include Spanish mackerel, sea trout, menhaden, catfish, groupers, and red snappers. When six other varieties are added, including drum, pompano, bluefish, and flounders, the list accounts for over 90 percent of the total fish sales excluding shellfish.

MENHADEN. The most important fish on the basis of the volume caught is not widely known. Nevertheless, the 180 million pounds of menhaden caught and sold in 1945 amounted to 60 percent of the volume of commercial catch. Most of the menhaden is taken from the waters off the Florida, Louisiana, and Mississippi coasts. In 1948, the value of menhaden sold in Louisiana alone exceeded a million dollars, over twice the value reported for 1945, and in Mississippi, menhaden brought almost a million dollars.

COMMERCIAL CATCH IN THE SIXTH DISTRICT STATES

State	Number of Species	Pounds Caught* (000)	Value to Fishermen* (000)	Number of Fishermen**	Number of Vessels**	Most Valuable Fish*
Alabama	26	12,556	$ 2,157	1,167	66	Shrimp
Florida	67	243,846	18,836	8,902	203	Mullet
Georgia	19	21,398	1,350	1,126	148	Shrimp
Louisiana	24	209,108	24,382	6,253	486	Shrimp
Mississippi	17	80,450	2,589	1,669	215	Menhaden
Total		**567,358**	**$49,314**	**19,117**	**1,118**	

*1948 data for Alabama, Louisiana, and Mississippi; 1945 data for Florida and Georgia.

**1940 data for Florida; 1945 data for other states.

Source: U. S. Fish and Wildlife Service.

This fish is used primarily for the manufacture of meal and oil. Meal made from menhaden, very high in protein content, is fed to hogs and poultry. The oil has industrial importance in the manufacture of paints, varnishes, insect sprays, and soaps, and as a lubricant for certain specialized uses. It is also used to fortify poultry feeds with vitamins.

The sea provides another harvest along the Florida Gulf Coast in the sponges found near Tarpon Springs. Sponges taken in 1945 were valued at over 3 million dollars.

Processing and Marketing the Catch

In the District, little attention has been given to the processing of edible fish, except shellfish, before they are sent to market. The greater part has been marketed fresh, and "in the round," that is, without any preparation whatsoever. Only small amounts have been canned or frozen in the past.

FRESH FISH. Each type of fish has its special appeal to certain local markets, but the largest markets for most types are west of the Mississippi and south of the Ohio River. Spanish mackerel and southern bluefish, for example, have a strong demand in New York and in the eastern states, not only because of their fine flavor, but also because they are caught during the season when many types of fish are absent from northern waters. The market for groupers, on the other hand, is almost entirely in the South. Some species of fish are so prized by the local market that the limited quantity caught never reaches distant points.

Marketing fish fresh without any preparation or storage has disadvantages. The volume of the catch can vary not only from season to season, but also from day to day. Heavy catches may be made of certain species during short periods. Even were it physically possible for the fresh fish markets to handle all the catch at such times, attempting to market it might send the price tumbling.

One way to avoid these marketing problems is to process the fish into fillets and other forms, then package, quick-freeze, and store it until the market can absorb it. The market is thus not only stabilized but widened. Market surveys show, moreover, that fish so packaged are more likely to appeal to housewives living in inland areas who are unfamiliar with fish and who hesitate to buy the fresh product.

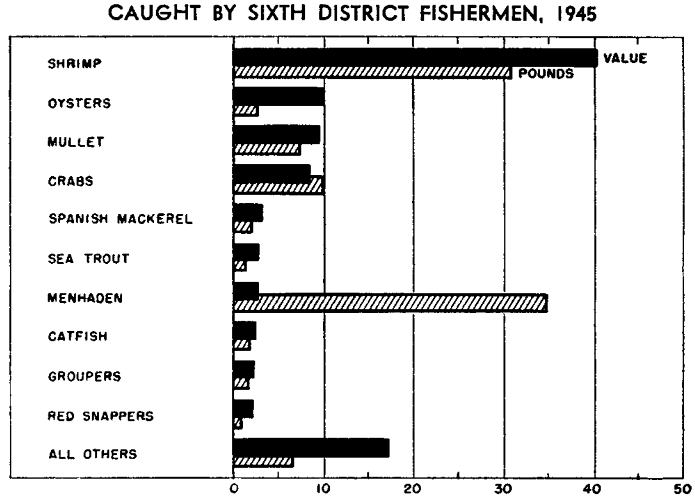
MEAL AND OIL. The menhaden industry is, of course, entirely different. The fish has little value in itself and consequently a sizable industry has been created to process it. According to the latest census data, there are approximately 60 fish by-product plants in the District states. Many of these plants process menhaden.

At one time, menhaden processing was concentrated in New England, but because of the longer fishing season in the South, many of the newer plants are there. In the District, plants are found in Florida, Louisiana, and Mississippi.

Boats generally from 85 to 150 feet long and carrying a crew of around 20 men supply the plants. Some of these boats venture as far as 100 miles into the Gulf, although occasionally large schools of fish may be found near the shore. When they arrive at the plants, the vessels may carry as many as a million fish weighing approximately a pound each.

The load is transferred from the boats by a mechanical or a hydraulic lift. Processing begins immediately. The fish are cooked to break down the oil cells; machines then grind

PRINCIPAL SPECIES OF FISH AND SHELLFISH CAUGHT BY SIXTH DISTRICT FISHERMEN, 1945



District waters yield numerous varieties of fish and shellfish, of which 75 are caught commercially. Three-fourths of the total returns, however, come from nine varieties. Many varieties not shown in the chart, including pompano, bluefish, and flounders, are popular and command comparatively high prices.

the cooked fish and press out the oil and water. After the oil is separated from the water, somewhat as cream is separated from milk, it is passed into storage tanks and the residue is dried and ground into meal.

In recent years not only have methods of extraction been improved, but means have been found to utilize what were formerly waste products. For example, the water from which the oil has been removed is put through a condensation process to extract what is called fish soluble. This soluble, a brown gummy substance full of vitamins, is used to fortify poultry feeds. One manufacturer has gone so far as to extract the odor and use it as a gas to fire his boilers.

SHELLFISH. In contrast with other types of fish, most of the shellfish caught in District waters are processed before they are marketed. Oysters marketed fresh are usually shucked before being shipped. Louisiana and Mississippi together produce canned oysters valued at almost four-fifths of the total United States production. Biloxi, Mississippi, in fact, is considered the world's center for canned oysters.

VALUE OF MANUFACTURED FISHERY PRODUCTS
Sixth District States, 1940 and 1946
(Thousands of Dollars)

Product	Alabama 1940	Alabama 1946	Florida 1940	Florida 1946	Georgia 1940	Georgia 1946	Louisiana 1940	Louisiana 1946	Mississippi 1940	Mississippi 1946
Shrimp.......	*	*	31	n.a.	335	n.a.	5,225	6,288	1,239	3,094
Oysters......	109	n.a.	104	n.a.	15	n.a.	1,336	1,280	1,191	1,663
Menhaden....	...	...	1,488	843	...	...	*	*	*	*
Mullet........	*	*	73	n.a.	...	...	...	...	...	...
Crabs........	28	n.a.	264	n.a.	65	n.a.	433	1,887	61	n.a.
Miscellaneous	423	705	1,512	990	17	25	891	1,252	524	1,209
Total.....**	**560**	**842**	**3,472**	**2,305**	**431**	**440**	**7,885**	**10,707**	**3,015**	**6,027**

*Included in miscellaneous.
**Totals for 1946 include 1940 data for products not reported in 1946.
n.a. Not available.
Source: U. S. Fish and Wildlife Service.

Until recent years most consumers got their shrimp out of cans, and practically all of this canned shrimp came from the District states. Louisiana and Mississippi marketed the major share, although shrimp canning was also important in Alabama and Georgia.

The war limited production of canned shrimp because of a reduced labor supply and a shortage of cans and, therefore, a greater proportion was marketed either fresh or frozen than in earlier years. A decided consumer preference for frozen shrimp, which are cleaned and beheaded before shipping, continued after the war. Shrimp are still canned in considerable quantities, but the latest statistics show that about three times as many are frozen. The total production of canned shrimp in 1947, amounting to seven million pounds, was less than a third of what it was in 1933.

There are a number of advantages inherent in the processing and marketing of frozen shrimp. During the late summer months and the fall, the catch may be extraordinarily heavy. If shrimp were marketed fresh, the dealers would be compelled to dump it on the market for any price it would bring. Now, the dealer can freeze the product and sell it whenever the fresh supply is low and prices are more favorable.

A new shrimp processing business has been developed during the last eighteen months. The shrimp are not only cleaned, they are dipped in batter, ready to be cooked, after which they are frozen. So successful has the process been that shipments are being made by truck as far away as California.

Records for 1945 and 1946 show that some shrimp is frozen every month of the year, but the heaviest freezings come during September, October, and November. Withdrawals from stocks are lowest during those months. On the other hand, withdrawals are heaviest during March, April, and May, when the catch is light and when comparatively small amounts are being frozen.

Increased demand for the frozen product raised the average price paid to fishermen from 3.5 cents a pound in 1937 to 11.2 cents in 1945. Preliminary figures for 1948 indicate an average price of over 20 cents. The sustained demand has also absorbed at good prices the increased catch of jumbo shrimp from the newly discovered grounds off the Florida Keys.

Fish and Finance

The fishing industry, like any other, needs both long- and short-term credit. Long-term credit is used chiefly to finance the purchase of equipment. Short-term credit is needed to finance individual fishermen at the start of the season and during slack periods, and to help packers and wholesalers carry inventories. Many commercial banks provide, directly or indirectly, much of the credit required. A successful loan program, of course, requires an intimate knowledge of the industry, an ability to appraise accurately the value of the vessels, and a successful record of judging the general credit worthiness of the borrowers.

A survey made in late 1946 of member bank commercial and industrial loans showed that only about 10 percent of the amount of loans made to the fishing industry was outstanding for over a year. Today a survey might show a somewhat larger proportion of long-term loans because more new equipment is being purchased.

LONG-TERM CREDIT. The wide variety of fishing done in the District waters means, of course, that equipment needs which require long-term financing also vary considerably. In southern Louisiana, for example, one banker states, "A crab fisherman needs little more than a skiff, a ball of fishing twine, and some bait." The shrimp fisherman in that area who does his fishing in the shallow bays, bayous, and lakes can use a boat only 35 to 45 feet long, costing from 3,000 to 6,000 dollars. If the shrimp fisherman goes out in the Gulf of Mexico some distance from the shore, he must invest around 25,000 dollars in a boat at least 50 feet long and powered by a Diesel engine of from 125 to 175 horsepower. Menhaden boats, still a different type, may cost from 75,000 to 100,000 dollars.

Most of the smaller boats are owned by individual fishermen and are purchased without any financing by banks. Loans that banks make seldom run beyond three years and are secured by chattel mortgages at around 60 percent of the value of the boat. Repayments are made in instalments. The chief risk involved in this type of lending, according to some bankers, is the possibility that when the catch is not up to expectation, the fishermen may be unable to make payments regularly.

Packing companies or wholesalers who own many of the larger craft have the advantage of a better credit standing than the small fishermen. Bank loans on these vessels also are generally made for not more than three years and are to be repaid in instalments. In some areas local capitalists in conjunction with experienced captains may own the boats, which are either leased to the packing companies or operated independently. Bank financing may not be necessary.

Oyster fishing in southern Louisiana requires a somewhat different type of financing. Practically all the oysters harvested there are taken from cultivated and privately leased beds. The oysters are dredged off reefs, where otherwise they would develop into the long, narrow, and irregularly shaped "coon oysters" of no market value. Oysters taken from these reefs and planted in beds grow to market size in from eighteen to twenty-four months.

Such an operation not only requires an investment in boats, camps, and equipment, but also ties up funds during the period when the oysters are growing. One banker places the minimum investment for such operations at from 10,000 to 15,000 dollars, although larger operators require considerably more. Where oysters are taken directly from the reefs to canneries, as in some areas of the District, a smaller investment of from 3,000 to 5,000 dollars is necessary.

SHORT-TERM CREDIT. Although for most species the fishing season is longer in southern than in northern waters, there are still seasonal needs for credit. The individual fishermen thus require funds to supply their boats and to furnish allowances for crew members until the catch can be made and marketed. Moreover, even during the regular season the size of a prospective catch is uncertain and there may be periods when boats return empty or with very small catches.

According to bankers in different coastal regions of the District, wholesalers and packers usually finance individual fishermen, because they are in a better position to understand the credit needs of the fishermen and to check on their operations than the banks. After the season begins, the fishermen generally repay the advances with one-third of the value of the catch until the debt is liquidated. If the catch is small, repayments may be adjusted downward.

Even wholesalers and packers with substantial investments in plants and equipment and working capital may need additional working capital during certain months to carry inventories. The general credit standing of the borrower may be enough security when the loan is small. Larger loans are secured by warehouse receipts on inventories of the frozen shrimp or fish. Advances are made on the basis of from 60 to 90 percent of the market value of the inventory, depending on market conditions. Maturities seldom exceed 90 days, and the average runs from 30 to 60 days.

Menhaden processors have been able to secure funds by immediate sale of most of their product. Frequently the entire season's output is contracted for before the season starts. It is possible to process a boatload of menhaden, sell it, and have the oil on its way to the buyer within forty-eight hours. Once the product is shipped, the processor often draws a sight draft which may be discounted with his bank if necessary.

MEMBER BANK LOANS TO THE FISHING INDUSTRY*
Sixth District, November 1946

SIZE OF LOAN AND ASSET SIZE OF BORROWER

Asset Size of Borrower:	Wholesalers: Percent of Total Loans: Number	Amount	Average Loan	Other Than Wholesalers: Percent of Total Loans: Number	Amount	Average Loan
Under $50,000	64	24	$1,342	62	3	$ 765
$50,000 - $250,000	36	76	7,482	31	40	18,750
$250,000 and Over	..	..	...	6	57	53,000
All Sizes	100	100	$3,535	100	100	$14,391

SECURITY AND REPAYMENT METHODS

	Percent Distribution of Number of Loans: Wholesalers	Others	All Types
Type of Security:			
Warehouse receipts	7	8	8
Chattel mortgage on boats and other equipment	29	67	40
Endorsement	32	..	22
Unsecured	21	17	18
Other	11	8	12
	100	100	100
Method of Repayment:			
Single payment	64	50	60
Instalment	36	50	40
	100	100	100
Repayment Period:			
Demand	18	8	15
30 days or less	18	17	18
30 days to 90 days	21	..	15
90 days to 6 months	29	25	27
6 months to 1 year	3	42	15
1 year and over	11	8	10
	100	100	100

*Based upon reports of 10 banks in coastal areas of Florida, Georgia, Louisiana, and Mississippi.

Problems of the Industry

The history of the fishing industry resembles that of many of the other extractive industries. Resources at first were close at hand and abundant, and were exploited without much thought of complete utilization or of future supply. Most persons, if they thought anything about it, probably believed, implicitly, the old saying that when one fish is taken out of the sea, two others take its place.

Overfishing, water pollution, and industrialization, however, have cut production from bays, inlets, and sounds along many parts of the coast of this country. New grounds and new devices for catching the fish have had to be found. Technical advances have made fishing possible farther and farther away from shore, but the result has often been, as a writer in the *London Economist* says, ". . . to make one fish swim where two swam before."

The industry in the District has not been free from such troubles. The waters of some bays which formerly yielded a good harvest of shrimp, oysters, and crabs, for example, have become so polluted that they are no longer productive. Overfishing in the inshore areas has reduced the supply of shrimp, and taking oysters without planting has reduced oyster production in some places.

Recognition of these problems has led state governments to start conservation programs and to regulate the industry in the hope of developing it on a sustained-yield basis. Each District state has a commission charged with administering state laws for the benefit of the industry, and interstate compacts help to enforce the laws. These activities promise to prevent recurrence of many past abuses.

Other problems, however, are facing the industry. Its development has been slow, partly because of a lack of knowledge and partly because of a failure to apply existing knowledge. Exploration in the South Atlantic and Gulf waters has been comparatively limited. Little is known of the fish that grow there—where they are found in greatest numbers, their life histories, how large a fishing industry they can support, and what conservation measures are necessary to keep the industry on a sustained-yield basis. There is also a lack of knowledge on the most efficient methods of utilizing the fish. Development of a wider market and reduction of its seasonal character as well as a solution to some production problems are other obstacles yet to be overcome by the industry.

Considerable progress in eliminating these difficulties has already been made by private enterprise and by government. Typical of such progress are the developments in and around Pascagoula, Mississippi.

Progress at Pascagoula

Pascagoula, located on the Gulf of Mexico, approximately 40 miles west of Mobile, came into national prominence during the war as the location of one of the nation's most important shipbuilding plants. Over 10,000 persons worked in shipyards there at the peak of war employment, more than the total population claimed by Pascagoula and Moss Point, the neighboring city, in 1940.

The war's end, of course, brought a sharp drop in employment, but Pascagoula and Moss Point now are by no means ghost towns. The Ingalls Shipbuilding Company, built as a permanent installation, completed several ships after the war and is now constructing a prototype cargo vessel for the Maritime Commission. Moreover, there are other permanent industries including a knitting mill, a large paper and pulp plant, three plywood and hardware products mills, and two yards constructing small craft. But one reason for the sustained economic activity has been the increased activity in the fishing industry.

MENHADEN. A menhaden processing plant was established by the Wallace M. Quin Company in Pascagoula as early as 1938. Now there are three other companies operating plants—the Standard Fish Meal Company, the Fish Meal Company, and Tuna, Incorporated, all located in Moss Point. The four plants employ approximately 1,800 workers during the normal seven-month season.

Although modern methods of extraction contrast sharply with methods of only a few years ago, many persons feel that industrial research can advance the industry still further. One company believes this so strongly that it has set up a modern research laboratory costing several thousand dollars.

According to this company, any industry attempting to secure a uniform product must have production controls, something neglected at many menhaden processing plants. Variations in the length of time it takes to process the fish after they are caught, for example, may result in products differing markedly in chemical analysis and sometimes may mean a loss to the processor. Industrial research can help establish control methods that may make it possible to compensate for variations in raw materials and in processing conditions. Moreover, industrial research can add many uses for the complex product which is extracted in the form of fish oil.

TUNA. Rarely does an industry migrate from the West to the South. Yet just such a development is taking place in the Pascagoula-Moss Point area. Of equal significance are the steps the manufacturer is taking to integrate an activity new to the region with the existing menhaden industry and to iron out some of the seasonal fluctuations connected with fish processing.

Except when war limitations were in effect, the production of canned tuna has expanded every year since it was first started in 1911. By 1939, canneries were processing 82 million pounds and in 1948, production reached 125 million pounds. Practically all the canning is done on the Pacific Coast, for the most part at San Diego, California.

To meet the ever-increasing demand, fishermen have gone farther and farther away from the waters off the California coast where tuna was originally found. This has been made possible by the fact that tuna clippers are now equipped with modern refrigeration plants that enable them to remain offshore for extended periods. Some tuna is now taken during a limited period of the year along the Oregon and Washington coasts, but in recent years the principal fishing ground has been in the neighborhood of the Galapagos Islands, several thousand miles to the south, off the coast of Ecuador, and also many miles to the east. When a tuna clipper reaches these grounds, it is almost due south of the point where the Mississippi empties into the Gulf.

Even before the war, the idea of establishing a tuna packing industry on the Gulf Coast had been fermenting in the minds of men connected with the tuna industry on the Pacific Coast. After the war, rumors of the then novel idea reached W. B. Herring, President of the Pascagoula-Moss Point Bank. The business community decided to investigate and sent Hermes Gautier, member of the state legislature, and Mr. Herring, now President of the Mississippi Bankers Association, to the Pacific Coast to view operations there. The trip was sponsored by the Jackson County Board of Supervisors, the Pascagoula Port Commission, the Pascagoula and Moss Point Chambers of Commerce, and the state of Mississippi.

Visiting plants on the Pacific Coast, Mr. Herring and Mr. Gautier met a representative of a group of boat owners who appeared interested in the move. The Mississippi men pointed out that a route from the fishing grounds through the Panama Canal to Pascagoula would be over a thousand miles shorter than the route to California. Other factors too were favorable to the location. Not only would a plant located in Pascagoula serve the growing southern market, but it would also be nearer the midwestern and eastern markets, which take the greater part of canned tuna. Finally, the labor supply in the Pascagoula-Moss Point area was adequate.

These points were decisive to the West Coast operators. More as a token of good faith than anything else, businessmen in the Mississippi community donated a 5,000-dollar plant site in Moss Point.

The new group, known as Tuna, Incorporated, are introducing many new ideas into the industry. First, they plan to change the seasonal character of the packing by freezing the catch before it is brought in and storing it to be processed as needed during the year. But, strangely enough, the company has started its tuna packing operations by constructing a menhaden processing plant. The inedible portions of tuna are customarily processed into fish meal and other by-products. The new group decided to use the same plant for processing menhaden. This plant is now in operation. Because the owners' boats are under contract to supply tuna to West Coast operators for the present season, canning will not begin until next year.

When in full operation, this enterprise will require an investment of approximately 400,000 dollars in the menhaden plant and tuna cannery, in addition to 1.5 million dollars in boats. It is expected that 160 fishermen will be needed to operate the six menhaden and six tuna vessels and 200 persons to operate the cannery and menhaden plant.

EXPLORATION. Presently, no tuna are taken from Gulf waters in commercial quantities, but many persons believe they could be found if a complete scientific exploration were made. This year a step has been taken that promises to fill some of the gaps in the knowledge of these waters. Two vessels—the *Alaska* and the *Oregon*—have now been assigned by the United States Fish and Wildlife Service to the Gulf of Mexico. The *Alaska,* based at a Texas port, serves as a biological laboratory. Pascagoula is the home port of the *Oregon,* an exploratory vessel. The program includes not only discovery and delineation of new fishing grounds but collection of adequate data upon which to base the conservation measures necessary for a sustained yield.

The state of Mississippi, recognizing the necessity of augmenting knowledge of marine life in the Gulf waters, has also established the Gulf Coast Marine Laboratories at Ocean Springs. The laboratories were originally set up by a group of biologists and other scientists sponsored by the Mississippi Academy of Science. The results were so promising that the state has appropriated money for the laboratories and placed them under the supervision of the Mississippi Institutions of Higher Learning.

SOFT-SHELL CRABS. What can be done by adding ingenuity to existing knowledge is also demonstrated by an enterprising man who is making a year-round business out of soft-shell crabs. The soft-shell crab, prized by some fish gourmets, is not a distinct species, as sometimes supposed, but rather a crab that has just shed its hard shell. Because the exact moment when a crab will discard its shell is unknown and a new shell forms in a comparatively short time, the crab must be taken just at molting time. Formerly, soft-shell crabs were taken by men who waded around in the bays in search of crabs in the shedding stage. The cold water during many months of the year confines this type of fishing to a few warm summer months.

Under the present system, which is new at least to that area, the crabs are caught from boats and placed in beds—small, half-submerged, wooden platforms. The crabs are fed, carefully watched by the expert, and transferred from one bed to another until they are ready to shed their shells. The comparatively warm waters make for rapid growth. This operation, although on a small scale, provides work for approximately 30 people on a year-round basis.

SHRIMP. Fishermen in Jackson County, of which Pascagoula is the county seat, in 1945 caught over a million pounds of shrimp, valued at 129,000 dollars, and shrimp fishing is still active there. Because there is no canning plant in Pascagoula, modern quick-freezing and marketing methods have been particularly helpful. Shrimp received in the early morning are cleaned, beheaded, packed in containers, and sent on their way to Mobile within a few hours. At Mobile they are quick-frozen and either shipped to inland markets or stored.

Present processing and marketing methods have been especially profitable to the small operator, according to a local shrimp dealer with over thirty years' experience. Formerly the entire catch was sent to wholesale markets in New York or New Orleans to be sold at any price the market would bring. Sometimes when the catch was heavy, shipments would be made at a loss. Storage methods now make it possible to sell the shrimp only when it will bring a profitable return.

A Recipe for Progress

There are many communities along the shores of the District states where total returns from fishing are greater than in Pascagoula. Developments at Pascagoula may not be identical with those elsewhere, because within any region conditions vary from place to place. Yet wherever progress has been made, in other areas or even in other industries, many of the elements of success are the same.

Future progress in the fishing industry requires adequate knowledge of resources and of their uses. That realization has led to a program of research by both government and business interests. There also appears to be a realization that progress means change, and a willingness to try new methods. There is a realization that continuing steps must be taken to put the industry on a sustained-yield basis; conservation has already been instituted and is being promoted. Finally, there has been a recognition of the advantages that can be gained from wholehearted cooperation between private business and government.

CHARLES T. TAYLOR

Bank Announcements

On July 17 the Monroe County Bank, Monroeville, Alabama, was admitted to membership in the Federal Reserve System. The officers of this bank are J. B. Barnett, President; C. H. McCall and A. J. Smith, Vice Presidents; John B. Barnett, Jr., Cashier; and A. L. Johnson, Assistant Cashier. The bank has total resources amounting to $2,178,600 and capital accounts amounting to $203,600.

The Bank of Albany, Albany, Georgia, a nonmember bank, began remitting at par on July 1. The officers of this bank are W. D. Owens, President; W. Ray Houston and B. B. Ivey, Vice Presidents; L. M. Jordan, Cashier; and Ray S. Mock, Henry A. Floyd, Wilbur Bedenbaugh, and Mary T. Harris, Assistant Cashiers. This bank has capital accounts in excess of $200,000 and total deposits amounting to $3,774,000.

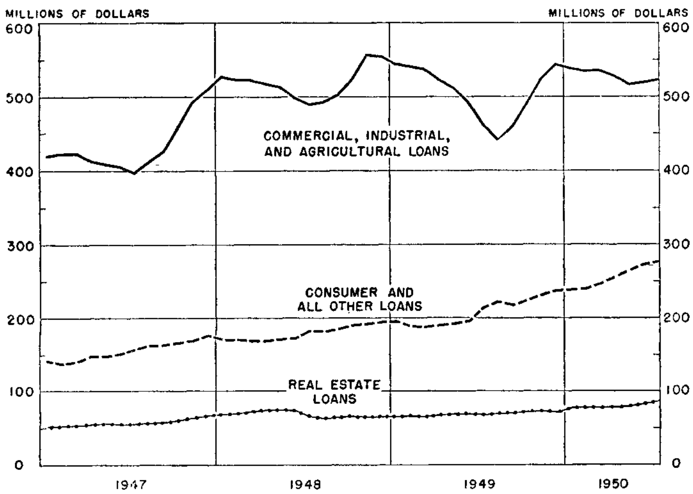
On July 11 the Albany Trust and Banking Company, Albany, Georgia, also began remitting at par. This bank has total resources amounting to $1,355,000. The officers of this bank are C. L. Neuman, President; P. J. Brown, Vice President; W. H. Burt, Vice President and Trust Officer; and George W. Hughey, Jr., Cashier and Assistant Trust Officer.

District Business Conditions

Consumer Buying and Bank Credit

CONSUMER buying and borrowing have been chiefly responsible for the growth of bank credit at Sixth District banks since the first of the year. Purchases of new automobiles, new homes, and furniture and appliances have stepped up consumer borrowing. This, in turn, has raised total member bank loans in the Sixth District during the period of the year when they ordinarily would have declined. If member bank loans had followed the usual seasonal decline of preceding postwar years, they would have been 6 percent lower than at the beginning of the year. They were, however, 5 percent greater. Loans at banks in leading cities expanded further in July.

LOANS AT MEMBER BANKS IN LEADING CITIES
Sixth Federal Reserve District



The seasonal decline in commercial, industrial, and agricultural loans that usually occurs during the first part of the year at banks in leading District cities was halted earlier this year than usual. Instead of continuing downward into August, as is usually the case, the trend was reversed by an expansion in commercial and industrial loans, which increased in both June and July. Moreover, the decline in the first few months of the year had been more than offset by a steady growth in consumer and "all other" loans and by increasing real estate loans.

Although banks have not been the principal financing agencies for residential construction, the effects of consumer borrowing for expanded purchases of automobiles and other durable goods is readily apparent from the banks' statements. At the end of June all commercial banks in the District had instalment loans outstanding amounting to 47 million dollars more than at the end of last year. Most of the growth occurred in instalment sale credit.

DURABLE GOODS SALES LEAD EXPANSION. Total retail sales at independent stores in representative cities of the District, according to estimates based on United States Department of Commerce figures, for the first five months of this year were about 11 percent greater than they were during the corresponding period last year. Motor vehicle dealers led with a 33-percent increase, and were closely followed by lumber and building material dealers with a 32-percent gain. The national average was 21 percent for each type of retailer.

Buyers of new houses have needed furniture and appliances. Consequently, sales at reporting furniture stores throughout the District ran 7 percent higher for the first six months of this year than last and sales at household appliance stores ran 14 percent higher. Although sellers of consumer durable goods could be happy over their sales comparisons, a number of merchants who sell consumer nondurable goods were, until very recently, selling less than last year.

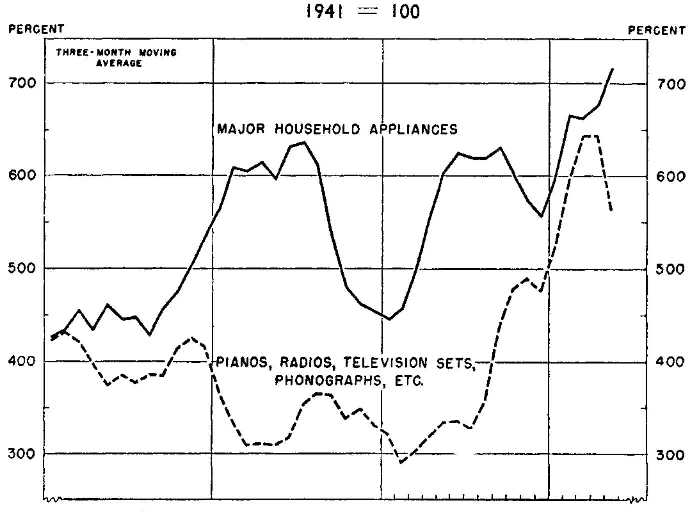
NONDURABLE SALES IMPROVE. Comparisons of sales in nondurable goods showed an improvement in May, and an even greater one in June. Sales of men's and boys' clothing at District department stores were 12 percent higher this May than last May, although for the preceding four months they had been down one percent. In June they were up 35 percent.

Women's ready-to-wear sales were 5 percent less during the first four months of this year than in the corresponding period last year. In May, however, they were 14 percent greater than in May 1949. In June they fell 2 percent from last June.

APPLIANCES AND TELEVISION SETS. The most spectacular sales records at District department stores have been set by the major household appliance departments and the departments selling radios, television sets, phonographs, and musical instruments. There was a 28-percent gain in appliance sales during the first six months of this year and an 85-percent gain in sales of radios, television sets, phonographs, and musical instruments.

Sales trends in these two departments have been anything but smooth during the past few years. The chart of seasonally adjusted sales shows alternating periods of rapid growth and contraction. For the District as a whole, sales during the past few months have risen sharply in both departments. June sales of major household appliances set an all-time record at 877 percent of the 1941 average, after allowance

SIXTH DISTRICT DEPARTMENT STORE SALES
Adjusted for Seasonal Variation
1941 = 100



Latest figures plotted: May

is made for the usual seasonal contraction. Sales of radios, television sets, phonographs, and musical instruments were 430 percent of the 1941 monthly average after seasonal adjustment.

The postwar demands in the District for radios, phonographs, and musical instruments seem to have been more quickly filled than those for major household appliances. Sales of the former rose extremely fast during 1946, leveled off in 1947, then began to decline in the fall of 1948, and continued to decrease through August last year. On the other hand, postwar sales of major household appliances continued to expand during 1948 and except for the months of the business recession last year have continued high ever since.

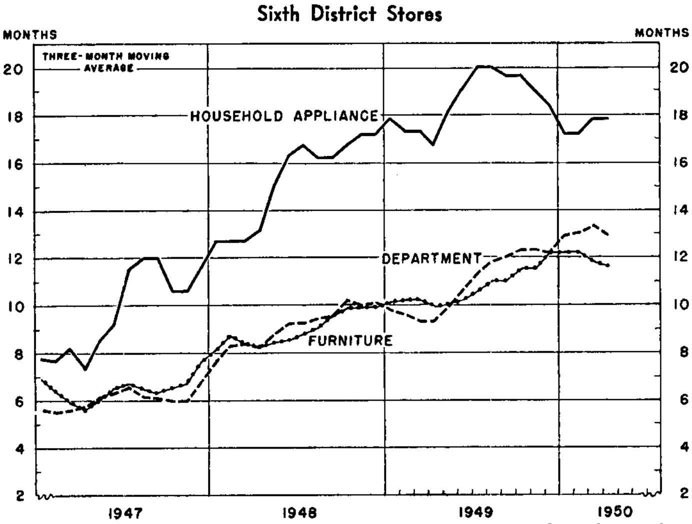
Demands for radios and similar merchandise have been reinforced by the introduction of television into many District cities. Television broadcasting began in Atlanta on September 29, 1948, and in New Orleans on December 17 of the same year. In Miami, television started on March 21, 1949, and in Jacksonville the first broadcast was made on October 15, 1949. The Birmingham television station celebrated its first anniversary on May 29, 1950.

Although department stores do not report television sales separately from those of radios and phonographs, the effect of television can easily be traced from reports on combined sales. The introduction of television and its acceptance in the Atlanta area probably accounts for the 279-percent increase in combined sales during the first five months of this year over those months last year. Atlanta stores reported their sales of pianos and other instruments, sheet music, and records up only 11 percent.

At reporting stores in the District cities that have no television broadcasting, sales of radios and phonographs for the first five months of the year ran 46 percent below last year. Combined sales in Birmingham, New Orleans, Miami, and Atlanta, where there is television, were 216 percent higher.

RELIANCE ON INSTALMENT CREDIT. The amount which consumers spent for new appliances, television sets, and other durable goods has partly depended upon their ability to buy

INSTALMENT ACCOUNTS
Average Number of Months Outstanding
Sixth District Stores



Latest figures plotted: April

on the instalment plan with down payments and long maturities. Consumer credit has been completely free of controls since June 1949, when the Board of Governors' authority expired. But terms had been relaxed before then; maturities on contracts had been lengthened and down payments reduced.

Down payments, for example, which averaged around 20 percent during the first quarter of 1949, had fallen to 11 percent by the end of last year at reporting Sixth District household appliance stores. At furniture stores the average period for which accounts were outstanding increased from about 10 months at the beginning of 1949 to 12 months by the end of the year.

Partly through the influence of banks and other finance companies buying retail instalment paper, credit terms at the reporting stores appear to have been somewhat more stable in recent months. Since the first of the year, the average maturity of accounts at the reporting household appliance stores has been approximately 18 months; at department stores, 13 months; and at furniture stores, between 11 and 12 months.

CURRENT INCREASE IN BUYING. Consumer buying since the outbreak of hostilities in Korea has, if anything, accentuated the trends of preceding months. For the week ended July 1, sales at District department stores were 13 percent greater than those of the corresponding period in 1949. During the week that followed, sales were up 12 percent and for the week following that, up 30 percent. For the week ended July 22 they rose 58 percent. Detailed data on the types of goods sold are not yet available. Incomplete reports, however, indicate that the increases came largely from the sale of appliances and other durable goods. C. T. T.

Industry and Employment

In June, building and construction activity in the Sixth District continued at a high level, although contract awards were slightly down for the month. The District steel mills continued to operate above the rated capacity, and coal production in Alabama and Tennessee was at a slightly higher rate than in May. Textile mill activity was about the same as in the preceding months.

COTTON TEXTILE mill activity, reflected in the daily rate of cotton consumption, was fractionally lower in June than in May, but was about 35 percent greater than in June last year. In the first six months of 1950, mills in the Sixth District states used about 25 percent more cotton, on the average, than in the first half of 1949. For the eleven months of the current cotton year, District consumption was up approximately 15 percent and national consumption was up 12.5 percent over that part of the preceding cotton season.

MANUFACTURING EMPLOYMENT in the District states has, on the whole, changed little during the first five months of this year. Gains in some states have about offset losses in others, so that in each month the District index was 140 percent of the 1939 average. Indexes for Tennessee and Alabama have averaged higher than that for the District and indexes for the other four states somewhat lower. Manufacturing employment in the January-May period averaged 146.7 percent of the 1939 level in Tennessee and 141.6 percent in Alabama; the District average was 140. In Georgia, the five-month average was 139.7 percent; in Florida, 135.8 percent; in Mississippi, 135.4 percent; and in Louisiana, 131.5 percent.

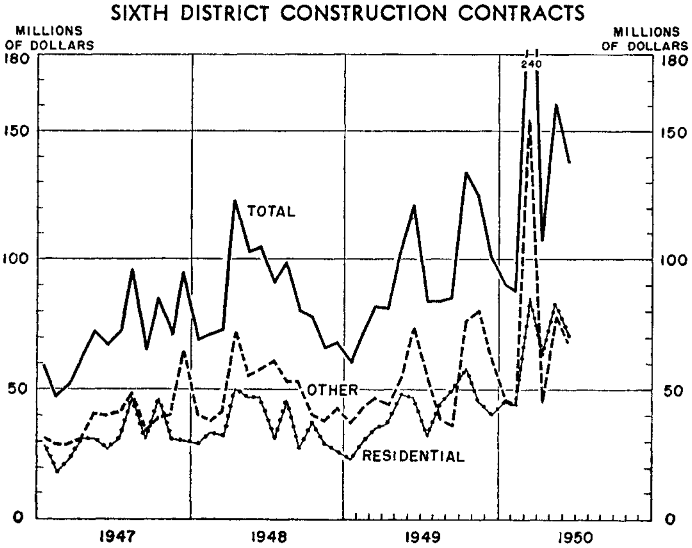
In May manufacturing employment was up for the month in Louisiana 2.8 percent, in Mississippi 2.4 percent, and in Alabama 0.6 percent. There were small declines in Georgia and Tennessee and a decrease of 2.7 percent in Florida. A seasonal decline in canning and preserving fruits and vegetables, principally citrus fruits and juices, and in the manufacture of wooden containers was responsible for the Florida decrease. In canning and preserving employment there was a drop of 22.7 percent from April to May, and in the manufacture of wooden containers a decrease of 8.7 percent.

With the exception of Louisiana, where it was down one percent, manufacturing employment throughout the District was slightly higher this May than in May 1949.

May employment was off somewhat from April in the more important lines of industry—apparel, chemical products, which include fertilizer manufacture, and textiles. There were, however, increases in lumber and wood products, in food and food products, in transportation equipment, which includes shipbuilding and repair, in metal products, and in paper and paper products. Compared with May 1949, employment was greater in textiles, apparel, food and food products, fabricated metals products, and in paper and paper products. But it was off 13.9 percent in transportation equipment, largely because of reduced activity in shipbuilding and repair, and 2.9 percent in chemicals. There were also decreases of less than one percent in lumber and wood products, and in primary metals industries.

CONSTRUCTION CONTRACTS awarded in the District in June, according to F. W. Dodge Corporation statistics, were valued at about 138 million dollars, off 15 percent from May, but 14 percent greater than the June 1949 total. Residential awards were off from May slightly more than total awards were. In Georgia and Louisiana both total awards and residential awards increased over May.

SIXTH DISTRICT CONSTRUCTION CONTRACTS



In the first six months of the year, total value of contract awards in the District was 826 million dollars, an increase of 58 percent over the first half of last year; residential awards were up 78 percent and other contracts 44 percent. In

Sixth District Indexes

DEPARTMENT STORE SALES						
Place	Adjusted**			Unadjusted		
	June 1950	May 1950	June 1949	June 1950	May 1950	June 1949
DISTRICT	392	390	368	345	378	323
Atlanta	438	426	420	355	405	340
Baton Rouge	399	423	412	347	419	358
Birmingham	391	386	356	344	382	314
Chattanooga	394	388	332	355	388	299
Jackson	388	433	349	330	398	297
Jacksonville	399	442	389	347	415	338
Knoxville	373	378	355	347	390	330
Macon	385	409	329r	323	384	276r
Miami	431	420	384	344	361	307
Montgomery	367	390	336	312	370	286
Nashville	415	444	384	382	467	353
New Orleans	363	367	368	323	345	328
Tampa	546	521	488	481	489	430

DEPARTMENT STORE STOCKS						
Place	Adjusted**			Unadjusted		
	June 1950	May 1950	June 1949	June 1950	May 1950	June 1949
DISTRICT	359	370	325r	345	366	312
Atlanta	478	478	423r	435	473	385
Birmingham	301	298	286r	277	283	263
Montgomery	427	405	338r	418	413	332
Nashville	524	529	485r	430	524	456
New Orleans	319	336	290r	325	346	296

GASOLINE TAX COLLECTIONS***						
Place	Adjusted**			Unadjusted		
	June 1950	May 1950	June 1949	June 1950	May 1950	June 1949
SIX STATES	261	238	210	264	241	212
Alabama	237	232	204	248	237	214
Florida	222	221	188	222	223	188
Georgia	258	249	191	264	249	196
Louisiana	284	276	223	289	271	228
Mississippi	241	241	209	248	236	215
Tennessee	313	232	241	316	232	244

COTTON CONSUMPTION*			
Place	June 1950	May 1950	June 1949
TOTAL	149	150r	111
Alabama	153	151r	120
Georgia	152	155r	107
Mississippi	94	92r	54
Tennessee	123	129r	114

ELECTRIC POWER PRODUCTION*			
	May 1950	April 1950	May 1949
SIX STATES	378	379	348
Hydro-generated	253	287	297
Fuel-generated	540	500	413

MANUFACTURING EMPLOYMENT***			
Place	May 1950	April 1950	May 1949
SIX STATES	140	140	137
Alabama	142	141	141
Florida	130	134	128
Georgia	140	141	135
Louisiana	134	130	135
Mississippi	137	134	130
Tennessee	147	148	145

CONSTRUCTION CONTRACTS			
Place	June 1950	May 1950	June 1949
DISTRICT	679	795	595
Residential	1,054	1,254	703
Other	497	572	543
Alabama	701	777	565
Florida	770	820	455
Georgia	872	780	748
Louisiana	635	488	213
Mississippi	318	596	668
Tennessee	508	1,059	968

CONSUMERS PRICE INDEX			
Item	June 1950	May 1950	June 1949
ALL ITEMS	173	171	173
Food	203	200	207
Clothing	190	191	196
Fuel, elec., and refrig.	136	137	135
Home furnishings	183	183	187
Misc.	155	155	154
Purchasing power of dollar	.58	.58	.58

ANNUAL RATE OF TURNOVER OF DEMAND DEPOSITS			
	June 1950	May 1950	June 1949
Unadjusted	21.1	20.4	18.7
Adjusted**	21.3	22.2	18.9
Index**	86.2	89.9	76.6

CRUDE PETROLEUM PRODUCTION IN COASTAL LOUISIANA AND MISSISSIPPI*			
	June 1950	May 1950	June 1949
Unadjusted	339	308	295
Adjusted**	341	313	297

*Daily average basis
**Adjusted for seasonal variation
***1939 monthly average = 100
Other indexes, 1935-39 = 100

r Revised

Sixth District Statistics

CONDITION OF 27 MEMBER BANKS IN LEADING CITIES
(In Thousands of Dollars)

Item	July 19 1950	June 21 1950	July 20 1949	Percent Change July 19, 1950, from: June 21 1950	Percent Change July 19, 1950, from: July 20 1949
Loans and investments—Total	2,471,491	2,444,984	2,282,101	+ 1	+ 8
Loans—Net	930,933	914,273	786,684	+ 2	+ 18
Loans—Gross	944,642	927,876	797,711	+ 2	+ 18
Commercial, industrial, and agricultural loans	522,934	518,673	452,234	+ 1	+ 16
Loans to brokers and dealers in securities	14,242	12,531	8,669	+ 14	+ 64
Other loans for purchasing and carrying securities	34,466	34,744	37,881	— 1	— 9
Real estate loans	86,289	82,163	68,959	+ 5	+ 25
Loans to banks	10,294	6,897	5,816	+ 49	+ 77
Other loans	276,417	272,868	224,152	+ 1	+ 23
Investments—total	1,540,558	1,530,711	1,495,417	+ 1	+ 3
Bills, certificates and notes	561,230	568,122	391,751	— 1	+ 43
U. S. bonds	763,388	750,523	900,832	+ 2	— 15
Other securities	215,940	212,066	202,834	+ 2	+ 6
Reserve with F. R. Bank	403,728	393,737	423,003	+ 3	— 5
Cash in vault	41,236	39,674	39,927	+ 4	+ 3
Balances with domestic banks	167,587	160,372	186,825	+ 4	— 10
Demand deposits adjusted	1,811,070	1,789,203	1,758,438	+ 1	+ 3
Time deposits	535,358	539,184	538,538	— 1	— 1
U. S. Gov't deposits	61,847	60,377	18,082	+ 2	+242
Deposits of domestic banks	466,958	454,699	426,117	+ 3	+ 10
Borrowings	13,650	1,000	...	+1,265	..

DEBITS TO INDIVIDUAL BANK ACCOUNTS
(In Thousands of Dollars)

Place	June 1950	May 1950	June 1949	Percent Change: June 1950 from May 1950	Percent Change: June 1950 from June 1949	Percent Change: Year-to-Date 6 mos. 1950 from 1949
ALABAMA						
Anniston	21,303	21,167	17,839	+ 1	+ 19	+ 5
Birmingham	365,416	344,104	310,412	+ 6	+ 18	+ 7
Dothan	13,149	13,002	11,317	+ 1	+ 16	+ 7
Gadsden	20,885	21,303	16,156	+ 2	+ 29	+ 11
Mobile	131,166	122,493	126,124	+ 7	+ 4	— 6
Montgomery	75,125	78,502	66,979	— 4	+ 12	+ 9
FLORIDA						
Jacksonville	313,922	305,780	261,704	+ 3	+ 20	+ 12
Miami	265,791	273,917	226,280	— 3	+ 17	+ 12
Greater Miami*	389,714	411,816	319,071	— 5	+ 22	+ 13
Orlando	66,925	64,219	50,868	+ 4	+ 32	+ 25
Pensacola	36,370	35,171	32,620	+ 3	+ 11	+ 6
St. Petersburg	65,838	65,649	51,112	+ 0	+ 29	+ 16
Tampa	148,656	140,830	122,029	+ 6	+ 22	+ 16
GEORGIA						
Albany	23,874	24,356	20,787	— 2	+ 15	+ 4
Atlanta	924,227	931,727	790,966	— 1	+ 17	+ 10
Augusta	60,245	58,270	51,021	+ 3	+ 18	+ 3
Brunswick	9,408	9,643	8,446	— 2	+ 11	+ 7
Columbus	71,450	64,095	47,684	+ 11	+ 50	+ 24
Elberton	3,913	4,046	3,442	— 3	+ 14	+ 8
Gainesville*	16,096	14,932	13,204	+ 8	+ 22	+ 8
Griffin*	11,816	10,769	9,881	+ 10	+ 20	+ 7
Macon	63,473	69,279	52,506	— 8	+ 21	+ 12
Newnan	9,026	9,419	7,807	— 4	+ 16	+ 11
Rome*	22,160	20,411	17,193	+ 9	+ 29	+ 14
Savannah	92,373	94,362	82,010	— 2	+ 13	+ 5
Valdosta	10,800	11,780	10,707	— 8	+ 1	+ 1
LOUISIANA						
Alexandria*	33,533	32,466	28,255	+ 3	+ 19	+ 12
Baton Rouge	103,203	101,473	105,527	+ 2	— 2	— 8
Lake Charles	38,091	36,979	37,223	+ 3	+ 2	+ 2
New Orleans	773,104	769,373	686,141	+ 0	+ 13	+ 2
MISSISSIPPI						
Hattiesburg	17,713	17,439	15,999	+ 2	+ 11	+ 10
Jackson	137,660	137,402	120,669	+ 0	+ 14	+ 7
Meridian	26,370	26,503	22,216	— 1	+ 19	+ 6
Vicksburg	23,380	24,309	21,765	— 4	+ 7	+ 2
TENNESSEE						
Chattanooga	152,540	148,195	130,825	+ 3	+ 17	+ 8
Knoxville	123,249	108,460	110,916	+ 14	+ 11	+ 7
Nashville	352,117	329,376	309,913	+ 7	+ 14	+ 13
SIXTH DISTRICT 32 Cities	4,540,762	4,462,623	3,930,010	+ 2	+ 16	+ 8
UNITED STATES 333 Cities	119,389,000	112,075,000	109,067,000	+ 7	+ 9	+ 6

* Not included in Sixth District total.

Alabama, Florida, and Georgia more than half the six-month total was for residential construction. May employment in construction was up 20 percent in Florida, compared with May last year; in Tennessee it was up 15 percent. In Georgia it was 16 percent greater than in May last year and in June the increase was 26 percent.

ELECTRIC POWER PRODUCTION by the District public utilities was about the same in May as in April. Last year there was a decline of 2.6 percent from April to May, and two years ago a decrease of 5 percent. In May this year, output by plants using fuels increased 8 percent over April and was 31 percent greater than a year earlier. Production of hydro-generated current was off nearly 12 percent from April and about 15 percent from May of last year. In the first quarter of this year, hydro-generated power accounted for about 52 percent of the District total; in April it dropped to 43 percent; and in May it was down to only 38 percent of the total. Daily average production in the District during the January-May period was nearly four times as large as it was in the 1935-39 period.

D. E. M.

Midwest Cattle Competition

The advantages to District farmers of growing grasses and legumes have been pointed out many times. The expansion of the cattle industry in the South, about as rapid as the increase in grazing acreage and livestock numbers will permit, is primarily due to the grazing possibilities most of the year.

District farmers who have only recently gone into the cattle business have questioned whether they could compete with midwestern growers, who obtain high yields of corn. There is, of course, a significant difference in the quality of beef finished on grass and that finished on corn, and before the war, there was usually a wide difference in the price. In recent years, however, the price spread between the two has narrowed. Consumers generally have become accustomed to a less highly finished beef, and also the quality of beef finished on grass has steadily improved since prewar days.

Few District farmers would think of competing with midwestern producers in the dry-lot feeding of cattle; corn yields in the area are simply too low. With grasses and legumes constituting the main source of feed, the cattle industry in the District, therefore, has been based almost solely on what is popularly known as a cow-calf combination. This combination has been profitable to farmers who have planted adaptable grazing crops and fertilized them according to recommendations.

Midwestern cattle farmers, noting the progress of the southern producers, wondered if they might not use grasses and legumes in their cattle operations to a much greater extent and thereby increase their profits. Even in the Corn Belt, where commercial yields of corn are the highest in the country, the feeding of cattle in dry lots has been a very risky business. Many cattlemen in that area have failed because of a sharp drop in prices. The midwestern cattlemen have developed a management system utilizing grass and other roughage which promises to reduce greatly the hazards of changing price relationships. Most midwestern cattlemen still feed in dry lots, but the number who base their operations mainly on grass is growing.

The management system in the Midwest is different from that usually followed by farmers in the Sixth District states.

The Corn Belt farmer purchases his western feeders in much the same way as he has for many years. His purchases, mostly calves weighing from 375 to 425 pounds, are usually made in the fall. The calves are then wintered on rye, or any winter grain crop; legume hay; minerals; and about a pound of grain per head a day. Of course, the calves gain little weight during the winter months. In the spring, about May, they are grazed on improved pastures.

These pastures, however, differ as much from the old midwestern ones as those in the District from pastures of prewar days. Even in the quite fertile Corn Belt, the best land is used for this purpose and is fertilized rather heavily. Both grasses and legumes are incorporated in these high-cost pastures, as in the District states.

The calves stay on pasture until they are marketed in the fall. In August, or approximately two months before the calves are sold, crushed corn is placed in hopper feeders so that the calves have access to it at all times. This final ration of crushed corn improves the appearance and finish of the animals. Although these cattle bring a lower price in the market than strictly grain-fed cattle, net margins have been wider. The cost per pound of gain on the grass-fed cattle is approximately half that on the grain-fed.

Cattlemen who have tried finishing steers and heifer calves on grass have probably been among the more progressive farmers of the Midwest. Their gains have ranged up to 500 pounds of beef per acre each year—a figure comparable to that achieved by only the more efficient cattlemen in the District states.

Although it will take several years of cost analyses to determine the comparative position of the southern cattlemen with the midwestern grass cattlemen, District farmers may have more severe competition than in the past. District farmers, however, have a much longer grazing season, which sometimes lasts the year round. The midwestern farmer has to use approximately the same amount and kind of fertilizer under pastures as the District farmer; hence the costs for fertilizer are comparable. The gains per acre in terms of beef are also comparable, but in the District states these gains are made on cheaper land. This could be an important factor in future livestock expansion.

The cow-calf combination, popular on most District cattle farms, may place the southern producer in a favorable position. Calves produced in this area are being sold in increasing numbers to midwestern producers. It is reasonable to believe that as the midwestern cattlemen shift to more grass feeding, they will buy even more feeders from this section. Thus, the southern cattleman can sell his calves to midwestern producers, or if he thinks it more profitable, can feed them out on his own farm. This gives the District producer two markets for his cattle, whereas the midwestern producer has one.

No accurate comparisons or measures of competitive positions can be obtained until midwestern farmers have had more experience in finishing cattle on grass. It appears, however, that the southern producer has little to fear at present from the expanding grass-fed cattle industry in the Corn Belt states.

J. L. L.

Sixth District Statistics

INSTALMENT CASH LOANS

Lender	No. of Lenders Reporting	Volume: Percent Change June 1950 from May 1950	Volume: Percent Change June 1950 from June 1949	Outstandings: Percent Change June 1950 from May 1950	Outstandings: Percent Change June 1950 from June 1949
Federal credit unions	38	+ 16	+ 61	+ 8	+ 42
State credit unions	20	— 3	+ 21	+ 7	+ 36
Industrial banks	10	— 6	+ 6	+ 1	+ 7
Industrial loan companies	13	— 9	— 1	+ 1	+ 3
Small loan companies	40	— 2	+ 5	+ 2	+ 7
Commercial banks	33	+ 10	+ 23	+ 5	+ 36

RETAIL FURNITURE STORE OPERATIONS

Item	Number of Stores Reporting	Percent Change June 1950 from May 1950	Percent Change June 1950 from June 1949
Total sales	109	— 6	+ 6
Cash sales	96	— 11	— 1
Instalment and other credit sales	96	— 7	+ 8
Accounts receivable, end of month	107	+ 2	+ 23
Collections during month	107	— 1	+ 5
Inventories, end of month	82	+ 1	+ 19

WHOLESALE SALES AND INVENTORIES*

Type of Wholesaler	Sales: No. of Firms Reporting	Sales: Percent Change June 1950 from May 1950	Sales: Percent Change June 1950 from June 1949	Inventories: No. of Firms Reporting	Inventories: Percent Change June 30, 1950, from May 31 1950	Inventories: Percent Change June 30, 1950, from June 30 1949
Electrical group						
Full-line	3	— 11	+ 14	.	..	..
Wiring supplies, etc.	3	+ 65	+121	3	— 1	— 2
Appliances	7	— 12	+ 18	5	— 2	— 4
General hardware	8	+ 6	+ 18	4	— 1	+ 11
Industrial supplies	3	+ 2	— 16	.	..	..
Jewelry	3	— 25	— 20	.	..	..
Lumber and building supplies	3	— 3	+ 57	.	..	..
Confectionery	5	0	+ 4	.	..	..
Drugs and sundries	9	— 3	+ 11	3	— 4	+ 7
Dry goods	19	— 15	+ 7	13	— 2	+ 19
Farm supplies	3	— 13	+ 1	.	..	..
Grocery group						
Full-line	34	— 1	+ 8	24	+ 0	+ 23
Specialty lines	11	— 5	+ 1	6	+ 3	— 12
Shoes and other footwear	3	— 5	— 6	.	..	..
Tobacco products	8	+ 4	+ 10	7	— 3	+ 1
Miscellaneous	11	+ 16	+ 2	18	— 4	— 0
Total	133	— 2	+ 8	83	— 2	+ 8

*Based on U. S. Department of Commerce figures.

DEPARTMENT STORE SALES AND INVENTORIES

Place	Sales—Percent Change: June 1950 from May 1950	Sales—Percent Change: June 1950 from June 1949	Sales—Percent Change: Year-to-Date 1950-1949	Number of Stores Reporting: Sales	Number of Stores Reporting: Stocks	Stocks Percent Change June 30, 1950, from May 31 1950	Stocks Percent Change June 30, 1950, from June 30 1949
ALABAMA							
Birmingham	— 13	+ 10	— 1	4	3	— 2	+ 5
Mobile	— 11	+ 7	+ 2	5	.	..	..
Montgomery	— 19	+ 9	+ 1	3	3	+ 1	+ 26
FLORIDA							
Jacksonville	— 19	+ 3	— 1	4	3	— 6	+ 13
Miami	— 8	+ 12	+ 5	4	3	— 6	+ 25
Orlando	— 11	+ 14	+ 2	3	.	..	..
Tampa	— 5	+ 12	+ 6	5	3	— 6	+ 16
GEORGIA							
Atlanta	— 16	+ 4	+ 5	6	5	— 8	+ 13
Augusta	— 9	— 0	— 3	4	3	— 9	+ 18
Columbus	— 10	+ 30	+ 16	4	.	..	..
Macon	— 19	+ 17	+ 10	6	4	— 9	+ 4
Rome	— 18	— 2	— 1	4	.	..	..
Savannah	— 1	+ 14	+ 7	6	4	— 9	+ 12
LOUISIANA							
Baton Rouge	— 20	— 3	— 7	4	4	— 8	+ 3
New Orleans	— 10	— 1	— 1	5	4	— 6	+ 10
MISSISSIPPI							
Jackson	— 20	+ 11	+ 5	4	4	— 8	+ 18
Meridian	— 19	— 0	— 4	3	.	..	..
TENNESSEE							
Bristol	— 4	+ 2	— 1	3	3	— 8	+ 3
Chattanooga	— 12	+ 19	+ 12	4	3	— 6	+ 4
Knoxville	— 14	+ 2	+ 1	4	.	..	..
Nashville	— 21	+ 8	+ 3	6	5	— 6	+ 8
OTHER CITIES*	— 4	+ 15	+ 6	22	22	— 3	+ 3
DISTRICT	— 13	+ 7	+ 3	113	76	— 6	+ 11

* When fewer than three stores report in a given city, the sale or stocks are grouped together under "other cities."

National Business Conditions

INDUSTRIAL production and construction activity increased further in June to new peacetime peaks. Following the outbreak of hostilities in Korea near the end of the month, buying showed a marked upsurge and commodity prices generally rose considerably in both wholesale and retail markets. Common-stock prices declined sharply for a time. Prices of United States Government securities generally showed little change. Bank credit continued to expand. On July 19 a large-scale Federal program was proposed for expanding defense production and curbing inflationary developments.

Industrial Production

The Board's production index rose another four points in June to 199. Although output of steel and some other basic materials had been at or close to capacity levels in May, continued strong demands resulted in further increases in production of most major groups of manufactures and minerals in June. In early July, output declined temporarily owing to holiday and vacation influences.

Production of durable goods increased substantially further in June, mainly because of gains in the automobile and machinery industries. Automobile assembly, which had been at a new record rate in May, increased 23 percent further in June, and activity in machinery industries continued the marked rise which began in early spring. Steel production was maintained in June at the capacity level reached in April. Refinery output of nonferrous metals expanded considerably further, but supplies available, after increased takings for Government stockpiles, continued substantially below industry demands. Mine production of copper and iron ore also expanded.

Output of nondurable goods increased somewhat further in June, reflecting mainly continued gains in rayon and woolen textiles, paper, petroleum, rubber, and chemical products. Tire production was at a new record, and a substantial expansion in output of synthetic rubber was initiated. Activity at cotton mills declined somewhat.

Construction

Value of construction contracts awarded in June was maintained at the spring peak level, reflecting continued expansion in awards for public work, which offset further small declines in private awards. The number of housing units started in June was maintained at the record May level and for the first half of the year totaled 687,000 units, as compared with 449,000 units started during the first half of 1949.

Employment

Employment in non-agricultural establishments rose by about 300,000 persons in June, after allowance for seasonal changes. About one-half of this increase occurred in industries producing durable manufactures; there were also gains in employment in construction and transportation activities.

Agriculture

Total crop production this year, according to July 1 estimates, is expected to be 6 percent less than last year, when stocks increased and exports were somewhat larger. Considerably smaller cotton and wheat crops are in prospect, but feed crops may approach last year's large harvest. Marketings of meat animals recently have been in about the same seasonally low volume as a year ago, but production of milk and eggs has been larger.

Distribution

Consumer buying increased considerably beginning in the latter part of June, influenced largely by international developments. Sales at department stores in mid-July were 24 percent larger than in the corresponding period a year ago; sales in the preceding two weeks were 9 percent larger. New automobile sales increased further and the volume was limited only by the supply available. Anticipatory buying was also evident for various other durable and semidurable goods and such foodstuffs as coffee and sugar. Distributors' stocks of most consumer goods had previously been rising following the recovery in production last summer.

Commodity Prices

Wholesale prices have generally risen considerably during the past four weeks, following earlier marked advances in April and May. The sharpest increases have been in prices of farm and food products, particularly livestock, meats, imported foodstuffs, and cotton. Cotton prices on July 21 were about one-fourth above the Federal loan level.

Prices of most industrial materials have advanced further in recent weeks, with especially marked increases in building materials, textiles, rubber, and tin. Prices of most metals have been maintained at earlier advanced levels.

Prices of some additional finished industrial products have been advanced during this period, and with retail food prices increasing sharply, a substantial further rise is indicated in the level of consumers' prices.

Bank Credit

Loans to real estate owners and consumers and holdings of corporate and municipal securities showed further substantial increases at banks in leading cities during June and the first half of July. Loans to businesses also expanded. Holdings of United States Government securities fluctuated considerably, but declined somewhat over the period.

Treasury deposits at the reserve banks, which had been built up through tax payments in the latter part of June, were drawn down during the first three reporting weeks of July, supplying reserve funds to member banks. These funds were absorbed by reduction in Federal Reserve holdings of United States Government securities. The System continued to sell Treasury bonds and also sold bills and certificates, and these sales were offset in part by purchases of notes.

Security Markets

Common stock prices fell 13 percent from the latter part of June to the middle of July, reflecting developments in Korea, but recovered part of the decline during the third week. Demand for United States Government securities broadened throughout this period. With virtually no change in prices of long-term Treasury bonds, a moderate decline in the prices of high-grade corporate obligations resulted in some widening of the narrow spread between yields of these securities.

THE BOARD OF GOVERNORS