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THE COMMERCE OF THE MISSISSIPPI RIVER

BY

GEO. H. MORGAN,

Secretary of the Merchants' Exchange

J. No. 19844
OF

ST. LOUIS.





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SECRETARY OF THE MERCHANTS' EXCHANGE OF ST. LOUIS.

The chief reason why the commerce of the Mississippi River is invested with such peculiar interest and importance, is because it represents the industrial activity of the most productive region in the United States, embracing an area of 1,381,875 square miles, or 45 per cent of the total area of the country. In extent, climate, fertility of soil and natural resources generally the Great Valley has really no equal within the confines of civilization in all that is necessary for the support of population and for surplus products for consumption and use by other nations. It is thus of great and paramount interest, not only to the people who live within its boundaries and who control its wealth and resources, but to our whole country and also to other nations across the Atlantic that are the daily beneficiaries of its wondrous development. It was a forecast of what this region would become, when opened to settlement and cultivation, that led De Toqueville many years ago to characterize it as the most glorious dwelling place prepared by God for the habitation of man.

This prophecy has been fulfilled in the present importance of the Valley of the Mississippi to our own Republic, as an element of national wealth and a seat of population, and also in its value to many other countries as a source of food and supply of raw material and other staples—the realization

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exceeds the dream of the French philosopher. As a simple illustration of this importance in the matter of export trade alone, it may be remarked that if for only one season our surplus products in food and cotton were withheld from export the result would perceptibly effect prices and supply abroad. And if this be true now with our present population and development it must be vastly greater in the future with increased settlement and a wider cultivation.

It is the very fact of this great productiveness—of its large contribution to the export trade of the country—that makes the subject of transportation of such engrossing importance to the Valley of the Mississippi. Its geographical position is central, and as for the most part it lies at a distance from the seaboard, a cheap and rapid diffusion of its products involves the success of all its industrial activities. The surplus products of so vast and fertile a region are comparatively valueless without adequate means to reach the markets of the world, and to accomplish this transportation facilities are a paramount and commanding necessity.

Without the means of cheaply and rapidly transferring from one section to another the surplus products of the soil and the articles produced by the skill and ingenuity of man, thereby making possible the exchange of commodities necessary for the well-being and comfort of the people, there would be little or no incentive to produce anything in excess of the immediate necessities of life. That all ages and peoples have recognized this principle is shown by the established fact that the first settlements in every land were made on the shores of the ocean or on the banks of rivers, thus securing the means of communication between other localities and neighborhoods.

The great rivers of the world have been intimately associated with the history of peoples and empires. Egypt has the historic Nile, India the Ganges and its tributaries, China the Yang-tse-Kiang and the Yellow River, Germany the Rhine, renowned in song and story; Austria the blue Danube, France the Siene, and England the famous Thames. So our own country has its Hudson, James, Delaware, Rap-

pahannock, and the greatest of all, the Father of Waters—the great Mississippi and its tributaries, the Missouri, Ohio, Illinois, Red, and others of lesser note, all of which are prominently identified with its early and later history. On these great rivers of our country were located the primitive settlements which have since become the great cities of the land. The same principle that determined the location of these earlier settlements has ruled in later days, for with few exceptions, the principal towns and cities of our land, and especially in the Mississippi Valley, are situated on rivers or lakes.

But, as our country developed, new agencies for more varied means of transportation became necessary, and the system of rail communication was established, which has since covered the land like a network and developed to a most wonderful degree. But the new system, while it gradually absorbed to a great extent the freight and passenger traffic of the country, has not done away with the value and necessity of water-ways; both are needed for the immense internal commerce which has grown faster than have the facilities for its rapid and economical handling. So we find to-day that the great lakes and the great rivers are still most important factors in the problem of transportation.

The cheapness of water transportation, as compared with rail, and the influence the water-ways have exerted in the cheapening of freight rates is a matter of common information. The increase in the number and the paralleling of railroad lines and their better equipment have of necessity, by competition, tended to reduce the cost of rail carriage, but the controlling influence of water routes has been and must always be an important factor in the reduction of freights.

The necessity of maintaining and improving the water-ways of the country has always been recognized by the general government. As early as 1822, Hon. Thomas H. Benton, Senator from Missouri, secured the first appropriation from Congress for the improvement of the Missouri River; and in 1847, Hon. Daniel Webster, in the Senate, advocated the im-

provement of the internal water-ways of the country and defended the power of the government to make appropriations therefor in the interest of cheap transportation. In the report of the Interstate Commerce Commission for 1890 it is stated that the average cost of carrying freight by rail was .941 cents per ton per mile. This is \$11.29 for 1,200 miles, the distance between St. Louis and Boston, and also between St. Louis and New Orleans. During 1892 the average rate of freight by river per barges on grain in bulk from St. Louis to New Orleans was \$2.16 per ton, and on grain in sacks \$3.37 per ton. During the same year the average rate of freight on wheat per bushel from St. Louis to Liverpool via river to New Orleans was 14 cents per bushel, and from St. Louis to Liverpool by rail to New York 21 cents per bushel. These figures illustrate forcibly the economy incident to river transportation, and which it is probable will always be maintained.

The Mississippi River runs through the richest agricultural basin in the world; traversing the entire territory of the United States from its northern to its southern boundary, navigable for 2,000 miles, and with its tributaries draining more than half the States of the Union. It washes the shores of ten States: Minnesota, Wisconsin, Iowa, Illinois, Missouri, Kentucky, Tennessee, Arkansas, Mississippi and Louisiana. It furnishes with its two largest tributaries, the Missouri and the Ohio, a navigable water line from Pittsburg on the east to the foot of the Rocky Mountains on the west, and connects by the Illinois River and canal the great lakes and the Gulf of Mexico. It is thus the national channel oceanward for the exports of these great and fruitful regions, and because of this fact must always be of vast importance to the United States and to the world.

The river commerce of the Mississippi Valley has undergone many changes, especially in the last twenty-five to thirty years. The first use of the rivers of the West for commercial purposes was to carry the skin-laden skiffs and batteaus of the early voyagers and Indian traders. Then followed the barges and flat boats propelled by sail and pole. Next came

the use of steam, and soon the Mississippi steamboat appeared, the marvel and wonder of the age. As the country developed and the traffic of the river demanded, steamboats increased in size, speed and elegance, until a Mississippi steamboat was considered a floating palace, the acme of all that could be desired as a means of rapid and luxurious travel and for the transportation of freight. Up to about 1862 the river controlled the bulk of the freight and passenger business of the West. But at the close of the Civil War, when industrial activity resumed its course and an era of progress and development was inaugurated, which has had no parallel in the history of modern times, new avenues of travel became a necessity and rail lines were projected in every direction, and especially westward across the Mississippi River, and as they pushed into the new regions of the Great West, traffic was necessarily diverted from longitudinal to latitudinal lines. In the same way when the extension of railroads reached the South, freight as well as passenger traffic was diverted to a considerable extent, the rail lines reaching direct to interior points and affording quick transit for passengers and general merchandise. But notwithstanding these facts the invincible economy attaching to water transportation still asserts itself, and the cheaper and more bulky classes of freight that are moved in large quantities and cannot bear the increased cost of rail transportation, still seek, whenever practicable, the water route. Passenger travel, however, naturally takes the more rapid means of conveyance, leaving to the rivers only the pleasure travel southward in winter and northward in summer, and the local travel between the smaller river towns. The character of the river craft has been adapted to these new requirements. Steamboats are now built more especially for freight traffic and give but little attention to passengers, while towboats, propelling large barges carrying some times in one tow 10,000 tons of freight, do a large proportion of the business. The loss of the distributing trade of the lower river—that is of the freight which formerly went by boat to prominent points on the river banks and was thence distrib-

uted to the interior—has been made good by the export grain movement, which now forms an important item of our foreign commerce. The opening of the mouth of the Mississippi by Capt. James B. Eads, of St. Louis, gave to the Mississippi Valley an outlet through the jetties to the markets of the world, and more than compensated for the diversion from the river of the coast or local distributing trade.

There are no means at hand to ascertain definitely the amount in tons or the value in dollars of the commerce of the Mississippi for any given year. The magnitude of such an undertaking takes it out of the limits of private or individual effort. But the following statements taken from the report of the Census Bureau and covering the year 1889 show in a very practical manner the magnitude of the commerce of western water-ways :

EQUIPMENT.

	Total Vessels.	Tonnage.	Value.
Upper Mississippi River System.....	613	213,547	\$2,136,992
Lower Mississippi River System.....	572	247,958	4,476,472
Ohio River System.....	6,245	2,920,468	8,696,341
Red River of the North.....	15	11,405	25,200
Total.....	7,445	3,393,378	\$15,335,005

TRAFFIC.

	Total Passen- gers Carried.	Tons of Freight Moved.	Miles Traveled.
Upper Mississippi River System....	1,821,734	6,958,340	1,424,655
Lower Mississippi River System....	2,534,017	6,401,203	2,311,573
Ohio River System.....	6,503,143	16,041,866	3,579,233
Red River of the North.....	.....	3,637	1,084
Total.....	10,858,894	29,405,046	7,316,545

The census office gives the following explanation as to the methods used in dividing the business of the different systems :

“The business of each river is that of the river itself and its tributaries; in the case of the Upper Mississippi, the Ohio, and the Lower Mississippi—used as titles for the three systems—the business of the unmentioned tributaries is included, but not that of those mentioned as forming the system. For instance, the business of the Upper Mississippi includes that of the Minnesota, Galena, Red, Cedar, etc.; that of the Ohio includes the business of the Guyandotte and Licking, and

that of the Lower Mississippi includes the business of the bayous, the Big Hatchie, the Kaskaskia, the Big Black, etc. In every case, where at all possible, the commerce is that of each river; that is, only such freight is allowed to a river as had its origin there. The traffic of St. Louis by river is divided. That from the Upper Mississippi and Ohio is given to those rivers, as is that from St. Louis to points on those rivers; that to and from St. Louis and points on the Lower Mississippi is given to that river, and the local business of St. Louis is given to the Lower Mississippi.”

The different commodities transported is given in tons as follows :

Coal	10,632,109	Clay and Sand.....	141,464
Forest Products.....	10,531,189	Manufactured Iron.....	122,060
Merchandise.....	5,886,259	Mill Products.....	88,129
Wheat.....	1,068,504	Hay.....	78,635
Cotton.....	686,635	Other Grain.....	51,308
Iron Ore.....	536,647	Fruits and Vegetables..	23,091
Cotton Seed and Oil ...	392,988	Tobacco.....	17,707
Corn.....	266,071	Pig Iron.....	5,506
Sugar and Molasses.....	189,829	Oils.....	3,128
Animal Products.....	169,470	Ice	4,000
Stone and Gravel.....	158,453	Cement, Brick and Lime	1,231
Total Tons.....			31,054,423

Practically the commerce of the Mississippi is divided into two classes, the Upper Mississippi traffic and the Lower Mississippi traffic. The city of St. Louis, Missouri, is the dividing line where the commerce of the upper river terminates and that of the lower river originates. Along the river above, as well as below St. Louis, there is a very considerable local trade between towns, but none of the upper river packets run below St. Louis, and the lower river boats do not go above.

THE UPPER MISSISSIPPI.

At the head of navigation on the upper river stand the twin cities of Minneapolis and St. Paul. These cities command a very large portion of the trade of the Northwest, both being jobbing centers, and Minneapolis the largest in the manufacture of flour in the world. These cities are prominent railroad centers and depend less on river facilities than the other cities on the upper river. Between St. Paul and St. Louis

are many thriving towns, such as Hastings, Winona, Red Wing and Lake City in Minnesota, Prescott, La Crosse and Prairie-du-Chien in Wisconsin, Dubuque, Davenport, Clinton, Muscatine, Burlington and Keokuk in Iowa, Savanna, Fulton, Rock Island, Quincy and Warsaw in Illinois, and Alexandria, Hannibal, Louisiana and Clarksville in Missouri, all important points and largely dependent upon the river for their commerce. In answer to an inquiry made in 1890 Mr. E. M. Dickey, President of the Diamond Jo Line of steamers plying between St. Louis and St. Paul, furnished the following statement in regard to the river traffic above St. Louis :

“There are 116 steamers, exclusive of the ferry boats, engaged in the transportation of freight and passengers on the Mississippi River above St. Louis. Of these 29 are employed in packet and excursion trades, carrying both freight and passengers, and 87 are employed exclusively in rafting and towing. The registered tonnage of these boats is 20,800 tons, and if the tonnage of barges, used in connection with them, is added, the total would exceed 25,000 tons. A conservative estimate would place the value of these boats and of the barges, wharf-boats, warehouses, piers, docks, etc., necessary for their operation at not less than \$1,500,000. About 1,800 men are required to operate these boats, to whom not less than \$600,000 are annually paid as wages. The total expense of operating these boats, including fuel, supplies, etc., but not including repairs of the boats, or the wages or expense of agents or officers on shore, exceeds \$1,250,000 per annum.

“Some of these packets run in short trades and make daily trips, as between St. Louis and Alton; Quincy and Keokuk; Davenport and Clinton; Winona and Alma; and others having longer trades, as between St. Louis and Clarksville; St. Louis and Keokuk, etc., make tri-weekly trips; while not to exceed six boats make the through trip from St. Louis to St. Paul, requiring from eight to twelve days, depending upon the season of the year, stage of water and volume of freight business. The boats engaged only in excursion business

usually make headquarters at one of the larger cities, such as Quincy, Burlington or Davenport, and make special short trips to neighboring towns as opportunity offers. A growing and very popular feature of this business is in connection with the various railroads which run special excursion trains from their interior stations to the river and give their passengers a steamboat ride.

“The raft boats are chiefly engaged in towing logs from the St. Croix, Chippewa and Black Rivers to the various saw mills located at Winona, La Crosse, Lansing, Prairie-du-Chien, Dubuque, Fulton, Lyons, Clinton, Moline, Rock Island, Davenport, Muscatine, Burlington, Fort Madison, Quincy and St. Louis. The logs, lumber, ice, stone, coal, etc., transported during 1890 by boats engaged exclusively in towing exceeded 4,000,000 tons, or an average of nearly 45,000 tons to each boat, nearly all of which was south-bound business.

“The boats running in packet trades handle between 350,000 to 400,000 tons of miscellaneous merchandise, grain, hay, etc. This business was equally divided between north and south-bound, and a very large proportion of it might be called local business moving from such jobbing and manufacturing points as Quincy, Burlington, Davenport, Dubuque and La Crosse to the smaller towns near at hand. These boats also carried over 100,000 regular and over 150,000 excursion passengers.”

The year 1891 was an unprofitable one on account of low water which lasted from July 1st to the close of navigation.

Mr. Dickey says in reference to the business of the year 1892 :

“Taking the season through, the freight business shows an increase over 1891 of about 50 per cent, and the passenger business an increase of about 45 per cent. The lumber trade was very active during the entire season and all the raft boats were kept exceedingly busy. It has not been possible to get the actual figures regarding logs and lumber transported at this time, but I am certainly safe in saying that the business

of the Upper Mississippi for 1892 was considerably in excess of 1889, and the census reports for that year show the business to have been about 5,000,000 tons.”

As is readily seen, the most prominent feature of the Upper Mississippi commerce is the logs and lumber floated on this river and its tributaries. In June, 1891, the Mississippi Valley Lumberman gave the following estimate of the yearly amount of this traffic :

Logs out of the St. Croix	200,000,000 feet.
Logs out of the Chippewa.....	600,000,000 “

“A fair valuation of the logs would be \$9.00, or a total of \$7,200,000. The tariff on them for towing, etc., would not be far from an average of \$2.00 per 1,000 feet, or \$1,600,000. In addition to the logs taken down the river considerable manufactured lumber is rafted down stream. The amount of this is probably not far from the following figures :

Out of the St. Croix about	150,000,000 feet.
Out of the Chippewa about.....	200,000,000 “
Out of the Black about.....	90,000,000 “

“This lumber is worth fully \$11.00 per 1,000 feet, or a total of \$4,840,000, and the tariff for transportation will probably amount to \$600,000. These figures do not cover the lath and shingles carried, the value of which is not far from \$500,000.”

Major A. MacKenzie, U. S. A., in charge of the improvement of the Mississippi River between the Falls of St. Anthony and the mouth of the Illinois River, has kindly furnished me the following statistics which will appear in his report for the fiscal year ending June 30, 1893 :

“The most important business carried on in connection with the navigation of the Upper Mississippi River and its principal tributaries is the lumber trade, which gave employment in 1892 to about 100 towboats valued at \$750,000. Along the river from Minneapolis to St. Louis 87 sawmills were operated by 71 wholesale lumber firms, having an invested capital of about \$40,000,000. Their manufacture and distribution in 1892 was 1,420,530,939 feet of lumber ; 563,397,275 shingles and 349,934,540 lath. This shows an increase over 1891 of

158,588,970 feet of lumber, 23,409,525 shingles and 44,513,590 lath. This increase was due in great measure to the excellent condition of the river during the season which facilitated the rafting of logs down the river. In addition to the manufacturers there are large numbers of retail or distributing firms.

LUMBER MANUFACTURE ON THE MISSISSIPPI RIVER FOR SEVEN YEARS.

Year.	Lumber, ft.	Shingles, No.	Lath, No.
1892.....	931,806,305	357,014,775	228,042,910
1891.....	814,228,707	332,666,750	207,723,350
1890.....	1,231,678,900	508,986,705	.....
1889.....	1,044,555,298	463,122,700	.....
1888.....	1,048,951,886	423,655,050	.....
1887.....	988,301,094	363,230,750	.....
1886.....	934,735,854	274,581,750	267,888,310
Total.....	6,994,317,604	2,723,277,480	.....

STATEMENT OF DISTRIBUTION OF LUMBER ALONG THE UPPER MISSISSIPPI RIVER FROM MINNEAPOLIS TO ST. LOUIS IN 1892.

Locality.	Lumber, ft.	Shingles, No.	Lath, No.
Minneapolis.....	488,724,624	206,382,500	121,891,630
Hastings.....	6,500,000	3,000,000	2,000,000
Red Wing.....	9,000,000	4,000,000	750,000
Alna.....	1,065,000	1,000,000	145,000
Winona.....	146,000,000	98,800,000	41,200,000
Lansing.....	12,000,000	6,500,000	2,250,000
Prairie du Chien.....	15,231,700	7,164,500	2,462,400
Guttenberg.....	12,000,000	4,500,000	3,500,000
Dubuque.....	58,000,000	23,350,000	10,000,000
Bellevue.....	4,500,000	.....	2,200,000
Lyons.....	67,844,000	18,838,000	17,102,000
Clinton.....	195,245,605	5,864,275	29,620,700
Fulton.....	16,200,000	7,200,000	3,250,000
Moline.....	38,500,000	4,000,000	6,770,000
Davenport.....	62,850,000	10,125,000	13,750,000
Rock Island.....	102,350,000	47,841,000	28,546,000
Muscatine.....	59,500,000	13,150,000	13,738,000
Burlington.....	27,680,000	9,000,000	21,000,000
Fort Madison.....	24,000,000	15,750,000	7,720,000
Keokuk.....	14,000,000	7,000,000	3,000,000
Quincy.....	28,500,000	19,187,000	7,290,000
Canton.....	5,640,000	7,145,000	2,573,750
Hannibal.....	25,200,000	14,000,000	6,200,000
Total.....	1,420,530,929	563,397,275	349,934,540

LUMBER MANUFACTURED IN THE UPPER MISSISSIPPI VALLEY IN 1892.

Locality.	Lumber, ft.	Shingles, No.
Minneapolis.....	488,724,624	206,382,500
St. Paul to St. Louis.....	931,806,305	357,014,775
St. Croix River.....	175,991,427	66,099,750
Black River.....	240,678,500	127,935,500
Chippewa River.....	298,833,782	177,169,500
Total.....	2,136,034,638	934,622,025

“The larger part of the above was floated for greater or less distances on the Mississippi River either as logs or lumber.

“The principal steamboat lines on the Upper Mississippi River are the Diamond Jo Line, the Eagle Packet Co. and the Joy Lumber Line. There are also many independent boats carrying freight and passengers. During the season of 1892 the amount of freight and number of passengers carried on boats and barges could not be accurately ascertained, but partial reports give 195,036 tons of freight and 164,201 passengers, not including those of ferry and excursion boats. Taking into consideration the logs and lumber floated, the gross tonnage for 1892 was approximately 4,500,000 tons.”

The upper river business is augmented by the freight brought into the Mississippi River from the Missouri and Illinois Rivers. The four boats of the Kansas City Transportation Co., running between St. Louis and Kansas City, carried during the year 1892, 42,520 tons of freight, and the two boats of the St. Louis, Naples & Peoria Packet Co. handled 57,275 tons from the Illinois, all of which came to St. Louis.

THE LOWER MISSISSIPPI.

The City of St. Louis, Missouri, is the largest and most important city on the Mississippi River. It is the fifth city of the United States in population and the fifth in manufactures. It is located on the west bank, about 800 miles below St. Paul and 1,242 north of the city of New Orleans, the commercial mouth of the river. The Missouri River enters the Mississippi 21 miles above St. Louis, and the Illinois River 14 miles above the mouth of the Missouri, so that St. Louis is practically at the confluence of these three streams. As before stated this point is the dividing line which separates the traffic of the river. The upper river boats end their journeys here, and here also the steamers load for the South with cargoes for distribution in the Southern States and with grain and flour for Europe. The geographical location of St. Louis makes it the principal center of the river commerce of the

Mississippi Valley. In an article by Mr. C. N. Osgood, Secretary of the Merchants' Exchange Transportation Committee and also Commissioner of St. Louis Traffic Commission, published in the annual report of the Merchants' Exchange for 1892, the position of St. Louis as the best distributing point in the United States is succinctly stated as follows:

“The advantages of St. Louis as a commercial metropolis are not confined to any single section of the country. One city and another may claim the advantages of proximity to this or that section, but St. Louis alone can claim the vantage ground of immediate and intimate association with all sections, west of the Alleghanies. She is not alone the nearest principal gateway and market for the great western empire, but is also in close touch with the northern and northwestern sections west of the Great Lakes, while her commanding situation with reference to the trade of the Southwest and South is already well known and recognized. So also are her trade relations to the eastward constantly gaining in strength and importance, as year by year her manufacturing establishments increase rapidly in number and extent, and as more and more each year she serves as the distributor of the varied products of the South and West and of contiguous States. In the Mississippi Valley can and eventually will be produced about everything which the East has heretofore supplied to the West—and St. Louis is the metropolis of the Valley.

“The close relations of St. Louis with the Southern States are well known, and the sure progress of ‘the New South’ will continuously and in increasing measure contribute to hers. Moreover, these relations will be extended and more closely cemented by the future railroad development in that direction, a development which as a matter of fact has already actively commenced. In 1892 one-third of the new railroad mileage of the country was constructed in the district south of the Ohio River and east of the Mississippi. The Southwest, with which section St. Louis has been always more closely affiliated than has any other principal city, is also entering

upon an era of energetic development which will eventually rival and perhaps outstrip that of any other portion of the western country. Texas and Oklahoma are already witnessing an activity of energetic enterprise within their borders, which, in the one case, will soon double the wealth and population of the State, and in the other eventually convert a little-known Territory into a State 'second to none of the States touching its borders.' Northern Arkansas, with all its natural wealth of field, forest and mountain, remains as yet a practically virgin territory, located within a few hundred miles of St. Louis. Even the development of a great part of Missouri is but just commencing. The varied natural resources of Southern Missouri probably exceed those of any equal section or territory in the country, and the mineral and agricultural wealth there awaiting development are most remarkable in extent, and will all eventually contribute in one way and another to the increasing commercial importance of St. Louis. The strictly agricultural States of the West have heretofore enjoyed the most rapid development, but the maximum annual rate of increase in that direction has probably been reached, or very soon will be; while the influx of immigration and capital will more largely than ever before be now directed to the South and Southwest.

"Not only does the location of St. Louis secure to her, within the broad limits indicated, advantages over all competitors in respect to transportation charges by rail routes, but Nature has also secured to her, remarkable advantages of the same character in the way of tributary water routes. The improvement of the Lower Mississippi River as now determined upon by the Government, will, when effected, result not only in incalculable benefit to the shipping interests of St. Louis by affording an all-the-year-around avenue for the cheaper transportation of grain, flour, meats, etc., and general merchandise, but also in attracting to St. Louis in steadily increasing volume a larger share of the products of the West and Northwest and the Mississippi Valley at large. And with the improved methods of river navigation which are now contemplated and

though heretofore long delayed are sure to follow the demand, the importance of St. Louis as a chief distributing centre will be still further and rapidly enhanced. For with an all-water route to Mexico, Central and South America and the West Indies the productions of these countries will find in St. Louis a chief natural market, as they can plainly be distributed from St. Louis to the country at large to much better advantage than from any other one point. There can be permanently no sufficient reason why the distribution of those productions should be monopolized by the Eastern seaboard cities. The natural route for that commerce is manifestly via the Mississippi River to St. Louis—the heart of the continent.”

The lower river traffic is divided among the following transportation lines :

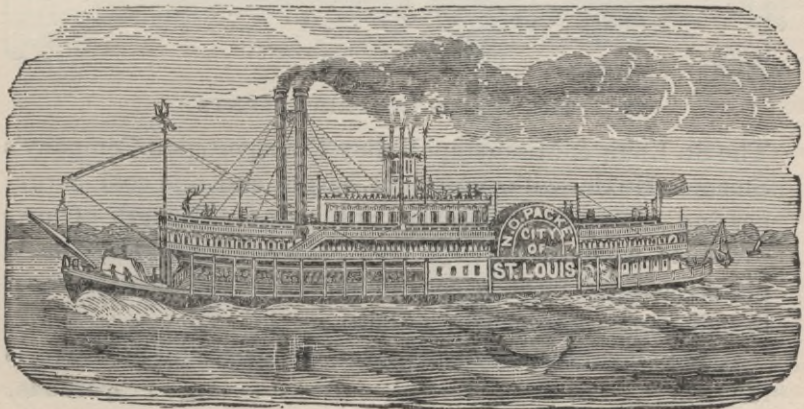
St. Louis and New Orleans Anchor Line, 9 steamers.

St. Louis and Mississippi Valley Transportation Co., 10 towboats and 70 model barges with a capacity of 50,000 bushels of grain each.

Cherokee Packet Co., 2 steamers.

St. Louis and Tennessee River Packet Co., 3 steamers.

W. H. Brown & Sons Line from Ohio River, 3 towboats.



St. Louis & New Orleans Anchor Line Steamer City of St. Louis.

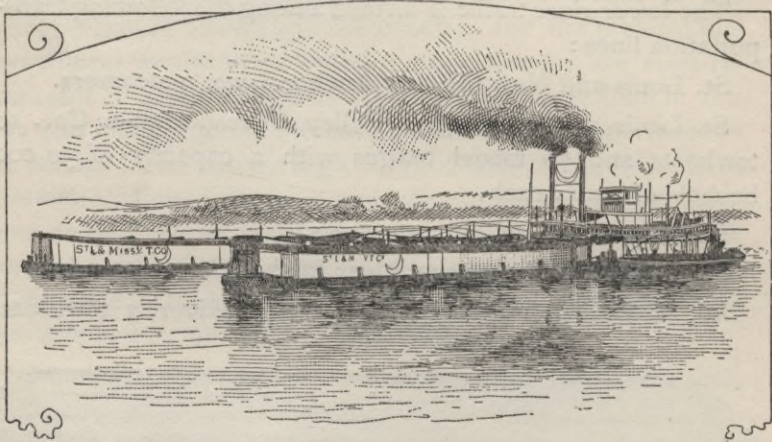
The total river tonnage of St. Louis for the past three years shows but little variation.

RIVER TONNAGE FOR PAST THREE YEARS.

	1892.	1891.	1890.
Tons received by steamboats and barges.....	556,980	450,050	530,790
“ “ rafts.....	130,220	142,090	132,940
“ shipped by steamboats and barges.....	502,215	512,930	601,862
Total.....	1,189,415	1,105,070	1,265,592

The tonnage of 1892 was divided as follows :

Lower Mississippi River.....	Tons, 605,290
Upper Mississippi River.....	“ 317,250
Illinois River.....	“ 57,275
Missouri River.....	“ 42,520
Ohio River.....	“ 97,930
Cumberland and Tennessee Rivers.....	“ 69,150
Total.....	Tons, 1,189,415



THE ABOVE CUT REPRESENTS

The St. Louis & Mississippi Valley Transportation Company's Steamer Hoxie, with six freight barges and one coal barge, passing Memphis, February 17th, 1892. Length of tow, 610 feet; width of tow, 176 feet. Cargo, 8,566 tons, comprising 122,500 bushels corn in bulk, 150,500 bushels wheat in bulk, and 15,532 bushels coal.

A prominent feature of the river commerce of St. Louis is the export grain trade which has grown to large proportions, and is an important factor in the export grain trade of the

country. The grain is carried in bulk in large barges propelled by powerful towboats, and as much as 10,000 tons of grain and other freight has been transported in one tow to New Orleans in six days time. The extent of this movement is shown in the following table :

SHIPMENTS OF BULK GRAIN, BY RIVER, FROM ST. LOUIS TO NEW ORLEANS FOR TWENTY YEARS.

Year.	Wheat, bus.	Corn, bus.	Rye, bus.	Oats, bus.	Totals.
1892	5,149,708	3,228,645	..	36,557	8,414,940
1901	6,940,215	1,482,731	45,600	..	8,468,546
1890	1,409,440	8,717,849	..	89,960	10,217,244
1889	1,651,950	12,398,955	17,432	89,707	14,158,046
1888	1,247,952	5,844,042	..	100,584	7,292,578
1887	3,973,737	7,365,340	..	217,722	11,556,799
1886	743,439	7,501,730	..	598,755	8,843,924
1885	50,000	8,180,039	35,093	401,787	8,667,919
1884	1,318,688	4,496,785	344,864	487,221	6,647,558
1883	1,435,043	9,029,509	205,430	389,826	11,059,808
1882	5,637,391	2,529,712	15,994	150,320	8,393,417
1881	4,197,981	8,640,720	22,423	132,823	12,993,947
1880	5,913,272	9,804,392	45,000	..	15,762,664
1879	2,390,897	3,585,589	167,424	30,928	6,164,838
1878	1,876,639	2,857,056	609,041	108,867	5,451,603
1877	351,453	3,578,057	171,843	..	4,101,353
1876	37,142	1,737,237	..	..	1,774,379
1875	135,961	172,617	..	..	308,578
1874	365,252	1,047,794	..	10,000	1,423,046
1873	..	1,373,969	..	..	1,373,969

The movement inaugurated by St. Louis has been followed by other localities and considerable grain has gone to New Orleans for export from other points, both by the Mississippi River and by rail routes. The total exports from New Orleans for the past seven years is given in the following table :

STATEMENT OF BULK GRAIN EXPORTED FROM NEW ORLEANS, DURING 1892 AND COMPARISONS FOR PREVIOUS YEARS.

To	1892 Corn.	1892 Wheat.	1892 Rye.
England	1,731,790	5,175,182	..
France	1,042,453	5,335,755	..
Germany	2,228,099	1,902,727	218,555
Belgium	675,948	490,120	75,925
Ireland	765,714	490,951	..
Denmark	211,647	..	..
Holland	16,000	552,673	18,000
Sweden	93,140	45,401	39,370
Spain	6,832	134,028	..
Central America	6,150	2,500	..
Cuba	13,460	..	..
Scotland	..	205,161	..
Total bushels, 1892	6,791,233	14,334,498	351,850
Total bushels, 1891	1,941,853	10,014,351	309,242
Total bushels, 1890	11,978,768	1,358,753	137,593
Total bushels, 1889	13,601,830	1,067,864	17,432
Total bushels, 1888	5,599,663	1,056,892	..
Total bushels, 1887	7,201,231	4,390,126	..
Total bushels, 1886	8,155,943	988,626	..
Total bushels, 1885	7,529,357	24,148	..

The economy of the water route from St. Louis, as compared with the rail route to the Atlantic seaboard for freight for European ports, is demonstrated by the statements given herewith :

AVERAGE RATES OF FREIGHT ON GRAIN IN CENTS.

FROM ST. LOUIS TO LIVERPOOL VIA RIVER TO NEW ORLEANS AND VIA RAIL TO NEW YORK.

YEAR.	To New Orleans by River.		On Wheat to New York by rail, per 100 lbs.	To Liverpool.	
	On Grain in sks. per 100 lbs.	On Wheat in bulk per bushel.		Via New Orleans, On Wheat per bu.	Via New York, On Wheat per bu.
1877	21	8½	41	.....	.....
1878	17½	7¼	38	.....	.....
1879	18	7¾	33½	.....	.....
1880	19	8¼	42	.....	.....
1881	20	6	32	.....	.....
1882	20	6 5-12	29½	22 2-3	23¾
1883	17¾	5½	33	19 7-12	27
1884	14	6 5-8	26	14 7-12	21¼
1885	15	6 2-5	22 1-7	15 1-9	20½
1886	16	6½	29	16 1-6	24
1887	18¼	6	32 2-15	15	24¼
1888	15	6½	*29½	15 1-6	22.95
1889	17.93	5.95	23½	17 1-3	24.97
1890	15.66	6.58	27¾	14 1-3	21.48
1891	16.28	6.87½	29	15 3-4	23.55
1892	16.87	6.50	26.62	14	21

*These figures represent published rates. At times during the year the rate was as low as 20c. per 100 lbs., making the average rate St. Louis to Liverpool via New York at times as low as say 17¼ cents per bushel on wheat.

The following table shows the ocean rates from New Orleans and New York :

AVERAGE RATE OF FREIGHT ON WHEAT PER BUSHEL BY STEAMER FROM NEW ORLEANS TO LIVERPOOL DURING 1891 AND 1892.			AVERAGE RATE OF FREIGHT ON WHEAT PER BUSHEL BY STEAMER FROM NEW YORK TO LIVERPOOL DURING 1891 AND 1892.		
Month.	Rate in Cents.	Rate in Cents.	Month.	Rate in Cents.	Rate in Cents.
	1892.	1891.		1892.	1891.
January...	9c. to 12c.	7 to 10	January...	9 c.	7½
February...	7½c. to 12c.	7 to 9	February...	6½c.	4½
March.....	7½c. to 10c.	7 to 8	March.....	7½c.	3
April.....	8c. to 10c.	5 to 8	April.....	3½c.	3
May.....	4c. to 6c.	5 to 6	May.....	4½c.	3½
June.....	7c.	5 to 6	June.....	4 c.	4
July.....	5c.	5 to 7	July.....	5½c.	4
August.....	5c. to 8½c.	7 to 10	August.....	4½c.	6
September.	8c. to 9c.	8 to 11	September.	4 c.	8½
October....	8c. to 10c.	10 to 12	October....	6 c.	11½
November..	8c. to 9½c.	11 to 13½	November..	4½c.	11½
December..	6c. to 10c.	11 to 13	December..	2½c.	8½

The following tables give the receipts and shipments of freight at St. Louis by river during 1892 :

Article.	Receipts.	Shipments.	Article.	Receipts.	Shipments.
Apples, bbls.....	19,547	2,381	Merchandise, pkgs..	492,875	1,535,584
Ale and Beer, pkgs..	49,748	31,995	Molasses, bbls.....	3,801	5,614
Bagging, rolls.....	31,995	2,616,731	Molasses, kegs.....	3	4,387
Barbed Wire, lbs.....	2,616,731	1,063	Nails, kegs.....	9,015	37,621
Beef, tierces.....	1,063	56,553	Oats, sks.....	28,458	183,489
Butter, lbs.....	98,230	24,825	Oats, in bulk, bush..	.....	36,851
Boots and Shoes, cases	557	7,150	Oatmeal, bbls.....	2,167	.....
Beans, pkgs.....	4,418	46,048	Oil, bb's.....	120	.....
Bran, sacks.....	244	.....	Onions, pkgs.....	20,982	5,852
Cordage, coils.....	11,669	1,392	Oranges and Lemons, pkgs.	25	.....
Cattle, head.....	95	.....	Pig Iron, tons.....	7,059	231
Castor Beans, sks...	123,880	.....	Peltries & Furs, pkgs	2,083	.....
Cement, bbls.....	92	7,241	Pork Product, lbs...	332,270	11,021,722
Cheese, bxs.....	105	15,154	Pickets, number....	690,000	.....
Coffee, sks.....	84,706	169,295	Potatoes, pkgs.....	16,633	23,504
Corn, sks.....	64,400	3,228,645	Rye, sks.....	1,516	496
Corn in bulk, bush..	.....	198,357	Rice, pkgs.....	18,437	2,780
Cornmeal, bbls.....	5,848	70	R. I. Iron, tons.....	7,125	.....
Cotton, bales.....	.....	1,850	Salt, sks.....	10,500	1,920
Candles, bxs.....	7,555	12,273	Salt, bbls.....	.....	21,058
Dried Fruit, pkgs...	35,298	1,151	Seeds, pkgs.....	5,179	.....
Eggs, pkgs.....	4,515	342,488	Sheep, head.....	10,220	1,187
Fish, pkgs.....	78,957	72,710	Shingles, number...	38,490,500	.....
Flour, bbls.....	450	.....	Sugar, hhd's.....	41	15
Grease, lbs.....	1,000	2,612	Sugar, bbls.....	96,668	25,137
Glucose, bbls.....	2,879	3,633	Sugar, bags.....	69,273	23,133
Hay, tons.....	2,549	11,050	Soap, bxs.....	.....	42,500
Horses & Mules, hd.	1,072,005	24,468	Tallow, lbs.....	829,603	359,194
Hides, lbs.....	62,473	138	Tar and Pitch, bbls.	348	.....
Hominy & Grits, bbls	2,245	.....	Tobacco, hhd's.....	348	193
Hogs, head.....	54,320	8,514,027	Tobacco, manfd, lbs.	374,893	1,478,276
Iron and Steel, tons.	.....	3,862	Tin, bxs.....	1,195	.....
Lard, lbs.....	115,491,163	.....	Wheat, sks.....	706,974	1,008
Lead, pigs.....	23,000,000	.....	Wheat in bulk bush	10,000	5,149,708
Lumber, ft.....	22,205,300	.....	Wines & Whisky, pkgs	2,625	5,054
Logs, ft.....	.....	3,411	Wool, lbs.....	658,170	42,920
Lath, number.....	.....	.....	White Lead, lbs. ....	.....	3,572,663
Malt, sks.....	.....	.....	

RATES OF FREIGHT, BY RIVER, FROM ST. LOUIS TO MEMPHIS, VICKSBURG AND NEW ORLEANS, DURING 1892.

DATE.	Flour and Meal, per Lbl.			Pork, per bbl.			Grain, Meats and Bran, 100 lbs.			Hay per 100 lbs.			
	New Orleans.		Memphis.	Vicksburg.		New Orleans.	Memphis.		Vicksburg.	New Orleans.		Memphis.	Vicksburg.
	40	50	40	60	75	60	20	25	20	22½	27½	22½	27½
January 1st to February 2d.....	20	35	30	30	52½	52½	10	17½	17½	20	20	20	20
February 2d to April 21st.....	20	35	30	30	52½	52½	10	17½	17½	20	20	20	20
April 21st to August 22d.....	20	35	30	30	52½	52½	10	17½	17½	20	20	20	20
August 22d to November 3d.....	20	35	30	30	52½	52½	10	17½	17½	20	20	20	20
November 3d to December 31st.....	25	50	35	37½	97	97	12½	25½	17½	15	34	15	34

MONTHLY RATE OF FREIGHT ON BULK GRAIN BY BARGES FROM ST. LOUIS TO NEW ORLEANS FOR FOUR YEARS.

	ON CORN, PER BUSHEL.		ON CORN, PER BUSHEL.	
	1888.	1889.	1890.	1891.
January.....	7 cts.	7 cts.	7 cts.	7 cts.
February.....	7 "	7 "	7 "	7 "
March.....	6 "	6½ "	6 "	6 "
April.....	5 "	5 "	5 "	5 "
May.....	5 "	5 "	5 "	5 "
June.....	5 "	5 "	5 "	5 "
July.....	5 "	5 "	5 "	5 "
August.....	5½ "	5½ "	5½ "	5½ "
September.....	6 "	6 "	6 "	6 "
October.....	6½ "	6½ "	6½ "	6½ "
November.....	6½ "	6½ "	6½ "	6½ "
December.....	7½ "	7½ "	7½ "	7½ "

Wheat, ½ cent per bushel more than Corn.

Average rate of freight on wheat in cents per bushel.

St. Louis to Liverpool via New Orleans..... 14

" " " " via rail to New York..... 21

AVERAGE RATE OF FREIGHT ON GRAIN BY RIVER FROM ST. LOUIS TO NEW ORLEANS.

	In sacks by Steamblt. Wheat in b'k by B'rges.	
	1882.	1887.
1882.....	16.57 cts. per 100 lbs.	6.50 cts. per bushel.
1891.....	16.28 "	6.58 "
1890.....	15.66 "	6.35 "
1888.....	17.33 "	6.35 "
1887.....	15 "	6.35 "
1886.....	18½ "	6.35 "
1885.....	16 "	6.35 "
1884.....	15 "	6.35 "
1883.....	14 "	6.35 "
1882.....	17½ "	6.35 "
1881.....	20 "	6.35 "
1880.....	20 "	6.35 "
1879.....	19 "	6.35 "
1878.....	18 "	6.35 "

1890. 1891. 1890. 1889. 1888. 1887.

14 1-3 15½ 17 1-3 15½ 14.8

21 25.55 21.48 24.97 22.95 24.8

HARBOR AND WHARF COMMISSIONER'S REPORT.

STATEMENT OF THE AMOUNT OF LUMBER, SHINGLES, LATHS, PICKETS AND LOGS RECEIVED BY RIVER AT ST. LOUIS DURING THE YEAR 1892 AND PREVIOUS YEARS.

	White Pine Feet.	Shingles, No.	Laths, No.	Pickets, No.	Logs Sup. Feet.	Yell'w Pine Feet.	Poplar Feet.	Cotton-wood Feet.
Total, 1892.	69,405,052	38,946,500	22,205,300	690,000	7,852,880	101,500	5,809,327	9,833,824
" 1891.	80,241,799	41,037,750	20,231,050	1,114,490	5,207,100	101,500	7,764,358	11,109,655
" 1890.	71,739,010	45,449,150	16,336,650	663,688	10,005,082	227,500	10,639,000	15,686,800
" 1889.	71,935,520	43,350,500	21,336,350	201,892	8,703,776	191,500	8,499,600	11,951,345
" 1888.	72,311,387	25,743,500	14,650,507	273,754	6,338,850	501,000	10,578,000	8,734,000
" 1887.	131,490,066	70,370,735	43,034,705	448,750	6,276,500	113,000	9,471,041	6,436,000
" 1886.	124,154,170	48,485,000	37,154,600	892,350	6,668,930	73,900	8,420,462	3,925,500
" 1885.	131,753,637	66,882,387	51,127,567	571,430	6,697,040	97,000	6,474,575	3,763,800
" 1884.	134,759,928	74,570,533	41,287,829	216,688	5,378,711	.....	8,949,292	3,852,978
" 1883.	129,492,689	60,056,671	28,953,100	1,101,689	5,373,746	.....	10,296,093	1,700,000
" 1882.	162,682,830	56,886,269	35,247,074	1,451,748	4,341,763	.....	11,844,915	2,530,000

	C'pr'ss Feet.	Sycamore Feet.	Ash Feet.	Oak Feet.	Walnut Feet.	Cum. Feet.	Maple Feet.	Hickory Feet.	Cherry Feet.	Elm Feet.
Total, 1892.	985,746	1,515,766	2,109,758	4,405,934	610,496	411,700	59,500	67,360	11,000	225,700
" 1891.	2,066,219	1,427,476	1,557,616	2,934,120	505,168	501,700	18,500	27,500	7,000	43,500
" 1890.	1,460,800	377,600	3,959,000	3,646,243	531,585	591,000	60,400	45,000	2,250	147,200
" 1889.	434,400	567,500	2,399,000	1,299,700	457,900	793,500	257,500	74,000	36,900	.....
" 1888.	557,000	146,000	4,696,000	1,783,079	1,108,900	435,000	284,000	295,600	109,000	.....
" 1887.	239,100	250,500	1,683,395	1,998,519	1,169,617	471,248	148,900	2,500	7,000	.....
" 1886.	200,757	271,000	1,842,000	211,475	1,884,300	707,500	.....	13,500	.....	.....
" 1885.	438,000	.....	1,218,900	369,000	504,775	351,729	.....	.....	.....	.....
" 1884.	253,772	.....	2,289,167	702,403	976,463	203,926	.....	.....	.....	.....
" 1883.	287,000	.....	4,015,000	762,450	3,383,500	857,000	.....	.....	.....	.....
" 1882.	.....	.....	3,764,748	1,906,4	2,039,630	.....	.....	.....	.....	.....

STATEMENT

SHOWING AMOUNT OF FREIGHT, IN TONS, RECEIVED AT ST. LOUIS BY EACH
RAILROAD AND RIVER, FOR FOUR YEARS.

ROUTE.	1892.	1891.	1890	1889.
Missouri Pacific R. R.	1,157,504	844,998	931,149	799,848
St. Louis & San Francisco Ry.	551,141	486,671	437,913	363,322
Wabash Railway (West Line).....	426,045	491,800	611,335	523,951
Chicago, Alton & St. L. R.R. (Mo. Div.).....	126,487	147,646	124,239	102,158
St. Louis, Kansas City & Colorado R. R.	56,114	48,202	40,164	35,356
St. Louis, Iron Mountain & Southern R.R.....	1,105,857	988,195	947,577	929,383
St. L., A. & T. H. R. R. (Cairo Short Line).....	946,547	845,659	850,806	720,793
Louisville & Nashville R.R.	556,788	437,730	362,868	408,485
Mobile & Ohio R.R.....	594,947	408,126	359,642	502,744
Ohio & Mississippi R.R.	693,179	679,874	639,377	551,495
Chicago, Alton & St. Louis R.R. (Main Line)....	253,785	246,100	270,120	318,157
Cleveland, Cincinnati, Chicago & St. Louis R.R.	532,160	518,667	559,218	529,483
Terre Haute & Ind. R. R. (Vandalia Line).....	891,285	888,913	1,009,354	910,970
Wabash Railroad (East Line).....	900,004	817,312	860,368	759,569
Toledo, St. Louis & Kansas City R. R.	416,345	728,353	411,838	179,277
Louisville, Evansville & St. Louis R.R.	466,515	406,800	346,223	260,448
Wabash Railroad (Iowa Branch).....	53,847	90,665	110,200	54,653
Jacksonville Southeastern Line.....	273,198	168,412	.....	.....
Chicago, Bur. & Quincy R.R.	374,911	258,408	394,071	325,177
St. Louis, Keokuk & Northwestern R.R.	598,804	596,198	702,829	755,343
St. Louis & Eastern R. R.	252,942	.....	.....	.....
Upper Mississippi River.....	135,435	90,865	128,960	113,305
Lower Mississippi River	212,545	209,095	222,075	212,375
Illinois River.....	49,520	31,190	22,770	65,375
Missouri River	13,065	25,065	21,350	17,585
Ohio River	96,930	63,890	102,500	115,590
Cumberland & Tennessee Rivers.	49,485	29,945	33,135	19,760
Upper Mississippi River by rafts	130,220	142,090	132,940	127,695
Total in Tons.....	11,916,205	10,690,869	10,633,021	9,702,297
Total by Rail	11,229,005	10,098,729	9,969,291	9,030,612
Total by River.....	687,200	592,140	663,730	677,685

STATEMENT

SHOWING THE AMOUNT OF FREIGHT, IN TONS, SHIPPED FROM ST. LOUIS BY
EACH RAILROAD AND RIVER FOR FOUR YEARS.

ROUTE.	1892.	1891.	1890.	1889.
Missouri Pacific Railroad.....	645,830	502,026	470,607	436,720
St. Louis & San Francisco Ry.....	409,298	332,028	317,577	304,361
Wabash Railroad (West Line).....	432,581	336,352	344,145	312,960
Chicago, Alton & St. L. R. R. (Mo. Div.).....	103,077	102,840	102,490	91,508
St. Louis, Kansas City & Colorado Railroad.....	9,412	5,114	8,581	3,874
St. Louis, Iron Mountain & Southern R. R.....	620,671	623,414	590,305	607,752
St. L., A. & T. H. R. R. (Cairo Short Line).....	290,696	313,280	317,111	252,585
Louisville and Nashville Railroad.....	268,960	207,034	287,513	275,180
Mobile & Ohio Railroad.....	149,473	187,581	204,319	172,013
Ohio and Mississippi Railroad.....	167,942	155,860	130,895	164,568
Chicago, Alton & St. Louis R. R. (Main Line) ...	315,786	301,757	263,595	290,951
Cleveland, Cincinnati, Chicago & St. Louis R. R..	307,671	269,534	394,855	279,116
Terre Haute & Ind. R. R. (Vandalia Line).....	421,819	340,633	319,894	351,650
Wabash Railroad, (East Line).....	524,439	374,125	665,781	367,154
Toledo, St. Louis & Kansas City Railroad.....	315,539	242,532	278,725	94,969
Louisville, Evansville & St. Louis Railroad.....	104,968	148,757	44,578	9,244
Wabash Railroad (Iowa Line).....	72,321	52,806	47,037	44,050
Jacksonville Southeastern Line.....	98,403	84,205	.....	.....
Chicago, Bur. & Quincy R. R.....	255,720	205,825	182,735	162,376
St. Louis, Keokuk & Northwestern Railroad.....	451,117	421,025	360,107	273,415
St. Louis & Eastern R. R.....	4,031	.....	.....	.....
Upper Mississippi River.....	51,595	18,630	22,547	47,560
Lower Mississippi River.....	392,635	445,150	543,805	632,695
Illinois River.....	7,755	4,305	3,620	2,275
Missouri River.....	29,455	19,280	10,035	2,595
Ohio River.....	1,000	.....	.....	10,355
Cumberland & Tennessee Rivers.....	19,665	22,435	15,675	12,760
Red, Ouachita, Arkansas and White Rivers.....	110	3,130	6,180	4,460
Total in Tons.....	6,471,969	5,729,158	5,872,712	5,207,146
Total by Rail.....	5,969,754	5,216,228	5,270,850	4,494,446
Total by River.....	502,215	512,930	601,862	712,700

THE RIVER BELOW ST. LOUIS.

There are several important towns between St. Louis and New Orleans which command an extensive trade by river. Between these prominent points are a great number of smaller places, which, having no rail connection, depend entirely upon the river as a means of communication. While the business at these points is very considerable in the aggregate it is all local business, of which no record is kept.

CAIRO, ILLINOIS, is located at the mouth of the Ohio River, 200 miles below St. Louis. It has a very considerable river traffic served by the boats of the St. Louis and New Orleans Line and by the Ohio River Packets. In addition to these through lines it has several local boats plying to near-by towns and doing a large trade. At this point the Ohio River enters the Mississippi, bringing to the commerce of the Mississippi a vast traffic. There are two regular lines from Cincinnati; the Southern Transportation Co., running four boats to Vicksburg and New Orleans, and the Memphis and Cincinnati Packet Co. with four boats to Memphis; also two lines of towboats, the Huntington and St. Louis Line and the J. M. Barrett & Son Line.

From Pittsburgh there are several lines of boats running out to the Mississippi to points both above and below Cairo, one of the largest of which is the Gray Iron Line. The most important product, however, that comes from the Ohio is coal. In the report of the Internal Commerce of the United States, published in 1888 by the Bureau of Statistics at Washington, the following reference is made to the coal traffic of the Ohio River:

“A tow is made up of one towboat and from 10 to 14 barges, coal boats and flats, and from one to four fuel barges filled with slack coal for boiler fuel during the trip. These boats are all placed in front of the towboat, except one on each side of the steamer, all securely lashed together, forming a compact mass about 350 feet long and 150 feet wide, and holding from 500,000 to 700,000 bushels, or an average

of 24,000 tons of coal. Of such tows from eight to ten in a day, in the coal boating stages of the river, leave Pittsburgh for all points below as far as New Orleans, and there are now from 90 to 100 towboats, ranging in cost from \$8,000 to \$30,000, employed in thus propelling coal. A tow of coal thus made up represents a value of \$80,000 as it leaves the harbor of Pittsburgh. * * * Steam towing on the rivers of the United States has been very largely the means of recussitating the river trade. By it Pittsburgh has sent forth hundreds of millions of tons of coal, iron and general merchandise throughout the entire Ohio and Mississippi Valleys. Her position in commerce has thus been maintained and an economic check imposed upon the transportation charges in this vast territory, of paramount importance. An example is given in a trip made by the Steamer Joseph B. Williams that left Louisville for New Orleans with a tow of 26 coal boats and barges containing 600,000 bushels of coal. The charges for carriage of this immense tonnage from Pittsburgh to New Orleans, a distance of 2,000 miles, were at the rate of four cents per bushels, or one-twentieth of one cent per ton per mile."

MEMPHIS, TENNESSEE, the next important town, is 249 miles below Cairo. In addition to the through lines of St. Louis and Cincinnati Packets it has its local steamboats, some ten in number, running to the various bends and rivers tributary to that city. In the report of the Merchants' Exchange for 1891, the Secretary says: "Memphis never forgets that it is the river that makes her the Queen of the Great Valley. The trade of the river is constantly increasing, that of 1891 being in freight fully 25 per cent. over 1890."

The same report shows that of the 723,120 bales of cotton received in the cotton year 1890-91, 127,935 bales came by river.

VICKBURG, MISS., is 826 miles below St. Louis and 363 miles above New Orleans. The river trade of this city and surrounding territory is served by the through St. Louis and New Orleans and Cincinnati and New Orleans Packet Lines,

and the Vicksburg and New Orleans boats, and by local steamers running to Greenville, Natchez and Davis Bend on the Mississippi, and up the Yazoo, Tallahatchie and Sunflower Rivers, and during the winter months a line is maintained to Memphis. Supplies of provisions, grain, cotton, cotton-seed and general merchandise are brought by the through packets and distributed by the smaller boats running to the bends and to tributary streams. The tonnage thus brought and distributed by water routes will average 600 tons per week during the boating season. Work is now being done by the General Government looking to the improvement of the harbor which, when completed, will be of great advantage to the river commerce of the city. Capt. J. H. Willard, U. S. Engineer in charge of the work, in a recent letter says: "Without taking into account the tributaries that may be added to the list of navigable streams in the future, the Yazoo system gives a present high water navigation of over 800 miles, a good part of which might be rendered navigable at all stages, were it not for the bar formed at the entrance by the Mississippi River. * * * The total amount of commerce, reported in 1892 for the Yazoo and its tributaries, was 209,226 tons, valued at \$7,351,500, of which 93,265 tons were on account of Yazoo River alone."

Below Vicksburg are a number of river towns, such as Natchez, Bayou Sara and Baton Rouge, all dependent upon the river for means of transportation and doing a large business of which, however, no record can be obtained.

NEW ORLEANS, LA., is the principal seaport on the Gulf of Mexico and is the commercial mouth of the Mississippi River. It is located on the east bank of the river, 113 miles from the Gulf. It is rendered accessible to the largest seagoing vessels by the "jetties," built by Capt. James B. Eads of St. Louis, through which a thirty-foot channel is maintained. It is the converging point for the commerce of the entire water-ways of the Mississippi Valley, and occupies an important place in the foreign commerce of the United States. The river interest at New Orleans is more prominent than at

any other point on the Western rivers. A greater number of steamers arrive and depart from its levees daily than from any of the other cities and towns on the Mississippi River.

Besides the regular St. Louis, Ohio River and Vicksburg boats it has a vast number of local packets plying in the coast trade below the city, and to all points on the Southern rivers, bayous and bends. Its foreign commerce has largely increased in the last decade. The number of vessels arriving and departing for the past three years is given in the following table by the New Orleans *Times*, being for the fiscal years ending July 31st:

STATEMENT OF THE NUMBER AND TONNAGE OF VESSELS
ENTERED AT THE PORT OF NEW ORLEANS DURING
THE YEAR ENDING JULY 31, 1892.

MONTHS. 1891-92.	Coastwise Vessels.		American vessels from foreign ports.				Foreign vessels from foreign ports.			
			With cargo		In ballast.		With cargo		In ballast.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
August	19	32,485	23	13,295	.....	.....	23	26,855	11	15,289
September	22	38,489	20	10,640	.....	.....	34	46,754	16	23,203
October	36	59,021	15	9,250	2	1,824	37	45,969	33	54,615
November	38	62,623	22	10,822	1	1,417	38	49,683	48	75,927
December	39	65,013	14	7,800	2	1,110	42	57,068	51	70,551
January	33	48,653	11	5,659	1	1,015	39	50,400	51	77,918
February	25	37,103	10	4,845	1	1,581	44	52,949	50	67,748
March	33	56,026	17	8,782	.....	.....	40	52,308	49	57,291
April	20	35,095	24	14,407	.....	.....	48	49,970	46	67,174
May	17	31,383	27	15,285	.....	.....	45	42,949	9	11,873
June	17	29,606	29	16,137	.....	.....	37	34,342	8	4,909
July	20	31,948	23	14,203	1	409	39	48,288	1	423
Totals	319	468,445	235	131,125	8	7,356	466	557,466	373	236,921
Totals 1890-91	313	526,667	211	110,041	7	5,961	425	518,477	205	266,706
Totals 1889-90	265	407,035	173	98,113	4	2,734	455	506,613	331	410,075

STATEMENT OF THE NUMBER AND TONNAGE OF VESSELS
CLEARED AT THE PORT OF NEW ORLEANS DURING
THE YEAR ENDING JULY 31, 1892.

MONTHS. 1891-92.	Coastwise Vessels.		American vessels from foreign ports.				Foreign vessels from foreign ports.			
			With cargo		In ballast.		With cargo		In ballast	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.
August	25	37,539	12	6,619	2	1,078	43	51,065	.....	.....
September.....	16	31,782	14	7,482	2	1,060	39	51,199	.....	.....
October	31	52,329	11	6,642	3	1,344	66	98,997	1	513
November.....	35	58,038	13	7,333	.....	.....	77	107,469	.....	.....
December.....	37	57,410	14	8,229	1	5,715	90	132,636	.....	.....
January.....	18	34,913	10	4,721	.....	.....	101	147,276	.....	.....
February.....	25	36,672	13	7,010	1	1,761	102	140,744	3	1,572
March.....	21	37,364	19	10,303	1	266	93	114,648	1	543
April.....	25	36,123	21	12,465	1	399	101	126,538	1	120
May.....	21	35,569	20	13,563	1	266	63	71,885	3	1,612
June.....	23	32,128	18	10,687	6	996	44	42,765	1	543
July.....	23	36,684	21	13,196	2	1,139	33	37,437	7	3,934
Totals.....	300	486,551	186	108,250	20	14,024	582	1,122,653	16	8,837
Totals 1889-90.....	334	532,306	167	92,499	21	9,150	617	777,244	7	2,808
Totals 1890-91.....	263	399,393	158	90,724	9	3,469	780	932,873	14	5,405

The number of vessels owned in New Orleans in 1892 was 427, as will be seen by the following table taken from the *Times*:

STATEMENT OF VESSELS BELONGING TO THE PORT OF
NEW ORLEANS JULY 31, 1892.

	No. of Vessels.	Gross Tonnage.	Net Tonnage.
Steam—			
Ocean (wood).....	3	2,472.61	1,404.12
Ocean (iron).....	20—23	26,130.12	16,353.31
River (wood).....	103	12,423.51	10,891.02
River (iron).....	14—117	1,703.89	1,202.43
Total steam.....	140	42,729.13	29,850.88
Sail—			
Ocean (wood).....	51	1,775.26	1,686.67
River (wood).....	236	2,245.31	2,133.00
Total sail.....	287	4,020.57	3,820.27
Grand total.....	427	46,749.70	33,671.15
1891-92.....	427	52,330.18	38,050.60
1889-90.....	413	48,951.43	36,863.85

From the same source is taken the accompanying table of exports for two fiscal years ending August 31st :

EXPORTS—COASTWISE AND FOREIGN.

Articles—	1891-92			1890-91.
	Coastwise.	Foreign.	Total.	Total.
Bacon, bxs.....	25	191	216	238
Hams, tierces.....	125	511	636	640
Bran, sks.....	8,125	1,816	9,441	14,209
Butter, pkgs.....	.....	991	991	1,362
Cheese, bxs.....	.....	785	785	1,407
Corn, sks.....	84,570	44,963	129,533	119,197
Corn, in bulk, bu.....	.....	7,236,204	7,236,204	1,808,029
Cornmeal, bbls.....	2,288	112	2,400	3,602
Cotton Seed Meal, sks.....	24,481	1,715,678	1,740,759	965,677
Oil Cake, sks.....	.....	387,984	387,984	266,211
Cotton Seed Oil, bbls.....	60,131	74,489	134,520	151,812
Flour, bbls.....	73,515	240,664	314,179	74,549
Hides.....	797,560	260	797,820	711,789
Hay, bales.....	4,743	1,884	6,627	6,692
Lard, tierces.....	206	1,720	1,926	2,625
Molasses, bbls.....	117,783	26,062	143,845	208,481
Oats, sks.....	19,055	1,410	20,465	27,133
Pork, bbls.....	.....	2,937	2,937	3,584
Rice, bbls.....	50,854	2,839	53,693	33,754
Soap, bbls.....	3,552	9,712	13,264	17,016
Soap Stock, bbls.....	9,588	6,652	16,240	20,500
Sugar, hhds.....	1,440	.....	1,440	6,194
Sugar, bbls.....	124,287	1,962	126,249	623,462
Tobacco, hhds.....	.....	8,356	8,356	5,827
Wool, bales and bags.....	85,952	.....	85,952	96,560
Whisky, bbls.....	10	222	232	314
Wheat, bu.....	.....	13,826,527	13,826,527	5,080,298

New Orleans is the largest cotton market in the United States. The value of the business done in this staple is given by the *Times* as follows :

TOTAL EXPORTS OF COTTON FROM NEW ORLEANS BY COUNTRIES FROM AUG. 1 TO JULY 31, INCLUSIVE.

Countries.	Bales.	Pounds.	Value.
Austria.....	4,100	2,049,786	\$ 203,946
Belgium.....	16,971	8,476,727	847,671
France.....	509,353	253,193,669	24,139,358
Germany.....	393,408	196,728,605	18,881,655
England.....	995,832	494,660,329	44,516,770
Italy.....	99,823	49,801,555	4,756,956
Russia, Baltic.....	42,283	20,432,055	1,575,500
Russia, Black.....	10,021	4,758,204	395,000
Spain.....	76,861	37,378,183	3,618,234
Mexico.....	2,325	1,106,812	80,559
Holland.....	500	250,000	25,000
French West Indies.....	16	6,800	452
1891-92.....	2,151,493	1,068,842,725	\$99,041,101
1889-90.....	1,971,260	983,413,639	97,820,782
1890-91.....	1,825,372	901,963,237	90,663,292

RECEIPTS OF COTTON AT NEW ORLEANS.

	1891-92.	1890-91.	1889-90.
Red River.....	61,946	69,791	56,038
Ouachita River.....	84,898	84,789	76,679
Illinois Central Railroad.....	432,900	396,335	335,350
Morgan Railroad.....	369,491	234,027	229,206
Texas & Pacific Railroad.....	463,597	378,191	293,254
New Orleans & Northeastern Railroad.....	236,339	212,824	152,783
Mississippi Valley Railroad.....	560,596	468,433	439,133
Mississippi River and other sources.....	293,584	233,154	290,858
Total, net.....	2,503,251	2,077,744	1,973,571
L. & N. R. R., from Mobile.....	182,410	177,076	155,245
Morgan R. R., from Galveston & Indianola..	19,133	8,218	4,060
N. O. & N. E. R. R., from Mobile.....	8,631	6,602	15,425
Total, bales.....	2,713,425	2,270,190	2,148,301

It will be noticed that 440,328 bales of cotton were received in 1891-92 by river.

The *Times* gives the following statistics of the grain and flour business of New Orleans during the ending August 31st, 1892 :

The receipts of breadstuffs and grain and feed at this port during the past season were as follows :

814,871 barrels of flour, against 649,471 last year; 12,730,184 bushels wheat, against 5,538,962 last year; 7,105,067 bushels bulk corn, against 2,309,648 last year; 465,890 sacks corn, against 434,152 last year; 699,543 sacks oats, against 702,682 last year; 140,502 sacks bran, against 152,232 last year; 343,917 bales hay, against 314,200 last year.

Messrs. R. McMillan, N. J. Benedic and John Switzer, Grain Inspectors of the Board of Trade, send the following statement of exports to the *Times-Democrat* :

EXPORTS OF FLOUR FROM AUG. 1, 1891, TO JULY 31, 1892, INCLUSIVE.

Countries.	Barrels.	Values.
Costa Rica.....	3,661	\$ 16,644
Guatemala.....	3,972	18,977
Honduras.....	5,455	27,644
Nicaragua.....	3,302	17,025
Colombia.....	1,053	5,256
British Honduras.....	12,284	60,499
Mexico.....	670	3,082
England.....	66,973	278,401
Cuba.....	41,195	195,404
France.....	10,300	60,594
British West Indies.....	55	252
Belgium.....	34,897	145,424
Holland.....	5,784	25,068
Ireland.....	22,857	100,401
Germany.....	649	3,070
Total.....	213,016	\$958,041
1890-91.....	29,544	149,868
1889-90.....	47,805	215,731
	Corn,	Wheat,
	bushels.	bushels.
1891-92.....	6,192,006	13,055,682
1890-91.....	2,242,814	4,474,015
1889-90.....	14,167,922	1,814,587
1888-89.....	12,918,056	885,957
1887-88.....	4,075,279	642,868

FOREIGN EXPORTS OF CORN AND WHEAT BY COUNTRIES FROM
AUG. 1 TO JULY 31, INCLUSIVE.

COUNTRIES.	Corn.		Wheat.	
	Bushels.	Values.	Bushels.	Values.
Costa Rica.....	808	\$ 501	23,327	\$ 27,536
Guatemala.....	3,223	2,042		
Honduras.....	2,292	1,432		
Nicaragua.....	2,997	2,143		
Colombia.....	183	114		
France.....	1,226,244	630,866	10,029,347	10,534,488
Germany.....	2,410,922	1,245,562	1,692,810	1,781,180
England.....	1,179,410	668,053	1,819,025	1,888,005
Belgium.....	691,780	345,460	887,270	956,866
Sweden.....			45,401	40,941
Cuba.....	49,148	27,557		
British Honduras.....	2,488	1,654		
Mexico.....	43,338	33,083	105	125
Holland.....	20,009	9,000	370,354	386,391
Denmark.....	1,027,117	523,814		
Spain.....	8,257	4,945		
Ireland.....	761,577	390,667	394,215	438,635
Italy.....	16,373	8,187		
Total	7,446,157	3,895,080	15,261,854	16,065,172
1890-91.....	2,400,576	1,411,815	3,244,459	3,214,078
1889-90.....	14,898,690	6,551,503	2,541,029	2,199,665

MISSISSIPPI VALLEY STATES

Whose waters in whole or in part flow into the Mississippi River and pass into the ocean through its mouth:

STATES.	Area in Square Miles.	Popula- tion, 1890.	PRODUCTION, 1892.		
			Wheat, bu.	Corn, bu.	Oats, bu.
Ohio.....	41,060	3,672,316	38,022,000	83,853,000	26,364,000
Indiana.....	36,350	2,192,404	39,885,000	103,334,000	29,175,000
Kentucky.....	40,400	1,858,635	11,635,000	68,805,000	10,917,000
Tennessee.....	42,050	1,767,518	8,540,000	61,274,000	7,466,000
Mississippi.....	46,810	1,289,600	25,000	27,272,000	1,554,000
Minnesota.....	83,365	1,301,826	41,210,000	24,192,000	43,573,000
Wisconsin.....	56,040	1,686,880	8,814,000	27,847,000	50,572,000
South Dakota.....	77,650	328,808	31,767,000	17,706,000	18,472,000
North Dakota.....	70,795	182,719	34,995,000	375,000	12,510,000
Iowa.....	56,025	1,911,896	7,257,000	200,221,000	95,841,000
Nebraska.....	77,510	1,058,910	15,670,000	157,145,000	43,181,000
Kansas.....	82,080	1,427,096	70,831,000	145,825,000	44,094,000
Arkansas.....	53,850	1,128,179	1,337,000	34,344,000	4,988,000
Louisiana.....	48,720	1,118,587		15,859,000	421,000
Oklahoma.....	39,030	61,834			
Indian Territory.....	31,400	68,000			
Colorado.....	103,925	412,198	2,504,000	2,773,000	2,886,000
Montana.....	146,080	132,159	898,000	21,000	1,910,000
Wyoming.....	97,890	60,705	101,000	38,000	438,000
West Virginia.....	24,780	762,994	4,302,000	14,322,000	2,871,000
Illinois.....	56,650	3,826,351	28,370,000	165,327,000	75,063,000
Missouri.....	69,415	2,679,184	24,834,000	152,480,000	24,033,000
Total	1,381,875	28,928,799	371,000,000	1,302,522,000	496,289,000

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