

Monthly Review

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The Naval Stores Industry

IN the early days of American colonization one of the purposes of the British Government was to secure a source of supply of naval stores. At the time, the Royal Navy was built of wood, and pitch (crude gum) was essential for caulking the ships. Britain was dependent upon Holland, Russia, and the Scandinavian countries for pitch and for reasons of national security desired to control a source of supply. The British Government granted a subsidy to American producers of naval stores, but such aid was withdrawn a few years prior to the Revolutionary War.

At first the New England area produced naval stores, but it was soon discovered that the Southern pine tree had a much greater flow of gum than the New England pine and so the industry moved south to the Carolinas. As the original growth was cut in the Carolinas, the industry moved again to its present location in South Georgia, North Florida, and South Alabama, where the rapid growth of the longleaf pines has made possible the operation of the industry after the original forests were cut. In the last quarter of 1943, 64 per cent of the gum turpentine production in the United States came from Georgia, 25 per cent from Florida, and 7 per cent from Alabama. A small amount of production is achieved in South Carolina, Mississippi, and Louisiana as well.

▶ After the introduction of the steel ship, the use of pitch for caulking was largely discontinued. While other uses for naval stores products developed, the term naval stores was retained. The term now embraces turpentine, rosin, pine oil, pine tar, pitch, and rosin oil. Two other products are sometimes included in the term—charcoal obtained from the destructive distillation of lightwood, and pine-needle oil. Turpentine and rosin are, of course, the major naval stores products.

Naval stores are obtained chiefly in two ways, either from the distillation of the gum of the living pine or from the distillation of old pine stumps. The first process produces gum naval stores and the second, wood naval stores.

Gum naval stores are procured by chipping pine trees and allowing the crude gum (oleoresin) to flow from the wound in the tree into a cup; the cup is emptied at intervals and the resin is carried to stills. These stills are of two general types: (1) the old-fashioned fire still, many of which are scattered through the naval stores area; and (2) the more modern and much larger central distilleries, some of which are located at strategic points throughout the naval stores belt. Gradually the industry is working over from the old-fashioned, small,

fire still to the large central still with modern processing equipment.

The old-fashioned fire still was unable to produce uniform products. Thus, a consumer ordering turpentine from a factor in Savannah would receive turpentine that was produced in several different fire stills and, consequently, differed in moisture content. Similarly with rosin, an industrial consumer would get rosin of different melting points that had come from different fire stills. Or, indeed, he might get from the same old-fashioned still two batches of rosin with different melting points. The modern centralized distillery with its up-to-date equipment is able to produce turpentine of uniform moisture content and rosin of stipulated melting points. Furthermore, through its better cleaning methods, the modern central still can produce a better grade of rosin from a particular batch of resin than can the old-fashioned fire still.

The uniformity of product that can be attained by the central still is important to both turpentine and rosin consumers. Thus, the turpentine consumer knows he is getting a uniform moisture content, and the rosin industrial consumer is able to specify to the central still the particular melting point necessary for his purposes. For example, in the manufacture of adhesive tape, rosin is used. This rosin must have a higher melting point than is necessary in the manufacture of paper size; in this latter use, the melting point is relatively unimportant. The manufacturer of adhesive tape can stipulate to the producer the type of rosin he wishes by grade and melting point. In this way, additional processing on the part of the adhesive tape manufacturer is saved.

The woods end of the industry—chipping of the trees, hanging of the cups, and subsequent dipping of the gum from the cups—is still almost entirely a matter of hand labor. Mechanization of these processes has not yet proved economically possible, but technological progress is being made. The treatment of the face (the chipped portions of the trees) with a chemical stimulant has been developed to speed up the flow of the oleoresin. Better types of tools for chipping have been provided. Cups that are more durable and less liable to rust, with a consequent lowering of the grade of the rosin, have been developed. Much research is being carried on by the United States Forest Service at its naval stores experiment station in Olustee, Florida.

▶ Competitive with the gum naval stores industry is the wood naval stores industry. When the original forests were cut,



Sixth District Statistics

INSTALMENT CASH LOANS			
Lender	Number Reporting	Per Cent Change Feb. 1944 to March 1944	
		Volume	Outstandings
Federal Credit Unions.....	41	+ 33	+ 2
State Credit Unions.....	28	+ 66	+ 7
Industrial Banking Companies.....	42	+ 18	+ 3
Personal Finance Companies.....	50	+ 23	+ 10
Commercial Banks.....	34	+ 37	— 0

RETAIL FURNITURE STORE OPERATIONS			
Item	Number of Stores	Per Cent Change March 1944 from	
		February 1944	March 1943
Total Sales.....	110	+ 17	+ 3
Cash Sales.....	97	+ 17	+ 24
Instalment and Other Credit Sales.....	97	+ 18	+ 1
Accounts Receivable, end of month.....	108	— 2	— 23
Collections during month.....	108	+ 3	— 12
Inventories, end of month.....	84	— 3	— 41

SALES OF UNITED STATES SAVINGS BONDS			
March 24, 1944 - April 23, 1944, at Issue Price (In Thousands of Dollars)			
Area	Series E	Series F and G	Total
DISTRICT.....	35,238	4,809	40,047
Alabama.....	7,786	569	8,355
Florida.....	7,198	1,021	8,219
Georgia.....	7,926	993	8,919
Louisiana*.....	6,381	1,199	7,580
Mississippi*.....	2,130	361	2,491
Tennessee*.....	3,817	666	4,483

* These figures apply only to that part of the state lying within the Sixth Federal Reserve District. Tennessee figures do not include Post Office sales.

CONDITION OF 20 MEMBER BANKS IN SELECTED CITIES					
(In Thousands of Dollars)					
Item	Apr. 19 1944	Mar. 22 1944	Apr. 21 1943	Per Cent Change Apr. 19, 1944, from	
				Mar. 22 1944	Apr. 21 1943
Loans and Investments—					
Total.....	1,531,175	1,557,257	1,256,357	— 2	+ 22
Loans—Total.....	302,888	323,072	315,294	— 6	— 4
Commercial, industrial and agricultural loans..	181,936	187,500	179,397	— 3	+ 1
Loans to brokers and dealers in securities...	6,335	6,621	7,293	— 4	— 13
Other loans for purchasing and carrying securities.....	23,812	33,010	11,245	— 28	+ 112
Real estate loans.....	27,505	27,421	25,650	+ 0	+ 7
Loans to banks.....	2,403	1,459	376	+ 65	+ 539
Other loans.....	50,897	67,061	86,064	— 9	— 29
Investments—Total.....	1,228,287	1,234,185	941,063	— 0	+ 31
U. S. direct obligations.....	1,093,007	1,099,744	780,043	— 1	+ 40
Obligations guaranteed by U. S.....	25,420	25,457	50,421	— 0	— 50
Other securities.....	109,860	108,984	110,599	+ 1	— 1
Reserve with F. R. Bank.....	296,727	282,222	292,150	+ 5	+ 2
Cash in vault.....	25,444	25,112	24,278	+ 1	+ 5
Balances with domestic banks.....	157,828	149,723	200,763	+ 5	— 21
Demand deposits—adjusted.....	1,032,354	999,000	868,882	+ 3	+ 19
Time deposits.....	264,697	258,870	214,145	+ 2	+ 24
U. S. Gov't deposits.....	184,020	227,523	99,474	— 19	+ 85
Deposits of domestic banks.....	434,262	432,335	509,029	+ 0	+ 15
Borrowings.....	.....	3,000	.....	...	...

huge pine stumps were left and after some years of weathering, the outer three or four inches of the stump decayed, leaving the heartwood. These stumps are removed and naval stores are obtained by destructive distillation or by a steam solvent process. The wood naval stores industry is doomed, however, in view of the fact that pines are now being cut long before they attain the size necessary for the creation of important amounts of heartwood. The Forest Service estimates that, within 20 to 30 years, all the old stumps containing enough pitch to warrant processing will be gone and naval stores will be available only from the gum industry and from the synthetic industry.

The naval stores year runs from April 1 to March 31, the season for the working of pine trees for gum beginning in the spring. In the year ending March 31, 1942, industrial consumption of rosin in the United States, both gum and wood, was 1.6 million 500-pound barrels. In the year ending March 31, 1943, domestic consumption of rosin dropped to 1.4 million barrels. In the nine months ending December 31, 1943, total consumption of rosin was 1.2 million barrels, so that consumption for the full year ending March 31, 1944, was undoubtedly substantially greater than in the preceding year.

► The ten largest industrial uses of rosin are shown in the accompanying table. The large volume of rosin going into soap over the past few years is due in large part to the shortage of animal fats. The War Production Board has required soap manufacturers to use more rosin and less of the scarcer fats. How much of this gain will be held after the war is difficult to predict. Some technical advances have been made and rosin is now used in white soap as well as in the coarser soaps. Other industrial uses of rosin are in abattoirs, asphaltic products, insecticides and disinfectants, matches, rubber, shoe polish, and shoe materials, but the ten uses listed in the table account for considerably more than 90 per cent of total industrial consumption.

While approximately three fourths of the turpentine sold goes into domestic consumption for use as a paint thinner, cleaner, and medicine, this product, as well as rosin, has important industrial uses. Thus, in the six months between April 1 and October 1, 1943, total reported industrial consumption of turpentine reached 89,792 fifty-gallon barrels. By far the largest industrial use is in chemicals and pharmaceuticals, which consumed 57,670 barrels in that half year. The second largest industrial use of turpentine in that six months' period was in paint, varnish, and lacquers—uses that took 12,345 barrels. Shoe polish and shoe materials took 7,251 barrels; ester gum and synthetic resins took 6,737 barrels; and railroads and shipyards required 4,462 barrels in the half year. Minor industrial users of turpentine include manufacturers of adhesive and plastics, automobiles and wagons, foundries and foundry supplies, furniture, insecticides and disinfectants, linoleum and floor coverings, printing ink, and rubber.

Yearly production of gum spirits of turpentine since 1900 has ranged between 500,000 and 650,000 barrels of 50 gallons each. The peak year was 1908 when 750,000 barrels were produced. In the current year, production will probably reach its lowest point, somewhat under 250,000 barrels. The production of rosin varies with the production of turpentine, roughly $3\frac{1}{3}$ barrels (500 pounds gross or 420

INDUSTRIAL USES OF ROSIN IN THE UNITED STATES

(In 500-Pound Barrels)

	April 1943- Dec. 1943	April 1942- March 1943	April 1941- March 1942
Paper and paper size.....	352,251	367,021	443,944
Soap.....	247,863	238,658	251,368
Ester gum and synthetic resins.....	132,330	185,329	270,477
Chemicals and pharmaceuticals.....	180,848	258,765	251,251
Paint, varnish, and lacquer.....	120,413	164,119	217,747
Oils and greases.....	32,205	63,672	41,031
Adhesives and plastics.....	18,409	17,195	23,009
Foundries and foundry supplies.....	17,900	11,553	26,580
Printing ink.....	13,881	19,217	16,154
Linoleum and floor covering.....	13,238	40,931	51,511
Total.....	1,129,338	1,366,460	1,593,072

pounds net) of rosin being produced with each barrel of turpentine.

Figures for the year ending March 31, 1944, are not yet available. In the preceding year ending March 31, 1943, 321,930 fifty-gallon barrels of gum turpentine were produced and 237,868 barrels of wood turpentine. In that same year, production of gum rosin was 1,085,873 barrels (500 pounds gross) and production of wood rosin was 983,881 barrels. In the nine months, April 1 to December 31, 1943, the industry produced 261,205 barrels of gum turpentine and 166,528 barrels of wood turpentine. In the same nine months, production of gum rosin was 882,901 barrels and production of wood rosin was 620,249 barrels.

▶ Returns to producers are often more greatly affected by price changes than by volume changes. Naval stores prices have been particularly volatile in recent years. In the production year 1920-21, for example, the price of gum spirits of turpentine at Savannah varied from 45 cents to \$2.33 a gallon. In the succeeding year, the low was 46.5 cents and the high was 88 cents. In 1939-40, the turpentine price low was 23 cents and the high for the year was only 35 cents a gallon. On April 21, 1944, turpentine was 75.5 cents a gallon at Savannah in bulk.

The price of rosin has also moved over a wide range in recent years. The rosin price situation is further complicated by the fact that there are 13 grades and the differential between the grades varies considerably from time to time. At the present, for instance, there is a wide differential in favor of the paler grades. On April 21, 1944, the top grade was quoted at Savannah at \$6.50 a hundred pounds net in drums, while the darkest grade brought \$3.55 on that same date. In the 1910-11 season, there was very little differential. The second-grade product had a high of \$8.58 and a low of \$5.85, while the bottom grade ranged between \$8.15 and \$3.75. The top grades sold for more than \$20 in 1920 but dropped by about two thirds in the following year. Prices virtually doubled from 1935-36 to 1936-37 and then dropped abruptly the next year.

In the calendar year 1929, the value of naval stores in the foreign trade of the United States was in excess of 29 million dollars. In 1939, their value was slightly in excess of 12 million dollars. The net cash returns to the producers of turpentine and rosin at the still averaged \$39.40 a unit (one 50-gallon barrel of turpentine and 3 1/3 barrels of rosin, weigh-

ing 500 pounds gross or 420 pounds net) during the depression of the early 1930's. In the last half of the 1920's, the net cash returns averaged \$79.27 a unit. Between World War I and the depression, the years 1917-30, average net returns were \$83.44 a unit.

▶ The price rise of recent years is due to a number of factors. In the first place, the Commodity Credit Corporation has been operating for the past seven years a subsidy program with a support price, now at 95 per cent of the calculated parity price. In addition, output has been controlled under this program. Furthermore, the labor shortage has reduced output still further and wartime industrial demands have increased simultaneously.

Four prices must be considered in connection with the Commodity Credit Corporation's naval stores program: market price, parity price, loan price, and stockpile price. Market price fluctuates daily and is the price on the Savannah Naval Stores Exchange. Parity price is a calculated figure that varies monthly. Loan price is 90 per cent of parity price, and stockpile price is 95 per cent of parity price. When a naval stores producer has his product ready for market, he may make one of three dispositions of it. He may sell it on the open market; he may put it in the CCC loan at 90 per cent of the parity price with the option of repaying the loan and recovering his product if the market price rises later to justify his action; or he may sell it outright to CCC at 95 per cent of the parity price and it then goes to the CCC stockpile.

The naval stores conservation program is a part of the AAA farm program. It is administered by the Forest Service. The CCC loan program with naval stores producers is administered by the American Turpentine Farmers Association acting as agent for CCC. However, the CCC regulations provide that no producer is eligible for a loan on his stocks unless he complies with the AAA naval stores conservation program. For a fee, the ATFA inspects warehouses, grades the rosin offered to the CCC, and performs other necessary services. Membership in the ATFA now represents more than 90 per cent by volume of naval stores production and such membership is required for participation in the CCC program. The Forest Service can deny the benefits of the CCC program to any producer who does not follow Forest Service suggestions with respect to forest management practices. The Jacksonville branch of the Federal Reserve Bank of Atlanta acts as custodian for the CCC in the naval stores program.

▶ Traditionally, the naval stores industry has been an exporting industry. Roughly half of domestic production used to move in foreign trade. The war has, of course, seriously interfered with the export trade in naval stores. Even before the war, the imposition of exchange controls in Europe meant that less dollar exchange was available to European importers for the purchase of American naval stores products.

The German market is a striking example. In the latter part of the 1920's, Germany seemed likely to surpass Britain as the most important foreign market for the industry. But the rise of Hitler and the consequent boycotting of German goods in this country, coupled with the ever-tightening exchange control policy in Germany, reduced the German market to insignificance prior to the current war. Furthermore, the interwar years saw the rise in most European

countries of an attempt at self-sufficiency. The result was that domestic production of naval stores was stressed in France, Portugal, Spain, Greece, Russia, Germany, and Poland, and, in addition, the manufacture of synthetic substitutes was pushed steadily. With the advent of war, the export market collapsed. Partial revival occurred after the passage of the Lend-Lease Act and currently rather substantial amounts of naval stores are moving into foreign trade under lend-lease.

A division of opinion exists among observers as to post-war foreign trade prospects. Some feel that the shortage of dollar exchange after the abandonment of lend-lease and a continuing search for self-sufficiency by the nations that formerly imported will combine to ruin the postwar export market for naval stores. Others argue that the reckless wartime exploitation of European forests will wreck for many years the European naval stores industry, and that in the postwar world the attempt at self-sufficiency will be less intense so that the competition from synthetics will be less after the war than before.

In the five years prior to 1940, the average annual exports of turpentine were 244,000 barrels. In the same years, the average export of rosins was 1,026,000 barrels. During World War I, an equally severe slump in export movement of naval stores occurred. In the five years prior to 1914, turpentine exports averaged 342,000 barrels. In 1918, a low point of 93,000 barrels was reached. Export statistics currently are being withheld as confidential information. In the five years immediately following World War I, turpentine exports averaged 200,000 barrels. In the mid-twenties, export trade expanded and the average for the five-year period 1923-28 rose to 260,000 barrels. In the five-year period 1929-34, the average rose to 280,000 barrels. In the year April 1940-March 1941, turpentine exports were 130,855 barrels, and no figures have been released since that time.

The experience with respect to rosin exports was similar. In the five years immediately preceding 1914, exports averaged 1,350,000 barrels. In 1918, only 501,000 barrels were shipped. Rosin export trade did not revive until 1923, and in the five years 1923-27, inclusive, the yearly exports averaged 1,240,000 barrels. In the 10-year period 1928-37, rosin exports averaged 1,166,000 barrels. In the year April 1940-March 1941, rosin exports were 535,128 barrels.

► The postwar position of the naval stores industry will be conditioned primarily by the level of general industrial activity, both in the United States and abroad. A high level of industrial activity will mean large consumption of rosin in manufacturing the products of which it is a component. High levels of prosperity will also mean that there will be more construction and, consequently, more painting, so that the consumption of turpentine as a paint thinner will be high. World trade arrangements in the field of monetary stabilization and in the field of tariff policy will also have an important bearing on naval stores markets. The position of turpentine will be affected by the rate of development of new industrial uses and, chiefly perhaps, by the success of the program to increase the use of turpentine in the home.

A continuing weakness is the labor position of the woods end of the industry. The chief cost of production is labor cost and labor is paid piece rates. Negro labor is dominant in the industry and the labor is paid relatively poorly. Even so,

Reconnaissance

Sixth District Statistics for March 1944 compared with March 1943

PER CENT DECREASE ◀ PER CENT INCREASE

Department Store Sales

Department Store Stocks

Furniture Sales

49 Construction Contracts

Cotton Consumption

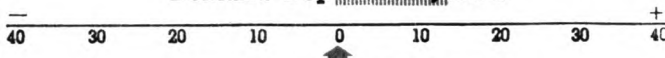
Gasoline Tax Collections

Bank Debits

Member Bank Loans

Member Bank Investments

Demand Deposits Adjusted



because competition from substitute products and foreign producing areas is so intense, the industry argues that if it had not been able to secure exemption from the wage-hour act and from social security taxes on the grounds that it was an agricultural rather than an industrial operation, cessation of operations would have resulted. Obviously, an industry so completely dependent on the maintenance of low wage rates is in a vulnerable position.

There are several ways, however, in which the unit labor cost may be reduced in a naval stores operation. In the first place, proper forest management over a period of years can increase the density of the gum pine growth and thus reduce costs by reducing the distance the woods workers have to walk between trees. In the second place, as has already been pointed out, it is possible to speed up the flow of the oleoresin by treating the face with either sulphuric acid or sodium hydroxide (caustic soda). Experiments indicate that the flow of the gum may be speeded up as much as 40 per cent or more in the earlier part of the season by the use of these chemical reagents without reducing the rate of the flow in the latter part of the season. This year for the first time, experiments with chemical treatment are being conducted on a commercial scale by certain producers co-operating with the Forest Service.

Over the long pull, the main determinant of the prosperity of the industry will be its ability to operate on a sustained-yield basis. A continuation of the Forest Service efforts to secure proper management practices of timber operations in the naval stores producing area and the improvement and extension of fire protection services are thus involved.

► The forests of the Sixth District represent one of the chief assets of the area. Properly managed, they can remain the source of substantial income permanently, in the production of naval stores and of other timber products. At the present time, much of the industrial processing of naval stores products takes place outside of the Sixth District which is the chief producing area. In many instances an opportunity probably exists for an expansion of such manufacturing within the District.

The District Business Situation

CURRENT business trends in the Sixth District continue to be those of an expanding economy. Department store and retail furniture store sales continue in ever greater volume. Money in circulation and bank deposits continue at record-breaking amounts, and life insurance sales continue in larger volume than was the case last year. Gasoline sales in the District so far have been higher than for last year, though somewhat below prewar figures. On the other hand, textile activity has receded somewhat and prospects for a record agricultural production are apparently threatened by excessive rainfall.

Retail Trade: In the first half of April, department store sales in the Sixth District were about 20 per cent greater in dollar volume than in the corresponding part of April 1943. The first week in April this year was the week immediately preceding Easter, and in that week sales were 41 per cent larger than in the first week of April last year. That week, it should be noted, was about three weeks prior to Easter, which fell last year on April 25. In the second week of April this year, sales were about the same as they were a year ago, increases being reported from Atlanta and Miami and decreases at other reporting cities. The varying dates of Easter always have a rather important effect on the March and April retail trade statistics, and account is taken of this factor in computing the seasonally adjusted indexes.

March sales in this District, reflecting a part, but not a large part, of Easter buying, increased 21 per cent over February and were 33 per cent greater than in March 1943. For the fifth consecutive year, the March unadjusted sales index recorded a new high level for that month. In the percentage comparisons with March last year, Knoxville led with a gain of 64 per cent. Also above the District average were Atlanta, 46 per cent; New Orleans, 37 per cent; and Nashville, 35 per cent. Montgomery had an increase just equal to the District average.

At those stores that classify their sales, cash sales accounted for 61.4 per cent of the total as compared with 57.4 per cent in March last year; open book credit sales accounted for 35.5 per cent of the total against 39.8 per cent a year ago; and instalment sales accounted for 3.1 per cent of the total as compared with 2.8 per cent in March 1943.

Inventories at department stores in the District have increased in each month of the first quarter of 1944. March stocks were 6 per cent larger in dollar value than those on hand a month earlier and 22 per cent greater than at the same time last year. Atlanta and Nashville reported increases over March 1943 of 37 per cent and 33 per cent, respectively, and at New Orleans and Montgomery the gains were 25 per cent and 24 per cent, respectively.

The March collection ratio for regular accounts, 61.8 per cent, was slightly below other recent months, but the ratio of 34.4 per cent for collections against instalment accounts was the highest since November.

Retail furniture stores reporting to this Bank sold, in dollar volume, 17 per cent more merchandise in March than in February and 3 per cent more than in March last year. Over the month, cash sales and instalment and other credit sales in-

creased by about the same percentage, but in comparison with March last year, cash sales were up 24 per cent, while instalment and other credit sales were only 1 per cent larger.

Finance: In recent months, circulating Federal Reserve notes of this Bank's issue have continued to increase, but at a much less rapid rate than was true last year. In the first quarter of this year, the Bank's net circulation rose by about 65 million dollars, while in the year 1943 it increased 408 million dollars. The billion-dollar mark was passed the latter part of March, and on April 19, net circulation was 1,020 million dollars, as compared with 627 million dollars on the corresponding Wednesday in April 1943.

Demand deposits adjusted at weekly reporting banks in selected cities of the District continue to increase. In March, the weekly figures averaged 999 million dollars, as against 880 million dollars in March last year. By April 19, the total had risen further to 1,032 million dollars. On that report date, total loans were 4 per cent less than a year ago, but total investments were 31 per cent larger, and investments in Government securities, amounting to 1,093 million dollars, were greater by 40 per cent.

Dominating the financial news during April was the announcement of the Fifth War Loan Drive, which is scheduled to take place between June 12 and July 8. Highlighting the preparations for the drive in the Sixth District was the meeting in Atlanta on April 24 of state chairmen and key workers with Ted R. Gamble, national director of the War Finance Division of the United States Treasury Department. The chairmen of War Finance Committees of the Six States are Ed Leigh McMillan, Alabama; Leon Tujaque, Louisiana; Cecil Woods, Tennessee; Charles A. Stair, Georgia; Alex T. Brown, Mississippi; and W. W. McEachern, Florida.

Securities to be offered during the drive are the series E, F, and G savings bonds, series C savings notes, 2½ per cent bonds of 1965-70, 2 per cent bonds of 1952-54, 1¼ per cent notes of 1947, and ⅞ per cent certificates of indebtedness. All subscriptions for savings bonds and savings notes processed by the Federal Reserve Banks or the Treasury between June 1 and July 31, 1944, will be credited to the drive.

The announced goal of the Fifth War Loan Drive is 16 billion dollars. Individuals are expected to invest 6 billion dollars, and nonbanking investors are expected to purchase the remaining 10 billion dollars' worth of securities.

Chief emphasis in the drive will again be upon sales to individuals. Plans have been made to reach the maximum number of individuals through personal solicitation.

Gasoline Sales: In spite of gasoline rationing and tire controls, gasoline sales in the Sixth District continue at high levels. March gasoline tax collections on February sales were higher for the Six States this year than last year. The Six State total for March 1944 was 8.1 million dollars as compared with 7.5 million dollars for March 1943. With the exception of Tennessee, where collections fell by \$430,000, the states of the District reported increases in tax collections. Florida reported a gain of \$470,000 and Georgia, a gain of \$300,000.

Sixth District Statistics

UNITED STATES TREASURY BILLS			
Dated	Tenders	Allotments	
April 6, 1944	\$6,330,000	\$6,013,000	
April 13, 1944	12,350,000	9,373,000	
April 20, 1944	26,393,000	18,763,000	
April 27, 1944	10,895,000	10,612,000	

RESERVES AND RELATED ITEMS OF SELECTED SIXTH DISTRICT MEMBER BANKS (In Thousands of Dollars)						
For reserve city banks figures are averages of seven-day period ending March 31, 1944; for country banks they are averages of sixteen-day period ending March 31, 1944.						
Group*	N ^o . of Banks	Deposits of Banks	Balances Due from Other Banks	War Loan Deposits	Actual Reserves	Per Cent Actual to Required
A	9	0	1,066	72	494	167
B	27	684	6,431	1,652	2,927	154
C	54	1,584	20,179	7,179	11,615	146
D	74	6,775	57,262	25,171	30,626	132
E	52	39,514	80,205	57,853	59,771	125
F	29	179,717	157,570	136,280	157,345	124
G	12	429,345	105,871	176,527	232,291	102
Total	257	657,619	428,584	404,734	495,069	114
* Group A: 1943 average deposits up to \$500,000; Group B: \$500,000 to \$1,000,000; Group C: \$1,000,000 to \$2,000,000; Group D: \$2,000,000 to \$5,000,000; Group E: \$5,000,000 to \$15,000,000; Group F: \$15,000,000 to \$75,000,000; Group G: over \$75,000,000.						

DEBITS TO INDIVIDUAL BANK ACCOUNTS (In Thousands of Dollars)					
Area	Mar. 1944	Feb. 1944	Mar. 1943	Per Cent Change March 1944 from	
				Feb. 1944	Mar. 1943
ALABAMA					
Anniston	18,466	17,474	14,849	+ 6	+ 24
Birmingham	192,664	173,961	182,504	+ 11	+ 6
Dothan	7,260	9,304	7,130	+ 22	+ 2
Gadsden	10,104	10,114	10,278	- 0	- 2
Mobile	113,118	108,859	117,028	+ 4	+ 3
Montgomery	37,408	39,256	35,917	- 5	+ 4
FLORIDA					
Jacksonville	174,300	183,514	154,293	- 5	+ 13
Miami	148,905	140,165	95,021	+ 6	+ 57
Orlando	31,005	27,153	26,202	+ 14	+ 18
Pensacola	25,026	22,907	21,756	+ 9	+ 15
St. Petersburg	26,900	24,996	25,479	+ 8	+ 6
Tampa	83,166	77,632	81,375	+ 7	+ 2
GEORGIA					
Albany	9,568	9,318	8,634	+ 3	+ 11
Atlanta	471,140	457,091	423,723	+ 3	+ 11
Augusta	37,583	31,885	34,210	+ 18	+ 10
Brunswick	13,262	13,978	11,796	- 5	+ 12
Columbus	33,174	32,892	35,650	+ 1	- 7
Elberton	1,855	1,722	1,658	+ 8	+ 12
Macon	39,542	42,104	37,562	- 6	+ 5
Newnan	4,799	5,195	3,992	- 8	+ 20
Savannah	81,410	74,876	73,791	- 9	+ 10
Valdosta	5,571	6,118	4,990	- 9	+ 12
LOUISIANA					
Baton Rouge	39,580	41,485	42,690	- 5	- 7
Lake Charles	24,263	22,759	19,535	+ 7	+ 24
New Orleans	433,753	427,149	376,676	+ 2	+ 15
MISSISSIPPI					
Hattiesburg	12,900	12,992	12,643	- 1	+ 2
Jackson	57,571	66,705	46,218	- 14	+ 25
Meridian	15,643	18,328	16,324	- 15	- 4
Vicksburg	20,523	26,702	22,588	- 23	- 9
TENNESSEE					
Chattanooga	83,556	83,059	82,923	+ 1	+ 1
Knoxville	100,000	94,677	52,219	+ 6	+ 92
Nashville	168,027	175,510	164,687	- 4	+ 2
SIXTH DISTRICT					
32 Cities	2,222,042	2,479,880	2,244,341	+ 2	+ 12
UNITED STATES					
334 Cities	76,089,000	70,717,000	65,782,000	+ 8	+ 16

While March gasoline tax collections for the District for the years 1941 and 1942 were substantially higher than for March 1944, collections in the latter month were still about as large for the Six States as a whole as in March 1940. Alabama, Mississippi, and Tennessee, for example, with no change in the gallonage tax had greater tax collections for March 1944 than for March 1940. Louisiana's collections for the corresponding months were about the same. Florida showed the most drastic decline with March 1944 collections being some \$700,000 smaller than for March of 1940. Georgia's collections for March of this year were approximately \$160,000 smaller than in the same month of 1940.

Life Insurance Sales: March sales of life insurance were greater in all of the six states of the District than they were in the same month of 1943, according to reports of the Life Insurance Sales Research Bureau. This gain over last year was also true of February and January. The March figures were larger than for that month last year by percentages ranging from 10 per cent for Alabama to 30 per cent for Florida, and first quarter increases over that part of 1943 ranged from 7 per cent for Alabama to 44 per cent for Florida.

Textile Activity: Cotton textile activity, reflected in the daily average consumption of cotton by mills in Alabama, Georgia, and Tennessee, increased slightly in March but was 10 per cent lower than in March last year. Mills in these three states used 11,355 bales of cotton for each of the 27 working days in March, while a year ago the daily rate was 12,501 bales. The highest rate on record for these three states was 13,506 bales, for September 1942, followed in November of that year by a daily rate of 13,413 bales. In the six months ending with May 1943, the rate averaged more than 12,500 bales, but for each month since then the rate has been less than 12,000 bales a day. Textile mills have lost many of their workers to the armed forces, but recent press reports indicate that absenteeism is an important factor in production decline.

Agriculture: Excessive rainfall in March, followed in April by below-freezing temperatures over much of the District and further heavy rains, resulted in a great amount of damage to crops in many sections. The peach crop in Georgia and Tennessee was reported to have been reduced by 60 per cent, and preparations for the coming crop season have been considerably delayed nearly everywhere in the District.

In Florida, the frosts of April 6 and 7 did considerable damage to the spring snap bean crop as they hit practically all sections. There was some loss of acreage, but the principal damage will show up in reduced yields. Some farmers were reported to be as much as seven weeks behind in their spring work. Reports from Alabama indicate a late crop as the result of heavy frosts that killed some beans and of delays in planting caused by the excessive rains. Much replanting has been necessary in Mississippi because of similar conditions. The first movement of beans in Louisiana is expected around May 1, with heavy shipments occurring the latter part of May.

Cabbage continues to move from Florida in fair volume. Most Florida cabbage has been shipped, but scrappings from the old fields and the production from scattered young fields will provide a fair volume for the remainder of April. In Mississippi prospective yields of cabbage continue below average. The Alabama crop is in poor to fair condition. Spring harvest is in full swing in Louisiana, with the peak movement

around the middle of April. The crop is producing only fair to light yields, but quality has improved.

In the South Alabama commercial areas, Irish potatoes suffered a 20 per cent loss because of late freezes and blight. The South Georgia crop was heavily damaged by rains and almost half of the crop was ruined by rot. It was reported that some few farmers were replanting, but probably not over 10 per cent of the destroyed acreage was replanted.

In March, the Department of Agriculture issued a report that indicated farmers in the five producing states of this District intended to plant 73,700 acres in watermelons this year. The total would represent an increase of 19,500 acres or 36 per cent over the 1943 planting of 54,200 acres. By states, the increases ranged from 16 per cent for Alabama to 68 per cent for Florida, where the 1944 planting was expected to be 21,000 acres. A later report indicates that the Georgia acreage will not be as large as had been expected, as a large amount of the planted acreage did not attain a decent stand and some damage resulted from frost. Further, some farmers were prevented from making their originally intended plantings because of weather conditions. Considerable damage was also reported from North Florida counties. There was some loss of acreage but latest reports indicate most damaged acreage has been replanted. Very few early fields will be ready for shipment before the middle of May.

Recent estimates indicate that the orange crop in Florida from the 1943 bloom is expected to total 41.5 million boxes. Last season the crop amounted to 37.2 million boxes, and the increase now expected is 11.6 per cent. On the other hand, grapefruit production is now estimated at 25.0 million boxes against 27.3 million last season.

A decrease seems to have occurred in the acreage planted in strawberries in Louisiana, Tennessee, and Alabama, but an increase has taken place in Mississippi. Production estimates have been issued for Louisiana and Alabama, the early spring states, and in spite of a decrease from 15,000 acres last year to 12,000 acres this year, the estimated production in Louisiana is placed at 840,000 crates against only 600,000 crates produced in 1943. The increase is based upon an estimated yield of 70 crates an acre this year against only 40 crates an acre last year. In Alabama, the acreage declined from 2,900 acres last year to 2,200 acres this year, and the current estimate of the crop is 176,000 crates against 232,000 crates last year. In Louisiana, the crop is reported in good condition, quality is excellent, and present indications point to fairly good yields. Total rail shipments through the middle of April are estimated at 397 cars. In Alabama, strawberries are moving in quantities in the Castleberry-Garland area and quality of berries is reported good. Frosts and freezing temperatures have set the crop back somewhat, especially in the Chilton and Cullman County sections. In Tennessee, about 40 per cent of the crop was destroyed by the recent floods and freezes.

Sixth District farmers received 17 per cent more for the crops, livestock, and livestock products marketed in February this year (latest month for which figures are available) than they did a year ago. The February total of 104 million dollars compares with 89 million dollars for February 1943, a figure that was about twice as large as the average for February of earlier years. The largest increases over February last year were reported for Alabama and Tennessee, 38 per cent and 37 per cent, respectively.

Sixth District Indexes

DEPARTMENT STORE SALES*						
	Adjusted**			Unadjusted		
	Mar. 1944	Feb. 1944	Mar. 1943	Mar. 1944	Feb. 1944	Mar. 1943
DISTRICT.....	225	225	185	219	194	171
Atlanta.....	247	227	173	237	199	161
Baton Rouge.....	250	219	201	221	170	171
Birmingham.....	185	215	176	181	179	167
Chattanooga.....	219	235	172	211	183	160
Jackson.....	225	240	174	216	187	162
Jacksonville.....	284	298	226	278	246	214
Knoxville.....	267	250	168	248	217	151
Macon.....	222	236	188	218	180	179
Miami.....	184	188	140	238	240	175
Montgomery.....	219	205	170	199	163	149
Nashville.....	221	240	185	246	205	182
New Orleans.....	214	214	161	200	177	146
Tampa.....	242	270	218	271	242	215

DEPARTMENT STORE STOCKS						
	Adjusted**			Unadjusted		
	Mar. 1944	Feb. 1944	Mar. 1943	Mar. 1944	Feb. 1944	Mar. 1943
DISTRICT.....	184	182	147	188	178	150
Atlanta.....	237	249	172	241	236	176
Birmingham.....	134	143	133	138	138	136
Montgomery.....	180	186	145	190	182	153
Nashville.....	268	244	202	278	239	210
New Orleans.....	136	130	109	144	130	115

	COTTON CONSUMPTION*			COAL PRODUCTION*		
	Mar. 1944	Feb. 1944	Mar. 1943	Mar. 1944	Feb. 1944	Mar. 1943
TOTAL.....	161	158	177	177	179	171
Alabama.....	169	168	178	179	182	174
Georgia.....	159	156	178	171	171	165
Tennessee.....	136	134	158			

MANUFACTURING EMPLOYMENT***			
	Feb. 1944	Jan. 1944	Feb. 1943
SIX STATES.....	162	163r	154
Alabama.....	190	191	197
Florida.....	187	187r	154
Georgia.....	150	151r	141
Louisiana.....	166	164r	142
Mississippi.....	150	150r	144
Tennessee.....	140	140	141

	CONSTRUCTION CONTRACTS			GASOLINE TAX COLLECTIONS***		
	Mar. 1944	Feb. 1944	Mar. 1943	Mar. 1944	Feb. 1944	Mar. 1943
DISTRICT.....	109	119	212	90	101	83
Residential.....	90	62	104	...	...	...
Others.....	117	147	265	...	...	...
Alabama.....	88	58	219	95	101	88
Florida.....	123	185	369	91	90	67
Georgia.....	160	104	162	85	90	68
Louisiana.....	72	57	139	93	96	80
Mississippi.....	82	76	142	91	93	88
Tennessee.....	101	116	204	91	135	118

COST OF LIVING				ELECTRIC POWER PRODUCTION*			
	Feb. 1944	Jan. 1944	Feb. 1943		Feb. 1944	Jan. 1944	Feb. 1943
ALL ITEMS.....	127	128	123	SIX STATES.....	264	254	230
Food.....	142	144	137	Hydro-generated.....	236	201	257
Clothing.....	134	134	127	Fuel-generated.....	300	322	195
Rent.....	114	114	114				
Fuel, electricity, and ice.....	109	109	105				
Home furnishings.....	125	125	122				
Miscellaneous.....	121	121	114				
CRUDE PETROLEUM PRODUCTION IN COASTAL LOUISIANA AND MISSISSIPPI*				ANNUAL RATE OF TURNOVER OF DEMAND DEPOSITS			
	Mar. 1944	Feb. 1944	Mar. 1943		Mar. 1944	Feb. 1944	Mar. 1943
Unadjusted.....	194	195	183	Unadjusted.....	17.2	19.5	18.6
Adjusted**.....	193	192	182	Adjusted**.....	17.6	19.3	19.0
				Index**.....	68.1	74.6	73.5

*Daily average basis
**Adjusted for seasonal variation
***1939 monthly average = 100; other indexes, 1935-39 = 100
r = Revised

The National Business Situation

INDUSTRIAL activity declined slightly in March. Retail sales were maintained at an exceptionally high level and commodity prices were relatively stable.

Industrial production: Output of manufactures and minerals was slightly smaller in March than in the previous two months and the Board's index of total industrial production declined 2 points to 242 per cent of the 1935-39 average.

Steel production advanced somewhat further in March and the first three weeks of April. Output of lumber was maintained at the level of the first two months of the year and production in the first quarter is indicated to be 3 per cent larger than in the first quarter of 1943.

The number of aircraft delivered increased about 4 per cent above the level of the preceding 4 months to a new high of 9,118 planes. Deliveries of merchant ships continued to rise from the low January rate and in March were at approximately the level of a year ago. Output of other products in the machinery and transportation equipment industries declined somewhat in March.

Output of nondurable manufactures, as measured by the Board's index, declined about 1 per cent in March. This decline was due largely to the continued drop in small arms ammunition production. Manufactured food production was 11 per cent greater than in March of last year.

Coal production declined 6 per cent in March from the exceptionally high rate in February due partly to the return to a six-day work week in anthracite mines and partly to a continuation of manpower shortages in both hard and soft coal mines. Output of crude petroleum and metals was maintained in large volume.

The value of construction contracts awarded in March, according to reports of the F. W. Dodge Corporation, was slightly greater than in January and February, but was still lower than in any corresponding month since 1935.

Commodity prices: The general level of wholesale commodity prices advanced slightly from the middle of March to the middle of April. Federal maximum prices for cement, lumber, and various other industrial commodities were increased.

Retail food prices showed little change from February to March, while retail prices of most other commodities continued to advance slightly.

Bank credit: Continued growth in currency and the transfers from Treasury war loan deposits to deposits subject to reserve requirements resulted in a decline in excess reserves of member banks and in substantial purchases of Government securities by the Reserve Banks during March and the first three weeks of April. Owing to special factors, excess reserves declined to a low point of 600 million dollars at the end of March but increased in April and on April 19 were about 900 million dollars, somewhat less than had generally been held in recent months.

Federal Reserve Bank holdings of U. S. Government securities were at a new high level of 12.7 billion dollars on April 19, after increasing by half a billion in the preceding four weeks. Most of the growth was in holdings of Treasury bills.

Reporting member banks in 101 leading cities reduced their holdings of Treasury bills by 325 million dollars in the four weeks ending April 12, while holdings of other Government securities showed little change. The greater part of the decline in bill holdings in the four-week period occurred at banks outside New York and Chicago, but there were wide fluctuations within the period reflecting transactions at Chicago banks associated with the April 1 personal property tax assessment date in Illinois. Loans for purchasing or carrying Government securities continued to decline, as repayments were made on funds advanced during the Fourth War Loan Drive; these loans to brokers and dealers have fallen by 450 million dollars since the end of the drive and are now less than at any time in recent months; loans to others, which rose by 600 million during the drive have subsequently declined by 400 million. Commercial loans declined by 210 million over the month.

Adjusted demand deposits, which declined somewhat in the latter half of March, increased during the first half of April, bringing the total outstanding to about a billion less than the level prior to the opening of the drive.

(This page was written by the staff of the Board of Governors of the Federal Reserve System)

