

**THE STORY OF THE CAPE FEAR
AND
DEEP RIVER NAVIGATION COMPANY
1849 - 1873**



**BY
WADE H. HADLEY, JR.**

THE CHATHAM COUNTY HISTORICAL SOCIETY

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A Publication of
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Design on front cover depicts the corporate seal of the Cape Fear and Deep River Navigation Company. Central design shows proposed portage railroad connecting Yadkin and Deep Rivers.

Acknowledgements

Photograph of corporate seal by Jerry L. Markatos of Pittsboro.

Map showing location of dams and locks drawn by G. P. Stout of Greensboro.

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INTRODUCTION

The subject company was organized at Pittsboro, N.C., and its home office was located there. The line of river improvements extended for 37 miles through and along the border of Chatham County. Men from Chatham County were among the officers and directors of the company throughout its existence. These facts make this publication an appropriate undertaking for the Chatham County Historical Society.

The material is presented in chronological order for the most part. Some information on earlier plans and attempts to improve navigation on the river above Fayetteville is included.

The story records an heroic attempt to render almost one hundred miles of the upper Cape Fear and lower Deep rivers continuously and reliably navigable for steamboats. This long and costly project to improve river transportation met with many difficulties and problems. The objective was not achieved, although success in the passage of steamboats into Chatham County up to Egypt (Cumnock) was attained for limited periods of time.

The writer was encouraged to undertake this account of the Cape Fear and Deep River Navigation Company by John H. London of Pittsboro, who provided much of the material on which it is based.

Wade H. Hadley, Jr.

Siler City, N.C.
November 19, 1980

ABSTRACT

The Cape Fear and Deep River Navigation Company was organized April 14, 1849, at Pittsboro, N.C., under a state charter ratified January 29, 1849. Its aim was to render navigable by steamboats the upper Cape Fear and lower Deep rivers from near Fayetteville to Hancock's Mill in Moore County, a distance of about 98 miles. The source of income was to be from operating its own or leased boats as common carriers on the rivers and by collecting toll from the boats and rafts of others for passage over the improved sections of the waterway.

Originally individuals subscribed to sixty percent of the common stock and the state, the remainder. Later the company was supported mainly by state funds.

The route for this line of river improvements lay mainly above the natural head of navigation. It included occasional sections of shallow water or rapids through which large boats normally could not pass. To overcome these obstacles a series of dams were built so that the pond created behind each of them would back water up to the next dam above with a minimum depth of three feet (later increased to five feet) throughout the entire distance. Boats were lifted or lowered from one pond to the next by locks. This was termed a slack water system of navigation. Dams and locks were constructed at nineteen sites.

This line of river improvements extended for twenty miles within Cumberland County, twenty-seven miles within Harnett County, thirty-seven miles within Chatham County, and fourteen miles within Moore County. The Lee-Chatham county line now follows the bed of the rivers where Chatham originally extended south of them.

Work started in December of 1849. By the end of 1854 most of the dams and locks had been built. The works constructed were not strong enough to withstand the floods to which they were exposed and the wooden locks tended to deteriorate and decay rather rapidly. The result was a continuing necessity to repair and rebuild the works. This went on for seven years.

Occasionally there were periods when navigation by steamboat was possible on

the upper Cape Fear up to Haywood and to Lockville, 2½ miles above on Deep River. On a few occasions during 1859 and 1860 steamboats went up Deep River as far as the town of Egypt (Cummock). The project was not a success in that reliable and continuous navigation was never established over the designated route.

Originally this line of navigation was intended to carry general produce from and supplies to its service area. After mid 1853 interest centered on the prospect of transporting a large volume of coal from mines along Deep River. This traffic never developed.

No appreciable amount of income was ever received from the use of the improved waterway. At a forced sale by creditors on April 23, 1859, the state bought the company in order to protect its own interest in it.

Between 1859 and 1861 the company was active under state management and had limited success in maintaining navigation above Fayetteville on the upper Cape Fear and lower Deep rivers. The dams and locks deteriorated from neglect during the years of the War between the States.

After the war the Board of Commissioners had no money under its control and could do nothing to repair or complete the project. A decision was made to sell the state's interest in the company and that was done by public auction at Lockville, in Chatham County, on July 8, 1873.

The period from 1850 to 1860 was a time when the state of North Carolina was generous in contributions for internal improvements. This included plank roads, railroads, and river navigation projects. In February of 1859 the interest of the state as shareholder and endorser in the Cape Fear and Deep River Navigation Company was placed at over \$800,000 by the time the bonds matured (Senate Bill No. 40). Individuals invested \$160,000 in the common stock of the company.

The account which follows records the history of the subject company in considerable detail plus some accessory information. It was a major project to improve river transportation, perhaps not well advised. The struggles of the officers and directors to make it a success, their great expectations, the

setbacks, and the problems combine to make an interesting story.

THE PERIOD BEFORE 1848

Navigable rivers provide a natural passage for transportation. The Cape Fear permitted explorers and pioneer settlers easy passage for 100 miles into the interior of North Carolina through a wilderness devoid of roads. After settlement, farm and forest products could be transported to market and supplies for the back country brought in by river. This was a natural advantage over the alternative of transportation on dirt roads by wagon. A community (Cross Creek) for trade and supplies developed near the natural head of navigation on the Cape Fear River in the 1760's, which was named Fayetteville in 1783. A short distance up river from this point, occasional shallows and rapids were encountered which restricted the passage of boats. In spite of this hindrance, there was a limited use of the upper Cape Fear and Deep rivers for transportation from the time of the first settlers along them until the initiation of the subject navigation project in 1848. Its objective was to improve navigation for 100 miles above Fayetteville so as to permit the operation of steamboats and thus provide the region traversed with cheap and dependable transportation.

Some Early Passages

A few early accounts of navigation above Fayetteville are given below.

According to family tradition, John Brooks and three sons came by canoes from Cross Creek in Cumberland County up the rivers to near where the town of Gulf is now located around 1755 on their way to occupy lands about ten miles farther north on Tick Creek in Chatham County (Kellam, 1950).

Colonel George Lucas of Chatham gave an interesting account of a voyage from Wilmington to Ramsey's Mill above Haywood during May of 1800, in his boat, the Haywood Packet. He said this boat had a capacity for about 200 bushels of corn, or about 10,000 pounds weight. The 100 miles from Wilmington to Fayetteville was negotiated in four days and the 60 miles from the latter place to Haywood in seven days. He mentions being at the big falls on the 19th, passing through them on the 20th, and reaching Ramsey's Mill on the 21st. He gives no indication as to how the

boat was propelled or the passage of the falls effected. Col. Lucas recorded that it rained every day but one during his voyage. This suggests that the depth of water in the rivers may have been above normal. The "great falls" referred to was probably at Buckhorn. The above account was published in "Raleigh Register and North Carolina Weekly Advertiser" dated June 10, 1800.

The Hillsboro Recorder of June 10, 1829, carried the following item, headed Fayetteville, May 27:

It is with pleasure we have to announce another arrival from Haywood. The boat Clara Fisher, belonging to Jonothan Haralson, Esq., arrived at this place yesterday with cotton consigned to Joseph Baker, Esq. She returns today. We are informed that the boat did not meet with the least obstruction in her passage down the river.

This boat was probably aided by improvements made on the river above Fayetteville by the Cape Fear Navigation Company (1815-1834). Thompson, in his report of 1848, mentions the remains of several dams, two sets of locks, and an old canal constructed some twenty years earlier at Buckhorn.

There are also references to rafts of timber and clamps of lumber being floated down the river from above Fayetteville. This was possible when water conditions were favorable, without any river improvements.

Navigation Companies Prior to 1848

The Cape Fear Company:

In 1792 an act of the state legislature authorized the establishment of this company for the purpose of facilitating the navigation of the Cape Fear River from Fayetteville to the confluence of Haw and Deep rivers near Haywood. It had been represented to the General Assembly that it would be practicable by means of canals, locks, et cetera, to render safe and easy the navigation of the river over the course indicated.

The following statements from the act indicate the importance attached to river navigation in this area at that time: "Navigation is the life and main-spring of commerce." The accomplishment of this improvement will be "greatly to

the benefit of the inhabitants of the Western part of the state."

Records of the proceedings and accomplishments of this company were not found. It did not survive for long. Another company to replace it was erected four years later.

The Deep and Haw River Company

In 1796 this company was created by an act of the state legislature. The objective was to improve the Cape Fear for navigation above Fayetteville up to the confluence of Deep and Haw rivers and also to improve each of these rivers as far up them as could be effected. It was stated that to accomplish this would be of important public utility. Books were to be open from May 1 to August 1, 1797, for receiving and entering subscriptions to the amount of eight thousand dollars. This was to be followed by a general meeting of the managers and subscribers at Pittsborough on August 10, 1797.

No record of the work which this company may have undertaken to improve navigation was found. Colonel George Lucas was a director of this company. After making a voyage from Wilmington to Haywood in May of 1800, he made the following statement:

I found the river just as smooth as I expected but must differ in opinion with my Brother Directors as to the expense. It will cost more than they have an idea of but it will be trifling, compared with the advantages which will be obtained to this part of the country.

The Cape Fear Navigation Company

In 1815, the 1796 charter of the Deep and Haw River Company was amended and the name of the company changed to the above. The franchise, as then defined, extended from the sources of the several rivers and creeks running into the Cape Fear River to the mouth of the said river. The capital stock was increased from \$8,000 to \$10,000 and certain banks were authorized to make loans to the company and to subscribe to its capital stock.

Around mid-1816 the company was at work improving the river for navigation below Fayetteville. This included clearing the channel of logs. Two years later the first steamboats were plying the river between Fayetteville and Wilmington.

Work on the river above Fayetteville included a canal, locks, and dams at Buckhorn, and an attempted canal at Smiley's Falls, which was not completed because of hard rock encountered.

As mentioned elsewhere, the boat Clara Fisher was making trips between Haywood and Fayetteville in the spring of 1829. River improvements in place at that time may have been responsible for these voyages.

In 1834 the Cape Fear Navigation Company announced its intent to relinquish all claims to the river above Fayetteville to any company that would improve the same. Fifteen years later this portion of the river was taken over by the Cape Fear and Deep River Navigation Company when it was organized in 1849. The older company continued in existence and confined its activities to the river below Fayetteville.

This was formalized in 1852 by an "act to legalize the transfer of rights of the Cape Fear Navigation Company on the Cape Fear River above the mouth of Cross Creek." It transferred or released to the C. F. & D. R. Navigation Company all rights, privileges, and franchises on the Cape Fear River and its tributaries above the mouth of Cross Creek. (Laws of N. C., 1852, Chapter 82.)

Preliminary Activity

In July of 1848 a convention for improving the upper Cape Fear and Deep rivers for navigation as high up as Hancock's Mill in Moore County, North Carolina, was held in Pittsboro, Chatham County.

A committee was appointed to take in charge the obtaining of a survey and estimate of the probable cost of the improvements contemplated. The committee consulted Major Walter Gwynn, Civil Engineer, who in turn engaged William Beverhaut Thompson, Civil Engineer, to make the survey and provide the cost estimate of the improvements desired.

Mr. Thompson carried out this assignment and recorded the results in a "Report upon the Cape Fear and Deep Rivers" (15 pages) dated Raleigh, Dec. 22, 1848. House of Commons Document, No. 17.

After the meeting at Pittsboro in July of 1848, the state legislature started work on an act to improve the Cape Fear and Deep rivers above Fayetteville. Thompson's report with a plan for improvements on these rivers and an estimate of the cost was presented for use in the writing of this act, which was ratified on January 29, 1849.

When the C. F. and D. R. Navigation Company was chartered in 1849 its purpose was to effect communication by steamboats for approximately one hundred miles above Fayetteville on the upper Cape Fear and Deep rivers.

At this time steamboats had been operating between Fayetteville and Wilmington for thirty years. A steamboat named the Henrietta was built and launched on the Cape Fear River at a point three miles above Fayetteville in 1818. On July 16 of that year it sailed from there for its first voyage to Wilmington. The Henrietta continued to operate on the Cape Fear until 1860 (Turlington, 1933).

Compass and Nature of the Project

The line of river improvements proposed from Fayetteville to Hancock's Mill was one hundred miles in length. The fall over this distance was approximately two

hundred feet. This average gradient of two feet per mile was considered relatively mild for a canal or river navigation project.

Mr. Thompson and party made the survey by descending the river in a boat from Hancock's Mill.

He proposed a slack water navigation system formed by a succession of locks and dams with occasional short canals.

There were to be main dams across the rivers at sixteen sites plus three auxiliary dams. The main dams were to be from 190 to 1023 feet in length, average length 522 feet. There were to be seventeen lift-locks and two guard-locks. At four places the course of navigation was to leave the bed of the river and pass through canals from one-fourth of a mile to a mile in length. Canals were actually employed at three sites.

Throughout the line of navigation minimum depth of water was to be three feet.

The lock chambers were to be 100 feet long and 18 feet wide.

The plan was to use crib-type dams built of timbers and well-packed with stone.

Thompson estimated the cost of accomplishing all the work on this navigation project upon the plan proposed, at \$185,000, including ten percent for contingencies.

The engineer admitted that the above report was somewhat hurriedly made and that high water at the time may have prevented the detection of some shoals which would present problems for navigation in times of normal water levels.

It was also pointed out that after the work was under way some modifications of the original plan might be found advisable. These predictions were fulfilled during the protracted period of construction of about eight years.

Falls on the River above Fayetteville

The features called falls (such as Smiley's, Buckhorn, and Pullen's) were not precipitous drops. They were at places where ledges of resistant rock crossed the river, increased the gradient, and created rapids. At Pullen's the river bed dropped 34 feet over a distance of $1\frac{1}{2}$ miles; at Buckhorn, 16 feet in $1\frac{1}{2}$ miles; and

at Smiley's, 28 feet in 5 miles. The river bed at these places had notches or channels in which the flow was concentrated in times of normal and low water. Another feature was referred to as a slough or natural canal. These were low places where some of the flow passed around the falls in times of high water.

Navigation by small boats was probably aided by the natural features mentioned above before any improvements were installed. The early attempts to improve navigation included building wing-dams to create sluiceways through the falls and deepening the natural canals around them.

It is not known how the up-river passage through the falls of such boats as the Haywood Packet of Colonel Lucas in the year 1800 was made. They might have been hauled or winched with ropes anchored to trees or rocks.

Plans for the Dams and Locks

The dams and locks were built of wood (logs and planks). The plans for them as given by Tompson in 1848 were as follow:

The Dams

The plan of the dams, upon which the estimate is based, is what is termed a crib-dam. It is formed by longitudinal timbers, well-secured to the rock, connected by cross-ties, with the downstream end of the ties kept at such an elevation above the upstream end, as will give the proper upstream slope of $2\frac{1}{2}$ feet horizontal to 1 foot vertical. These timbers will be of yellow pine properly hewed, and well tree-nailed together, and the intermediate spaces or cribs, well-packed with stones. Upon timbers running lengthways of the dam along the face of the upstream slope, will be laid a sheeting of 3 inch yellow pine plank, running up and down the slope, and well-secured to these timbers by tree-nails.

The Locks

The locks will be a modification of the "composite lock"; the walls will be formed of well hewed yellow pine timbers laid lengthways of the lock, 10 feet apart, connected by cross-ties every 10 feet of their length. These cribs will be well-packed with stone to the entire height of the lock walls.

These lock walls will rest upon timbers extending entirely across the lock, laid close together, and upon which a double flooring will be laid to the extent of the lock chamber, and the lining of the chamber will also be double.

The original plan was to build the lock chambers 100 feet long and 18 feet wide. It was soon decided, by 1850, to increase the length of the lock chambers to 118 feet and to widen the three lower locks to 24 feet.

Mill Dams on Lower Deep River in 1848

There were five mill dams in place on Deep River along the course examined by Thompson in 1848:

- 1) Hancock's Mill Dam near Glendon was at the up-river terminus of the navigation project.
- 2) Peter Evans' Mill Dam near Carbonton. This dam was to be modified and a lock added.
- 3) John Haughton's Mill Dam near Gulf. This dam was to be modified and a lock added.
- 4) Nathaniel Clegg's Mill Dam just below the mouth of Rocky River. It was to be replaced by a new and higher dam.
- 5) Pullen's Mill Dam about two and a half miles above the confluence of Deep and Haw rivers. It was to be replaced by a new dam.

The Franchise Granted by the State

The Cape Fear and Deep River Navigation Company was organized and incorporated under "AN ACT to improve the Cape Fear and Deep Rivers, above Fayetteville." (laws of N. C., 1848-49, Chapter XCI). It was ratified January 29, 1849.

Certain provisions of this act are given below:

The purpose of the company was to effect communication by steamboats from some point at or near Waddell's Ferry in Randolph County to Fayetteville, and for providing everything necessary and convenient for the purpose of transportation.

Waddell's Ferry was located in the extreme southeast corner of Randolph County on Deep River at a point about one half mile above the mouth of Fork Creek. This was approximately twenty miles above Hancock's Mill near Glendon in Moore County. As executed, the works made no provision for navigation above Hancock's Mill.

The company was granted authority to condemn, occupy, and use lands essential

for the conduct of the project when an agreement as to the terms of purchase from the owner could not be reached.

The company was empowered to buy or lease boats and to operate them as common carriers. It was also to collect toll from the boats and rafts of others for passage over the improved sections of the waterway.

All property and profits were exempt from any public charge or tax for a term of fifteen years.

The General Assembly soon passed an act to supplement the above (Laws of N. C., 1848-49, Chapter XCII). It provided for the state to subscribe to the shares of the company up to an amount of \$80,000. Ratified Jan. 29, 1849. This act directed that a survey of the country between Deep River and the Yadkin be made for the purpose of connecting the rivers by canal or railroad.

Originally the capital of the company was fixed at two hundred thousand dollars in shares of one hundred dollars each.

There were two classes of subscribers to the stock. One class subscribed to pay in cash. The other subscribed to pay by taking contracts to perform work for the company at the estimates of the engineer. They were designated working subscribers.

The state agreed to take forty percent of the stock in installments as follows: Once private subscribers had paid \$30,000 into the treasury of the company, the state would pay in its first installment of \$20,000. This formula would continue until private subscribers had paid in \$120,000 when the state would pay its final installment for a total of \$80,000.

The Company is Organized

The first general meeting of the stockholders was held on April 14, 1849, at Pittsboro, Chatham County, North Carolina.

This meeting was organized by the appointment of Dr. F. J. Hill of Brunswick County as Chairman and of M. Q. Waddell and William Stedman as secretaries.

The books of subscription for the capital stock of the company being presented by the various commissioners appointed by the

General Assembly for that purpose, at the clerk's table, it appeared that about ninety thousand dollars of the stock had been taken by individuals and a motion was made by L. H. Haughton that the representative of the state, N. A. Stedman, be allowed the right of casting the state's vote in all questions before the meeting and was unanimously adopted.

The above figure for stock taken by individuals was reported later to have been eighty-five thousand dollars.

The stockholders then fixed the salary of the president at one thousand dollars per annum and that of the treasurer and clerk at the same amount.

Dr. Spence McClenahan of Chatham was elected President.

Peter Evans, Sr., John H. Haughton, and Thomas Hill were elected Directors. Isaac Clegg and A. S. McNeill were appointed as Directors on the part of the state by N. A. Stedman.

B. I. Houze was elected Treasurer and Clerk. The bond of the treasurer was set at fifty thousand dollars. Benjamin Houze was from Wilmington.

William Beverhaut Thompson of the District of Columbia was appointed Chief Engineer of the company at a salary of three thousand dollars per annum. W. B. Thompson had been interested in the Cape Fear and Deep River project before his appointment as Chief Engineer of the company. He had presented a report on December 22, 1848, to the commissioners while the legislature was considering the act which chartered the C. F. & D. R. Navigation Company.

Shortly after the first general meeting one of the directors, Peter Evans, Sr., sent in his resignation in consequence of ill health, and his place was filled by the election of Robert F. Smith.

At this organizational meeting in Pittsboro there was some preliminary activity before the officers were elected and the formal conduct of business got underway.

"Dr. Hill took the chair and addressed the meeting upon the subject of the contemplated work 'in his usual happy style.' The meeting was then successively addressed by Dr. S. McClenahan, B. I. Houze, Col. A. S. McNeill, Captain Gilbert

Potter of Wilmington, and Col. Thompson, the Engineer. "They took their seats amid cheering from the numerous spectators present."

Immediately after being appointed Chief Engineer on April 14, 1849, W. B. Thompson went to Maryland to purchase instruments and to organize a party of assistants. He employed Clement Cox as First Assistant. Cox had formerly worked on the Chesapeake and Ohio Canal. Thomas Adams of Washington City was employed as draftsman and rodman.

Thompson returned to Pittsboro on May 2 and soon had a field party at work surveying the locations for the locks, dams, and canals from Fayetteville to Hancock's Mill. This assignment was completed in October of 1849.

The 1850 annual meeting was held July 18 at Pittsboro.

During the past year additional capital stock in the amount of \$13,000 was subscribed to. This brought to \$98,000 the total amount subscribed to unconditionally and left \$22,000 yet to be taken by individuals.

Contracts for most of the timber and lumber were made and a large portion of it delivered and paid for. The prices paid per thousand feet were \$3.50 to \$4.50 for timber and \$6.00 to \$6.50 for lumber.

President McClenahan reported that the right-of-way for all lock and dam abutment sites on the Cape Fear from Fayetteville up to the head of Smiley's Falls had been secured at a moderate cost, most of them for ten dollars each. Col. Elliott C. Williams and Dr. McCoy made the company presents of the sites on their land. Henry King near Jones Falls was paid \$75 for one site.

A decision was made to widen the locks below the mouth of Little River from 18 to 24 feet. It was also decided to build all of the locks chambers with a length of 115 feet instead of 100 feet. This allowed boats of up to 130 tons to be accommodated.

The company was required by the second part of the act which created it in 1849 to make a survey from Deep River to the Yadkin and up the Yadkin to Wilkesboro. This survey was in progress during the summer of 1850 at the time of the first annual report was given.

In regard to the C. F. and D. R. Navigation Company proper, the president reported that as of July 18, 1850, the whole line had been placed under contract; much of the larger portion of the work was in progress; the contractors were pushing forward with their work in fine style.

The president's report concluded with a summary of the anticipated traffic on the rivers and the expanded transportation system envisioned.

The produce, the timber and lumber, the staves, the coal and iron, and the furnishing of this large back country with dry goods and groceries will be bound to make this stock good. And when our water courses are all improved, we will commence running plank roads from

the river into the interior of the country, so as to concentrate the produce on the main line.

Extensions of the navigation system envisioned at this time included going up Deep River from Hancock's Mill to Franklinville in Randolph County and up Haw and New Hope rivers as far as could be effected. Greatest of all was the scheme to connect the Yadkin and Deep rivers by means of a portage railroad and to render the Yadkin navigable for 144 miles above this connection and to the town of Wilkesboro.

Concerning the Supply of Water

In order to maintain the minimum water depth of 3 feet at all points along the line of navigation, the water level of the ponds had to be up to the top of the dams. There was always some leakage through the dams and locks. There was also the fact that a full lock of water would be discharged with the passage of each boat. There was a concern as to whether or not the water level could be maintained during the dry seasons, especially if the number of boats passing through the locks in the course of a day was large.

During low water in the summer of 1849, the engineer gauged the flow of Deep River just below Pullen's Falls (Lockville). After allowing for a half the water supply by leakage at the dams and locks, his calculations indicated there would still be a flow sufficient to pass nine boats every hour. Over the next four years three other engineers closely associated with the project found the supply of water to be ample.

Concerning Periods of High Water

It was evident that in times of floods the surface of the river might rise to a level of ten feet or more above the tops of the dams and locks. There was a concern among some of the stockholders as to how this would affect navigation on the river at such times. In answer to this, chief engineer quoted from public improvements on certain rivers in Kentucky - "All the works on our rivers will be

covered with water during high floods. When the water runs so as to be 8 or 10 feet deep on the combs of the dams, the surface below will come up nearly to the same level with that above - and steam boats may pass up or down over the dams." These were dams only 6 to 10 feet in height. Apparently the engineer considered the situation on the Cape Fear and Deep River project would be comparable.

The Contractors and Expenditures

The first contract for construction work was given on August 18, 1849, to David Jones of Virginia, without having advertised for bids. He failed to give bond within the time required and was terminated.

The work was then advertised for contract and sealed bids were received up to November 14, 1849. After the bids were opened, the work was awarded to Solomon McCullough of Pennsylvania and Taliaferro Hunter of Virginia. Their contract covered all mechanical work from Fayetteville to the head of Pullen's Falls. This covered a distance of about 62 miles along the rivers. They gave their bonds and bound themselves to execute their contract by January 1, 1852. They began their work in the time agreed upon, December 14, 1849. The site where the first work was done was at Buckhorn Falls. The canal at this point was the only place operations could be conducted at that time due to the high waters of the winter season.

The balance of the work to be done on Deep River was between Pullen's Falls and Hancock's Mill, a distance of 37 miles. Subscribers to stock in the company, who had elected to pay for their shares by performing work, were to perform the construction required on this upper portion of the navigation project.

Thus when the chief engineer presented his first annual report on July 18, 1850, he said that the entire line was under contract and work in progress over a large portion of it.

The construction of the lock gates required skill and precision. This work was contracted out to William Mastin, and experienced lock gate framer, who had worked on the Chesapeake and Ohio Canal.

The first major commitment by the company was made in the summer of 1849 when timber and lumber for the over-all project was contracted for as follows:

Timber:	4,568,059 feet	at \$18,592.00
Lumber:	909,628 feet	at \$ 5,458.00
		<u>\$24,050.00</u>

The report recorded that mechanical work executed at five sites on the line from Jones' Falls to Buckhorn Falls by the contractors up to July 1, 1850, amounted to \$12,079.93.

In addition the subscribers in stock to be worked out were credited with \$12,027.61 for what they had done.

The cost of timber and lumber delivered was \$9,122.53.

Therefore total work executed and timber and lumber delivered amounted to \$33,230.07.

The engineer's report of this year mentions that at Fayetteville an enterprising gentleman had recently launched a steamboat named the Chatham (Captain Lammerman). The name suggests anticipated service on the upper Cape Fear to Haywood. The career of the steamer Chatham ended in 1853 when the boilers burst and the boat sank at a point about 30 miles from Fayetteville (Turlington, 1933).

The 1851 annual meeting was held July 17 at Pittsboro.

President McClenahan opened his report with a statement of regret that a more favorable account of the progress of the work could not be given.

Frequent freshets during the past winter and spring had interrupted the work, damaged some of the construction in progress, and washed away stockpiles of timber and lumber on the banks of the river at some place. There was a chronic shortage of labor. At no time was the number of hands at work half the number desired. To alleviate this problem an agent had been sent to New York to recruit immigrant workers and the first group was due to arrive within a few days.

Work was then in progress at eleven sites along the river-- at no place had the work been completed.

A decision had been made to build a dam and lock near the mouth of Cross Creek in the Fayetteville area. This had not been in the original plan.

When the contractors started work in December of 1849, they were to have their work finished by January 1, 1852. That date was now less than six months away, and it was obvious that the original completion date would not be realized.

Firm or unconditional subscriptions to the company's stock now totaled \$99,200. This left \$20,800 additional to be taken by individuals to complete their whole allotment of capital stock. When this was achieved the company would be entitled to the final installment of \$20,000 from the state.

The company was now low on funds. The main task of the president and directors at this time was to raise the balance of the stock allotted to the public and thus collect the final installment from the state.

Neglect by Contractors.

In January of 1851 the two out-of-state contractors (Hunter and McCullough) became occupied elsewhere, and with the promise to return in three weeks, left the management of their contract to two young men, who were not capable of supervising the over-all operation. Neither of the above principals returned to aid the work

by their presence. The company endured this situation during the year 1851. The contract was allowed to expire by its own limitation on January 1, 1852.

A later report says that the original contractors left after sub-letting the work they had agreed to perform, in express violation of their contract.

Water Conditions Govern Work Schedules.

Some of the most important work at the sites, such as the base of locks and dams, had to be founded in the bed of the river. This work could be performed only during seasonal periods of low water. If it was not completed during one period, it was delayed until the next season. Unseasonably high water could stop construction at a site at any time. This irregular work pattern made it nearly impossible to have an adequate number of hands available when needed.

Labor Problems.

The pool of floating labor for construction work in this region was not large. The plank roads and railroads being built at this time offered employment free from the interruptions encountered on the river.

The chief engineer recorded that the labor shortage was most serious on the lower portions of the river.

The laborer, knowing the importance of his services, says to the contractor, 'I will work upon the upper part of the line, but not on the lower portion; and if that does not suit you, I will not work at all.' I may say that nearly all the hands coming from the upper counties, and they constitute the largest number, will not go below Northingtons.

This place was in Harnett County about five miles below the Chatham County line.

As of June 30, 1851, the force employed on the over-all line of work was 188 hands.

Expenditures.

Expenditures for construction and materials up to July 1, 1851, were reported at \$91, 892.30. The breakdown of these expenditures was as follows:

Mechanical work executed by contractors at six sites:	\$47,633.12
Mechanical work executed by working subscribers:	\$22,137.79
Timber and lumber delivered:	\$19,430.75
Lock-gate framing (\$1,700.00) and contingency (\$930.64)	\$ 2,630.64

Doubts and Opposition.

Some people doubted the feasibility of the subject navigation project, while others opposed it. The failure of a project along the same course of the river about fifteen years earlier was recalled. Some doubted that installations could be built which would withstand the severe floods on the upper Cape Fear. Others did not believe that regular and reliable navigation of steamboats past such obstacles as Smiley's, Buckhorn, and Pullen's falls could be achieved. The following quotation is from the engineer's report of 1851:

I am aware that complaints have been made upon the lower part of the river, by some persons, and that they have made an effort to manufacture public opinion favorable to their own private feeling of hostility to the work, by circulating all sorts of stories in regard to it. These efforts, however, are generally made by individuals not having a dollar to invest in the improvement.

The dams built below Buckhorn were an impediment in the way of floating rafts of timber and lumber down the river. Passage of these rafts through the locks was slow and laborious. People in the rafting business had a valid complaint because of this situation.

The Yadkin Survey.

The company was required under its charter to make a survey for the extension of its improvements to the Yadkin River and thence to Wilkesboro. The survey was made in 1850 as directed. An Assistant Engineer, Mr. C. Smith of Maryland was employed to be in charge of the field party, which included Mr. T. Adams as leveller. The party left for the field on May 20 and finished the assignment in October. The results were recorded in a twenty-page report submitted

on December 6, 1850, by the Chief Engineer of the company, William Beverhaut Thompson.

The substance of this report is given below, although the C. F. & D. R. Navigation Company had no further involvement in the extension project being contemplated.

One obligation of the survey was to determine whether Deep and Yadkin rivers could best be connected by canal or railroad. The conclusion was that a canal was impractical within any probable means. Connection by a portage railroad was recommended. It was to extend from Deep River at the mouth of Fork Creek near Waddell's Ferry in the extreme southeast corner of Randolph County to the Yadkin River at Jesse Holmes' Mill near Stokes' Ferry and the mouth of Ellis' Creek in the southeast corner of Davidson County. The length of this route was 45 miles. Width of the railroad track was to be six feet.

At the portage railroad terminals on the rivers the tracks were to be submerged so that barges could be floated on and off truck cars designed to accommodate them.

Freight on the rivers was to move in special barges (termed sectional boats) about eight feet wide, seventeen feet long, and drawing two and a half feet of water when loaded.

The improvements on the Yadkin River from Holmes' Mill to Wilkesboro, a distance of 144 miles, were to consist of a series of dams and locks like those being built on the Cape Fear and Deep rivers and to afford three feet of water at all times throughout the passage. The rise from Holmes' Mill to Wilkesboro was approximately 358 feet.

Head of navigation on the C. F. & D. R. project was at Hancock's Mill near Glendon in Moore County. An extension up Deep River to Fork Creek was needed to connect with the eastern terminus of the portage railroad.

Cost estimates were as follows:

Work on Yadkin River	144 miles	\$525,244.00
Portage Railroad Complete	45 miles	\$625,905.00
Hancock's Mill to Fork Creek	20 miles	\$101,979.00
	<hr/>	<hr/>
	209 miles	\$1,253,128.00

This project combined with that of the C. F. & D. R. Company to Fayetteville and the river below there would have provided a line of transport extending from Wilmington for 410 miles into the interior of the state.

The chief engineer considered the over-all project practicable and mentioned no difficult problems to be overcome for its completion. He estimated the charge for transporting a ton of cargo from Wilkesboro to Wilmington would not exceed \$5.50.

The cost of the subject 1850 survey financed by the C. F. & D. R. Navigation Company was \$1,855.39.

About two months after the above survey was completed a House of Commons bill to organize the Great Western River and Railroad Transportation Company was drawn up.

The Great Western River and Railroad Transportation Company.

A bill to improve the Deep and Yadkin rivers and connect the same by railroad was drawn up by the House of Commons and was dated December 17, 1850 (House Doc. 75). The purpose was to effect steamboat navigation from Hancock's Mill in Moore County to the mouth of Fork Creek in Randolph County, to construct a portage railroad from the mouth of Fork Creek to the Yadkin River near Jesse Holmes' Mill, and to effect navigation for steamboats from Jesse Holmes' Mill to the point at which the Central Railroad might cross the Yadkin, and to provide everything necessary and convenient for the purpose of transportation. The details of the charter were somewhat like those of the C. F. & D. R. Navigation Company. Maximum subscription of capital was to be \$800,000 or 8000 shares.

Apparently this company was never organized. Later reports suggest that it was to have been an extension of the C. F. and D. R. Navigation project.

Projects for making the Yadkin River navigable up to Wilkesboro and for connecting this river with the Cape Fear were being proposed around the year 1820. Thus the survey of 1850 outlined above was not an original concept. This project was still alive as late as 1857 when Hugh Waddell, at the annual meeting of the C. F. and D. R. Navigation Company on April 17 of that year, spoke of "the prospect of almost unlimited extension which is held out by means of connection with the rich country in the valley of the Yadkin."

The importance attached to this connection is shown by the corporate seal of the Cape Fear and Deep River Navigation Company, the central design of which depicts the proposed railroad connecting Deep and Yadkin rivers.

JULY 1851 TO NOVEMBER 1852

Note: The 1852 annual report includes information up to November 10.

Isaac Clegg, a former director, was now President. Directors were Elias Bryan, Henry Elliott, P. G. Evans, Jr., J. H. Haughton, and L. J. Haughton. The Treasurer was J. J. Jackson.

In the late summer of 1851 the company brought in 180 immigrant workers from New York to augment the labor force of the contractors. Such action cost \$2,084.61. Nationalities mentioned were German and Hungarian.

The main contractors were terminated January 1, 1852, and the directors took the construction work into their own hands. This was done primarily because of the slow progress which had been made and the negligence in adhering to the standards of construction requested by the chief engineer.

The engineer reported that since the company assumed execution of the work productivity and quality of execution had increased.

In September of 1852 there were 234 hands working, far short of the number desired.

At this time (September 30, 1852) the locks and dams had been finished at three sites. At nine sites the locks and dams were at advanced states or were nearly finished. At six other sites work was in progress in a less-advanced state. The most optimistic date for completion of the navigation project had been January 1853, but it was now evident this would not be met due mainly to a shortage of laborers.

Since work started in 1849 decisions had been made to lengthen the lock chambers by 15 feet, to widen the lower locks, to strengthen and improve the four lower dams, and to add four additional locks and dams not originally in the initial plan. These items increased the estimated cost of the project by \$81,000.

The additional dams were necessary in order to ensure the minimum water depth of 3 feet at all points during the lowest water levels of the dry seasons. The river was not at its lowest summer stage when a survey was made in 1848.

Financial Condition.

As of September 30, 1852, the amount expended for work on the rivers was placed at \$231,585.00.

The authorized capital of \$200,000 was now in, \$120,000 from private stockholders and \$80,000 from the state. The former amount was reached only after advances and loans made by the president and directors in their individual capacity. Outstanding liabilities of the company were now \$70,000. Of this amount \$40,071 consisted of loans from the president and directors.

Estimated over-all cost of the project to completion was now \$300,000.

In the fall of 1852 a committee, appointed at the July meeting of the stockholders, addressed a memorial to the General Assembly of North Carolina in regard to an increase of the capital stock and a further subscription on the part of the state in the company.

At about the same time the president and directors submitted to Governor Reid a report touching the affairs of the company. An increase in the capital stock to \$350,000 was suggested. The report ended with a strong plea for assistance. Same is quoted below:

In conclusion, we beg leave most respectfully but earnestly to suggest, that, unless relief shall be afforded by the Legislature, this great enterprise, upon which the hopes of so many good citizens have been placed, must be abandoned; and thus will be lost to the state, and the individual stockholders, the whole amount of the money thus invested, with no benefit whatever. From such a dire calamity, from such a painful termination of our bright anticipations for the future, we sincerely hope to be delivered.

On November 13, 1852, Governor David S. Reid transmitted this report to the General Assembly and invited their favorable consideration of it.

Capital of Company Increased

A bill was soon passed which provided for a capital of \$350,000. The state was authorized to subscribe to an additional \$80,000 in stock and individuals to an additional \$40,000. This brought the total stock approved to \$320,000 or

3200 shares equally divided between the state and individuals. If the \$120,000 of new money this provided was not sufficient to complete the work then an additional \$30,000 could be raised by the sale of more stock or by an issue of bonds. If this was done the state was to have three directors on the board instead of two.

The company was required to give priority to the completion of the locks and dams at the four lowest sites on the Cape Fear - namely Cross Creek, Jones' Falls, Silver Run, and Red Rock. (Laws of N. C., 1853, Public Acts, Chapter 83. Ratified December 18, 1852).

Labor Problems

Accounts of the inability to secure a sufficient number of hands to work at the lower sites on the river are given in the engineer's report. At this time an effort was being made to complete the construction at the lower sites first so as to open the river to navigation from Fayetteville to Smiley's Falls and demonstrate the practicability of the project.

Hands could not be procured to work upon the lower works, on account of its alleged unhealthiness. Laborers would come in from the upper counties, and absolutely refuse to work below Smiley's Falls, and hundreds have returned home sooner than work there, although the wages were \$1.00 per day, and only \$.80 upon the upper work.

In reference to Jones' Falls, about seven miles above Fayetteville:

"But it is next to impossible to get hands to work at this point; they come and commence work, but quit and leave in a few days, which keeps the work back."

Some of the work sites were at isolated locations. Indications as to what living conditions were like were not found. These camps were probably crude affairs.

Labor problems continued. An engineer at the Red Rock site in August of 1860 was having problems with the poor performance of the laborers and said, "The Cape Fear breeds indolence as naturally as mosquitoes."

Navigation Open between Fayetteville and Averagesboro.

By late in the year 1851 navigation was possible up to Averagesboro

near the foot of Smiley's Falls, and about 24 miles above Fayetteville. The locks at Jones' Falls, Silver Run and Red Rock were now in working order.

I. Newton Clegg was agent for the company at Jones' Falls. His account book records the traffic through the lock there for a period of about ten months.

(H.A. London Papers - Southern Hist. Coll.)

The first entry is on December 30, 1851, when Nathan King paid \$3.64 for passing 364 barrels of rosin.

On March 2, 1852, John D. Williams was charged \$2.40 to pass the steamer Brothers on its way to McDuffie's Landing and an equal amount when it returned from there the same day. This line was first named the Cape Fear and Deep River Steamboat Company, later changed to Brothers Steamboat Company.

On April 15, 1852, the boat Star of Cumberland freighted with 80,000 feet of lumber was locked through and paid \$6.40.

On April 21, the flats Morehead and Henry Clay passed through to Nathan McDuffy's Landing.

On April 23, the flat Ready Money carrying 600 tons of iron and 500 bushels of corn passed through on its way to King's Landing and returned the next day with 6,450 staves. Toll was charged at eight cents per ton. This boat belonged to Thomas Lutterloh.

Several unnamed boats with cargoes of 25 to 970 barrels of rosin, tar, and turpentine paid toll.

The last entry was on October 20, 1852, when Nathan King passed 970 barrels of rosin through the lock for \$9.70 toll.

During the above period, the boat of Nathan King passed through the lock six times and the steamer Brothers made an equal number of passages. The boat of Nathan McDuffy passed through seven times. Some of the cargo was reported as having come from Averagesboro. A total of 33 cargoes passing through was recorded and a total of approximately \$140.00 charged as toll.

Annual Meeting

On July 21, 1853, the annual meeting of the stockholders was held at Summerville. This place was located about three miles west of Lillington.

Colonel Alexander Murchison was unanimously re-elected President. Directors elected were Elias Bryan, Peter G. Evans, Jr., John H. Haughton, L. J. Haughton, and A. S. McNeill. Evans and Bryan were appointed on the part of the state. Henry Adolphus London became treasurer on May 16, 1853 and continued in this office and as a commissioner until the company terminated in 1873.

The bill passed late in 1852 had given the company a new lease on life. By April of 1853, the entire \$40,000 of additional stock available for individuals had been subscribed. This being certified, the governor subscribed the sum of \$80,000 for the state. The state now held fifty percent of the stock as against forty percent originally.

By July 15, 1853, the indebtedness of the company had been reduced to \$41,000. A decision was made to postpone any further reduction of debt and to apply all available funds toward advancing the work toward completion. The directors of the company were by far its largest creditors.

Work was now being concentrated on the lower part of the line between Buckhorn and Cross Creek so as to hasten the opening of this section of the river to navigation. It was hoped to have the entire line of improvements completed by the spring of 1854.

In March of 1853, the company resumed using contractors after having operated with its own crews for a little over a year. All unfinished work, not previously under contract, was now let with the company reserving the right to specify the time at which operations should be commenced at each point.

The chronic labor shortage continued to slow the advancement of the project. On July 12, 1853 about 200 hands were at work while twice that number could have been advantageously employed according to the engineer. Spring freshets prevented

any general resumption of work until about the middle of May.

The report of the president and directors to the stockholders was delivered on July 21, 1853 in their behalf by J. H. Haughton. The following quotation from it shows the great expectations envisioned.

That our improvement, when completed, will yield handsome profits cannot admit of a doubt, and will unquestionably invite capital seeking investment. Finally, complete the work, let the shrill notes of the steamer's whistle be heard reverberating among the hills and valleys of the Deep River coal fields, and there will no longer be any difficulty in commanding any amount of means that may be needed; but in truth, we regard it as positively certain that the income of the company will, in a very short time, relieve all our indebtedness, and yield us handsome dividends besides.

Who will not rejoice at the bright prospect that is opening up to us in the future? Who can fully estimate the immense benefits that will flow from this work when done! developing as it will those rich treasures so profusely scattered by the hand of a beneficent God in the bosom of the earth in that section of the state directly connected with our improvement.

Nor is this all: Agriculture too shall receive her full share of blessings from this improvement, not only in facilities of transportation, but in the increased productiveness of the soil, which must necessarily follow the application of those foreign manures which have produced such wonderful results elsewhere. For these will be borne back by the return coal boats, thus adding to our estates, and to our dividends, which must continue to increase from year to year, until our work shall realize its certain destiny--that of one of the most profitable throughout the country.

Geographic Distribution of the Stockholders

The information below is from a list of stockholders in the H. A. London papers - Southern Historical Collection. It is not dated and appears to be the clerk's tally made at a meeting sometime after December of 1852. Two hundred and eleven individual stockholders are listed. There were 100 from Wilmington, 66 from Chatham County, 28 from Cumberland County, and 10 from New York. The remainder (7) were from four North Carolina counties and Baltimore, Maryland. These individuals represented 1,588 of the 1,600 shares allotted to this group while the state held 1,600 shares. Most of the individuals held from one to ten shares.

Threat of Competition from Railroads

The engineer's report of July 15, 1853 had this to say about railroads as possible competitors for the traffic of the river navigation company.

There seems to be an erroneous impression that railroads may soon become important rivals to rivers and canals, and at no distant day supersede them in the transportation of the most important articles of freight, and I propose to relieve the apprehension of such of the stockholders in this improvement as may fear the rivalry of the contemplated improvements contiguous to this, by reference to the statistics of works similarly situated in other parts of the country, which have fairly settled the relative merits of railroad and canal transportation.

The engineer, Mr. Smith, then goes on to quote the charges for transporting freight at per-ton-per-mile for the Baltimore and Ohio Railroad, the Erie Railroad, and the Erie Canal. He concluded that coal from the mines along Deep River could be transported to Wilmington by water for less than one-half of what it could cost the mining companies to transport it there by railway.

The Western Railroad had been organized on March 26, 1853, at Fayetteville with the intent of extending its track from there to the Egypt coal mine on Deep River. This objective was reached in 1862.

Contractors Not Adequately Supervised.

Sometime between September 30, 1852, and July 15, 1853, Clement Smith was promoted to the position of Chief Engineer. He had been with the company as Assistant Engineer for two years prior to this promotion. The circumstances surrounding the departure of his predecessor, William Beverhaut Thompson, are not known.

In discussing the performance of the contractors and their agents, the engineer pointed out that reliance had of necessity to be placed in their fidelity under the existing circumstances. The engineers of the company were able to visit the sites and inspect the work being done only once in a fortnight, and then hurriedly.

JULY 1853 TO NOVEMBER 1854

Around mid-November of 1854 President Murchison presented a report to the governor along with the treasurer's report for July 16, 1853, to June 30, 1854, and the report of a consulting engineer, E. A. Douglas, dated November 13, 1854. Most of what follows is based on these records.

During the fall of 1853 work continued to be concentrated on the lower part of the line between Buckhorn and Cross Creek with the intent of soon having it open to navigation. During the winter of 1853-1854 there were heavy and continued rains which resulted in almost unprecedented floods. This resulted in the abutments of several dams being washed out. The cost of repairing this damage used up the money originally intended for the completion of the over-all project. The company thus was unable to carry on the work, including the completion of the lock and dam at Cross Creek.

It was therefore decided to issue the \$30,000 in bonds authorized by the revised charter. In doing this the properties of the company had to be pledged as security. There was an opportunity to negotiate a loan with northern interests. The president and directors decided instead that they would become personally responsible on the bonds as surety in order to keep control of the work and not let it pass into the hands of non-residents.

With money from the sale of the bonds the company completed all the work according to the original plan upon the upper Cape Fear from Jones' Falls to Haywood; the locks were now in a condition to be used between these points.

The Company's First Steamboat.

In the spring of 1853 the C. F. & D. R. Navigation Company had its first steamboat, the John H. Haughton, on the river above Fayetteville. The charter stated that the company was to operate boats for the transportation of people and property. This was the justification for buying the Haughton. Improvements now in place permitted boats to ascend the river for about forty miles above Fayetteville. Records indicate that this steamer was employed mainly as a work boat to transport materials

to the sites of construction on the river. Boats of this class were about one hundred feet long with a beam of about fifteen feet; they drew about two and a half feet of water. They could carry a deck cargo of approximately 35 tons. When operated with a barge on tow boat an additional seventy-five tons or more of cargo could be carried.

The performance of the company's new steamboat was recorded in the following article by one of the directors:

Mr. Editor: I had the pleasure the other day of ascending up the Cape Fear, from Jones' Falls, near Fayetteville, to within fifteen miles of Haywood, in Chatham County, in the company's new steamer. The boat performed the trip finely, without accident or difficulty. In the course of another week she will be able to reach the mouth of the canal at Buckhorn, nine miles below Haywood, and as soon as about another month's work can be done on the line the steamer will be able to commence her regular trips from Haywood to Wilmington. She has two cylinders and an eighty horse-power engine. She made, with a tow boat 100 feet long, a speed of about 8 miles per hour. Her time through the locks was about ten minutes, and she will be able to make it in less time with a little more experience in handling the gates.

The steamer with her tow boats will carry from 4000 to 5000 barrels, as I learn. According to information I received on the river, I suppose there are 50,000 to 60,000 barrels of rosin above Fayetteville awaiting the boats. We passed through Smilie's Falls without the least difficulty, to the evident surprise of many persons residing in the vicinity, some of whom had predicted that no boat could ever perform such a feat. To the forecast and indomitable energy of our worthy President, Col. Alex. Murchison, are we mainly indebted in having a boat ready at the first moment to commence operations.

Very respectfully yours,

Pittsborough, Nov. 26, 1853

J. H. Haughton

Copied from the N. C. Standard of Nov. 30 (Wednesday), 1853.

The estimate that the steamer would be able to navigate up-river to Haywood in about a month was not fulfilled. Floods during the winter of 1853-54 damaged several of the locks and dams. It would be one year and three months before the Haughton reached Haywood.

The president's report in late 1854 has this to say regarding the boating operations of the company:

These boats have been of great benefit to us in conveying materials to the different points on the line - they have also made several trips

to Wilmington, and some two months since, took down a cargo of three thousand two-hundred (3,200) barrels of rosin, turpentine, etc., from Avarasboro to Wilmington. Judging from slight experience, they will do a very profitable business.

The words these boats probably refer to the tow boats operated in conjunction with the steamer. The above statement indicates that the company earned some revenue from this boating service. The treasurer's report as of June 30, 1854, credits \$1,059.93 to "steamboat" under amounts received.

Financial Statement.

The treasurer's report for the period from July 16, 1853, to June 30, 1854, contained the following figures:

Total amount received from all sources	\$100,970.40
Disbursements	\$100,770.51
Balance on hand	\$ 199.89
Present indebtedness will not fall short of	\$ 75,000.00

Great Expectations from Coal.

At this period interest was high in the coal fields adjacent to Deep River. Reports as to their magnitude and value reached fanciful proportions along with predictions as to the future of that region. It all started because of the improvements being made by the navigation company and the prospect of cheap water transportation to Wilmington and the markets beyond. The company now believed that its main source of revenue would be from transporting coal and that the profits would be great. The enthusiasm of this period is reflected in the closing portion of President Murchison's report to Governor Reid.

But the great source of profit will be the coal, inasmuch as this improvement penetrates one of the most extensive and valuable coal fields in the world. We are aware that doubts have been expressed as to the extent of this coal field but if science and practical skill can prove anything, it surely ought to be and is established, beyond the power of successful contradiction, that the supply of coal on Deep River is inexhaustible. It has been so pronounced by the very first geologists of this or any other country.

He then goes on to predict that 500,000 tons of coal will pass down the rivers

in one year and at 25 cents toll on the ton would yield the company \$125,000.

The Project Is Reviewed and Recommendations Made.

As time went on the stockholders had been becoming increasingly concerned about the slow progress, the setbacks, and the problems experienced by the company. At the annual meeting in July of 1853 they instructed the board to employ an engineer of the highest character that could be procured for the kind of work being undertaken. His assignment would be to report on the feasibility of the plan which had been followed and to estimate the cost of completing the work.

As a result Mr. Edwin A. Douglas, an engineer of the Lehigh Canal in Pennsylvania, was engaged as a consultant. He was highly recommended as a man whose science and skill had been thoroughly tested and established by the success of his works through a series of years. As a canal and slack-water engineer he was reputed to have few equals and probably no superiors.

Douglas examined the works as directed and submitted his report dated November 13, 1854. He stated that the improvement by slack-water navigation which had been adopted by the company was the best that could be devised. Favorable natural features mentioned were the low gradient of the river bed and the high banks on both sides throughout the entire distance. He then stated that the failure ("if it can be so characterized") up to that time might be attributed to three causes:

- 1) defects in the plans of the different parts of the work.
- 2) careless and unfaithful execution of the same.
- 3) the unfinished and unprotected state in which the work had been left.

Two estimates were submitted. One: The cost of completing the work on the present plan. \$238,450. The other: For completing the work in a more substantial and permanent manner, and increasing the base of all dams, and giving them a lower slope. \$312,996.

Douglas pointed out that the dams had been built with the width of the base double the height. He thought this this proportion was quite too small and

and recommended a width of base three or four times the height. He pointed out that the dams at Jones' Falls, Silver Run, Red Rock, and Gulf were built on rather treacherous foundations and had become a good deal undermined from the action of water flowing over them. The other dams were found to be located on good rock foundations and might stand without any further trouble. In order to place them beyond a doubt it was recommended giving the above-mentioned dams a wider base so that the downstream side would have a slope about three times the rise and that it should be covered with timber six inches thick, well-secured with bolts and treenails.

It was suggested that the lock at Cross Creek and those to be rebuilt at Silver Run and Red Rock be built of rubble masonry laid in cement and as fast as the other locks required rebuilding to build them in the same manner and make them 24 feet wide. It was also recommended that the depth of water be increased to five feet instead of three feet eight inches, the present depth.

Durability of the Dams and Locks.

In the early years of the project the question of how lasting the dams and locks would be was discussed.

A report of the Committee on Internal Improvements in 1855 had this to say: "The works already constructed on these rivers have stood, in a most remarkable manner, the heaviest freshets known during the present century."

The works under construction between Smiley's and Jones' falls were severely tested by the high freshets in March of 1851. The engineer (Mr. Thompson) reported that at sites where the specifications and instructions of the engineer were closely adhered to the works withstood the raging of the severest floods ever known on the Cape Fear without sustaining injury. At the height of that flood no portion of any of the works was to be seen although some of the locks were 20 feet in height. The water passing over them in some instances to a depth of 10 feet and in one instance to a depth of 20 feet.

These favorable reports during the earlier years of the project are only a

a part of the story. The annual floods repeatedly damaged the works. A major weakness was the abutments to the dams, which were occasionally washed out.

Since the dams and locks were built of wood there was concern about their deterioration from decay. The dams were expected to have a long life because they were constantly saturated with water. Several examples of crib-type dams built of wood which had lasted for long periods of time were cited. A dam built of barked hickory logs on Haw River at Butler's (or Ruffin's) Ford fifty years earlier was said to be still standing and in good condition. Examples of log dams in Virginia were cited which had stood for 60, 70, and 108 years without ever having been rebuilt.

The portions of the locks above the surface of the water were subject to rather rapid decay. Optimistic estimates gave them a life of six to seven years. An inspection made late in 1856 revealed that the locks at five sites between Smiley's Falls and Buckhorn were more or less in a state of decay. Some with slight repairs were expected to last four or five years while others required heavy repairs within a year. These structures were not over four years old at that time. The company was repeatedly engaged in making repairs and patching up installations completed in previous years. A good example of the situation is the following quotation from an engineer's report made in November of 1854.

The locks at Silver Run and Red Rock are so much impaired that I am apprehensive that it will be difficult to make them stand a length of time without incurring a large expense and then they will be quite imperfect. I would therefore recommend securing them temporarily by bracing and cribbing and proceed as soon as practicable to rebuild them in a more permanent and substantial manner.

It had been only two years since the locks referred to above had been finished. Since the company was low on funds the tendency was to keep current expenses for repairs and upkeep at a minimum until the navigation system was in full operation and income from toll was being received in the substantial amounts anticipated.

Financial Structure Enlarged.

After considering the engineer's report submitted in the fall of 1854, the company decided to adopt a plan to complete the project in a more substantial and permanent manner designed to make it available to navigation at all times. The work during 1855 and 1856 was directed toward making the recommended improvements. The dams and locks built earlier were repaired and strengthened, the canal at Buckhorn was widened and deepened, three additional dams and six additional locks were added to the program.

To finance this work the company again turned to the state. The legislature obliged with a bill which authorized \$300,000 in bonds endorsed by the state. The company in turn executed a mortgage on its works to the state. The act specified that the proceeds from these bonds be applied exclusively to completion of the navigation project. It also allowed the capital stock to be increased to \$1,000,000 and the president and directors to receive subscriptions of preferred stock up to \$100,000. (Laws of N.C., 1854-55, Chapter 5, ratified February 10, 1855.)

A bill to authorize the C. F. & D. R. Navigation Company to issue the bonds just mentioned was before the Legislature during the 1854-55 session. It was referred to the Committee on Internal Improvements for consideration and recommendations. Testimony by engineers and geologists concerning the natural resources of the Deep River region was heard. This was a period when exaggerated estimates of the size and value of the coal and iron deposits were rife. These reports were used to persuade the state to continue financial support to the navigation company, which was represented as a public benefit encouraging the exploitation of natural resources. An example is given below.

Size of Deep River Coal Deposits.

Mr. McLane, a mining engineer, appeared before the Committee on Internal Improvements during the 1854-55 session and gave a very optimistic account of the Deep River coal fields. He stated that he had examined it again and again in the



REGISTERED
Preferred Stock.
00000000

Deep River and Deep River Navigation Company
 CHARTER GRANTED BY THE STATE OF NORTH CAROLINA 1848



SILVER

NUMBER

This is to Certify, that

is entitled to

ONE HUNDRED DOLLARS worth of the PREFERRED STOCK of
 The Cape Fear and Deep River Navigation Company,
 "as authorized by the Act of the General Assembly of the State of North Carolina,
 and approved the Tenth Day of February, 1855." This Stock to bear Interest at
 the rate of Twelve per cent. per annum, till paid, and shall be secured by a pledge
 and assignment of Two-thirds of the Tolls of said River, and the holder of such Preferred
 Stock, shall, at all times, have the right to receive Tolls equal to the entire Interest due
 upon this Stock annually. The Cape Fear and Deep River Navigation
 Company, of The State of North Carolina, shall have the right to
 redeem this Stock by the payment of the Principal and Interest accrued thereon, at
 any time and in any manner as to do. This Stock transferable personally, or by
 Attorney in the Books of the Company, upon surrender of this Certificate.



AUTHORIZED
 CAPITAL
 \$1,000,000.

CAPITAL
 Subscribed
 \$500,000.

PITTSBORO, NORTH CAROLINA,

18

Secretary
 President

FIGURE 1 - Certificate for five shares of twelve percent preferred stock issued to William H. Morell & Co., dated July 1, 1858. Signed by Henry A. London, Secretary, and James Cassidey, President.

company of Professors Johnson, Emmons, Jackson, and C. W. Shepherd and that he had during a large portion of the last three years been engaged in exploration by boring, digging coal, etc. He gave it as his opinion that there were at least nine hundred million tons of coal in these fields.

A report published one hundred years later (Reinemund, 1955), with the benefit of information from core-drilling, mining, and other exploration during this period, estimated the original reserves of the Deep River coal fields at 112 million short tons. This is about one-eighth of McLanes's figure cited above.

Slaves Bought to Increase Work Force.

A meeting of the stockholders was held at Wilmington in April of 1855. Two of the actions taken at that time are given below.

E. A. Douglas was engaged as Chief Engineer of the company at a salary of \$5000 a year and was furnished with a staff of two first assistants and sub-assistants. Douglas had previously served the company on a consulting basis.

A resolution was passed permitting the company to increase the work force by purchasing slaves. Accordingly forty slaves were obtained at an aggregate cost of \$38,141.60.

Problems and Accomplishments.

The usual troubles continued during 1855. Progress was slowed by a shortage of labor; contractors fell behind in their schedules resulting in the dismissal of some; cases of faulty or negligent work were discovered. The work at Cross Creek was nearly completed in December of 1855 when a freshet occurred which washed away about 150 feet of the west bank, rendering it necessary to extend the dam by that length.

The installations between Jones' Falls and Haywood were more or less in working order during 1855 while they were being strengthened and improved. Boats and rafts were now passing through Smiley's Fall during the dry season.

The steamer John H. Haughton reached Haywood in February. A newspaper account

of this event is quoted below.

Steamer John H. Haughton Reaches Haywood: 1855.

We learn from a friend, who has just paid us a visit, that the citizens of Haywood were startled before day, on Sunday morning last, by the shrill notes of the whistle of steamer, John H. Haughton, which announced and unexpectedly, has safely reached the wharf at that place. Although no one on board the steamer was acquainted with the stream, it came up safely to Haywood and that too in the night, no accident and no detention having occurred to it.

On Monday morning the steamer took on a load of flour, cotton, and peas from Jones' Mill, a short distance above Haywood, and amidst the cheers of a large crowd assembled to witness, to them, a novel sight, started on its trip down the river to Wilmington, and has, doubtless ere this time, reached its point of destination.

Raleigh Star.

Note: The above article copied from the North Carolina Standard and dated Saturday, February 24, 1855 (Raleigh, N. C.).

The above account was probably a trial trip up the river as one year later it was announced that the Haughton had commenced making regular trips to Chatham County.

APRIL 1855 TO NOVEMBER 1856

The 1856 meeting of stockholders was held on April 17 at Haywood.

President Alexander Murchison and the directors were re-elected.

There were complaints that the Chief Engineer, E. A. Douglas, had not devoted that time and attention to the work of the company which the salary given him (\$5,000 per annum) would justify and demand. At the same time the utmost confidence in his skill and ability was expressed. Douglas had failed to attend this meeting and present his annual report. He remained with the company until sometime after March 12, 1857.

Concerning Slave Labor.

The company continued to employ its work brigade of forty slaves at construction sites on the river. In addition slaves were being hired out by their owners to work for the company. The treasurer's report for the year ending April 16, 1856, lists six individuals as having been paid for "Negro hire". Those receiving the largest sums were John H. Haughton (\$1438) and L. J. Haughton (\$1163).

Construction Activity

During 1856 the work to improve the locks and dams on the Upper Cape Fear in conformity with the plan adopted the previous year continued. The river from Cross Creek to Lockville (Jones' Mill) was navigable for at least some of the time, as the company's steamboat made several trips between those points.

The contractors were all more or less retarded in their work by freshets and sickness, and all but one (Nathan King) failed to complete their contracts within the specified time.

Lower slopes on the down-side of the dams at Jones' Falls and Silver Run were added in the fall of 1855 on the recommendation of the engineer. These added structures were damaged seriously by the first high freshets which occurred and subsequently entirely carried away.

The treasurer's report for the year ending April 15, 1856, shows that \$74,063.02 was spent on locks and dams at nine sites on the Upper Cape Fear. By far the most costly were Cross Creek (\$30,172), Jones' Falls (\$16,774), and Silver Run (\$14,223).

Activity on Deep River.

With the Cape Fear open to navigation by steamboats from Fayetteville to Haywood, the work on Deep River was now being pressed forward to permit boats to reach the coal fields at the earliest possible date. In February of this year a seam of fine-quality coal 4½ feet thick was reported to have been struck at a depth of a little over 400 feet in the Egypt Mine.

The main job to be done was the completion of the works at Pullen's Falls (Lockville). This included constructing a stone lock thirty feet in height.

Financial Condition.

The president's report for the period of April 15, 1855, to November 1, 1856, gave the following account of the \$300,000 received from the bonds.

Negroes, including insurance	\$38,141.60
Steamer and tow boats	\$22,000.00
Construction, salaries, interest on bonds, etc.	195,626.61
Balance on hand	\$44,231.79

There was then this statement regarding the balance -- "There are however, estimates on bills approved, which will more than cover the last amount."

A mortgage on the assets of the company was given to the state in the spring of 1855 when the state-backed bonds were approved. At that time the company had an outstanding debt of over \$100,000 and the state held fifty percent of the common stock. The money from the bonds was to be used only to advance the work toward completion and could not be used to pay off old debts. President Murchison now informed Governor Bragg that judgments had been gotten and executions issued against

the company for a large portion of the old debt.

At the same time the engineer's report estimated that \$208,000 would be needed to complete the works.

President Murchison then said, "There can be no doubt but that, in the event that no measures of relief are provided by the present legislature, the work will be sold, and pass into the hands of individuals, which the undersigned has the best reason to believe is already contemplated."

Prospect for a National Foundry in Deep River Area.

At the meeting of the C. F. & D. R. Navigation Company stockholders in April of 1856, it was pointed out that there was then pending before the Military Committee of the House of Representatives of the United States a resolution of inquiry as to the propriety and expediency of establishing on Deep River a national foundry and armory.

In view of this, it was resolved that a committee be appointed to memorialize Congress on this subject and to visit the navy yards at Charleston and Norfolk, if deemed proper, and to procure their aid and that of their representatives in Congress in obtaining for the state of North Carolina the benefit of the foundry and armory.

The following year Dr. Ebenezer Emmons, the North Carolina State Geologist, submitted a report to Governor Bragg "on the advantages of the valley of Deep River as a site for the establishment of a National Foundry." This report was favorable as shown by the following quotation: "In conclusion I may very properly say that Deep River possesses those advantages which a National Foundry requires in an eminent degree - namely coal, iron ore, timber, stone for construction, water power, and accessibility."

These reports concerning the prospect of a national foundry in the Deep River region made the navigation project appear as a still more important utility.

Interest in a national foundry continued. In 1859 Charles Wilkes submitted

his report on the Deep River country to the Secretary of the Navy. He spent several weeks in the area accompanied by a party of four assistants and wrote a rather thorough report. The conclusion was favorable. "There is no location on the east side of the Alleghenies where a better article of iron can be produced than in the Deep River district, and at less cost."

Steamer John H. Haughton Making Regular Trips to Chatham County - March, 1856.

The steamer John H. Haughton has at length commenced making regular trips to Chatham. On her first trip, March 8, she brought a tow-boat with about 75 tons of materials for work on Deep River. On her second trip she remained 3 days at Haywood and Jones' Mill, two miles above, and gratified all the neighbors in pleasure excursions. In the meantime the tow-boat was unladen and charged with coal, cotton, flour, and the like for Fayetteville and Wilmington.

Above from The Wilmington Journal of March 28, 1856.

Coal from Chatham Reaches Wilmington.

The second trip of the Haughton mentioned above is indicated to have brought down the first cargo of coal from Chatham County by steamboat through the works of the navigation company. An article in the Wilmington Herald in reference to this voyage included the following: "Bring out the big guns and let us be ready to give the Haughton a 'feu de joie' on the arrival at our port with the first cargo of native black diamonds."

On April 17, 1856, President Murchison reported:

The steamboat has been running between Cross Creek and Lockville for some time past. She has carried some freight from Lockville, and a considerable amount of rosin from different points. We have made an arrangement with Worth & Williams' line to take the freight from Cross Creek to Wilmington.

The report of a tragedy on the steamer J. H. Haughton shortly after the above date follows.

Murder on Steamer John H. Haughton: 1856.

Murder - We regret to learn that Angus McDiarmid, captain of the steamer John H. Haughton was thrown overboard on Saturday afternoon last, by Sam, one of the negroes belonging to the Cape Fear and Deep River Navigation Company. The negro had absconded from the boat on its upward trip, and returning to it as the boat was coming down, Captain McDiarmid was in the act of tying him, when he resisted, got the rope entangled around McDiarmid's body, and pitched him into the river. The water was very deep and the boat under rapid headway, and all efforts to save him were unavailing. The body has not been recovered. Sam was arrested on Sunday and is now in jail.

May, 1856, Fayetteville Observer, 5th inst.

Another captain of the Haughton was William W. Lammon. Company records show that he was on the payroll September 1854, to May 1855, and March - April of 1857 at \$60.00 per month.

NOVEMBER 1856 TO APRIL 1857

Proceedings of a Called Meeting.

A called meeting of the stockholders opened February 4, 1857, at Wilmington, North Carolina.

The mood of the stockholders is indicated by two resolutions presented and adopted.

Resolved, that a committee of five be appointed to consider what plan, if any, can be devised for the prosecution of the works of this company, and that all persons having any schemes to present be requested to present them to the said committee.

Resolved, that a committee of three be appointed to investigate the affairs of this company from its organization to this date, to inquire into the causes of the failure of the company heretofore to complete the improvements; and also, if possible, the cause of the refusal of the late legislature to grant to this company the aid asked of them.

The first appointed committee of five reported they found the indebtedness of the company to be \$85,000, of which \$30,000 was not due until 1859, leaving a balance of \$55,000, of which \$40,000 was now in judgments and the remaining \$15,000 soon would be. It was their belief that if the immediate and pressing necessities of the company could be provided for then a favorable contract might be made for the entire completion of the work to the coal fields, without calling on the company for any other or further advances.

The present pressing liabilities were relieved the next day when it was reported that \$16,000 had been subscribed by stockholders and friends of the company.

Following the suggestion made above, another committee was set up with plenary power to contract with any person or persons, either in the state or elsewhere, to complete the works of the company on the Cape Fear and Deep rivers, or any part thereof.

The meeting adjourned to meet again on March 12.

The convention met on this date in Wilmington.

The committee reported it had succeeded in entering into an agreement with

Messrs. Dugan, Cartwright, and Company of Philadelphia, to complete the improvements of the Cape Fear and Deep rivers as high up as the Gulf. The above concern was engaged in mining coal adjacent to Deep River and the great inducement with them to enter into any contract was to provide the only means open to them of getting their coal to market. The navigation company was to issue preferred stock in exchange for the work.

Slaves belonging to Company Are Sold.

Another resolution passed at the March 12 meeting authorized and requested that Henry A. London, treasurer of the company, to make sale of all such slaves purchased under the resolution adopted in April of 1855.

In obedience to this resolution the treasurer sold the slaves belonging to the company at public auction in the town of Toomer on April 13, 1857. This place was in Harnett County. Lillington was selected as the County Seat in October, 1859. The number of slaves sold was 25 for a total of \$19,325.00. The treasurer reported that two of the most valuable slaves were then in the possession of the sheriff of Harnett County, levied upon by the order of M. McKoy. Records for the year ending April 16, 1857, show the purchase of ten slaves from the company for \$10,000 in cash by Alexander Murchison, President. Also reported was the receipt of \$1200 from the North Carolina Insurance Company by the death of two slaves. Thus all of the 40 slaves purchased are accounted for except one.

The proceeds of this sale were to help pay off the debts owed contractors.

The Annual Meeting.

The annual meeting was held on April 16, 1857, at Wilmington.

The President did not attend but sent his report, which was read by J. H. Haughton. Mr. Murchison declined re-election. He had taken umbrage at the appointment of a committee at the called meeting on February 4, which he considered to virtually supersede the president and directors.

His Excellency Governor Bragg attended this meeting and represented the

shares of stock held by the state of North Carolina. At the close of this meeting -
"On motion of John H. Haughton, Esq., it was unanimously resolved, that in
consideration of the interest manifested by his Excellency Gov. Bragg, in the
great work in which we are engaged, the thanks of this convention are due and are
hereby tendered to him."

"Governor Bragg returned thanks for the compliment in a very happy manner."

James Cassidey was elected President. Directors elected were John. H. Haughton,
Col. A. S. McNeill, and Col. John McRae.

A resolution passed at this meeting authorized the president and directors,
in their discretion, to sell the steamer Haughton and her tow-boats. The proceeds
of such sale were to be applied in payment of bonds, to secure which the Haughton
had been mortgaged.

Another resolution authorized the payment of debts owed to contractors out of
the proceeds of the sale of the boat Southerner and her tow-boats.

This was the first reference to the steamer Southerner in the company records
examined. Movements of the company's boats mentioned earlier in which the name of
the boat does not occur could possibly refer to the Southerner in some instances
rather than to the Haughton.

Turlington (1933) gives the following information on a steamer named Southerner.
It was built at Fayetteville and in use by April of 1852. It was a light draft,
stern wheel steamer 112 feet long, 17½ feet wide, drew 12 inches of water, and was
powered by a 40-horsepower steam engine. It was a passenger boat built with berths
for 30 passengers.

In 1859 a steamer named Southerner was being operated out of Fayetteville by
the Lutterloh Line.

The proceedings of this annual meeting reveal the loose manner in which some
of the financial affairs of the company were being handled and the disarray of some
of the accounts.

The treasurer in his report stated -

I must also bring to the notice of the Board the situation of the boating interests of the Company. By reference to my account, you will discover that very heavy amounts have been paid out of the treasury and no credits returned. Your treasurer can only account for it by supposing that the works on the river required the constant employment of the boats.

The report of the Auditing Committee records -

We have before called your attention to the fact that there is no evidence in this office that the large outlay for slaves, steamers, and flats, which amount in the aggregate to about \$80,000, have ever profited this Company one cent. But there have been regular payments on the account of the same by the Treasurer for provisions, clothing, wood, medical bills, jail fees, salaries of crews, etc., nor any returns made by the lock gate-keepers of tolls collected. We have endeavored to condense the different items of expenditure during the last two years but the accounts furnished to the Treasurer are so complicated that it is impossible for him to have all the entries under the appropriate heads.

As near as the committee could determine the company had spent during the last two years about \$283,500.

Following this the report of the committee on the treasurer's report had this to say -

From all your committee can judge we are of the opinion that an entire renovation in the manner of keeping the accounts of the company is necessary if they desire to keep advised of its position.

Your committee beg leave to disclaim any intention to reflect upon the correctness of the treasurer's books, or to cast any censure upon him.

The Works Examined and Recommendations Made.

As time progressed the subject navigation company became more dependent upon the state for financial support. By the year 1856 the slow and uncertain progress being made and the mounting financial requirements caused an investigation to be made. The General Assembly ordered that the works of the company be examined to determine the present condition of said works and the practicability of completing

the same at an early day. Governor Bragg employed Col. Walter Gwynn, a civil engineer, to make this investigation. His report was submitted to the Governor on January 10, 1857.

When this survey was made there were nineteen dams and twenty-two locks in place along the line of navigation. Inspection revealed only one site at which the dam and lock were in good condition and needed no repair or additional work. There were two sites at which only a moderate amount of repair was needed. Ten locks were found to be in varying states of decay and required major repairs or needed to be completely rebuilt. The dams at five sites were found to be insecure, two of which must be rebuilt. It was recommended that one of the dams, which was in good condition, be raised seven feet in height and thus eliminate the next dam above it.

Colonel Gwynn outlined three options the company might adopt. One was to make only the necessary modifications, repairs, and renewals of existing structures so as to permit navigation of the rivers for the immediate future. Initial cost for this was placed at \$350,000. This entailed a gradual improvement or replacement of defective and unsecure structures in the years ahead and at a time when the company would hopefully be in a stronger financial condition.

The second option was to immediately abandon four of the unsafe dams and replace them with new ones on better foundations. The original dams had been built on soft rock and were in danger of being undermined by the falling water. They were a constant threat and it could not be determined how long they would stand. These four new dams would add \$100,000 to the over-all program of immediate improvements and bring the total cost to \$450,000.

The third option was to construct all of the locks, abutment, and guard-walls of stone throughout the extent of the project. This would bring the over-all cost of all the improvements recommended to \$1,200,000.

It was estimated that the plan of minimum improvements under the first option could be completed within about one year provided the season proved to be favorable and a sufficient work force could be obtained. He expressed no doubt as to the

practicability of completing the navigation project at an early day.

He then went on to explain that the great increase in the present estimates to complete the works exceeded the original estimate not because of any error in the latter but to the extended and enlarged improvements which had been added.

Colonel Gwynn was caught up in the great expectations from the mining of coal in the Deep River region as indicated by the quotation which follows.

No sooner, however, was it known that an improvement was projected, which would penetrate the coal fields, than this region became one of great interest and the field of scientific explorations, the result of which was the discovery of a coal field of surpassing wealth, every square mile of which, according to scientific observations and reports, may be made to yield a sum equal to the property valuation of the state.

APRIL 1857 TO JANUARY 1859

At the annual meeting in April, 1858, at Wilmington, President Cassidey reported that the tentative agreement with Dungan, Cartwright, and Company for construction work on Deep River during the summer of 1857 failed to materialize.

The company then succeeded in inducing three of the concerns with coal properties adjacent to Deep River to come to its assistance. They were Governor's Creek Steam Transportation and Mining Company; the North Carolina Gas, Coal, and Transportation Company; and the Farmville Coal Company. Each was to endorse notes of the C. F. & D. R. Navigation Company to the amount of \$10,000 on condition that the services of a good and reliable contractor be obtained. Accordingly a contract was made with William H. Morell and Company of New York on September 15, 1857. He was to receive \$40,000. This covered the whole works from Fayetteville to Hancock's Mill, to be completed by October 1, 1858.

At the April meeting President Cassidey said - "By this re-organization it is believed we shall be able to comply with our portion of the contract with Major Morell. If such is the case, it is expected that boats will pass from the coal fields on Deep River to this place (Wilmington) in a few months."

James Cassidey was unanimously elected President. Col. John MacRae, A. S. McNeill, and John H. Haughton were unanimously elected directors.

A resolution adopted stated -

That the thanks of the Stockholders are due, and are hereby tendered to the President, James Cassidey, for the untiring and extraordinary zeal and energy he has displayed in the service to the Company, under the embarrassments and difficulties which have constantly attended the operations of the past year.

H. MacRae was now Chief Engineer.

The Treasurer's Report.

"The interest on the bonds for \$300,000 was paid by the Treasurer of the State, both last July and January, and will have to be paid by him again in July. Nor have I been able to pay the interest due on the first of July to the holders of the bonds

for \$30,000."

In his last annual report the treasurer was not able to exhibit to the credit of the company any amount collected from tolls.

I would beg leave to suggest, that a regular rate of Tolls be established, and that proper way-bills, or tickets, be furnished to each Lock-keeper, so as to enable your Treasurer to keep a correct account of all tolls collected and who are responsible for the same.

Of the steamboat John H. Haughton and tow boats, having been placed under your direction, by the Stockholders, for the use and benefit of the Contractors on the river, I have no report to make.

This report is of interest in that it indicates there was some traffic on the line of navigation now open between Haywood and Fayetteville. It also shows how the steamer Haughton was now employed.

Navigation open to the Coal Fields.

The chief engineer's report at the April 1858 meeting records that the locks and dams were generally in the same condition as at the time of the last meeting. The dam at Cross Creek was repaired during July and August of 1857. It had given way owing entirely to inferior workmanship. Locks were repaired and improvements were made at three other sites.

Major William H. Morell of New York commenced work on his contract in October of 1857. The work was very much retarded during the winter and spring by high water. A succession of freshets kept the water over the works three-fourths of the time. The most important work was the building of the lift-lock at Lockville (Pullen's Falls). Work at Bryant's (Rives) was in progress and scheduled to be completed by the time the works at Lockville were ready for the passage of boats. Work farther up-river at Clegg's and Farishe's was nearing completion. Work at the four above-mentioned sites was now estimated to be finished by the first of September, 1858, and the river would then be navigable to the active coal mines and on up to the Gulf.

This schedule was not met. On November 9, President Cassidy said that

boats could be expected to pass to the coal fields by the end of the present month. Success was finally achieved about two months later.

On January 6, 1859, the steamer Haughton and the lighter Pionéer were at Egypt taking on a cargo of coal and iron ore destined for Wilmington after having passed every lock from Fayetteville to Egypt. This information from the weekly North Carolina Standard of January 12, 1859, (Raleigh) -- the writer said, "I saw both boats at Egypt, saw the coal and iron ore on the banks of the river and the hands wheeling it into the boats. They are expected to leave to-morrow."

This long-desired goal was reached ten years and twenty-three days after work had started. The steamer Haughton was in the Egypt area on at least two other occasions. It was there in April of 1860 with a work crew making repairs and again in late October of the same year with Governor Ellis on an inspection tour.

The coal and iron ore loaded for Wilmington on January 6, 1859, was probably a token or publicity cargo on the part of the navigation company. There is no indication that a flow of traffic from the mines followed. The Haughton was carrying cotton, flour, etc., from Haywood to Fayetteville in February and March of 1859.

FEBRUARY 1859 TO FEBRUARY 1861

An Act to Protect the State's Interest in the Company.

During the 1858-59 session of the General Assembly the Committee on Internal Improvements submitted Senate Bill No. 40, a bill for the protection of the interest of the state of North Carolina in the Cape Fear and Deep River Navigation Company or for the surrender of the same.

At this time the company was unable to proceed further with its upkeep and repair work for lack of funds. Its property was under mortgage to the state for \$300,000. In addition it had about \$95,000 in outstanding debts. They were liens in advance of the mortgage of the state. The state was bound in good faith to see these debts paid as it was the major stockholder in the company and the debts had been incurred with the consent of the state. The interest of the state in the company as stockholder and endorser would amount to over \$800,000 by the time the bonds matured. The effects of the company were liable to be sold on thirty days notice.

In recommending action to save the company the committee said, "that the coal, iron, and other mineral deposits on Deep River are of such immense value and importance as to make it one of the highest duties of the state to secure their immediate development."

The Senate Bill No. 40 mentioned earlier was adopted in an act to protect the interest of the state of North Carolina in the C. F. & D. R. Navigation Company. The Governor was authorized to bid not over \$450,000 if a sale took place. If the navigation company was bid in by the state, it was to be run by a board of managers consisting of the Governor and four commissioners. The board was given authority to draw up to \$50,000 per annum for the next two years, and no longer, for the purpose of improving and keeping in repair said works. The board could also draw up to \$65,000 for the purpose of paying debts of a prior lien to those on which the state was liable. To meet these demands the treasury received authority to

issue six-percent coupon bonds of the state. The above act was ratified February 16, 1859 (Laws of N.C., 1858-59, Chapter 142).

The Company is Taken over by the State.

The Cape Fear and Deep River Navigation Company was purchased on April 23, 1859 for the state by Governor Ellis for the sum of \$365,000. Record of this sale is located at Chatham County Courthouse in Book A-K, pages 557-559. Movable property listed was a steamboat called John H. Haughton, two flat boats and a coal boat.

The company was now run by a board of managers made up of Governor Ellis, N. N. Nixon, and James Cassiday of New Hanover County, Moses A. Bledsoe of Wake County, and Henry Adolphus London of Chatham County. The four men last named had the title of commissioner. James Cassiday had been president of the navigation company from April of 1857 until it was taken over by the state.

One of the first acts of the managers, on April 27, 1859, was to appoint Elwood Morris, a civil engineer from Pennsylvania, as chief engineer of the company. He had a well-established reputation based on his previous work on railroads and canals. His first assignment was to examine the works in place on the rivers with a view to their preservation and reconstruction.

After this tour of inspection the chief engineer reported the works were so dilapidated that only the most urgent repairs could be accomplished with the funds available. Little in the way of more substantial and permanent improvements could be undertaken. A modified schedule adopted for the next two years was aimed mainly at keeping the installations in working condition and the line open for navigation.

The 1859 Work Season.

In late May of 1859 the engineer was at Wilmington assembling supplies and tools for the start of work on the navigation project under state ownership and management. The company's steamboat and barges were then at Wilmington undergoing repairs. It was around mid-July when this company fleet left for the trip up-river to the work sites. By July 28 the steamer Haughton was above Red Rock Dam below

Averasboro. The next few weeks were spent mainly in making arrangements for supplies of lumber and stone-packing and in recruiting workers.

By early August a force of about twenty men was working down-river at Jones' Lock. At the same time a force of similar size was working at Haw Ridge (lower Smilie's Falls) near the present town of Erwin. The plan now was to make at least temporary repairs where work was most needed so as to put the works in a moderately improved condition for service during the coming winter and then go over them again next year.

Early in September sixteen skilled workers from Pennsylvania arrived due to the efforts of Mr. Morris, Chief Engineer. By October 4, 125 workers were employed and by November 5 the work force was up to 160 hands. About half the workers occupied berths on the Haughton, a shanty boat, and flat boats. They comprised what was called the floating force. Another group, called the detached force, included workers who lived along the river near the work sites. During the 1859 season work was done at five sites from Red Rock below Averasboro, up to Fox Island near Lillington. It included raising the height of the dams so as to provide a water depth of at least five feet at all points along the line of navigation. The work on the lock at Jones' Falls continued all of this year.

On November 26 a freshet caused a breach 93 feet wide in the dam at Red Rock. This ended the hope of having navigation open to the coal fields during the winter of 1859-60. Work for 1859 ended on December 20 due to the approaching Christmas holidays.

The 1860 Work Season.

By January 19 work was underway with a small force, reduced by the interruption of the Christmas holidays. By the end of the month 113 men were at work. The work at Jones' Falls was ended on March first and the men employed there were laid off. A small amount of work remained to be done there but the works were considered safe for the immediate future. The sixteen skilled workers from Pennsylvania were

laid off on this same date. The work at the five sites extending up-river to Lillington, which had been started the past year, was finished. The work fleet was now ready to move up to Deep River.

On March 10 the steamer Haughton, the shanty boat (Negro quarters and workshop), and a stone barge arrived at Lockville in Chatham County. The stone lock there was not in working order when they arrived and the canal had two rather serious breaks. These defects were attributed to poor and improper work by the previous contractor, Morell & Co. More than a month was spent making repairs on the works at Lockville. They were restored to working condition. The work needed to make them dependable and secure for the future could not be undertaken due to the time and cost it would require.

On April 21 the work crew was at Clegg's Mill (Gorgas) just below the mouth of Rocky River and had just completed the work needed there. The same day they moved up to Farishe's with four boats and started making needed repairs there. This was the last site on the program. The dam here backed water up the Gulf nine miles above by river and the area of the Egypt (Cumnock) and Farmersville coal mines. The work at Farishe's was finished on April 26 and the boats left for the return trip down stream.

The original plan of the company had been to render Deep River navigable to steamboats up to Hancock's Mill nineteen miles above the Gulf. Later emphasis was placed on opening navigation to the coal fields and nothing was said or done about completing the works which had been started at Gulf and at Carbonton (Evans).

By May 10 the floating work force was at Buckhorn Falls. The three locks here were repaired by the middle of June.

By June 17 the work boats were anchored near Averagesboro and repair of the breached dam at Red Rock was under way. This break occurred on November 26, 1859, and was the last major repair job outstanding at this time. The repair of Red Rock Dam was finished by September 21 and boats had been able to pass through the lock there since September first.

Governor Ellis Makes Inspection Tour by Steamboat.

The rivers were now open to navigation from Fayetteville to Gulf. On October 24 Governor Ellis boarded the steamer Haughton at Fayetteville for an inspection tour of the works. He was accompanied by James Cassidey, Henry Adolphus London, and Nicholas N. Nixon, all members of the board of managers of the navigation company. They departed at 7:30 A.M. and reached Haywood at 2:00 A.M. on the twenty-fifth. They left there at daylight and reached Egypt Lock (Farishes') by dark after interruptions at Lockville and Rive's (Bryant's) locks. Governor Ellis recorded in his journal, "Found the locks, 23 in all, capable of passing vessels 100 ft. by 20 ft. - though somewhat decayed and otherwise imperfect." He visited the coal mines at Egypt and Farmersville. Governor Ellis probably returned to Fayetteville by the railroad, which had its northern terminus a few miles from Egypt at that time.

Final Phase before Suspension (Nov., 1860, to Feb., 1861).

After the trip up river with Governor Ellis the steamer Haughton returned to a point near Averagesboro on October 27 and the work crew was waiting for the river to fall so that some additional improvements could be made on Red Rock Dam.

Around November 6 a high freshet made a breach around McAllister's Dam. located about three miles below Lillington. This break was 100 feet wide and the whole river flowed through it. The chief engineer left for the site on November 7 with all available hands. On the way up they stopped at Sharpfield to make some repairs to the lock necessary before they could pass through it. The crew worked here for about a month.

By December 8 they were at the breached McAllister's Dam. Local men hired out fifty slaves to help with the work. Operations were soon suspended for the Christmas holidays.

This was a winter with a series of floods and up to February 3, 1861, high water still prevented a resumption of work at McAllister's Dam. At this time the

Governor ordered the work suspended for the present. All hands were discharged except for the lockkeepers and a boatkeeper to look after the floating property.

Governor Ellis to the General Assembly (Nov. 20, 1860).

By virtue of an act of the Legislature, at its last session, the Cape Fear and Deep River Navigation works were purchased for the State by the Governor, at a sale directed by the first mortgage creditors, for the sum of \$365,000. No purchase money was paid beyond that on debts of prior lien to those for which the State was responsible, and which were secured by a second mortgage. The amount thus paid was \$34,730.97 and the amount secured by second mortgage to the State is \$300,000, upon which \$35,385 of interest was due at the time of the sale.

Soon after the sale the entire works and property of the Company were transferred to the State, and have been since managed by a Commission, as directed by the act. Many useful repairs have been made under the direction of this Commission and the river has been opened for navigation, with a minimum depth of five feet of water, from Fayetteville to the Gulf in the midst of the Coalfields, a distance of 81 miles. The navigation is temporarily suspended in consequence of an accident occasioned by a recent freshet, to which these works will be more or less liable until substantially rebuilt.

The accident mentioned above was the breach around McAllister's Dam, which had taken place in early November of 1860.

Another Act Concerning the Navigation Company.

An "Act to provide for the continuation of the improvements of the Cape Fear and Deep River Slack Water Navigation Company" was ratified on February 23, 1861, (State of N.C., Public Laws, 1860-61, Chapter 122). The earlier act under which the state had operated the company was limited to two years and had now expired.

Under the new act a board of managers was to repair and continue said improvements as provided under the act of 1858-59, Chapter 142. Total amount expended was not to exceed \$30,000 per annum. The previous act had allowed \$50,000 per annum. The commissioners were now authorized to sell the state's interest as soon as advisable and upon such terms as they deemed best.

Condition of the Company and Its Prospects.

Early in February of 1861 Governor Ellis had suspended work on the river since nothing could then be accomplished due to high water. The winter of 1860-61 was a period of frequent and heavy freshets. Around the middle of April, the engineer examined the works on the Cape Fear River to determine the damage done. He reported that the new works erected under state management had withstood the floods well. The older works had suffered severely. The dam at Jones' Falls had been almost wholly carried away. The cost of restoring it was placed at \$30,000. Repairs at other points needed to open navigation to the coal fields would cost at least a similar sum. Since the new act limited expenditures to \$30,000 per annum, it was evident the company was not in a position to restore navigation up to the coal fields during 1861, the main objective at that time.

A rather blunt appraisal of the situation was given to the Governor by the chief engineer. Since the coal fields could not now be reached by river, the Fayetteville and Western Railroad would doubtless afford the necessary facilities. As for the navigation company, it might be resumed at a later day under favorable auspices or sold under a provision in an existing act.

The suspension of work on the river in early February became final. On April 22, 1861, Elwood Morris sent the keys to the desk and drawers on board the steamer Haughton to H. A. London, Treasurer. On October 26, 1861, he sent a letter to Thomas Brady in charge of the steamer Haughton requesting the shipment of tools and supplies on that boat. He said this material had been sold to the Fayetteville and Western Railroad.

Morris appears to have been the most competent and efficient of the chief engineers to work for the company since its beginning in 1849. Much of the information concerning the company under state management is from his numerous and concise letters to Governor Ellis.

River Traffic above Fayetteville.

Boats, including steamers and rafts, were passing through the lower locks and going up as high as Averbosboro as early as late December of 1851, as recorded earlier. The company's steamer Haughton was making trips between Haywood and Wilmington during the spring of 1856. Records of others going that far up-river were not found. Navigation was never open continuously for long periods of time. Traffic was deliberately interrupted from time to time while working on the locks or dams. Damage to the works by floods interrupted traffic until repairs were made.

By far the largest volume of traffic consisted of timber and lumber being rafted down to Wilmington. There was also a considerable traffic by flatboats carrying rosin, tar, and turpentine. These forest products were coming mainly from Harnett County. The toll for passing this freight was originally set at a very low rate and had never been changed. Before the state took complete control, it was said that the company had been under the control of timber and turpentine men and that the directors were deeply interested in these forest products. Passing rafts through the locks was slow and laborious. As a result of this situation the company was collecting an insignificant amount from toll in relation to the cost and operating expense of the project. Toll collected in 1859 and to March 1860 amounted to \$707.45. Between August 18 and September 27 of that year the amount was \$131.52. During January of 1861 toll amounted to \$321.12. Lockkeepers were employed at each site. At best the toll collected did little more than cover their salaries, if even that.

A few records of steamboats, other than those of the company, were noted during 1860 - the Dawson, Enterprise, and Hattie Hart. They were reported from no higher up-river than Lillington.

Coal Traffic Fails to Develop.

The coal traffic, which had been predicted with much enthusiasm, failed

to materialize. In April of 1860 it was announced that the river would be ready for the coal traffic by September and that the parties interested therein ought now to be preparing boats and mining coal. The Egypt and Farmersville properties were reported to be the only ones which could be prepared to ship coal by that time. By September no coal had been shipped by river and nothing was being done towards getting it out. During September eleven tons of coal were wagoned from Egypt for nine miles to the Fayetteville and Western Railroad's end of track and hauled down to Fayetteville. This was probably a publicity shipment. When Governor Ellis visited the mines in late October he recorded that "all is still at Egypt and little doing at Farmersville." It was apparent that nothing was being done in the coal region towards getting out coal although the railroad from there to Fayetteville was running and the navigation company was ready to pass down coal boats.

It then began to be suspected that the owners of the coal lands were mere speculators who never intended to mine coal as a business. This was a sobering prospect, for without coal shipments in large volume the navigation company could not hope to prosper.

The above evaluation of the coal operators may have been true. At the same time it was unlikely that serious operators would risk developing mines there in view of the navigation company's record to date. It had never been able to maintain reliable and continuous navigation on the river up to the coal region.

If the navigation company had built strong and durable dams and locks and if it had provided continuous and reliable navigation throughout the line of river improvements, it is unlikely there would have been a substantial volume of traffic. The mineral resources of the Deep River region had been greatly exaggerated. The coal deposits were relatively small and marginal. They occurred under conditions unfavorable for successful mining. Mining efforts there in later years never prospered. The iron ore was of good quality but the deposits very small. Finally, the growth and improvement of railroads would soon provide much

of the transportation which the region needed.

Interest in the mineral resources of the Deep River region and the favorable predictions concerning them have been recorded on earlier pages. Individuals interested in the navigation company exploited this interest to obtain continued financial support from the state. The Committee of Internal Improvements proclaimed it was one of the highest duties of the state to secure the immediate development of these mineral resources. Some individuals may have been sincere in their optimistic predictions but obviously the state received unsound and exaggerated advice concerning the value and importance of these mineral resources.

The temporary suspension of work ordered in early February of 1861 became permanent. At this time the dams at McAllister's (three miles below Lillington) and at Jones' Falls (seven miles above Fayetteville) were breached and seriously damaged. In addition some of the older works at other places had been damaged by the floods of the past winter. At best only limited reaches on the rivers were usable for local traffic.

During the period of the War between the States the works deteriorated due to neglect. The state continued to own the navigation company until June of 1873.

Near the end of the war, a private company was chartered with the intent of restoring navigation above Fayetteville.

Deep River Transportation Company Chartered.

There was interest in reviving river navigation shortly before the close of the War between the States. On December 23, 1864, the General Assembly ratified a charter for the Deep River Transportation Company. Section 6 of this charter stated:

That the said company shall have power to build and equip boats and do all things necessary and proper for carrying on the business of transportation of persons and things through and along the works of the Cape Fear and Deep River Navigation Company on such terms and stipulations as may be agreed to between the parties.

Capital was to be \$500,000 in shares of \$100 each.

Records to show that this company was organized or functional were not found.

A report by Governor Jonathan Worth dated January 31, 1867, (Executive Doc. No. 28) says that documents examined demonstrate that no effectual transfer of the property and franchises of the navigation company was ever made to the transportation company. It was concluded that the state still owned the franchises which had been granted to the C. F. and D. R. Navigation Co. and such property as that company owned at the date (April 23, 1859) of purchase by Gov. Ellis and such property acquired since that time.

Condition of the Works in 1867.

The story resumes in 1867 with a report to the General Assembly transmitted by Governor Jonathan Worth as Chairman of the Board of Managers of The Cape Fear and Deep River Navigation Company dated January 31, 1867.

He reported that in October of 1865 the Board of Internal Improvements appointed A. S. McNeill, Isaac N. Clegg, H. A. London, and William R. Cox to the positions of commissioners of the navigation company under the Act of 1858.

It was determined that the \$100,000 appropriated by the Act of 1858-59 was all expended by the commissioners appointed by Governor Ellis.

So far as could be determined the only property owned by the company at this time was a pump in Wilmington, which cost \$1250, and the engines and machinery of two small steamboats, the hulls of the boats having become rotten and worthless. The engines were landed and under shelter near Buckhorn Falls.

The dam at Buckhorn and those above there, up to Egypt, were said to be in pretty fair condition. This portion of the river could be put in navigable condition at a very trifling expense and thus made a feeder to the Western Railroad and the Chatham Railroad. The former had its northern terminus near Deep River at Egypt and the latter, when completed, would reach the river in the Lockville - Haywood area. The potential for a major water power installation at the Buckhorn Falls Dam was pointed out. The potential for developing the iron ore, coal, building stone, and forest products resources was emphasized as in the past. There was thus a thought of salvaging something from the works of the navigation company.

It was pointed out that the dams below Buckhorn had been an impediment in the way of floating rafts of timber and lumber down the river ever since their erection. Those in the rafting business had complained but waited patiently for the time when safe passage of their rafts through the locks would be possible. Governor Worth then said:

This hope passed away with the close of the War; and persons to us unknown, cut gaps in the dams, wide enough to admit the passage of rafts, and persons to us unknown have detached and carried off the iron on the lock gates.

We learn that the foundations of all the dams on these works are firm and sound, and that all apprehensions, at one time entertained, that they would be undermined by the flow of water over them, has passed away.

At this time the Board of Commissioners had no money under its control and could do nothing to repair and complete the project. If the General Assembly held it inexpedient that the state do anything more for the completion of these works, Governor Worth suggested that the franchise and works should be sold.

The Rivers Surveyed and Mapped: 1871

The Cape Fear and Deep rivers were surveyed and mapped (scale: 1 inch to 500 feet) by the U.S. Corp of Engineers with the results dated 1871. The maps show in considerable detail the condition of the dams and locks. At Buckhorn and above on Deep River, the dams and locks were more or less intact. Below Buckhorn they were washed out at the abutments, breached in places, or completely broken down. This agrees with the description given in January, 1867, by Governor Worth.

This map shows "Str. Haughton (sunk)" at the site of the Endor Iron Works about nine miles above Lockville.

The States Sells the C. F. and D. R. Navigation Company.

The Board of Managers of the Cape Fear and Deep River Navigation Company met at Raleigh on June 3, 1873, with all members being present. A decision was made that the state's interest in this company be sold at public auction to the highest bidder on specified terms and conditions at Lockville in Chatham County after due advertisement in certain newspapers. This was done and the sale held on July 8. No one present made a bid for the property. Three of the managers (a majority of the board) were present, held a meeting on the spot, changed the terms of the sale, and immediately put the property up for sale a second time. It was

then knocked off by certain parties for twelwe hundred dollars, cash in hand. This amount was forthwith paid to the treasurer of the company and a deed, conveying title, prepared and signed by the managers who were present.

Governor Caldwell, President of the Board, refused to sign the deed when it was presented to him because the sale was not made on the terms advertised and the altered terms not advertised and made generally known. Nevertheless the Governor stated that he would sign the conveyance if the legislature expressed a wish for him to do so in the form of a resolution or act. He added that the purchasers had accepted the deed without his signature (1873-74 Legislative Document No. 1).

The treasurer's report (Document No. 3) records that bonds of the subject Navigation Company in the amount of \$145,500 were outstanding and that they were considered almost, if not quite, a failure.

The purchaser of the navigation company at this sale was Deep River Manufacturing Company.

Record of the above sale is recorded at Chatham County Courthouse (Book A - R, pages 95 -98).

B. I. Houze, as attorney, was one of the signers of this document. He had been elected treasurer and clerk of the navigation company at the first general meeting in 1849 at Pittsboro twenty-four years earlier. He thus had the distinction of participating in the first and final chapter of the company's history.

Henry Adlophus London, a commissioner of the company under the state, acted as secretary during the sale. He had been treasurer of the old company from May 16, 1853, and continued in that position after it was sold to the state. He was appointed a commissioner in October of 1866.

The fanchise of the C. F. and D. R. Navigation Company was sold at the courthouse in Pittsboro on July 7, 1873. It included all rights and privileges to receive fare or tolls on the river between Fayetteville in Cumberland County and Hancock's Mill in Moore County for ninety years.

Purchaser was Deep River Manufacturing Company for \$27,582.72, the last and final bid.

Recorded at Chatham County Courthouse (Book A - S, pages 46 - 47).

The Deep River Manufacturing Company was incorporated on January 29, 1849, "for the purpose of manufacturing cotton, wood, iron, grain, and all other articles whatsoever on Deep River in Randolph County" (Laws of N.C., 1848-49, Chapter 168, Page 317).

1873 TO 1880

The upper portion of the works built by the navigation company were used between 1873 and 1880 by boats of the Cape Fear Iron and Steel Company (George G. Lobdell) and possibly others. A. H. London, Jr. (1923) recorded the following:

In 1873-74 a boat named George G. Lobdell hauled iron ore from mines near Battle's Dam, about 3 miles below Buckhorn furnace and 14 miles below Lockville, to Endor furnace and brought back barge loads of pig iron, etc., for shipment by rail at Lockville. This navigation was restricted to rivers above Battle's Dam and reached Carbonton. The navigation ended in 1880 when the line could not pay expenses and the dams were allowed to deteriorate.

SUPPLEMENT

Details of Individual Dams, Locks, and Canals.

By summer of 1858 the company had dams and locks at nineteen sites along a course of eighty-seven miles. Six of these sites were on Deep River and thirteen on the Cape Fear above Fayetteville. The system included short canals at three places. The dams now maintained a water depth of at least five feet along the entire line of navigation.

The Chatham-Lee County Line now follows the bed of the rivers between Carbonton and Buckhorn. Prior to 1908 Chatham County extended south of the rivers between these points.

After the date these works are said to have been completed, they continued to be repaired, strengthened, and improved until February of 1861.

Cross Creek (Lock and Dam).

Located one-third mile above the mouth of Cross Creek in the Fayetteville area, Cumberland County. This was the first of the installations in an up-stream direction. Height of the dam was thirteen feet. It created a pond extending up-river for about seven miles to Jones' Falls.

Work started around mid-1852. While excavating the lock pit in the summer of 1853, a strong spring of water was encountered. This necessitated the purchase of a steam-operated pump from the North and a long delay until it arrived. The dam was nearly completed when a freshet on December 27, 1855, washed away about 150 feet of the west bank. This rendered it necessary to extend the dam by that length. The dam was on a sandstone base. It was built with a low slope on the down-side to protect it from being undermined. Work was completed and in good order around the first of August, 1856.

The amount spent on construction at this site was around \$56,700, making it one of the most costly on the line of improvements.

Boats could pass here, except in times of low water, before the dam was

was built and during the period of construction.

Jones' Falls (Lock and Dam)

Located in Cumberland County about seven miles above the next dam below (Cross Creek). Height of the dam was fifteen feet. It created a pond extending up-river for about ten miles to Silver Run.

Construction started late in the spring of 1850. Boats were passing through the lock by the end of 1851. The dam was damaged by high water after it had been raised to its full height. On July 7, 1852 a freshet caused a raft of driftwood to accumulate on its crest. The back pressure caused the upper half of the dam to give way and it floated away with the drift wood in one solid mass. By November 10, 1852 repair of the dam and lock was almost completed and would be ready to pass boats within a few days.

The dam was on a foundation of soft rock.

The dam at Jones' Falls was almost wholly carried away by the floods during the winter of 1860-61. It had not been repaired when the company suspended operations in February of 1861.

Silver Run (Lock and Dam)

Located in Cumberland County about ten miles above the next dam below (Jones' Falls). Height of the dam was eleven and a half feet. It created a pond extending up-river for about five miles to Red Rock.

Work started in July of 1850. By November 10, 1851 the dam and lock were finished. The base of the dam was on soft rock. To protect it against being undermined a lower slope was added to the lower side of the dam near the end of 1855. This addition was soon seriously damaged by freshets, and not being repaired was subsequently entirely washed away.

Red Rock (Lock and Dam)

Located in Harnett County and about five miles above the next dam below (Silver Run). Height of the dam was eleven feet. It created a pond extending up-river for about two and a half miles to Haw Ridge.

Work started in September of 1850. By November 10, 1852 the lock and dam had been finished.

There were problems with the lock at this site. On December 15, 1855 a contract was closed with Patrick Leneham to erect a cut stone lock, laid in hydraulic cement, at Red Rock. After a considerable amount of work had been done, it was found impractical to render the work substantial and it was abandoned. The original wooden lock remained serviceable. Red Rock was another of the dams built on a foundation of soft rock.

On November 26, 1859 a freshet caused a breach ninety-three feet wide in the dam. It was repaired in the summer of 1860, a job which required about three months to complete.

Haw Ridge (Lock and Dam)

Located in Harnett County near the town or Erwin and about two and a half miles above the next dam below (Red Rock). This was the lowest of four dams built in the area of Smiley's Falls. It created a pool extending up-river for about one mile to Green Rock. Height of the dam was eleven feet.

Work started in the spring of 1850. It was finished by November 10, 1852. The works here were repaired during the fall of 1859.

Green Rock (Lock and Dam)

Located in Harnett County near the town of Erwin and about one mile above the next dam below (Haw Ridge). The dam created a pool extending up-river for about one mile to Big Island. The dam was nine feet high.

Work started in the spring of 1850 and was completed by July 17, 1852. The works here were repaired during the fall of 1859 and spring of 1860.

Big Island (Lock and Dam).

Located in Harnett County about 2 miles above the town of Erwin on Smiley's Falls and about one mile above the next dam below (Green Rock). This site was called Narrow Gap in some records.

Work started in the spring of 1850. By November 10, 1852 it was finished except for a small amount of sheeting and graveling.

Height of the dam varied from 4 to 11 feet.

The works here were repaired during the fall of 1859 and spring of 1860.

Sharpfield (Lock and Dam).

Located in Harnett County and about one and a fourth miles above the next dam below (Big Island). This site was called Campbell's Dam in some early reports. Height of the dam was nine feet. It created a pool extending up-river for about two miles to McAllister's. This was the uppermost of the four dams on Smiley's Falls.

Work started in the summer of 1850. By November 10, 1852, it was nearly completed and the lock was in operating condition. High water during the winter of 1852-53 washed around the ends of the dam and caused considerable damage. Repairs were made in the summer of 1853. On April 17, 1856, the works were reported to have been thoroughly repaired and in good order. The work force spent about a month here making repairs in November and early December of 1860.

McAlister's (Lock and Dam).

Located in Harnett County about three miles below the town of Lillington and approximately two miles above the next dam below (Sharpfield). The dam created a pond extending up-river for about three miles to Fox Island.

Work started in the summer of 1851. By November 10 of 1852 the dam was at full height and the lock nearly finished. During the winter of 1852-53 high water washed out the abutments at both ends of the dam. The breaches around the dam were filled and repairs made on the dam and lock in the summer of 1853. In

April of 1856 the installations were reported to be in fair condition and in working order.

In early November of 1860 a high freshet made a breach one hundred feet wide around the dam and the whole river flowed through it. Repair work started around December the eighth. Continuing high water prevented a resumption after the Christmas holidays. The crew was standing by here when the order to stop work on the river was given on February 3, 1861.

Fox Island (Lock and Dam).

Located in Harnett County opposite the town of Lillington and about three miles above the next dam below (McAlister's). The dam created a pond which extended up-river for about eight miles to Norrington's.

Work started in the summer of 1851. By July 15, 1853, the lock and dam were at full height and estimated to be finished by October first.

The works here were repaired during the fall of 1859 and spring of 1860.

Norrington's (Lock and Dam).

Located in Harnett County about five miles below the present Lee-Harnett County Line and about eight miles above the next dam below (Fox Island). The dam created a pond which extended up-river for about three miles to Battle's Falls. This site was called Douglass Falls in some early reports.

Work started in the spring of 1851. By November 10, 1852, it was in an advanced state and estimated to be ready for the passage of boats by the first of January, 1853. For some reason the work here was suspended. A report of July 15, 1853, records that a contract had been signed to complete the unfinished work here. By November of 1854 the work was completed. On April 15, 1856, it was reported that the lock and abutments had been thoroughly repaired and were considered to be in a very good condition.

Battle's Falls (Lock and Dam).

Located in Harnett County about two miles below the present Lee-Harnett County Line and approximately three miles above the next dam below (Norrington's). Height of the dam was eleven feet. It created a pool which extended up-river for about three miles to Buckhorn Falls.

Work started after July of 1851. By November 19, 1852, work on the lock and dam was in an advanced state and estimated to be finished in six weeks. By July 15, 1853, the work was finished except for gravelling and hanging the lock gates. In the spring of 1856 repair work was in progress and the abutments had been secured. In November of 1856 the installations were reported to be in working order.

Buckhorn Falls (Locks, Dams, and Canal).

Located in the southeastern extremity of Chatham County and the eastern extremity of Lee County, where the line between them follows the bed of the Cape Fear River. The next dam below was three miles away (Battle's Falls). The main dam was first built with a height of seven feet. It created a pond which extended up-river for about eight miles to Pullen's Falls (Lockville) on Deep River.

The works here were the most complex of those created at any of the sites. They consisted of: 1) a main dam across the river at the head of the falls, 2) four sloo dams connecting a chain of islands to form an inner navigation on the east and shoreward side of them for nearly one mile, 3) a canal half a mile long to continue the navigation down to where it re-entered the bed of the river, 4) one guard lock, and 5) two lift locks.

Work started on December 14, 1849, and consisted of digging the canal. This was the first work done at any of the sites. High water that winter prevented work at any other place. Work was suspended in September of 1850 and resumed after July, 1851. Up to July 15, 1853, work on the main dam had not commenced. On April 17, 1856, the main and sloo dams had been repaired, the depth of the canal

increased, and boats could pass through the works.

The floating force worked here for about a month in May and June of 1860 repairing the three locks.

A hydroelectric plant was built at Buckhorn Falls and went into service on January 1, 1908. It operated for around fifty years. This plant was a major source of power for Carolina Power and Light Company during its early years.

Lockville (Locks, Dam, and Canal).

Located in Chatham County on Deep River about three miles above where it joins Haw River at Mermaid Point. The next dam below was about eight miles away at Buckhorn Falls on the Cape Fear River. The dam was eight feet in height and created a pond which extended up-river for about one mile to Bryant's lock and dam. This site was called Pullen's Falls in early reports.

The Lockville dam was the lower of two dams built on Pullen's Falls. The contract to build it was not let until April of 1856. It was finished and in good order by the end of that year. The navigation was to pass through a canal about half a mile long with its head in the pond just above the Lockville dam. This canal coincided with what had been the race at Pullen's Mill. Work to widen and deepen it started in 1852. By April of 1858 it was nearly completed. The outlet lock for this canal was to have a lift of twenty-three and a half feet, to be built of rubble masonry and lined with wood. It was about one-fourth done in the fall of 1857 but was badly constructed and was taken down. Work on a lock at this point continued into the fall of 1858, at which time it was the only thing preventing the passage of boats up Deep River to the coal mines. The work at this time was being done by William H. Morell and Co. of New York. It was also defective. The floating work force spent over a month here in March and April of 1860 repairing the stone lift lock and the canal.

This place had been the site of a mill dam for many years. It was known as Ramsey's Mill in the 1780's and Ramsey's and Stokes' Mill around 1800. In the

1840's the mill here was known as Pullen's and in the 1850's as Alston Jones' Mill. A hydroelectric plant was built on this site in the early 1920's.

Bryant's (Lock and Dam).

This site was also called Rives'. It is located at the head of Pullen's Falls at a point about one mile above the dam at Lockville. Originally this dam was to be eight feet high and created a pond which extended up-river for about two and a half miles to Clegg's.

Work started in the fall of 1851 and by July of 1852 the dam was two courses high. Work was suspended soon after this time. In April of 1856 it was put under contract to Robert Rives and by November the dam was nearly completed. In November of 1858 it was reported that this dam was partly washed out the first year and that it leaked badly. During the summer of 1858 the decayed lock was replaced. Repairs were again made here in late April of 1860.

Clegg's (Locks, Dam, and Canal).

Located in Chatham County on Deep River a few hundred feet below the mouth of Rocky River and about two and a half miles above the next dam below (Bryant's). This site was also known as Gorgas. The dam was five feet high and created a pond which extended up-river for about seven miles to Farishes'.

Nathaniel Clegg's Mill and Dam were here before the navigation company came into being. The plan was to replace the old dam with a new and stronger one. The mill race was in what was called a natural canal or slew. It was to be deepened and widened for a distance of 2050 feet below the dam and used for the line of navigation. There was a guard lock at the upper end at the dam and a lift lock at the lower end where it returned to the river.

Work was well under way by July of 1851. By November 10, 1852, one lock was finished; the other, three-fourths done. The dam was ready for sheeting. In November of 1856 a crew was working here with the hope of finishing in about two months. By the end of the year the dam and locks were in good repair. The works

were again repaired in April of 1860.

See section headed remains of dams and locks under supplement.

Farishes' (Lock and Dam).

Located in Chatham County on Deep River below the mouth of Big Buffalo Creek and about seven miles above the next dam below (Clegg's). The dam was nine feet high and created a pond which extended up-river about nine miles to Haughton's Mill at Gulf. This site was sometimes called Clegg's and Evans' lock and dam.

Work started in the fall of 1850. By November 19, 1852, the lock was at its full height and nearly finished. The dam was at full height and ready for sheeting. Soon after this date work was suspended. Two years later no appreciable advance in the work had been made. Meanwhile the water had cut around the abutment on one side of the dam and excavated a place eighty feet wide and fifteen feet deep. In November of 1856 the dam was completed but the lock required bracing and re-lining. On April 15, 1858, it was reported that the work required here would be completed in a few weeks. During April of 1860 the floating work force of four boats, including steamer Haughton, spent a week here making repairs. This included replacing the lock gates which had been washed away.

About two months after these last repairs were made the operators of a mill at Gulf deliberately damaged the lock with an axe and crowbar in order to lower the pond. The full pond above Farishes' Dam backed water up to their mill and interfered with its operation (Papers of John W. Ellis, p. 444).

This was sometimes called the "Coal Fields Lock" since the pond at its upper end extended past the mines at Egypt and Farmersville.

This site took its name from Thomas Farish who had a fish-trap dam nearby.

See section headed remains of dams and locks under supplement.

Gulf (Lock and Dam).

Located in Chatham County on Deep River and about nine miles (by river) above the next dam below (Farishes'). The dam was nine feet high and created a pond

which extended up-river for about six miles to Evans'.

Haughton's Mill dam was on this site prior to 1848. The original plan was to raise this dam one foot, add a lock, and use it as part of the navigation project. Work was in progress in the spring of 1851. The dam was probably rebuilt. This was one of the sites at which the base of the dam was on soft rock. In 1854 an engineer recommended that the base of this dam be increased and strengthened.

After 1855 the efforts of the Company were concentrated on getting the navigation open to the coal mines as far up as Egypt. Work at Gulf and points farther up Deep River was indefinitely suspended.

Evans' (Lock and Dam).

Located in Chatham County on Deep River at the town of Carbonton. The next dam below is about six miles away at Gulf. The pond created by the dam here extended up-river for about twelve and a half miles to Hancock's Mill.

Peter G. Evans had a mill dam here in 1848 which had recently been rebuilt. The plan was to raise this dam to a height of five feet and place a lift lock in it. By November 10, 1852 the lock had been built and the dam raised to full height. In the fall of 1854 the engineer reported this dam was not considered sufficiently permanent to be depended upon for the navigation project. There is no indication that anything was done here at a later date.

This is the water power site at which Connor Dowd built a mill in the late Colonial period. In the early 1920's a hydroelectric generating plant was built here.

Hancock's (Dam and Mill).

Located in Moore County on Deep River near the town of Glendon. Distance to the next dam below (Evans') is twelve and a half miles.

This was to be the head of navigation and no work was done here.

The dam at Hancock's Mill in 1848 was twelve feet high and backed the water up for five miles above it with a depth of not less than three feet.

Remains of Dams and Locks

These structures were built from 120 to 130 years ago. Only remnants of them now exist. The writer visited two of the sites on Deep River.

At Farishes' a few timbers from the base of the dam on the north bank of the river are exposed during low water. They are heart pine. At the south bank the position of the lock is shown by a bed of the stones with which it was packed. At the up-stream end several planks from the base of the lock were seen a few inches below the surface of the water with nails still in them. There is a stone guard wall extending on shore from this end of the lock.

At Clegg's a few timbers from the guard lock, which was at the dam on the north side, are exposed near the shoreline. There is a ridge of stone (the guard wall) extending on shore from it. From this point a canal extends eastward for about 2000 feet paralleling the river to the lift lock. Several horizontal heavy timbers from this structure are exposed in the bank of the canal, which is dry here during low water. Nearby is the stone foundation of Clegg's Mill, built before 1848.

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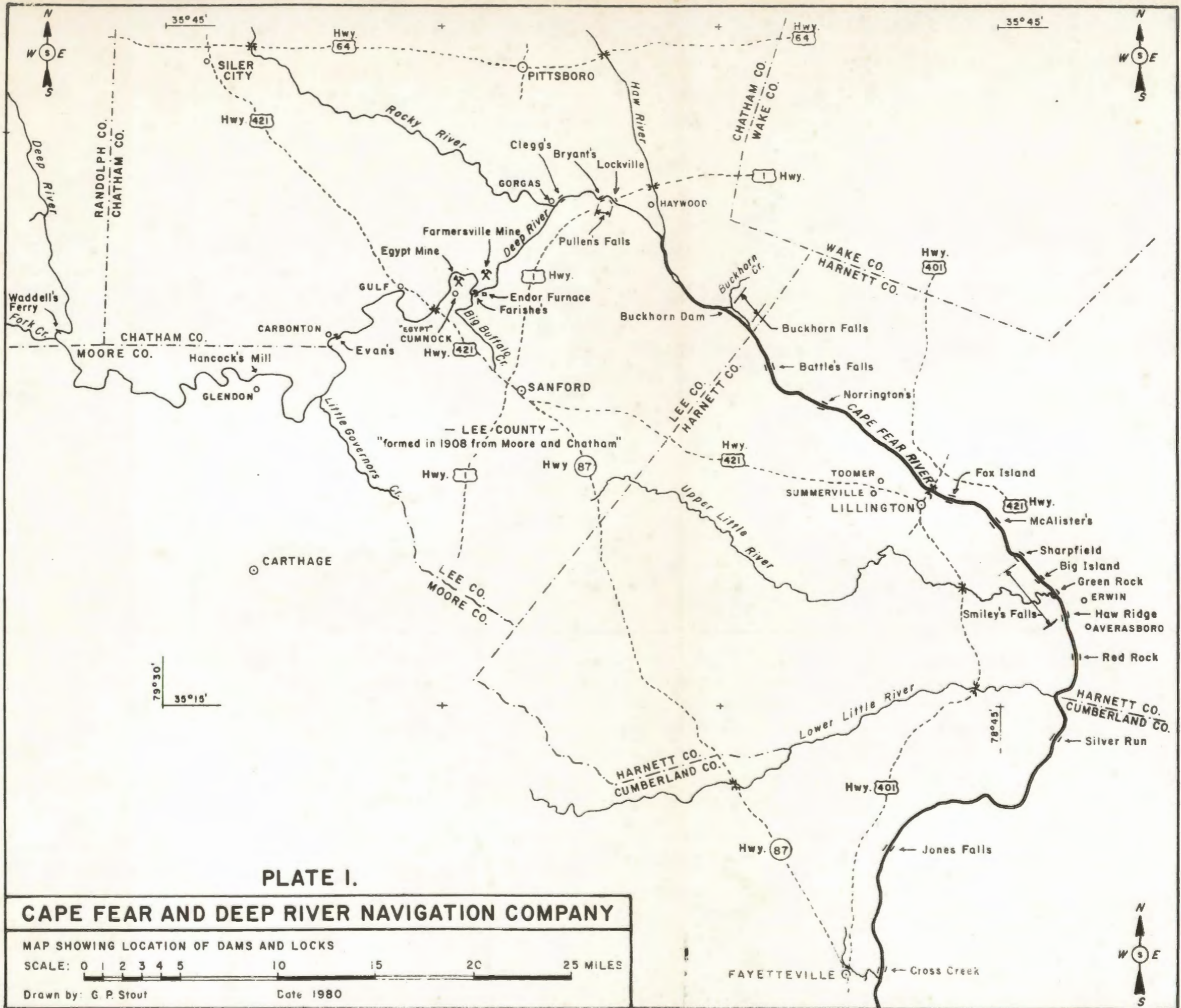


PLATE I.

CAPE FEAR AND DEEP RIVER NAVIGATION COMPANY

MAP SHOWING LOCATION OF DAMS AND LOCKS

SCALE: 0 1 2 3 4 5 10 15 20 25 MILES

Drawn by: G. P. Stout

Date 1980

