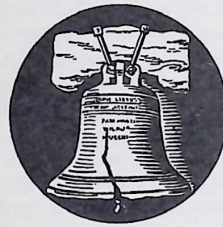


DECEMBER 1951

THE
**BUSINESS
REVIEW**

*Very interesting story of the
Delaware River. Keep.
Gee J.*

FEDERAL RESERVE BANK OF PHILADELPHIA



SHIPS ON THE DELAWARE

*This, the second of the Delaware River series,
is about the port of Philadelphia and other
ports up and down the Delaware,
up and down the years —
years past and years to come.*

*How the port flourished and prospered
during the golden age of commerce under sail,
how it endured the transition of ships
from wood and sail to steel and steam,
how the port prospered with petroleum
in our time.*

*It is the story of how
the proud port of Philadelphia
once so commercial
became the Delaware River Port
now so industrial.*

*The port is destined for greater things with
more steel mills growing up along the river.*

CURRENT TRENDS

*Business trends in the Third District
were contradictory during October.
Manufacturing employment was stable,
department store sales declined,
and consumer prices increased.*

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SHIPS ON THE DELAWARE

In 1950, the maritime Delaware accommodated more ships than shad. Over 8,000 vessels came up the river to deliver or call for cargo. That is really a lot of shipping. It is no news to the stevedores, the importers, the exporters, nor to the ferryboat pilots who daily go dodging across this stream of traffic; yet most Philadelphians are totally unaware of it. They seldom see the river, and the boats never steam up to Broad and Chestnut.

Philadelphia is a great inland seaport, but you would scarcely know it. Only now and then are sailors seen on the streets, apparently looking for their ship or something. The sound of fog horns on the river is drowned out by the noise of the street traffic, and you never smell any salt in the air. Even the city's newspapers are scarcely aware of the port. Only through the efforts of the Philadelphia Maritime Exchange does the port occasionally get into the local press with a list of yesterday's ship arrivals and clearances, but it is in small type like the list of marriage licenses which frequently follows. True enough, marriage licenses have certain aspects of arrival and clearance, although one would think ships brought more business than weddings. That is the way Philadelphians are. Why brag about the country's second largest port? If verification is needed, it can be found in the statistical archives.

If you go "archiving" through historical documents, you may be surprised to find that the first port on the Delaware was not at Philadelphia; the first port opened up on the New Jersey side of the river at the present site of Gloucester. That was in 1623—twenty-one years before William Penn was born. In that year a company of Dutch soldiers built Fort Nassau, the first permanent settlement in this part of the country. It was a hybrid military and fur-trading post, and that was when commerce on the Delaware really began. Ships, in those days, made their arrival and clearance without fanfare and without statistics. Ships still come and go without fanfare, but no longer without figures. More about that in a moment.

A SHORT HISTORICAL CRUISE

The "Half Moon" was apparently the first vessel to enter the Delaware Bay. Late in the summer of 1609 her Dutch crew and English skipper, Henry Hudson, subsidized by the Dutch East India Company, crept into the capes looking for a northwest or northeast passage to China. Henry did not bother to sail up the river because it did not look like the way to China, and he was right. On the same expedition, however, he sailed up another stream as far as the present site of Albany before he was convinced that the river we now call the Hudson was also the wrong way to China. By modern accounting, the cost of his voyage would be charged to research. It was nice they named the river after him.

The Delaware River was named by another Englishman—Sir Samuel Argall—and this is how it happened. In 1610, the Virginians were starving; so Samuel hoisted sail and set out for Bermuda in search of food. Badly blown off his course, he drifted into what he described as "a very great Bay," so he named it after a great man—his boss, Baron de la Warr, Governor of Virginia. Under sail on an errand of mercy, Argall had no time to explore the Delaware.

The first ship that really explored the Delaware was the "Onrust," which means "Restless." In 1614, her doughty Dutch captain, Cornelis Hendricksen, skippered this little 16-ton sloop, the first vessel built in American waters, up the Delaware far enough to discover the Schuylkill, and he also made the first respectable map of the Delaware region.

The Swedes, you may remember, came a bit late. The first Swedish ship, the "Key of Kolmar," came up the river in 1638 bringing a company of good settlers who built Fort Christina, and that is how Wilmington got started. The most colorful character among the early Swedes was Johan Printz—a hard-swearing heavyweight and a good disciplinarian for hardy colonists. The only trouble with the Swedes was that they did not get as much support from the "home team" across the waters as did the English and the Dutch.

The First City Planner

Philadelphia owes a lot to its port, and both owe a lot to William Penn. He was the country's first "city planner." Unlike today's City Planning Commission, he was not confronted with a "Chinese Wall," slums, parking problems, steel priorities, and all that. But he had his problems. He selected the site, removed the forest, laid out the geometrical pattern, made a peace treaty with the vested interests, and established a firm foundation on the enduring principle of tolerance. He was a great city planner, for he planned a great city.

Philadelphia flourished. For years it was the country's business and cultural center, while Boston and New York were "hick towns." Philadelphia's early supremacy as a business metropolis is explained largely by the geography of transportation. Not all of it, but a large part of it, is a sea story.

Sails on the Delaware

From the very outset, shipping on the Delaware was a natural. The only roads through the forests were waterways. Ships in those days were windjammers and they dominated the Delaware for almost two full centuries. Not until some years after the Civil War did sails finally give way to steam.

Forced to make a living, the early settlers felled the trees and tilled the soil. Forests, fields, and forges yielded substance in abundance for the cargoes of outgoing vessels. Barrel staves and shingles, Indian corn and wheat, beef and bacon, bar iron and pig iron were the principal products. They were exchanged for rice and naval stores in North Carolina, for mahogany and other hard woods in Honduras, for rum and sugar in the West Indies, for Madeira in the Wine Islands, for silks, tea, and olive oil in Spain, for linens and Irishmen in Ireland, and for furniture, glassware, and all kinds of manufactured products from the mother country—England. Some shippers soon hit upon the idea of doubling their profits on triangular runs. Raw materials of the Delaware valley were exchanged in the West Indies for rum and sugar, hauled to England where they were exchanged for cutlery, silk and wool fabrics, tea, tableware, and other luxuries for the home run back to the Delaware. On this three-cornered circuit, for example, one outgoing cargo, estimated to be worth £12,000 sterling, made the return voyage with £60,000 worth of luxuries to cheer up life on the Delaware. You can see how it brought

cheer to the shippers and traders, too. No wonder the Delaware was constantly a-sail with merchant traders.

Had you been around these parts in 1754, you could have seen 117 sailing vessels in the Philadelphia harbor at one time. What a commercial spectacle! Vessels of various sizes and assorted rigs; little 25-ton, single-masted sloops, not much larger than the life-saving boats now seen at coast guard stations along the New Jersey beaches; somewhat larger two-masted snows with square rigging; still larger two-masted brigantines and schooners with two or more masts, equipped with fore-and-aft rig; not to mention whalers that ran down the mammals of the sea, and privateers that ran down the pirates!

A lucrative trade with Holland helped to alleviate the scarcity of labor on the Delaware. Returning vessels laden with European freight called at Holland to pick up German and Swiss emigrants. Most of them, lacking the \$350 fare, worked three to five years as indentured servants in workshops and farms along the Delaware. Among them were skilled craftsmen who were to make Philadelphia a great center of manufacturing, and good farmers who were to make the hinterland the garden spot of the world.

A large part of the trade was with England, to whom Philadelphia shippers were almost always in debt. Year after year the value of imports was greater than the value of the exports, and so hard money was hard to get and hard to keep. The adverse balances were alleviated only in part by the triangular voyages where bills of exchange on England were obtained at the first port of call. The money stringency helped to provoke the Revolution, during which shipping suffered temporarily.

The China trade was another lucrative source of profit. Local shippers knew about the fabulous profits of the British East India Company's trade with the Orient. Why not cut in on it? So in 1785 the aptly named "Canton," loaded with ginseng (found along the Susquehanna), sailed out of Philadelphia bound for China. Chinese believed that consumption of ginseng helped to produce male heirs. Ships returning from the Orient were loaded with silks, tea, and all kinds of Indian goods sold in Philadelphia to the tune of 25 per cent profit per voyage. Stephen Girard and other Philadelphians got rich, and presumably the Chinese begot male heirs.

There are those who say to this very day that the China trader was the most graceful vessel that ever sailed the high seas. Right stout ships they were, too; braced with

oaken ribs, the hulls were sheathed with salt-defying copper that also kept marine parasites from boring in and among the best vessels were those made right here on the Delaware. The glorious China trader, however, was to be superseded by something better as a result of that episode known as the War of 1812. When British men-o'-war blockaded the port of Philadelphia, our merchant marine needed something that could slip through the British and outrace them. Baltimore had the answer in the clipper ship. Sleek and slender, long and low, sharp of bow, decked out with clouds of sail supported by three masts slanted aft, the clipper outsailed anything afloat.

Speed also had peacetime advantages and after the war the Baltimore clippers challenged the China traders. On the Delaware, some turned to the clipper; others held on to the trader with the result that a lot of trade went South. Still more trade went North, and for another reason. New York always did have a fine harbor to which ever more ships came after it was linked with the Great Lakes.

"DeWitt Clinton's Ditch"

"Canal fever" hit the country in the early nineteenth century. In 1825 the Erie Canal through the Mohawk Valley opened up for business. It also opened up the Atlantic seaboard with an all-water route to that rich storehouse of resources we Easterners call the Middle West. The port of New York became a great gateway to a great granary. Pennsylvania made a gallant effort to compete by linking the Delaware with the Ohio River. It cost a lot of money to build the Pennsylvania Canal and it never was an all-water route. The rugged terrain required 177 lift-locks, and canal boats had to be portaged by rail over the Allegheny skyline at an elevation of 2,300 feet to get to Pittsburgh.

Geography was too hostile. The Delaware was no longer the mainstream of water-borne commerce. Shipping statistics were sagging badly in the 1840's. The great railroad building era after the Civil War revived shipping on the Delaware because wheat and other western commodities for export could negotiate the mountains better by rail than by canal, and engines puffing out steam hauled freight faster than mules tugging on hawsers. In 1852, the Pennsylvania Railroad completed a continuous rail line from Philadelphia to Pittsburgh in connection with the Portage Road.

Steam on the Delaware

Steam hastened what the Erie Canal started—the transformation of Philadelphia from an essentially commercial to a predominantly industrial economy. Though there was manufacturing almost from the very beginning, the city became more and more industrialized with the advent of steam. Stationary steam engines turned the wheels in the mills making textiles, flour, paper, leather, furniture, iron, and later steel and its products. Their production required enormous quantities of coal, which was hauled in by the steam railroads.

While the China traders were competing with the clippers for ocean cargoes, wind and sails were doomed to make way for coal and steam. Though John Fitch was operating a steamboat service between Philadelphia and Trenton when Washington took office as the first President, it took almost a century for steamboats to assert their supremacy. Steamers brought in raw sugar for refining in Philadelphia, hides and skins to Camden tanneries, China clay for the Trenton potteries, and all manner of raw materials for the mills on the Delaware. Though the port continued to receive coffee from Brazil, linens from Ireland, cutlery from England, and spice from the Orient, and other imports from faraway places for local and inland distribution, more and more imports were in the nature of raw materials for the mills along the Delaware. Gradually the port of Philadelphia became the port for Philadelphia.

Tankers on the Delaware

Remember those charts, put out by oil people, showing how over the years coal has been a declining source of energy relative to petroleum which has been increasing rapidly? That change in power technology began in 1859, when a fellow by the name of Drake began drilling for oil in western Pennsylvania. People thought he was a candidate for a mental institution until he struck oil and made "Who's Who." Years later they found much bigger oil fields down in Oklahoma and Texas, and about the same time came the horseless carriage. Fifty million machines burn up a lot of gasoline. And now oil and its products are used to heat our homes, to fire the furnaces of industries, to propel locomotives and airplanes and ships. That is why there are so many tankers on the Delaware.

Petroleum for the riverside refineries arrives by tanker, as it must if it comes from South America, Kuwait, or

Iran. Most of the oil from the Texas-Oklahoma fields also comes by tankers because it costs more to pump it through the pipe lines, and railway tank cars are completely out of the running except in emergencies like war.

THE DELAWARE RIVER PORT

The maritime Delaware is the lowest third of the river—the section starting at Trenton. From there, according to the United States Army Engineers, it is exactly 135½ miles down to Over Falls Lightship anchored just beyond the capes to show ships the way into the channel. The Delaware in its place, and places on the Delaware are shown in the accompanying sketch.

The Delaware River port runs for miles on both sides of the river. To get a good over-all view of it, you ought to step into a helicopter (the Quaker City is the manufacturing center for rotary aircraft) at the foot of Chestnut Street in Philadelphia, tell the pilot to go straight up in the air high enough to see the 32 miles of water wandering northeastward to Trenton and the 39 miles southward to Delaware City, where a canal connects the river with the Chesapeake Bay. From such a sky-high perch you could see why so many ships ply the Delaware. It is a highly industrialized ribbon of water with cities, towns, and villages clustered on both banks and the tributaries. The river is a vital life line inter-connecting all of these communities and all have access to the sea. Collectively, their waterfronts are the Delaware River port. For purposes of analysis, the port may be divided into four parts: the port of Philadelphia, cross-river ports, down-river ports, and up-river ports.

The Port of Philadelphia

The harbor and port of Philadelphia run along the west bank of the Delaware from Poquessing Creek, 23 miles down stream to the Fort Mifflin and Hog Island area just below the mouth of the Schuylkill, and 8½ miles up both banks of the Schuylkill to Fairmount Dam which sets the upper limit of navigation. The nine-mile stretch of the Delaware from Greenwich Point, near the Naval Base, up to the Allegheny Avenue latitude, is the heart of the port. Here the channel is 1,000 feet wide and is studded with a mass of piers. Like the fingers of a great industrial hand, the piers stick out into the river and clutch the ships while they are discharging and taking on their cargoes.

Ships are impatient. They must be on the move to make money; hence, all the harbor facilities and maritime gear which speed up loading and unloading—block and tackle, mast and boom derricks, cranes that grunt as they bow and crawl and rotate, grain galleries with long pneumatic marine legs spouting grain into the holds of vessels, car pullers, rotary car dumpers and coal towers with insatiable grab-buckets biting into great mounds of coal, gravity chutes, lifting magnets, fork-lift and straddle trucks, engines, winches, pumps and pipes, hose and hawsers. Such is the machinery of amphibious commerce, and it takes a lot of stevedoring, too.

Some of the piers are tailored to a single commodity, like grain at Port Richmond, or coal at Greenwich, both on the Delaware; or like petroleum at Point Breeze on the Schuylkill, as well as many other things at many other points on both rivers. There are also lumber piers, ore piers and gypsum piers; piers for bananas, cork, sugar, sand and gravel, as well as piers for general cargo and for bunkering, mooring, and repairing vessels. Altogether the port of Philadelphia has almost 200 piers, wharves, and docks. Some belong to the city of Philadelphia, some to the United States Government but most of the piers are used by the railroads and other private companies.

Ships laden with materials from the four corners of the world slip into these piers and without lighterage, as required in New York and some other ports, exchange their cargoes of raw materials for finished products. From shipside, railroads and motor trucks extend the lines of commerce overland in all directions. A belt line railroad connects the extremities of the port with the three trunk line railroads. The Reading Railroad reaches up into the hard-coal region; the Pennsylvania Railroad goes over the mountains to Pittsburgh, Chicago, and St. Louis; and the Baltimore and Ohio Railroad covers the same general territory over a more southerly route. Hundreds of motor truck lines give one-day service as far as the Carolinas and Pittsburgh, and with relief drivers over the Pennsylvania Turnpike they can make Chicago in 20 hours.

Local warehouses provide ample storage facilities, dry or cold as required; local stevedoring concerns supply the labor; a dozen down-town banks with foreign departments offer financing and foreign exchange facilities; and various state and Federal agencies supply specialized services such as navigation, weather, customs, health and

quarantine, and commercial intelligence. The port has in abundance everything required to expedite commerce.

Cross-River Ports

The ports of Camden and Gloucester are just across the river. Their waterfront looks somewhat different than Philadelphia's. It is less crowded. Camden has not only "finger" piers built in the horse-and-wagon era, but also modern shoreline piers of the marginal type better adapted for the present motor-truck age. Another thing that makes the Camden waterfront look different is the rows of shipways from which newly built ships slide right down into the Delaware—various kinds of ships ranging from big "battlewagons" to moderate-sized and small fighter craft. Camden mills are busy making a great variety of products ranging from forgings to fountain pens, ships to soup. Gloucester, next door, is also a hive of industry and a busy port-of-call for ships bringing in specialized products like licorice and cork.

Down-River Ports

Ships from Baltimore and other Chesapeake ports can make a short cut through the Chesapeake and Delaware Canal, and at Reedy Point near Delaware City they join the main stream of traffic to numerous ports on the lower Delaware. Some stop at Deepwater, New Jersey, and others slip up the little Christina River to the Wilmington harbor. Both Wilmington and Deepwater suggest chemicals and, as you might suppose, the cargoes unloaded there are petroleum, pyrites, and other mineral ores to be taken apart in the chemical plants. Farther upstream, and still in the state of Delaware, is Claymont noted for chemicals and also steel. Next door is Marcus Hook, an almost all-petroleum town with a Dutch name, and a big rayon plant. Then comes Chester, a Pennsylvania city vibrant with industry. Chester craftsmen build many of the tankers that haul so much petroleum and its products into and out of the Delaware. Still further upstream is Eddystone, which should be re-named Baldwin for all the locomotives it has built; and across the river on the New Jersey side is Paulsboro, where tankers, heavy with crude oil are constantly calling. Here another large steel mill is to go up on a riverside site already purchased by one of the leading steel companies.

Up-River Ports

Motor barges that go up the Delaware beyond Philadelphia carry cargoes of heavy raw materials like cryolite to

chemical plants at Andalusia, where Nicholas Biddle retired after his joust with President Jackson on the future of the Second Bank of the United States, pig iron and fuel oil to the Burlington cast-iron pipe mills, oils and acids to the textile and chemical factories at Bristol, scrap metal, pig iron and coal for the pipe mills at Florence, New Jersey, pig iron and fuel oil for the wire mills at Roebling, and petroleum for Trenton. Before long, many more ships will be going upstream with iron ore and pig iron and limestone and coal and fuel oil, and other things, for the Fairless Works at Morrisville.

Philadelphia is about midway between twelve downstream and nine upstream cities, towns, and villages with port facilities. The 22 localities have innumerable berthing places for ships. Such is the magnitude and extent of the Delaware River port, throbbing with commerce. The port is a port of parts, geographically, but it is one continuous harbor, economically. Each section or locality is dependent, to some extent, upon every other section. This is apparent when you examine the papers of the ships to see what they carry, whence they came, and whither they go.

TRAFFIC ON THE DELAWARE

Shipping statistics are slippery. If you ever handled a live fish fresh out of the water, you know what we mean. Figures, like fish, are of many different varieties and what you have depends largely upon where you bail them out of the water, and when it comes to measurement, the figures like the fish, are prone to be exaggerated.

Cargo Facts

In 1950, commerce of the Delaware River port amounted to 69 million tons. That was the total in short tons, without double counting or any other form of exaggeration. The New York harbor, with double the tonnage or more, was far ahead but no other seaport equalled the Delaware. The harbors of Houston, Baltimore, and Hampton Roads are respectable competitors for tonnage; and Baltimore competes with the local port for some of the same tonnage, as you might suppose, since that city is so near by.

Exactly 25 million of the 69 million tons, or 37 per cent of last year's total, was foreign commerce, 44 per cent was coastwise trade, and 19 per cent was local

traffic. The foreign commerce of the port was very lopsided—imports 94 per cent, exports 6 per cent. That is good for the Collector of Customs, who took a toll of \$42 million in import duties; but in some other respects it is not so good. Local firms are partly to blame for the small proportion of exports, which will be explained later.

Fully three-quarters of the import tonnage was crude oil for the riverside refineries. Other imports of considerable tonnage were iron ore and concentrates, which Delaware valley blast furnaces smelted down into pig iron for cooking up into steel, sugar from Cuba, Puerto Rico, and elsewhere for the riverfront refineries, chrome and manganese for the steel mills, molasses which the chemical plants convert into alcohol, gypsum for the cement mills, and lumber for the building trades. Incoming cargoes also include clay, cocoa beans, and cork; lead, jute, and sisal; newsprint paper, wood pulp, and wool. From all over the world the imports are mostly raw materials for processing by Delaware valley industries.

Lubricating oils and greases are the leading exports. Other exports are wheat, anthracite, corn, motor fuel and gasoline, gas oil, and distillate fuel oil, inedible animal products, iron and steel mill products, and miscellaneous petroleum products. Note the predominance of petroleum products among the exports.

Coastwise shipping into and out of the Delaware consists of commerce over three major runs or routes—the all-ocean routes, the part-ocean routes via the Chesapeake and Delaware Canal (a little link in the inland waterway from Boston to Miami), and the internal routes via the Canal. Ships running the all-ocean route carry most of the coastwise commerce; the tonnage in 1950 exceeded that of foreign trade, and coastwise receipts were three times as heavy as coastwise shipments. Incoming tankers from ports on the Gulf of Mexico are laden with crude oil, and after unloading they go back in ballast for more crude. Ships on the Chesapeake and Delaware Canal bound for Delaware River ports haul a lot of bituminous coal, and vessels going through the Canal in the other direction carry coal tar, gasoline, and fuel oil.

Local shipping is all domestic, consisting of intra-port traffic and short hauls for the most part; yet, it all added up to 13 million tons, or 19 per cent of total shipments for the 1950 calendar year. These cargoes consist of hard and soft coal, crude oil, petroleum products, gravel, sandstone, and related building materials. Within the

port, a ton of anything shipped is, of course, a ton received so the figures have to be adjusted to avoid inaccuracies. All figures cited have already been adjusted for us by the Corps of Engineers of the United States Army, the source of all this information on the tonnage and composition of commerce.

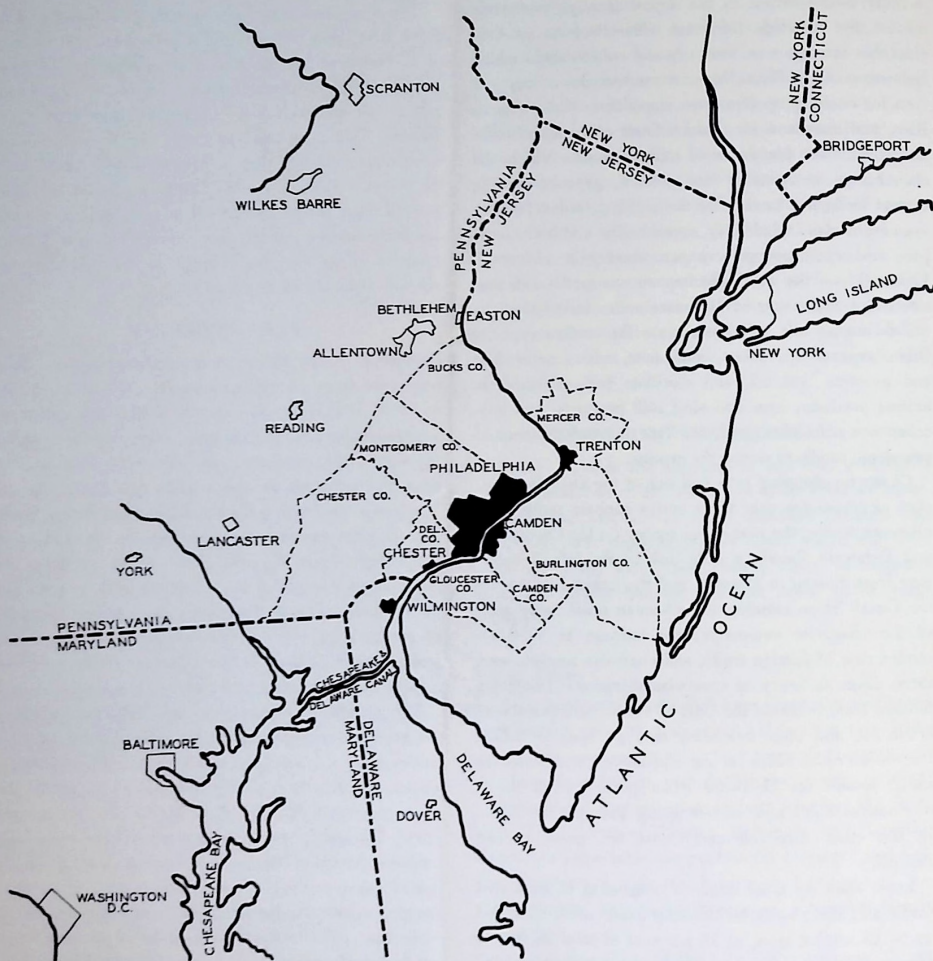
The impression may have been created that the Delaware River port is primarily a petroleum port, and so it is. Petroleum can do almost everything that coal can (except firing a blast furnace); moreover, pipes and pumps are so much more convenient than spades and shovels. This is not to say that "Old King Coal" has been dethroned and that petroleum is now the "Prince of Power." The big electric utility plants on the Delaware still get their kilowatts out of coal, and so do many industrial plants, but the fact remains that about three-quarters of the shipping tonnage on the Delaware consists of crude oil and its products.

PORT PROGRESS

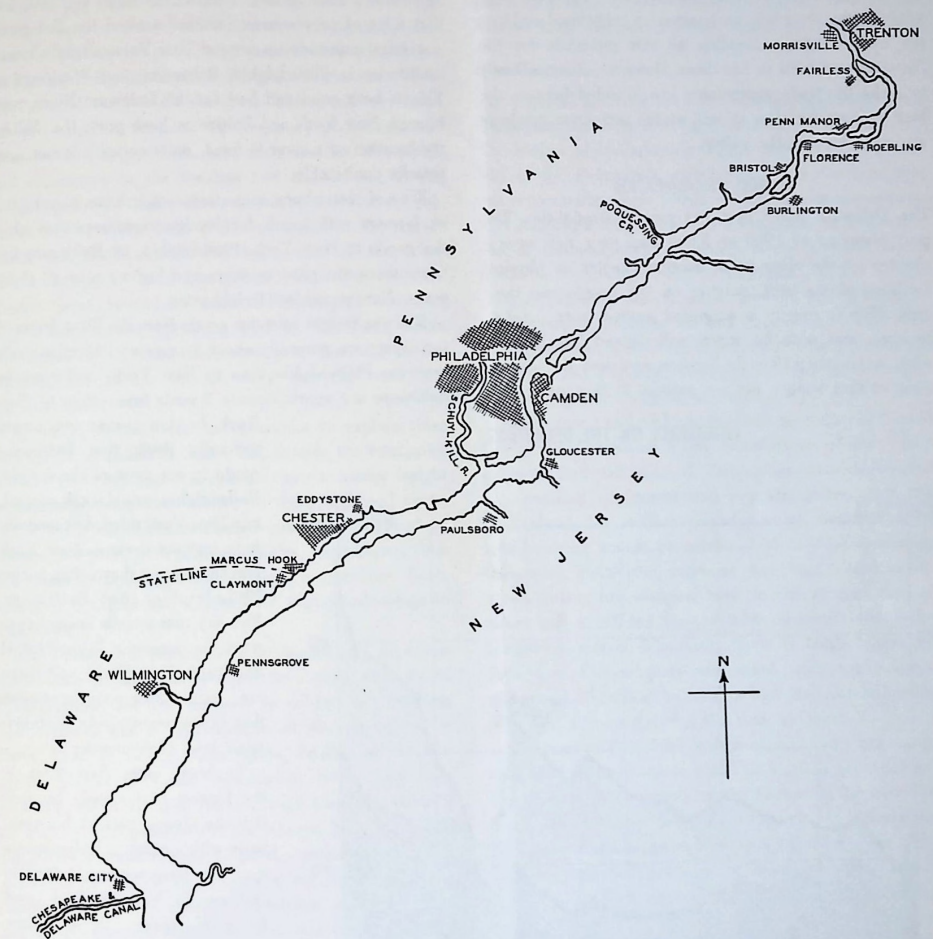
Commerce on the Delaware is on the up-and-up. Shipping rose from 25 million tons in 1920 to 69 million in 1950. Dollarwise, the growth would look still more impressive because it now takes more dollars to throw the same weight than formerly. The rising trend in shipping had only one serious interruption during the 30-year period sketched in the chart. That was during World War II when enemy submarines sank so many ships off the Atlantic Coast. A frightful amount of petroleum and its products was spilled on the waters in those days. But the railroads came to the rescue. They greased the axles of hundreds of railway tank cars and put them on the main trunk lines from Texas to Marcus Hook and Philadelphia so the cracking stills kept on cracking.

The growth of shipping on the Delaware paralleled the growth of oil refining on the river. Six big oil companies have six big refineries with a daily capacity of almost 600,000 barrels of crude oil, which makes this area the largest oil refining center on the Atlantic seaboard. Oil and its products have played an increasingly prominent part in Delaware commerce throughout the period shown in the chart, and in each layer of the chart showing coastwise, foreign, and local shipping. In the early days, prior to the twenties, a lot of petroleum went out in barrels and drums—case goods to the West Coast of Africa for consumption in the interior. Tankers now take out refined products in bulk; but remember the

THE DELAWARE IN ITS PLACE



PLACES ON THE DELAWARE

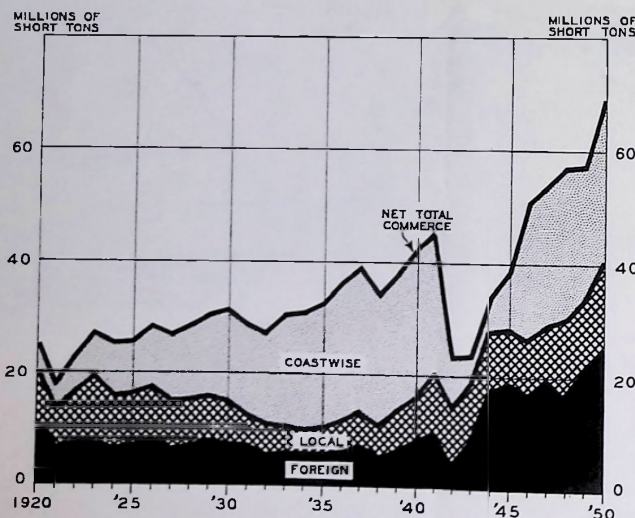


tonnage of crude oil that ships carry up the Delaware is a great deal more than the tonnage of refined products they carry out. It has been that way for years and it means that the growth of the port is a reflection of the growth of manufacturing on the Delaware. With more steel-making capacity coming into the area, shipping on the river will be boosted an additional eight or ten million tons, consisting of raw materials for the furnaces and fuels to fire them. However, it is not likely to make the trade appreciably less lopsided because the best markets for steel as well as for petroleum products are right here in the valley.

PORT PROSPECTS

The Delaware River port has great potentialities. The port historian of 1980 or 2,000 may very well have a chapter on the river itself, another chapter on physical facilities of the port, another on the people and their port. This is merely a suggested outline, very brief to be sure, and what he writes will depend largely upon what we in the valley do between now and the appearance of that history not yet written. If that story is to

COMMERCE ON THE DELAWARE



have a happy ending, there are a few things that should be done in the meantime for the river, to the port, and by the people.

The River

If you will take another look at the map, you will see that a lot of people have gathered around the Delaware—a huge multitude up around New York, slightly lesser multitudes in Philadelphia, Baltimore, and Washington. This is both good and bad for the Delaware River port because New York and Baltimore have ports too. While the location of a river is fixed, its geography is not necessarily unalterable.

West of Harrisburg, manufacturers, miners, merchants, or farmers with goods for foreign customers may ship the goods to New York, Philadelphia, or Baltimore because there are good railways and highways to all three ports. Now we get into freight rates.

Railway freight rates for goods from the West destined for export are generally about 2 cents a hundred pounds lower to Philadelphia than to New York, and rates to Baltimore are approximately 3 cents lower than to New

York. In view of that, you would naturally think that Baltimore ought to get most of the freight, Philadelphia would rank second, and New York third. But actually it is just the reverse. New York gets the biggest share, then comes Philadelphia, then Baltimore. You say that sounds crazy—contrary to economic laws. Not if you know New York, and there are extenuating circumstances that fit awkwardly into prefabricated laws of economics.

To begin with, New York is the biggest port simply because it is the biggest port. A big company with a plant in Indianapolis may also have a plant in Buffalo and one in New England; and for good reasons, the company may wish to consolidate in New York the products from each plant for a shipment to a foreign

consignee. Practically all the big world-wide shipping lines have their head offices in New York, and sailing schedules out of that harbor are more frequent than elsewhere. Shipping agents and freight forwarders have branch offices or representatives in the interior cities. New York is full of big banks to do the financing, with foreign exchange departments versed in the arts of swapping dollars for pounds or pesos, and underwriters who thrive on marine risks, importers and exporters who know their way around the world's sea lanes. This is all very helpful and explains, in part, the frequency of arrivals and clearances of ships. Then, too, there are lots of arrivals and clearances at the theatres and the movies, at the bright spots and night spots, at the operas and art galleries, at the music halls and book stalls, at the restaurants, the hotels, convention halls, and all the other places that go to make gay and gala New York so New Yorky. Even some of the firms in Philadelphia cart their export merchandise by motor truck to New York, where the crates are put on the same boat that was in the Philadelphia harbor on the very day the truck left for New York.

It would be hard for an economist to explain this; but life is so different inside and outside the textbooks. Efforts have been made at various times to secure freight equalization from the interior to these seaboard ports, but it is awfully hard to change something hallowed by almost 100 years of tradition. Besides, Philadelphia does not want to lose its 2-cent advantage over New York, much as it would like to lose its 1 cent disadvantage to Baltimore.

The Delaware is almost never ice-bound, and dry-cargo ships have no difficulty whatsoever coming right up to Philadelphia. But the channel is subject to shoaling. The channel has a project-depth of 40 feet up to the Navy Yard in South Philadelphia, 37 feet up to Allegheny Avenue in North Philadelphia, and 25 feet from there on up to Trenton. That is what Congress wants it to be, but Congress does not always give the Army Engineers enough money to do the necessary dredging. Actually, the real depth in spots is less than the project-depths, particularly above Philadelphia, and ships can't sail on blueprints; they must have real water. The new goliath oil tankers draw so much water that they have to ride in on the tide. Steps are now being taken to deepen the channel to project depth, particularly in view of the vastly increased tonnage of shipping re-

quired for the new Fairless mill 'way upstream. It will take a long time and a large sum of money, but the military as well as the commercial advantages are obvious. Industries along the Delaware are a big wheel in the machinery of national defense, and the wheel cannot turn without steel to make boilers and fuel oil and coal to keep the fires burning under the boilers.

Port Facilities

The physical facilities are both adequate and inadequate—adequate quantitatively and inadequate qualitatively. The harbor of Philadelphia, which handled slightly over half of the Delaware's waterborne commerce last year, can accommodate over 100 good-sized vessels at one time. The Reading's Port Richmond Terminal, at the upper end of Philadelphia's waterfront is the world's largest tidewater terminal, it can accommodate 6,000 freight cars, and the company's grain elevator, with a capacity of 2½ million bushels, has belt conveyors to load four vessels and two barges simultaneously. The 180,000 ton coal yard has a special thawing house and all the requisite loading and dumping machinery.

At the lower end of Philadelphia's port are the Girard Point and Greenwich Point installations of the Pennsylvania Railroad. Girard Point piers have high-speed ore handling equipment and a grain gallery that can hold about 2¼ million bushels, which can be loaded into awaiting vessels by means of 17 loading spouts. At Greenwich Point the company has huge classification yards, rotary car dumpers that unload 90 coal cars an hour, and a 300-ton hopper with telescopic chutes for bunkering vessels. Moreover, there is ample space for expansion. The company announced just recently that it will spend \$8 million to build a new iron ore unloading pier with a capacity of 2,400 tons an hour.

The port of Philadelphia, like all old ports, has a mixture of facilities, some new and up to date, some old and out of date. An example of the former is the new Pier 80 South, recently built by the city of Philadelphia at a cost of \$5 million. This is a big pier, over 1,000 feet long and 300 feet wide, a 2-story structure providing a half-million square feet of general cargo storage easily accessible by rail and motor truck. In contrast with this modern installation are some old piers with limited storage space and narrow aprons built for horse-and-wagon pick-up but no longer adequate for motor trucks, especially the big ones that fold in the middle

and have many wheels. On busy days, Delaware Avenue, a wide commercial thoroughfare is bustling with traffic, engines shifting and switching, motor trucks honking and rumbling over the cobblestones, motor cars dashing through all available openings in the traffic turbulence, and an occasional horse and wagon—probably the United States Mail.

Port People

A port is an amorphous thing. It has no definite size or shape; it is land and water; it is part concrete and steel, part drawings and dreams; it is wet and dry; partly old and partly new; it has no beginning and it has no end; it is competitive and monopolistic, taxable and tax-free; public and private; it has many bosses and no boss at all. Yet, somehow it works.

The Delaware River port is one long port of ports. It is shared by three states and many municipalities. The United States Government has an interest in it and so do the Dock Street produce merchants of Philadelphia. The Federal Government is responsible for establishing and maintaining the channel, buoys, lights and other navigational aids. The Commonwealth of Pennsylvania, through its Navigation Commission, is in charge of harbor police and licensing pilots. The city of Philadelphia, through its Department of Wharves, Docks, and Ferries, leases city-owned piers, bulkheads, and wharves. Also within the city are various organizations to promote port progress, like the Philadelphia Port Bureau of the Chamber of Commerce and the Philadelphia Maritime Exchange, not to mention the various maritime trade associations, shipping and trucking interests. Outside the city are the Board of Harbor Commissioners of Wilmington and the South Jersey Port Commission. Cutting across the river are organizations like the Interstate Commis-

sion on the Delaware River Basin and the Delaware River Joint Commission.

All these are worthy organizations and all do good work. Some are interested primarily in bridges, others in water purity, or channel maintenance, or customs collections, or maintenance of facilities or statistics, or a combination of several aspects of the port; but there is no coordinated administration. Some say what is needed is a Delaware River Port Authority, like New York and other cities have. The legislatures of Pennsylvania and New Jersey have recently created a Delaware River Port Authority, approved by the Governors of both states, and the compact is awaiting ratification by Congress. Of course, it is easy to pass laws and appoint a commission, but that is just the beginning. The real work is yet to be done.

Some things that might be done to make the port still more efficient are deepening the channel to increase navigability upstream, where huge industrial expansion is taking place; installation of radar to guide vessels through the channel; acquisition of more frequent sailing schedules; construction of a central motor truck terminal to reduce congestion now caused by piece-meal pick-ups by many carriers at many piers; installation of uniform rates and service charges; and publicity of existing facilities of the port. Few people appreciate the advantages the port now offers.

Skippers like to come up the Delaware. It is the largest fresh-water port on the North Atlantic coast. Barnacles gathered on the hulls while at sea die and drop off in this harbor, thus reducing the frequency and expense of trips to dry docks. Still more ships will visit the port if we complete the work of cleaning the river, deepening the channel, modernizing its facilities and unifying the administration.

Additional copies of this issue are available upon request.

CURRENT TRENDS

Contradictory forces seemed to produce an aimless high-level drift of business in the Third Federal Reserve District during October. The month was characterized by variations in the movements of major indicators of commercial and financial activity. Consumer prices, coal production, and bank deposits increased; bank loans and factory employment showed no change; while construction contract awards, department store sales and industrial output declined.

Consumer purchasing power continued high during October, but adjusted department store sales were below those of the preceding month. Nevertheless, the volume of sales topped that of 1950 when buying was at a low ebb. Efforts to reduce inventories were continued and by the end of the month, stocks were below year-ago levels.

The consumer price index for Philadelphia registered an increase in October after a period of prolonged stability. The advance was due to a gain in the cost of food. Local families were paying 8 per cent more for cost-of-living items than they were a year ago.

The impact of rearmament on Pennsylvania manufacturing industries was apparent in October. Production and employment were slightly below 1950 levels as a result of continued operation curtailments in non-durable goods plants—producers of the so-called consumer merchandise. However, activity in the more basic durable goods industries showed an increase, especially those plants turning out the primary metals, machinery, instruments and transportation equipment which are so important to the mobilization program.

Business loans of reporting member banks in leading cities of the Third District increased by only \$33 million or about 4 per cent from the end of June through November 21. The rise was due chiefly to borrowing by metal manufacturing and trade firms, offset in part by reduced lending to textile concerns. This increase was only about one-third as large as the increase in the same period last year. For reporting banks throughout the country, expansion this year was also much smaller than in the corresponding period of 1950.

The nation's private money supply increased \$3.7 billion in October as bank lending and holdings of Governments increased and seasonal Treasury operations shifted deposits from Government to private accounts. A small gold inflow also contributed to the increase which was the largest monthly rise in the post-war period.

SUMMARY	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	Oct. 1951 from		10 mos. 1951 from year ago	Oct. 1951 from		10 mos. 1951 from year ago
	mo. ago	year ago		mo. ago	year ago	
OUTPUT						
Manufacturing production	-1*	-1*	+10*	-1	+1	+12
Construction contracts	-19	-27	+11	-7	-10	+11
Coal mining	+31	+4	-7	+11	-1	+4
EMPLOYMENT AND INCOME						
Factory employment	0*	-1*	+8*	-1	-1	+8
Factory wage income	-1*	+7*	+22*			
TRADE**						
Department store sales	-4	+4	+4	-3	+4	+3
Department store stocks	-7	-1		-2	-1	
BANKING						
(All member banks)						
Deposits	+1	+3	+3	+2	+7	+6
Loans	0	+15	+22	+2	+15	+22
Investments	0	-9	-8	+2	-2	-7
U.S. Govt. securities	0	-9	-11	+2	-3	-10
Other	+2	+3	+4	0	+6	+13
PRICES						
Wholesale				0	+5	+14
Consumers	+1†	+8†	+10†	+1	+7	+9
OTHER						
Check payments	+19	+8	+12	+15	+11	+14
Output of electricity	+7	+4	+7			

*Pennsylvania

**Adjusted for seasonal variation. †Philadelphia.

LOCAL CONDITIONS	Factory*		Department Store		Check Payments	
	Employment		Payrolls			
	Per cent change Oct. 1951 from		Per cent change Oct. 1951 from			
	mo. ago	year ago	mo. ago	year ago	mo. ago	
Allentown	0	+2	-4	+12	+19	
Altoona	-3	-11	-3	-14	+12	
Harrisburg	0	+3	-2	+7	+11	
Johnstown	-3	+1	-10	+14	+5	
Lancaster	0	-1	-3	+2	+24	
Philadelphia	-1	-1	-1	+5	+21	
Reading	0	-5	+2	+5	+13	
Scranton	-3	-10	-4	-10	+8	
Trenton			-8	+4	+27	
Wilkes-Barre	0	-1	-3	+2	+13	
Williamsport	0	+4	-3	+6	+4	
Wilmington	-1	+9	+1	+17	+7	
York	+3	-9	+8	-3	+22	

*Not restricted to corporate limits of cities but covers areas of one or more counties.

*Pennsylvania
**Adjusted for seasonal variation. †Philadelphia.

*Not restricted to corporate limits of cities but covers areas of one or more counties.

MEASURES OF OUTPUT

	Per cent change		
	Oct. 1951 from		10 mos. 1951 from
	month ago	year ago	year ago
MANUFACTURING (Pa.)	-1	-1	+10
Durable goods industries.....	-0	+5	+18
Nondurable goods industries.....	-2	-9	0
Foods.....	-2	-2	0
Tobacco.....	+3	-1	+1
Textiles.....	+3	-26	+10
Apparel.....	-8	-17	-10
Lumber.....	+1	-13	+1
Furniture.....	+1	-23	+15
Paper.....	+3	+9	+5
Printing and publishing.....	+3	+9	+5
Chemicals.....	-3	+12	+12
Petroleum and coal products.....	+1	+20	+20
Rubber.....	+1	+20	+20
Leather.....	+1	-21	+4
Stone, clay and glass.....	+1	+0	+12
Primary metal industries.....	+1	+6	+17
Fabricated metal products.....	+1	+1	+22
Machinery (except electrical).....	+1	+8	+23
Electrical machinery.....	+1	+1	+16
Transportation equipment.....	+1	+27	+28
Instruments and related products.....	+1	+11	+29
Misc. manufacturing industries.....	+1	-10	+15
COAL MINING (3rd F. R. Dist.)	+31	+4	-7
Anthracite.....	+37	+6	-9
Bituminous.....	+4	-8	+7
CRUDE OIL (3rd F. R. Dist.)	+14	-5	-2
CONSTRUCTION—CONTRACT AWARDS (3rd F. R. Dist.)	-19	-27	+11
Residential.....	-4	-28	+2
Nonresidential.....	-17	-24	+30
Public works and utilities.....	-44	-31	-25

*U.S. Bureau of Mines.

**American Petroleum Inst. Bradford field.

†Source: F. W. Dodge Corporation. Changes computed from 3-month moving averages, centered on 3rd month.

EMPLOYMENT AND INCOME

Pennsylvania Manufacturing Industries*	Employment			Payrolls			Average Weekly Earnings		Average Hourly Earnings		
	Oct. 1951 from			Oct. 1951 from			Oct. 1951 from		Oct. 1951 from		
	month ago	year ago	10 mos. ago	month ago	year ago	10 mos. ago	month ago	year ago	month ago	year ago	10 mos. ago
Indexes (1939 avg. = 100)											
All manufacturing.....	138	0	-1	394	-1	+7	\$64.28	+8	\$1.61	+10	
Durable goods industries.....	168	0	+4	464	0	+14	71.24	+10	1.73	+10	
Nondurable goods industries.....	108	-1	-8	303	-2	-6	53.71	+2	1.41	+7	
Foods.....	131	-2	-2	323	-4	+5	55.16	+7	1.33	+7	
Tobacco.....	89	+2	0	253	+3	+4	37.24	+4	.95	+5	
Textiles.....	69	+1	-20	202	+4	-23	51.86	+4	1.38	+4	
Apparel.....	128	-1	-9	342	-8	-12	37.87	-4	1.13	+6	
Lumber.....	157	+1	-11	422	+3	-8	46.89	+4	1.12	+6	
Furniture and lumber products.....	117	+9	-24	351	+11	-21	55.57	+4	1.28	+5	
Paper.....	138	-2	-5	406	-1	+1	63.64	+6	1.52	+11	
Printing and publishing.....	120	-1	+2	313	-3	+5	73.56	+3	1.89	+5	
Chemicals.....	148	-3	+1	414	-2	+5	66.78	+4	1.61	+5	
Petroleum and coal products.....	158	0	+1	434	0	+10	82.87	+8	2.05	+10	
Rubber.....	247	+1	+7	783	+1	+22	78.78	+14	1.86	+15	
Leather.....	80	-1	-14	205	-3	-17	44.14	-3	1.20	+4	
Stone, clay and glass.....	143	-1	+3	400	-2	+8	64.23	+4	1.63	+7	
Primary metal industries.....	143	0	+6	396	-2	+18	77.40	+11	1.91	+11	
Fabricated metal products.....	175	-1	0	495	-2	+9	67.33	+10	1.61	+10	
Machinery (except electrical).....	240	0	+6	693	+1	+18	73.28	+11	1.70	+11	
Electrical machinery.....	266	+1	+3	631	0	+10	66.30	+7	1.64	+9	
Transportation equipment.....	173	+2	+22	478	+1	+35	78.29	+11	1.89	+6	
Instruments and related products.....	188	0	+9	557	+3	+20	67.59	+10	1.61	+9	
Misc. manufacturing industries.....	138	-1	-9	372	0	-4	55.16	+6	1.30	+7	

*Production workers only.

TRADE

Third F. R. District Indexes: 1935-39 Avg. = 100 Adjusted for seasonal variation	Per cent change		
	Oct. 1951 from		10 mos. 1951 from
	month ago	year ago	year ago
SALES			
Department stores.....	299	-4	+4
Women's apparel stores.....	210	-4	+1
Furniture stores.....		+12*	+4*
STOCKS			
Department stores.....	280p	-7	-1
Women's apparel stores.....	227	-10	-7
Furniture stores.....		-1*	+4*
Recent Changes in Department Store Sales in Central Philadelphia			
			Per cent change from year ago
Week ended November 10.....			+5
Week ended November 17.....			+3
Week ended November 24.....			+20
Week ended December 1.....			-6

*Not adjusted for seasonal variation. p—preliminary.

CONSUMER CREDIT

Sale Credit Third F. R. District	Sales		Receivables (end of month)
	% chg. Oct. 1951 from	% chg. 10 mos. 1951 from	% chg. Oct. 1951 from
	year ago	year ago	year ago
Department stores.....	+6	+2	+8
Cash.....	+7	+5	+8
Charge account.....	+6	-11	+8
Installment account.....			
Furniture stores.....	+5	+6	
Cash.....	-1	+13	
Charge account.....	+21	+8	-6
Installment account.....			
Loan Credit Third F. R. District			
	Loans made		Loan balances outstanding (end of month)
	% chg. Oct. 1951 from	% chg. 10 mos. 1951 from	% chg. Oct. 1951 from
	year ago	year ago	year ago
Consumer installment loans.....	+16	-4	-5
Commercial banks.....	+38	+3	+3
Industrial banks and loan companies.....	+22	+15	+11
Small loan companies.....	+19	+6	+6
Credit unions.....			

PRICES

Index: 1935-39 average = 100	Per cent change from	
	Oct. 1951 (Index)	
	month ago	year ago
Wholesale prices—United States.....	221	0
Farm products.....	253	+2
Food.....	240	+1
Other.....	265	+3
Consumer prices.....		
United States.....	188	+1
Philadelphia.....	187	+1
Food.....	225	+2
Clothing.....	204	0
Rent.....	0	+8
Fuel.....	153	0
Household furnishings.....	218	-1
Other.....	169	+9
Weekly Wholesale Prices—U.S. (Index: 1935-39 average = 100)		
	All commodities	Farm products
Week ended November 13.....	220	257
Week ended November 20.....	229	258
Week ended November 27.....	220	260
Week ended December 4.....	220	255

Source: U.S. Bureau of Labor Statistics.

BANKING

MONEY SUPPLY AND RELATED ITEMS United States (Billions \$)	Oct. 31 1951	Changes in—	
		five weeks	year
Money supply, privately owned.....	181.6	+3.7	+8.8
Demand deposits, adjusted.....	95.0	+3.0	+5.8
Time deposits.....	60.9	+4	+1.9
Currency outside banks.....	25.7	+3	+1.2
Turnover of demand deposits.....	21.1*	-4.1*	0*
Commercial bank earning assets.....	130.5	+1.9	+6.0
Loans.....	56.7	+8	+6.9
U.S. Government securities.....	60.9	+1.1	-1.7
Other securities.....	12.9	0	+8
Member bank reserves held.....	19.6	+2	+2.9
Required reserves (estimated).....	19.0	+2	+3.0
Excess reserves (estimated).....	.6	0	-1
Changes in reserves during 5 weeks ended October 31, reflected the following:			
		Effect on reserves	
Gold and foreign transactions.....		+4	
Net payments by the Treasury.....		-4	
Reserve Bank credit.....		-3	
Increase of currency in circulation.....		-3	
Change in reserves.....		+2	
* Annual rate for the month and per cent changes from month and year ago at leading cities outside N. Y. City.			
OTHER BANKING DATA	Nov. 21 1951	Changes in—	
		four weeks	year
Weekly reporting banks—leading cities United States (billions \$):			
Loans—			
Commercial, industrial and agricultural.....	20.9	+4	+3.9
Security.....	1.8	0	-4
Real estate.....	5.7	0	+5
To banks.....	.7	+2	+5
All other.....	5.9	0	+1
Total loans—gross.....	35.0	+6	+4.6
Investments.....	38.1	-5	-1.5
Deposits.....	82.4	-5	+4.5
Third Federal Reserve District (millions \$):			
Loans—			
Commercial, industrial and agricultural.....	806	+5	+197
Security.....	45	+1	0
Real estate.....	134	+1	-7
To banks.....	19	+12	+12
All other.....	390	-2	+11
Total loans—gross.....	1,394	+17	+213
Investments.....	1,522	+14	+209
Deposits.....	3,215	+8	+17
Member bank reserves and related items United States (billions \$):			
Member bank reserves held.....	19.8	-0	+3.2
Reserve Bank holdings of Governments.....	33.3	+2	+8
Gold stock.....	301	-19	+135
Money in circulation.....	28.7	+4	+1.3
Treasury deposits at Reserve Banks.....	.4	-1	-2
Federal Reserve Bank of Phila. (millions \$):			
Loans and securities.....	1,483	-17	+189
Federal Reserve notes.....	1,729	+37	+91
Member bank reserve deposits.....	601	-19	+135
Gold certificate reserves.....	1,191	-8	-65
Reserve ratio (%).....	14.1%	-3%	-5.1%

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