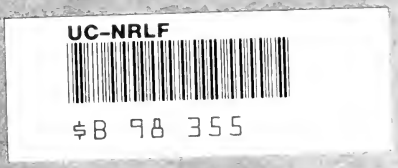

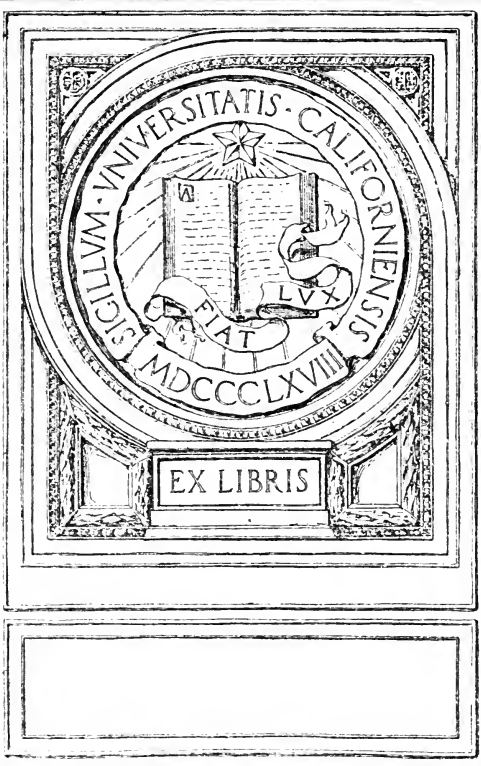
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REPORT

OF

The Harbor, Port and Terminal Commission

TO THE

GENERAL ASSEMBLY

OF

GEORGIA.

1922

Harbor, Port and Terminal Commission

THE GOVERNOR,
THE SECRETARY OF STATE,
THE COMMISSIONER OF AGRICULTURE,
HON. C. H. KITTRELL,
HON. W. B. BAKER.

MYRTLE WHITE,
Secretary.

TO THE GENERAL ASSEMBLY OF GEORGIA:

The Harbor, Port and Terminal Commission, provided for under Act of 1921, was organized by the appointment of Hon. C. H Kittrell, nominated by the Farmers Union and Hon. W. B. Baker nominated by the Georgia Manufacturers Association. The Commission thus constituted held its first meeting on September 22, 1921 and adopted the following resolutions:

RESOLVED, First, that it is the opinion of the Board of Harbor, Port and Terminal Commissioners of the State of Georgia, that it is the highest duty of the State, insofar as it may have power to do the same, to speedily create conditions, under which the farmer will be able to find a market at the nearest railroad station for all non-perishable products of the farm.

RESOLVED, Second, that it is the opinion of the Board of Harbor, Port and Terminal Commissioners of the State of Georgia, that no one achievement will be more conductive to this end than the establishment on our coast of a great harbor equipped with warehouses, grain elevators and every other facility to be found at the most modern commercial gateways of the world, and the establishment thereat of marketing facilities.

RESOLVED, Third, that it is the opinion of this Commission that the State should own and improve not less than two hundred (200) acres at some point on the Georgia coast, located immediately on deep water, with ample anchorage space, where freight train and freight ship may meet for the interchange of our surplus products with other countries for their surplus products. Along our coasts, between Baltimore and Boston, and within two hundred miles of that coast, are twenty-five million consumers, and, with this great mass of our population we should be in easy communication by water, and harbor facilities are essential. We are of the opinion that the establishment of a great world gateway on the Georgia coast will greatly aid the Panama Canal, because by the use of such a gateway, approximately five hundred miles

will be cut off the length of ocean haul of our commerce with the Far East, as compared with North Atlantic Ports, and a like reduction in ocean haul will be effected in all of our trade with the West India Islands and the north coast of South America.

RESOLVED, Fourth, that this Commission invites Savannah, Darien, Brunswick and St. Marys, to have prepared and presented to this Commission by January 1st, 1922, full and complete maps showing the harbor areas and facilities, together with all information which said seaport cities may wish to present, and, also present to the Commission maps showing the location of land on deep water which the State can obtain, and the terms on which the same can be had.

On the fifth of January, 1922, the commission met and received reports from St. Marys, Brunswick and Savannah, each port city submitting full information as to its attractiveness as a place for the location of state owned terminals.

Later the commission employed Mr. Frederick W. Cowie, who had just resigned the position of Chief Engineer of the Montreal Harbor Commission. Mr. Cowie as Chief Engineer had designed, constructed and operated the Montreal Terminals for a long term of years. As these Montreal Terminals, costing something like thirty millions of dollars, had been operated successfully and without cost to the Dominion of Canada, the commission considered itself fortunate in being able to secure the services of so distinguished and so successful a harbor engineer. Mr. Cowie was invited to come to Atlanta. When he came to Atlanta all the maps, papers and documents submitted by St. Marys, by Brunswick, and by Savannah, were turned over to him and he was directed to go to each one of these ports, to look and to listen and to stay at each port as long as anything remained to be seen or anything remained to be heard. He was instructed to report to the commission which of the three ports, in the event of the establishment of state owned terminals at the sea board, was the best port to be selected by the state. Mr. Cowie was told that the commission had no advice to give and no preference to express He submitted his report to the Commission on April 14, 1922 and

the most important feature of this report was that relating to the port of Savannah, in which he also discussed the port of Brunswick, The commission was advised that he would reject the 1600 acres offered the state by Savannah and known as the Deptford Plantation, but that if Savannah would offer certain other property on the river, which he pointed out, he would unhesitatingly recommend the adoption of Savannah as the best place for the location of state owned terminals. He further said that Savannah would give the state the property designated by him. This was on Friday, April 14, 1922 and the commission adjourned from that day until ten o'clock Saturday morning, requesting the president of the board to telephone Mayor Stewart to meet the board the next morning at nine o'clock, Saturday, April 15, 1922. The commission met in the Post Office of the House of Representatives and had present Hon. Murray Stewart, Judge Cann, Mr. Groves and other representatives of the city of Savannah. The commission had Mr. Cowie read his report. The commission then asked the Mayor of Savannah and its other representatives present if the city of Savannah was ready to give to the state the site selected and recommended by Mr. Cowie. The Mayor and other representatives promptly and unequivocatingly stated that the city of Savannah would give to the state the river front property so recommended. The commission thereupon adopted the following resolutions:

WHEREAS, The Consulting Engineer, Mr. F. W. Cowie, has rendered his report on the prospective location of the proposed State Terminal, and same is favorable to Savannah, provided that certain designated property is given free to the State, to be used by the State for a terminal site, or favorable to Brunswick in the event this site is not available, and,

WHEREAS, The State Port Terminal and Harbor Commission has not the available fund with which to carry on further investigation as to the feasibility of the State Terminals,

BE IT RESOLVED, That if the city of Savannah will furnish this site, and also the further survey and the necessary plans drawn in keeping with the results of that survey, in order that the

complete proposal may be presented by the Commission to the next session of the Georgia Legislature, and if, after this survey is completed, and a recommendation of State Owned Terminals seems financially justified from the viewpoint of the creation and conservation of the resources of the producer, and prospective superior market facilities, and from revenues coming from other states as the result of superior coastal concentration, loading and shipping facilities, the Commission will recommend that the Terminals be built at Savannah.

After this the city of Savannah, so the commission is informed and believes, employed Mr. Cowie to prepare plans and specifications for a great state owned plant at Savannah, including warehouses, grain elevators, cold storage warehouses, tracks, and every other facility which would be necessary in order to make the state owned terminals capable of successful and economic operation. Mr. Cowie was engaged for a number of weeks on this work and on July 17, 1922 brought to Atlanta his maps, plans, etc., together with a written report including the entire subject. In this report Mr. Cowie confirmed and emphasized his reasons for the selection of Savannah. These reasons were overwhelming and are submitted to the General Assembly, along with his report, a copy of which is herewith filed.

In view of the existence, at the present time, of all the marketing machinery necessary to enable the state owned terminals to fit into and become a part of a going machine at Savannah, and in view of the misfortune which has universally come to all who invested in Brunswick, on the basis of its great natural advantages, which we admit, the commission is of the opinion that the proper place for the selection of state owned terminals is Savannah. The harbor of Brunswick is undoubtedly one of the finest on the coast, but Jacksonville, just south of it, did not exist when Brunswick was a port doing some import and export traffic. Jacksonville has grown to a city of something like 100,000 people, just south of Brunswick and located on the St. John River, 27 miles from the sea, and has a position which cannot be compared to the position of Brunswick. Savannah is located north of Brunswick, with a harbor in no sense equal to Brunswick in the

matter of natural advantages, has grown to a city of approximately 100,000 people.

Savannah has ocean transportation facilities in daily use at the present time, has a ship a day for New York, and could expand its ocean shipping facilities to meet the demand which would be put upon present transportation companies by the state owned terminals. If Brunswick were selected, shipping facilities would have to be supplied either by the state or by private capital. In the meantime, the state owned terminals might be overcrowded with products of the farm that would have no means of being moved forward to the consuming market unless and until private capital should supply the necessary transportation facilities.

The commission does not think it would be wise to recommend state owned terminals at a port with this disadvantage, when it can select a place where the advantages already exist and where they can be indefinitely increased.

The Commission recommends Savannah.

Respectfully submitted:

S. G. McLendon, President,
C. H. Kittrell, Vice-President,
Thos. W. Hardwick,
J. J. Brown,
W. B. Baker.

REPORT

TO THE

HARBOR, PORT *and* TERMINAL COMMISSION

FOR THE

STATE OF GEORGIA

ON

A STATE PORT TERMINAL PROJECT *at* SAVANNAH

By
FREDERICK W. COWIE, B. A. Sc., M. Am. Soc. C. E.
Consulting Engineer.

JULY 15, 1922

REPORT

TO THE

HARBOR, PORT *and* TERMINAL COMMISSION

FOR THE

STATE OF GEORGIA

ON

A STATE PORT TERMINAL PROJECT *at* SAVANNAH

COMMISSIONERS

THOMAS W. HARDWICK, Governor,	S. G. MCLENDON, Sec. of State, President.
J. J. BROWN, Com. of Agriculture	W. B. BAKER, C. H. KITTRELL.

By

FREDERICK W. COWIE, B. A. Sc., M. Am. Soc. C. E.

Consulting Engineer.

JULY 15, 1922

INDEX TO SUBJECTS

INTRODUCTION

At the Session of the Georgia Legislature in 1921, a Member, Hon. C. H. Kittrell, introduced a Bill which resulted in the creation of the Georgia Harbor Port and Terminal Commission.

AN ACT

To create a Board of Harbor, Port and Terminal Commission for the State of Georgia; to provide for the appointment and term of office of said Commissioners; to define the powers and jurisdiction of said Board; and for other purposes.

SECTION 1. Be it enacted by the General Assembly of the State of Georgia, and it is hereby enacted by the authority of same, that from and after the passage of this Act, there is created and established in the State of Georgia a Board of Harbor, Port and Terminal Commissioners for the harbor and terminals of the State of Georgia, which shall be known as the "Board of Harbor, Port and Terminal Commissioners for the State of Georgia," said Board shall consist of five members, composed of the Governor of Georgia, the Secretary of State, the Commissioner of Agriculture, and one member nominated by the Manufacturer's Association of Georgia and appointed by the Governor, and one member nominated by the Farmer's Union of Georgia, and appointed by the Governor. Through death or removal from office of any one of said Commissioners, a successor shall be appointed by the Board for the unexpired term. The Commissioners appointed shall serve for a term of five years. Said Commisioners appointed shall serve without compensation, but shall be reimbursed for all necessary expenses. A majority of said commissioners shall constitute a quorum for the transaction of business and the Commissioners shall employ a secretary and such other clerks as may be

necessary to keep their minutes and entries of all orders, regulations, and transactions of said commissioners, in a book or books to be kept for that purpose, which said minutes and entries shall be submitted to the inspection of any person or persons who shall desire to see and pursue the same. Said Board shall elect out of its own numbers a President, a Vice-President, a Secretary, whose duties shall be those usual to such officers. Said Board shall meet at regular sessions, not less than once a month, and at such other time as the "President of the Board shall convene them, or on written request of three members.

SEC. 2. Be it further enacted by the authority aforesaid, that said Board shall have the power and authority to have made any and all surveys, maps and drawings of all ports and terminals facilities as they exist, and may hereafter exist in and along the Atlantic coast of the State of Georgia; also to examine into and ascort in the immediate and prospective tonnage, and the character of the same that moves or may hereafter move by way of such port and trminal facilities.

SEC. 3. Be it further enacted by the authority aforesaid, That said Board shall examine into cause to be made, a survey of the warehouses and storage facilities as in their opinion may seem needful for the purpose of stowing merchandise and farm products, and the marketing facilities as they exist and any and all investigations tending toward development of such shipping, stowing and marketing facilities as the Board may deem needful to the best interest of the people of Georgia. It shall be the duty of this Board to report at the next session of the Legislature their findings with recommendations as to the future course to be pursued; provided for carrying out the aforesaid purpose the Bureau of Markets shall pay an amount not to exceed the expenses of the Board members, the salary of the Secretary and cost of experts deemed essential to the effective gathering of information needful to the Board.

SEC. 4. Be it further enactd by the authority aforesaid, That all laws and parts of laws in conflict with this Act be and the same are hereby repealed.

The Harbor, Port and Terminal Commission was organized as follows:

HON. THOMAS W. HARDWICK,
Governor.
HON. C. H. KITTRELL,
Vice-President.
HON. S. G. MCLENDON,
Secretary of State, Pres.
J. J. BROWN,
Commissioner of Agriculture.
W. B. BAKER,
MISS MYRTLE WHITE,
Secretary.

In March 1922, the Harbor Commission engaged the writer to Report on the possibilities and advisability of Port Development on the Georgia Coast.

The instructions of the Harbor Commission to the Consulting Engineer, given at Atlanta, on March 23d, and 24th, was that the Harbors of St. Mary's, Brunswick and Savannah should be examined. The explicit desire to the Commission was, that they be advised which is the best Port on the Coast of Georgia, at which to construct State owned Terminals, but also just the best location at the best Port; and that not only the properties offered should be examined but also, any other which could be found.

The Report resulting from the examination, was presented to the full Board of the Harbor, Port and Terminal Commission, on March 14th, 1922, the Hon. Thomas W. Hardwick, Governor, being present, and the meeting being presided over by the President, Hon. S. G. McLendon, Secretary of State.

After exhaustive consideration, the following resolution was adopted:

Whereas, the Consulting Engineer, Mr. F. W. Cowie, has rendered his report on the prospective location of the proposed State Terminal, and same is favorable to Savannah, provided that certain designated property is given free to the State, to be used by the State for a terminal site, or favorable to Brunswick in the event this site is not available, and,

Whereas, the State Port Terminal and Harbor Commission has not the available fund with which to carry on further investigation as to the feasibility of the State Terminals,

Be It Resolved, That if the City of Savannah will furnish this site, and also the further survey and the necessary plans drawn in keeping with the results of that survey, in order that the complete proposal may be presented by the Commission to the next session of the Georgia Legislature, and if, after this survey is ocmpleted, and a recommendation of State Owned Terminals seems financially justified from the viewpoint of the creation and conservation of the resources of the producer, and prospective superior market facilities, and from revenues coming from other states as the result of superior coastal concentration, loading and shipping facilities, the Commission will recommend that the Terminals be built at Savannah.

The City of Savannah has carried out that part of the obligation contained in the above resolution and the Report to the State Port Terminal Project at Savannah, is herewith submitted.

FREDERICK W. COWIE.

July 15, 1922.

April 15th, 1922.

COL. S. G. MCLENDON, Pres.,
Harbor, Port & Terminal Commission,
Atlanta, Ga.
Dear Mr. McLendon:

Please receive herewith, report, in duplicate, on the survey and physical examination of the Coastal Ports of

Georgia, and on the vital questions leading up to the recommendations and conclusions therein submitted.

It has been very gratifying to me to meet with such cordial reception from the Governor(yourself, and the members of your Commission.

It is with very great pleasure, on the eve of my returning home, to tender to the Commission, so ably presided over by yourself, my very sincere thanks for the very important work they so kindly intrusted me with.

Believe me, Sir,

Yours faithfully,

FREDERICK W. COWIE,
Consulting Engineer.

Montreal address:
191 The Boulevard,
West Mount, Montreal, Canada.

FOREWORD.

In so short a time it has not been possible to make a comprehensive study of either the physical conditions, the commercial details, or a financial analysis of the many problems involved in one of the most vital of modern transportation units, the Port.

The trained investigator, experienced in the design, construction and operation of successful ports, and knowing why success and why failure, may, however, place all the facts presented, the conditions observed and the official documents available into a crucible, and apply the test necessary to decide as to purity or imperfection.

At first glance, a solution of the port problem, to an absolutely impartial mind, appeared to be simple; it was only necessary to apply the same test to the information relating to the three coastal ports, and o know by actual results, if any or all three fulfilled the test, and which resulted in the richest crystal.

The ports were all examined, by direction, with every attention. Every care was exercised, every angle viewed,

and each demonstration listened to, for silent criticism and consideration.

The views and opinions and observations of city officials, shipping men, railway experts, commercial interests, government and city engineers, practical operators, navigators, fishermen, farmers and other producers, and of the splendid Boards of Trade, were heard and noted.

Practically four days were given to a physical examination of each port. The arrangements made by the different Port Committees and organizations, for a thorough investigation, were in each case perfect.

As a knowledge of the vast interests directly and indirectly at stake, of the magnificent vision of the possibilities opened up, of the local anxiety for preferment or the wrecking of hopes, there was only one method of procedure, with a prayer to God for wisdom.

The decision must be based upon what could be, without question, the most careful summing up of convincing facts, and decisive arguments, and an absolutely impartial judgment.

A study of transportation conditions, of production possibilities, of urgent requirements and of the possible aid, direct and indirect, which a modern ocean terminal would result in, could not fail but give a vision of commercial enrichment, of distinctly beneficial aid to farmers and other producers, of increased and new efforts, of better methods of collecting, caring for, selling and shipping of exports and imports; and finally of an expanding, rich and contented port city in a few years, of a half of a million inhabitants; as a result of concerted, vigorous and insistent efforts, as exemplified by the ports of Hamburg, Manchester, Montreal, Seattle, Baltimore and New Orleans.

PRODUCTION.

The wealth, and most of the gold in the world, is now in the United States.

Foreign countries may not be able to pay for much desired American exports now. They must have them soon, and they must find a credit for a few years until they are able to pay.

In the meantime, how can the United States use, to ultimate advantage, her vast reserves of wealth. Obviously by preparing for new conditions, and by increasing production.

The World War is over. The race for naval supremacy is over. Railroad building is sufficient for the present. Ship building has reached and extended beyond the limit of requirement. Manufacturing is not yet stable. Labor is dissatisfied. Production is not attractive.

Production, increased production, and more attractive conditions for production, must be made possible.

Hydro-electric power, or power from oil or coal, must be made cheap, and distributed through the country in ample supplies.

How, therefore, can production be made successful?

(1) Statesmen must give it the necessary legislation.

(2) Capital must, with wisdom, etxend the required credits.

(3) Science must devise new processes, new methods, skillful attention, and united effort, the competition of cheap foreign wages.

(4) Science must devise new processes, new emthods, new articles, new machinery and new applications of our natural resources for the uses of man.

(5) The attractions of the city must be made available or neutralized by others equally enticing, and educational privileges provided, so that in distant places, farmers, miners, and all producers, with their families, may not desire to rush to the city.

(6) Transportation must be made satisfactory, and

as economical as possible, so that the farmer may get the full benefit of his productive efforts.

(7) Products must be so handled and taken care of that they may command the highest prices.

(8) Selling must be effected at a fair cost, so that the producer and also the consumer, may share the profits and live more cheaply.

(9) Health and strength must be conserved and maintained.

To sum up, co-operation of all branches of society, is insistently required to aid production.

Of the nine enumerated influences in favor of production: 6, 7 and 8 would be distinctly and materially aided by a successful State of Georgia Ocean Terimnal.

(6) Transportation would not only aid the farmer and other producers; it would benefit the consumer when purchasing the necessities of life; and it would enrich the line of route by a distribution of transportation tolls and profits.

(7) A modern terimnal with its organiaztion working in the interests of the people would see that the country's products were received, hnadled carefully, cheaply, with low insurance rates, and in their best interests.

(8) The modern Ocean Terminal is a central, comprehensive, co-ordinated depot for collection, storage, handling, preserving and taking care of goods by ship from all parts of the world on the one hand, and by railway, motor truck or vessel from the centres of production in the tributary interior, on the other.

Where better storage, exhibition, sales, repacking and reshipment, than from a modern State Terminal designed for such purposes?

A COASTAL PORT FOR GEORGIA.

The trained observer of physical conditions, the investigator who may obtain truth from statistics, the

public-spirited citizen who offers his services for his country's good, and the engineer who is experienced in the design, construction and operation of successful port terminals, are invited to carefully study the map.

"Peering in Maps, for Ports, and piers, and roads."—*Shakespeare.*

The coast of Georgia, heaven knows it is rich in romance and history, but the observer, the investigator, the public-spirited citizen, and the engineer, see other things.

They observe the North Atlantic, with rich, prosperous, and successful ports, at frequent intervals along the coast between Baltimore and Montreal. They see the Gulf of Mexico, with growing and prosperous ports. They then compare this with the coast line from Balti-More to Florida, where there is no actiev effort at comprehentive port development.

The Port of Montreal is advancing by leaps and bounds.

New York and New Jersey are spending untold millions in the doubtful effort of holding their own against the St. Lawrence route.

The scheme which Baltimore is embarking on, will involve about forty-five million dollars.

New Orleans State and port has spent and is spending as much or more.

These are all in the nature of national ports.

Why these successful ports?

Monteal has the East and West tansportation of Canada, and is drawing a large share of business from the Northwestern States.

New York, with her splendid city; her capital; her commercial organization; and the network of continental railroad lines, to and from the Northern, Western, Middle and New England States; is in an intrenched position.

Baltimore, is however, cutting into one side of New York's territory, as Montreal is the other.

New Orleans is, by man's effort, aiding the physical resouces of nature.

Now a port to be financially successful, must be comprehensive, so as to attract not only local but world-wide commerce and shipping. For one State, even Georgia, relying on State business alone, the vision of a successful competitor to Montreal, New York, Baltimore or New Orleans, may obviously be dismissed. But for a comprehensive port on the coast of Georgia, there are, in addition to Georgia business, the productive interior areas tributary, including the western half of the two Carolinas, Alabama, Tennessee and Kentucky, in all, equal to five States, and sufficient for a great world's port. Georgia would, therefore, reap not only the benefits of a terminal required for State necessities but wolud have a large share of the cost paid by the tolls on transportation to and from these interior States.

In fact, the immense area tributary to a Georgia port, may be measured by boundaries running through Columbia, Cincinnati, Indianapolis, St. Louis, Cairo, Birmingham, Montgomery and Columbus.

Executives of the great transportation system and practical railway operators, have been asked and have given detailed information, backed up by experience, rates and personal knowledge.

The following letter, from Mr. C. H. Kerr, Assistant Freight Tra__c Manager, Southern Railway System, speaks for itself:

Mr. F. W. Cowie, Consulting Engineer,
Harbor, Port and Terminal Commission,
Atlanta, Ga.

Dear Mr. Cowie:

In line with our several conferences and your letter of the 11th, I am giving you below in a general way the rate situation as applied to export traffic to Georgia and other South Atlantic ports as compared with Eastern ports, as well as gulf ports.

Export Rates to South Atlantic Ports—General From Ohio River Crossings—Concinnati, Louisville, Evansville, Cairo and St. Louis—Nashville, Memphis, etc.

COMMODITIES—GENERAL.

The rates generally from Ohio River Crossings, such as Cincinnati and Louisville to South Atlantic Ports (which includes Brunswick and Savannah) are the same as to Baltimore and Norfolk and lower than to Philadelphia and New York and are the same as or less than to Gulf Ports. From Evansville, Cairo, St. Louis, Nashville and Memphis to South Atlantic Ports they are generally lower than to Baltimore but higher than to Gulf Ports. This basis has been in effect for a number of years and it will be the purpose of the Southern Railway to continue this basis in effect.

In other words South Atlantic Pots have an advantage over New Orleans and Mobile on traffic from Cincinnati and Louisville, whereas from Evansville, Cairo, Nashville and Memphis, New Orleans and Mobile have an advantage over South Atlantic Ports, but from all of these gateways the rates to South Atlantic Ports are as low as to any North Atlantic Port and lower than to Philadelphia, New York and Boston.

FROM CENTRAL FREIGHT ASSOCIATION TERRITORY.

Classes and Commodities (except Grain—General.

From points in Central Freight Association Territory, which includes practically all of Ohio, Indiana, Illinois (except Ohio River Crossings already dealt with) and Michigan, there are through rates published to South Atlantic Ports and Gulf Ports the same as rates from that territory to New York. This basis has been in effect since 1919 and should enable South Atlantic and Gulf Ports, so far as rates are concerned, to compete with North Atlantic Ports.

Rates on Export Grain—Carload.

From Cincinnati and Louisville to South Atlantic Ports the rates on Grain ofr export are the same as to

Baltimore, i. e., 26 cents per hundred pounds, and from Evansville, Cairo and Nashville the rates to South Atlantic Ports are substantially less than to Baltimore or Norfolk and, of course, less than to Philadelphia, New York or Boston.

From Cincinnati and Louisville the rates to South Atlantic Ports are also less than to Gulf Ports, but from Evansville, Cairo, Nashville, St. Louis (reshipping rates from St. Louis) and Memphis the rates to Gulf Ports are somewhat lower than to South Atlantic Ports. For example: Reshipping rate from St. Louis to South Atlantic Ports is 25 cents and to Gulf Ports 18 cents, whereas from St. Louis proper rate to South Atlantic Ports is the same as to Baltimore or Norfolk, i. e., 32½ cents or 1½ cents less than to New York.

From Chicago proper and other points on the Chicago, Indianapolis & Louisville Railway, the rates to South Atlantic Ports and Gulf Ports on export grain carload are the same as to New York City, i. e., 30½ cents per hundred and the reshipping rate on grain from Chicago to South Atlantic and Gulf Ports, which would apply on grain originating beyond Chicago, is substantially less than the rates to Baltimore, Norfolk or New York and the same as the Gulf Ports. From other points in Central Freight Association Territory rates on grain to South Atlantic and Gulf Ports are made on Ohio River combination which results in total rates somewhat higher in most instances than from the same points to Baltimore or New York.

From Memphis proper the rate on gain to South Atlantirc Ports is 1 cent less than to Baltimore and 4½ cents less than to New York and the reshipping rate from Memphis applicable on traffic from beyond to South Atlantic Ports is very substantially less than to Baltimore or other Eastern Ports or Gulf Ports.

In order that you may have some specific figures on export grain rates from the various poducing and reshipping points, I am indicating below a list of such rates:

Rates on Grain, C. L. For Export

FROM	BRUNSWICK, GA.	CHARLESTON, S. C.	SAVANNAH, GA.	JACKSONVILLE, FLA.	NORFOLK, VA.	BALTIMORE, MD.	NEW YORK, N. Y.	NEW ORLEANS, LA.	MOBILE, ALA.
Cincinnati---------Ohio.	26	26	26	26	26	26	27½	33	33
Louisville----------Ky.	26	26	26	26	31½	26	33	30	30
Evansville---------Ind.	26	26	26	26	32½	32½	34	x20½	x20½
Cairo----------Ill.	26	26	26	26	33½	33½	35	x20½	x20½
Nashville---------Tenn.	26	26	26	26	27½	34½	36½	25	25
St. Louis----------Mo.									
Proper----------	33½	33½	33½	33½	32½	32½	34	32	32
Reshipping----------	25	25	25	25	------	------	------	18	18
Chicago----------Ill.									
Reshipping----------	22½	22½	22½	22½	------	------	------	22½	22½
Proper----------	30½	30½	30½	30½	29	29	30½	30½	30½
Memphis---------Tenn.									
Proper----------	37½	37½	37½	37½	34	38½	42	x20½	x20½
When from beyond------	16	16	16	16	------	------	------	------	------

x–Applies for export to Europe; when for other countries than Europe, rate is 22¢.

From the above it will be seen that from such important points as Ohio River crossings and from territory basing thereon, South Atlantic Ports are on a parity with Baltimore or Norfolk and on a lower basis than Philadelphia, New York or Boston.

From Central Freight Association Territory on classes and commodities generally South Atlantic Ports are on a parity with New York but on export grain carload this is true only as to Chicago and other points on the Chicago, Indianapolis & Louisville Railway.

From St. Louis proper the rates on traffic generally, including grain, to South Atlantic Ports are the same as to Baltimore and Norfolk and slightly less than to New York but the reshipping rates on grain from St. Louis and on grain from Nashville, Cairo, Evansville and Memphis proper the rates to South Atlantic Ports while substantially less than to Baltimore and other North Atlantic Ports, are somewhat higher than to Gulf Ports.

The above does not take into account the territory south of the Ohio and east of the Mississippi (except Nashville) from which the rates generally to South Atlantic Ports are as low as, or lower, than to Gulf Ports and of course substantially lower than to North Atlantic Ports. This includes most of the cotton producing territory, as well as lumber and other manufactured articles, particularly iron and steel from Macon, Atlanta, Chattanooga, Knoxville, etc.

Yours truly,
(Signed) G. H. KERR,
Asst. General Traffic Manager."

A fund of valuable and illuminating information was received from the Bureau of Foreign and Domestic Commerce, and the Bureau of Crop Estimates; through the kind attention of Honorable William J. Harris, United States Senator, from Georgia.

Figures of Exports, excellent as the showing is, are, however, too misleading to be quoted. The Coastwise

Ships from Georgia Ports, as stated, to average one every day, carrying immense shipments to New York and Boston, Baltimore and Philadelphia, to which Ports the exports are credited.

From a careful study of official statistics, figures of production offers a very striking view of the possibilities of important commerce through an Economic and satisfactory Georgia Coastal Port, if constructed.

Approximate average production figures may be given of the States more or less tributary to a Georgia Port, as follows:

Corn (bushels)	750,000,000
Cotton (bales)	3,500,000
Tobacco (lbs.)	100,000,000
Peanuts (bushels)	4,000,000
Eggs (dozen)	400,000,000
Fowls	125,000,000
Cattle	5,000,000
Sheep	1,500,000
Swine	8,000,000

This area is also immensely rich in Coal, Iron ore, Marble, Shales, etc.

In water-powers, however, there is one of the brightest hopes of the Southeastern States.

Georgia, Alabama and Tennessee alone, will be able to supply Hydro-Electric Power sufficient to develop many industries which find cheap coal no longer available.

Summing up, there is every reason to convince the people of Georgia, that their action in taking up the question of a Coastal Port, is not only sound, but it is well timed.

The Port of St. Marys.

According ta arrangements made by the President, Colonel McLendon, I made an inspection of the Georgia Coastal Port District of St. Marys, from March 25th, to 28th, inclusive.

The Hon. J. T. Vocelle, Secretary of the Board of Trade; J. H. Becker, Mayor; Mr. J. S. N. Davis; and others, gave every facility for the obtaining of complete information.

A more beautiful town, or one more full of delightful historical traditions, it has never been my good fortune to visit.

From business men, from farmers, from practical navigators, and from the "oldest inhabitant," there was one unanimous view-point, viz: that St. Marys had the best harbor, the best channel from the sea, the best climate and the best future possibilities of any of the South Atlantic United States Ports.

In the report of the Chief of Engineers, U. S. Army, 1921, St. Marys is designated "St. Marys River."

The entrance from the Ocean is described in the report on Fernandina Harbor.

It is twenty-two and one-half (22½) Statute miles North of the entrance to Jacksonville Harbor, Florida, and ninety-five (95) Statute miles south of the entrance to Savannah Harbor, Georgia.

The existing project provides for the outer bar a nineteen (19) foot channel at mean low water by means of twin Jetties, supplemented by dredging.

From the standpoints of navigation, and possible channel improvements, a harbor at St. Marys would have excellent recommendations. The first cost for a deep water entrance would be considerable, but maintenance would be reduced to a minimum. The present harbor and the existing structures and facilities, would not be of any value in connection with a State Ocean Terminal.

In measuring how St. Marys comes up to the requirements of a State Coastal Terminal, we must consider:

(1) *Competition of Other Ports.*

The nearest rival of St. Marys is Fernandina. It is true Fernandina is not a Port of Georgia. The general economic situation must, however, be faced. Fernandina

is a going Ocean Port, with an established United States Quarantine Station, with docks, excellent shipping facilities, and with good connections from Georgia. From the Ocean the approach is also even better than to St. Marys.

The proposed Atlantic to the Gulf Canal, projected to connect the Cumberland Sound, via the St. Marys River, and the Okefenokee Swamp with St. Marks on the Gulf of Mexico, has been cited by those interested in St. Marys.

> "It would secure a protected waterway for Barge transportation from the Atlantic to the Gulf."
> "St. Marys would be the Ocean Port."

If, on the other hand, the Canal were built as a Ship Canal, rather than as a Barge Canal only, if undertaken, as it logically should be, would it benefit either St. Marys or Fernandina? Rather Mobile, New Orleans and Galveston would reap the advantage, as Ships from these Ports would go through without stopping.

(2) *Railway Transportation.*

In Continental Transportation, the United States railways have no equal in the World. The most far-seeing, the most astute, the most courageous and the most skillful minds in the world have projected and built railways, even possibly beyond the safe economic limit, in competitive efforts for securing business. The railways have up to the present, however, shown no serious attraction for St. Marys as a Coastal Railway Terminal.

(3) *Location.*

Point Peter physically, would offer an excellent site for a great Ocean Terminal. There is timber on the Government Reserve to aid in Port Construction, and in the building of a new city. The distance from the present town to the centre of such a Terminal, would be approximately three imles by the best route available. St. Marys possibly would be the residential, but is too far to be the business centre of a Point Peter Terminal.

(4) *The Port City.*

There have been instances of a small town being transformed into an important commercial centre by exclusive or transcendent advantages.

It cannot be claimed, however, that St. Marys offers advantages such as would warrant the State of Georgia entering upon a project of such doubtful commercial advantage, when there are other Ports in Georgia which have the population, the financial power, the commercial influence, the attraction to shipping, and the favorable influence of the railway interests.

THE PORT OF BRUNSWICK.

The inspection of the Brunswick Port Terminal situation was made from March 29th to April 1st, inclusive.

The interest which the citizens of Brunswick and her commercial business organizations evince in the State Port and Terminal Project, may be appreciated by their splendid co-operation in connection with the comprehensive survey and study of the physical and vital questions involved.

The Board of Trade is, in its personnel; in its officers; in its efficient management and in its cordial co-operation, beyond compare.

From the Banker and Shipping Merchant, to the Stevedore and Pilot, every assistance was freely given.

A magnificent Yacht was placed at the service of the Committee, for the inspection. From the Bar to the connecting Inland Navigation Rivers, to every improved Port Facility, and to every unimproved available site, observation trips were taken.

Shipping men were present, men of success and reputation, to give their views; Railway Experts to give information, engineers to explain physical and constructive conditions; Captains to give navigation explanations; and Bankers, Professional men, and experienced

business men to confer and make clear all sides of the situation.

The United States Assistant Engineer gave cordially, such information, both as to navigation and constructive conditions, as requested.

The City Engineer and Manager, gave facts and figures necessary in making tentative estimates.

The very exhaustive compilation of information, including maps, statistics and reports, presented by the Brunswick Board of Trade, filed with the Harbor, Port and Terminal Commission, is a work of most praiseworthy excellence.

The Maps and Charts presented, together with the descriptive matter, is worthy of special comment:

The United States expenditures on improvements and Maintenance, and Comparisons between Brunswick and Savannah.

Anchorage Space and Safety of Ships while at anchor.
Extracts from Official Documents:
Brunswick Situation and Activities.
Brunswick's Superior Connections with Trunk Line Railways running East and West.
Brunswick Harbor Facilities.
The location of the Atlantic Refining Co., in Brunswick.
Pilotage and Towage.
Georgia's Wonderful Waterways Systems.
Distances.
Rate Adjustment.
Export Rates.

Maps Showing:
- Rail Operative Conditions.
- Tobacco.
- Naval Stores & Lumber.
- Live Stock Production.

Also charts showing sites in the vicinity of Brunswick,

offered to the State of Georgia for a Port and Terminal Project, and of the following signed offer:

> "If the State requires more than one site to carry out their plans, it is further agreed and understood that Brunswick will furnish them whatever site or sites ther require."
>
> (Signed) C. D. OGG, Mayor.
> J. L. ANDREWS, Commissioner,
> M. B. McKINNON, Commissioner.

From the Annual Report of the Chief Engineers, U. S. Army, the following may be cited:

BRUNSWICK HARBOR, GA.

"*Location and Descriptions*—Brunswick Harbor entrance is 70 statute miles south of entrance to Savannah Harbor, Ga., and 25 statute miles north of entrance to Fernandina, Harbor, Fla. It embraces the improved channel across the bar, St. Simons Sound, Brunswick River, East River, to the upper limits of the icty, and Turtle River to the Southern Railway Terminals; also that portion of Academy Creek used by shipping interests. Not including the bar channel, the harbor is 7 miles in length and 300 to 3,000 feet in width. (See U. S. Coast and Geodetic Survey Chart No. 12)."

"*Existing Project*: This provides for channels, as following:

27 feet deep and 500 feet wide through the bar;
24 feet deep and 400 feet wide at Brunswick Point;
24 feet deep and 350 feet wide in East River and Turtle River;
24 feet deep and 150 feet wide in Academy Creek; and a cut from Academy Creek to Turtle River; if later decided advisable.

All depths are referred to mean low water. The mean tidal range on the bar is .3 feet, and at the

City of Brunswick 7.0 feet with minor fluctuations, due to wind and lunar effects."

"*Conditions at End of Fiscal Year*: The existing porject is 35 per cent completed. Maintenance dredging has been necessary to take care of shoaling. The east training wall and spur dike are in good condition. The controlling depths and dates at which they were determined are as follows:

Bar 24.4 feet, June, 1921;
Brunswick Point, 24.0 feet, March, 1921;
East River, 21 feet, May, 1921;
Academy Creek, 21 feet, June, 1921;
Lower Turtle River, 22.2 feet, aMy, 1921;
Middle Turtle River, 24.6 feet, December, 1920;
Upper Turtle River, 23.6 feet, October, 1920."

"*Terminal Facilities*: This improvement serves a developed water front of about 3.6 miles, including a wharf 2,000 feet long at the Southern Railway terminals and a wharf owned by the Atlantic Refining Co., with frontage of 360 feet on Turtle River and excluding dredged docks. All wharves are of the open pile-and-timber type except those of the Atlanta, Birimngham & Atlantic Railway terminals, which are built of reinforced-concrete piles and bulkhead, with timber superstructure. Of the total developed frontage the railroads own about 2 miles (most of it under lease to forwarding agents), and private individuals and companies about 1 mile. The City of Brunswick owns and maintains two small municipal wharves, 225 linear feet of undeveloped frontage and the foot of all city streets, though she controls only two of them, the rest having been leased to individuals or corporations. The railroads parallel the water front and serve the separate wharves by spurs; all wharves except the Southern Railway terminals have highway or street connection. None of the wharves are equipped with mechanical unloading devices except those owned by the Southern Railway Company

and the Atlantic Refining Company, the latter wharf beink equipped with a pumping station for the discharge of fuel oil from ships.

"One dock, about 1,800 feet long, was dredged at the Atlanta, Birmingham & Atlantic Railway terminals, but owing to rapid shoaling these terminals have not been properly maintained. The municipal and railway wharves are open to the public on equal terms; all others are exclusively for private use. These facilities are considered ample for existing commerce, but it is considered advisable to develop the water-front property recently acquired by the city by the construction of a municipal wharf open to all on equal terms."

"*Effect of Improvements*: The commerce for the first year after completion of the 1907 project was 10 times in tonnage and 50 times in value compared with the commerce before improvement. A reduction in ocean freight rates followed improvement, but there were other contributing causes. The improvement permitted the regular line of coastwise steamers to enter and leave the port regardless of the stage of tide."

"*Recommended Modifications of Project*: None."

"*Commercial Statistics*: Comparative statement of commerce for the last five years is as follows:

Year	Tons	Value	Floated logs.		Total		Passengers
			Tons	Value	Tons	Value	
1916	468,459	$67,319,550	1,557	$7,278	470,016	$67,326,828	25,709
1917	321,868	55,992,262	296	13,918	322,164	56,006,180	26,000
1918	556,458	57,016,280	17,403	215,135	573,861	57,231,415	57,000
1919	378,031	75,828,000	12,070	142,000	390,101	75,970,000	121,670
1920	739,305	48,859,000	26,976	434,000	766,281	49,293,000	84,416

Exclusive of 52,898 short tons; value, $3,255, 422, cargoes in transit."

From the Ocean the conditions for a Port looked exceedingly good.

The location in connection with Railway Systems gave every indication of a successful Ocean Terminal Project.

Inland and Coastal Navigation possibilities were worthy of consideration.

The City Commercial Status was good.
Construction conditions were found to be excellent.

Several sites for State Terminals were offered. They were inspected and tentative schemes laid down for study, and approximate estimate, viz: A, B, B-2, C and D.

Scheme "C" is an exceedingly attractive study. It consists of a Basin adjoining the lower portion of the City, with a proposed development, to begin with. On the Main Channel, a bulkhead for Liners. Along the Basin, facilities for Special and General Cargoes; and having the inner and bulkhead set apart for a grain storage and handling system. The Elevator would have belt conveyors to all berths. There would be transit sheds alternating with open berths. There would be special tracks for railway specials. There would be warehouses for cotton, tobacco, nuts, etc., and open spaces for Naval Stores and non-perishable freight. There ould be a cold storage plant, with ample exhibition auditoriums for inspection and sales.

The site offers scope for every essential of a Port's requirements.

The centre of the State Terminals would be approximately at a distance of only one mile from the centre of the City. The City offered the site, with rights-of-way, water, police, fire protection, and with additional areas as required for industrial development in connection with port facilities.

Scheme "C" at Brunswick, fulfilled the test of re-

quirements, and measured up to the standards laid down, and would be worthy of recommendation, if nothing better offered.

THE PORT OF SAVANNAH.

Before leaving the North to visit Georgia, a conference with two retired, experienced Sea-Captains, resulted in a favorable impression of the Port of Savannah as a satisfactory, and well established Port for Foreign Shipping and Ships.

The physical inspection of Savannah Harbor, occupied from April 2nd to April 6th, inclusive.

Mr. J. F. C. Myers, President of the City of Savannah Board of Harbor Commissioners, was the gentleman, through whose kindness, the first view of the Port of Savannah was seen.

It was a matter of very good fortune taht the Vice-President of the State of Georgia Board of Harbor, Port and Terminal Commission, Hon. C. H. Kittrell, was present during the first inspection of the Port of Savannah. His presence and his wise counsel was greatly appreciated.

The Mayor, the President of the Savannah Harbor Commissioners, the U. S. Engineer in charge of the Savannah District, Aldermen, the President of one of the leading banks of the South, the President of one of the important railways, and many important official and commercial representatives of Savannah, were the hosts of the first inspection of the Harbor. His Honor, Mayor Murray M. Stewart, gave his whole time and attention to the survey during four days. He instructed the City Engineer to prepare location plans as required. He personally inidcated the possibilities of all the sites from the upper end of the Harbor to the Wilmington Island.

Savannah Harbor, Ga. (x).

"*Location and Description*: This harbor is from entrance to entrance of harbor 75 statute miles south of Charleston Harbor, S. C., and 70 statute miles north of Brunswick Harbor, Ga., and comprises the lower 20 miles of the Savannah River, Tybee Knoll, Tybee Roads, and Tybee Bar, a total distance of 27½ miles, and varies in width from 600 to 1,800 feet."

"*Existing Project*: This provides for a channel 30 feet deep with a general width of 500 feet from the 30 feet contour in the ocean to the quarantine station, 10.2 miles; thence 26 feet deep with a general width of 400 feet to the Seaboard Air Line Railway Bridge, 16 miles; and thence 21 feet deep and 300 feet wide to the foot of Kings Island, 1.3 miles; a total length of 27.5 miles for a turning basin at West Broad and Barnard Streets by widening to 26 foot channel to 600 feet and an anchorage basin opposite Fort Oglethorpe by widening the 26 foot channel to 900 feet and installing mooring dolphins; closing South channel by a rock dam 1,100 feet long and dredging a channel 7 feet deep and 100 feet wide, 0.75 mile between the main river and Habersham Creek, as a substitute for this portion of the inland waterway; repair, extension, and construction of training walls, spur dikes, closing dams, and jetties, with a total length of 35,015 feet, constructed in part of pile, brush, and rock and in part of rock with a mattress foundation.

"The plane of reference is mean low water, which varies for different parts of the harbor. For the upper section of the harbor the mean range of tide is about 6 feet under ordinary conditions, with an extreme normal tidal range of 8.2 feet, and for the lower section 6.5 feet and 8.7 feet, respectively. The extreme height of storm tides exceeds th mean tidal range by about 6 feet. The tidal range has been increased by the improvement by approximately 0.5 of a foot."

"Condition at End of Fiscal Year: The existing project is 62 per cent completed. The 21-foot section of the channel has been improved to project dimensions, the controlling depth at the end of the fiscal year being 19.5 feet at mean low water. The 26-foot section of the channel has been improved to project dimensions for the entire section at different times, but never throughout at the same time. Due to shoaling, constant maintenance dredging is necessary. The controlling depth in this section at the end of the fiscal year was 22.7 feet at mean low water, and for the 30-foot section was 24.9 feet at mean low water. To complete the project and restore depths where fill has taken place, allowing 1 foot overdepth, requires the removal of 52,800 cubic yards of material from the 21-foot section of the channel, 1,889,500 cubic yards from the 26-foot section, and 4,116,600 cubic yards from the 30-foot section, or a total of 6,058,900 cubic yards."

"Effect of Improvement: Since the improvement was inaugurated, water-borne commerce has been greatly facilitated. There has been a great increase in the amount of commerce of this port. Ships drawing 29 feet have cleared from this port, while formerly 16 feet was the limit. The tonnage and value have correspondingly increased."

"Commercial Statistics: Foreign traffic included 58 per cent of the tonnage and 37 per cent of the value of the entire commerce of the harbor, and consisted primarily of food products, textiles, minerals, and chemicals; coastwise traffic included 28 per cent of the tonnage and 47 per cent of the value, and consisted primarily of food products, textiles, chemicals, and unclassified materials; other domestic traffic included 14 per cent of the tonnage and 16 per cent of the value of the entire commerce, and consisted primarily of food products, lumber, and minerals. The character of the commerce is varied, and no particu-

lar class is carried in any special type or draft of boat.

"All commerce moved over the entire portion of the harbor under improvement, except the local shipments, which used only the upper 13 miles of the harbor.

The 1920 commerce shows a material increase of traffic over that for 1919, which is to be expected under the improved commercial relations. Regular steamboat schedules were maintained on the inside waterway, and to northern, southern and foreign ports. The commerce for the last five calendar years is as follows:

Comparative Statement of Commerce.

Calendar Year	Short Tons	Value	Floated Logs.	
			Short Tons	Value
1916	2,748,898	$383,225,768		
1917	2,429,288	478,211,950		
1918	1,540,057	479,235,230		
1919	1,714,292	597,109,148	22,035	$218,132
1920	2,147,978	608,332,823	11,832	135,161

(x) (Extracts from the Annual Report of the Chief of Engineers, U. S. Army.)

The report presented by the Board of Harbor Commissioners of Savannah, to the Board of Harbor, Port and Terminal Commission, for the State of Georgia, is on file. It sets forth the offer of the Deptford Tract, as a Site for the Proposed Port.

Some valuable information regarding the Railway lines radiating from Savannah was given. The real demonstrating facts, comparisons and conclusions, however, have had to be obtained from a study of the Maps available, of Official Documents, and by Conference with Practical Men, whose opinions were required to be based on tangible proofs.

The Deptford Tract, a most valuable area of land, on magnificient water frontage, eminently suitable for industrial enterprises, is a splendid property.

Were it located so that the centre of a Project of State Terminal would be not more than half as far distant, as must be the case, from the centre of business, viz: the City Hall, it would be worthy of very serious consideration. But for a centre, four miles from the City Hall, and in competition with such magnificient Railway Port Terminals as the Central of Georgia and Ocean S. S. Terminals, the centre of which is one mile from the City Hall, and the Seaboard Air Line Terminals, just across the River from the City Hall; the Deptford Tract may be dismissed as far as the present survey and recommendations are concerned.

It could not be recommended with hopes for success. It would not measure up to the requirements, nor fulfill the hopes of those whose vision is a scheme of Terminals, which would be of supreme advantage to the State, and also pay its way.

From the offices of the Strachn Shipping Company, a magnificient birds-eye view of Savannah and its Harbor can be obtained.

It was there, overlooking everything, that a Harbor Terminal Site was found, at once worthy of attention. In company with Dr. Kittrell, a long and careful view was taken. "Surely it has been overlooked." *It appeared, on first view, to be ideal.*

The City Engineer facilitated a quiet and careful examination of this location, and made his report to the Mayor.

The Mayor and his officials facilitated a complete survey, water front, boundaries and interior.

Was it possible to obtain this site? The courageous, far-sighted Mayor, Murray Stewart, replied, go ahead.

According to every required principle upon which a splendid picture of an attractive, competing, far reaching, beneficial, State Ocean Terminal, could be measured, this location fulfills the test.

The centre of the Completed Project would be located 1½ miles from the City Hall. The Landing Stage would be three quarters of a mile from the city Hall.

There is ample Water Front for a first-unit of a Port, sufficient for a City of 300,000 inhabitants, and there will remain sufficeint for increases from time to time, for a city of half a million inhabitants, and more.

What would other States and other cities give for such a Port location?

The Mayor said, "Go Ahead!" Further accurances were, however, necessary.

The following letter from the City Engineer is, with authority, incorporated in this report:

April 10, 1922.

"Mr. Frederick W. Cowie, Consulting Engineer C/o Hon. S. G. McLendon, Secretary of State, Atlanta, Ga.

Dear Sir:

"I am forwarding to-day a map showing the property which may be available as a site for the proposed State Port Terminals. A key may showing Savannah and vicinity and the various railways entering the city is also enclosed .

"I have endeavored to show on this map not only the property lines but all structures that would likely interfere with or which would have to be considered when making the design of the project. You will note that the buildings are wooden sheds of not a very permanent construction and could therefore be eliminated or incorporated in the design as was thought best. There are as far as I know no natural physical obstructions to any plan that might be pro-

posed. The general surface elevation above the river is such that excavated material form the several slips or basins will just about raise the adjacent lands to a convenient height above the river and all excavation can be done by large dredged. Of course all heavy buildings would require pile foundations.

"On the key map the railways now entering the City and reaching the proposed site are shown in heavy black lines. I have shown in red a proposed belt line but do not think this line is neecssary, because both the A. C. L. Railway and the Central Railway already reach the site, the A. C. L. being double track through the city and the Central Railway double track part of the way.

From the above description and maps it would seem that the engineer designing terminals for which this site was used would have a free hand to do whatever was required in order to make a most complete and modern port terminal.

Yours very truly,
(Signed) W. O'D. ROCKWELL,
City Engineer."

This plan is also filed with the report, and and only requires signatures for identification.

The Mayor, accompanied by a deputation of citizens, gave assurances as to the site to the Honorable, the Secretary of State, at a conference at the Capitol on Wednesday, April 12th, 1922.

With this site, Savannah offers a situation for the State Port Terminals, which is unequivocally endorsed.

Without this site, Savannah must necessarily be turned aside, and Brunswick recommended.

But the City of Savannah, may be left to a realization of what it will mean ,and relied upon to do what is necessary in the matter; as was confidently assured by his Honor Mayor Stewart.

And after all, it is much more easy to incerase a Port, so well known throughout the world, than to develop one less frequented.

It will be much more profitable, both to those who will use the Terminal, and those who will own it. That there are all the Commercial Organizations already within a mile of the Warehouses; that there is the "Money Market," which it has so wisely been said, "trade follows," than to turn to the smaller city of Brunswick.

It is a great satisfaction already, to know a wealthy and successful Port City has available, so ideal a site.

The distance from the Sea has its advantages, as well as disdvantages. Tidal waves cannot menace goods in warehouses or grain elevator machinery. Fresh water in a Harbor has a great attraction for Steel Ships.

The United States has improved her navigable Rivers in the past, to meet trade conditions, and can be depended on for the future.

The proof of the value of the transportation route through the Port of Savannah, as established by the successful Commercial Institutes of the City; by the splendid Steamship Service betwen Savannah and Coastal Ports, and by the fact that both Steamships and Railways have favored this Port, and built up a splendid trade.

This would be a splendid foundation upon which to build.

The Harbor, Port and Terminal Commission for the State of Georgia, may therefore, on the above demonstrated Grounds, with confidence, open negotiations with the City of Savannah, for the Site, according to plans accompanying Mr. Rockwell's letter, on the one hand, and for adoption by the State, if so authorized, of the location in Savannah of the State Port Terminals, on the other hand.

CONCLUSIONS

The necessity of comprehensive Ocean Terminal Project for the State of Georgia has been argued. That it would stimulate production has been pointed out. It has been set forth how it would encourag the establishment of new industries, both in the vicinity of the Port, and also in the areas of production, and in regions where there is abundant and cheap power. It would provide a favorable unconjested Commercial route between the great Coastal cities of the United States and the productive Middle West.

Capital and labor call for it. The farmer and the producer insist that it be provided. The strong united movement of farmers and producers to obtain for themselves all than can be obtained for their products, cannot be resisted. Moreover, their demands are reasonable and lagical. It would be a wise move to anticipate their requirements.

But the wonder of it is, that it would not only be of benefit to the farmers and producers. It would result in the general enrichment of the pople and the dvlopment of progress and prosperity of the State.

"Necessity," has therefore been demonstrated.

As regards feasibility, that assurance is herin frankly set forth, by one experienced in the design, actual construction and operation of a great and successful Port. That the possibilities are excellent for a unique design, based on principles of success; and suitable to the location; and unrivalled as to Ocean approach; Port facilities, second to none, co-ordination with the City Planning and Development, and with perfect access for railways, motor trucks and inland or Coastal Navigation.

Everything essential to be a successful and comprehensive Port, could be provided in a manner alike attractive to ships and to shippers.

Construction conditions are actually excellent and economically possible. Fire resisting types are, above

everything, recommended. Cut off, or fire fighting Zones, are possible in such a completely new program of construction.

As regards approach from the Sea, the "Existing Project" as outlined in the Report of the Chief of Engineers, U. S. Army, is highly favorable, as indicating the viewpoint of the Legislators in regard to the Ports of Georgia.

Further channel improvements, as the Port Project grows, may confidently be left in the hands of representatives of the people, and to the care of that wondrful organization under the Chief of Engineers of the United States Army.

"Feasibility,' 'also is therefore assured.

Financially, demonstration is not possible, either by facts or figures.

To the far-seeing mind, however, the picture of the trade development, and its far reaching benefits, is sufficient.

Assurance may ,however, be brought home, by the success of Ports, not more naturally favored, whose public spirited citizens have made intelligent efforts to win prosperity by developing transportation through their States and cities.

Freight, handled through a Port, from railway car to ship, or vice-versa, costs anywhere from fifty cents per ton for grain, to $1.50 for specials, at least one-half of which goes to labor. Individually, therefore, labor reaps a rich reward, and in addition, the State prospers.

Montreal is a great city. It has been built up and made prosperous by its Port. Moreover, the Port, which cost over $30,000,000 pays handsomely.

Hamburg in 1880, was a State, small in area, with an old Port and a modest city.

The State came to a decision. They would build a comprehensive Port, to compete with London, then the

market Port of the World, and for the North of Europe. In 1914, the port of Hamburg was one of the commercial wonders of the world and it was commercially successful.

The Port of Manchester is a notable success.

A comprehensive Port ,as outlined, attracting liners, as well as tramps, in an important financial centre is a vision which may be accepted as financially justifiable.

A Port has been found of almost superlative advantages. A location demonstrated as ideal for the requirements. A scheme of development is submitted worthy of the State of Georgia and with gratefulness the matter is confined with confidence to her citizens.

PROGRAMME SUGGESTED.

The immediate present is a strategic period in which to enter upon an earnest effort to develop a great Port.

Rival Ports are straining every fibre to be prepared for the cycle of increased trade, and prosperity, which is already in sight.

Last year, and the year previous, costs for materials and labor were too high. Now constructive costs are fair, labor is anxious, and interest rates on capital reasonable.

New Orleans will be ready for the increased trade in two years, Baltimore in four or five years; New York in the same time, Montreal is already ready and is reaping a rich reward now.

Savannah should be ready in four or five years.

The suggestion is made that the Harbor, Port and Terminal Commission, of Georgia, and the City of Savannah; should get together immediately and close an agreement.

The city to provide and hand over to the State of Georgia, for a Port Terminal, the area, *or substantially the Area,* shown on the plan accompanying the letter of the

City Engineer, dated April 10th, 1922. The city to agree that the Port Terminals, or Free Port Warehouses, or assembling plants, allied to the Terminals, and within these liimts, should be tax free; that police, fire and water services should be free, and that Street intersections would be satisfactorily arranged, including the equal division of the cost of an elevated, vehicular, marginal Street, parallel to the River, across the Terminal property, with which the Terminal Facilities would be connected, so that level crossings would be obviated.

The Harbor, Port and Terminal Commission, to agree, when necessary authority is given, and the Financial arrangements completed ,to proceed with the construction of the Port Terminals, for the State, the minimum of the exepnditure to be Ten Million Dollars, not including interest on capital expenditures during construction.

It is arnestly rcommnded that the minimum of expenditure for which authorization is applied, be made "$15,000,000."

This would complete a first comprehensive unit, which would be self-contained, and sufficient for the present, and would be designed to link up with the next unit when growing trade called for it.

A very approximate estimate, merely for the purpose of consideration, may be given in explanation of the amount mentioned, viz: "$15,000,000."

Docks and Dredging of Basins	$3,500,000
Railways and Roadways	1,500,000
Grain Elevator and Equipment	1,750,000
Transit Sheds	1,250,000
Warehouses (including cold storage)	3,500,000
Machinery and Equipment	1,000,000
Contingencies and unforseen items	1,000,000
Interest during construction	1,500,000
	$15,000,000

In this preliminary report, the layout suitable for the site is not available, and estimates are only given of comparable facilities in other Ports, but if immediate commercial and competitive success is to be attained, the unit should be so comprehensive as to attract and take care of comprehensive Port business.

FREDERICK W. COWIE.

April 15th, 1922.

HISTORICAL NOTES
SAVANNAH

A French Map, published in Pairs in 1702, which attributes the greater part of the Continent of America, to France, clearly shows the Towns, Coasts and Rivers of the Carolinas and Florida, bordering on the Mer de Virginie'''. ''Charlie Fort,'' (Charleston) ''Port Royal'', ''Grande R.'', ''May R.'', and ''Lac du May'', are indicated. ''Grande R.'' marks the boundary line between ''Virginie'' and ''Caroline Autrefios Floride'', and is without doubt the present Savannah River. ''May R'', is also the St. Marys River, and ''Lac du May'', the Okefenokee Swamp. This map, beautifully published in colors, was by the celebrated ''Geographe,'' N. de Fer., and engraved by Van Loon.

A celebrated English Map of North America, published by Faden in 1710, gives no indication of Savannah, either River or town.

The English Map, published in 1715, by Herman Moll, Geographer ,gives early and interesting records of Savannah, and the surrounding country. On this Map it shows that Carolina had been extended southward to the ''Maria R.'', (St. Marys River). Possibly the first indications of ''Georgia,'' ''Savannah R.'', and ''Savanna,'' are shown on this old Map. A road or trail is shown extending from ''Charles Town'' on the Carolina Coast to ''Yasou'' on the ''R. St. Louis,'' (Missis-

sippi River). At the junction of this road and the "R. Savanna," is a town marked "Savanna," which would locate it at a point about 120 miles from the Coast, probably where Augusta now stands. "Charles Town" is indicated in another insert as an important fortified town and harbour, as wharves are shown.

To illustrate the Foundation and Progress of Savannah and her Harbor, the following quotations are taken form "A History of the City Government of Savannah," 1790 to 1900, by Thomas Gamble, Jr.

The scheme which culminated in planting a colony on the right bank of the Savannah River at Yamacraw Bluff, now the City of Savannah, originated with James Edward Oglethorpe, a member of the House of Commons.

During the earlier years of his political career his energies were enlisted in proposing and supporting measures for the benefit of commerce and colonization.

It was on Friday, November 17, 1732, that the frigate "Anne," John Thomas, Master, set sail from Gravesend with 116 persons on board. There were thirty-five families in all consisting of carpenters, brick-layers farmers etc. Accompanying them, at his own request, to lay out the land and see them settled properly in the New Country, was Oglethorpe.

The voyage occupied 57 days. On January 13, 1733, the "Anne" arrived off Charleston, where Oglethorpe landed and called on the Governor, who arranged for the King's pilot to carry the "Anne" into Port Royal, and for a small craft to carry the colonists from there to the Savannah River.

Being arrived on the first of February 1733, at the intended town before night they erected four large tents, sufficient to hold all the people.

On February 9, Col. Bull and Mr. Oglethorpe marked out the squares, the streets, and the lots for the houses of the town, and the first house was begun that day.

Oglethorpe's first letter to the trustees, dated February 10, 1733, marks the first historical reference to the Port:

I fixed upon a healthy situation about ten miles from the sea. The river here forms a half moon, along the south side of which the banks are about forty foot high; and upon the top a flat, which they call a bluff.

The plain high ground extends into the country 5 or 6 miles, and along the river side about a mile. Ships that draw 12 foot water can ride within ten yards of the bank.

The river is pretty wide, the water fresh, and from the key of the town you see its whole course to the sea, with the Island of Tybee, which forms the mouth of the river; and the other way you see the river for about six miles up into the country.

The first shipment from the Port, was in 1749, when a miscellaneous cargo valued at $10,000:00 by Harris & Habersham, who had esablished the first commercial house in 1744.

In 1765 sailing vessels to the number of 153 received cargoes at the Port.

In 1766 the City consisted of 400 dwelling houses, a church, and independent meeting house, a council house, and a court house.

In 1773 exports had increased to $379,422.

Between 1800 and 1820, the growing commere of the Port directed attention more forcibly to the necessity of freeing the river from encroachments and improving it for shipping. The line of low water mark, a committee on Council in 1881 reported, was originally about 105 feet from the line of the Bay. A survey was made under an Act of the Legislature of December 1, 1802. Several wharf owners were ordered in January 1805 to remove the encroachments as injurious to navigation.

Wharves, navigation, commerce and port, were, over one hundred years ago, therefore, occupying the attention of the business and official authorities in Savannah.

The first official census of the population of the city was taken by the City Treasurer under instructions of Council and reported on February 20, 1809. It gave the population as follows:

White population	2,702
Negroes (slaves)	2,311
Free (people of color)	329
Total	5,342

While the city grew greatly in wealth and business its population after this period increased extremely slowly. in 1840, thirty years later, the population was but 6,520, an increase of but 1,178 in thirty years.

The improvement of the harbor and better communication with the interior became imperative. In October 1825, a Committee on Aldermen were appointed to inquire as to what means were advisable for deepening the Savannah River below th city. It was stimated that nothing effective could be done toward clearing the river for less than $50,000.00.

The Committee reported on means which would serve to disclose new sources of wealth, open up a demand for many of our productions, and show that Savannah is destined to become the "New York" of the South.

The Savannahians of this time had an abundant faith in the future of the Port.

That was nearly on hundred years ago. There have been disappointments, but not discouragements. Savannahians of to-day, in addition to the faith of their forefathers, have the necessary Public Spirit, and the State the Credit to carry it through to realization.

Improved inland water communications occupied the attention of the authorities, and business corporations for several years, without resulting in the benefits and returns expected. The advent of the railroad, however, not

only made possible the development of the interior rich areas, but made Savannah one of the great Ports of America.

The history of the development of many great cities in America is closely associated with the success of local railway corporations; but of the many notable examples, such as the New York Central and New York; the Pennsylvania and Philadelphia; and the Canadian Pacific and Montreal; none are more worthy of record, than that of the Central of Georgia and Savannah.

Railroads vastly increasing the value of goods received at this Port increased the necessity for improvement of the harbor. In 1840 a Committee of Council, said: The constant communication with the interior maintained by means of the railroad has increased our prosperity. Our energies have at length been aroused. It was declared necessary to bestow attention on the river to afford an to foreign and domestic markets.

In 1843 the Mayor wrote that vessels drawing 11 feet 9 inches could only get over the obstructions in the channel two miles below the city by waiting for favorable tides.

In 1844 an appropriation was made by the United States, for the improvement of navigation between Savannah and the sea, by the removal of the obstructions in the river.

It is a peculiar coincidence that the depth of water from Montreal to the sea in 1843 was 11 feet, and that the first navigation improvements were commenced in 1844, and that the improvements to the River St. Lawrence Ship Channel have cost approximately the same figure as the Savannah River Improvements, and that today vessels of approximately the same draft, navigate the two great Rivers, to the two great Ports; one in the North and the other in the South.

The twenty years, from 1880 to 1900, have been the

period of Savannah's greatest growth and development. In these two decades the population of the city increased from 30,709 to 54,244, its taxable values from $17,300,237 (1883) to $37,180,077, the tonnage of vessels entering and clearing from the Custom House from 1,242,484 to 2,263,-225 and the gross value of its commerce from $50,000,000 to $150,000,000.

Artesian well water has taken the place of river water.

The bonded debt of the city has been reduced from $3,812,100 (1884) to $3,196,350, with no floating indebtedness, and its credit today does not suffer by comparison with that of any other American City.

United States Census of Savannah 1900, Population 54,244.

The rapid strides Savannah has made commercially, may be judged, by the quotation of some of the salient facts reported to the members of the River and Harbor Committee of the United States, in 1906, by a committee of citizens and officials of Savannah:

Season	No. of Steamers	Total Net Ton	Average Ton
1880–81	43	46,292	1,077
1885–86	62	71,160	1,148
1890–91	99	129,253	1,306
1895–96	64	105,148	1,643
1900–01	112	206,876	1,865
1905–06	192	438,829	2,286

The result of the increase in the size of the steamers has had a most markd effect in the reduction of the freight rates, as will be seen from the following table, also taken from actual records in our office:

AVERAGE RATES OF FREIGHT FOR TEN YEARS.

Season	Cotton Cts. Per 100 Lbs.	Phosphate Shils Per Ton	Cotton Seed Shils Per Ton	Cotton See Meal Shils Per Ton
1896–97	44 25	14 5	30	----
1897–98	43 30	14	----	16
1898–99	48 20	13 6	----	----
1899–00	40 30	14 11	25	----
1900–01	42 65	14 7	----	----
1901–02	25	11 5	----	12
1902–03	21 90	9 9	----	11 3
1903–04	26 75	9 7	----	----
1904–05	24 50	9 2	14	----
1905–06	30	8 5	15	12

This reduction applied to the exports of 1905-06 as per following table:

On cotton Shipments	$696,063.00
On phospahte shipments	$276,179,04
On rosin shipments	120,000,00
On turpentine shipments	39,900.00
On cotton seed shipments	20,253.00
On cotton seed meal shipments	23,418.24
	$1,175,813.28

Show a saving in freight of $1,175,813.00 for one year.

The exports of Savannah for the year ending June 30, 1905, were more than the combined exports of Norfolk, Newport News, Wilmington, Charleston, Brunswick and Fernandina.

SAVANNAH'S EXPORTS FOR 1905 GREATER THAN COMBINED EXPORTS OF ALL SOUTH ATLANTIC PORTS.

Ports	Value Exports.
Wilmington	$17,481,566
Newport News	15,773,353
Brunswick	9,449,004
Fernandina	7,874,104
Norfolk	7,654,810
Charleston	3,358,725
Total	$61,591,562
Savannah's Exports, 1905	$62,244,837

A glance at the map of the United States will show that owing to the curvature in the coast, Savannah is nearer to Omaha, Kansas City, St. Louis, Memphis, Nashville, and other Western cities than either New York, Philadelphia or Baltimore.

COASTWISE STEAMSHIP LINES FROM SAVANNAH, GEORGIA.

Line	To	No. Vessels	Tonnage.
Ocean Steamship Co.	New York and Boston	9	34,500
Merchants & Miners Trans. Co.	Baltimore and Philadelphia	7	17,100
	TOATL to four Ports.	16	51,600

Tons of freight handled by regular coasrwise steamship lines, 1905, depth of water 26 feet t inches 1,022,779.

RAILROAD SYSTEMS CENTERING AT SAVANNAH, GA.

System	Mileage	States Tracersed
Central of Georgia	1,845	Georgia and Alabama
Seaboard Air Line	2,612	Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama.
Atlantic Coast Line	4,034	Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama.
Southern	7,139	Virginia, North Carolina, South Carolina, Georgia, Florida, Alabame, Mississippi, Missouri, Kentucky, Tennessee.
4 Systems	15,630	10 States. Population 16,000,00.

When the great Southern agricultural, mineral and manufacturing belts are considered, Savannah's superiority as a port of outlet is so pre-eminent at a glance as to require no supporting figures.

(Signed by) WM. W. WILLIAMSON, Chairman.
HERMAN MYERS, Mayor,
and
Members of the Committee.

It is only necessary to judge by the past records, which show how coincident have been the developments of transportation, the growth of tthe Por of Savannah and the prosperity of the State; to with supreme confidence, take up the next step, which cannot be otherwise than by public action, the *Development of the Port of Savannah Marketing and Comprehensive Lines.*

SAVANNAH 1920 AND 1921.

Population U. S.? Census 1920	83,000
Bonded debt 1920	$3,719,000.00
Bonded debt 1921	$3,641,500.00
Number vessels entering port 1920	850
Number vessels clearing port 1920	850
Number vessels 1921	819
Tonnage 1920 (total)	2,031,267
Tonnage 1921 (total)	2,233,330
No. vessels first six months 1922	461
Tonnage first six months 1922	1,232,257
Total assessment for purposes of taxation 1920	$73,000,000
Toral assessment for purposes of taxation 1921	79,000,000

FREDERICK W. COWIE.

July 15th, 1922.

THE PORT
AND
ITS RELATION TO PRODUCTION.

From earliest times the Port has been recognized as one of the most vital factors in connection with the security, commercial success and national supremacy of the Countries of the World.

In History and in Art, the Port has been a frequent theme of description and illustration.

By a careful analysis of historical records it may be accepted that the Port has ever developed the Country, rather than been a result of actual commercial supremacy.

In modern times the Port of London, resulted in England's Merchant greatness. Hamburg made Germany a great Maritime Nation. New York and the Erie Canal, resulted in the development of the supremacy of the United States, by opening up the Middle West. The Port of Montreal is doing the same for the North West. Savannah with proper facilities may result in a rich and prosperous South East.

Of Natural Harbors there have been many, but of successfull Ports in Natural Harbors few. Commerce in ancient times, and possible traffic in modern times, have ever been essential. They are particularly requisite today, in the days of large volume and small profits.

Shipping and Ports have developed in close relation. In early times when ships were small and commerce limited Ports or Harbors were merely places of shelter. Trade routes passed through the most convenient and best sheltered Ports without regard to facilities, shipping profits being so high as compared with tonnage. Ports were improved in time, and facilities provided to suit the character of business.

First an association of merchants, made the Port for their own ships and their own Commerce. Then when Commerce became the life of the Nation, the State assumed authority.

As shipping increased and commerce progressed, improved Port facilities were made necessary. Many the Port which had reached

a period of prestage and prosperity, but did not grasp changed conditions and new opportunities, has passed out of sight and lives only in History.

The establishment of trade routes, and of commercial connections is a matter of long and insistent effort. The labor of years, however, may be destroyed much more quickly, and when once dislodged, it is more than ever difficult of re-establishment.

As Shipping Merchants became prosperous they developed markets for the exhibition sale or exchange of their wares; later the warehouse, where their merchandise could be stored for safe keeping, and so as not to detain the ships.

In modern times when the Spirit of Discovery spread throughout the world, Maritime Nations rose to new prominence. Nations and States became interested in their Commercial Development. Ports then became matters of National consideration. Later as in the case of Nations, it became the first consideration for Cities. Port Cities prospered, the surrounding territory shared in the advantages and the value of Port being demonstrated every enterprising Community set itself out to develop a Port.

Commercial Ports in earliest times, were developed by merchants, who owned ships. Ships were the basis of the Commerce and of rich profits. The Ports were Harbors for these ships, and Natural Harbors were improved for them. They were by the merchant owners.

Commerce was not always, by influence or enterprise, directed according to the best or most economical routes, even though the Spirit of effort for the good of the Community, was manifest.

Three essentials have ever been present in connection with successful Port Developments:—

Commercial Requirements,
Public Spirit,
Courage to Carry out a Vision.

Some Ports were successful, many were not. The successful had the Necessity, the men of Public Spirit, and the men of Courage.

The un-successful, may have had the same business necessity without public spirited Citizens, or without the courage to carry out their vision of what should be. In many cases there have

been public spirited Citizens of the most noble type who have sacrificed their energies to mistaken visions, business necessities not being available to back up their expectations.

In all cases therefore Ports were developed with a view to expected returns to Merchants, or prosperity to Cities, or commercial greatness to Nations.

Fundamentally, as Commerce was created, Ports were developed by Merchants and Ship-owners, or by Cities and Nations.

Later came special commodity Ports for bulk cargoes of coal, ore, timber, etc. These in many cases were built by special interests at their own cost, not being dependent on other commerce, and their location and type were only of interest to their owners.

Inland Canal Navigation not only aided in the development of the interior areas, but had also an important share in the building up of the Ports when, later, Railways became such a tremendous factor, and when Transportation became a fact as well as a word, Railways in their individual interests began to build Ports at the terminal of their main lines, without regard to general co-ordination or to National economy. Duplication resulted. The most valuable water front sites were held and not used to capacity. Terminal interchanges, and lighterage, added to Port costs The Railway Port development has not cheapened transportation nor has it been attractive to ships.

Later still industrial Ports became necessary with the same results. Co-ordination and comprehensiveness not being the principles upon which they were designed.

For example, considering modern Ports only:

Market Ports; London, Hamburg, Antwerp, Marseilles, Constantinople, Calcutta, etc., were built for merchants, shipowners and ship builders.

Bulk Cargo Ports; as exemplified by Hull, Cardiff, Superior, Erie, Norfolk, Mobile, Pensacola, etc.

Industrial Ports such as Providence, Detroit, Philadelphia, New Castle-On-Tyne, Manchester, Belfast, Bremen, etc.

Canal Ports; Buffalo, New York, Montreal, Manchester, Antwerp, Hamburg, etc., all fortunately followed up and aided in development by Railway Transportation.

Railway Ports or Terminals; in almost every city having a water front.

In America the development of Railways has evolved a nation of Master Minds. As a result of this genius, immense distances have been overcome, interior settlement possible, shipments to distant markets and all the benefits of the interchange of products and even luxuries of the world, made profitable.

Competition has resulted in splendid services, and at one time in cheap Transportation, Railway building was necessary. It made the country, but the building by each railway company its own terminal at every point on the coast, was a tremendous error on the part of the otherwise perfect team work of the competing Railway Corporations.

A Port must fundamentally be comprehensive, if it would be successful. To be comprehensive the number must necessarily be few and the location logical with respect to trade routes, commercial necessities and producing or consuming areas.

A Port grouped in name only, and not by co-relation, is only a slight improvement over distinctive units in the one city.

It cannot be expected that a single railroad will build a comprehensive Port, for the commerce of its rivals. A single City, however, greatly to be benefitted by the Port, cannot be expected to finance a Modern Scheme, which is National in its benefits. Coal, Ore, and other bulk freight interests, require a distince treatment, but even these interests, in most cases, may be handled economically and to advantage, in a Comprehensive Port.

But when it comes to Agriculture Produce, the vital factor, the life giving blood of a nation; the necessity of a Comprehensive Port is convincingly apparent. It is immediate in its results. It aids production and it cheapens food prices.

General Cargo Ships make a Port successful. General Cargo Ships are attracted to a Comprehensive Port where ships may be loaded with general merchandise, with a supporting cargo of

grain or other bulk freight, all loaded at one berthwi thout delay and with economy in Port, and handling charges.

The Comprehensive Port is the Port of the present time. It is a necessity for the farmer. It is reasonable that he should have it. It is a factor which will make success rather than failure. If such a Port is not provided for the farmer, what may be expected? He will undertake to provide it for himself and possibly not along the best lines for other interests, of the country.

The farmer has found that by Co-operation he can build, and own, his own Grain Elevators. He operates them according to his own views, and to his own advantage. He gets satisfaction and he finds that it pays. It pays better than any other investment in which he can put his cash, if he has any, or credit, which he can usually obtain.

The Farmers' Country Elevator System has extended to the Terminal Elevator. Grain is only one of the products of the Farmer. The Port Terminals and Marketing Facilities will be the next undertaking of the Farmer, if not supplied by the Nation or the State.

The co-operative marketing system is being found successful. Where will it lead to? Wise Counsel and Co-operation with the Farmer, would be for general good.

A farmer has not the special training for the best success in all these special branches of commercial and business enterprises. The Farmer would not think of it if he did not observe the success of many men with no more training and without half as much energy and effort as it required for successful Production, and especially if he was not aware of the difference between the prices he receives and what the consumer pays.

Frankly, do you blame the farmer if he "takes matters into his own hands", to obtain what rightly or wrongly he considers is his just due?

The tragdey of it is, the certainty of a movement along wrong lines. A successful "buyer" is not born, he is made. He is the survival of the best of many who start and by talent and industry, succeed. The same applies to the seller.

The Farmer understands that experience is required for both buying and selling. If, in the marketing process, his interests are safeguarded, he is satisfied. He fears the speculative buyer, and he distrusts the middleman. His efforts to obtain his due share of the price paid by the consumer for his products, are not, however, revolutionary. He knows that his demands are reasonable, and if he is not given marketing and handling facilities which he considers proper for the handling of his products, he is not given to folding his hands.

Later on Organized Labour will join the Farmers movement, if the prices he, the consumer, pays does not bear a proper relation to the price obtained by the Farmer.

Why not anticipate the movement, which can not be fully and properly developed by Farmers, or others not specially trained along these special lines? Why not give the Farmer the facilities he needs, the best possible price obtainable, and the marketing and financial facilities which the Country owes him, for his life of hardship, and isolation? Why not give organized Labor cheaper necessities of life? Production is necessary, it should be aided, labor is necessary, it should be encouraged.

These are serious questions for Transportation Interest for Merchants, for Exchanges, for Port Authorities, for Board of Trade, for Municipalities and for States.

Aid to the Farmer would in the end enrich the Transportation Interests by increasing the volume of freights. The Merchants would have a larger turn over. There would be more business in all directions, and to the community, the benefits would be general.

God knows, Public ownership is fundimentally at odds with the principles upon which the world has prospered. But if there is one exception it is the Port. The Port is, it must be, a community interest. If provided by the People it is liable to furnish what is required. If operated under their direction, it is likely to give satisfaction; duplication will be avoided, Economy must result.

To be successful, a Port must be comprehensive, co-ordinated and self-contained. A Port designed in the Country's interests,

may be built with the Country's credit, and should be a credit to the Country.

The Ideal Port stands for cheap transportation, careful handling, safe storage, marketing when prices are favorable, and shipping when tonnage is available. It results in economy of time, space and condition.

This type of Port, will surely pay; because it will get the business. It fears not competition.

There must, however, be great care exercised in looking to the strategic position for the Port. There must be business in view. The site must be ideally located, with regard to population and business centres. A distinct improvement on existing facilities is essential, or why undertake new ones. There have been many failures and only a few successes, but experience is a good teacher.

It follows, therefore, that if we have demonstrated the necessity of the Port for the Farmer, it may be accepted that in their own interests, the Railway interests, the Financial Institutions, the Commercial Organization, the Shipping Agencies, the Industrial Concerns, the Merchants, the Importing Houses and the Exporting Companies, together with the Co-operative Societies will give their support to the Port Development. To some it will at first be a sacrifice, to some an immediate benefit, but to the community in general, no possible factor could bring such immediate and lasting advantages.

On the other hand, the Port Project must be designed so as to retain the good will of the Community

The Farmer requires, and must have facilities for receiving caring for, storing, marketing and shipping his products. The interest of the Farmer and the interests of the Port Authority must be the same, economy, care, security and skill.

The Transportation Companies must have impartial service. In addition to up-to-date facilities, and economical equipment, the Port must be operated, not according to usual public service methods, but according to Commercial standards, where efficiency receives its due reward.

The Merchant looks to an attractive location, having conven-

ient access and the most modern facilities. For his merchandise he must have safety from pilferage, and freedom from undue fire hazard.

For the Ship there must be a safe and convenient berth, with sufficient depth of water, at all stages of the tide; convenient shore offices for Agents and Officers; freight handling facilities, and such labor saving device as may be economical; ample transit shed space, trackage, railway sidings, etc., as will permit a cargo to be discharged and a full cargo loaded, per week, at each berth. The Port facilities in general, to be designed for a maximum tonnage, and to eliminate duplication and unnecessary berths.

The governing principles in Port design and operation, directly in favor of Production, are also the principles by which the Port may be of direct benefit to the general commercial prosperity of the Country.

Economy.—Transportation and handling economy, in Port Costs, should add a distinct percentage to the price paid to the producer.

Rece· tion and Storage.—The producer, during the harvesting season, can be forgiven if he is anxious to have another man look after the receipt, condition and shipment of his perishable products. The Port may supply the facilities.

Marketing.—To obtain his due share of the consumers buying price, is the dream of the Farmer. The Port may do more in this direction than any other institution.

Advertisement.—Judicious advertisement will result in greater demand for products, better prices and in foreign cash. A successful Port Market makes attractive advertising.

Diversified Production.—A comprehensive Port, will result in a comprehensive market, more widespread shipments and general producing and transportation prosperity.

Georgia, the "Empire State of the South," can produce almost all of the necessities of life, and most of the luxuries. It should be very prosperous. One hundred years ago it was the sixth state in the Union in the value of her exports.

The numerous cities are prosperous even though manufacturing is low as compared with the average in the United States.

It has been said that City Merchants are prosperous because they make money both ways. They buy and sell not only Georgia products but they import and sell hundred of millions of dollars worth of food stuffs annually brought from other States, many being capable of production in Georgia.

How splendid the efforts of educational and public spirited leaders who have been engaged in attempting to solve this problem of producing, rather than importing articles of daily use and consumption, which could be produced in Georgia.

Already there is improvement reported. The money coming back into Georgia is now considerably in excess of the money paid out of the State, and this is a sure sign of permanent prosperity.

A STATE PORT WOULD INCREASE THIS IMPROVEMENT.

The Farmer particularly fears "over production", many of his products are perishable. The market is frightfully susceptible when perishable crops are abundant, and everybody wants to sell with the resulting sacrificial prices.

For Cotton there is a stable market There are machinery, equipment, and financial resources to handle Cotton; and the producer obtains market prices and immediate returns, without the fear of "no market, perishable loss, or sacrificial prices."

But, as a result of necessity, Cotton, always "King", is to have rivals in Georgia. There will be a surplus of many valuable Georgia products available for sale to distant markets, if they can reach these markets in good condition.

Take for example "Pecans": If you go to one of the important cities of the North, in February, and look into one of the large storage plants, you will see large stocks of pecans They were bought in Georgia, at such prices as could be obtained when every pecan grower desired to sell, having no suitable storage. They were purchased by speculators and shipped to the North

and only put on the market in small quantities and at high prices. They were in a safe cheap storage and the owners could afford to wait.

The price at the orchard may have been 25 cents per pound. The cost in the best shops in Buffalo, Chicago, Detroit, Toronto and Montreal, from $1.00 to $1.60 per pound, and they cannot compete with almonds from the Mediterranean.

It has been enunciated that the producer has a fundamental right to two-thirds of the sale price, to the consumer, for products not requiring manufacture. The average price received by the pecan growers in Georgia, delivered at the nearest depot, has been given as 25 cents per pound. There would be splendid money in them at 35 cents per pound. A comparison between approximate actual conditions and approximate business after the State Storage and Marketing facilities are in working order, may be given as follows:

Actual present conditions, Pecans.—Producer at depot, 25c, buyer 10c, freight to New York, 02c, Cartage, etc, 01c, incidentals, 02c, Cold Storage, 05c, Speculators profit 100%, 45c, freight to Montreal, 02c, Duty, 12c, Jobber, 06c, Retail in small quantities about 50%, 40c making the price to the Consumer $1.60; the actual price for paper-shell pecans in Montreal in February 1922, and as may be imagined a very small volume of business.

Only a few years ago, however, this luxury could be purchased in Montreal at $1.25 per pound, and there was a considerable business.

Probable conditions when Cold Storage plant is in operation at Savannah, Georgia:

Pecans.—Producer, 35c, Buyer, 05c, Freight, 02c, Inspection, etc., 01c, Cold Storage, 05c, Sales, 05c, Freight to Montreal, 02c, Duty, 12c, Incidentals, 01c, Jobber, 07c, Retail large quantities, 25c, making the price sold to the Consumer $1.00. At $1.00 per pound there would be no competitor, and the market for Georgia Pecans would be almost unlimited.

The Port Cold Storage warehouse will correct many an injustice. There will be fair profit to buyers and sellers; and a much

larger volume of business. It will bring buyers from Northern Cities to Auction Sales. They will buy for the requirements of their Community and have regular shipments from warehouses, during the winter. The turn-over will be multiplied ten-fold and this much desired delicacy will be available in the North, at prices which will compete with almonds, walnuts, and brazil nuts.

Similarly the Cold Storage Warehouse will relieve the daily anxieties of the Farmer regarding over production, forced selling, selling, speculative buying, eockages which he cannot successfully dispute, shortage of cars, harvesting when not at best so as to permit of shipments to distant points, middle men, speculators and unnecessary handling.

He can obtain directions as to condition, container, packing, inspection, methods of transportation and then deliver by motor truck, or forward by railway, his products to the Port Warehouse. Here they will be received by a State Employee who will inspect, take delivery put in warehouse and give a warehouse receipt.

Co-operatively, auction sales, or sales according to sample, may be carried on, and the buyers from distant cities may then order regular shipments by refrigerator cars, as desired.

It will increase production, it will add to the selling price, it will cheapen food to the consumer, and by greater volume, there will be general enriching profits.

This is one phase of the "Port and its Relation to Production". It could be written and its "Relation to the Farm".

From "Production" we may turn to "Consumption".

In the proper balance of population and industry, there are consumers who must buy the necessities of life. Arguments have been advanced that the Cold Storage Warehouse keeps up prices. It may be admitted that it results in stable prices, and prevents Saturday-night bargains. By preventing waste, however, it adds to supply, and it is quantity available for sale, that regulates the price.

Then again, if the season for an attractive and useful food is made three months, instead of one month, there is a direct econ-

omy to the consumer and in general the condition of all foods offered for sale is improved.

But, what about the Merchant? The Producer is a reasonable man. As soon as he receives his fair share, he will be satisfied. It is injustice, he is up in arms against. The Merchant will have a greater turn-over. There will be safe storage for perishable products. He need not add a high percentage to his price to offset usual perishable losses. The Merchant will prosper, though the Speculator and the Jobber may disappear.

Production will be made profitable and prosperous, Industry and Labor will be encouraged and benefited. Transportation will be bettered by the increased volume of freights. Trade will be stimulated. Banking will proportionately increase, and the State will be enriched both by Population and Wealth.

The Port relation to Production, does not stop at the Colp Storage Warehouse. Production depends to an important extent on Fertilization. The cost of fertilizers is an important item in the cost of production. Fertilizer materials are almost all imported. The manufacture of fertilizers is being carried on at many inland points. The tonnage of these fertilizer materials is high. The Terminal which may economically unload ships; deliver direct to cars; or store and ship in car lots to suit interior Factories, will aid substantially towards cheapening fertilizer. Raw Products manufactured at home, either for consumption or shipment outside, leaves an incredible amount of money in the State.

The four States; Georgia, Alabama, South Carolina and North Carolina; expend in one year for Fertilizer, $162,000,000.

The total expenditure for Fertilizer in the United States amounted in the same year to $326,000,000. One-half the United States Fertilizer, and more in other tributary States, would be directly affected by economy in handling, storing and shipping Fertilizer to the various manufacturing plants.

How much would that feature aid Production?

There is also Cotton. How can the Port aid Cotton Production? This is a serious question. There are facilities, and excellent cotton in Savannah. But does Savannah ship as much cot-

ton from Georgia and from tributary territory as she logically should? If not, why not?

Why should not Savannah be the great central cotton market of the South? There is everything to be gained. "Georgia cotton direct from a Savannah Cotton Market to the consumer", is logical and it would bring to Savannah incalculable returns. The Savannah Cotton Merchants are equal to the occasion. They have no superiors in New York or Liverpool. The Banking Houses of Savannah are more than able to cope with the financial requirements.

In order, however, to realize this, Savannah must be made a superior storage and shipping point, to New Orleans, Galveston, Charleston, Brunswick, Mobile, Norfolk and New York.

If Savannah became the Cotton Centre, with cheap handling, safe storage, and convenient shipping facilities, Savannah would not be the Third Cotton Port in the South, but the First.

Naval Stores is another instance of a relation between the Port and Production

Mr. Ucker made a public statement that there are thousands of acres of the Coastal Plain of the South, suitable only for the production of Lumber and Naval Stores. That with the natural phenomenal growth of Pine in this area, naval stores for which there has been found no substitute, will continue to be a product for export.

Naval Stores is also a matter of heavy tonnage, and by facilities a great saving may be affected by proper Port lay-out.

The Relation of the Port to Production may be particularly exemplified by the value of Facilities of the Storage and Handling of Grain.

One would expect the success of the Montreal Terminals, where with Grain Elevator capacity of only ten million bushels; installed at a cost of less than eight millions of dollars; JUST UNDER 140 MILLION BUSHELS OF GRAIN WERE RECEIVED AND SHIPPED IN 1921. And more was offered if there had been sufficient accomodations. Practically none of that grain was grown within a distance of one thousand miles of Montreal.

Fifteen years ago there was a Modern Elevator in Montreal Harbor, but for two or three years the business did not pay the operating expenses, much less the interest on cost. By Co-ordination of facilities, resulting in a Port, attractive to Ships and economical to the shippers, the record of Grain Shipments for 1921, may be explained.

The following figures for 1921, show the quantity shipped by Montreal in her seven months season of navigation as compared with twelve months season at the other ports:

Montreal	138,453,980	Bushels
Galveston	94,173,049	Bushels
New York	84,698,581	Bushels
New Orleans	73,689,309	Bushels
Baltimore	55,314,808	Bushels
Philadelphia	46,749,286	Bushels
Portland, Me.	13,859,040	Bushels
St. John, N. B.	10,638,339	Bushels
New Port News	485,118	Bushels

It is an Act of God, that the rich No. 1 Wheat growing areas of America are largely in the far West and North West.

But there are immense areas in the South and Middle West, where corn and soft grains, such as oats, barley, etc., grown as no where in the world; and this area is just as tributary to Savannah as the West and North West is to Montreal.

The Farmers are vitally concerned in saving a fraction of a cent per bushel even on a million bushels, and more especially on hundreds of millions. There are many grain routes via Ocean Ports. The freight rate, is in many cases the same, but if there is an excess cost in the Port of a fraction of a cent a bushel, somebody loses it, and take it from me it is the Farmer.

FREDERICK W. COWIE,
JULY 15th, 1922.

THE PORT OF SAVANNAH
AND
THE TRANSPORTATION PROBLEM

What is the Transportation Problem?

How may the Port of Savannah help to solve it?

These are two questions, one of which any Georgian may ask, and the other which every Savannahian should be ready to answer.

The Middle West, the South, and Georgia have the necessity, they have the opportunity of increasing Production. It may be as easy to produce in Georgia, as in the Mississippi Valley; it may be easier, but transportation may favor production in one district, and discriminate against it in the other.

Transportation therefore is one of the prime factors.

A most magnificient Organization and some of the best minds in the Country, are engaged on the one Question of Freight Rates. Their object is to aid Production and to cheapen the Necessities of life.

But there are other factors besides freight rates.

The Port in some cases is a greater factor than freight rates, and all cases is of prime importance, and in every case it is the the easiest to Ameliorate.

In addition to aiding Production, Transportation pays tolls along the line of route.

A City is prosperous or otherwise according to its Railway Connections. A State may develop or go behind, according as to whether her Lines of Transportation are flourishing or not.

To have Transportation in a State and through a State, we must have Port Facilities.

Cotton will serve as one illustration:

From Official Records, one-third of the Cotton grown in the United States, is produced in Georgia and the four adjoining States, all of which would be naturally tributary to a Port at Savannah.

Assuming the Annual Crop at 15,000,000 bales, and allowing one-third to be manufactured in the South, there would be a balance of 10,000,000 bales for shipment by one of the various routes, one-third or 3,300,000 bales naturally tributary to Savannah.

What better solution of the Transportation Problem, than the Establishment, by Georgia, of a Port, which will not only attract Ships by its offer of Comprehensive Cargoes, but by Co-ordination of Facilities and Mechanical Handling, will reduce Port Costs, so that with the lower Ocean Freight Rates, SAVANNAH WILL BE ON A PARITY WITH THE PORT OF NEW ORLEANS EVEN FOR OKLAHOMA COTTON.

It is only necessary to Study the Port Tariffs on Cotton: Insurance may be reduced, on an average of 10 cents per bale; Lighterage and Barge loading may be eliminated, resulting in a saving of 20 cents; Port Handling Costs may easily be reduced by 15 cents; Distributing Economy 10 cents; Ocean Freight Differential 35 cents; making 90 cents per bale, which is exactly the difference between the Freight Rate from Oklahoma to Savannah, as compared with New Orleans.

WHAT WOULD IT MEAN TO SAVANNAH DURING YEARS OF A SHORT GEORGIA CROP?

The Cotton movement would probably be a more favorable Transportation and Port Business than any other; which, by co-operation between the Railways, the Port, the Steamships, the Merchants, and the Financiers; could be diverted to a Modern Port at Savannah by organized GUNNING for it.

The Cotton business alone, would pay a large proportion of the Port Development, and every man and every business in Georgia would benefit.

Grain is another commodity, of prime value to Transportation and Port Business.

The ratio of the Port Costs to general Freight Rates is comparatively low, but in this case the Grain Owners, control the route, and it is well known that Ships, Port Facilities, Convenient and Safe Elevators, and no Demurrage, are factors, which, with

Standard Official Freight Rates, govern the Grain Owners in their choice of route.

On the other hand, a Port without Grain Handling Facilities, is like a Bank without silver coin. A customer will go to the next Bank, where he can obtain both notes and silver. Similarly with Ships. The certainty of being able to obtain a certain amount of Grain is a great inducement for Ship Owners to send their Ships to a Port. It makes the Port more Comprehensive.

Grain products, flour, etc., are also important items of Transportation. Wheat may be handled from the Railway car into the Ship at 50 cents a ton, but Flour under ordinary Port Conditions, costs over double the cost for Wheat. In the one case, modern mechanical facilities designed for a large movement have reduced the costs, while flour, being comparatively new as a heavy movement, has not received the same attention by Port Authorities.

A careful study is recommended of the Census of Agriculture of 1920, and the summary prepared under the supervision of the Chief Statistician for Agriculture. A copy of this summary and other Official Documents were kindly furnished by the Hon. William J. Harris, of the United States Senate.

Transportation Authorities, and I know of no better than Charles T. Airey, Vice-President and Traffic Manager, Central of Georgia Railway Company; give the assurance that, in general, with modern economical Port Facilities at Savannah, Transportation conditions would favor a heavy movement from the following areas:

Georgia	The State
South Carolina	one-half
Tennessee	one
Kentucky	One
Ohio	one-quarter
Indiana	one-half
Illinois	one-half
Iowa	one-quarter
Missouri	one-half
Arkansas	one-quarter
Mississippi	one-quarter
Alabama	one

THE VALUE OF ALL FARM CROPS in the United States is given as 14,755 millions. THE VALLUE for the area included in the States and partial States, given above, is given as 3,284 millions. OR APPROXIMATELY ONE-FIFTH.

THE PRODUCTION OF CORN in the United States is given as 2,346 million bushels. The production in the twelve States or partial States, is given as 699 millions OR OVER ONE-QUARTER.

WHEAT ONE-NINTH; OATS ONE-EIGHTH; and BARLEY, RYE, ETC., in SIMILAR PROPORTION.

With navigation conditions favorable all the year round, is any further argument required regarding the value at Georgia Port of Facilities for the Storage and Handling of Grain.

In general, the Transportation Problem of the South and Middle West, may be considered as follows:

1. Transportation between Interior Production Points and the Port.
2. Port Facilities and Costs.
3. Ocean Freights.

(1) A careful study of Railway Freight Rates results in the assurance that the Port of Savannah, is in a very favorable position, from Production centres in the Middle and South West, as compared with North Atlantic Ports, but at a disadvantage as compared with her important competitor, New Orleans.

The following table, from figures supplied by the Savannah Traffic Bureau, is of considerable interest:

CLASS RATES FOR EXPORT, SHIPSIDE DELIVERY, EFFECTIVE JUNE 30, 1922

FROM	TO	First Class	Second Class	Third Class	Fourth Class	Fifth Class	Sixth Class
CHICAGO	New York	1.57½	1.38½	1.05	.73½	.63	.52½
	South Atlantic Ports	1.50	1.32	1.00	.70	.60	.50
	New Orleans	1.50	1.32	1.00	.70	.60	.50
DETROIT	New York	1.23	1.08	.82	.57½	.49	.41
	Sout hAtlantic Ports	1.17½	1.02½	.78	.54½	.46	.39½
	New Orleans	1.17½	1.02½	.78	.54½	.46½	.39½
INDIANAPOLIS	South Atlantic Ports	1.39½	1)22½	.93½	.65½	.56	.46½
	New Orleans	1.39½	1.22½	.93½	.65½	.56	.46½
CLEVELAND	New York	1.12	.98½	.74½	.52	.44½	.37½
	Sout h Atlantic Ports	.06½	.94	.71½	.50	.42½	.35½
	New Orleans	1.06½	.94	.71½	.50	.42½	.35½
ST. LOUIS	New York	1.84½	1.62	1½23	.86	.73½	.61½
	South Atlantic Ports	1.71½	1.50½	1.13½	.78	.66	.54½
	New Orleans	1.36½	1.20½	.91½	.64	.54½	.45
CINCINNATI	New York	1.37	1.20½	.91½	.53	.45	.37
	New Orleans	1.28	1.13	.85½	.60	.51½	.42½
LOUISVILLE	New York	1.57½	1.38½	1.05	.73½	.63	.52½
	South Atlantic Ports	1.19	1.04	.78	.53	.45	.37
	New Orleans	1.28	1.13	.85½	.60	.51½	.42½

This shows that from these points class rates favor Savannah over New York in every instance, and with one exception, better or equal to the Port of New Orleans.

(3) As regards Ocean Freight Rates, North Atlantic Ports, take the Normal Rate. South Atlantic Ports 7½ cents per 100 lbs., higher, and New Orleans another 7½ cents increase.

Considering Transportation therefore, as a whole, it is "Anybody's" Business, as regards Freights both Railway and Ocean; and the vital factor is

THE PORT, AND COMMERCIAL INFLUENCES; and these factors of the Transportation Problem are both capable, in a marked degree, of solution.

MONTREAL, IN THE NORTH, has demonstrated a solution by offering, WITH SUCCESSFUL RESULTS, A MODERN, COMPREHENSIVE, CO-ORDINATED, CONCENTRATED, PORT SYSTEM.

NEW ORLEANS, ON THE GULF, IS SOLVING THE PROBLEM AS REGARDS FREIGHTS, BUT CANNOT BE COMPREHENSIVE AS REGARDS PASSENGER BUSINESS.

SAVANNAH HAS A WONDERFUL OPPORTUNITY, ON THE SOUTH ATLANTIC.

Why is the Port of New York so successful?

New York is a comprehensive Port. A ship from any Port in the world may find in New York, any, and every class of freight, and may deliver practically every known product, to a buyer, at market prices.

New York is known to have Ships and facilities for Cargoes, to and from every Port in the world.

The New York Financial Interests, other things being nearly equal, favor their Home Port.

The Great New York Railway Systems, have such extensive facilities and such immense investments, that they have to handle an immense volume of traffic to make them pay; and as grades and route are naturally favorable, New York gets the business.

But there are examples of Great Ports, entrenched and secure as they considered themselves, which have had to yeild to more modern rivals. Even now, New York financiers are discovering that "other things are not equal", and are diverting immense volumes of business through Montreal and New Orleans.

Why not a South Atlantic Port? Why not Savannah?

SAVANNAH HAS A SPLENDID SHIPPING AND FINANCIAL INTERESTS, AND SHE HAS A PORT PROJECT, READY FOR, AND WORTHY OF THE STATE.

SITE OF PROPOSED PROJECT.

It has been argued that Location is one of the most important principles to be considered in connection with successful Port Development. It has been demonstrated, by example, that a good Location has been the prime factor in connection with the success of some of the most important Ports in the world. In certain Ports, where fundamental difficulties in the way of the development of port commerce, were serious, a judicious Location, in a great measure, resulted in offsetting the unfavorable conditions.

Such examples as Hamburg, Liverpool, Seattle, New Orleans and Montreal have their successful Port Units located in very close relation to their business, financial and industrial districts.

In other cases of Ports, successful in the past, the success was due in a great measure to the Location of their Docks. By not conserving, however, the valuable adjoining water-front, and by not providing for future development in the central Locations, many of these Ports now find themselves in a critical condition for the future. Successful industrial development owes much of its success to Location. Industrial development has, therefore, secured sites, more valuable on account of Location with water-front privileges, and having established themselves successfully, hold their property rights at a very high value.

Port Development, therefore has, in such cases, the choice of dis-establishing successful business and paying high prices for the necessary water-front and for terminal connections, or following along the shore front to the nearest available free Location, and locating their Extensions at obviously unattractive Locations.

It is not necessary to demonstrate this principle by example. It is the complaint of the Port Authorities in almost every Port in North America.

It may be assumed therefore that Location has been one of the important principles adopted in connection with the design of the proposed GEORGIA STATE PORT TERMINALS, and that possible Future Enlargement, was also adopted as the secondary principle.

The Location chosen cannot fail but be attractive to Citizens generally, to Business and Commercial Interests, to Transportation Organizations, to Economical Construction and Up-keep, to Ships and to the City of Savannah.

Citizens.—The proposed Location will be convenient alike for the Citizen in his automobile, for the operator, to and from daily, by Street Railway belt-line, for the transient by Taxi, or for Merchants and his express deliveries. It will offer a site for a Municipal "Pier" within three-quarters of a mile of the City Hall. It will still be the Central Location for the future Savannah of one-half a million of inhabitants.

Business and Commercial Interests.—Business concentration is one of the fundamental principles of successful America. Financial Institutions make the center, and it is rare that the financial district is not the nerve center of the business community. Surrounding the financial center, is the Commercial district where the busy man seriously regards "time and space".

The financial, commercial and business districts of Savannah are extraordinarily well located. From the center the distance to the intensified units of the proposed Port Terminals will be about three quarters of a mile. The approaches will be superb. "Time and Space", will be reduced to a minimum.

Transportation Organizations.—A study of the district map of Savannah cannot fail but to impress the Surveyor of Port facilities, with the wisdom and skill of the Railway Projectors in connection with the Location of their City Terminals. Every quarter or district of the City is served. The future, with probable immense increases in business, and population, has been safe-guarded, as well as the present City of 100,000 inhabitants, with its central commercial district, and railway terminals so complete, and well co-ordinated. Present conditions, as regards local switching, and interchange of freight traffic cannot be equaled by any other City in America. In addition to this the City holds the key to the future local interchange of traffic to the site of the State Terminals. New business, and increased traffic, and the economical handling of port freights, will be as attractive to the Railway Organizations as to the State and City generally.

Economical construction.—According to Mr. Rockwell, City Engineer, the site chosen cannot fail but result in Economica' Port Construction and Maintenance. Fresh water conditions will relieve the Port Authorities' minds from the danger of the Super-Teredo. There will be no danger from frost or ice action. There will not be the menace of Tidal-wave or Flood. There will be no rock removal or difficult and costly construction work. The material from the proposed Basins will balance the quantity required to raise the grade of the site to the proposed height. The sub-soil will always be saturated, and the wooden piling under the Port Structures; permanent. Almost all of the materials of construction are available in Georgia. Local Construction Organizations, are equal to any proposition. Labor conditions in Savannah are regarded as the best in America.

As regards economy of Port Construction, therefore Savannah may be assured of having conditions equal to any other Port in North America, if not very greatly superior.

Ships.—The Project has been located and designed to be attractive to Ships. The Location, so near to the City Centres. The berths so closely co-ordinated with the Shipping Offices. Th Ship so safe from all possible dangers. Rival, Competing Ships, in adjoining berths, in fact, every known desirable facility for the officers and men of the merchant marine, will offer a very great inducement to Ships once visiting the Port to return.

City of Savannah.—The City of Savannah should be congratulated upon having Banking, Commercial, Railway and Shipping Organizations equal to, and prepared for, a very high order of Civic Progress in connection with Port Development. Savannah may be in fact, the Commercial Metropolis of the "Empire State of the South", as New York is the Commercial Metropolis of the "Empire State of the North". The Institutions, Organizations, Brains, and Public Spirit Zeal, are all present and available.

City Organizations is also of a very high order. Water supply perfect, Health Welfare seriously conserved and Police and Fire Protection excellent. When one reads the history of Savannah and sums up the difficulties that have been over-come, it is easy to imagine what is possible in the Future. Public Spirit has

made more than one Port, and Public Spirit may be expected to make Georgia a great State, and Savannah a Great Port.

The Port project will not interfere with ideal City Planning. The Project is being designed with due Architectural Features. The approaches and lay-out, will be equal, if not better, than at any Port on the Continent.

In connection with the Port Project it may be expected that the motor-car, motor-trucks and trailer, not only from Interior Points, but from the City Industries, Railway Terminals and Warehouses, will result in the intensified use of certain of the City and District Highways. For economy and for safety, the Port Project is designed to eliminate entirely level crossings within the limits of the new Terminals. It may be necessary for Savannah to adopt, to some extent, the same principle, in this respect as is being adopted by competing Cities. Civic Authorities in Savannah have already given consideration to this important subject, as a necessity even within Port Development, and the new Port Project is being designed to give a lead to this direction.

From the corner of President and Randolph Streets, the Port Project, has in view, a viaduct connecting with all the Port Terminal Units; and extending from the Western to the Eastern limits of the new Port Terminals. From the Western limits, the City has a right-of-way through to the Deptford Tract, which will in the near future, become a rich and important industrial development district.

The letter of Mr. W. O'D. Rockwell, City Engineer, dated April 10, 1922, and the accompanying plan, gives information not only precise, but the result of experience and Official knowledge.

April 10, 1922.

"Mr. Frederick W. Cowie, Consulting Engineer,
% Hon. S. G. McLendon, Secretary of State,
Atlanta, Ga.

Dear Sir:—

I am forwarding today a map showing the property which may be available as a site for the proposed state port termi-

nals. A key map showing Savannah and vicinity and the various railways entering the City is also enclosed.

I have endeavored to show on this map not only the property lines but all structures that would likely interfere with or which would have to be considered when making the design of the project. You will note that the buildings are wooden sheds of not a very permanent construction and could therefore be eliminated or incorporated in the design as was thought best. There are, as far as I know, no natural obstructions to any plan that might be proposed. The general surface elevation above the river is such that excavated material from the several slips or basins will just about raise the adjacent lands to a convenient height above the river and all excavation can be done by large dredged. Of course all heavy buildings would require pile foundations.

On the key map the railways now entering the City and reaching the proposed site are shown in heavy black lines. I have shown in red a proposed belt line but do not think this line necessary, be ause both the A. C. L. Railway and the Central Railway already reach the site, the A. C. L. being double track through the City and the Central Railway double track part of the way.

From the above description and maps it would seem that the engineer designing terminals for which this site was used would have a free hand to do whatever was required in order to make a most complete and modern port terminal.

Yours very truly,
(Signed) W. O. Rockwell,
City Engineer."

The preliminary report to the Harbor, Port and Terminal Commission of Georgia, dated April 15, 1922, contains the following recommendations:—

"According to every required principle upon which a splendid picture of an attractive, competing, far reaching, beneficial, State Ocean Terminal, could be measured, this Location fulfills the test.',

"The first unit would be three-quarters of a mile from the City Hall."

"With this site, Savannah offeks a situation for the State Port Terminals, which is unequivocally endorsed."

"Without this site, Savannah must necessarily be turned aside, and Brunswick recommended."

It will thus be seen that the recommendation of the proposed Georgia Port Terminals at Savannah, is based upon a very desirable Location. In the resolution of the Harbor, Port and Terminal Commission of Georgia, passed at Savannah on April 15, 1922, it is recorded as follows:—

"Report on the Proposed Location of the State Terminals, and same is favorable to Savannah, provided that certain designated property is given free to the State, to be used by the State for a Terminal Site.

Ve it resolved, That if the City of Savannah will furnish this site, and also the further survey and the necessary plans drawn in keeping with the results of that survey, in order that the complete proposal may be presented by the Commission to the next Session of the Georgia Legislature, and if, after this survey is completed, and a recommendation of state owned Terminals seems financially justified from the viewpoint of the creation and conservation of the resources of the producer, and prospective superior market facilities, and from revenues coming from other States as the result of superior coastal concentration, loading and shipping facilities, the Commission will recommend that the Terminals be built at Savannah.

Frederick W. Cowie,
July 15th, 1922.

EXTENT OF ACCOMODATIONS REQUIRED FOR STATE PORT TERMINALS.

Baltimore, with the competition of New York, Philadelphia and Norfolk, has a fifty-two and a half million dollar Project, Authorized by the Legislature, for the Development of the Port.

The Port Development Commission of that City has officially adopted the McComas Group Project, provided for nine piers, or accomodations for over thirty-five Ships. Other groups of piers are also recommended by the Harbor Engineer for future Extensions.

This is typical of the proposed development in other Ports in America, such as New Orleans, New York, Montreal, Htlifax, etc.

The Savannah Port Terminal Project is designed to provide new accomodation for a much more limited number of Ships, although future extensions are provided for; but in addition to piers, sheds and berths, Comprehensiveness is featured.

The First Stage will result in a Working, Co-ordinated group of Units, sufficient for the present, and which is more in keeping with the ideas of the Georgia State Port Terminal Commission.

It is to be a Concentrating and Marke'ing Port, designed to grow with the business.

STATE PORT TERMINALS
UNITS INCLUDED IN THE PROJECT

The projected State Port Terminals, at Savannah, have been designed on modern principles of port success. They have been designed to attract new business and to encourage transportation, through the port.

The principles adopted are capable of logical demonstration, and they are proven by example and precedent.

These principles, by proper design and co-relation, will result in a comprehensive, co-ordinated, concentrated group of port terminals, which under vigorous and economical management, must result in success.

They are designed to attract shipping; to be an economical link in the "Chain of Transportation" at the port; and to encourage commerce.

Every care has been exercised in not going too far, but on the other hand, in providing that accommodation which the location and physical situation of Savannah, justly entitles her to; and which is not now available at any South Atlantic port.

The first stage will provide a balanced proportion of each of the comprehensive units, sufficient for the present, but so designed that additions may be added to any or all of the units, as required, without interruption to traffic.

The first unit, situated to the eastward of the Old Fort, may be called the Fort Wayne Docks.

This unit will be the intensified business centre of the terminals. Liners, passenger ships, ships making Savannah a port-of-call, general cargo ships, and ships bound for Northern ports, may be expected to berth here. It is located only three-quarters of a mile from the City Hall, on a most favorable river site.

Passengers, mails, express, perishable freights, grain and other port business, will be concentrated here.

Railway facilities for "Steamship Specials" will be a feature, and every encouragement will be offered for port-of-call ships, en route, to and from, gulf ports or the Panama Canal, to make Savannah the point of departure or arrival of trans-Atlantic voyages.

The ocean route, between Key West and all points North and East, closely follows the shore to the California, so that ships may enter the Savannah River, dock and depart, with the loss of only one tide.

Railway service, cold storage and marketing, high class perishable freights, and rich passenger business; will be sufficient attraction for shipping, provided the port offers prompt facilities.

The extensive area, tributary to Savannah, will also result in the building up of a one-class ocean service to this port. Navigation conditions are favorable for ships of from 12,000 to 16,000 tons. If Montreal on the North can support one sailing per day, of these high-class, paying, freight and passenger liners, Savannah is equally well situated as regards Southern and Western territory.

Winter Excursion ships would find such facilities most attractive, and visitors, in search of health and rest, would view with pleasure Savannah as the home port.

The first stage provides for a bulkhead landing quay and one basin. It will have berths for nine large ships, and there will be the full compliment of facilities:

1. Steamship and railway passenger depot.
2. Eight transit sheds each with railway train sheds.
3. One supporting warehouse.
4. One grain elevator.
5. One cold storage warehouse.
6. A viaduct approach.
7. Naval stores.
8. Fertilizer products.
9. Cotton.
10. Fueling docks.
11. Railway terminal yard.

The design of the wharves calls for permanence and fire resisting construction. The "apron" will be of moulded-in-air, reinforced concrete.

Basin No. 1 will be 1,200 feet long by 300 feet wide. The excavated material will be used in raising the grade of the site and railway yard.

(1) The steamship and railway passenger depot will be at the centre of the bulkhead landing quay, which is over 1,700 feet long. The building, structural steel construction, will be 240 feet long by 90 feet wide. The lower floor will be for freight; the main flooor for passengers, mails, express, etc., and the roof will offer a splendid site for a municipal recreation "pier."

(2) The Transit Sheds, uniform in dimensions, will be of the structural steel type, and of fire-resisting materials throughout. They will also be designed with railway train sheds, and freight, on the ground floor; and for truck-and-trailer, handling and distribution on the main floor. There will be a grain conveyor gallery, extending the whole length of the docks, in the front upper corner of these transit sheds. Light, air, a minimum of fire danger, and economical handling are the special features, and the train sheds will offer facilities for handling rail freights, all under cover, with independent switching leads.

(3) Supporting Warehouse.—The warehouse is one of the most successful adjuncts of a Port. With a supporting warehouse, and co-relation with the dock system, shipments are sent from interior points, from time to time, as soon as ready. At the Port, favorable opportunities for marketing and shipping, offer a distinct advantage. In the other direction, importers favor Port Bonded Warehouses.

The supporting warehouse, A, will be 500 feet long by 200 feet wide, and six stories high; all of fire resisting materials.

A warehouse of this character need not be of costly construction even though provided with the most modern handling equipment.

(4) The Grain Elevator System.—No unit requires such careful laying out and such co-relating with the comprehensive project, as the system for the storage and handling of grain.

An ideal site has been located. It will be central for business and labor conditions, and it will be convenient for the receipt and delivery of grain.

The belt-conveyor system is very attractive to business. It conditions the grain just before it is stored in the hold. The ship can obtain the grain when required. There is no delay or expense in moving the ship.

The first stage elevator will be able to unload 300 cars per day and deliver to six ships at one time, and to ships at any of the nine berths. It is to be provided with car dumping facilities according to the most economical system known. In the serious light of experience, every known modern safeguard from fire and dust explosions has been designed. There will be cleaning appliances and a Dryer.

Montreal Harbor System, last year, handled nearly 140,000,000 bushels, in seven months, through three elevators, having a combined capacity of less than 10,000,000 bushels.

The Savannah project has in view, in the first stage, a working house of 1,000,000 bushels capacity, and a storage addition of 1,000,000 bushels.

(5) The Cold Storage Warehouse.—For the first stage, the cold storage warehouse is designed to be about one-half the size of the Montreal plant. The Montreal warehouse is 440 feet long by 110 feet wide and nine stories high, with a power house and ice plant in a and separated by fire walls. The Savannah project therefore calls for a warehouse 200 feet long, 125

in duplicate, and separated by fire walls. The Savannah project therefore calls for a warehouse 200 feet long, 125 feet wide and seven stories high; five stories being for cold storage; or about 1,000,000 cubic feet of refrigerator capacity.

On each cold storage floor there will be a well lighted, well ventilated corridor, in which sampling, exhibitions, and sales may take place. The ground floor may be rented for offices, or to jobbers, for cool storage.

By careful design and construction the building and contents may command the lowest known insurance rates.

(6) Viaduct Approach.—Co-ordinated and concentrated facilities are particularly adapted to handling by storage battery trucks and trailers. This method of handling requires smooth and level run-ways. As practically all vehicular traffic is also by motor truck, they will interchange with facility.

The Viaduct will provide a level approach from city streets and, by radiating run-ways, connect with all warehouses, transit sheds, and facilities, and result in comprehensive cargoes being handled at each berth, with economy and despatch.

(7) Naval Stores.—For the storage and handling of Naval Stores and other bulk non-perishable products, ample spaces are reserved, with facilities for distribution and shipment.

(8) Fertilizer Products.—The State Port Terminal Project provides for a modern plant for the unloading, storage, and shipping of fertilizer products.

It will include a bulk-head dock for two or three ships. These ships will be unloaded by mechanical facilities and the materials delivered either direct into railway cars, or to storage. Ample spaces will be provided for materials of various kinds in separate compartments.

Overhead traveling cranes will handle cheaply and efficiently.

Three traveling unloading towers, with conveyors and weighing devices and three storage buildings, each 350 feet long by 150 feet wide, included in the first stage. Future extensions so that the storag plant may be doubled in size are provided for.

(9) Cotton.—The Storage and Handling of Cotton, as conducted at Gulf and Atlantic Ports, has been carefully studied. It has been found that formerly the shipping season for cotton lasted for seven months. It is now carried on almost continuously throughout the year. It has been found that with high-density cotton, shipments may be made by regular liners, to advantage, instead of by full cargoes in tramps. Lighterage is costly and slow and can be eliminated with very great economy, especially in liner and partial shipments; and finally it has been found that the very important item of Insurance may be very greatly reduced by construction according to special "Rules and Regulations."

It is expected that when the Port Project reaches fulfillment that Savannah will again become the principle cotton port of North America, which position she should never have lost. It is expected that not only will Savannah become a great cotton port, but Savannah will become the chief market for this product, in America. In carrying out this plan a cotton unit has been designed, which will be co-ordinated with the various other units of the port, by using storage battery trucks and trailers.

The design calls for the handling of cotton from the warehouse directly into the ships, by mechanical means. The cotton unit is to be constructed to class "AAA", and to obtain a special rate of insurance, given to only one or two other plants in America.

(10) Fueling Docks.—The next item of the project calling for partial completion in the first stage, is the fueling dock system. With ships using Savannah as a port-of-call, for passengers, cold storage, provisions, and perishable cargoes, the question of bunkering with either

coal or oil, will become an important factor. A special plant, for handling, has been laid out for the speedy Bunkering of Ships with coal.

The same machinery with a mechanical interchange, and by the use of magnets, will enable pig-iron to be unloaded from cars, to be either stacked, or loaded into ships, as required.

Adjoining the fueling docks are two large fuel oil plants, each of which is equipped for either bunkering at their own wharves, or for delivering fuel oil through special pipes to the various berths in the Savannah Port Project.

(11) Railway Terminal Yard.—The project includes in-bound and out-bound yards. The out-bound receiving yard will hold seven sixty-car trains. The classification yard for the same service, will provide ten forty-car tracks, all directly connected with the dock facilities.

The in-bound receiving yard is designed with eight forty-car tracks, connecting with the in-bound classification yard for eight forty-car trains.

Both of these yards are operated over standard humps having railway scales.

A storage yard is designed having a capacity of 700 cars.

The railway facilities are designed so as to balance, in each instance, with the freight facilities of the different port units.

GEORGIA PORT TERMINALS AT SAVANNAH FIRST STAGE ESTIMATE

The first stage of the proposed Savannah Port Terminal Project provides for comprehensive, co-ordinated facilities, including all units required for a modern harbor development, as outlined in the report submitted herewith.

The first stage, while complete and sufficient for present requirements, is capable of extensions in evry particular, where extensions are to be expected.

In order that success may be assured, comprehensiveness is the essential feature, and for the first stage, the following are given as being required:

1.	Docks.—	
	Bulkhead Landing Quay.	
	Basin No. 1.	
	Fertilizer Dock.	
	Cotton Dock.	
	Fueling Dock.	
	Approximately 8000 lineal feet of wharves, with berths for 15 to 20 ships	$3,000,000
2.	Railways and roadways	1,250,000
3.	Grain Elevator.—	
	Working house and storage 2,000,000 bushels capacity, with conveyors for loading eight ships at their berths	1,750,000
4.	Transit sheds and passenger station	2,750,000
5.	Warehouses.—	
	A. Cold storage	1,250,000
	B. General	750,000
	C. Cotton	1,000,000
6.	Fertilizer warehouses and plant	500,000
7.	Machinery and equipment	500,000
8.	Contingencies and unforseen items	1,000,000
9.	Interest during construction	1,250,000
		$15,000,000

This would result in a comprehensive port, of at least one-half the capacity of Montreal Harbor, which has cost about $32,000,000, and which is paying not only a sinking fund, but also $1,000,000 interest charges annually, and is resulting in prosperity to the people of Canada.

CONCLUSIONS.

In view of the increasing and widespread decision that transportation and marketing are vital factors in the interests of production, and that the port has been found to offer immediate available possibility of amelioration it would seem to be most urgent to impliment, without loss of time, the value of the already successful Port, of Savannah, Georgia, by providing Modern Terminals and up-to-date Marketing Facilities.

By all the rules governing the spirit of port development, Georgia has an even, or better, chance of winning against any or all competitors.

Georgia has a working plan, and an opportunity for an immediate commencement, with a certainty of being ready first, of all the Atlantic ports, with an offer to the world's shipping, of a modern, comprehensive, co-ordinated port terminal.

It has been demonstrated, by example, that such a port would be successful and that it would pay its way, without costing the people of Georgia a cent, other than their credit.

A representative of one of the great newspapers of the State, Mr. Rogers Winter, made an investigation of one of these examples, and after a searching, critical survey, gave to the citizens of Georgia, a description, a picture, an argument; and a demonstration that the port of Montreal, a port such as has been designed for Savannah, had the essentials of the Georgia requirements, and that the problem had there been successfully solved. No more excellent example of modern educating journalism has ever been witnessed.

Such a port development at Savannah, by the prestige of position and by strategical trade value, would, with certainty, command a large share of the export and import business of the South, and open up to Georgia a rich market for her products.

Georgia has a coastal port in a modern city, where are all the essentials of a successful port: railway facilities, financial houses, shipping interests, industries, business organization, public utilities and excellent municipal government.

A site for a modern port terminal has been found which has almost every element of success. It is ideal.

The project has been designed, based on principles and practice of port development which have been successful.

The designer of the project has designed, constructed and directed the operation of such a port, and has eliminated, as far as possible what is not attractive to practical operators, and may not be financially successful.

The City Engineer of Savannah, Mr. W. O'D. Rockwell, has given his certificate that the "Engineer designing terminals for which this site was used would have a free hand to do whatever was required in order to make a most complete and modern port terminal."

Expenditure on this project, will benefit almost every known business organization and class of labor in the state. The money will almost all be left in the pockets of the people.

From the highest executive of the State, the Legislators, the Board of Harbor, Port and Terminal Commissioners, and from the Mayor and Citizens of Savannah, every possible aid and co-operation has been received.

Public spirit, combined with a patriotic desire to further the interests of the State, will surely resolve itself into a picture of the State of Georgia, Port Terminals and the prosperity resulting, visible to THE WORLD.

COAL

FREIGHT

FROM	TO SAVANNAH, GA.	PINNERS POINT, VA.	NEW ORLEANS
Southern Railway Group 14 Mines in Virginia.	Appalachia, Va. Exeter, Va. Packet, Va. St. Charles, Va.	$3.25	$3.94
Group 7 Mines in Tennessee, on Southern Railway.	Caryville, Briceville, Etc.	$3.25	$4.00
Kentucky Mines, as Middlesborough, Harlan and points in Group 10.		$3.37½	$4.10

Freight on Coal, Savannah from 3 competing points 3.25 to 3.37½, New Orleans, 4.00 to 4.10, Pinners Point, Va., 3.94.
(From Savannah Traffic Bureau)

GRAIN AND GRAIN PRODUCTS.

FROM	NEW YORK, N. Y.	TO NEW ORLEANS, LA.	SO. ATLANTIC COASTR
Chicago, Ill.	A 30½ B 31½ C 26½	A 40½ B 50 C 46	A 35½ B 46 C 38½
St. Louis, Mo. (proper)	$ 34 B 35 C 31½	A 32 32 C 32	A 33½ B 34 C 28½
Cincinnati, Ohio.	A 27½ B 28½ C 25½	A 33 B 33 C 33	A 26 B 26½ C 22½
Louisville, Ky.	A 33 B 34 C 29½	A 30 B 30 C 30	A 26 B 26½ C 22½

EXPLANATION REFERENCE MARKS: A–Grain
B–By-products-Flour, etc.
C–Feed, etc.

PACKING HOUSE PRODUCTS & FRESH MEATS.

FROM		TO POINTS AS SHOWN ABOVE.	
Chicago, Ill.	A, B, C, D	96½, 73½, 73½, 73½	
St. Louis, Mo.	A, B	1.03½, 82	A 95½, B 65½
	C, D	1.03½, 82$	C 100, D 74$, E 54

EXPLANATION REFERENCE MARKS:

A–Dressed beef, sheep & hogs.
B-In bulk, smoaked, pickled.
C-Meats, ffesh, all kinds.
D-Rated 4th class Official.
E–Dry salted and articles Rated B Sou. Classfn.
$–E. St. Louis Only.

IRON & STEEL ARTICLES (MANUFACTURED).

Chicago, Ill.	63	46½	35
St. Louis, Mo.	73½	36½	35
Cincinnati, Ohio.	55	37½	35
Louisville, Ky.	63	34½	35