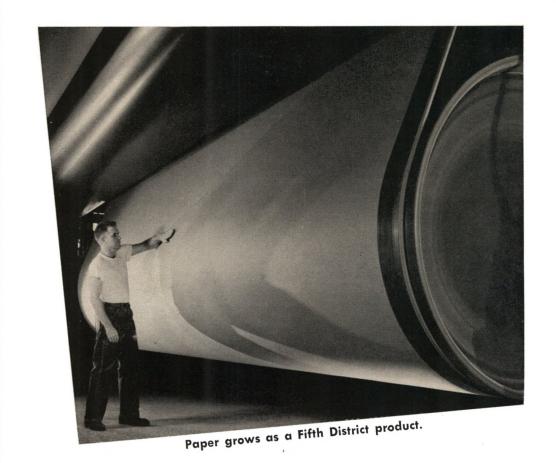
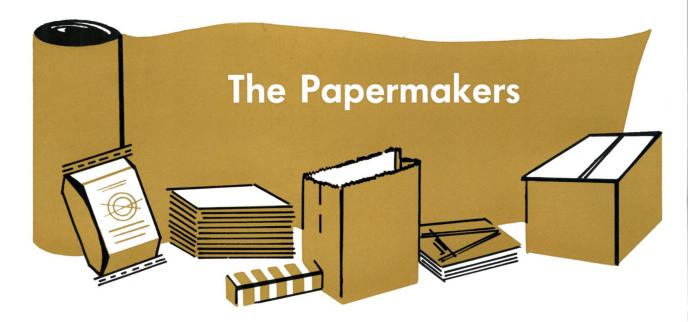
MONTHLY REVIEW



FEDERAL RESERVE BANK OF RICHMOND

JUNE 1958



Flameproof paper. . . . Kraft paper that will stretch to make stronger bags and wrapping papers. . . . A long strip of paper running around gigantic rollers at better than a halfmile a minute. . . . Marvelous? Indeed, but scarcely so marvelous as the complete transformation that has occurred in Fifth District papermaking over the past 30 years.

These have been dynamic years for the industry, a period in which technological progress has been of paramount importance in an age-old art. The Fifth District has reaped a large share of the gains of this progress, for much of it has been directed to the utilization of District resources. The southern pine, mainstay of the forests of the southern coastal states and ever-present invader of their uncultivated land, has in this time come into its own as a valuable resource. Southern labor, capable and available, has found employment opportunities. And District states, along with other states to the South, have been the gainers.

As a result, the District now has 42 mills engaged in the production of pulp, paper, and paper-board. Located principally in Virginia and the Carolinas—but with representation in Maryland and West Virginia as well—these mills produce more than one-tenth of the country's total paper and paperboard output. They employ 21,000 workers and buy more than 5 million cords of pulpwood each year, largely from timber owners within the District.

LOGS INTO FIBERS The first step in making

paper and paperboard—which is only thick paper—is the breaking down of wood into pulp, the basic paper ingredient. This is done chemically, by dissolving the bonds that hold the fibers together, or mechanically, by grinding the fibers and bonding materials into bits. Sometimes the processes are combined into a semi-chemical pulping in which the chemicals start the disintegration and grinding completes it.

Pulp capacity is one measure of the size of the paper industry, and the changes since 1930 emphasize the growth that has taken place. The 22 pulp mills of the District then had a daily capacity of less than 1,500 tons. Last year 24 mills could produce more than 10,000 tons of pulp in a day's run; one alone, in fact, could outrun the total 1930 capacity by one-fourth.

For the most part these are not the same mills grown larger. They are different types of mills, designed for different pulping operations. Sulphate pulp—obtained from pine through the use of alkalies—was just gaining importance in 1930, but it accounts now for two-thirds of capacity. The semi-chemical process, which utilizes previously wasted hardwoods, has grown from insignificance to more than one-fourth of present pulping capacity. As the share of these two methods has increased, the older chemical processes, sulphite and soda, have fallen into disuse in District mills.

Wood pulp is not the only stock used for paper manufacture. Waste paper and scrap paper accumulating from mill operations constitute important ingredients for some types of paper, and rags are added for certain writing papers. Historically straw has been an important source of fiber, and both bamboo and sugar cane fibers have been used; none of these is of particular importance in the United States today.

TREE FARMS District forests have been cut since early colonial times, but these past three decades have seen a substantial increase in attention to their growth and welfare. Pulp mills are expensive to construct and difficult to move; their economic survival depends upon the continued availability of pulpwood within a reasonable distance. Concern with the future has led the mills to seek an assured growth of trees for the future.

Paper company foresters work with private owners to encourage tree planting programs and the proper care of growing trees. In addition to providing free seedlings, companies conduct clinics in forest management, teaching selective tree cutting, and other practices intended to protect forests from insects and disease. In remote inaccessible areas, access roads must be constructed to facilitate harvesting as well as aid in forest fire control.

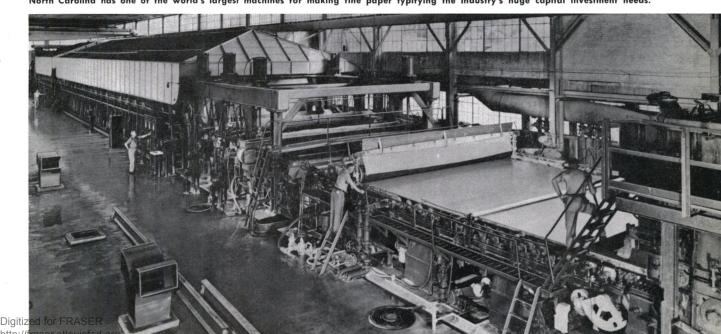
Largely through educational programs of this sort, private land owners are learning to turn undeveloped lands into pine forests. In the South a forest planted with pine seedlings can be thinned for pulpwood after 15 years, and the mature crop can be harvested after 40 years. As a result many farmers and small land owners are finding a substantially increased secondary source of income in their woodlands.

In addition, the companies are buying land for



Pulp and paper companies, concerned with future supplies of pulpwood, help with developing and managing woodlands.

North Carolina has one of the world's largest machines for making fine paper typifying the industry's huge capital investment needs.



Federal Reserve Bank of St. Louis



TREE FARM PULPWOOD CHIPPER DIGESTER BEATER

Wood from tree farms moves by truck, rail and water to a pulp mill, where it becomes part of a monster woodpile. Stripped of bark, pulpwood is fragmented in a chipper and fed into a <u>digester</u> for cooking with chemicals to dissolve the bonds that hold the wood fibers together. The resulting pulp is cleaned of chemicals, then mixed in the beater with addi-

their own tree cultivation and eventual harvesting. This follows the example, of course, of lumber mills that have similarly purchased an assured source of supply; indeed, within the District some pulp mills have been the outgrowth of lumber mills and now own land bought originally to meet sawmill needs.

Many companies are holding their own forests largely in reserve, depending principally upon purchased pulpwood for their current supply. Deferred cutting programs provide a desired protection against pulpwood shortages and sharp price increases in the principal raw material of paper. In recent years the wood supply has been further insured by the increasing use of chips prepared from sawmill waste as a source of wood pulp.

costly machines Pulp is converted to paper on massive, expensive machines that spew forth paper of a carefully maintained thickness and quality at an astounding rate. The operation is simple, but the close tolerances and the speed of operation call for design and construction of an exacting sort. The result is a capital investment for a pulp and paper mill on the order of \$300 to \$450 per annual ton of output, somewhat more than the cost of new steel capacity.

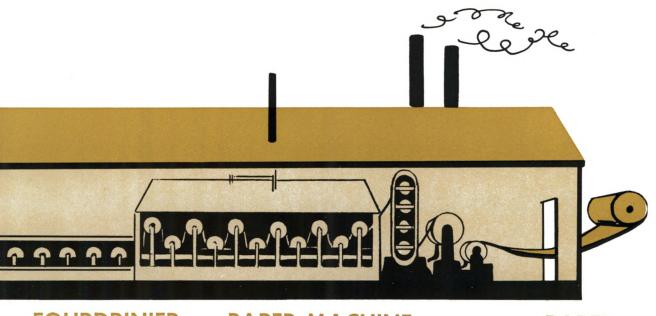
The paper machine feeds on stock—pulp and waste paper—which has been carefully cleaned of pulping chemicals, possibly bleached or colored,

perhaps beefed up with additives for special characteristics, and mixed with increasing amounts of water until the final mixture is 99% water. This is spread smoothly onto an endless wire screen belt, where much of the water is removed. The resulting wet sheet, limp and pliant, is fed through a series of drying operations, polished, and wound into a great roll.

Sounds easy, but there are complications. A shift of product means shutting down the entire machine while the old stock is run out, the screen cleaned, and the new stock started. A breakdown is never localized; the entire machine stops and stays idle until repairs are effected. The nature of the operation and the high cost of capital equipment make around-the-clock operation standard in the industry.

Pressures to save labor have pushed development of machines to handle broader paper at higher speeds. Paper as wide as 20 feet now moves along new machines at speeds up to 3,000 feet per minute. Idle time has been reduced by automatic feeds which thread the paper through the machine as a new run starts.

Increased width and speeds have their costs, however. While suitable for bulk runs of standard paper varieties, they make costly the small runs which require shutdowns and changes. As a result, smaller and older machines continue to remain competitive in low-volume paper special-



FOURDRINIER

PAPER MACHINE

PAPER

tives for special properties. The pulp, which is 99% water, feeds onto the rapidly moving <u>Fourdrinier</u> where moisture is drawn off through holes in the screen. Felt belts carry the limp strip to

the heated rollers of the <u>paper machine</u>, where drying continues. A trip through calender rollers adds polish to the paper; it feeds onto spools, making rolls of several miles' length.

ties that require frequent changes in stock and machines.

KINDS OF PAPER In broad terms, paper may be grouped into four classes according to usage: cultural, packaging, sanitary, and building. In spite of the fact that the paper industry in this area is dominated by the sulphate, or kraft process, nearly every kind of paper ranging from cigarette to hard board is manufactured in the District. Kraft—the Swedish word for "strength"—is used mainly to make wrapping paper and bags, and container and liner board. Paper packaging has grown with the entire packaging field and has replaced older types of packaging in many instances. Cultural papers, consisting chiefly of writing paper and book paper in this area, are a smaller part of operations. Generally speaking, both overhead and labor costs per ton of product are higher in this class than in other grades due to small amount of each kind of paper run, time lost in changing over to another type of paper, and hand finishing operations. Building board has been among the faster growing segments of the paper industry due to high rate of building activity since 1940 and to technological advances in the field.

CAPACITY AND DEMAND National paper and paperboard production capacity has increased from 13.6 million tons in 1930 to nearly 35 million tons at present. The current use of this expanded

capacity is running well ahead of 1932's depression low of 58%, even though the rate is down from the highs of recent years.

The 1920's and early '30's were characterized by low operating rates for paper mills, and this history has led to present concern that the recent rapid expansion has outrun demand. An industry spokesman stated this spring, however, that conditions within the industry are so completely different from the interwar years that such imbalance as currently exists between capacity and demand will disappear within the next two or three years.

A recent study by the U. S. Department of Commerce of prospective demand and capacity seems to bear out this belief. Demand for U. S. production in 1960 is placed at 36.5 million tons, which would require further increases from present capacity. This estimate, in turn, rests upon a record of dramatic gains in paper use. Per capita consumption in 1956 was 434 pounds, compared with 201 pounds in 1930.

Much of this increase has come in post-World War II years, and the basis of it gives promise of further increases. Paper has been used increasingly for new purposes, and industry research continues to find new uses. These represent continuing added demand, for paper is largely a non-durable good which is destroyed in use.

Currency and Co Federal Reserve notes, United States notes, Silver certificates, coins . . . Uncle Sam has many types of currency and coins. FEDERAL RESERVE NOTES Thumb through the bills in your pocketbook, and chances are you'll find some with green seals on the front. Look further, and you'll see that these are Federal Reserve notes. There are \$26 billion of such bills in use-about 85% of all U. S. coin and currency in circulation. They make up 96% of all bills as large as \$5. Federal Reserve notes are issued by the twelve Federal Reserve Banks. By law, each note must be backed by a like amount of Federal Government securities, certain types of notes or drafts discounted or purchased by the Reserve Banks, or gold certificates—a special type of noncirculating "money" that is in effect a "warehouse receipt" for an equal amount of Treasury gold. At least 25% of this collateral must be gold certificates. In practice, the gold certificate backing runs around 40-45%, and the Government security collateral makes up practically all the remainder.

UNITED STATES NOTES Do you also have some bills bearing red seals? If so, you have a portion of the \$347 million in United States notes—monetary relics dating back to the Civil War era. Mostly, they are \$5 bills, but practically all the now rare \$2 bills and quite a few \$10 bills are also U. S. notes. They are backed by \$156 million in gold bullion, which serves in addition as reserves against another type of money—the few remaining Treasury notes of 1890.





For decades furniture buyers from department stores and the larger furniture stores have trekked in the spring and in the fall to Furnitureland, U. S. A. The number of visitors and their interest in the southern furniture lines have increased steadily, and after World War II their trips to this area became fairly well concentrated during the last two weeks in April and October. A set date for these informal markets was not established until 1954, however, when a group of southern furniture producers—all but one being from North Carolina or Virginia—organized the Furniture Factories Marketing Association of the South to set up operating mechanics for the markets.

It is these week-long, "unofficial" or "preview" showings held in April and October in the High Point market area that have made the rest of the furniture world sit up and take notice.

WHY FURNITURELAND? Buyers turn South for two primary reasons: the high concentration of furniture producers located in the area; and the forward look in the style and design of the southern furniture lines.

The states of North Carolina and Virginia are the two top producers of wood household furniture. According to the 1954 Census of Manufactures, they account for over one-fourth of the country's production. In fact, these two states produce almost 50% of all the dining room and bedroom wooden furniture in the country. The area is also becoming known for its share of the upholstery furniture market, North Carolina being the second largest producer and accounting for over one-tenth of U. S. production.

The region has not always held this enviable

Buyers consult with top management of the southern manufacturers for their August sales and fall merchandise shows.



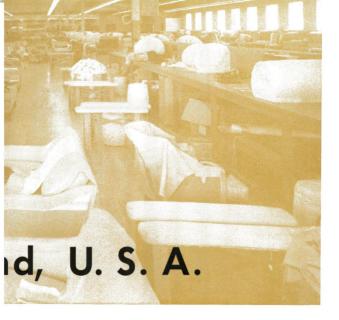


position. Abundant supplies of lumber and labor and the southern producers' early recognition of the need for assembly line techniques were the competitive factors leading to the South's prominence in the industry. In the Thirties profits were plowed back into the industry for new plants and new machinery designed for mass production. By the end of World War II the South was ready, production-wise, for the pent-up demands of the homemaker. With this stimulus the southern manufacturer renewed his efforts to step up production, and the postwar period has been characterized by further plant growth and modernization.

Running concurrently with production expansion has been management's awareness that style and design are the very essence of furniture. From an earlier reputation of producing only popular-priced goods, this area has come to be recognized also as a primary source of medium to top-quality furniture. For these lines the skilled craftsman is the backbone of the producer. In fact, despite the strides in manufacturing techniques, the industry is dependent on much handwork—particularly in wood furniture manufacture. The South, with its long history of furniture-making, has some of the finest craftsmen in the country, the skills being handed down from father to son.

In addition, the area has kept pace with the industry's trend to full-line manufacture. By producing both case goods—cabinets and tables—and upholstered furniture, the manufacturer has greater leverage in advertising and in distribution. Within the past two years the number of full-line producers in the South has increased by mergers of case goods makers and upholstery firms.

Thus in Furnitureland the buyer can find all



types of home furniture, in all price ranges. The high concentration of the industry within a small area makes it possible for him to consult directly with the producers.

THE SOUTH'S INFORMAL MARKETS These aspects of Furnitureland, U. S. A. have given the area a unique advantage. Traditionally, the manufacturer and retailer of furniture have met at the market place. The bulkiness of the product and the prime importance of style make store-to-store selling one of the major problems of the industry. For the retailers, well-designed catalogs and samples of woods, finishes, and upholstery do not take the place of actually seeing the finished product. The market place thus became and has remained a significant distribution factor in this industry.

Generally, periodic shows at the market centers over the land take place in January and June—slack periods for most retailers. These traditional January-June markets, however, do not allow sufficient delivery time for the big promotional August and February sales of the large retailers. Also buying syndicates and individual buyers from chains, department stores, and large furniture stores prefer to work out special merchandising plans with top management of the producer firms.

The growth of Furnitureland's popularity with these large retailers has made the area the national spring and fall market center. The January-July markets in the area are primarily regional—that is, they attract buyers from Maryland through Florida. But in April and October buyers come from coast to coast. It is at these markets that the southern manfacturer introduces his new lines which, perhaps with a few minor changes, are later shown at the June-January Chicago markets,

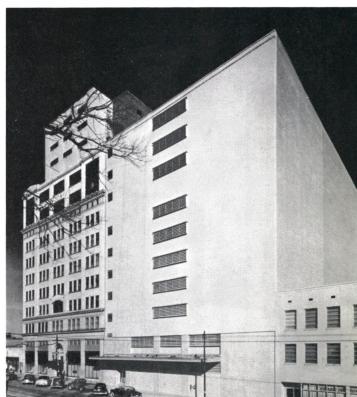
the Gargantua of the industry.

Actually, buyers do not have to travel the entire production area called Furnitureland, U. S. A. The exhibits are concentrated in a few exhibition marts and factory showrooms. Unlike the markets in other sections of the country, the South's spring-fall markets are not in one city but cover an entire area, stretching from Martinsville, Virginia, down to High Point, then west to Morganton, taking in such production centers as Winston-Salem, Lexington, Thomasville, Drexel, Lenoir, and Hickory.

THE HUB—HIGH POINT The greatest number of exhibits, however, are concentrated in the city of High Point, often called the Furniture City of the South. This city of 50,000 takes on a gay, festive mood for all four markets. Of course, there is crowding, not as prevalent in April and October as for the regional markets in January and July. Many buyers make reservations from one market to the next, not only for hotel and motel rooms, but for rental cars. The Chamber of Commerce operates a service of obtaining accommodations at private homes, and many buyers prefer this, feeling that here they get a taste of real southern hospitality.

At the April 1958 showing these visitors from all phases of the furniture industry had at their disposal over 300 exhibits in this city alone. By far the greatest number of producers exhibit in

Southern Furniture Exposition Building, with over 500,000 sq. ft. of display area, is the focus of the High Point market.



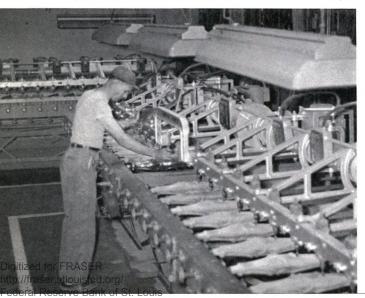
the Southern Furniture Exposition Building, itself an economic institution. This building, opened as a formal market center in 1921, has undergone three major expansions—1940, 1950, and 1954. The corporation has already started on its fourth expansion to be completed this year. From an original 200,000 square feet the building now contains over a half million square feet, and the newest expansion will add 140,000 square feet. Although the building remains open year-round, it becomes a beehive of activity during the four markets. The number of employees, for example, jumped from 15 to over 200 in the past market.

In addition to the main Exposition Building, there are other smaller furniture marts and private factory showrooms. Both rental space and private showrooms have expanded in recent years.

THE FACTORY CIRCUIT To visit the other factory centers, buyers may either rent a car or in April and October use a courtesy limousine service provided by the Furniture Factories Marketing Association of the South. At the January and July formal markets, most manufacturers display at the Exposition Building.

For the April 1958 market, daily limousine service was available from High Point to the factory centers of Martinsville, Virginia, Winston-Salem, the Lexington-Thomasville area and the Hickory-Morganton-Lenoir area in North Carolina. The buyer could also start from Hickory, Morganton, or Lenoir, visiting the factories and showrooms en route, and then on to High Point. In Hickory 17 producers were showing as a group at the Community Center. As in High Point, however, the trend in these factory centers is towards private showrooms.

The southern plant of today is highly automated with the most up-to-date machinery and miles of conveyors along the pro-



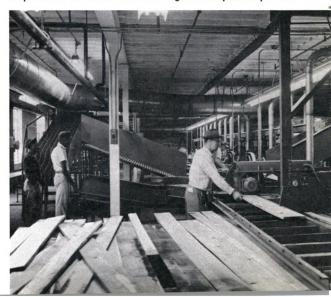
TOO MANY MARKETS? There has been much discussion in the industry of limiting the number of the markets. Displaying at the various furniture and homefurnishings markets over the land is expensive to producers, while attending frequent markets is also a costly proposition for buyers.

Of the North Carolina and Virginia producers belonging to the Southern Furniture Manufacturers' Association, a little more than one-half display at Chicago and a somewhat smaller proportion at New York. North Carolina and Virginia firms also show at the Boston, Denver, Minneapolis, San Francisco, Los Angeles, Seattle, and Dallas markets. Only one-fifth limit their showings to the High Point market area. The dealers visiting the South also go to other areas. Few decorator items and appliances are shown at the Southern Furniture and Rug Market—the official name for the High Point area showing.

The problem is yet unsolved. Chicago is making a strong bid to re-establish its prewar pattern of four big shows. The spring and fall markets, discontinued in 1942, were started again in May 1955, and in the spring of 1957 a group of northern firms announced their intention to switch the introduction of their new lines from the January-June shows to the April-October markets.

The South, however, has held firmly to its distribution pattern—new designs introduced at the April-October shows in the High Point area and again shown, perhaps with a few minor changes, at the Chicago and High Point summer-winter markets. Although the southern producers also feel that there are too many markets, they emphasize their determination to keep the southern markets by currently building new factory showrooms and new exhibition marts.

duction line. This modernization of productive facilities is a major factor in the South's advantageous competitive position.



The Fifth District

May's good weather brought relief to the District's farmers, whose fields had lain wet and unplanted, and it encouraged construction and other outdoor activities. Department store sales, usually linked closely with the weather, failed to rise with the temperature, however, and May's total likely will not equal the good showing of April.

A similar diversity of good and bad news came from other sectors. Cotton print cloth markets continued to show indications of strength, as did the market for unfinished cloth woven of synthetic fibers. Cotton sheeting and heavy industrial cloth, on the other hand, continued severely depressed. Southern pine enjoyed improved sales, while bituminous coal production went down further.

In short, it was a mixed picture.

FARM INCOME District farmers provided a bright spot in getting 2% more in receipts from first quarter farm marketings than in the same period in 1957. This in fact meant a good return, for the first quarter of 1957 included delayed marketings of a substantial part of 1956's crop. Receipts from sales of livestock showed an 11% increase over the year before, reflecting higher prices for cattle, hogs, chickens and eggs.

Factors in 1958 farm income prospects include, on the favorable side, essentially the same size acreage allotments and an improved—to date—price situation. Though the 55% larger acreage placed in the soil bank's acreage reserve will reduce actual crop receipts, this reduction will be counteracted to a great extent by the increase in soil bank payments.

EMPLOYMENT Nonagricultural employment in the District held even from March to April despite a decline of 1% in the number of manufacturing workers. Contract construction made a seasonal gain in employment, and workers in financial concerns and other service establishments increased.

In the week ended May 10 the insured unemployment rates—insured unemployment as a per cent of covered employment—in the District spanned the national range. The District of Columbia's rate of 1.8% was the lowest of the nation, while West Virginia's 14.2% was surpassed only by Michigan. The other four District states lay near or below the national rate of 7.4%. Except for West Virginia, some improvement was noted over

previous weeks in the levels of unemployment.

TEXTILES Textile operations in April provided little concrete evidence of leveling off, but May brought a continuation of market signs of improvement in several branches of the industry. There was a better demand, with firmer prices, for several types of print cloth. While mills booked orders into the fourth quarter of the year, there was some reluctance to sell ahead because of an expectation or hope of higher prices. Both weavers and spinners were said to anticipate price increases for the better grades of cotton as well as better profit possibilities.

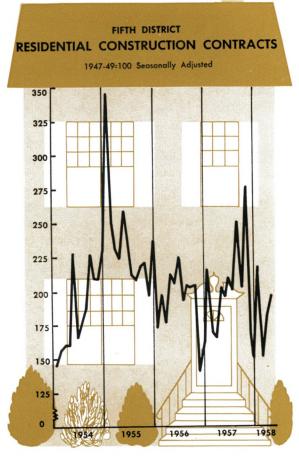
The market for unfinished rayon, acetate, and nylon cloth remained on an improved level of demand and prices in May. Weaving mills reported sizable increases in their backlogs of orders for later delivery.

In contrast to these bits of good news, markets and production continued depressed for cotton sheeting and heavy industrial cotton fabrics. One mill reported promotional discounts that will drop its sheet prices in August to the lowest level in 16 years. Severe production curtailments continued, with 3,000 sheeting looms reported shut down since the first of the year and a number of spinning mills producing industrial yarns on three-day weeks or less.

Man-hour figures for April showed declines in all branches of the textile industries, with the total down 5% from the preceding month. Cotton consumption and cotton spindle hours likewise dropped further, after seasonal adjustment.

BITUMINOUS COAL Bituminous coal production in early May moved down to a level approximating the low point of 1954's decline. This continuing reduction of output came in the face of an apparent leveling off of foreign sales; coal loadings in District ports for foreign delivery during the four weeks ending April 26 were even with the previous four weeks, although down two-fifths from the year before.

CONSTRUCTION Good weather and more available mortgage credit combined to bring forth an improved level of residential construction in April, which is believed to have continued into May. Building permits displayed a renewed exuberance



The better level of residential construction contracts awarded in April gives promise of improved home building activity.

in April, rising sharply from March to a level more than one-fourth above April 1957.

Contrary to the 4% increase in April from a year ago in awards for contract construction in the United States, the Fifth District had a decline of 3%. The encouraging national gain was the first year-to-year increase for any month since last November; the District decrease was the fifth consecutive drop from year-earlier figures. When District data are adjusted to take into account seasonal influences, the total for April was the lowest this year.

District awards in April for construction of non-residential projects rose over April 1957, but the gain of 8% (unadjusted) was considerably less than the national rise of 14%. On a seasonally adjusted basis, the April total for manufacturing, commercial, educational, and other nonresidential buildings was the low so far this year. Residential contract awards, on the other hand, while 3% less than they were a year ago, made their best showing (seasonally adjusted) since January. Per-

haps the most disappointing performance was the sharp decline in awards for public works and utility construction. Compared to a 3% drop from April 1957 in the nation, District awards declined 16%. As in the case of total construction awards and nonresidential awards, the seasonally adjusted April public works and utility volume was the smallest so far this year.

LUMBER Associated with increased building activity, some improvement was seen in May orders for southern pine, an important lumber product of Virginia and the Carolinas. Retailers were reported to be rebuilding depleted inventories to meet new demands from home builders, resulting in a stronger demand and price situation.

TRADE Final figures for department store sales in April showed a 7% increase from March after seasonal adjustment that allowed for the shifting date of Easter. Furniture store sales likewise showed a better than seasonal improvement to come within 5% of the April 1957 level.

Reports in May indicate that department store sales fell back from their April level. While bad weather may have been a factor in the first week of the month, succeeding weeks were not handicapped in this fashion.

BANKING Business loan demand at District member banks has continued to reflect the slower pace of business activity. Typically, such loans rise seasonally throughout much of April and May. So far this spring, however, the pickup has failed to materialize. Beginning with the first week of April, business loans at weekly reporting banks dropped seven straight weeks before rising moderately the third week of May.

Except for real estate loans, most other types of bank loan demand—security, consumer, and agricultural—have also been disappointing. The net result has been a 1.4% drop in total loans of weekly reporting banks thus far this year—about one percentage point greater than the decline during the like period a year ago.

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